THE MANAGEMENT ACCOUNTANT

ISSN 0972-3528

July 2022 | VOL 57 | NO. 07 | Pages - 124 | ₹ 100

Emerging Trends and Innovation in Internal Audit Practices

Journal of

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(Statutory Body under an Act of Parliament) www.icmai.in

Enlisted in **UGC-CARE REFERENCE LIST OF QUALITY JOURNALS**

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory body under an Act of Parliament

www.icmai.in

Azadi Ka Amrit Mahotsav

- **THE INSTITUTE OF COST ACCOUNTANTS OF INDIA** (erstwhile The Institute of Cost and Works Accountants of India) was 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 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**

Headquarters
CMA Bhawan, 12 Sudder Street
Kolkata - 700016

Institute Motto

असतोमा सद्गमय
तमसोमा ज्योतिर् गमय
मृत्योर्मामृतं गमय
ॐ शान्ति शान्ति शान्तिः

From ignorance, lead me to truth
From darkness, lead me to light
From death, lead me to immortality
Peace, Peace, Peace

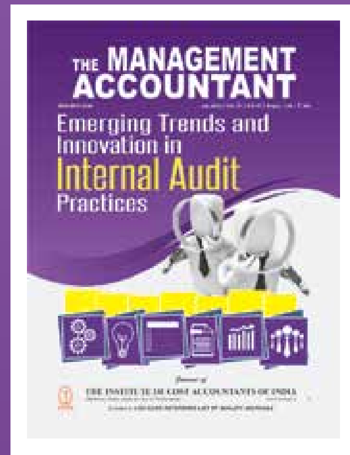
Delhi Office
CMA Bhawan, 3 Institutional Area
Lodhi Road, New Delhi - 110003

CONTENTS

INSIDE

COVER STORY

JULY 2022



JULY VOL 57 NO.07 ₹100

We have expanded our Readership from **1** to **94** Countries

Afghanistan, Algeria, Argentina, Australia, Azerbaijan, Bahrain, Bangladesh, Belgium, Benin, Botswana, Brazil, British Indian Ocean Territory, Bulgaria, Cambodia, Cameroon, Canada, Chile, China, Colombia, Croatia, Czech Republic, Djibouti, Egypt, France, Gambia, Germany, Ghana, Great Britain, Greece, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iraq, Ireland, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Lebanon, Liberia, Lithuania, Malawi, Malaysia, Mauritius, Mexico, Morocco, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nigeria, Oman, Pakistan, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Saudi Arabia, Serbia, Seychelles, Singapore, Slovakia, Slovenia, South Africa, Spain, Sri Lanka, Suriname, Sweden, Switzerland, Syria, Taiwan, Tanzania, Thailand, Turkey, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States of America, Vietnam, Zaire, Zimbabwe.

The Management Accountant, official organ of The Institute of Cost Accountants of India, established in 1944 (founder member of IFAC, SAFA and CAPA)

EDITOR - CMA (Dr.) Debaprosanna Nandy
on behalf of The Institute of Cost Accountants of India, 12, Sudder Street, Kolkata - 700 016, P. S. New Market, West Bengal
e-mail: editor@icmai.in

PRINTER & PUBLISHER - Dr. Ketharaju Siva Venkata Sesha Giri Rao
on behalf of The Institute of Cost Accountants of India, 12, Sudder Street, Kolkata - 700 016, P. S. New Market, West Bengal

PRINTED AT - SAP Print Solutions Pvt. Ltd. Plot No. 3, Sector II, The Vasai Taluka Industrial Co-op. Estate Ltd., Gauraipada, Vasai (East), Dist. Palghar - 401 208, India on behalf of The Institute of Cost Accountants of India, 12, Sudder Street, Kolkata - 700 016, P. S. New Market, West Bengal

PUBLISHED FROM - The Institute of Cost Accountants of India, 12, Sudder Street, Kolkata - 700 016, P. S. New Market, West Bengal

CHAIRMAN, JOURNAL & PUBLICATIONS COMMITTEE - CMA (Dr.) K Ch A V S N Murthy

ENQUIRY

- **Articles/Publications/News/Contents/Letters/Book Review/Enlistment**
  editor@icmai.in
- **Non-Receipt/Complementary Copies/Grievances**
  journal@icmai.in
- **Subscription/Renewal/Restoration**
  subscription@icmai.in

EDITORIAL OFFICE
CMA Bhawan, 4th Floor, 84, Harish Mukherjee Road Kolkata - 700 025;
Tel: +91 33 2454-0086/0087/0184/0063

The Management Accountant technical data

Periodicity : Monthly
Language : English

Overall Size: - 26.5 cm x 19.6 cm

Subscription
Inland: ₹1,000 p.a or ₹100 for a single copy
Overseas: US$ 150 by airmail

Concessional subscription rates for registered students of the Institute:
₹300 p.a or ₹30 for a single copy

The Management Accountant Journal is Enlisted in:
'UGC-CARE REFERENCE LIST OF QUALITY JOURNALS'

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

EDITORIAL

Emerging Trends and Innovation in Internal Audit Practices

Emerging demand for internal audit functions to take broader and more strategic roles within organisations makes evident the importance of 'internal audit' nowadays. As a result of this increased profile, internal audit departments and leaders are searching for ways to broaden their skill sets and scope of influences. Thus, leading internal audit functions ensure their organisations become more innovative and explore new technologies, identify and mitigate emerging risks, develop creative solutions to complex business challenges and encourage best practices to enhance business functions.

Globally, various Internal Audit (IA) departments have already begun their journeys into the world of automation by expanding their use of traditional analytics to include predictive models, RPA and cognitive intelligence (CI). With automation technologies advancing quickly and early adopters demonstrating their effectiveness, now is the time to understand and prioritize opportunities for automation and take important steps to prepare for thoughtful, progressive deployment.

Internal audit can also adopt an integrated approach, incorporating assessment of ESG risk areas into broader audit plans to provide a pulse check on the business. This approach can help highlight the extent to which ESG-related activities are being identified, considered, and documented throughout the business. Internal audit plays a vital role in assuring fundamental internal controls related to financial, operational, and compliance activities being operated effectively. This role includes validating the effectiveness of ESG-related controls and activities to help organizations manage those risks and foster resilience.

The threat from cyberattacks is significant and continuously evolving. Many audit committees and boards have set an expectation for internal audit to understand and assess the organization's capabilities in managing the associated risks. Maintaining and enhancing security capabilities can help mitigate cyber threats and move the organization toward its desired level of cybersecurity maturity. By performing a comprehensive cyber risk assessment, internal audit can present objective perspectives and findings to the audit committee and board members, and use those findings to develop a broad internal audit plan that addresses the areas of cyber risk for the organization over a single or multi-year audit period.

Internal audit provides assurance by assessing and reporting on the effectiveness of governance, risk management, and control processes designed to help the organization achieve strategic, operational, financial, and compliance objectives. By maintaining its independence, internal audit can perform its assessments objectively, providing management and the board an informed and unbiased critique of governance processes, risk management, and internal control. Based on its findings, internal audit recommends changes to improve processes and follows up on their implementation.

Functioning independently within the organization, internal auditing is performed by professionals who have a deep appreciation of the importance of strong governance, an in-depth understanding of business systems and processes, and a fundamental drive to help their organizations succeed. As per section 138 of the Companies Act, 2013, any CA, CMA, or such other professional as may be decided by the Board can be appointed as an internal auditor of the company. An employee of the company may also become the internal auditor of the company but it must be considered as a part of the management and have the authority to investigate the operations of the organization.

As an internal auditor, professionals like CMAs can provide thoughtful insight by acting as a catalyst for management and the board to have a deeper understanding of governance processes and structure. They can add value by providing advisory and consulting services, intended to improve governance, risk management, and control processes. This is vital to maintaining internal audit's objectivity and avoiding conflicts of interest.

This issue presents a good number of articles on the cover story *"Emerging Trends and Innovation in Internal Audit Practices"* written by distinguished experts. Further, we look forward to constructive feedback from our readers on the articles and overall development of the Journal. Please send your emails at *editor@icmai.in.* We thank all the contributors to this important issue and hope our readers will enjoy the articles.

THE MANAGEMENT ACCOUNTANT

PAPERS INVITED

Cover Stories on the topics given below are invited for *'The Management Accountant'* for the four forthcoming months

Month	Theme	Subtopics
August 2022	The Indian Securities Markets – on the Cusp of Change	⦿ Managing risks and responding to crises in Indian Securities Markets ⦿ Equity Market Structure: What's next? ⦿ Issuance of Green Bonds to attain Carbon Neutrality ⦿ Indian Commodity Markets in the changing context ⦿ Financial intermediaries: special emphasis to mutual funds, hedge funds and pension funds ⦿ Regulatory Landscape ⦿ Digital Transformation of Capital Markets ⦿ Social Stock Exchange Ecosystem in India ⦿ ESG & Sustainable Finance – Emergence of new era of investing and reporting
September 2022	Digital agility and Resilience through Enterprise Intelligence	⦿ Business Intelligence for SMEs ⦿ Navigating the Business Crosswinds with the Data driven Enterprise ⦿ Data-a core driver for Digital Economy ⦿ Data Architecture for the Digital-first Business ⦿ Cross-border data flows: its crucial role in socio-economic Sustainability of the Nation ⦿ Cloud Technologies: Essential in the domain of Enterprise Intelligence ⦿ Impact of COVID-19 pandemic on digital transformations globally ⦿ Trust, Ethics & Governance ⦿ Bridging the digital divide for an Inclusive Digital Economy
October 2022	Integrated Supply Chain Management	⦿ Supply Chain Risk, Resilience and Re-balancing ⦿ Lessons from Pandemic: Re-imagining Supply Chain ⦿ Challenges and Priorities in Supply Chain Management ⦿ Alternates & Innovative Strategies to Make Supply Chain more Agile & Flexible ⦿ Supply Chain Resilience at the apt cost and effort through visibility ⦿ Role of Logistics and Integrated Supply Chain towards Firm Competitiveness ⦿ Identifying logistics and Supply Challenges and Trade-offs associated with Global Operations ⦿ Resilient Supply Chain Management in a Disruptive World ⦿ Vocal for Local: To boost domestic Supply Chain ⦿ Climate-smart Supply Chain Planning
November 2022	Emerging trends in Telecom Industry in India	⦿ Evolution of Indian telecom infrastructure over the years ⦿ Overview on industry readiness of India for 5G ⦿ 'Broadband for all': Bridging the Digital Divide ⦿ The advent of 'Gati Shakti': Powering telecom infrastructure ⦿ Network Expansion and Investments ⦿ Aatmanirbharata in Telecom Manufacturing ⦿ Cost economics of active infrastructure sharing ⦿ Delivering densification – Streamlining the rollout of 5G networks in urban areas ⦿ Challenges plaguing the Indian telecom tower and infrastructure industry

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 anywhere else. Please send your articles by e-mail to editor@icmai.in latest by the 1st week of the previous month.

DIRECTORATE OF JOURNAL & PUBLICATIONS
CMA Bhawan, 4th Floor, 84 Harish Mukherjee Road, Kolkata - 700025, India
Board: +91 33 2454 0086 / 87 / 0184 Tel-Fax: +91 33 2454 0063
www.icmai.in

PRESIDENT'S COMMUNIQUÉ

CMA P. Raju Iyer
President
The Institute of Cost Accountants of India

"A person can rise through the efforts of his own mind; or draw himself down, in the same manner. Because each person is his own friend or enemy."

- Bhagavad Gita

My Dear Professional Colleagues,

India's biggest tax reform, the Goods and Services Tax (GST) completed five years of its implementation. The Institute is observing July, 2022 as the GST month by conducting various programs through its presence in 4 Regional Councils and 112 Chapters across the Country. On the 5th anniversary of GST, the Institute organized a WEBINT on the theme "GST in India - Poised to deliver Sustainable Growth". Mr. Pradeep Gooptu- Writer and Ex-Resident Editor of Business Standard was the Chief Guest. He spoke about the advent of GST in India and shared his experience of his interaction with the corporate houses regarding GST. Eminent Cost Accountant CMA M.S Mani, Partner - Deloitte India Tax practice was the moderator. CMA Amit Sarker, Partner - Indirect Tax practice of Deloitte Haskins & Sells LLP, CMA Rahul Renavirkar, Managing Director -Acuris Advisors Pvt. Lt and CMA Mrityunjay Acharjee, General Manager – Finance, Numaligarh Refinery Limited was the Speakers of the technical session who consolidated and discussed about the areas wherein the GST can act as tool for providing sustainable growth to our nation. I addressed the participants during the inaugural session. CMA Chittaranjan, Chattopadhyay, Chairman, Indirect Taxation Committee, CMA Rakesh Bhalla, Chairman, Direct Taxation Committee and CMA (Dr.) K Ch A V S N Murthy, Chairman Regional Council & Chapters Coordination Committee also participated & deliberated on the role of CMAs in GST. I congratulate the Tax Research Department for the successful conduct of the GST Day celebration event.

AKAM events organized by the Institute

The Government of India is celebrating Azadi ka Amrit Mahotsav (AKAM) to commemorate the 75 years of India's Independence. In this regard, the Ministry of Corporate Affairs (MCA) has successfully organized various Iconic AKAM events from 6th to 12th June 2022.

I am pleased to inform you that the Institute has actively participated in the Iconic Day event organized by MCA at Vigyan Bhawan, New Delhi on 7th June, 2022. Smt. Nirmala Sitharaman, Hon'ble Union Minister of Finance and Corporate Affairs graced the event as the Chief Guest and Rao Inderjit Singh, Hon'ble Union Minister of State for Corporate Affairs as "Guest of Honour". The event featured a panel discussion of the President of all three Professional Institutes on a very interesting topic "Role of Professionals in Corporate Governance and Nation Building". I participated in this panel discussion along with the President of ICSI and ICAI. The session was chaired by Shri Inder Deep Singh Dhariwal, Joint Secretary, MCA and moderated by Ms. Mithlesh, Advisor Cost (Cost Audit Branch), MCA. I thank all the members for their active participation in the event.

Further, the Institute had successfully organised Iconic AKAM events on 9th June 2022 in the form of Tree Plantation Drive all across country, an Exhibition and a half day National Conference at New Delhi. The theme of the event aligns the objective of Azadi Ka Amrit Mahotsav with the national initiative of Hon'ble Prime Minister of India to make India Self Reliant. The day started with a full day nation-wide Tree Plantation drive named Green India organised by the Institute through its Headquarters and 112 chapters in all important cities of India. **Shri Rajesh Verma, IAS, Secretary to the Government of India, Ministry of Corporate Affairs** inaugurated the Exhibition organized to celebrate the role of the Corporate Leaders and Freedom Fighters in the Nation Building at SCOPE Complex, New Delhi.

Shri Arjun Ram Meghwal, Hon'ble Union MoS for Culture and Parliamentary Affairs graced the Seminar organized by the Institute on the theme "Good Governance - Key to Atmanirbhar Bharat" as its Chief Guest. On this occasion Shri Arjun Ram Meghwal also release the CMA Syllabus – 2022. There were sessions on Role of

Good Corporate Governance in achieving Atmanirbhar Bharat and on Decriminalisation of various offences under Companies Act & LLP Act. Eminent speakers like Prof Asish Bhattacharyya from Academics, CMA M. K. Anand, Former Principal Advisor (Cost), Ministry of Finance, Govt. of India, CMA (Dr.) P.V.S. Jagan Mohan Rao, Former Council Member of the Institute & Former President, SAFA, CMA Divya Abhishek, PCA, Mr. Rajinder Kumar, Advisor legal, Indus Towers Limited and Adv. Saurabh Kalia who shared their experiences with the participants during the half day conference at SCOPE Auditorium. The conference witnessed the participation by many Corporate Stalwarts, Professionals, Practitioners, Academicians, representative of Trade & Industry. The proceedings of the seminar was telecasted live to reach the members & students across the Country.

Meeting with SEBI officials

I am pleased to inform CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board, CMA Debasish Mitra, Chairman, Board of Advanced Studies & Research, CMA (Dr.) Ashish P Thatte, Chairman, Corporate Laws Committee, CMA B.B. Goyal, Former Addl Chief Advisor (Cost), MoF, GoI and CMA Arup S Bagchi, Senior Director & Secretary, BFSI Board had a meeting with senior officials of SEBI on 15th June, 2022 at SEBI Bhawan, Mumbai and made a presentation before the SEBI officials for inclusion of CMAs for Audit and Certification under Securities and Exchange Board of India (Issue of Capital and Disclosure Requirements) Regulations, 2018.

IR Council Meeting

I along with CMA Balwinder Singh, Former President and Institute's representative to the Council of the Value Reporting Foundation, UK attended the <IR> Council Meeting held on 16th June 2022 in New York. The meeting was hosted by International Federation of Accountants (IFAC). A report on contributions made by IR Council during the last decade leading to integrated reporting adoption globally was presented and also the Future of the Integrated reporting Framework was discussed.

Kerala PCMAs Convention 2022

Thrissur Chapter conducted All Kerala Practising Cost Accountants' Convention 2022 on 25th June, 2022 at Thrissur. CMA Praveen Kumar, Chairman, Thrissur Chapter welcomed the delegates and dignitaries. CMA Vijender Sharma, Vice President of the Institute inaugurated the convention by lighting the lamp and delivered his address. CMA H. Padmanabhan, Council Member was the Guest of Honour. CMA Chittaranjan Chattopadhyay, Council Member and CMA Rajesh Sai Iyer, Treasurer, SIRC were the special Invitees. CMA (Dr.) Balwinder Singh, Council Member and CMA B.B.Goyal, Advisor , ICMAIMARF and Former Addl. Chief Advisor (Cost), Ministry of Finance, Govt. of India led the technical session. The programme was attended by Practising members all over Kerala. Around 120 participants including Practising CMA Members from other Chapters of Kerala were the delegates of the convention. Morning session was concluded after the interactive session with Members and vote of thanks by CMA Raju. P.T, Chairman, Kottayam Chapter.

Afternoon session was welcomed by CMA Anoop.N.G, Vice Chairman, Thrissur Chapter. CMA R.Viswanath Bhatt, Vice Chairman, SIRC and CMA Jyothi Satish, RCM, SIRC were the special invitees in the afternoon session. Dr. Mathew Jolly, IRS, Additional Director General of CGST was the Chief Guest. The technical session was handled by Shri. P.V.Narayanan, Superintendent of Central Tax, Kannur Division. Afternoon session was concluded after the interactive session with Members and vote of thanks by CMA Jagadish.A.D, Secretary, Thrissur Chapter.

MoU with IIA - India

The Institute of Internal Auditors India - Calcutta Chapter organized the flagship program Joint Audit Conclave 2022 on the theme "Future of Profession: Adapt|Transform|Innovate" on June 24, 2022 at Kolkata. Our Institute was one of the associate partners of this event. Shri Jagdeep Dhankhar, Hon'ble Governor of West Bengal graced the event as Chief Guest. CMA Biswarup Basu, Immediate Former President of the Institute represented the Institute in a technical session. The Institute had signed a MoU with IIA - India with a broad objective to offer membership to all Associate and Fellow members and students as per the current membership guidelines of IIA; conduct seminars, conferences and joint activities mutually beneficial to both the organizations with a focus on contemporary areas in the field of Internal Audit, Internal Control, Risk Management etc.

MoU with GLS University

It gives me immense pleasure to inform that the Institute has entered into a MoU with GLS (Gujarat Law Society) University, Ahmedabad, Gujarat on 27th June 2022 at CMA Bhawan, New Delhi. The general objective of this MOU is to extend academic co-operation in conducting various under-graduate, post graduate, Ph.D., PGDCA and diploma courses under the Faculty of Commerce and Management and to stimulate and facilitate the development of collaborative and mutually beneficial programs, which will serve to enhance the intellectual life and cultural development in both organizations. The MoU was signed by me and Dr. Chandni Kapadia, Executive Director, GLS University in the presence of CMA Vijender Sharma, Vice President, CMA Biswarup Basu, Immediate Former President of the Institute, Dr. Dharmesh Shah, Registrar, GLS University and Dr. Marzun Jokhi, Dean, Faculty of Commerce, GLS University. CMA Malhar Dalwadi, Chairman, Ahmedabad Chapter and CMA Mitesh Prajapati, Secretary, Ahmedabad

Chapter also participated in the MoU Signing ceremony.

MoU with Thiruthangal Nadar College

I along with CMA Rakesh Shankar Ravisankar, Member - IAASB was invited on 2nd June 2022 by Thiruthangal Nadar College - prominent college in North Chennai to sign MoU for offering the CMA Programme and other Certificate courses to the students. The Faculty members expressed their happiness and assured to participate in the various programmes organized by the Institute.

CEO-CFO & Member's Meet by SIRC

SIRC has organized CEO, CFO's & Member's Meet on 11th June 2022 at Hotel Hyatt Regency, Chennai. I along with CMA Vijender Sharma, Vice President, CMA K Rajagopal, Chairman, SIRC & CMA Vijay Kiran Agastya, Secretary, SIRC interacted with the CEO's, CFO's and our Members. We highlighted on the recent developments and emerging scope and opportunities for the Professionals and practitioners. Members interacted with us and have offered a lot of suggestions for the development of the profession and industry members felt satisfied with the softskills training of the students.

Centenary Celebrations of Student's Home, Sri Ramakrishna Mission, Chennai

I was invited as Guest of Honour for the valedictory event of the Centenary Celebrations of the Student's Home of the Sri Ramakrishna Mission, Chennai on 25th June 2022. I shared dais with Prof. V. Kamakoti, Director - IIT Madras and Dr. R. Seetharaman, Former Group CEO, Doha Bank, Qatar. I highlighted the various activities of the Institute on MSME's, Agricultural Cost Management and Importance of new CMA Syllabus 2022 encompassing artificial intelligence, Machine Learning, etc. The event was well participated by the large gathering of the 500-600 audiences.

I now present a brief summary of the activities of various Departments/Committees/ Boards of the Institute, in addition to those detailed above:

BANKING, FINANCIAL SERVICES AND INSURANCE BOARD

The BFSI Board and BFSI department continued to plan and execute numerous activities during the month of June 2022 under the Chairmanship of CMA Chittaranjan Chattopadhyay. The summary of such activities and initiatives are as follows –

a. Meeting with dignitaries:

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB met Smt. Alka Upadhyaya, IAS, Chairperson of National Highways Authority of India on 22nd June, 2022 and Shri Rajendra Kumar, Member (Finance), NHAI. He also met Shri V. Chandrasekhar, Sr. Advisor, Corporate and International Banking, Indian Banks' Association; Shri Pawan Kedia, Chief General Manager, State Bank of India (Financial Control); Shri B.S. Venkatesha, Chief Risk Officer, Union Bank of India; Shri Gulshan Malik, Chief General Manager, State Bank of India to discuss about various professional opportunities for CMAs.

b. Webinar on the topic of 'Banking- Yesterday, Today and Tomorrow:

The BFSIB organized the webinar on the occasion of 'Azadi Ka Amrit Mahotsav' on 17th June, 2022 on the topic of 'Banking- Yesterday, Today and Tomorrow '. Shri S.S. Mundra, Chairman, BSE and Former Dy. Governor, RBI was the Chief Guest. Dr. Soumya Kanti Ghosh, Group Chief Economic Adviser of SBI was the speaker.

c. Conduct of the 30 hours Orientation Programme for vacancies in Bank of India for CMAs:

BFSIB organized a 10 days' orientation programme for vacancies released by the Bank of India. CMAs who do not have any requisite experience are eligible for the course and they are being provided with 30 hours of rigorous training and mock tests with a view to handhold them to appear for the vacancies in various public sector banks. All interested are requested to avail the benefit of such courses.

The BFSIB started the orientation course on 15th June, 2022 for 30 hours and CMAs across the country joined the online course. Shri Ram Naik Gupte, Dy.General Manager, Bank of India was the Chief Guest for the inaugural session. The course was successfully completed on 23rd June, 2022.

d. Insurance Month:

In view of the significance of the Insurance sector in the Indian economy and to spread the awareness of Insurance especially after the pandemic it is felt that the Institute should observe June 2022 as the Insurance month. We celebrated the event for the 2nd year in a row during last month.

A webinar on 11th June was organized on the topic of 'Integration of Environmental, Social and Governance (ESG) with Enterprise Risk Management (ERM)- An Effective Corporate Governance Strategy'. CMA Delzad D Jivaasha, Dy. VP-Risk Management, ICICI Lombard General Insurance Co. Ltd was the speaker. Webinar on 14th June was held jointly with NIA on the topic 'Confronting the Implications of Climate Change in Insurance Industry'. The speakers were Shri Hitesh Kotak, CEO, Munich Re., India Branch and Shri Praveen Gupta, Chartered Insurers. The programme was moderated by CMA G.Srinivasan, Director, NIA. Another Webinar was held on 25th June on the topic 'Fire-side Chat' with CMA Ram Gopal Verma, Fire Insurance Expert on Fire Insurance Claims' and CMA Shiba P Padhi, Former Chairman, EIRC of ICAI was the moderator of the session. The last webinar held on 30th June was jointly with NIA on the topic 'Cyber Insurance-Risk Mitigation for Cyber Security and Data Protection'. Shri Bhishma Maheshwari, Sr. VP, Marsh India Insurance Brokers Private Ltd and Shri Vijay Shankar Naavi, President, Data Protection Association of India were the speakers and was moderated by Dr. G. Doss, Faculty (Marketing), NIA.

e. Certificate Course on General Insurance in association with National Insurance Academy (NIA):

The 2nd batch admissions of the course have already started for the members and students. I call upon all finance professionals to avail the opportunity of enrolling in the course for skill development and capacity building in the Insurance Sector. BFSIB and NIA are developing the modalities of the Level-2 of the certificate course and I am sure that it will also be very popular. Those interested may kindly fill up the Expression on Interest Form.

Like all other courses of the Institute, I am sure members and students who will take up the three certificate courses on Banking will greatly benefit towards their skill development and knowledge enhancement.

f. Banking Courses:

The 5th batch of Certificate Course on Treasury and International Banking was concluded on 18th June, 2022 and examination was conducted for the participants on 19th June, 2022. I urge all interested to take the admission for all the three courses being offered.

g. Certificate Course on Investment Management in association with NISM:

The Batch No. 8 of Level-I admission has started along with Batch No. 4 of Level-II and Batch No. 3 of Level-III respectively. I call upon all interested to take admission and reap the benefits of joining the courses.

h. Workshop on Risk Based Internal Audit (Series- II):

In view of mandatory implementation of RBIA in banks, NBFC and co-operative Banks the BFSIB would soon be organizing the workshop on Risk Based Internal Audit (Series-II). The Board has already floated the google forms for expression of interest and based on the feedback the date of the workshop would be announced in due course.

i. Representation letters for inclusion of CMAs:

As a continuous effort for further development of the profession in the BFSI sector, BFSIB has represented to various authorities and employers for inclusion of CMAs in the sector. I am happy to state that SIDBI has included CMAs for appointment of Credit Officer.

j. Sale of Aide Memoire on Infrastructure Financing:

BFSIB had released the much awaited and anticipated handbook titled 'Aide Memoire on Infrastructure Financing' for benefit of all stakeholders. Interested members & students can purchase the publication through the link: https://eicmai.in/booksale_bfsi/Home.aspx

BOARD OF ADVANCED STUDIES & RESEARCH

I am pleased to inform that Board of Advanced Studies & Research has conducted the following examinations (June 2022 term) of various Advanced Studies courses successfully:

- Diploma in Forensic Audit
- Diploma in Information System Security Audit
- Data Analytics for Finance Professionals
- SAP FICO Power User
- Executive Diploma in Cost & Management Accounting for Engineers
- Certificate Course in Arbitration
- Executive Diploma in Business Valuation
- Certificate Course in Advanced Business Excel for Finance Professionals (with Microsoft Certification)

I congratulate CMA Debasish Mitra, Chairman, Board of Advanced Studies & Research and staff members for conducting these valuable courses for the professional enrichment of the members and students. I wish every success to all the participants of these courses for their future endeavours.

CONTINUING EDUCATION PROGRAMME COMMITTEE

During the month, around Sixty webinars and programmes were organised by the different committees of the Institute, Regional Councils & Chapters of the Institute on the topics of professional relevance and importance like Cyber Insurance Risk Mitigation for Cyber Security and Data Protection, Tax Evasion & Tax Reforms in India, Internal Audit: Value Enhancer for the Business, Demystifying the Cult of Cryptocurrency: A Disclosure on Bitcoin, Opportunities for CMAs in the field of Corporate Social Responsibility (CSR), Banking- Yesterday, Today and Tomorrow, Confronting the implications of Climate Change on Insurance Industry Workshop & Networking Series on Forensic Audit and so on. I am sure our members are immensely benefited from the deliberations in the sessions.

DIRECTORATE OF CAT

- **New ROCC:**

The CAT Directorate sanctioned four new ROCCs in the month of June 2022: one each in all four regions viz., Eastern, Southern, Western and Northern. I am elated to see the increase in the number of CAT ROCCs, which will surely help the aspirant in finding one nearest to their place.

⦿ Implementation of CAT Course in other States and Universities:

I am pleased to see that the CAT Directorate is engaged in implementing the prestigious projects it bagged to impart CAT course in the states of Maharashtra and Uttar Pradesh. I am hopeful that the batches would start soon in these states. I wish all the best to CAT Directorate towards its endeavors under the impeccable leadership of my Council colleague CMA H. Padmanabhan, Chairman of the Committee for Accounting Technicians.

⦿ Presentation of CAT to Kerala based ROCCs:

On the side-lines of all Kerala Practitioners Cost Accountants Convention 2022 organized by Thrissur Chapter of Cost Accountants on Saturday, the 25th June, 2022, CMA H. Padmanabhan, Chairman (CAT) deliberated on Certificate in Accounting Technicians(CAT) Course. In his address, he dwelt on the importance of CAT course particularly in view of Skill Development. He also addressed the queries of the audience then and there.

⦿ CAT Course Part - I Examination – July 2022 term:

The CAT Course Part – I Examination – July 2022 term will be held on Sunday the 24th July, 2022 through online mode wherein candidates would not be required to go out and can appear using mobile/laptop/desktop/tab from their home only. I wish students all the best for their exam.

DIRECTORATE OF STUDIES

⦿ CMA Syllabus – 2022:

It is my pleasure to convey that Shri Arjun Ram Meghwal, Hon'ble Minister of State for Parliamentary Affairs and Culture, Govt of India released CMA Syllabus 2022 on 9th June 2022 at Scope Complex, New Delhi during MCA Iconic Week Celebration on 'Azadi Ka Amrit Mahotsav'. I was present along with CMA Vijender Sharma, Vice President, CMA (Dr.) Balwinder Singh, Chairman – Training & Educational Facilities Committee of the Institute and other dignitaries in this historical event.

CMA Syllabus – 2022 shall be effective from 1st August 2022 for June 2023 term of examinations and onwards. The new syllabus is mapped with the curriculums of national and international accounting bodies meeting the requirements under International Education Standards and covering the important aspects of National Education Policy, 2020 and would be globally relevant. CMA Syllabus 2022 will nurture today's students to tomorrow's future ready professionals who will lead entities across all industry sectors; and practitioners who will provide management and audit expertise to all such sectors. CMA curriculum has been designed in such a vigorous way to enable Cost & Management Accountants to acquire the highest level of competency that the industry and profession requires and ensures that the curriculum remains effective and relevant in this dynamic global ecosystem.

The aim behind rationalization and upgradation of Course Curriculum is to incorporate contemporary topics, minimize overlapping areas and duplication of topics and sub-topics, introduction of new subjects/topics like Business Communication, Business Data Analytics, Risk Management in Banking & Insurance, Entrepreneurship & Start-up, ESG, Forensic Audit, Digital Strategy, Cyber Security, Financial Modelling, Emotional Intelligence, Six Sigma, Financial Derivatives, Anti-money Laundering Laws etc. to positioning CMA qualification as a global qualification to meet the growing demand for Cost and Management Accountant professionals.

As a long-term vision of the Institute and professional social responsibility towards the society and being an organisation under the administrative control of the Ministry of Corporate Affairs, Government of India, the Institute ensures that the students pursuing the CMA Course should possess and acquire robust employability skills to cope with the global challenges and become a future-ready professional and has introduced mandatory SAP Finance Power User Training & Certification, Microsoft Office Training & Certification, Cambridge University Press Soft Skill Training & Certification and E-filing Training & Certification as a bouquet of World Class Employability and Techno-Skill Training facilities for its students.

With the introduction of World Class Skills Training facilities coupled with the rich International level Curriculum and Pedagogy, Industry recognized robust Practical Training Scheme and high standard Examination system, CMA Course is now really Going Global and students completing CMA Course will come out with flying colours to grab enormous employment and professional opportunities around the Globe.

INTERNAL AUDITING AND ASSURANCE STANDARDS BOARD (IAASB)

Internal Auditing and Assurance Standards Board in association with SIRC of the Institute organized a PD Programme on "Internal Auditing for Sustainable and Performance Measurement" on 4th June 2022. Gp. Capt. Dr. R. Venkataraman, Madras Management Association was the Chief Guest and highlighted on the role of cost accountants in ESG. CMA (Dr.) V. Murali, Council Member lauded the efforts of the IAASB in developing the technical materials. CMA (Dr.) K Ch A V S N Murthy stressed on the importance of Integrated and Sustainability Reporting. The resource persons were CMA (Dr.) V Gopalan, Member, IAASB & CMA Rakesh Shankar Ravisankar. The participants and the panel members interacted on the recent trends and expectations of the industry in the domain of Internal Auditing. The event was co-ordinated by CMA K Rajagopal, Chairman, SIRC, CMA Vijay Kiran Agastya, Secretary and

CMA Rajesh Sai Iyer, Treasurer, SIRC.

INTERNATIONAL AFFAIRS COMMITTEE

⦿ Observance of International MSME Day:

In view of the significance of the MSME & Start-ups, the International Affairs Committee joined hands with the Task Force on MSME & Start-up to observe the "International MSME Day" by organising a WEBINT on "Celebrating International MSME Day" on 27th June, 2022. The celebration began with the welcome address by CMA Chittaranjan Chattopadhyay, Chairman, Task Force on MSME & Start-Up. CMA H Padmanabhan, Chairman, International Affairs Committee delivered a Special Address. I delivered the Presidential Address and CMA Vijender Sharma, Vice President of the Institute who spoke at length about the significance of MSME in Indian economy.

The event was christened by many national speakers and CMA Tamil Selvan Ramadoss, Strategic Finance Expert & a Thought Leader from Dubai, UAE as the International Speaker who shared the status of MSMEs and areas of intervention and opportunities for CMA in that area.

⦿ International Yoga Day Celebrations:

I am happy to inform that the International Affairs Committee in association with Trivandrum Chapter of the Institute organized a WEBINT on "Yogasanas for Healthy Life" on the occasion of 8th International Yoga Day to spread awareness among people about the practice of Yoga and the benefits it can bring in their lives. The event was inaugurated by CMA Vijender Sharma, Vice President of the Institute. Yoga Session was taken by renowned Yoga Teacher Shri R. Chandrashekharan, who showed how to perform the various stretching poses, practice meditation and promote mindfulness in addition to overall wellbeing. CMA Chittaranjan Chattopadhyay, Council Member and CMA Hari Prasad R, Chairman, Trivandrum Chapter also participated in the International Yoga Day celebrations and addressed the participants. The WEBINT ended with vote of thanks by CMA Pramode Chandran PG, Treasurer, Trivandrum Chapter.

⦿ Conference by SAFA PAIB Committee:

I am happy to inform that the Institute is hosting a Conference organized by the SAFA Committee on Professional Accountants in Business (PAIB) under the Chairmanship of CMA H. Padmanabhan on 23rd July, 2022 at Trivandrum, Kerala through hybrid mode. Eminent Speakers from India and other SAFA member bodies will be participating in the Technical sessions to share their thoughts & experiences on "Future of Accounting Profession: Challenges and Opportunities". In order to have a wider coverage of this important event, it would be telecasted live to reach the members & students of all SAFA member bodies and other stakeholders.

MEMBERSHIP DEPARTMENT

I warmly welcome and heartily congratulate all the 122 new members who were granted Associate membership and all the 32 associate members who were upgraded to Fellowship during the month of June 2022.

To continue enjoying the benefits of membership, I call upon all members having dues of 2022-23 (or earlier) and urge them to clear their dues at the earliest preferably through online mode via the members' online system vide the following links -

https://eicmai.in/MMS/Login.aspx?mode=EU (with login)

https://eicmai.in/MMS/PublicPages/UserRegistration/Login-WP.aspx (without login).

PROFESSIONAL DEVELOPMENT COMMITTEE

PD Directorate submitted representations to various organizations for inclusion of cost accountants for providing professional services.

Please visit the PD Portal for Tenders/EOIs during the month of June 2022, where services of the Cost Accountants are required in Commercial Taxes Department Government of Bihar, Rashtriya Ispat Nigam Limited (RINL), Bureau of Indian Standards (BIS), Small Industries Development Bank of India, Ramagundam Fertilizers and Chemicals Limited, Armoured Vehicles Nigam Limited Jabalpur, Mazagon Dock Limited, The Jammu & Kashmir Bank Ltd., National Safai Karamcharis Finance & Development Corporation, UCO Bank Zonal Office Agartala, Janakalyan Sahakari Bank Limited, National Textile Corporation Limited, HSCC (India) Ltd, Himachal Pradesh Power Transmission Corporation Limited, Airport Authority of India Lucknow, REC Ltd, Oil and Natural Gas Corporation Limited (ONGC), Oil and Natural Gas Corporation Limited (ONGC), Commercial Taxes Department of Andhra Pradesh, National Textile Corporation Limited, Munitions lndia Limited, Gujarat State Forest Development Corporation Limited, Bureau of Indian Standards, Central Coalfields Limited, etc.,

Professional Development Committee in association with PHD Chamber of Commerce and Industry organised a programme on "When and why arrest can be made under GST-Taxpayer's/Tax department's perspective". The PD Committee also organized a webinar on "Management Accountants drive creation of Organization Value".

TASK FORCE ON MSME & START-UP

In view of the significance of the MSME & Start-ups, the Task Force on MSME & Start-up of the Institute observed the "INTERNATIONAL MSME DAY" in collaboration with the International Affairs Committee by organizing a WEBINT on "CELEBRATING INTERNATIONAL MSME DAY" on 27th June, 2022. The event was participated by me, CMA Vijender Sharma, Vice President, CMA Chittaranjan Chattopadhyay, Chairman, Task Force on MSME & Start-Up and CMA H Padmanabhan, Chairman, International Affairs Committee of the Institute.

The Chief Guest was Shri P. M. Parlewar, Director, MSME-DI, Nagpur and Mumbai, Ministry of MSME, Government of India. Srimati Rama Devi Kanneganti, Director, ALEAP shared how she along with her team worked relentlessly to make the state of Andhra Pradesh empowered by promoting women entrepreneurship for the past 27 years. CMA Tamil Selvan Ramadoss, Strategic Finance Expert and Managing Committee Member of Dubai Overseas Centre of Cost Accountants shared his words of wisdom. Shri Akhilesh Mahurkar, Director, WTC, Shamshabad and Visakhapatnam was another eminent speaker of the session.

CMA Chittaranjan Chattopadhyay, Chairman, Task Force on MSME & Start-Up offered his concluding remarks.

CMA B. Mallikarjuna Gupta, Member of the Task Force on MSME & Start-Up meticulously summed-up the session.

TAX RESEARCH DEPARTMENT

I am pleased to inform that the Tax Research Department organized a Webint on the topic 'GST - The biggest taxation reform of the country' on 24th June. It was illuminated by dignitaries the most eminent among them being, Ms. V Rama Mathew (Principal Chief Commissioner – CGST & CX Kolkata). TRD also conducted Webinars on the topics – (i) GST on Real Estate on 27th June and (ii) Statement of Financial Transactions (SFT)_Practical approach on 28th June. A physical seminar has also been conducted in Chandigarh – Panchkula Chapter in association with TRD and NIRC where Shri Gurmeet Singh Meet Hayer, Punjab Education Minister, graced with his presence. The department has been organizing Quiz for the members since April 2022. It is being conducted from 5 pm onwards through Google Form [Either for 15 minutes/half an hour depending upon level of question] and getting an overwhelming response from the members who are participating in every QUIZ contest. Government Ramnarayan Chellaram College of Commerce & Management, Bengaluru has launched GST Course with 51 Students. On 23rd June 2022, Certificate has been distributed to successfully passed candidates (47 students out of 50 students) of GST Course conducted in Jain College.

A 5 Days workshop on 'Input Tax Credit - An Insight' was conducted successfully from 15th to 19th June 2022. All the Taxation courses are being conducted. The 113th & 114th Tax Bulletin has been released. Taxation Portal is being updated time to time with latest amendments and changes in Direct and Indirect Tax.

ICMAI REGISTERED VALUERS ORGANISATION (RVO)

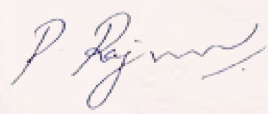
I am pleased to inform that ICMAI RVO has successfully organized "50 Hrs training programs" of 23rd Online Batch Securities or Financial Assets ,16th Online Batch Land and Building, 15th Online Batch Plant & Machinery, 17th Online Mandatory COP Program, and "Professional Development Programs" of Summer Bootcamp Online Certificate Course on Valuation, Practical Aspects of Valuation, Certificate Course on Financial Modelling for Registered Valuers, National Conclave on Valuation of Start-Ups, Certificate course on Upskilling for Professional Excellence.

In its endeavour to promote profession, knowledge sharing and sensitisation of the environment, ICMAI RVO published various publications namely, Technical Guidance Note - Impact of Covid 19 on Valuation, Technical Guidance Note- Creation, Maintenance, and Retention of Valuation Working papers, Model Question Papers For Securities or Financial Assets ,Guidance Note -How to Read Valuation Report, Work Book for Securities or Financial Assets, Frequently Asked Questions on Valuation, The Compact Book of Valuation, Compendium of Perspective Papers, Compendium of Articles, Automated Valuation Models and Monthly Journal, Weekly Newsletter, monthly e- Journal which are hosted on its website.

I wish prosperity and happiness to members, students and their families and pray for the success in all of their endeavours.

Stay safe and healthy!

With warm regards,



CMA P. Raju Iyer

July 1, 2022

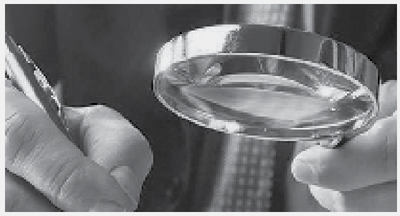
THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

www.icmai.in

Azadi Ka Amrit Mahotsav

Auditing Courses for CMAs



DISSA INFORMATION SYSTEM SECURITY AUDIT

FORENSIC AUDIT

INTERNAL AUDIT

Diploma in Information System Security Audit

Course Content

Information Systems Audit (Weightage - 80%)

- Overview of IS Security & Audit
- Compliance and Security Framework
- Business Continuity & Disaster Recovery
- Cyber Security and Cyber Forensics
- Business Application – Acquisition, Development & Implementation
- IT Audit in Banking Sector
- IT Audit in SAP Environment

Cloud Computing Management Audit (Weightage - 20%)

- Understanding Cloud Computing
- Adopting the Cloud
- Calculating the Financial Implications
- Migrating to the Cloud

Duration

- Live session (80 hours) & E-learning (20 hours)

Course Highlights

- Interactive Live Online Classes
- Eminent Faculty & Reputed Experts
- Online Assessment
- Certification on Completion
- Become Information System Security Auditors

Discounted Course Fee

- **Qualified CMAs -** INR 18,000/- + 18% GST
- **Final CMA Students -** INR 15,000/- + 18% GST

For more details, please visit:
https://icmai.in/Advanced_Studies/DISSA/index.php

Diploma in Forensic Audit

Course Modules

Module - I
Introduction to Forensic Audit, Applicable Laws & Regulatory Environment [40 Hrs]

Module - II
Fraud Risk Management, Applicable Standards & Best practices, Financial Forensics & Forensic Audit Techniques [30 Hrs]

Module - III
Fraud Examiner, Engagement Management, Documentation & Quality Control [20 Hrs]

Module - IV
Ethical Considerations, Code of Conduct in Fraud Examination & Forensic Audit, Professional Opportunities [10 Hrs]

Duration

- **On-line Mode:** 100 Hours [Duration: 6 months]

Course Highlights

- Online Assessment Test: 100 Marks
- Qualifying Marks: 50%
- Certification on Completion

Discounted Course Fee

- **Qualified CMAs -** INR 18,000/- + GST
- **Final CMA Students -** INR 15,000/- + GST
- **Online Assessment Fee:** INR 1,000/- + 18% GST

For Online Admission, please visit:
https://eicmai.in/ADVSCC/Course-Selection.aspx

Online Advanced Certificate Course in Internal Audit

Course Modules

Module - I
Introduction and Overview of Internal Audit (8 hrs)

Module - II
Planning and Executing Internal Audit (10 hrs)

Module - III
Internal Audit Skills & Techniques (16 hrs)

Module - IV
Internal Audit of Specific Functions (16 hrs)

Duration

- 50 hrs Online Live Sessions

Course Highlights

- Case Study based
- Expert faculty from the Industry
- Online Assessment: 100 marks (MCQ based)
- CPE Credit of 10 hours will be given to the members (as per CEP guidelines)
- Qualifying Marks: 50%

Course Fee

- **Members / Qualified CMAs** - INR 9,900 /- + 18% GST
- **CMA Final Level Students** - INR 7,500 /- + 18% GST

For Online Admission, please visit:
https://eicmai.in/ADVSCC/Course-Selection.aspx

Initiatives of

Board of Advanced Studies & Research

advstudies@icmai.in

+91 98745 32127/94323 82747 ; +91 33 4036 4779/4789

Behind every successful business decision, there is always a CMA

From the Desk of Chairman

CMA Debasish Mitra
Chairman
Members in Industry and Placement Committee &
Board of Advanced Studies & Research
The Institute of Cost Accountants of India

Dear Professional Colleagues,

It gives me immense pleasure to express my heartfelt gratitude to all of you for your generous support to conduct another successful campus placement season for the qualified CMAs of December 2021 term.

Reputed companies including PSUs covering various sectors are participating in campus placements drives across India on a regular basis. One of the most significant facets of Campus Placement drive is 12 days Pre-Placement orientation program organised by Members in Industry & Placement Committee. This orientation program helps all aspirants to equip themselves with more technical wisdom. It is observed that various courses launched by the Board of Advance Studies & Research during last three years coupled with pre-placement orientation program is gaining a tremendous impetus to the fresh qualified CMAs to face the interview board with full confidence.

In recent campus placement drives organised by the Members in Industry & Placement Committee, various reputed organisations successfully participated across important Industry sectors, like:

- IT & Consultancy
- Banking & Financial Services
- Healthcare
- Hospitality
- Infrastructure & Logistics including Oil & Gas, Railways
- Automobiles
- Pharmaceuticals
- Engineering
- FMCG etc.

I am delighted to share campus placement highlights for the year 2022 (till June):

Year	No. of Phases	Placement Offer	Total No. of Companies Participated	No. of PSUs Participated	Highest CTC Offered	Average CTC Offered	% of Students got placed
2022 (till 30.06.2022)	2	600 (app.)	50	10	Rs.27.5 lac	Rs.10 lac	70% (app.)

Eminent Companies like ABB, Accenture, Capgemini, CEAT, Deloitte, EY, GAIL, Genpact, Holcim, IOCL, ICICI, IRFC, ITDC, Infosys, IRCON, ITC, L&T, Philips, PFC, REC, TATA Motors, Vedanta, Alstom, UBS, CITCO, Mazagaon Dock, The Bank of New York Mellon, Bajaj Auto, WIPRO, EdCIL, Kotak Mohindra Bank and many more have already participated in various phases of campus placement drives in this year.

I am thankful to my committee and staff members of the Members in Industry & Placement Committee for their relentless efforts to make it happen to create multiple job opportunities for the budding CMAs in renowned companies. We are also in the process to create placement opportunities for our experienced CMAs as well.

I urge all our senior members, particularly who are in the *helm of affairs* of various organisations, to support actively in the future campus placement drives of the Institute. I am confident that with active support and cooperation of all of us, our Institute will become a true contributor towards positive growth of Indian corporate sector.

CMA Debasish Mitra
July 1, 2022

Joint Audit Conclave 2022

on the theme

"Future of Profession: Adapt | Transform | Innovate"

on June 24, 2022 at Kolkata

Inaugural session and lighting of the lamp of Joint Conclave in presence of the Governor of West Bengal Shri Jagdeep Dhankhar, CMA Biswarup Basu, IPP ICAI, President IIA and other eminent dignitaries

CMA Biswarup Basu, IPP, ICAI deliberating on the dais at Joint Audit Conclave 2022

CMA Biswarup Basu, IPP, ICAI sitting with other dignitaries

Signing of MOU with The Institute of Internal Auditors - India at the Joint Conclave 2022

Stall of The Institute of Cost Accountants of India at the Joint Conclave 2022

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory body under an Act of Parliament

www.icmai.in

&

THE HINDU

PRESENT

CMA NATIONAL ONLINE BUSINESS QUIZ 2022

2nd Edition

An Initiative of

DIRECTORATE OF STUDIES & BOARD OF ADVANCED STUDIES & RESEARCH

LEVEL 1

Individual Quizzing. Participants to take 25 questions online within 30 min.

LEVEL 2

Time bound MCQ questions for the selected candidates of the 1st round. Candidates from 4 zones (East, West, North, South) will be shortlisted for Level 3

LEVEL 3

Final Quiz will be **LIVE** streamed between the shortlisted candidates

REGISTER NOW

TERMS & CONDITIONS

- *There is no Registration Fee to join this Online Business Quiz Contest.*
- *Anyone interested in the Business domain is free to participate.*
- *Participants will have to answer 25 questions within 30 mins time.*
- *4 points will be awarded for each correct answer.*
- *1 negative point will be awarded for each wrong answer.*
- *Joint E-Certificate of The Institute of Cost Accountants of India & The Hindu Group for all the participants clearing 1st Round of Quiz.*
- *Attractive Prizes for the Finalists.*
- *Management reserves the rights to change/ modify/ alter these terms and conditions at any time.*

REGISTRATION LINK

https://forms.thehindu.co.in/icmai-quiz2022/

The registration link shall remain open till 31st July 2022

E-mail: advstudies@icmai.in

Toll Free: 1800110910 / 18003450092

(Mon. to Sat. from 09:30 A.M. to 6.00 P.M.)

Behind every successful business decision, there is always a CMA

Shri Arjun Ram Meghwal, Hon'ble Minister of State for Parliamentary Affairs and Culture, Govt of India releasing CMA Syllabus 2022 on 9th June 2022 at Scope Complex, New Delhi during MCA Iconic Week Celebration on **Azadi Ka Amrit Mahotsav**

DIRECTORATE OF STUDIES

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

CMA Syllabus 2022

Key Features

- **Robust, industry relevant and future-ready curriculum aligned with global trends**
- **Nurturing today's students to tomorrow's CMA professionals** who will lead entities across all industry sectors; and practitioners who will provide management and audit expertise to all such sectors
- **Introducing contemporary topics -**
  - *Data Analytics*
  - *Business Communication*
  - *Entrepreneurship & Start-up*
  - *Risk Management in Banking & Insurance*
  - *Lean Accounting*
  - *Six Sigma*
  - *Forensic Audit*
  - *Information Systems Security Audit*
  - *ESG (Environmental, Social and Governance)*
  - *Digital Strategy*
  - *Decision Theory*
  - *Quantitative Techniques in Decision Making*
  - *Cyber Security & Data Privacy Laws*
  - *Anti-money Laundering Laws*
  - *Financial Derivatives*
  - *International Financial Management*
  - *Equity & Bond Valuation*
  - *Business Forecasting Models*
  - *Financial Modelling*
  - *Leadership*
  - *Emotional Intelligence and many more...*
- **Introducing tutorial workshops on contemporary topics -**
  - *Tools and Techniques of Data Analytics*
  - *Financial Modelling, Forecasting, Valuation and Derivatives, Financial Consultancy*
  - *Consultancy Services for Strategic Cost Management*
  - *Forensic Audit*
  - *Information System and Security Audit*
  - *Preparation of Cost Audit Reports*
  - *Sessions with Founders of Unicorn*

Behind Every Successful Business Decision, there is always a CMA

Memorandum of Understanding

between

The Institute of Cost Accountants of India & Thiruthangal Nadar College, Chennai

Thiruthangal Nadar College, Chennai has entered into an MoU with The Institute of Cost Accountants of India on 2nd June 2022 at the College Campus. A grand meeting was organised by the College and the MoU was signed by Shri M. G. E. Selapalam, Secretary of the College & CMA P Raju Iyer, President, The Institute of Cost Accountants of India in the august presence of Dr. S. Srividhya, Principal of the College & CMA Rakesh Shankar Ravisankar, Member - IAASB. The MoU is aimed at offering the CMA Programme and other certificate skill based programmes, Joint workshops and FDPs to benefit the students from the North Chennai.

ALL KERALA PRACTISING COST ACCOUNTANTS' CONVENTION 2022

held on June 25th, 2022 at Casino Hotel, Thrissur

Thrissur Chapter conducted All Kerala Practising Cost Accountants' Convention 2022 on 25th June, 2022 at Thrissur. CMA Praveen Kumar, Chairman, Thrissur Chapter welcomed the delegates and dignitaries. CMA Vijender Sharma, Vice President of the Institute inaugurated the convention by lighting the lamp and delivered his address. CMA H. Padmanabhan, Council Member was the Guest of Honour. CMA Chittaranjan Chattopadhyay, Council Member and CMA Rajesh Sai Iyer, Treasurer, SIRC were the special Invitees. CMA (Dr.) Balwinder Singh, Council Member and CMA B.B.Goyal, Advisor , ICMAIMARF and Former Addl. Chief Advisor (Cost), Ministry of Finance, Govt. of India led the technical session. The programme was attended by Practising members all over Kerala. Around 120 participants including Practising CMA Members from other Chapters of Kerala were the delegates of the convention. Morning session was concluded after the interactive session with Members and vote of thanks by CMA Raju.P.T, Chairman, Kottayam Chapter.

Afternoon session was welcomed by CMA Anoop.N.G, Vice Chairman, Thrissur Chapter. CMA R.Viswanath Bhatt, Vice Chairman, SIRC and CMA Jyothi Satish, RCM, SIRC were the special invitees in the afternoon session. Dr. Mathew Jolly, IRS, Additional Director General of CGST was the Chief Guest. The technical session was handled by Shri. P.V.Narayanan, Superintendent of Central Tax, Kannur Division. Afternoon session was concluded after the interactive session with Members and vote of thanks by CMA Jagadish.A.D, Secretary, Thrissur Chapter.

Celebration of Azadi ka Amrit Mahotsav

WEBINAR organised by

Banking, Financial Services & Insurance Board of The Institute of Cost Accountants of India

on

BANKING - YESTERDAY, TODAY AND TOMORROW

The webinar on the topic "BANKING-YESTERDAY, TODAY AND TOMORROW" was organized by the Banking Financial Services and Insurance Board of the Institute on 17th June'22 and this was an initiative undertaken towards the celebration of Azadi Ka Amrit Mahotsav and in practicing Honourable Prime Minister's vision of Atmanirbhar Bharat.

Chairman BFSIB, CMA Chittaranjan Chattyopaddhay welcomed the august presence at the webinar and expressed his delight for such a value addition and splendid webinar.

Shri B.Rajkumar, **Advisor, BFSIB and Former Deputy Chief Executive, Indian Banks' Association**, discussed about the evolution of the banking system over the past 40 years and said that the fundamentals of banking have not changed in all these years but what has changed is the banking operations as well as how do we do banking and technology has brought the changes. Tomorrow technology will continue to be a game changer and holds the key to tomorrow's banking.

Shri Mohan Tanksale, Former Chief Executive, Indian Banks' Association expressed that the banking industry has withstood various crises and transformed itself into a real great institution to meet the challenges and contribute to the economic growth of the country. He discussed the pre and post nationalization scenario in the banking industry and how banking has evolved in all these years. Shri Tanksale mentioned financial inclusion which started in 2006 and the importance of Pradhan Mantri Jan Dhan Yojna in it. The technology in the banking industry has really helped out despite the shutdowns, the industry has been alive and has been contributing substantially to the customer needs and today the financial sector is predicting the financial needs of the customer and proactively reaching to the customer with their needs.

Shri S.S Mundra, Public Interest Director BAC and Former Deputy Governor, RBI, said when nationalization happened we could not bring this separation of ownership and management, that had its own impact and as a result when the private banks came into the market then this non-separation of ownership and management became to some extent a handicap for the banks. The Indian bank's balance sheet over a period of last few years or couple of decades the balance sheet used to be predominantly heavy corporate lending. There was a time when retail was hardly any percentage of it but the shift has taken place today retail is becoming a prominent component of balance sheet composition of most of the banks. Now a days risk management framework which is driven by the powerful algorithm behind the system, a whole lot of technology has happened in the recent years. He expressed his concern saying that the important point for the bank is to think over whether they should try to do all the technology innovation in-house and end up creating multiple channels which confuses both the consumer as well as their own people who have to run this psychology or they should try to look at a meaningful collaboration with these kind of entities. Talking about the future road of banking he said we must have meaningful collaboration and cooperation while also doing the competition wherever needed that will be one very important area the another challenge will be the talent retention and already all the entities are facing that problem because the way technology is growing in multiple sector of the economy there is always there is a race for acquiring the best talent and so banks would be relying heavily on the technology. So it will be very important that the talent retention is done and the other thing would be the learning from infrastructure financing which we have seen will continue to remain an important growth sector. He said the technology like blockchain and specialized institutions have come so now banks have to find that what could be their meaningful niche in the payment and settlement system. Banks would need to prepare for that another important area i.e. green finance or ESG. Another important aspect for tomorrow banking he mentioned is customer protection. Moreover, he also said that banks also have to think of the ageing population after 20 years and the then Zen generation. Their technology requirement would be different and so for banks it will be important to visualize to do the scenario building and prepare themselves to serve both these universes in their own business interest.

Shri Soumya Kanti Ghosh, Group Chief Economic Advisor, State Bank of India, gave a brief presentation of the Indian banking sector and said that Indian banking sector remains significantly adequately capitalized as of now as comparable to developed economies. In 2008 global financial crisis when the banks actually went into the crisis not adequately capitalized but in this crisis the banks actually were adequately capitalized and if you remember that uh before the banks had taken an asset quality exercise and in conjunction with the RBI it has introduced a significant improvement in credit culture across the borders and what it did is that of course this lead to a short-term pain but banking asset book is now sound, it is adequately capitalized. He stressed saying the most important thing is, Indian banking sector is adequately capitalized and compatible with developed countries today and it can take the pain of financing the economic activity as growth continues to pick up in the system. This is the banking infrastructure in the last eight years. The total branches have increased 1.3 times over the last eight years the total ATMs have increased 1.3 times and most important point is that the number of PM JDY accounts having is now 454 million this is the biggest financial inclusion plan in the world to bring the unbanked under ambitious banking and social securities and it is this digital transformation which also held the Indian economy and specifically those at the bottom strata to relegate to the pandemic in terms of cash transfers and the stroke of a button by the bank which has been the backbone of this financial inclusion program. The Indian banks are fully prepared for all the opportunity and he said that the next 15 to 20 years could be a very good growth period of the Indian banks given the way that they have been preparing themselves in terms of being digitally and technologically savvy and trying to cater to the current generation of people.

Celebration and Observance of June 2022 as Insurance Month

WEBINARS organised by

Banking, Financial Services & Insurance Board of The Institute of Cost Accountants of India

11th June,2022

Integration of Environmental Social and Governance with Enterprise Risk Management and Effective Corporate Governance Strategy

The Banking Financial Services and Insurance Board (BFSIB) of the Institute in its objective of knowledge dissemination has chosen the month of June as the insurance month. It was celebrated with much fanfare in 2021and in order to bring a continuity June 2022 is also celebrated as an insurance month. The BFSIB of ICAI organized a series of webinars of which the inaugural webinar was on the theme "Integration of Environmental Social and Governance with Enterprise Risk Management and Effective Corporate Governance Strategy". **CMA Delzad Jivaasha, AVP, Risk Management, ICICI Lombard Life Insurance was the guest of honor.** CMA Jivaasha said that when organizations are into the business of taking risks there will be no business which will be devoid of risk. So, risk management is about looking at risks holistically identifying them assessing them and putting in place plans to mitigate the risk. The whole idea of risk management is to help one to make informed decisions on which risks to take and which risks to avoid. Risk management is achieved through four fundamental facets first risk identification, second risk assessment, third risk evaluation and fourth risk treatment Coming to ERM he said that it is a holistic approach where the organization looks at the total impact of that risk or the frequency of occurrence of that risk in the length of the entity. He mentioned to note that on 10th May 2021, The Securities And Exchange Board Of India or SEBI came out with a circular mandating all listed companies to integrate ESG as part of its enterprise risk management frameworks. Non-financial indicators today hold equal amount of importance as much as the financial indicators as important objective. The entire society is looking at every organization with a Hawke's eye to bring social balance and to build up an organization driven by the fundamentals and the core elements of corporate governance so the regulators have increasingly laid focus on integrating ESG with ERM. He stressed that profit continues to be an important objective of business but BRSR proves that no longer is profitability the only objective of business. From an ESG standpoint there are four areas which are critical - first climate change commitment, second diversity and inclusion third, responsible investment and finally fourth governance and enterprise risk management. While talking about the climate change commitment he mentioned about the Glasgow summit and said today the expectation from every organization is that they should measure their amount of carbon emissions and make public disclosures because the first need of the hour is to reduce the amount of carbon emissions and if carbon emissions continue at the current level we will never be able to leave behind a sustainable society for future generations. Today organizations are expected to report in their annual reports as well what exactly is the ratio of male versus female employees, what is the representation of women in management committee and board committees and what steps is the organization taking to encourage the inclusion of physically disabled people into the workforce of the organization. Today many organizations in addition to an annual report are coming out with a dedicated ESG report to tell the world what they are doing in the space of ESG. Today organizations invest their surplus funds into different asset classes equity of different companies by viewing the ESG rating, given by the reporting agencies. Final step is governance and enterprise risk management where the focus is that every organization should have board approved policies and procedures on risk management and on corporate governance. Investors today as well as shareholders today want to know what are the emerging risk areas which can cause a problem to the organization and the expectation is that the organization should clearly divulge that as part of its ESG report as well as part of its annual report. As an end note he said that an organization which embodies corporate governance builds up a very strong balance sheet.

14th June,2022

CONFRONTING THE IMPLICATIONS OF CAPITAL CHANGE ON INSURANCE INDUSTRY

The Banking Financial Services and Insurance Board of the Institute organized the 2nd webinar in association with National Insurance Academy on the theme "Confronting The Implications of Capital Change On Insurance Industry".

Shri Pravin Gupta , Chartered Insurer, mentioned the importance of and cost accounting when it comes to climate change and associated perils that are impacting the global economy and the well-being of all citizen. Mr. Gupta made an exhaustive power point presentation, and he expressed his concern about the growing carbon emission and its effect by the end of the century. Big investors are the key to where the money gets invested. Money pipeline is very important and insurers are the key players. He opined the inclusion of sustainability in the IFRS as very important subject. Because if the pollution that we are making is not perfectly measured the risk cannot be accurately priced which in turn would socialize the loss and privatize the profit. The risks are spreading out it need not be country specific city specific it could impact cross-border it could also have inter-generational implications and what results from it is stranded assets.

Shri Hitesh Kotak, CEO Munich Re, made a presentation and discussed about the Paris Summit and the Glasgow Summit. He discussed about the changing perspectives of retail investors who are putting lot of emphasis on ESG index of companies before investing. He briefly introduced the concept of how insurance industry is assessing this particular dimension of climate change and what kind of solutions are being made available but at the same time it is extremely crucial and critical for every industry player to play its role in ensuring that these overall key milestones are met because end of the day it's a real topic and it's no longer a topic which can be pushed for another decade for the next generation of professionals who would come into the picture. Banks must disclose the climate risks and incorporate climate change in their risk management which finally needs to be reflected in their capital allocation. The hidden exposures in their portfolio needs to be evaluated by banks. He mentioned in the slides a sample portfolio risk profile where he explained the risk and the impact of climate change on the exposure or the risks the banks and insurers are taking. As risk management it is necessary to accept the risk. He echoed Mr. Praveen in saying that we have to build little community resilience around it so that at least the preparation and the planning is slightly better than what it can be. Talking about risk transfer he said parametric coverage to mitigate physical risk is easier and the only difference between a parametric risk and a normal insurable risk is in parametric risk the pay-out which is made is based on certain triggers which could be a certain mercantile index of earthquake which is very similar to Richter scale or cyclone intensity and the distance of the land etc. and make sure that such solutions are available. Parametric solutions are better in these kind of scenarios because when one has this kind of events it's very difficult to mobilize the insurance survey force.

25th June, 2022

FIRESIDE CHAT WITH CMA RAM GOPAL VERMA, FIRE INSURANCE EXPERT ON FIRE INSURANCE CLAIMS

In the 3rd webinar organized by BFSIB of the Institute, CMA Ram Gopal Verma, Fire Insurance Expert , addressed that the CMA course has helped him as value and loss assessor. He discussed the basic problems which arise during claim settlement are that the name of the insured and address does not always sync. He highlighted the important issues which an insured must take care of while dealing with fire insurance. The insured should properly state the type of products which are insured and also whether there are any co tenants in the factory premises as it would help in proper premium calculation. Location of the stock in the godown along with the type of stock, is also an important factor for assessing the type of risk. He mentioned that there is huge scope for a CMA to act as assessor and valuer.

30th June,2022

Cyber Insurance – Risk Mitigation for Cyber Security and Data Protection

BFSIB of the Institute in association with National Insurance Academy arranged a series of webinar as a mark of observing June 2022 as the month of Insurance. Due to the significance of the insurance sector on the Indian economy and to spread the awareness on Insurance sector after three successful webinars, the fourth and concluding webinar addressed the topic '**Cyber Insurance – Risk Mitigation for Cyber Security and Data Protection**'.

Shri G. Srinivasan, Director, National Insurance Academy also addressed the occasion and expressed his concern saying that last two years a huge increase in the number of cyber-attacks across the globe and India is seen. He said so many incidents of malware ransomware phishing and use of Trojan virus and data breaches have happened so often today and the world is hugely exposed to cyber risks He said economic forum 2020 rated cyber resources as the third topmost risk confronted by the companies and industries.

Dr. Steward Doss, Associate Professor, National Insurance Academy was the moderator for the webinar. He mentioned that the dynamics of cyber risks and cyber-attacks are changing. He asked the speakers questions related to the topic.

Shri Bhishma Maheshwari, Senior Vice-President, Marsh India Insurance Brokers Pvt. Ltd discussed how cyber insurance can really provide the risk protection to the increasing cyber-attacks. He said that cyber insurance is something which is like any other insurance and is part of the overall risk management process, when the risk cannot be avoided it is tried to mitigate the risk and even after doing everything possible to mitigate the risk there is some residual risk which is transferred via financial mechanism which is cyber insurance. Briefing about what a cyber-insurance policy covers, he said it covers everything related to any kind of a cyber-attack from the data liability issues to regulatory costs including the fines and penalties, to network security and supply chain issues. The policies are designed in such a way that they pick up most of these losses. The reluctant of the organizations to buy cyber risk insurance is because of lack of education, lack of enthusiasm and lack of ease of the process.. The insurers would like to understand each and every aspect of cyber security when it comes to underwriting the risk. Interviews are arranged from the insurer side and they will conduct these interviews and understand larger issues and this process keeps on happening so that if there is a new vulnerability which comes in the risk can be identified and managed. Some insurers have developed specific questionnaires related to ransomware preparedness.

Shri Vijayashankar Naavi, President, Data Protection Association of India, shared his views about the perception relating to how do the industries particularly the organizations commercial organizations look at the cyber risk. He said lack of awareness, lack of proper estimation of the risk and lack of confidence of the corporates on the cyber insurance industry is the reason of less penetration. The underwriting has to be risk based so without a risk assessment it is difficult to arrive at the premium and also the asset coverage how much of assets is covered. There is very little understanding about valuation particularly when it comes to data. In data protection the administrative fines go up to four percent of the turnover which is the biggest threat.. It is left to the discretion of the organization to say by having privacy by design but in PDPA, organizations have to submit a policy document, get it certified. So the accountability of the organization is much higher in PDPA than in GDPR. He said that India has also adopted a suggestion that there should be something called data trust score. He elaborated about how do insurers really value the data and what are the important parameters that should be considered while valuing the data. Some of the parameters he mentioned, when a valuation of data is done is - it is examined as whether it's a non-personal data and personal data. He also discussed about a purpose-oriented data collection in personal data and said that value of data is dependent on the fact as whether it is for multiple use or for single and accordingly its value gets depreciated.

Azadi ka Amrit Mahotsav

Azadi ka Amrit Mahotsav, National Conference on "Good Governance - Key to Atmanirbhar Bharat : Inaugural Session" on 09 June 2022 at Scope Complex, New Delhi

Azadi ka Amrit Mahotsav, Exhibition on "Corporate Leaders & Freedom Fighters" on 09 June 2022 at Scope Complex, New Delhi

Azadi ka Amrit Mahotsav, Green India - Tree Plantation Drive on 09 June 2022 at Delhi office

Azadi ka Amrit Mahotsav, National Conference on "Good Governance - Key to Atmanirbhar Bharat : Technical Session - I on 09 June 2022 at Scope Complex, New Delhi.

Azadi ka Amrit Mahotsav, National Conference on "Good Governance - Key to Atmanirbhar Bharat : Technical Session - II on 09 June 2022 at Scope Complex, New Delhi.

Glimpses of the MOU signing ceremony between The Institute of Cost Accountants of India and GLS University on 27th June, 2022

CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board and CMA L.M. Kaushal, Technical Advisor of the Institute had a meeting with Shri Amit Kumar Ghosh, IAS, Additional Secretary, Ministry of Road Transport & Highways, GoI and presented a copy of BFSI Board's publication titled 'Aide Memoire on Infrastructure Financing'

CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board and CMA L.M. Kaushal, Technical Advisor of the Institute had a meeting with Shri Giridhar Aramane, IAS, Secretary, Ministry of Road Transport & Highways, GoI and presented a copy of BFSI Board's publication titled 'Aide Memoire on Infrastructure Financing'

CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board and CMA J K Budhiraja, CEO, ICMAI MARF had a meeting with Ms. Alka Upadhyaya, IAS, Chairperson, National Highway Authority of India (NHAI) and presented a copy of BFSI Board's publication titled 'Aide Memoire on Infrastructure Financing'

CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board presented a copy of the recently released book published by the BFSIB titled Aide Memoire on Infrastructure Financing to Shri Sanjay Kumar, IAS, Addl Secretary & Financial Advisor of Ministry of Road Transport & Highways, Ministry of Ports, Shipping & Waterways, Ministry of Corporate Affairs in presence of Sudhir Kumar Jaiswal, ICoAS, Advisor (Cost), MoRTH and Shri L M Kaushal, Technical Advisor of the Institute.

ICAI-CMA SNAPSHOTS

CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board, CMA Debasish Mitra, Chairman, Board of Advanced Studies & Research, CMA Dr. Ashish P Thatte, Chairman, Corporate Laws Committee, CMA B.B. Goyal, Former Addl Chief Advisor (Cost), MoF, GoI and CMA Arup S Bagchi, Senior Director & Secretary, BFSI Board had a meeting with senior officials of SEBI on 15th June, 2022 at SEBI Bhawan, Mumbai.

Glimpses of the Yoga Sessions organised by the Institute on the occasion of International Yoga Day on 21st June 2022

USE OF RPA IN INTERNAL AUDITING

Abstract

The objective of this article is only to make CMAs aware about the emerging trends in the use of "Robotic Process Automation" in internal auditing of the companies. It is a new trend, becoming increasingly acceptable during Corona period.

CMA Ajay Deep Wadhwa
Past Chairman
EIRC of ICAI
Ranchi
wadhwa103@yahoo.co.in

Section 138 of the Companies Act,2013 has made internal audit compulsory for most of the companies of our country. Simultaneously, the complexity of internal audit work has been increasing day by day, especially during the Corona period where physical presence was negligible. The expectation of the managements and other stake holders of the companies are also increasing gradually towards internal auditing to ensure that companies are operating properly in highly regulated and financially sensitive environment and the investment of investors are safe. The external auditors like Chartered Accountants and Cost & Management Accountants are also deciding the volume and depth of their audit work according to the extent and reliability of internal auditing and its reports.

It has been found that many a times the internal auditors (hereinafter referred as IAs) are not in a position to do their job as per expectations. In place of spending considerable time of analysing the data and making reports, they devote their maximum time (around 60 per cent) in data collection. The balance 40 per cent or less time is spent in data-analysis and preparation of reports, thus compromising with quality. Increasing pressure on IAs to complete the job in a pre-determined time schedule is leaving less time for them to discuss and analyse for preparing a quality report.

It has been seen that initially maximum time of IAs are spent on fruitless and unnecessary activities like the following –

- Visiting concerned departments of the clients again and again for collection of relevant data,
- Submitting repeated request for required data including earlier reports,
- Chasing higher management repeatedly to obtain data / reports from concerned departments,
- Ensuring that complete data is received
- Ensuring that received data is free from manual intervention of the clients to ensure its correctness
- Spending valuable time in verification and authentication of received data.
- Separating garbage from real data.

Therefore, introduction and use of robotic process automation (RPA) in internal auditing may be the game changer in this field.

Let us first try to understand the RPAs.

Basically RPA is a robot sort of thing, in fact a rule-based software programme which automates activities by performing rule-based tasks. Robots are replica of human beings and using artificial intelligence, can understand the routine jobs being done by human beings and then, can perform it independently with enhanced speed and accuracy. During internal auditing, robots replicate human interactions and do the common tasks such as direct collection of data from original sources like websites / ERP modules (if permitted) of companies (clients), can obtain replies for queries directly, can cut and paste the data as per need, can merge- arrange- rearrange the data as per requirement and can prepare regular reports. Arranged data help internal auditors to prepare useful and accurate final reports.

RPA runs on "Bots" like "Data Collection Bots", "Data Analyzing Bots" and "Reporting Bots". A 'Bot' – short for Robot – is a software program that performs automated, repetitive, pre-defined tasks. Bots typically imitate or replace human user behavior. Because they are automated, they operate much faster than human beings with tailor made accuracy. They carry out useful functions of internal auditing like collecting, arranging, rearranging, the data and making reports thereof.

'Bots' are made from set of algorithms and operate over a network. Bots can communicate and send data to each other also. Normally different types of Bots are developed to carry out different types of tasks which are interrelated. For the example, "Data Collection Bots" collect relevant data from different sources of the customers like websites, ERP modules, computer software, soft reports, real time data modules etc. But usually these Bots can collect data only; they cannot make any change in the original data or at its sources. For this the internal auditors are given "Access" only to the sources of the data of the companies and that too for a limited period only. "Data Analyzing Bots" arrange the data as per requirement, based on pre-set algorithms and fetch different types of reports. "Reporting Bots" arrange and rearrange the data in preparing the required intermittent and final reports. During this whole process, the data cannot be manipulated with manual intervention and the accuracy increases.

Following benefits are visible from using RPAs in internal audit –

- Increased speed in collecting, arranging, rearranging and making reports of the data,
- Accuracy is ensured; no chance of feeding inaccurate data by the client
- Data rationing from the data supplier is usually not possible and internal auditor gets complete set of required data
- Enhances assurance level as during RPA process more than 70 per cent work is automated
- Global application possible
- Increased standardisation as RPAs work under pre-set algorithms and frequent alternations are not possible.
- Making DOTS are not much difficult
- RPAs based internal auditing provide great relief during extraordinary situation like corona as data is available online and frequent visits to collect and understand data are avoided.

Basically RPA is a robot sort of thing, in fact a rule-based software programme which automates activities by performing rule-based tasks

There are a number of bottlenecks on the path of using RPAs in internal auditing important ones being the following: –

- Hesitation in the minds of management to allow internal auditors to use RPAs to access their data directly. In place, many companies may appoint designated employees to provide selective data to RPAs which will ultimately not serve the main purpose of using RPAs.
- Use of RPAs needs higher level of computer knowledge among internal auditors. Financial professionals like CMAs, who are experts in accounting, cost management and taxation, will have to apply extra time, effort and brain to understand the nitty-gritties of RPAs first.
- RPAs may use technical language and algorithms which may not be easily understandable for the common people.
- Artificial intelligence does have its limitations and it can never match the intelligence of human brain.

Still CMAs can take the help of RPAs for internal auditing. New age CMAs are computer savvy and can develop 'Bots 'or they can take the help of software engineers initially. Each and every new technology comes with its own benefits and demerits and RPAs are not exception to that. MA

AT THE HELM

CMA Sanjay Jindal has assumed charge as Director (Finance) of EIL, a Navratna PSU on 10th June 2022. Shri Jindal has joined EIL in 1992 and has rich versatile experience of more than 29 years. He also served as CFO of Ramagundam Fertilizers & Chemicals Ltd, a Joint venture company promoted by EIL and National Fertilizers Ltd. He has vast experience of handling Project Financing, Investments, Taxation, Implementation of Internal Financial Control Systems, Financial Reporting etc.

We wish CMA Sanjay Jindal the very best for all of his future endeavours.

NEED FOR CLOUD SECURITY AUDIT

Abstract

Adoption of cloud architecture has increased tremendously over the last few years. The cloud market is currently placed at around USD 250 billion and as per some estimates this is supposed to grow to a trillion dollars by 2030 with a CAGR of around 17 per cent. With such massive scale of implementation of cloud based technologies comes the responsibility of ensuring integrity and reliability of applications hosted on the cloud. Breach of systems and data not only causes monetary loss to an organization but also impacts its reputation and credibility. Hence, security of cloud based solutions, and audit of such security is of critical importance. This article focuses on some basic aspects of cloud security audit.

CMA Arnab Chatterjee
Ex-Principal Consultant
Oracle Consulting
Kolkata
c_arnabus@yahoo.com

WHAT IS CLOUD COMPUTING

As per the National Institute of Standards and Technology (NIST), a US Government owned standard setting organization, cloud computing is defined as a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. Essentially, in cloud computing, the hardware and software computing resources are owned and maintained by dedicated cloud service providers (CSP) and their services are used by customer organizations that actually consume such computing resources. There is service level agreements (SLAs) between the service providers and their customers which determine the quantum of resources to be used. The customer organization is billed by the service provider based on the amount of computing resources consumed. Computing resources billed for may be in terms of storage capacity used, or the number of processor-hours, or number of concurrent users, or any other parameter decided upon by the parties.

BENEFITS OF CLOUD COMPUTING ARCHITECTURE

Affordability: Subscription based cost of cloud services makes it affordable for most organizations that do not need elaborate IT infrastructure. Large organizations with varied software needs can also harness the benefits by paying only for resources consumed.

Flexibility: Using cloud resources means organizations do not have to spend on acquiring IT assets or worry about expensive upgrades and obsolescence. They can, instead, focus on their core business.

Scalability: Cloud systems can be easily scaled up by the service provider as per customer demands. A sudden increased demand for computing resources does not translate into additional investment for the customer organization, which only pays for the incremental capacity used. Similarly, in case of less demand the service provider can easily divert the additional computing capacity to other customers.

Availability: Cloud resources are accessible by the end users with just a browser, which can be on a desktop, a laptop or a mobile device. The end-user organization does not need to ensure availability of the systems since that is the service provider's responsibility.

Integrity: Due to stringent back-up processes, built-in redundancies and business continuity plans implemented at service provider's end, data and system loss due to disasters pose a lesser challenge. In case of disasters end-users can still use their systems with minimal interruptions.

NEED FOR CLOUD SECURITY AUDIT

Cloud security audit or simply cloud audit can be considered as one of the crucial components included in the overall IT audit of an organization. The objective of cloud security audit is to assess the security and performance controls in a cloud environment.

Today's cloud landscape consists of numerous service providers that house non-critical as well as critical applications of all types of businesses. Any disruption in the cloud may affect an organization's ability to conduct its business as usual and lead to losses. Therefore, to ensure continuity, auditing the cloud offering of a service provider becomes important.

One of the important reasons to conduct a security audit of cloud is to ensure that there is no unauthorized access of data, especially in multitenancy architecture where applications and data of multiple organizations are hosted in the same data centre. To maintain redundancy many large corporations, use the services of multiple cloud vendors. The vendors in turn also host the business applications of multiple clients in the same data centre. Hence there is a risk of unauthorized data access across customers. The vendors also provide several types of "on-demand" services to its clients, such as software as a service, platform as a service, infrastructure as a service, security as a service, desktop as a service and so on. Due to the huge number of clients serviced, the variety of services provided and the potential for loss on account of breaches, it is essential that best practices are followed by the vendors to safeguard the interests of the customers and users.

A bigger risk to cloud applications (and to any IT system in general) is the constant threat of computer crimes from hacking, phishing, vishing, malware and ransomware attacks. A compromised computing system has the potential to wreak major damage on not only private corporations but also public utilities such as power-generating stations, water-supply systems, traffic management systems, and even e-mail servers. A CSP needs to secure its systems adequately against all threats irrespective of the source.

> **Only a security audit of the cloud can reveal the vulnerabilities of the back up and disaster-recovery processes**

Audit of cloud security ensures that appropriate controls are in place to address any potential threat to cloud hosted applications, be it from multitenancy or from computer crimes. It also analyses the effectiveness of such controls and potential remedies in case they are not. Besides, organizations also need to ensure data privacy and data retention policies of respective regions are stringently followed and enforced by their CSPs. An audit hence becomes indispensable.

Moreover, organizations need to know that there are ample safeguards implemented in the cloud against data loss arising from natural calamities and manmade disasters. Only a security audit of the cloud can reveal the vulnerabilities of the back up and disaster-recovery processes and suggest measures to improve their effectiveness.

Many of the audit documents and controls have been designed by a US based not-for-profit organization called the Cloud Security Alliance (CSA). The CSA works with a number of Governments and policy making bodies across the world on areas of cloud security and data protection.

SAMPLE QUESTIONNAIRE FOR CLOUD SECURITY AUDIT

A sample questionnaire, based on different aspects of cloud security, is given below for reference. Cloud security auditors would need to use a customized version of this questionnaire while conducting an audit.

For Access Management

1. What systems are being managed by the cloud service provider (CSP).
2. What is the scope of applications and services being provided.
3. What are the terms of use and service level agreements.
4. Which individuals have access to the cloud services.
5. Is single-factor or two-factor authentication implemented.
6. What level of access is granted, i.e. read-only access, read-write access, transaction access, approval access, and so on.
7. Are there access control policy and role-based access controls in place.
8. What are the password policies and management procedures.
9. What user logs are maintained and how long are they stored.
10. Where are such logs stored and what kind of access controls exist for user logs.

For Data Security and Protection

1. Is there a documented information security policy.
2. What security certifications does the vendor have and what security standards are implemented (such as NIST, ISO27001, PCI-DSS, STAR).
3. What types of software and hardware measures are implemented to detect and stop intrusions and how frequently are these tested.
4. How frequently is security software updated and what is the patching policy.

5. How is planned obsolescence of software and hardware infrastructure handled.
6. Are the systems also used by external users such as vendors and third parties.
7. Are multiple clients hosted in the same data centre and on the same network.
8. How is the organizational data segregated from the data of other clients.
9. Are intrusion and attack logs maintained and how are incidents investigated.
10. Is there an action-taken log that provides details of action taken after an incident or intrusion is detected.
11. How are data breaches handled and what is the client-notification plan in such events.

For Back up, Disaster Recovery (DR) and Business Continuity Plan (BCP)

1. Is there a set policy at the CSP end for backing up the data.
2. Does the CSP back up schedule sufficiently cater to the organization's back up requirements.
3. Is back up taken only for transactional data or are critical systems also backed up.
4. How frequently are data and systems backed up.
5. Are the back-ups tested for integrity on a regular basis.
6. What is the DR plan and if there is a DR policy/process document.
7. What locations are used as DR sites.
8. Are there software, hardware and network redundancies built-in at the CSP end.
9. Is there a BCP policy document charting out steps to carry out the business with minimal interruption in case of a disaster.
10. How frequently are mock tests and drills carried out to test integrity of DR and BCP processes.
11. What is the SLA for service availability at normal times and in case of BCP.
12. How many times have SLAs not been met during the audit period.

Network Security

1. How are networks and servers of different clients segregated to maintain confidentiality.
2. What encryption tools are used for transmitting data over public networks and are emails encrypted appropriately.
3. What methods are used to monitor and analyze network traffic.
4. What kinds of DMZs, firewalls, anti-malware and deep packet inspection technologies are implemented for network security.
5. What is the updation and patching policy for firewalls and other network security systems.
6. What kind of access management is implemented for network security.
7. Is the network accessed by external parties and third party suppliers.
8. Are cryptographic algorithms used for data storage and transfer.
9. Is auditing enabled for all network events and incidents and are audit logs archived.
10. Are secure configuration standards followed for network and server systems.
11. How often are penetration and vulnerability testing done and how are exceptions handled.

Data Privacy, Data Retention and Encryption

1. What data privacy and data loss prevention policies are followed.
2. What kinds of personally identifiable user data is tracked and retained.
3. What is the data removal and purging policy.
4. What data encryption and password hashing algorithms are used.
5. How long is data retained for active and inactive users.

CONCLUDING REMARKS

Cloud adoption among all types of businesses has increased exponentially over the last decade and this is bound to increase further. The last two years of the pandemic witnessed the growth of the work-from-home culture that was largely aided by this large scale adoption of public cloud infrastructure. The pandemic also led organizations to realize the importance of information technology in running their businesses. But with tighter budgets for investment in non-core assets like IT infrastructure the technology needs of the organizations could only be fulfilled by large scale cloud vendors. Moreover, growing use of modern technologies like big data, analytics and artificial intelligence is bound to further increase the market size of cloud. With such transformation of the cloud landscape it is essential for both the service provider and the customer to be sure of the security of business systems and data. Hence cloud security audit is going to play an even greater role in the overall growth of the cloud market. MA

References

1. *Management Information Systems, Loudon & Loudon, 14th ed.*
2. *https://en.wikipedia.org/wiki/Cloud_computing_security*
3. *https://cloudsecurityalliance.org/*
4. *https://www.techtarget.com/searchcloudcomputing/tip/What-should-be-on-your-cloud-audit-checklist*

INDIVISIBILITY OF INTERNAL AUDIT AND CORPORATE GOVERNANCE - AN INTRIGUING CASE STUDY OF LISTED INDIAN COMPANIES

CMA Avik Ghosh
PhD Scholar
Indian Institute of Technology
Kanpur
avikghosh20@iitk.ac.in

Abstract

This is a research case study on the development of corporate governance concerning some identified indicators which may have a strong bearing on the effect of a more robust internal audit mechanism. Through an analysis on listed Indian companies, it is evident that Internal Audit is instrumental in creating substantial value towards the efficacy of corporate governance by a more vital adoption of Audit Committee, followed by greater public disclosure and embracing a sinewy and a more decisive Board structure.

INTRODUCTION

Corporate Governance (CG), a widely used terminology in the modern-day world of the institutionalized and prescribed methodology-based management of the boards, is steadied on the pivots of accountability, fairness, transparency and integrity resulting in the organization's long-term stability. 'Like all fads, corporate governance has its zealots'- once said by eminent columnist Conrad Black has been corroborated by corporates very often. Although there are established ways and means to achieve a greater degree of CG, there are no fewer shreds of evidence of its perpetual failure eventuating substantial loss of public money and corporate reputation. Without deciphering the innate meaning of internal audit, we overtly acknowledge it to be the control mechanism an organization imposes on its operation hierarchy to have an oversight of its checks and balances and the continual performance of due diligence towards the prescribed ways to conduct those. "Internal audit provides assurance by assessing and reporting on the effectiveness of governance, risk management, and control processes designed to help the organization achieve strategic, operational, financial, and compliance objectives."[1] Internal auditing is conducted by specialists who have a thorough knowledge of the necessity of effective governance, a detailed grasp of corporate methodologies, a genuine desire to help their companies flourish and who work autonomously within the company. It plays an inseparable role in improving the quality of monitoring at the bottom level that substantially improves transparency and integrity at the apex level.

CROSS-COUNTRY RESEARCH EVIDENCES

Internal auditing involves investigating, assessing, and reporting internal supervision systems and laws. Internal auditors bring comfort to leadership about a firm's risk administration and institutional control measures' performance. While elaborating on the internal audit construct in Kenya, Ronalds LLP commented that the law does not require internal audit procedures. Nonetheless, it is an adequate corporate governance standard to set up a distinct internal audit division or merely delegate

[1] IIA POSITION PAPER: The Institute of Internal Auditors

this role if it is more suitable. Internal audit performance improves when the internal assessment division follows the prescribed internal auditing principles and auditors have professional certificates, according to research evidence (Vadasi et al., 2020). Analyzing 49 stocks from the Athens Stock Exchange, this study emphasized that internal audit's impact on CG is influenced by several variables unique to the organization, most notably the duality of the CEO role and the calibre of the Audit Committee. Studies have also concluded strong correlational contiguity between internal audit and CG in universities in Rivers State, Nigeria (Eke, 2018) by performing regression analysis with operational audit, financial audit, and compliance audit effectiveness as exogenous variables. After gathering data using a questionnaire-based technique and analysing it by performing regression analysis, it has been observed in Greece that CG is strongly linked to the advisory effectiveness of controls, internal audits' reliability and the supervisory audit Board (Drogalas, 2016). Chinese internal auditing structure is behind the curve when contrasted to other developed nations, resulting in organizations in China facing various challenges when attempting to replicate the best practices of CG comparable nations (Zou, 2019).

INTERNAL AUDIT FRAMEWORK IN INDIA

This voyage began in the 1950s when the internal auditor's primary duty was to address financial issues and it progressed with the incorporation of independent evaluation duties. The examination of possibly controllable operations evolved in the 1970s. In the 1980s, as a result of progress, the internal auditor's role grew to include the whole institution's objectives instead of only serving the leadership. Eventually, in the 2000s, the internal auditor's duty evolved to corporate governance to preserve all rules and regulations to benefit stakeholders. The applicability of internal audit and its formal prescription by the Indian legal system has multiple facets. Section 138 of the Companies Act, 2013 has explicitly mentioned internal auditor, its roles, fundamentals of appointment and disposal of duties in sync with the interest of the stakeholders. Rule 13 (1) of Companies (Accounts) Rules, 2014 restricted the entity-specific requirements of internal auditors. It has also been made clear that all listed entities must have an enumerated internal audit process in place. Rule 8 of The Companies (Meeting of the Board and its Power) Rules 2014 empowered the Board of Directors to appoint internal auditors by passing the related resolution. In view of these, the institutionalized arrangement of an internal audit mechanism bore fruit soon after the incorporation of stricter supervision and penal provisions. Subsequently, the result was evident amongst the listed companies on the Indian stock exchanges. This research case study is on the development of CG concerning some identified indicators which may have a strong bearing on the effect of a more robust internal audit mechanism.

EMPIRICAL EVIDENCES FROM INDIAN COMPANIES

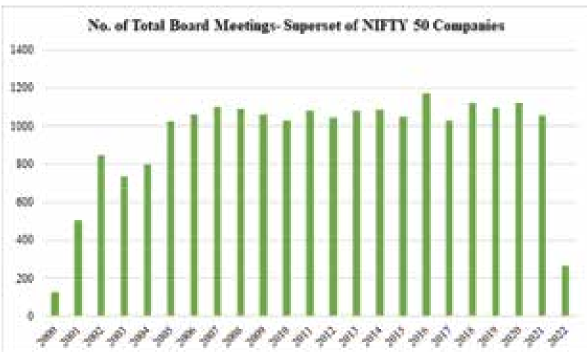
Multiple shreds of evidence of research work talked about the significance of internal audit and its implication in strengthening the CG mechanism. Most of those outcomes are qualitative and focused on case studies of CG failures in the context of depleted internal controls/Board supervisory ecosystem. This intriguing case study on listed Indian companies revolves around a multi-level data churning on listed Indian companies obtained from the CMIE Prowess IQ database. Outcome variables or target indicators have been identified broadly from the Board structure, Board involvement, relevance of various committees, and degree of financial disclosure. A superset of NIFTY 50 companies was strategically analysed to quantify the number of Board meetings within the past 20 years. A similar set of companies was considered for numerically ascertaining the number of directors in various committees. Related party transaction (RPT) has been considered a proxy variable to ascertain the degree of disclosure over time for the same group of companies.

FIGURE 1: NO. OF DIRECTORS IN VARIOUS COMMITTEES (SUPERSET OF NIFTY COMPANIES- 2001-2021)

The analysis of various committees persisted in the NIFTY 50 companies since 2001 unveils that there exist 445 different committees in these companies other than the Board of Directors. Figure 1 depicts ten such committees that were represented by the maximum number of directors over the past 20 years. It has been observed that 32685 directors have represented the Board of Directors of these entities, whereas 10106 have been a part of the Audit Committees of the companies. This not only emancipates the importance of the Audit Committee but also hints at the overwhelming increase in its relevance in the context of modern-day CG.

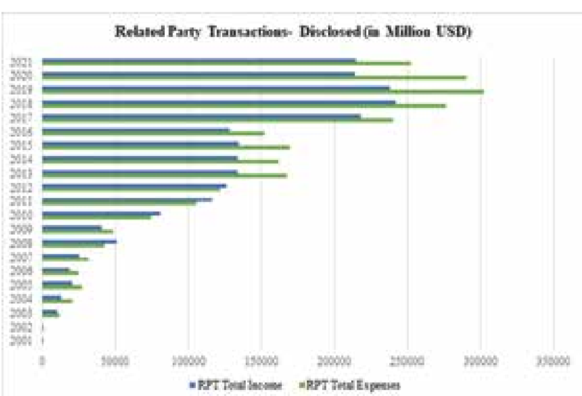
FIGURE 2: NO. OF TOTAL BOARD MEETINGS IN ALL LISTED COMPANIES (SINCE 1998)

Figure 3: No. of total board meetings (superset of NIFTY 50 Companies)



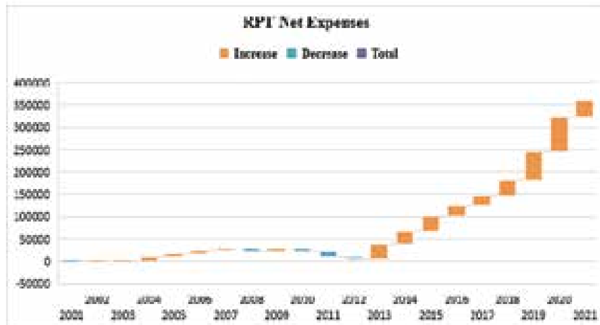
While the prevalence of the Audit Committee and its ever-increasing significance is ascertained, this study evidenced the increasing trend in adopting the CG culture through greater involvement of the Board in critical organizational policy making. Figure 2 and Figure 3 represent the number of Board meetings in all the listed companies and NIFTY 50 companies, respectively. Figure 2 clearly signals the greater adoption of Board meeting culture amongst the tier-II and below companies, with a two-fold increase between 2005 and 2020. Figure 3 gives an inkling of NIFTY 50 companies maintaining robust CG culture with a sustainable number of board meetings (a steady average of more than twenty meetings per company per year) conducted every year.

FIGURE 4: RELATED PARTY TRANSATIONS (SUPERSET OF NIFTY 50 COMPANIES IN MILLION USD, SINCE 2001)



This extant study considered related party transactions (RPT) as a proxy variable for the financial disclosure of sensitive information to the stakeholders. Figure 4 indicates the rise in disclosure of RPT. This emphasizes greater transparency to a reasonable extent, whereas the never-diminishing volume also transpires as a worrying signal of the probable violation of CG norms. Although the increased gap between RPT income and expenses (Figure 5) causes an increasing concern, the information is available to the investors only due to the more vigorous implementation of disclosure norms and robust CG mechanisms.

FIGURE 5: RPT NET EXPENSES (SUPERSET OF NIFTY 50 COMPANIES IN MILLION USD)



CONCLUSION

Internal audit is becoming more crucial in today's fast-paced business environment because of its impact on CG. Because of this, commerce between nations has become more complex. It is suitable for business but also increases the hazards (Zou, 2019). In order to compete and thrive, businesses must encounter increasing obstacles. Corporate governance structures must be standardized while at the same time increasing engagement in internal control supervision and establishing institutions such as stockholder meetings, Board meetings, strategic level meetings, and Boards of supervisors, among others. 'A vibrant and agile internal audit function can be an indispensable resource supporting sound corporate governance'[2]. This third layer of security provides the management with an overall perspective of the firm's control mechanisms and how effectively they are performing. Audits may serve as a stimulus for organizational transformation, development, and entrepreneurship by providing management with an expert perspective on practices. From this case study on listed Indian companies, it is evident that Internal Audit is instrumental in creating substantial value towards the efficacy of CG by a more vital adoption of Audit Committee, followed by greater public disclosure and embracing a sinewy and a more decisive Board structure. MA

References

1. *Alphyjuma. "The Role of Internal Audit in Corporate*

[2] IIA POSITION PAPER: The Institute of Internal Auditors

Governance. | Ronalds LLP." Ronalds LLP | Accounting Services Firm That Specializes in Audit, Tax and Financial Advisory Services, 3 Mar. 2021, ronalds.co.ke/internal-audit-for-corporate.

2. Drogalas, George, et al. "The Relationship between Corporate Governance, Internal Audit and Audit Committee: Empirical Evidence from Greece." Corporate Ownership and Control, vol. 14, no. 1, 2016, pp. 569–77. Crossref, https://doi.org/10.22495/cocv14i1c4art3.
3. Ganda Saputra, IrwanAdimas, and Achmad Yusuf. "The Role of Internal Audit in Corporate Governance and Contribution to Determine Audit Fees for External Audits." Journal of Finance and Accounting, vol. 7, no. 1, 2019, pp. 1–5. Crossref, https://doi.org/10.12691/jfa-7-1-1.
4. Gift O., Eke. "INTERNAL AUDIT AND CORPORATE GOVERNANCE EFFECTIVENESS IN UNIVERSITIES IN RIVERS STATE." European Journal of Accounting, Auditing and Finance Research, vol. 6, no. 4, 2018, pp. 35–58, www.eajournals.org/wp-content/uploads/Internal-Audit-and-Corporate-Governance-Effectiveness-in-Universities-in-Rivers-State.pdf.
5. "IIA Position Paper: The Institute of Internal Auditors." The Institute of Internal Auditors, 2018, www.theiia.org.
6. "ProwessIQ." CMIE ProwessIQ, 2022, prowessiq.cmie.com.
7. Vadasi, Christina, et al. "Corporate Governance and Internal Audit: An Institutional Theory Perspective." Corporate Governance: The International Journal of Business in Society, vol. 20, no. 1, 2019, pp. 175–90. Crossref, https://doi.org/10.1108/cg-07-2019-0215.
8. Zou, Jianjun. "On the Role of Internal Audit in Corporate Governance." American Journal of Industrial and Business Management, vol. 09, no. 01, 2019, pp. 63–71. Crossref, https://doi.org/10.4236/ajibm.2019.91005.

TRANSFORMATION OF INTERNAL AUDIT WITH THE GLOBAL TECHNOLOGY WAVE

Abstract

Information technology (IT) in internal audit (IA) contributes to the improvement of auditing profession and reduces many negative aspects and perceived dysfunctionalities which the IA profession historically underwent. Technology reduces expectation gaps by using algorithms, methods, mechanisms and techniques which aid in upscaling the standard of IA to a larger extent. Electronic data processing has aided IA to reduce the possibilities of errors and filter the deliverables with more and more accuracy, transparency and value creating propositions. The endeavor behind this article is to envelop the various aspects in driving IA with the help of technology for its advancement, modernization and hence, create a gravitas in marvelous and magnificent performance of IA as a central kinetic corporate engine.

Dr. Subhasish Roy Chowdhury
Adjunct Professor
Vivekanand Education Society Institute of Management Studies and Research
Mumbai
roychowdhurysubhasish@gmail.com

INTRODUCTION

Internal Audit (IA) is an independent mechanism of evaluating an organisation's internal risks, checks and control processes and assuring its sanctity and transparency of operations to various shareholders / stakeholders. IA checks the effectiveness of operating standards of an organisation vis-à-vis prevailing / evolving best practices in the industry. It also helps in unveiling inefficiencies and malpractices by stakeholders of the organisation and recommend corrective redressal measures. Today's IA landscape / horizon is much larger and expanded with more and more researches and knowledge searching / dissemination, happening globally.

OBJECTIVES OF THE STUDY

The fundamental objectives of the present study are to understand:

1. Technology averse internal audit
2. Changing role of IA with the advent of technology
3. Emerging risks and challenges while introducing technology in IA
4. Qualitative improvement in IA through technology
5. Transformation in IA landscape through drone technology
6. Enterprise risk management through technology (ERM)
7. Few technology-based IA software

1: Technology averse Internal Audit

IA has been averse to technology for long – is it a pervasive myth? IA has historically been slow paced in adopting tech in its capabilities vis-à-vis other business functions. Most of the auditors haven't used computer aided audit tools beyond MS-Excel spreadsheets. This had led to low / average skilled and incompetent auditors when it came to implementing tech in IA. This is another drawback of IA when it is already grappling to communicate worthwhile business value to the Board and hence, raise its bar of performance. Impoverished technological expertise, bandwidth and support to IA had led to opacity in risk identification thereby, making the organization more and more vulnerable to critical business risks.

2. Changing role of IA with the advent of technology

Audit tech enables to produce qualitative deliverables which makes the auditors confident and credible enough to communicate with the Board and partner in the organization to accomplish its objectives. Of late, technology has deeply influenced IA fraternity through Big data analytics, AI based software and other available useful technologies. With the advent of technology in various organizational domains, launching of newer products, advancement in supply chain management, increasing stress in human capital management, IA had also felt intense necessity of moving away from mundane transactional audits to a more magnified and key critical role playing in the organization by onboarding onto areas like business strategies, plans, disaster management, exception transaction reporting, value creation etc. Significant ingredient to such a leapfrogging migration of IA profile has been possible due to acceptance of technology.

3. Emerging risks and challenges while introducing technology in IA

AI, RPAs and Blockchain are changing the business landscape and IA as a significant function of an organisation is on its way for transforming its functional processes. IA should be adequately knowledge stuffed about latest changes in the business environment and sync it faster with the available technology by enhancing its capability or else there is a clear possibility of back logs in IA deliverables when the whole business will be moving ahead in full throttle. Moreover, it would be more appropriate to weigh and consider key risks while migrating IA processes into tech landscape. Therefore, weigh and decide upon continuing with few of the traditional legacy audit processes which gives much better

IA had also felt intense necessity of moving away from mundane transactional audits to a more magnified and key critical role playing in the organization

and cost effective results. Auditors should be well trained and skilled to handle technology effectively and derive best benefits out of it which largely doesn't seem to happen in IA function because of its high attrition rates. Technologies are not all the same in every business and hence, it takes time for an auditor to cope up with its paraphrenia. Auditors switch organizations much before they have a grip over the tech in their present organization. There also exists a risk of slow-paced familiarization with tech and making adjustments with staffing and audit planning which ideally should be overhauled and integrated thoroughly with business objectives and values – it's about coupling up digitization with business strategies and derive valuable results.

4: Qualitative improvement in IA through technology

Developing a well-knit risk-based IA programme has been much eased with the application of technology, helping auditors to access live data, slice and dice the data through analytical tools and draw intelligent inferences out of it. Technology has made it easier to create a centralized tracking mechanism of business processes, reviewing and dealing with exceptions / red flags as required. With the application of various audit software, erstwhile conventional paper work of auditors has been reduced thereby, enabling the auditors to avoid focusing on low hanging fruits and aim at high-risk areas aiding nutritious value to governance health of the organization. Traditional IA was largely based on transactional level verifications; however, a clear drift and shift in global IA practices was most warranted for a sea change embarkment into risk-based audit mechanism with perpetual and progressive maturity through global education and training. IA reporting is also expected to be crisper and more condensed with richly workable contents and recommendations. Implementation of audit recommendations should also be tracked through tech and digitally escalated up the corporate hierarchy whenever the due and agreed implementation is overlooked / ignored by the line function. Tech will free up traditional manual mind set working style which can be better diverted to a mindfulness focus on strategic value creating management assignments. This automation in turn will help in lowering the cost of audit for an organization.

5: Transformation in IA landscape through drone technology

In the midst of migration to technology, global IA fraternity has been intensely working towards introducing aerial drone technology i.e., 'Unmanned Aerial Vehicle (UAV)'. Verifying company assets, inventories, production processes, external supply chain (distribution) network has been an onerous task for auditors which can be drifted away from manual to drone technology thereby, saving precious man hours with simultaneous and enhanced precision in the workflow with more qualitative audit information. UAV can penetrate into the remotest geographical locations and record significant volume of audit information. Drones have great capacity of payload to carry cameras and sensors. UAV imaging software can conduct a photogrammetry and video content analysis through algorithmical scanning and generate worthwhile value creating audit information. This information can be blended with QR code readers, hand held bar scanners to optimize quality of informative deliverables. UAVs are much in demand while conducting 'SHE Audits' (Safety, Health and Environment).

6: Enterprise Risk management through technology (ERM)

ERM is a systematic and forward-looking analysis of the impact and likelihood of potential future events on the achievement of an organization's business objectives within a slated time horizon. ERM attempt to answer, what are the major risks that could stop the business from achieving its mission? Four precise business risks are financial risks, hazardous risks, operational risks and strategic risks. ERM workflow encompasses business objective / strategy fixing, associated risk identification and assessment, response to assessed risks by drawing a mitigation plan, communicating and monitoring implementation of the same. The Committee of Sponsoring Organisations of the Treadway Commission (COSO) established in mid-1980 embarked upon research about underlying causes of fraudulent reporting of financial information. COSO aims at improving organizational performance through thought leadership thereby enhancing internal controls, risk management, instilling governance thereby and deter frauds. COSO's ERM model of 1992 was pyramid shaped focusing on evaluating existing controls. This was rejigged and revamped in 2013 with the COSO cube as depicted below thereby focusing on the design and implementation of an all-inclusive and exhaustive risk management framework.

Large and mid-sized corporates are no more wanting to keep ERM at a paper level exercise as it doesn't provide the expected results and are mostly ignored / procrastinated inordinately at functional levels. Today, corporates have looped in technological application to automate the ERM landscape in the organization. This has provided more transparency in the entire ERM trajectory by clearly defining risk and its assessment procedure, affix standards of risk identification, fix responsibility and accountability with timelines of diverse activities on actionable at a functional level, measure deliverables vis-à-vis standards and address / escalate deviations / defaulters / roadblocks as found to be appropriate and necessary for the larger benefit of the organization's health.

7: Few technology-based IA software:

Today technology plays a decisive role in mitigating fraud probabilities as it helps in implementing real time technology driven checks and controls to a much larger extent. AI/ML technologies play a vital role in enabling and enhancing the quality of internal control processes as mentioned below:

a. ***Integrated Development Emulation and Analysis (IDEA):*** It's an AI based tool which uses Benford's law for gap detection wherein it delivers more than 100 audit functions aiding in identifying critical gaps which if left open may lead to disastrous theft. It has the capability of data tracking and instant conversion to analytics across multiple companies / geographical locations. GEC of USA used this tool to prevent overpayment to vendors by 100 per cent and also reduced operating cost by 80 per cent.
b. ***Tableau:*** It's a tool for big data analysis having very intelligent capabilities of detecting frauds and also provide intense / robust data security. J P Morgan Chase & Co. -USA and Lenovo used this tool for its core self-service data governance and security.
c. ***SAS:*** It's a statistical data analysis tool having capabilities of information system management and scientific marketing. It can be efficiently used in case of money laundering, customer due diligence, and fraud network analysis. It also has behavioral detection technology, transaction monitoring system, KYC management and control mechanism. HSBC Bank implemented SAS for fraud management and it helped in reducing credit card frauds.
d. ***SAP-HANA:*** High-performance analytic appliance - an in-memory, column-oriented, relational database management system developed and marketed by SAP. Its primary function while the software runs a database server, is to store and retrieve data as requested by the applications. Additionally , it has the capability of churning out advanced data analytics which are predictive in nature as well as aid in spatial data processing, text analytics including data extract, transform, load (ETL) capabilities.

CONCLUSION

Technology in IA should be carefully driven to reap benefits encapsulating finer advantages like process streamlining, enhancing audit strategy, reduce cost of IAs, efficient cyber security, time efficient IA, minimalize / zeroize errors / duplications / frauds, finer project management functionability, paperless IA activities, design tighter risk and control management framework and real time reporting mechanism. These benefits will enable in delivering scalable solutions to address changing needs of the organisation through boasting modern and intuitive experience by users and more interfacing as well as increased ability towards data visualization and analytics for drawing faster and sharper corporate inferences. MA

References:

1. *Protiviti, 2012 - Top Priorities for Internal Audit in Technology – Protiviti Risk and Business Consulting*
2. *KPMG, 2022 – Technology enables Internal Audit: 2022 and beyond – KPMG*
3. *Gideon Tayo Akinleye & Comfort Temidayo Olanipekun , 2019 , Effects of Information Technology (IT) on Internal Audit in Southwest Nigeria Universities , Journal of Economics and Behavioral Studies (ISSN: 2220-6140) Vol. 11, No. 1, pp. 22-26,*
4. *David L. Henderson, Joshua M. Davis & Michael S. Lapke , 2013 , The Effect of Internal Auditors' Information Technology Knowledge on Integrated Internal Audits , International Business Research; Vol.6, No. 4; 2013 (ISSN 1913-9004 E-ISSN 1913-9012)*
5. *Sridhar Ramamoorti & Marcia L. Weidenmier, 2004, The Pervasive Impact of Information Technology on Internal Auditing, The Institute of Internal Auditors Research Foundation*
6. *Omer Ali Kamil & Nashat Majeed Nashat, 2017, The Impact of Information Technology on the Auditing Profession-Analytical Study, International Review of Management and Business Research, Vol. 6 Issue.4*
7. *Tjores Maes B ICT and Huck Chuah RA RO, 2016, Technology-Enabled Internal Audit, Compact*
8. *THECAQ.ORG, 2019, Emerging Technologies, Risk and the Auditor's focus - A Resource For Auditors, Audit Committees and Management*
9. *Taiwo S.O , Ayandibu A.O , Taiwo M.B & Vezi-Magigaba M.F , 2019 Effect of Innovative Technology on Internal Audit Using Selected Municipalities in Nigeria as Case Study , JOURNAL OF GENDER, INFORMATION AND DEVELOPMENT IN AFRICA (JGIDA) ISBN: 2050-4276 (Print) ISSN: 2050-4284 (Online) Volume 8, Pp 43-62*
10. *Tarun Kher , 2022 How drone technologies can transform internal auditing processes, Express Computer*
11. *M. Krishna Moorthy, A. Seetharaman, Zulkifflee Mohamed, Meyyappan Gopalan, Lee Har San, 2011, The impact of information technology on internal auditing , Journal of Business Management Vol. 5(9), pp. 3523-3539*
12. *Marc Eulerich, Adi Masli , Jeffrey Pickerd , David A. Wood , 2020, The Impact of Audit Technology on Audit Outcomes: Technology-Based Audit Techniques' Impact on Internal Auditing , https://ssrn.com/abstract=3444119*

HEARTIEST CONGRATULATIONS

Fellow Member CMA Shripad Bedarkar has been elected unopposed as **President** of **Maharashtra Tax Practitioner's Association** (formerly known as The Western Maharashtra Tax Practitioner's Association) for the year 2022-23.

The Association is having 2000+ members from all over India especially from Maharashtra. Association is instrumental in various representations regarding tax matters to the top most government authorities and ministries, updating tax professionals by arranging workshops, seminars and national conferences. Association also publishes monthly journal "Tax Tribune, New & Views".

We wish all the best to CMA Shripad Bedarkar for future endeavor.

INTERNAL AUDIT UNDER SECTION 138 OF THE COMPANIES ACT, 2013: AN INCLUSIVE APPROACH TOWARDS ESG REPORTING

Abstract

Internal audit is a primary face of reporting. It ensures error-free books of accounts, the safety of assets, averting fraud and is an effort to minimise the overall audit risk. The occurrence of Enron, Satyam and DHFL debacles has necessitated the effectiveness of internal audit which is a sub-set of internal control measures. Until now, environmental and social reporting are not much significant reports in view of Companies Act, 2013. But, ESG (Environmental, Social and Governance) reporting is going to become an increasingly important analysis for investment process in future. This article focuses upon the analysis of an inclusive approach of ESG reporting in internal audit.

Dr. Ramroop K. Sharma
Assistant Professor
M.K. Amin Arts & Science and Commerce College,
Padra
ramroop.sharma-padra@msubaroda.ac.in

Dr. Rakesh Kumar S. Manjhi
Assistant Professor
The Maharaja Sayajirao University of Baroda
Vadodara
rakeshkumar.m-afm@msubaroda.ac.in

INTRODUCTION

Today, companies are facing a new business sustainability threat and challenges (Covid-19) in terms of increasing compliances and environmental degradation. Stakeholders are keen to comprehend corporate disclosure to ESG and performance on ESG risk as this affects all facets of business from manufacturing a product to sales, from hiring employees to project funding and from quality of product to customer satisfaction. Therefore, ESG reporting has to be integrated with the internal audit framework. Covid-19 pandemic has caused many business disruptions and uncertainties. It has thrown new challenges in terms of technological advancements, logistics and supply chain, healthcare infrastructure, valuing human resources and changing consumption patterns to name a few. In this context, the internal audit framework and practices must be compatible and sustainable with these emerging business dynamics. Moreover, SEBI has insisted on transparency and ESG disclosure through Business Responsibility and Sustainability Report (BRSR), and mandates this reporting for top 1000 companies from the financial year 2022-23.

OBJECTIVES

This article deals with the following objectives:

1. To understand the importance of ESG reporting by internal auditors in lieu of BRSR compliances and accomplishment of global standards.
2. To suggest possible modus operandi of ESG reporting in internal audit report.
3. To highlight some challenges and suggestions for uniform ESG disclosures in the context of internal auditor's report.

EMERGING REGULATORY LANDSCAPE OF ESG REPORTING AND FUTURE IMPLICATIONS

The recommendation of the National

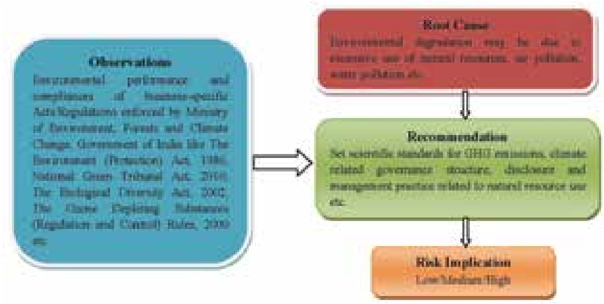
Voluntary Guidelines on Social, Environmental and Economic Responsibilities of Business in 2011 was the first step for ESG initiatives. In 2012, the SEBI adopted Business Responsibility Reporting (BRR) for the top 100 listed entities. The Companies Act, 2013 enacted provisions on corporate social responsibility (CSR). The World Bank Council for Sustainable Development mentioned that CSR is the ongoing promise by the business for development of the social community. Further, the Integrated Reporting Framework was introduced by the SEBI for the top 500 listed companies in India w.e.f. 6th February 2017. As per the United Nations Sustainable Development Goal, the core of the 2020-30 decade is expected to eliminate poverty, ensure women's empowerment by addressing the issue of climate change. India has committed to the adoption of the Paris Agreement on climate change. SEBI has implemented an ESG policy mechanism. Accordingly, it is mandatory for the top 1000 listed entities by market capitalization to comply with the BRSR w.e.f. 2022-23. Implementation of BRSR is advocated on nine principles stated in the National Guidelines on Responsible Business Conduct which mainly focus on business ethics, sustainable goods and services, protection of human and consumer rights, environmental protection, and fair labour practices. Firms need to have proper policies aligned with ESG factors approved by management of the company. The spirit of BRSR is to ensure that business remains socially responsible. The socially responsible investment provides a safeguard against rising business challenges, uncertainties and geo-political risk. Transparent and standardized sustainability reporting and disclosure practices are expected to enhance long-term value of investment. The tenets of internal audit should encompass ESG dimensions to adhere to emerging compliances. About 51 per cent of companies reported on ESG have obtained some level of assurance as a part of the internal audit practices (IIA & EY LLP, 2022). Increasingly, stakeholders are interested in long-term value based on ESG parameters and performance. There is a need to review internal audit framework to ensure that it remains an effective and sustainable tool of internal control for the successful implementation of ESG reporting. CSR, BRR and BRSR are part of the sustainability reporting and disclosure framework in the Indian context. The BRSR is a noteworthy step in this direction. Even, the Institute of Chartered Accountants of India (ICAI) has released exposure draft on 'Code of Conduct for Social Auditors' on 9th March 2022. Management or Boards should drive the entity's focus for practicing, reporting, and disclosing ESG as an integral part of business strategy to sustain the planet, people, and profits.

No business can survive in the long run without environmental support, healthy society and strong governance. Ignorance of all these three aspects of ESG would be a threat to sustainable development. Hence, it can be concluded that *environmental, social and governance elements may be directly correlated with the financial and economic value of an investment.*

ENVIRONMENTAL AUDIT BY INTERNAL AUDITOR

Environmental audit report is not mandatory for internal audit purpose. After implementation of BRSR it would find the place in internal audit reports. Managements must include environmental audit in the scope of internal audit. The base of sustainable development is environmental protection. The internal auditors have to carry out their environmental audit with responsibility. Their observation and recommendation can help management to take appropriate measures to have satisfactory environmental performance and effective compliances.

FIGURE 1: THE POSSIBLE MODUS OPERANDI OF ENVIRONMENTAL AUDIT BY INTERNAL AUDITOR

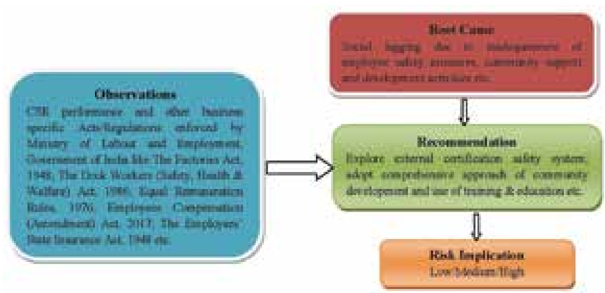


Source: Prepared by the authors

SOCIAL AUDIT BY INTERNAL AUDITOR

The entities in the corporate sector are required to define their objectives and creation process under social audit. Corporate social responsibility (CSR) is the important parameter to measure social performance of any company. However, there are many other regulations laid down by the Ministry of Labour and Employment, Government of India to uplift the societal values for the betterment of stakeholders. Education and training, health, safety of employees are some of the important dimensions which are expected to be improved through social audit. Internal auditor can't ignore the importance of social audit in upcoming years. Hence, the recommended social audit process could be as follows:

FIGURE 2: THE POSSIBLE MODUS OPERANDI OF SOCIAL AUDIT BY INTERNAL AUDITOR

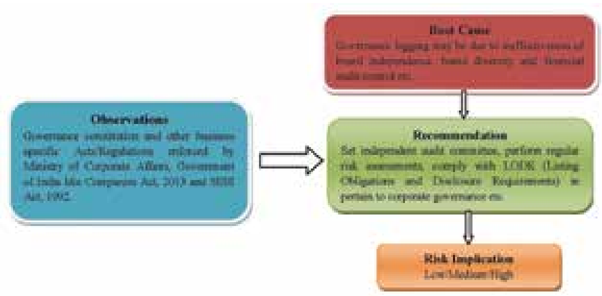


Source: Prepared by the authors

CORPORATE GOVERNANCE AUDIT BY INTERNAL AUDITOR

The term *corporate governance* has been introduced by SEBI but its importance had been realised after Satyam's scam in 2008. Later on, developments in corporate governance continued in the form of the Companies Act, 2013. The SEBI's LODR Regulations, 2015 further fortified the regulatory framework and enforcements. Generally, the company secretary is appointed for legal compliances. The role of an internal auditor is also defined regarding the governance of company's top management. The statutory auditors express their opinion on *going concern* of the business only after considering the reports of internal auditors. Companies (Auditor's Report) Order, 2020 can't be ignored by statutory auditors while finalising their opinion. Thus, governance audit plays a crucial role in the formulation of policy of good governance in the company. Therefore, the internal auditors must carry out this audit in sync with LODR Regulations to avoid any kind of complications.

FIGURE 3: THE POSSIBLE MODUS OPERANDI OF CORPORATE GOVERNANCE AUDIT BY INTERNAL AUDITOR



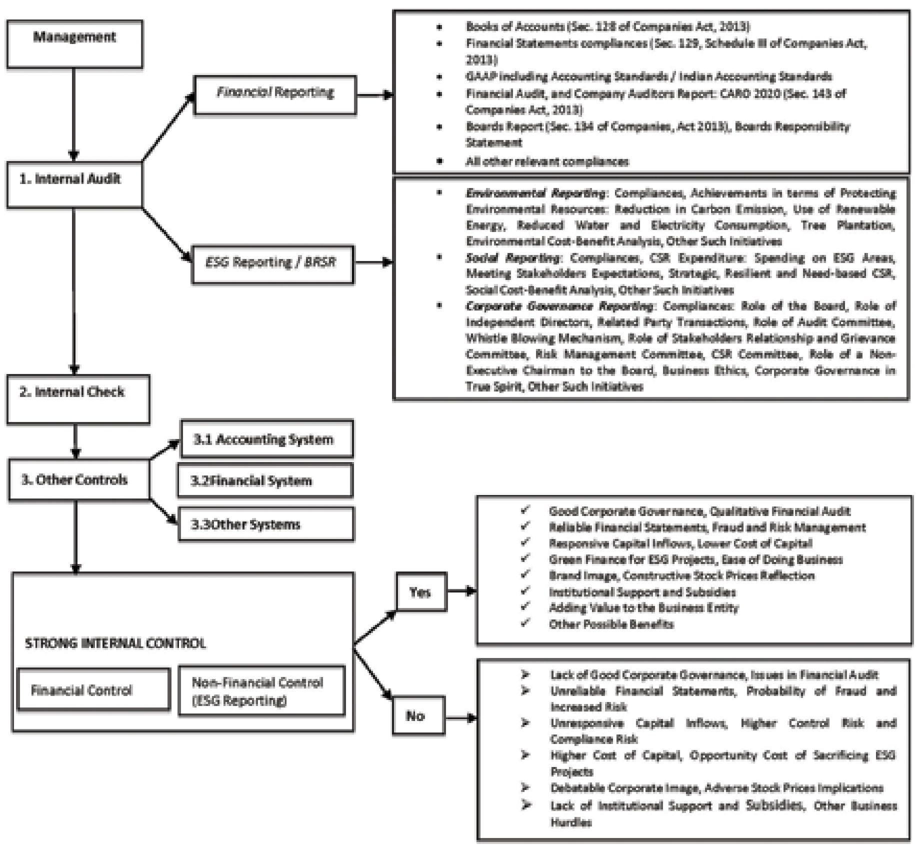
Source: Prepared by the authors

INCLUSION OF ESG IN INTERNAL AUDIT: A CONSOLIDATED FRAMEWORK

As per International Integrated Reporting Council, the internal auditor provides an independent assurance on reliable ESG disclosures for various decision-making, particularly for making an investment. Today, stakeholders have enough awareness about ESG practices. They consider ESG parameters for socially responsible investments and decision-making. Henceforth, the increasing role of the internal auditor is expected to ensure that the company fulfils the expectations of the society and regulators in terms of ESG policy as a part of organizational culture. Changing the role and increase in the responsibility of the internal auditor will require more resources, training and support in the form of men, machines and moral boosting to ensure that the function of internal audit remains useful, sustainable and practical in the national and international business contexts.

Internal audit from an ESG perspective will enhance the scope for accounting and audit professionals. Entities whose management is ethical and supportive to the internal auditor, will achieve success and remain guiding-force and exemplary for others to emulate. Convincingly, the internal auditor is going to play a key role in ESG reporting in days to come.

FIGURE 4: INTERNAL AUDIT FRAMEWORK - INTEGRATION OF ESG COMPONENTS



Source: Prepared by the authors

ISSUES AND CHALLENGES

The biggest challenge for the internal auditor is in the matter of doing environmental and social audit without any standard parameter. BRSR has set some standards but they are not exhaustive. Another issue is independency of internal auditor as management overrides internal auditor in the company. It has been observed that internal auditors are confined to the scope decided by management and its convenient decisions. As rotation of internal auditor is not mandatory, infusion of new ideas from time to time is lacking. Hence, the internal auditor must be competent enough to carry out the required environmental, social and governance audit in an effective manner.

POSSIBLE SOLUTIONS / SUGGESTIONS

- *Independence from management*: It's better, if an internal auditor is an outsider. Ethics and integrity are required to perform internal audit effectively and efficiently. When an internal auditor is an employee, the management decides the scope of the audit engagement. Despite being an internal employee, he must not succumb to management pressures for any wrongdoings. Internal audit must not be a tick-box exercise. Internal auditors' independent approach and professionalism will aid in risk management and might avert fraud.
- *Monitoring the internal auditor*: The Audit Committee may monitor from time to time the work done by the internal auditor. The Audit Committee can be a linkage between the management and the internal auditor to support the latter for true independence.
- *Rotation of internal auditor:* An internal auditor who is usually an employee of the company develops an affinity with the management over a period of time. This inter-relationship between auditors and management might impair the auditors' independence. Mandatory rotation of internal auditors will lead to improved independence. Rotation intends to create equal work opportunities for accounting and auditing professionals apart from transparency and effectiveness in internal audit work.

> **The biggest challenge for the internal auditor is in the matter of doing environmental and social audit without any standard parameter**

- *Regular training*: In the initial phase of the non-financial reporting framework, understanding ESG information, its accounting and reporting framework are quite complex. Through training, the internal auditor can easily comprehend this reporting framework, other systems and procedures. As various business operations are distinct and dynamic, the need-based timely training and updating of knowledge can prove resourceful for the internal auditor to successfully execute the audit function.
- *Increased competence and professionalism*: Dynamic business environment with constant changes, challenges and issues has indicated a growing need for professionals. Professional accountants (Chartered Accountants or Cost Accountants) can better meet these challenges and play the critical role of an internal auditor. Hence, it is recommended to mandate the practicing professional accountant as an essential qualification for the appointment of the internal auditor, at least for those companies wherein internal audit is mandatory. Later, it is to be implemented in a phased manner for other classes of companies. This enforcement results in widening the scope for professional accountants to better understand external auditors and to work in sync for enhanced and adequate disclosures of financial and non-financial reporting frameworks in the interest of stakeholders.

CONCLUSION

The current provisions and framework on internal audit require a rethink and revamp to encompass the scope of ESG reporting parameters in addition to the financial reporting framework. Possibly, a separate social audit can also be conducted. Decision making based on an impact assessment of ESG components has gained momentum as stakeholders' factor ESG as a part of the business strategy for their responsible investments. Therefore, an inclusive approach for an impact assessment of ESG reporting practices becomes an integral part of the internal audit framework. In the realm of the increasing importance of non-financial reporting frameworks, the world has now become more aware than ever before of realising the true importance of protecting the environment, making social contribution and providing good governance. Sustainability driven corporate reporting framework can contribute to inclusive growth and development thereby, protecting people, the planet and assuring profit. In this context, the role of the internal auditor has some key issues and challenges as well as opportunities or solutions as discussed. MA

References

1. *IIA & EY LLP. (2022, March 3)."Prioritizing ESG: Exploring Internal Audit's Role as a Critical Collaborator". https://internal audit360.com/only-half-of-companies-with-esg-disclosures-receive-internal-audit-function-assurance/*
2. *https://www.sebi.gov.in/sebi_data/commondocs/may-2021/Business%20responsibility%20and%20sustainability%20reporting%20by%20listed%20entitiesAnnexure1_p.PDF*
3. *https://www.mca.gov.in/Ministry/pdf/CompaniesAct2013.pdf*
4. *https://www.mca.gov.in/Ministry/pdf/Orders_25022020.pdf*
5. *https://www.icai.org/post/exposure-drafts-issued-by-sustainability-reporting-standards-board*

EMERGING TRENDS AND INNOVATION IN INTERNAL AUDIT PRACTICES: AN INDIAN PERSPECTIVE

Abstract

A sound audit practice is the backbone of any corporate governance system and supports in making high-quality audit report which throws light on the true and fair view of accounts maintained by the companies. High-quality audit reports enhance the confidence in the minds of various stakeholders and their value as well. Internal audit practices followed by the company are most essential in preventing financial frauds and manipulation of books of accounts and help in assuring a true and fair view of financial statements. This article outlines the emerging trends in internal audit practices and various innovations therein.

Dr. Abhishek N
Assistant Professor
NIE First Grade College
Mysore
abhishekalmighty93@gmail.com

Prof. M S Divyashree
Assistant Professor
Post Graduate Centre, GFGC, Uppinangady
Mangalore
divyakala.ms93@gmail.com

INTRODUCTION

A sound audit practice is the backbone of any corporate governance system (Cadbury, 1992). A sound corporate governance system of companies supports in production of high-quality audit reports which throw light on the true and fair view of accounts maintained by the companies (Lin &Liu, 2009). High-quality audit reports enhance the confidence in the minds of various stakeholders and their value as well. Internal audit practices followed by the company is most essential in preventing financial frauds and manipulation of books of accounts and help in assuring a true and fair view of financial statements. The internal audit function is one of the four pillars of corporate governance such as internal audit, top management, Board composition and external auditors. In an internal audit, the auditor plays the role of internal supervisor of the efficacy of the overall corporate governance system (Institute of Internal Auditors, 2011). Internal audit practices highly influence the quality of the final audit report and the company's internal control system at large. The design of internal audit practice is influenced by various factors enumerated hereunder.

The internal audit function is one of the four pillars of corporate governance such as internal audit, top management, Board composition and external auditors

FIG. 01: FACTORS INFLUENCING INTERNAL AUDIT PRACTICES

Source: adapted from (Dzikrullah et al., 2020)

Internal Audit and External Audit Fees

Through internal audit practices, transparency in the company's operations can be achieved and risk arising from agency problems can be reduced. This ultimately influences the overall audit fees to be incurred by the company on account of external audits.

Internal Audit and Audit Report Quality

High quality and sound internal audit practices significantly enhance the overall efficiency of an internal control system and this in turn, enhances the quality of corporate governance. High-quality corporate governance reduces the illegal and unscientific management practices and enhances the overall audit quality. It can be said that the internal audit practices favourably influence producing high-quality audit reports which are capable of showing a true and fair view of the financial affairs of the companies.

Internal Audit and External Audit Choice

High-quality internal audit practice shows the direction for selecting high-quality external auditors. External audit done by high-quality external auditors enhances the quality of the audit which in turn enhances the confidence among various stakeholders and attracts investors to the company because high-quality auditors assure true state of affairs reflected in the companies' books of accounts.

Internal Audit and Final Audit Opinion

High-quality internal audit practice avoids manipulations in earnings and enhances the quality of the overall corporate governance system and it indirectly impacts on avoiding modified opinions to be received from external auditors on the true and fair view of the company's affairs.

To further enhance the soundness of internal audit practices it is necessary to adopt emerging trends and innovations such as the application of robotic technology, XBRL based reporting and international standards on internal auditing to enhance the overall efficacy of internal audit practices. This discussion outlines the emerging trends in internal audit practices and various innovations in internal audit practices. The objective of the study is to enquire about the emerging aspects of internal audit practices which are less known to academicians, researchers and professionals. Therefore, the present study follows the conceptual and descriptive type of research design.

LITERATURE REVIEW AND RESEARCH GAP

Total quality management is one of the ways to improve the internal audit mechanism (Hawkes & Adams, 1994). Assurance through an internal audit can be achieved by following well established professional standards during an internal audit. Internal audit is only responsible to evaluate the entity's operations to cater to the needs of the management (Venter & Bruyn, 2002). Due to the change in the need of business environment, the role of the internal auditor will also change at a rapid pace and for that an organization must be capable of developing its staff in the internal audit team (Gupta& Ray, 1992; Rezaee & Lander, 1991). Roles and functions to be performed by both internal and external auditors should be determined based on the principles of agency theory. Further, the agency theory-based internal audit function performed by the auditor impacts the organizational change at large (Adams, 1994). The independence of the internal audit function ensures the quality of the outcome of the audit (Christopher et al., 2009). The internal audit function and Audit Committee and their joint review of the internal control system improves the internal audit in continuous audit control and monitoring aspects (Jung and Cho, 2022).

From the earlier research on internal audit practices, it is found that majority of the research was carried out on the traditional aspects of internal audit and only a few works are focused on emerging trends in internal audit but they are not throwing light to carry advanced research on internal audit. Therefore, the present study is intended to carry out the conceptual review of emerging trends in internal audit practices and their implication on the overall audit outcome of the organization.

OBJECTIVE

Based on the literature analysis the objective of the present study is to examine the emerging trends in internal audit practices.

METHODOLOGY

Innovation in internal audit practices and research on the same is still in the infancy stage and hence this study is of conceptual and descriptive nature. Information is gathered purely from secondary sources such as published reports of various professional bodies, research articles, news articles, magazines etc.,

DISCUSSION

This part of the study critically evaluates various emerging trends in internal audit practices. This discussion would help academicians, professionals and business people to understand various burning aspects involved in the area of internal audit today.

Emerging Trends in Internal Audit Practices

In this part of the discussion, an attempt has been made to explore the various emerging trends and innovations in internal audit practices.

Application of Robotic, Cognitive Intelligence and Expert Systems

The application of robotic, cognitive intelligence and expert system based technologies enhances the efficiency, capacity, quality and area coverage by the internal audit system of the company. Many firms apply these technologies during the internal audit process and enjoy their benefits. But before the application of these technologies, developing of operating model, building infrastructure, analyzing the capabilities and competencies of the existing internal audit team to work with these technologies and working and experiencing pilot projects are of prime importance.

Internal audit areas where robotic, cognitive intelligence and expert systems can be applied are the following:

- To keep track of the annual audit plan.
- Monitoring key performance indicators of internal audit.
- Generation of automated reports.

⊙ *Application of Automated Assurance Software*

Nowadays companies are facing a big challenge in getting assurance on a larger population of transactions which are to be tested and controlled to have a continuous audit. This automated assurance helps in easy compliance with various regulatory requirements. For instance, In India, there are many legislations to control and regulate the corporate affairs in various contexts such as:

- Companies Act, 2013 lays down the law for the administration, management and regulation of companies' affairs.
- Income Tax Act, 1961 provides for taxing income.
- GST Acts, 2017 lays down the regulations for taxing goods and services
- Customs Act, 1962 lays down the regulations for taxing imports and exports and so on.

For all these regulatory legislations there is a need for preparing and filing separate compliance reports. Preparing these reports manually requires more time, skill and physical effort. But the application of automated assurance software such as XBRL (Extensible Business Reporting Language) helps the firms to generate automated, assured compliance reports which eliminate the validation and clerical errors. For example, XBRL is designed with pre-filled regulatory guidelines and rules and the same automatically validates reported information during the internal audit process. In a nutshell, by application of automated assurance software, secretarial and compliance audits during an internal audit can be eliminated.

⊙ *Application of Technology-Enabled Risk Sensing, Analytics and Visualization Tools for Continuous Risk Assessment.*

A major lacunae of the traditional internal audit process is the limited value in assessing audit risk which may occur in today's vulnerable environment. Here, audit risk is the risk that financial statements are materially incorrect, even though the audit opinion states that there are no material misstatements. For continuous assessing, tracking and monitoring risk there is a need for the application of technology-enabled risk sensing, analytics and visualization tools. These tools help the internal audit in the effective utilization of resources in sequential audit plans and programs. This makes the internal audit practice more competitive in the continuous assessment of risk in advance and advising management to deal with such anticipated risk in an early manner. For example, the ERM software helps to deal with audit risk assessment and monitoring.

⊙ *Implementing Technology Enabled Internal Audit*

Nowadays technology is gaining more importance than ever before. In all the corner points of business functions application of technology is playing a vital role. Likewise, in the internal audit process also technology can be deployed. The technology may be robotic automation process or cloud technologies or artificial intelligence or cyber strategies etc. By the implementation of technology-enabled internal audit, a higher level of efficiency in corporate governance can be achieved. But it requires expert professionals to be employed in the internal audit team. At present there is a shortage of professionals who work with technology-enabled internal audits. Furthermore, risk management in internal audits manually is a difficult aspect. Therefore, a technology-enabled internal audit is more advisable to manage the audit risk. Management of audit risk is a matter of credibility and stakeholders' trust. Credibility and trust can be gained more efficiently with the help of the implementation of a technology-enabled internal audit. But it requires a lot of resources, skill, knowledge and ability of the firm itself. Furthermore, to implement technology-enabled internal audits the firm must be able to cope up with evolving information technology risks.

⊙ *Internal audit should enhance the ESG assurance*

In the present era, organizations are investing more in technology to improve internal audit mechanisms and at the same time, it is also necessary to focus more on ESG (environmental, social and governance) assurance during an internal audit. For this, there are certain international guidelines such as GRI (Global Reporting Initiative), IIRC (International Integrated Reporting Council) guidelines, and India's BRSR (Business Responsibility and Sustainability Reporting) guidelines issued by SEBI. By using these guidelines firms can ensure the assurance of ESG aspects at global standards. Addressing ESG assurance during an internal audit is the key aspect of the day. Further, nowadays risk levels of ESG and non-financial (compliance aspects) are increasing day by day. To deal with this issue it is necessary to have revised audit plans.

⊙ *Cyber Security Issue in Internal Audit*

Internet-based technology in internal audits in the present era is the most important development. The application of internet-based technology in internal audit requires separate audit plan which should ensure cyber security in the entire technology-enabled internal audit environment. A firm need to employ tools and measures to address the specific cyber security issue. Cyber security issues may relate to data protection, identity and access management, cloud security and so on.

⊙ *Application of Agile Internal Audit Methods*

The application of the agile internal audit method is important to overcome the various problems faced by traditional internal audit methods. The agile audit method helps to reduce the costs and time and improves the quality of the overall outcome of an internal audit. This method produces results which are more aligned with business risks and caters to stakeholder needs. Agile internal audit reveals predictable hurdles and ensures overall efficiency of the internal audit mechanism.

CONCLUSION

Overall audit outcome shows the true and fair view of financial affairs of the organization, promptness of the management and quality of internal control mechanism. High-quality internal audit indirectly influences building credibility and confidence in the minds of the stakeholders and investors at large. Today there is a need for inducing various new concepts in the internal audit environment of the organization to reap its full benefit. That is possible only with the help of the application of a technology-enabled internal audit system. Furthermore, by the application of new methods, a company can benefit in various ways such as easy generation of compliance reports to various regulatory authorities, audit risk detection, assurance on ESG aspects and so on.

FUTURE RESEARCH

The present study is only conceptual and not focused on empirical aspects covering emerging innovations and trends in internal audit. Hence future research can be undertaken to empirically evaluate the effectiveness of the application of technology-enabled internal audit mechanisms by considering the perception of various stakeholders. MA

References

1. *Adams, M. B. (1994). Agency theory and the internal audit. Managerial auditing journal.*
2. *Cadbury, A. (1992). Report of the committee on the financial aspects of corporate governance (Vol. 1). Gee.*
3. *Christopher, J., Sarens, G., & Leung, P. (2009). A critical analysis of the independence of the internal audit function: evidence from Australia. Accounting, Auditing & Accountability Journal.*
4. *Dzikrullah, A. D., Harymawan, I., & Ratri, M. C. (2020). Internal audit functions and audit outcomes: Evidence from Indonesia. Cogent Business & Management, 7(1), 1750331.*
5. *Gupta, P. P., & Ray, M. R. (1992). The changing roles of the internal auditor. Managerial Auditing Journal.*
6. *Hawkes, L. C., & Adams, M. B. (1994). Total quality management: Implications for internal audit. Managerial Auditing Journal.*
7. *Institute of Internal Auditors. (2011). International standards for the professional practice of internal auditing. Institute of Internal Auditors South Africa.*
8. *Jung, Y., & Cho, M. K. (2022). Impacts of reporting lines and joint reviews on internal audit effectiveness. Managerial Auditing Journal.*
9. *Lin, Z. J., Liu, M., & Wang, Z. (2009). Market implications of the audit quality and auditor switches: Evidence from China. Journal of International Financial Management & Accounting, 20(1), 35-78.*
10. *Rezaee, Z., & Lander, G. H. (1991). The Internal Auditor–Education and Training: The Partnership Concept. Managerial Auditing Journal.*
11. *Venter, J. M. P., & Du Bruyn, R. (2002). Reviewing the internal auditing function es and procedures. Meditari: Research Journal of the School of Accounting Sciences, 10(1), 227-241.*

INTEGRITY AND ETHICS IN INDIAN CORPORATE GOVERNANCE: ROLE OF THE INTERNAL AUDITOR

Abstract

This article examines the Indian corporate governance and how it conforms with several laws. It discusses the relationship between corporate governance and the internal auditor, as well as the role of the internal auditor and aims to contribute to the consequences of corporate frauds in India, arguing that the internal auditor plays an important role in fraud prevention.

Dr. Arindam Metia
Assistant Professor
Dept of MBA
Raiganj University
Raiganj
arindam.metia@gmail.com

INTRODUCTION

Governance relates to a company's leadership and strategy for achieving its goals. The process of monitoring and supervising management decisions is known as governance. It safeguards the company from corporate scandals, fraud, and civil and criminal responsibility and improves investor confidence. Competence, responsibility, accountability, and transparency are all characteristics of ethical leadership. To promote accountability, transparency, and responsibility, corporate governance principles define the relationship between Board members, executives, and shareholders. Corporate governance is the "rule of game" that governs how firms are run internally and regulated by Boards in order to preserve shareholders' interests and financial stakes.

Poor corporate governance can raise questions about a company's ability to function and eventually make profits. Good corporate governance aids in the development of trust among stakeholders and, on a broader scale, the community at large. The principle of corporate governance at this time should be the long-term development of all "stakeholders." It must ensure that any funds raised from investors, the general public, and banks are properly operationalized and that the community has access to the required products and services .Corporate governance is now a global issue, with several global multilateral bodies concerned with it, including the Organization for Economic Cooperation and Development (OECD), the International Financial Corporation (IFC), the World Economic Forum, the World Bank and the Basel Committee on Banking Supervision.

CORPORATE GOVERNANCE AND CORPORATE FRAUD

According to an old French proverb, "There is no pillow so soft as a clear conscience," implying that some people's consciences prevent them from sleeping. Corporate governance acts as the conscience of an organisation. Investors are concerned about good governance. Within the Board of Directors, the CEO and CFO have the additional responsibility of safeguarding corporate governance. Internal control must play a key role here, and internal auditors' job is to assess all internal control systems in the organisation to see how ethically the operations and executions are carried out. Fair and ethical behaviour, both individually and institutionally, is the foundation of good governance. An internal audit is broadly defined as a risk management function independently carried out to assist the management of an organisation (ICAI, 2015). An internal audit serves three purposes: detection, protection, and prevention (Ojha, 2012). An internal audit helps the management by making suggestions and recommendations about all elements of the business, such as analysing risks, evaluating control, improving operations, and making sure that all laws and regulations are followed.

Many major corporate scandals, including Barings Bank in the United Kingdom (1995), Enron in the United States (2001), Xerox in the United States (2002) and Lehman Brothers in the United States (2002), devastated investor money and employment. Following these incidents, accountants' and auditors' responsibilities have become major concerns, bringing up the issue of corporate governance. India has its own long list of corporate scandals, many of which include accounting fraud. Harshad Mehta (1992), Satyam Computers (2009), Reebok India (2012), Kingfisher (2013), DHFL (2019), and others are examples of corporate scandals in India. All these frauds are due to ignorance of transparency, accountability and human dignity. Frauds of any size erode social value and weaken business ethics. Justice, equal opportunity and right are critical components of governance and the overall responsibility of the business is to ensure long-term benefit to stakeholders (Boatright et al,2018)

Fraud has a negative impact on stakeholders, the economy and the organisation. Corporate fraud will most likely to result in a drop in share value, a loss of net worth, a loss of goodwill and a loss of customers owing to a negative public image, all of which will lead to a drop in sales. At the same time, it will have an impact on project costs, employment, and tax burdens for citizens.

3. CONTEMPORARY ROLE OF INTERNAL AUDITOR

Internal audit helps the Board of Directors and/or the Audit Committee to carry out their governance responsibilities (KPMG, 2003). The contemporary roles for carrying out their responsibilities are as follows:

Assessing the scope and effectiveness of the systems: Continuous risk monitoring can assist a company in anticipating risk and effectively responding to future events. As per section 134 of the Companies Act 2013, the Board of Directors' report must include a statement indicating the development and implementation of a risk management policy for the company, including the identification of elements of risk, if any that, in the opinion of the Board, may threaten the existence of the company. Enterprise risk management helps with brand protection and assists in achieving the organization's goal. Proper information at the right time for a decision leads to improve shareholder confidence and trust. The risk management process and the outcome of risk assessments should be made public.

Compliance with laws, regulations, supervisory requirements and relevant internal policies: Internal auditors should be capable of acting as an "eye of forensic" by applying their knowledge to anti-fraud controls. Compliance is built on four pillars and they are as follows:

a. ***Policies & Procedures:*** Policies and procedures are important in the prevention of corporate fraud. Internal corporate rules, code of ethics, delegation of authority, POSH (Prevention of Sexual Harassment), functional operating procedures and internal company notifications and circulars should be thoroughly examined. This entry-level functional and operating procedure will get rid of bad corporate governance and flaws that are seen as "opportunities" for corporate fraud.

b. ***Statutory & Regulatory:*** The auditor must examine the legal compliance framework. Statutory and regulatory laws, as well as a person's responsibility to follow them, must be operational and documented in the organisation. The corporate and commercial laws (Companies Act, 2013, SEBI), financial laws (GST, Direct Tax), labour laws (Minimum Wages Act, E-Waste management standards, etc.) are the various legislations and regulatory policies that put pressure to control corporate frauds.

c. ***Financial Reporting:*** In today's global business climate, regulatory compliance is becoming more important and businesses must achieve compliance while focusing on core business concerns. Internal control over financial reporting (such as clause 49 of the Listing Agreement), Indian Accounting Standards, GAAP, and IFRS are all examples of financial reporting. Internal auditors should look at these financial regulations to identify which ones apply to their company and what they cover. If entry level control is strong in a company, the operational level control can be kept to a minimum.

d. ***Contractual terms:*** With so many organisations now operating abroad, contractual compliance is crucial. Are internal auditors checking contractual compliance on a regular basis? Internal auditors should consider it from the perspective of good corporate governance. Most in-house functions were outsourced during the pandemic as the world shifts to outsourcing. Outsourcing requires some level of control.

The COSCO framework (Committee of Sponsoring

Organizations) divides internal control into three sections: operations, reporting, and compliance to enable effective corporate governance by reducing fraud in the global marketplace.

According to Karolyi (2006), one of the factors that can inspire a company to cross list its shares is good corporate governance.

Appropriate controls for monitoring compliance: Every business, large or small, must have a risk management policy. Competition, product price, varied regulations, and cyber security are all aspects of risk management. According to section 143(3) (i) of the Companies Act of 2013, in the audit report, a business's auditor must state whether the company has an adequate internal financial control (IFC) system and the effectiveness of such controls. If something is at risk of going wrong, the internal auditor should be very active. In order to regulate any type of improper act or breach of the code of conduct, the information provided by a whistleblower to an internal auditor would have to be completely independent. Fraud risk management should be documented in organisations that offer multiple products and services in multiple nations. With simultaneous adoption of a cultural audit, the internal auditor's task would be significantly more effective. Most countries have had financial difficulties as a result of the pandemic and some form of preparedness should be adopted before the next pandemic strikes. It might be possible to overcome the current crisis with the help of a good risk management system. The auditor must investigate the organization's succession strategy and MIS. Internal auditors are required to fulfil both detective and preventive roles, with the latter being the more important.

CHALLENGES AND FUTURE DEVELOPMENTS

Internal auditors need to be accountable. They should promote transparency and responsibility for equitable justice, and also recognise the importance of empathy and trust-building. After all, businesses arise from the womb of society and driven by human needs. Therefore, they must contribute to the well-being of communities and humankind as a whole. The internal auditor's job is to not only ensure that regulations are followed, but also to protect every single shareholder and the company's reputation for trust and transparency. There is also a need for activist Board members who have a responsibility to both the firm and the community and who should be treated as custodians of each shareholder. In the eco system, the business and the community coexist. Every company should be involved in wealth creation, not in the sense of making money, but in the spirit of improving society or community. Poor corporate governance is on account of lack of Board independence, non-regulatory compliance, poor credit risk management and internal audit errors.

Because of the growing popularity of digitization, more businesses are turning to e-commerce platforms, which have led to an increase in cybercrime. Internal auditors must use a highly technical approach to ensure risk management readiness within a strong corporate framework. To achieve continual measurement and improvement of mitigation plans, collaboration between the cyber risk governance group and the internal auditor is required.

CONCLUSIONS

Corporate governance themes such as ESG, business culture and convergence of sustainability reporting requirements, which were anticipated by Harvard Law School in 2020, are still present in 2022 as worldwide corporate governance trends. The emerging trends in corporate governance in 2022 are human capital concerns and data privacy regulations, owing to the growing degree of reliance on technology. Business resiliency, human capital, code of conduct supervision, and corporate social voice are some of the new important components of corporate governance highlighted by FORBES (2022). According to a survey (Audit 2025, KPMG), the top three skills clients look for in an auditor are technology, communication, and critical thinking, followed by investigative financial skills. Internal auditors with critical thinking and digital communication abilities should be well aware of this evolving technology. Regulatory environments, finances, and litigation may limit the progress in improving corporate governance images, but internal auditors will succeed in the process by evolving and adopting an inventive mind-set. The function of internal audit and internal auditor expectations are constantly changing as a result of these circumstances. The internal auditor's role in risk assessment, identifying flaws or gaps in processes, and reporting findings and recommendations The internal auditor and the audit committee can work together to achieve organisational economic efficiency. A combination of regulatory and self-governing measures can promote good corporate governance; prudential self-governance is the greatest prescription for excellent corporate governance. For excellent corporate governance, a positive organisational culture rooted in the principles of ethics and integrity is necessary. MA

Business resiliency, human capital, code of conduct supervision, and corporate social voice are some of the new important components of corporate governance

References:

1. *Audit 2025: The Future is Now ,KPMGhttps://assets.kpmg/content/dam/kpmg/us/pdf/2017/03/us-audit-2025-final-report.pdf*
2. *Boatright, J. R. (2018). Ethics and the Conduct of Business, 6/e. Pearson Education India. Page -442-443*
3. *ICAI Release revised guidance on Internal Financial Control Over Financial Reporting,https://assets.kpmg/content/dam/kpmg/pdf/2015/09/ICAI-releases-revised-guidance-on-Internal-Financial-Controls-Over-Financial-Reporting.pdf*
4. *Karolyi, G. A. (2006). The world of cross-listings and cross-listings of the world: Challenging conventional wisdom. Review of Finance, 10(1), 99-152.*
5. *Ojha.N. (2012)The changing role of internal audit, https://www2.deloitte.com/content/dam/Deloitte/in/Documents/audit/in-audit-internal-audit-brochure-noexp.pdf*

MEASURING INTERNAL AUDIT FUNCTION VIA BALANCED SCORECARD

Payal Sharma
Assistant Professor
St. Xavier's College (Autonomous)
Kolkata
payal@sxccal.edu

Abstract

Internal audit is considered to be a critical factor in the performance of any firm besides itself being affected by a firm's internal business processes. Hence, it is important to deliberate upon the relevance of internal audit to enhance a firm's effectiveness. The objective of the present study is to probe into the internal audit function from the lens of a Balanced Scorecard. The findings reveal that internal audit depends upon the traits of internal auditors and forms an important dimension of a firm's performance.

INTRODUCTION

Internal audit is important to enhance an organization's governance and the processes of risk management. The main role of "internal audit" is to provide assurance to the Board on the effectiveness of risk management. As per IIA, an effective "internal audit" is one of the pillars of corporate governance.

The changing roles of internal auditing demands on the part of the organization to revise its strategies and focus on the organization's measurement of performance and efficacy. Organizational efficiency and performance can be measured by "balanced scorecard" (BSC), which can provide a significant boost for enhancing and imposing organizational strategies.

LITERATURE REVIEW

Bota-Avram et al. (2011), focused on ways on the measurement of efficacy of internal audit activity. Feizizadeh (2012), suggested that balanced scorecard should extend beyond just numericals for probing into important activities. Badara & Saidin (2013), in their study found efficacy in the system of audit experience, internal control and risk management to have a positive relationship with internal audit effectiveness. Zureigat & Moshaigeh (2014), explored vital performance measures for internal audit and gave valuable suggestions for the measurement of internal auditing performance. More use of formative indicators can occur in the corporate sector by focusing on the flaws which are oriented towards causal relationships with latent variables (Park et al., 2017).

The changing roles of internal auditing demands on the part of the organization to revise its strategies and focus on the organization's measurement of performance and efficacy

RESEARCH OBJECTIVE

To examine and analyze the relationship between internal audit and performance and effectiveness of firms by the application of balanced scorecard.

THEORETICAL FRAMEWORK – THE BALANCED SCORECARD

Kaplan and Norton were the brainchild behind the balanced scorecard which first came to the forefront in early 1990s.

They demonstrated the prolific measurement methodology tool in their endeavour entitled "Performance of Scorecards Measurement Translating Strategy into Action". Balanced scorecard comprises of four categories of measures viz., "financial", "customer", "internal business process" and learning and "growth".

Financial: It emphasizes on the financial performance of an organization and the utilization of financial resources and ultimately on an organization's long-term goals.

Customer: This views the performance of an organization from the point of view of the customer as well as other relevant stakeholders associated with the organization.

Internal Business Process: This aspect views the performance of an organization through the lenses of crux ingredients such as product quality and service efficiency and many other vital business processes.

Learning and Growth: It sees organizational performance from the viewpoint of culture, infrastructure, human capital, technology and other capacities that are imperative to achieve a substantial performance.

DATA AND METHODOLOGY

Both secondary and primary data have been used. A structured questionnaire has been used for data collection procedure. The respondents of the study are the employees of firms listed on Calcutta Stock Exchange who are engaged in internal audit activities. A total of 120 respondents were surveyed, with only 108 standing valid. A *"Five-Point Likert"* scale has been used to measure the concept. The data has been analyzed by using SPSS.

ANALYSIS AND PRESENTATION OF DATA

Demographic Profiling

The following Table represents the demographics of the participants.

TABLE 1: DEMOGRAPHIC STATISTICS

Demographic Construct	Classification	Population Statistics	Percentage
Gender	Male	96	0.89
	Female	12	0.11
	TOTAL	**108**	**1.00**
Age	21-30 years	9	0.08
	31-40 years	48	0.44
	41-50 years	34	0.32
	51-60 years	17	0.16
	TOTAL	**108**	**1.00**
Experience as Internal Auditor	0-2 years	15	0.14
	3-5 years	28	0.26
	6-10 years	36	0.33
	Above 10 years	29	0.27
	TOTAL	**108**	**1.00**
Highest Qualification Attained	Under Graduate	8	0.07
	Post Graduate	94	0.87
	Ph.D.	6	0.06
	TOTAL	**108**	**1.00**

Source: Author's Own Computation

- **Reliability Test**

A Cronbach's Alpha test has been conducted to test for the variables if they fit perfectly in the questionnaire. Accordingly, the threshold limit should be greater than 0.7; it is observed that in this case, the figure report 0.794, indicating that all the variables fit perfectly in the questionnaire.

TABLE 2: CRONBACH'S ALPHA

Cronbach's Alpha	Cronbach's Alpha based on Standardized Items	N of Items
0.785	0.794	16

Regression Analysis

Regression test has been performed to check the degree and direction of relationship amongst variables. Tables 3, 4, 5 and 6 show the regression results

TABLE 3: REGRESSION TEST

Predictors: FP1, FP2, FP3 → Dependent Variable: FEP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.612ª	.638	.692	.55456

a. Predictors (Constant), FP1, FP2, FP3

Coefficientsª

Model	Unstandardized Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.375	.196		1.893	.000
FP1	.482	.062	0.529	6.143	.000
FP2	.504	.073	0.554	6.564	.000
FP3	.422	.045	0.456	5.305	.000

a. Dependent Variable: FEP

As observed, the value of R square indicates that the three predictors (FP1, FP2 and FP3), explain 63.8 per cent variations in FEP. The standardized coefficients (β) shows that FP2 (β=0.554) has the highest impact on FEP, followed by FP1 and FP3 as evidenced by their respective standardized coefficients, being (β=0.529) and (β=0.456). Also, the Sig. indicates that all three predictors have a significant and positive impact on FEP with their respective significance level being less than 0.001 level.

TABLE 4: REGRESSION TEST

Predictors: CP1, CP2, CP3, CP4 → Dependent Variable: FEP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.749ª	.624	.688	.66345

a. Predictors (Constant), CP1, CP2, CP3, CP4

Coefficientsª

Model	Unstandardized Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.319	.184		1.770	.000
CP1	.586	.068	0.561	6.389	.000
CP2	.599	.072	0.567	6.564	.000
CP3	.577	.062	0.554	6.244	.000
CP4	.485	.054	0.492	5.630	.000

a. Dependent Variable: FEP

As we can see from the above table, the value of R square indicates that the four predictors (CP1, CP2, CP3 and CP4), explain 62.4 per cent variations in FEP. It explains the rationality of this model, albeit there might be other oblivious factors having an impact on FEP. The standardized coefficients (β) shows that CP2 (β=0.567) has the highest impact on FEP, followed by CP1, CP3 and CP4 as evidenced by their respective standardized coefficients, being (β=0.561), (β=0.554) and (β=0.492). Also, the Sig. indicates that all four predictors have a significant and positive impact on FEP with their respective significance level being less than 0.001 level.

TABLE 5: REGRESSION TEST

Predictors: IBPP1, IBPP2, IBPP3, IBPP4, IBPP5 → Dependent Variable: FEF

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.786ª	.685	.721	.72186

a. Predictors (Constant), IBPP1, IBPP2, IBPP3, IBPP4, IBPP5

Coefficientsª

Model	Unstandardized Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.398	.197		1.646	.000
IBPP1	.404	.042	0.432	5.108	.000
IBPP2	.396	.039	0.413	4.898	.000
IBPP3	.404	.042	0.432	5.108	.000
IBPP4	.542	.055	0.582	6.139	.000
IBPP5	.510	.051	0.535	5.816	.000

a. Dependent Variable: FEP

As evidenced from the above table, the value of R square indicates that the five predictors (IBPP1, IBPP2, IBPP3, IBPP4 and IBPP5), explain 68.5 per cent variations in FEP. It explains the rationality of this model, albeit there might be other oblivious factors having an impact on FEP. The standardized coefficients (β) shows that IBPP4 (β=0.582) has the highest impact on FEP, followed by IBPP5, while IBPP1 and IBPP4 acquire the same position of influence (β=0.432) and IBPP3 (β=0.413) accounts for the least influence strength as evidenced by its standardized coefficient. Also, the Sig. indicates that all five predictors have a significant and positive impact on FEP with their respective significance level being less than 0.001 level.

TABLE 6: REGRESSION TEST

Predictors: LGP1, LGP2, LGP3, LPG4 → Dependent Variable: FEP

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	.484ª	.517	.501	.44923

a. Predictors (Constant), LGP1, LGP2, LGP3, LPG4

Coefficientsª

Model	Unstandardized Coefficients		Standard Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.294	.168		1.512	.000
LGP1	.332	.064	0.360	4.879	.000
LGP2	.426	.070	0.469	4.128	.000
LGP3	.204	.023	-0.213	-2.130	.087
LGP4	.401	.041	0.435	3.329	.000

a. Dependent Variable: FEP

As evidenced from the above table, the value of R square indicates that the five predictors (LGP1, LGP2, LGP3 and LGP4), explain 51.7 per cent variations in FEP. It explains the rationality of this model, albeit there might be other oblivious factors having an impact on FEP. The standardized coefficients (β) show that LGP2 (β=0.469) has the highest impact on FEP, followed by LGP4 (β=0.435), while LGP1 has the least positive association (β=0.360). However, it is observed that LGP3 has a negative association with FEP with standardized coefficient being (β=-0.213). Also, the Sig. indicates that three predictors have a significant and positive impact on FEP while only one predictor has a negative link with FEP as evidenced in its significance level (.087>0.000).

FINDINGS AND CONCLUSION

As per the results of the study it has been observed that internal audit performance is influenced by internal audit procedure, auditees/ management, value and position of internal audit and also training and development, differently. It is also seen that internal audit performance is linked with internal audit support ensuring value and range of internal audit. On the other hand, the functions of internal audit are to be fine-tuned by internal audit process complying with International Standards for the Professional Practice of Internal Auditing (ISPPIA), and with the traits of management-auditees. MA

References

1. *Bota-Avram, C., Popa, I., & Stefanescu, C. (2011). Methods of measuring the performance of internal audit. The USV Annals of Economics and Public Administration, Vol. 10, No. 3, pp. 137-146.*
2. *Feizizadeh, A. (2012) Strengthening internal audit effectiveness. Indian Journal of Science and Technology, Vol. 5, No. 5, pp. 2777-2778.*
3. *Badara, M.S., and Saidin, S.Z. (2013). Antecedents of Internal Audit Effectiveness: A Moderating Effect of Effective Audit Committee at Local Government Level in Nigeria. International Journal of Academic Research in Accounting, Finance and Management Sciences, Vol. 2, No. 2, pp. 82-88.*
4. *Zureigat, Q.M. and Moshaigeh, A.A. (2014) Measuring the Performance of Internal Audit Function in Saudi Listed Companies: An Empirical Study. International Business Research, Vol. 7, No. 7, pp. 72-82.*
5. *Park, S. Lee, H. & Chae, W. S. (2017). Rethinking balanced scorecard (BSC) measures: formative versus reflective measurement models. International Journal of Productivity and Performance Management, Vol. 66, No. 1, pp. 92-110.*

ROBOTICS PROCESS AUTOMATION AND INTERNAL AUDIT: A TRANSFORMATION

Abstract

Robotics process automation technology has surprised everyone with its style of substituting the task that is rule-based, repetitive and manual and its ability to refashion the role of an auditor leading to enhancing the quality of audits. This article reflects upon the future of audit by bringing into light the concept of RPA technology and describe its potential usage in the internal audit field. Special focus will be on elaborating the modus operandi for successful implementation of RPA-based audits together with exploring and elaborating the internal audit methodology where RPA can show its proficiency. Finally, displaying a case study of the working style of an RPA bot to execute a significant area of internal audit.

CA Nisha Kapur
Practicing Chartered Accountants
New Delhi
nisha.kapur@yahoo.com

Dr. Abhishek Kumar Singh
Assistant Professor
Ramanujan College, University of Delhi
New Delhi
Abhishekbhu008@gmail.com

INTRODUCTION

Recently there is considerable buzz about the various forms of 'digital labour'. Many of us wonder what digital labour is and how it can benefit them. Digital labour covers a wide range of emerging technologies that spread over from deep learning (artificial intelligence) to machine learning (cognitive automation) to robotic process automation (RPA, or robotics/ automation). Out from this new-fashioned technology the simplest form and the promising technology is RPA. Its benefit covers a wide radius from data collection, analysis with precision to performing calculations with speed covering the entire data and enhancing the working capacity greater than the performance of team of humans.

Robotics is a technology master which is suitable and proves to beneficial for varied business processes, ranging from human resources, order to cash function, procurement to pay function, closing and reporting function, external audit to internal audit. Employing RPA enlarges the performance capability by processing large quantities of data continuously in a fraction of time. RPA technology when amalgamated with internal audit has vast effect and brings assistance and comfort far beyond what was possible before.

OBJECTIVE OF STUDY

This article aims to explore the way automation with RPA can impact the functioning of internal audits. The discussions will be under the following sections:

1. **Robotic Process Automation (RPA):** This section will explain how RPA technology and the work can be performed by them.
2. **The benefits of embedding automation**: This section will discuss the advantages of RPA and how it will help to support audit functioning.
3. **Factors to be taken into consideration for RPA Implementation:** This section

will discuss the essential elements to be given due attention before and after implementation of software bots to achieve the potential that RPA is gifted to perform.

4. **Automation across Internal Audit–**This section will discuss how RPA bots can assist internal auditing across all the steps of operations.
5. **Case study-** The section will showcase a case-study of Lenovo Group, where they are using UiPath platform developed RPA software to improve the efficiency of internal audit process of employee reimbursements.

ROBOTIC PROCESS AUTOMATION (RPA)

A novice may view robotic technology as robots in the form of robot-like physical machines that move around the office. But in reality, they are software which are preconfigured to perform activities on the computer screen.

These software bots mimic human beings and replicate tasks performed by them that are rule-based tasks, repetitive and manual. We are just required to show these smart bots what to do, then letting them do the work they perform with expertise. Thus, the RPA unbelievably improves the processes and economies of scale. RPA technology adoption leads to delivering exceptional service quality, enhanced ROI, superlative process automation, strengthen compliance, and maximizing total business value.

The following figure displays the tasks which an RPA bot can perform.

FIG.1 – ACTIVITIES RPA CAN PERFORM

BENEFITS OF EMBEDDING AUTOMATION

The key rewards and advantages arising with internal audit infused with automation include the following:

a. **Scarce resources brought to use:** Time is limited and the best way to enhance the working capacity is to reduce the time. Time can be freed up by automation. This permits personnel to have focus on higher value pursuits which include quality assurance reviews, exception management, interpersonal interactions and improve on performance. It further upgrades the effectiveness, by allowing the IA organization to keep pace with ever changing business dynamics.
b. **Higher efficiency and lowered costs:** RPA with its capacity to work and execute audit undertakings nonstop 24X7 without any break (in majority of cases, more than 90 per cent faster than manual processes), can multiply the cost savings.
c. **Improved output:** RPA empowers undertakings to perform tasks more consistently and proficiently covering the testing of entire population with results that are exceptionally visible and appreciable. RPA application leads to process standardization which permits only minimal errors due to which audits are performed more accurately and qualitatively. Further, the systematic nature of the RPA technology delivers the exceptions on timely and continuous basis which raises the bar of reporting.
d. **Improved business value:** Almost every IA association seeks to increase the assurance and coverage. RPA assists this goal by enabling IA to move from statistical sampling to full population testing. Such technologies can also enable organizations to improve the frequency of testing and in many cases, enable transition to a continuous auditing model, providing well timed insights to the business. With these evolving technologies, it is expected that business value will increase in tandem and thus incorporate proactive insight and analysis in reporting.

Thus, internal audit organizations can make the most of the intelligent automation and improve performance efficiency and effectiveness.

FACTORS TO BE TAKEN INTO CONSIDERATION FOR RPA IMPLEMENTATION

The intelligent automation opportunities within internal audit activities may be limited by either the maturity of the organization's processes, systems and controls or the quality and availability of data along with many other factors. The following aspects must be given due consideration for automation by RPA:

Before and in the course of Implementation

1. First and foremost, elucidate a clear plan and robust automation programme.
2. Define the roles and responsibilities and setup a framework to identify tests and processes that are most promising candidates for automation. We need to identify processes that:
   a. have a defined and measurable return on investment (ROI)
   b. relate to key business risk area

c. have activities which are rule-based and remain steady over the years
d. are repeatable at intervals
e. ease of breakdown into defined and small processes
f. demand labour-intensive working style and are prone to frequent human errors
g. involve huge volume and high value of transactions
h. stable environment
i. occur frequently and are generally inefficient
j. solution is based on a clear set of rules

3. Develop processes and methods for making structured format to get standardized data to obtain the best results for RPA implementation.
4. Don't make a general rule that all rule based, and manual processes are ready to be automated. Perform cost-benefit analysis to choose the best and remove all process inefficiencies before introducing RPA.
5. Get your security team to identify mechanisms for authentication of software bots and come down with policies and controls for privacy and data protection.
6. Design the prototype and with experimentation and debugging the errors clearly establish the changed modus operandi
7. Document the changed management processes and controls.
8. Train your staff.

After Implementation

- Think about metrics and identify the means to measure the ROI over the functioning period of software bot(s)
- Continuously test, monitor and update.
- Plan your approach and tactics in case of deviation from expected functioning of RPA bots.
- Develop a robust team under capable leadership to execute regular success and failure test and identify early solutions.

AUTOMATION ACROSS INTERNAL AUDIT FUNCTIONS

In today's fast pace changing business environment, internal auditors hold a prominent place. With increasing difficulties and pain caused by disruptive forces, it becomes an utmost necessity for internal audit organizations to keep pace with the turbulence and help organizations to understand and manage the associated new risks. Automation, thus, has become the best resort to achieve the expected results efficiently and add value by continuous innovation.

In evaluating whether and to what extent the internal audit can help in transforming to an automation model, it becomes essential to study and examine the impact on the major activities of internal audit such as risk assessment, audit planning, fieldwork and testing, reporting and closing, issue tracking / ongoing monitoring risk assessment etc.

FIGURE 2 - MAJOR ACTIVITIES PERFORMED DURING INTERNAL AUDIT

RISK ASSESSMENT AND AUDIT PLANNING

IA firms conduct risk assessments as an initial exercise of their audit procedures specifically to identify the risks associated with the organization. Assessments may be conducted to identify operational, financial, and compliance risks exposed to an organization. The process involves data gathering from numerous audit sensitive areas and assign scores on the basis of risk magnitude to each data point. Thus, it can be a time-consuming work that requires compilation and analysis of data from each auditable process across the departments in an organization.

RPA can be used to gather and assign scores to the required huge and scattered data in no time. Also, they are on their toes and update the scores on every minute change within a fraction of a second. Most importantly they are quick to integrate the outcomes attained from the of risk assessment of auditable processes and functions to the planning framework. Thus it sets the auditing efforts in the correct directions. This could save substantial working hours and double the benefit by delivering an updated risk assessment plan at any given point of time of the year.

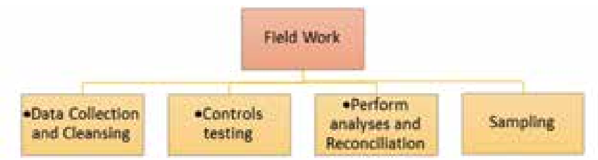
The internal audit firms follow risk-based approach due to time constraints and materiality factor, and follow rotational approach and as a result some business areas may not be audited every year. At times an area may be overlooked for more than two or three years. Employing RPA helps the organizations to design and control the frequency of testing. For high risk areas they can convert testing into a continuous model and provide timely insights to the business.

FIELDWORK

This phase involves actual work execution. Some of the procedures generally performed during fieldwork are as follows:

- Data collection and cleansing
- Controls testing
- Perform analyses and reconciliation
- Sampling

FIG. 3 – WORK PERFORMED BY AUDITORS DURING FIELDWORK PHASE



a. **Data Collection and Cleansing**: Data is the soul of auditing. Faulty data can lead to inaccurate results. Thus the first and foremost and an indispensable step of an audit process is collection of data from various sources and validating the data for completion, duplication etc. RPA can reduce the pressure of performing this mundane task by automating the data collection and manipulation / cleansing process with high level of accuracy.

b. **Controls testing:** RPA could be useful and beneficial in automating the critical procedure of controls testing namely segregation of duties, exception reporting, change management controls, access related controls, etc.

   Additionally, RPA can be designed to spot and pick out potential fraud transactions using rule-based scan of activities (e.g., flagging possible money laundering transaction for review of auditor); this will facilitate the auditors to focus on other high risk areas.

   Further, one of the controls of US Sarbanes-Oxley Act (SOX) related to access of users has been largely manual and must be carried out quarterly, thus consuming most of the auditor's valuable time. Through automation the RPA bots relieve the strain by replacing the manual labour through continuous scanning and identifying deviations.

c. **Perform analyses and reconciliation:** Auditing activities revolve around performing analyses and reconciliation to formulate assurance on the data and activities. A significant amount of manual labour, struggle and time are burnt out on reviewing the validity and accuracy of expense reported and supporting vouchers. Introduction of RPA can automate the process proficiently and can drastically reduce the time spent on manual discharge, improve auditors' performance and enhance compliance. RPA can be configured to extract data from a different system and sources and perform data against preconfigured rules with high level of accuracy, which could save hundreds of hours during each audit. The software bots can reconcile huge volume of data swiftly and consistently which otherwise is a manual, dull and most tedious work. Thus, auditors can focus on higher priority tasks, such as assessing items that are non-compliant or exceptions.

   Revenue is one of the high risk areas. An RPA performing revenue auditing assists by performing the following audit tests:

   - ***Revenue reconciliation*****:** Software bots augment the reconciliations by logging the client secure server and extract complete transaction listing for the period. Thereafter the robots compile the data and compare with the total sales as per the trial balance and finally flag the differences.
   - ***Revenue testing:*** RPA automates the revenue transaction testing by performing the following procedure:
     - Access the server
     - Obtain the ledger dumps and identify the transaction data
     - Conducts search for the documents for three way testing (sales orders, sales invoices and shipping documents)
     - Extracting all the three documents
     - Importing data from the extracted documents to facilitate three -way testing
     - Perform validation of transactions recorded with the above three documents
     - Compile and bring out the sales transactions with variances in price or quantity

The best way to reduce the sampling risk is to test a large population and RPA bots are efficient to examine the entire population rather than samples

d. **Sampling Risk:** Auditors follow the audit sampling technique while performing the audit where a representative population is tested and on its basis a conclusion is framed for the entire population.

   As a result, there is a risk of sampling technique not correctly applied and sample does not represent the population leading to incorrect auditor's conclusion. Sampling risk is a part of detection risk. The best way to reduce the sampling risk is to test a large population and RPA bots are efficient to examine the entire population rather than samples. They perform continuous testing consistently and derive results to be analysed for deviations. This enables the auditors to gain greater confidence over the design and implementation of controls followed at the time of transaction booking.

CLOSING AND REPORTING

The main purpose of auditing is to serve customers with the audit findings and deviations, form audit conclusion based on testing performed and recommendations at the audit closing. Traditionally, the reports are lengthy and verbose. They consume significant time of the auditors' working hours. This step is manual and most importantly any mistakes, misstatements and omissions can cause a lot to the IA organization. Automating the step with RPA can help in addressing the reporting and dash boarding activities by arranging and organizing data for Audit Committee and management report on the basis of predefined templates or internal audit's balanced scorecard.

ISSUE TRACKING / ONGOING MONITORING RISK ASSESSMENT

An audit plan not tracked at the right time can ruin the performance. Manual progress tracing not done diligently may damage the functioning and reputation of an auditor. RPA automation used to track the progress can efficiently track and monitor key risk indicators (KRIs) round the clock and thus raise prompt alarm on points of concern.

With RPA technology, manual and tedious activities of identifying open items, communication through electronic mails to responsible parties, conducting regular follow-ups with escalating due dates spill over can be automated and can be a best resort to manage the work timeliness and quality.

Thus, in the light of the above arguments we can summarize that by taking advantage of intelligent automation, the internal audit team can increase its potential and perform more with the same resources.

CASE STUDY [1]

Robotic process automation (RPA)) software has emerged as an optimal solution for the challenging task of internal audit of employee reimbursement with its ability to automate repetitive tasks normally performed by people.

The world's leading technology company, Lenovo Group has successfully developed an internal audit robot tool to manage employee reimbursements with the implementing of intelligent digital transformation strategy. The audit robot successfully integrates RPA with an optical character recognition capability (OCR), an intelligent self-service chat bot and other intelligent technologies.

With RPA bots put to work, the electronic invoices can be automatically downloaded, verified, and categorized for audits and used to develop internal audit reports. RPA robots can also automate inspection and spreadsheet generation, minimizing the impact of system abnormalities on business operations.

Lenovo Group is involving Workday as the stage for workers to repay their costs.

The critical challenges faced by them leveraging a SaaS platform to implement internal reimbursement audits include:

- Large volumes of electronic expense reports and invoices must be uploaded manually. This process is tedious and very repetitive. This consumes too much time and resources for the auditor.
- When these operations are run for a long period of time, it can lead to employee fatigue, results in operational errors and affect accuracy. Longer audit cycle is also associated with manual operations which can be a threat to the finances of the company.

It took only 50 days for Lenovo Corporation to complete the development and implementation of the RPA employee reimbursement check bot, and the bot can automatically generate expense reports through uploading, checking, and processing all employee electronic invoices.

SIGNIFICANT RESULTS IN TWO AREAS

1. Significant financial benefits with RPA in place, the robot can complete the task in just five hours, which saves approximately 1500 hours per annum and caters to 100 accurate reports where as in a manually performed operation three employees spent 5 days to complete the same task.
2. Workflow optimization with the help of the robot, can rescue four working days spent to prepare the internal audit report -approximately 87 per cent more time than earlier. Error rate is also minimized which ensures the report's accuracy. Automated testing can also be performed by robots and when an error is detected, the robot notifies the developer or the maintenance staff through an alarm. Immediate action is then taken by the personnel and systems reliability can be improved.

As of now, the RPA robot has turned into a successful "worker" of Lenovo Corporation. Automatic connection to the workday system, data navigation, information request and downloading the chargeback reports can be done by the bot. The bot permits a structured and transparent online internal audit, by cutting the cost and labour.[1]

CONCLUSION

Audits carry lots of significance as a medium to regulate and keep a check on the infringement and corruption. Auditor through independent scrutiny and verification of business performance, working ethics and conformance to rules and regulations, brings an assurance to the customers, shareholders, suppliers, and public authorities. The work when automated improves the functioning of an auditor. An RPA-enabled audit targets the audit quality. RPA bots step into the shoes of an auditor and perform all structured, time-consuming and repetitive activities; as a result, the auditors get plenty of time to focus on complex testing and investigation of accounting anomalies making the audit process more productive and valuable. MA

References

1. *UiPath automation case studies "Lenovo Group Integrates Intelligent Technologies with RPA Software to Improve the Efficiency of Internal Audit Process", Accessed at https://www.uipath.com/resources/automation-case-studies/lenovo-group-integrates-intelligent-technologies-with-rpa on 05 May 2022*
2. *Adopting robotic process automation in Internal Audit Using robotic process automation to fortify the third line of defence Available at https://www2.deloitte.com/us/en/pages/risk/articles/internal-audit-robotic-process-automation-adoption.html.*
3. *Lacurezeanu, R., Tiron-Tudor, A., Bresfelean, V. P. (2020), Robotic Process Automation in Audit and Accounting, Audit Financiar, vol. XVIII, no. 4(160)/2020, pp. 752-770, DOI: 10.20869/AUDITF/2020/160/024*
4. *Vasarhelyi, MA., Rozario, AM. (2018), How Robotic Process Automation Is Transforming Accounting and Auditing, The CPA Journal; New York, Vol. 88*

CLOUD SECURITY AUDIT: A NECESSITY IN THE CLOUD COMPUTING ENVIRONMENT

Abstract

The adoption of cloud computing by corporates has gained momentum over the last few years (Ismail and Islam, 2020). According to a report by Statista (www.statista.com) on the Global market size of cloud computing and hosting, the market has recorded a six-fold increase during the period 2010 to 2020. Cloud security is a major hindrance in the adoption of Cloud computing by the corporate sector. This article highlights the cloud security audit process. Cloud security auditing helps to reduce the cloud security issues and builds the confidence of the stakeholders.

Pinky Mistri
Assistant Professor
University of Gour Banga
Malda
pinkymistri@yahoo.co.in

INTRODUCTION

Indian corporates are going towards a paradigm shift with more and more companies adopting cloud computing. Cloud IT facilities and services give corporates an edge. It brings down capital expenditure (CAPEX) on procuring IT infrastructure and reduces operating costs (OPEX) for maintaining and running IT facilities. The market for cloud-enabled applications of Big Data, 5G, Internet of Things (IoT), Software Defined Networking SDN, and Network Functions Virtualization (NFV) is further expected to grow in the coming years (Alenezi M et al., 2019). According to a recent survey by Nutanix Inc., roughly over 63 per cent of Indian enterprises, mainly MSMEs, and startups in the retail and e.Commerce sectors, made investments in hybrid cloud services, compared to the global average of just 46 per cent , exclusively to mitigate the impact of COVID-19 in 2020.

According to ICAI, auditing is an independent examination of financial information of an entity carried on to express an opinion thereon. An audit provides an assurance function to the entity's stakeholders regarding compliance with prescribed standards and practices. A security audit refers to systematic assessment of the security of an organization's information system by checking its compliance with prescribed criteria. For an effective cloud security audit it is necessary to comprehend IT infrastructures' functions and identify new risks that emerge due to adoption of cloud services. Auditors must minutely observe the changes when an organization moves from the current model to cloud services. The complex nature of cloud computing makes cloud security audit a problematic task.

OBJECTIVES OF THE STUDY

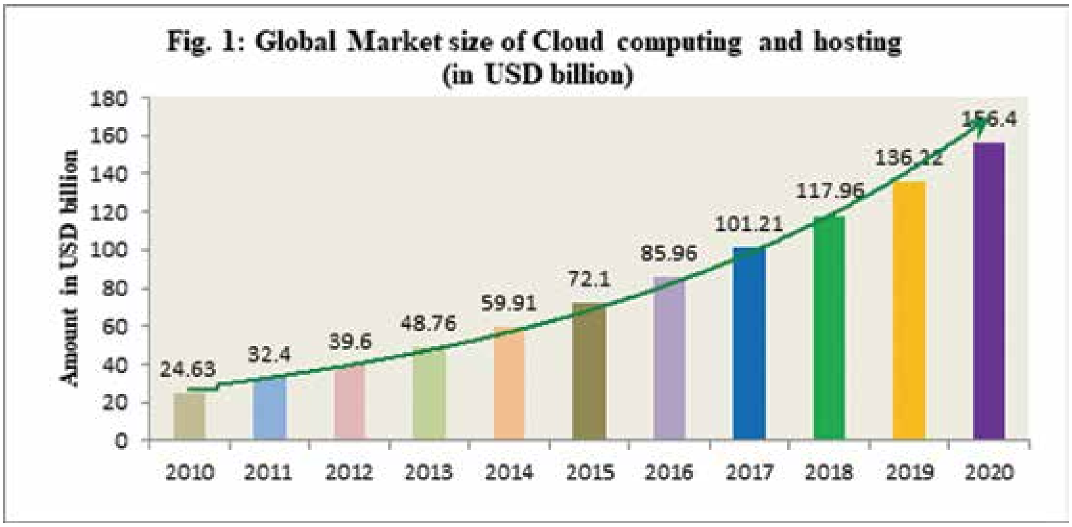
This article aims to study cloud computing's critical issues and the role of a cloud security audit in a cloud computing environment.

CLOUD COMPUTING

Cloud is a bunch of commodity computers networked and operating together in the same or different geographical locations with a shared objective to serve several customers with different needs and capacities as per requisition with the help of virtualization.

According to the delineation of the National Institute of Standard and Technology (NIST, 2012) United States Cloud Computing is a model that permits ubiquitous, convenient, on-demand network access to a shared resource of information technologies that can be rapidly provisioned and released with minimal management effort or service provider interaction. The definition also highlights cloud composites of five essential characteristics, three service models, and four deployment models. The five characteristics are – on demand self-service, broad network access, resources pooling, rapid elasticity, and measured service. Three service models are SaaS, IaaS and PaaS and the four deployments are private cloud, community cloud, public cloud and community clouds).

According to a report by Statista (www.statista.com) on the Global market size of cloud computing and hosting from 2010 to 2020, the market has evidenced a six-fold increase. The Global market size of cloud computing and hosting accounted for $ 24.63 billion in 2010, which grew to $156.40 billion in 2020. The market has evidenced consistent growth during the period.

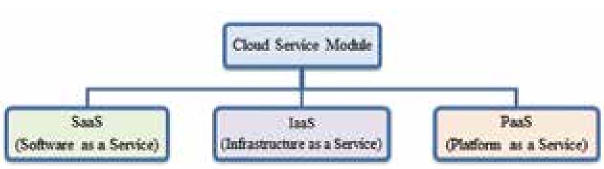


Source: URL https://www.statista.com/statistics/500541/worldwide-hosting-and-cloud-computing-market/#professional Date of access: 20-05-2022

According to the NASSCOM report on Cloud Skills- Powering India's Digital DNA Report, 2021 Global Public Cloud spend, valued at $332 billion (2021), is projected to grow by 20 per cent year-on-year amounting to $397.5 billion by 2022. With accelerated cloud adoption, the focus is shifting to cloud infrastructure and the platform layer; IaaS is seeing 29 per cent YoY growth and PaaS, 22 per cent; SaaS remains the most significant market with 39 per cent share. India's cloud market is estimated at $4.4 bn (2021); projected to grow 26 per cent to reach $5.6 bn in 2022 (NASSCOM report, 2021).

CLOUD SERVICE MODULE

Cloud computing can be divided into different categories based on the way services are provided (Jansen and Grance, 2011). Globally, Software-as-a-Service (SaaS) occupies the largest market segment. According to the NASSCOM report on Cloud Skills- Powering India's Digital DNA Report, 2021, the Indian SaaS Industry is expected to reach a $1 trillion market valuation by 2030.

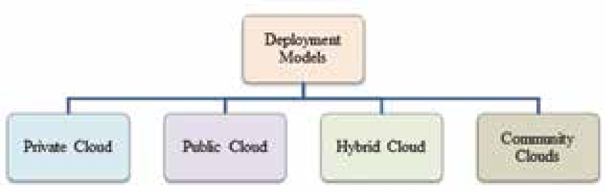


SaaS typically provide application through a web-based interface to cloud users. SaaS is rudimentary, and cloud user has no control over infrastructure and platform. Also, they do not have to face the complexity of the application. Example- Google Apps, Microsoft Office 365, Salesforce, etc.

IaaS provides various kinds of infrastructure facilities for hosting cloud applications. These infrastructure facilities are divided into smaller virtual machines with or without an operating system. Companies using IaaS have sole control over monitoring computers, network storage, etc. Example- Amazon EC2 IaaS, Rackspace cloud, Blue cloud, etc.

PaaS provides middleware as an extension to the IaaS service, i.e. user avails infrastructure facilities and operating systems. Software such as DB2 database, Java Runtime Environment, WebSphere, Microsoft's Windows Azure, and Amazon Engine are Middleware software

I. CLOUD DEPLOYMENT MODELS



Clouds can be of four types

i. *Private Clouds* – Cloud service is provided to a single organization and used internally. It is distributed within data centres belonging to the company comprising multiple consumers.

ii. *Public Cloud* – This cloud facility is open to multiple cloud service users. corporates can rent the cloud service from the cloud service provider

iii. *Hybrid Cloud* – This type of cloud consists of private and public clouds. In hybrid clouds, critical data is stored in private clouds using the on-site infrastructure. Non-critical data are stored in public clouds.

iv. *Community Clouds* – This type of cloud facility is available to a specific group with common objectives.

CHALLENGES IN SECURE CLOUD DATA

Cloud computing environment has many challenges.

- ***Security-*** Multiple users share the cloud provider's resources. This could lead to a data security breach. The data can be hacked or modified.
- ***Control-*** Corporates lack direct control over the data and data centres. The cloud service provider controls cloud infrastructure and very little control lies in the hands of the end user.
- ***Cost-*** Even though cloud computing has a massive advantage of cost reduction, during the adoption of the cloud, the cost of service migration and data integration is high.
- ***Portability-*** Cloud service users cannot switch from one cloud service provider to another as this mechanism has not been developed yet. This could result in vendor lock-in.

CLOUD SECURITY AUDIT

Cloud audit is an examination conducted by an organization to assess and report the performance of cloud service providers. The objective of cloud audit is to examine cloud service providers' control framework and report on its performance. Cloud computing adoption opens doors for many types of complexities. Likewise, it also opens new avenues for auditing. Security concern also arises due to the lack of specific regulatory guidelines in India. Cloud module includes different parties due to multiple abstraction layers. Existing auditing practices included only two parties namely the service provider and service user attacks through virtual layers. Hence, the auditors need to upgrade their knowledge continuously due to the dynamic nature of cloud computing. The stakeholders of corporate sector want security and accountability. Cloud security auditing provides an assurance to the stakeholders.

Cloud computing adoption opens doors for many types of complexities

Evaluating the security stand of cloud service providers is crucial. A security audit should independently assess the risk of adopting cloud service. Identifying cloud service providers is following regulatory norms of which country is vital. Cloud service provider policies regarding risk management and responsiveness towards security breaches must be analyzed. Reporting of vulnerability management must be generated.

CLOUD SECURITY AUDIT STEPS

Corporates perform cloud security audits to combat the risk and threats of cloud security breaches. While performing cloud security auditing various steps must be completed to form an opinion on the design and operational effectiveness of cloud computing controls. Certain steps have been highlighted based on proposed solutions from existing studies on the theory and practice of auditing.

FIG.2. CLOUD SECURITY AUDIT STEPS

Source: developed by the author

Firstly, auditors must have clear idea about the core functions of the corporates. Auditors must be aware of the existing IT infrastructure facilitating business functions. Auditors must have a working knowledge of cloud computing. Audit scope defines the depth in which key aspects are to be covered. It also highlights the time involved in the whole auditing process. The primary and secondary objectives of the audit must be highlighted. Every organization has certain critical and sensitive assets and data. These critical areas must be highlighted and utmost care must be taken during evaluating those areas. A cloud security audit should identify the vulnerability of cloud services and infrastructure. After identification of critical areas and vulnerable areas, audit evidence is collected. This evidence can be in the form of logs and system configuration. The evidence collected is processed by data sanitization and sorting techniques for better understanding and interpretation. After interpretation of audit evidence, it must be checked whether the evidence collected complies with regulatory policies and framework. After proper examination, a report must be generated. It is the end result of the audit process. The audit report provides the opinion of the auditor about the auditing process. It states the finding with supporting evidence.

REGULATORY FRAMEWORK FOR THE CLOUDS

Understanding the regulatory norms of those countries involved in the service provider is crucial as the entity's data is processed and stored in other countries. European Network and Information Security Agency (ENISA) is an advisory organization working on security compliances, including cloud computing risk assessment. FedRAMP program builds a model for certification and compliance standards. US federal agencies use the model for certification and accreditation of cloud service providers for FISMA compliances. Information Systems Audit & Control Association (ISACA) is an international organization working for IT governance. ISACA focuses on a control framework for COBIT. Cloud Security Alliances (CSA) guideline on 'Security guidance for critical areas of focus on cloud computing is widely followed by entities. Cloud service providers must abide by Sarbanes & Oxley Standards ISO 2001, SAE16, Information Technology Infrastructure Library (ITIL), SaaS Type I & II, Health Insurance Portability and Accountability Act (HIPAA) and Payment Card Industry Data Security Standards (PCI DSS). Cloud Audit/A6 and CSA have the common objective to automate the audit function of cloud computing across all cloud service modules. A common certification framework for cloud service provider controls are ISO27001 or COBIT 5. In India the Information Technology (Amendment) Act 2008 vide section 43 A highlights the information Technology (Reasonable security practices, procedures & sensitive personal data or information), which provides strict guidelines for collecting, using, and protecting sensitive personal data or information of a party possessed by another party. Cloud computing service providers must abide by Privacy Rules ,2011 and Information Technology Act, 2000.

CONCLUSION

Cloud computing provides great benefits to organizations adopting it. Along with benefits come certain threats, complexities and risks. Cloud service providers should devise a mechanism to eliminate complexities and risks. Cloud security auditing helps reduce cloud security issues and builds the confidence of stakeholders. Data security is a pressing concern for cloud service users. These concerns can be mitigated by cloud security auditing as it brings assurance to the minds of stakeholders. Cloud security audit brings down these risks and threats. This study provides an overview of cloud computing, its module, types, benefits, and challenges. The study has highlighted both the National and international regulatory framework of cloud computing and has found a continuous rise in the market size of cloud computing. Both internal and external auditors have an important role in enhancing security in cloud computing. An external auditor's report on cloud security can be opted for an effective solution for compliance with general data protection requirements. MA

References

1. *Alenezi, M., Almustafa, K., & Meerja, K. A. (2019). Cloud based SDN and NFV architectures for IoT infrastructure. Egyptian Informatics Journal, 20(1), 1-10.*
2. *Ismail, U. M., & Islam, S. (2020). A unified framework for cloud security transparency and audit. Journal of Information Security and Applications, 54, 102594.*
3. *Jansen, W., & T. Grance. (2011). Guidelines on Security and Privacy in Public Cloud Computing. NIST Special Publication Gaithersburg, MD: NIST 800-144*
4. *Rissi, J., & Sherman, S. (2011). Cloud-Based IT Audit Process. Auditing Cloud computing: A security and privacy guidance, 15-32.*
5. *statista, Size of the cloud computing and hosting market market worldwide from 2010 to 2020, URL https://www.statista.com/statistics/500541/worldwide-hosting-and-cloud-computing-market/#professional [Accessed on 20-05-2022], 2022.*
6. *https://www.nutanix.com*
7. *https://community.nasscom.in/communities/cloud-computing/pilots-cloud-what-drives-cloud-computing*

ESG REPORTING FOR BUSINESS SUSTAINABILITY: ROLE OF CMAs IN INTERNAL AUDIT

Abstract

Business sustainability is fast becoming a global concern due to the unintentional environmental and socio-economic impacts of rapid population growth and vast economic activities that necessitate mass consumption of the scarce natural resources. As experts in the field of optimal resource allocation, CMAs have a key role in ESG reporting and ensuring sustainability and competitiveness.

Dr. Manoj P K
Faculty Member & Research Co-ordinator
Dept. of Applied Economics, CUSAT
Kochi
manoj_p_k2004@yahoo.co.in

INTRODUCTION

Sustainability has emerged as the most crucial problem that the mankind faces today. This is because, whatever the humans need for their survival and growth needs to be procured from the nature, either directly or indirectly. Mutual co-existence between nature and humans in productive harmony is the key to ensure sustainability. Only then the socio-economic and such other demands of current and future generations can be met. Sustainability involves taking what we need to live today without compromising the potential of the future generations to meet their needs. In the business, sustainability involves protecting the planet (environment) while serving the bottom line (society) and thus earning profits (economics). Thus it has social, economic and environmental aspects.

ANALYTICAL SIGNIFICANCE

Globally, the rising environmental concerns have forced a departure from the traditional decisions solely based on profit (economic) aspects to broad-based decisions that duly include the social and environmental aspects too. Hence the need for ESG (Environmental, Social and Governance) business reporting is rising globally. SEBI's framework, BRR (Business Responsibility Reports) of 2012, applicable to the top 100 listed companies was extended to 500 listed firms in 2015. SEBI's Listing Obligations and Disclosure Requirements, 2015 (LODR) was amended vide. SEBI's Circular dt.10th May 2021, thus replacing BRR with Business Responsibility and Sustainability Report (BRSR). BRSR is a more comprehensive and integrative than BRR and is applicable to top 1000 listed companies in India. In line with the progressive tightening of ESG reporting norms in India and elsewhere in the world, internal auditing also needs to be fine-tuned concomitantly. In India, CMAs can play a key role in streamlining the internal auditing process in an ESG regulatory wherein BRSR (SEBI, May 2021) demands disclosures on the company's performance against nine principles. The extensive promotion of ICT in this 'Digital India' era gives another dimension to the ESG imperative, ICT being a key tool for transparency and governance, and even protection of environment (trees).

OBJECTIVES AND METHODOLOGY

1. To study the emerging ESG reporting norms in India and to design a blueprint for the concomitant internal audit system;
2. To study the role of CMAs in ESG reporting as internal auditors in this era of 'Digital India' and vast ICT adoption.

This descriptive-analytical article being of exploratory nature, no hypothesis has been framed. The research questions are: (i) What is the regulatory system for ESG reporting that is emerging in India? (ii) What could be an ideal system for ESG-compliant internal audit and what is the specific role of CMAs?

SUSTAINABILITY ACCOUNTING & REPORTING

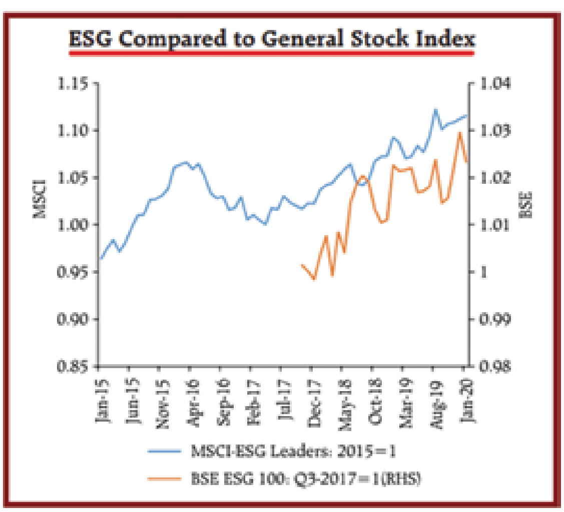
ESG trio is today's global norm

to ensure business sustainability. ICT adoption being a priority in 'Digital India', ICT adoption with ESG makes sense for business sustainability. SEBI's guidelines must be strictly complied with, both qualitatively and meaningfully. CMAs are inevitable here they being the experts in resource optimization. Over and above the statutory compulsion, global experiences show strategic gains from ESG reporting (eg. higher market share, financial performance, shareholder value, etc.).

ESG INVESTMENT: FAST GROWING TREND

As already noted, ESG imperative is global, including India. Covid-19 pandemic has given another impetus for this trend. Some key developments include: An ever-growing global trend in sustainability investment, reflected in 129 per cent growth in assets in sustainability funds during 2018-2020 (CAGR 35 per cent); (ii) UK has made Climate-change Report mandatory for listed premium companies from FY 2022, as per recommendations of TCFD (Taskforce on Climate-related Financial Disclosures) with a 'Comply-or-Explain' mandate (iii) European Union (EU) has enforced Non-Financial Reporting Directive (NFRD) that mandates ESG disclosure by companies with over 500 employees functioning in EU region; (iv) New Zealand has made climate-related disclosures mandatory by 2023 for all equity and debt issuers; (v) The climate-related disclosures have been made stricter by USA Securities and Exchange Commission; (vi) In Asia, Hong Kong and Singapore, have 'Comply-or-Explain' clause on climate / sustainability issues in the mandatory disclosure, Taiwan has mandatory norms for sustainability reporting for companies with paid-up capital over a threshold. Going by this global trend, India too opted ESG. As BRR (2012) gave way to BRSR (2021) it became applicable to 1000 listed companies. ESG investment is fast picking up in India as in other parts of the world. (Figure I).

FIGURE I: ESG IN INDIA – GROWING TREND.



Source: RBI (2021), *RBI Bulletin,* p.69. [7]

SEBI'S ESG GUIDELINES: AN OVERVIEW

The National Voluntary Guidelines (NVGs) on Social, Environmental and Economic responsibilities of business as per SEBI's BRR (2012) was revised by SEBI, as per the global norms. Considering UN Sustainable Development Goals (UNSDGs), UN Guiding Principles (UNGPs) on Business and Human Rights, and Paris Agreement on Climate Change, SEBI has revised NVGs into National Guidelines on Responsible Business Conduct (NGRBCs) in 2019. The Ministry of Corporate Affairs (MCA) of GoI later set up a Committee on Business Responsibility Reporting; SEBI being one of its members. This Committee recommended the renaming of Business Responsibility Report (BRR) as Business Responsibility and Sustainability Report (BRSR). BRSR demands wider scope of reporting requirements and is in place since 2021. Mandatory BRR (BRSR) filing was initially for 100 listed companies in 2012 which was raised to 500 in 2015 and to 1000 in 2021. BRSR has 9 principles on the NGRBCs lines; of two types: (i) Mandatory and (ii) Voluntary principles (indicators).

SEBI'S BRSR, 2021: ROLE OF CMAS

There are five mandatory indicators as per the BRSR 2021. CMAs have a direct role in the whole ESG integration process (Table I).

TABLE 1: MANDATORY INDICATORS OF BRSR.

BRSR: Mandatory Indicators	CMA's Role
(1) Resource Utilization: Use of Energy, Water etc.	In respect of Indicators 1 and 3, the CMAs have the role of ascertaining and applying the optimal levels of resources. Regarding Indicators 2 and 4, CMAs' to coordinate with domain experts.
(2) Emission of air like Green House Gases (GHG) and pollutant air, etc.	
(3) Wastes (hazardous wastes and non-hazardous wastes)- quantity generated, reused, recycled; its management	
(4) EPR (Extended Producer Responsibility) compliance, submitting it to the PCBs (Pollution Control Boards), PAT (Performance-Achieve-Trade) Scheme of Bureau of Energy Efficiency (BEE).	

Source: Author's Compilation, as per BRSR

Regarding the five voluntary principles of BRSR, CMAs have the role of boosting corporate valuation and image by leveraging more voluntary ESG disclosures. (Table II).

TABLE 2 : VOLUNTARY INDICATORS OF BRSR.

BRSR: Mandatory Indicators	CMA's Role
(1) Energy Consumption and Conservation: Renewable and Non-renewable sources; Water discharge measures etc.	These are voluntary indicators that add value to the firm and raise its brand equity. So, CMAs can play a key role in this.
(2) Water consumption in cases of water scarcity	
(3) Green House Gas (GHG) emissions and allied aspects.	
(4) Share (per cent) of reclaimed products in products sold.	
(5) Bio-diversity: How business affects regional bio-diversity?	

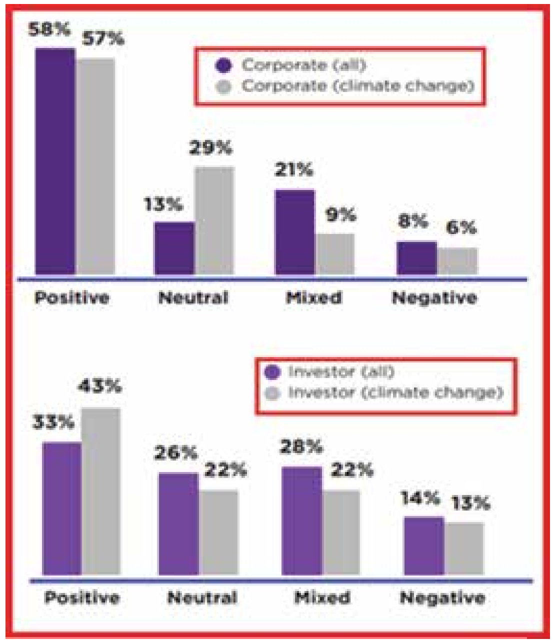
Source: Author's Compilation, as per BRSR

In fact, reporting under BRSR is a radical departure from erstwhile BRR, as it relies on quantifiable metrics and is outcome-based. It demands disclosures on (i) the material ESG risks and opportunities, (ii) goals, targets performance relating to sustainability, (iii) environmental disclosures on resource usage, management of wastes, air pollution etc. (iv) social disclosures like gender and social diversity, CSR, (v) disclosures on product labelling and recall, (vi) Governance disclosures on sustainability related challenges, targets and performances. BRSR is more quantitative, standardized and thus it is an integrative approach to ESG reporting.

INTERNAL AUDIT AND BUSINESS VALUATION

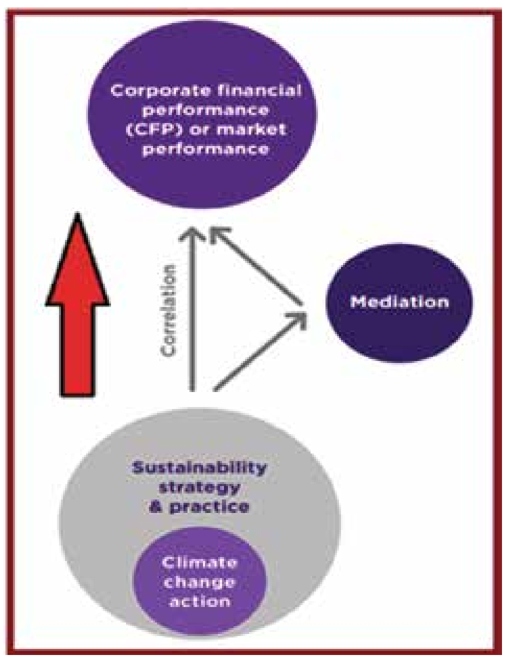
In this era of cut-throat competition, adding value is as important as statutory compliance and hence the role of CMAs in internal audit function is that of adding business value by way of prudent ESG decisions. Integrated Reporting (IR) is of vital significance in this globalized regime. In IR, both financial and non-financial information are reported in an integrated manner along with sustainability reporting. By designing an IR system that best fits the company and acting beyond the compliance norms, CMAs ensure sustainable value to the company. Therefore, a radical redesign of the business in a way that creates long term value is possible. As an internal auditor, CMAs use IR framework for risk management and governance too. Using the standards on risk management and governance in an IR framework, greater transparency on social, environmental and economic aspects of corporate performance is enabled. CMAs play a key role in internal audit process in an IR-based ESG setting.

FIGURE II: ESG AND FINANCIAL PERFORMANCE.



Source: Stern NYU Education (2021) [8]

FIGURE III: ESG AND CORPORATE PERFORMANCE



Source: Stern NYU Education (2021) [8]

An assimilation of over 1000 studies (2015-2020) shows positive effect of ESG on financial performance from the views of companies and investors, both (Figure II), being a correlation with climate change as the mediator. (Figure III). ESG's impact is clearer in longer horizon.

ESG has become an imperative rather than an option

Only disclosure, will not improve financial performance.

CONCLUDING OBSERVATIONS

ESG has become an imperative rather than an option, and CMAs have a vital role to play. For effective ESG adoption, the top management should form a 'Sustainability Committee' with CMA in the key post with cross-functional representation and the decisions of this top committee be communicated down the line for their implementation on an ongoing basis. Action plans for economic, social and governance sustainability be chalked out periodically for adoption in their true letter and spirit. While focusing on innovation, learning, trust and stakeholder engagement, benchmarking the company with national and global 'Best in Class' companies in ESG is advisable. ICT integration should go hand in hand with ESG adoption, for better competitiveness. MA

REFERENCES

1. *Little, Ian., D, Mazumdar., and John Page. (1987), Small manufacturing enterprises: A comparative analysis of India and other economies, Oxford University Press.*
2. *Manoj P. K. (2008), "Cost Competitiveness and Indian Economy: Significance of Mandatory Cost Audit in the Globalized Regime", The Management Accountant, 43 (4), 204-211.*
3. *PK Manoj (2011), "Just in time (JIT) inventory management for enhanced operational efficiency: an 'Indianised JIT' strategy for an agro machinery manufacturing unit in Kerala", European Journal of Technology and Advanced Engineering Research, 2 (1), 29-39.*
4. *Manoj P.K. (2012), "Information and Communication Technology (ICT) for Effective Implementation of MGNREGA in India: An Analysis", Digital Economy of India–Security and Privacy, Serials Publications, New Delhi, 145-150, First Ed.*
5. *Manoj, P. K. (2016), "Real Estate Investment Trusts (REITs) for faster housing development in India: An analysis in the context of the new regulatory policies of SEBI", International Journal of Advance Research in Computer Science and Management Studies, 4 (6), 152-167.*
6. *P K Manoj (2019), "Competitiveness of manufacturing industry in India: need for flexible manufacturing systems", International Journal of Innovative Technologies and Exploring Engineering, 8 (12), 3041-3047.*
7. *Reserve Bank of India (2021), "Green Finance in India: Progress and Challenges", RBI Bulletin, Jan. (www.rbidocs.rbi.org.in).*
8. *Rockefeller (2021), ESG and Financial Performance, Report, Stern-NIU Education & Rockefeller. (wwwstern.nyu.edu).*
9. *Manoj P. K. and Mini Joseph (2022), "ESG Adoption by Housing Industry in India for Attaining the National Housing Goal: The Key Role of CMAs", The Management Accountant, 57(3), 48-52.*

IS THERE A NEXUS BETWEEN INTERNAL AUDIT AND CORPORATE GOVERNANCE?

Abstract

Good corporate governance is indispensable for the progress of any business entity. Its importance was highlighted in the 2002 Mckinsey overview which expressed that corporate governance is at the core of investment choices. Furthermore, investors consider corporate governance on the same footing as of other financial metrics while assessing decisions regarding selection of their portfolio. Internal audit has been the focal point in the discussion on corporate governance. The exercises of internal audit can be leveraged to boost effective governance. Internal audit emphasizes on creating value for the business entity, and on assessing and recommending upgrades to corporate governance systems of the entity. This study reviews the existing repository of literature and attempts to establish a link between internal audit and better corporate governance practices.

Samrat Banerjee
Assistant Professor
St. Xavier's University
Kolkata
samrat.banerjee@sxuk.edu.in

INTRODUCTION

The corporate world has seen a series of breakdowns in the form of WorldCom, Enron, Intercontinental bank, RBS, Northern Rock; Oceanic bank, which resulted in elevated public attention to corporate governance issues. The worldwide financial crunch which started in 2007 added further strands to corporate governance practices and strategies. These improvements have escalated investors' participation. Furthermore, this has aggravated the interest for high corporate governance norms, to guarantee the proficient and successful utilization of capital, which yields more returns on outlay in a way liable for society's advantage; and is shielded from wrongdoing and misappropriation. Corporate governance is related to the methods in accordance to which an entity is controlled and operated. Corporate governance will, in general, empower the productive utilization of scant assets as well as guarantee responsibility for the stewardship of those assets. There is a developing commotion for an order for internal audit to raise its bar and be an empowering influence for raising the viability of corporate governance.

Glancing back at corporate governance overall, for example the requests, strain and errands of the audit committee, the executives and the Board in general, the aspirations of various stakeholders, the position of the internal auditor inside the entity, and so on, an effect on the responsibility and the obligations of internal audit seems inescapable. The Audit Committee is totally reliant on the internal auditor for reviewing the arrangement of internal control as endorsed by corporate governance codes and norms. Essentially all rules on sound corporate governance practice, incorporates suggestions for risk management through internal control. This relationship is visible as an unpredictable piece of the stewardship model of corporate governance.

REVIEW OF LITERATURE

Irwan Adimas, Ganda Saputra & Achmad Yusuf (2019) attempted to assess the function of internal audit in maintaining good corporate administration practices and to recognize the significance of the internal audit in the process of external audit and the assessment of expenses involved in audit. The outcome of their research portrayed that the significance of internal audit in corporate administration is to evaluate the true and fair view of financial statements, to ensure their consistency with pertinent guidelines and rules and to give advice for the viability and functional effectiveness of the organization. It was inferred that the internal audit function plays a vital part in corporate governance.

Zou, J. (2019) conducted an extensive research with reference to China to determine whether operating conditions of the business entities can be improved by internal audit and also identify problems within the organization in order to control them effectively. It was concluded that internal audit assures transparency through disclosure of financial information to the stakeholders of the companies. Therefore, it was observed that internal audit was a necessity for ensuring good corporate governance practices.

Mihret, D. G. & Grant, B. (2017) focussed on the role of internal auditing in corporate governance using Michael Foucault's concept of governmentality. The paper fostered an underlying reasonable detailing of internal audit as an ex post confirmation regarding the execution of financial transactions.

Asish K. Bhattacharyya (2015) studied the scope of internal audit in the light of the Companies Act, 2013. He further studied the association of internal audit with management accounting and corporate governance and concluded that internal audit is helpful in maintaining strong corporate governance.

RESEARCH OBJECTIVES

1. To analyze the linkage between corporate governance and internal audit.
2. To recognize the necessity of internal audit as a pre-requisite to standard corporate governance practices.

DISCUSSIONS

The concept of governance

Majority of the studies have accentuated the significance of sticking to the standards of corporate governance and its effect on expanding stakeholders' trust in the individuals of the Board of Directors and in this way the capacity of nations to draw in new local or foreign investors, and the ensuing advancement of the economies of those nations. This was joined by the interest of numerous nations on the planet and international associations with the idea of corporate administration through issuance of different guidelines.

Internal audit and corporate governance

Long back the primary objective of internal audit was to forestall and recognize monetary fakes in areas far away from the focal working area of the firm. Accordingly, internal audit was utilized for lessening the expense of compulsory financial audit by an external auditor.

The external financial auditor plans his audit procedure and forms review plan and program solely after assessing the sufficiency and viability of the internal audit. Gradually, the idea of operational audit arose. Presently, pretty much every firm incorporates operational audit within the purview of internal audit. Be that as it may, internal audit keeps on designating majority portion of its resources in financial audit. Subsequently, till as of late, in many firms, the Chief Internal Auditor (CIA) used to answerable to the CFO. Contemporary internal audit is 'eyes and ears' of the Board, which is answerable for overseeing the firm. At the point when there is a problem in governance, the Board is considered liable for the equivalent. The Board establishes the 'vibe at the top'. It gives key heading to the administration. It is answerable for guaranteeing that the firm consents to material regulations and guidelines and that outer detailing is right and not deceiving.

> **Internal audit ought to be a boss in evaluating potential open doors where corporate governance can be reinforced**

Improvement of the executive processes in all lines of organizations and associations requires information and use of additional advanced rules that expect to guarantee that the element's administration capacities run well to deliver great execution and solid seriousness. Thus, great administration rehearses are required and executed in the design of a substance's corporate administration. The review panel is the right hand of the board of magistrates as a delegate to supervise the presentation of the element's administration. The Audit Committee is liable for the general execution of the internal audit. The review council plays an alternate part contrasted with different boards of trustees.

CONCLUSION

Endeavors that can be completed to expand the adequacy and functional proficiency of the organization are by carrying out standard corporate governance practices. Organizations that anticipate problems and displays internal oversight transparently are being viewed as valuable companies by the stakeholders. Internal audit ought to be a boss in evaluating potential open doors where corporate governance can be reinforced and proposing restorative activity depending on the situation. An emphasis on corporate governance offers internal audit the chance to turn into a more dynamic and key cooperative instrument. According to the latest surveys, it can be asserted that the Board of Directors are looking for more noteworthy commitments from the internal auditors. Internal auditors can live up to the high expectations by taking a more comprehensive perspective on corporate governance and adjusting internal audit abilities and exercises to survey, improve, and screen their organizations' corporate administration capacities. Thus, internal audit serves as one of the most critical tools for ensuring effective corporate administration in the business concern. Ideally this article can help the internal auditor in his steady quest for ways of value addition towards the organization. MA

References

1. *IrwanAdimas Ganda Saputra, and Achmad Yusuf, "The Role of Internal Audit in Corporate Governance and Contribution to Determine Audit Fees for External Audits." Journal of Finance and Accounting, vol. 7, no. 1 (2019): 1-5. doi: 10.12691/jfa-7-1-1.*
2. *Zou, J. (2019) On the Role of Internal Audit in Corporate Governance. American Journal of Industrial and Business Management, 9, 63-71. doi: 10.4236/ajibm.2019.91005.*
3. *Bhattacharyya, Asish K., Internal Audit - Its Role in Corporate Governance (June 21, 2015). Available at SSRN: https://ssrn.com/abstract=2621149 or http://dx.doi.org/10.2139/ssrn.2621149*
4. *Mihret, D.G. and Grant, B. (2017), "The role of internal auditing in corporate governance: a Foucauldian analysis", Accounting, Auditing & Accountability Journal, Vol. 30 No. 3, pp. 699-719. https://doi.org/10.1108/AAAJ-10-2012-1134*

DIGITAL TRANSFORMATION
A PRISMATIC VIEW

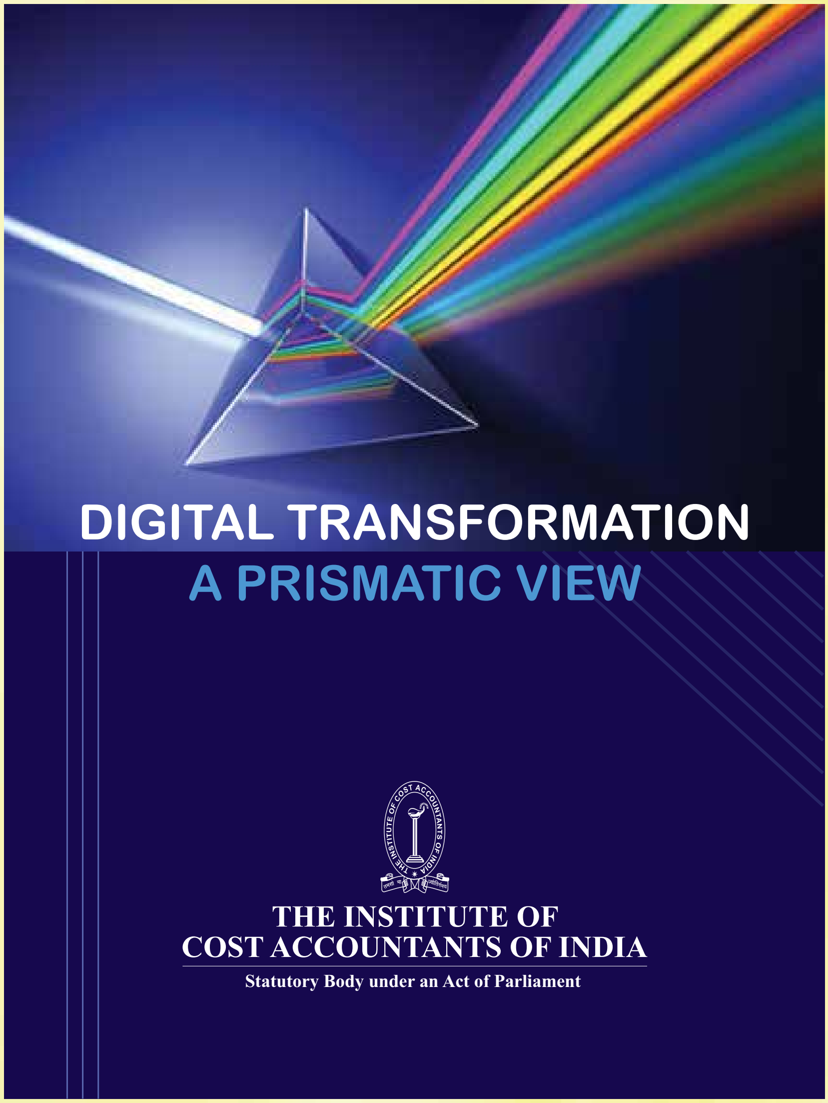
An initiative of

Board of Advanced Studies & Research and
Journal & Publications Committee

About the Book

Overwhelming speed and 'innoventive' quality of technological developments are boldly disrupting business entities across industry sectors, touching lives of common people, and transforming their way of living life. Digital technologies like blockchain, AI, RPA, AR, VR, etc, are continuing to bring about foundational changes in a nation's economic and societal foundation. The present Industry 4.0 is a revolutionary era of digital technologies.

The ultimate objective of digital transformation is maximisation of value creations and minimisation of value destructions. Success in all these would accelerate sustainable growth and prosperity of humanity in an improved global environment. Remaining abreast of such technological developments is an imperative for every professional. This will help enduring with relevance, gain 'stragility' and attain abilities to contribute more for value creation. Readers would find this anthology of thirty-one articles useful to move ahead with knowledge and information in this fast-evolving era of digital transformations.



First Edition: *March 2022*

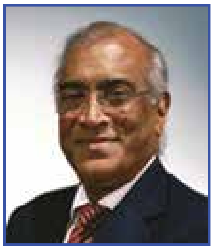
Price: *₹499/- (Rupees Four Hundred Ninety Nine Only)*

For more information, please mail at *editor@icmai.in / advstudies@icmai.in*

ISBN: 978-93-91572-06-8

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
Statutory Body under an Act of Parliament
www.icmai.in

DIGITAL TRANSFORMATION WITH DECENTRALISED FINANCE - LIBERATING FROM CeFi TO DeFi AND CeFi IN DeFi



CMA (Dr.) Paritosh Basu
Senior Director (Sevices)
Stragility Consulting Pvt. Ltd.
Mumbai
paritosh13286@outlook.com

Introduction

Human beings in pre-civilisation era used to collect requirements for living life from mother earth that was freely available. There was no need for any sacrifice in exchange except hard labour and courage. Through the process of evolution came the era of barter. People exchanged one item against the other perhaps based on their own perceived value assessed in terms of hurdles to be overcome and efforts required for gathering from nature. Hundreds of centuries thereafter around 900 to 800 BC came the era of physical assets like land, animals, followed by cut-stones, cowrie shells, etc. used as the medium for exchange of goods for living.

Historians traced the convention of using coins in India from around first millennium BCE. Coin minting in India with different denominations started during the period of several ancient rulers of kingdoms, viz., Magadha, Ghandhara, Shakya, Surasena, Panchala, etc. during 600 BC. Those used to be exchanged by citizens as legal tenders. Historians could also find that Chinese and Lydian rulers of middle east region were two of the earliest introducers of coins. But existence of any centralised record for issuing, monitoring, and controlling circulation of such coins, or existence of any assets that back up total value of such coins could not be traced in any literature. Therefore, existence of the concept of centralised finance in that era could not be established. This needs more research.

Kaihua Qin et. al.[1] in their research paper mentioned about the first instance of *".... centralised finance several thousand years ago"* practised during the ancient civilisation of Mesopotamia, situated in the valleys between Tigris and Euphrates rivers of West Asia. According to the findings of their research *".... humans have used a wide range of goods and assets as currency such as cattle, land, or cowrie shells; precious metals such as gold .... and, more recently, fiat currencies. .... a currency can either carry intrinsic value or be given an imputed value .....*

Image Source:
https://beincrypto.com/top-five-defi-coins-for-december/.

All these were based on the premise of a centralized entity, where e.g., a government is backing the financial value of a currency. ..... History, however, has shown that currencies can also be valued using an imputed value, ... which can be unrelated to its intrinsic value, and, e.g., may even be zero". It is not clear what exactly was the year when centralised fiancé started. The authors have referred to present day fiat currencies whose imputed value is guaranteed, and circulation is controlled by respective central banks of each nation.

Objective

This article has been written keeping in view the single objective of bringing together the fundamental dimensions of decentralised financial services or DeFi. It will briefly narrate various aspects of DeFi so that readers can familiarise themselves with this relatively new development in the domain of digital transformation of financial services.

Centralised Finance or CeFi

The traditional knowledge about 'Centralised Finance' or CeFi, is built around the practice of financial systems in which all types of fiat currencies are issued controlled and monitored by a designated authority called the central bank which underpins the country's economy. This is done under the premise that the federal government has guaranteed payment of denominated values on presentation, irrespective of having or not backing of any intrinsic asset of equivalent value. The predominant objective is to create a stable currency that can function as a medium of exchange and a legal tender for settlement of transactions measured in monetary terms. CeFi thus has helped designing and administering other financial services using fiat currencies. Therefore, in CeFi, existence of a central authority is a must which reserves the right for censoring a transaction and issue all regulatory guidelines.

Citizens in such a CeFi ecosystem would have to first trust the governmental, its policies, and processes, the people at the helm of affairs and hierarchical levels of execution. Thus, in a CeFi ecosystem there are huge intervention of policy makers whose decisions are executed, and results are monitored and controlled through human interventions instead of being auto piloted by a technological platform embedded with smart contracts. The uses of such centralised systems must have to trust the authorities and agree with the terms and conditions of regulators and their authorised agencies like banks.

Decentralised Finance or DeFi

Genesis

In English alphabet D comes after C in order of literature or phonetic sense. Hence one can think of it being logically sequenced. But DeFI essentially emerged from the 'Black Swan' event of global financial crisis in 2008. It created a crisis of confidence on financial regulatory systems of developed nations. This event opened the vistas for innovators to think for decentralised finance riding on the benefits of digital technologies. The maxim says crisis is a good opportunity to waste. Satoshi Nakamoto's team grabbed the opportunity and published the paper on cryptocurrency. In 2009 they started the P2P network of private electronic cash or cryptocurrency called Bitcoin.[2]

The predominant objective behind this initiative was to liberate liquid assets of common people from the clutch of regulators of any country. This is touted to be the single most major reason that caused emergence of cryptocurrency. Execution of transactions using Bitcoin were facilitated by a blockchain technology-based platform in a trust less environment and without the control of any central agency. Every transaction is encrypted with complex algorithms, because of which such a currency is called cryptocurrency. This is the bedrock for DeFi.

Features of DeFi

DeFi is also known as non-custodial finance because in this ecosystem there is no central controller and intermediary. In this system there is no need for any human intervention Readers by now must have appreciated that all features of Blockchain technology are also synonymous and coexisting with the features of DeFi. The following is an illustrative list of features of a DeFi system:

- Decentralised,
- P2P Network,
- Permission less,
- Open to all equally
- Trust-less environment,
- Transparency and immutability,
- Encryption, safety, security, and privacy,
- Distributed data storage management systems,
- Embedded smart contracts performs as a compliance manager,
- Wallet at every participant's Node to be linked with ERP using APIs,
- Absence of intermediation, sanction, and censorship by any central authority,
- Interoperability that allows more than one platform to collaborate and work together

These features of DeFi enables anyone from anywhere to participate, interface, and deal with her/his assets independently without any intermediation and third-party custodianship. DeFi systems are developed also with facilities for composability. This allows assembly of other selected protocols in multiple combinations, which enables a DeFi system to plug in products of other systems. All these features by themselves are indicators of the benefits of DeFi as a system for providing financial services by FinTech companies. Such a FinTech system is not devoid of risks and losses for users, particularly from the perspective of users' ignorance, gaps in knowledge and lack of training as have been detailed in a subsequent section.

Building Blocks of DeFi

DeFi as a system is designed, architected, and developed by applications of digital technologies. The following are the major three building blocks:

- Blockchain Technology: Readers may refer the author's articles as listed below at serial number 4 and 5 of Webliography to know more about this technology.
- Digital Assets These are crafted by digital tokens representing a value, the quantum of which may remain static or dynamic if driven by market forces. The author has written about such assets in this 'Digital Transformation Column' of June, 2022 issue of this Journal.
- Digital Wallets - The technical definition of a digital wallet denotes that software interface which enables a user to manage assets stored on a blockchain platform. For assets contained in such a non-custodial wallet, the user has exclusive control through her/his private keys. Private keys for a custodial wallet is managed by a service provider.

DeFi and DApps

The term DeFi is synonymous with decentralised applications, i. e., 'DApps' because DeFi services are rendered on a P2P network following the principles of distributed data storage management (DDSM). It allows each user to participate from her/his computing node. All transactions on a blockchain platform for DeFi are executed under the guardianship and scripted driving principles as enshrined in the digitally embedded smart contracts (SCs). These are supposed to be drafted legal eagles with due compliances of all related legal and regulatory requirements. Readers may please refer the author's other articles on Blockchain technology[4] and Smart Contracts[5] for more inputs on this.

Another reason for considering DeFi to be DApps is operation of the system without intermediation of any central agency like commercial banks that functions between the fund provider and the borrower. The common belief is that the intermediaries, viz., banks and financial institutions, that dealt with sub-prime mortgages with the gluttony-driven objectives of multiplying profits, are predominantly responsible for the global crisis of 2008. In a DeFi ecosystem there is no place for any intermediary. Its blockchain based platform does not give anybody any right of censoring and interfering into any transaction.

Financial Services through DeFi

According to a publication of Wharton University press of May 2021[3], *Decentralized Finance (DeFi) is a developing area at the intersection of blockchain, digital assets, and financial services. DeFi protocols seek to disintermediate finance through both familiar and new service arrangements. ….. DeFi is a general term covering a variety of activities and business relationships. … While traditional finance relies on intermediaries to manage and process financial services, DeFi operates in a decentralized environment—public, permissionless blockchains. Services are generally encoded in open-source software protocols and smart contracts."* This paper identified six broad groups of financial services through DeFi mode. The first one is Stablecoins which are essentially cryptocurrencies designed to have stable exchange rate because of being pegged with a currency or a commodity and their supplies being controlled by algorithms.

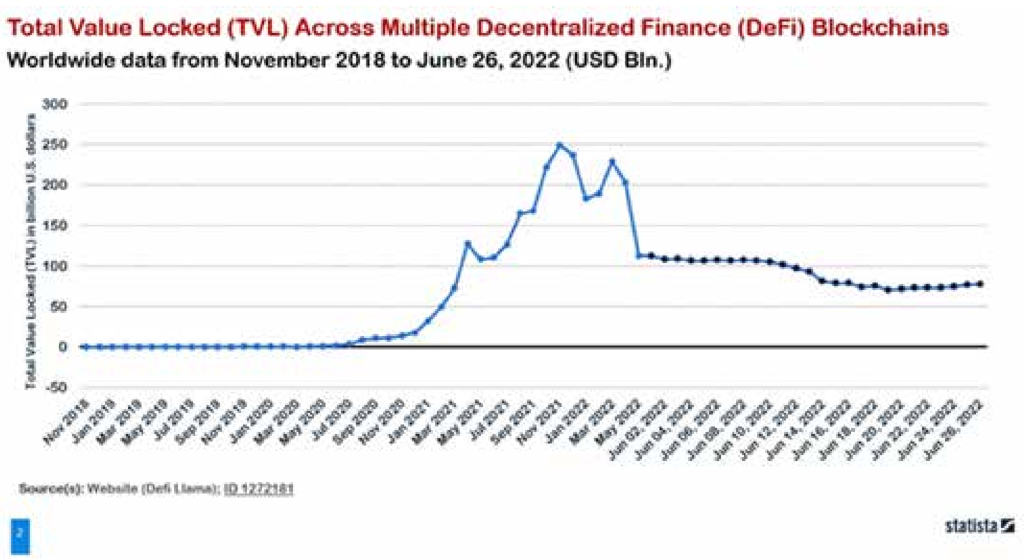
Source: https://vulcanpost.com/738088/what-makes-stablecoins-different-from-bitcoin-and-other-cryptocurrencies/

However, major contraction in values of Stablecoins said to be a sympathetic reaction of huge landslide in values of major cryptocurrencies in recent past. The big question that has arisen whether they can at all be considered as stable! The other services by way of DeFi rendered by FinTech companies are that of an exchange for cryptocurrencies, credit delivery for borrowings by others, trading on derivatives, insurance, and asset management, earning interests etc. Consequently, DeFi can be considered as an overarching term for financial services which banks can render. The extended ones are secondary services for digital wallets and DApps for conducting transactions. Lex Sokolin, Global Fintech Co-Head of ConsenSys said, *"We are a stone's throw away from the global financial industry running on a common software infrastructure."*

Volume of DeFI Services

Financial services through DeFi gained reckonable momentum from around 2018 although Bitcoin was introduced in 2009. Within a short time span it has become a worldwide phenomenon. It would be worthwhile now to know more about the major DeFi service, i.e,, lending. Statista reported[6] that *"The total value locked (TVL) in decentralized crypto lending platform Anchor Protocol grew by roughly 50 percent within a month in 2022. The lending protocol was created within the Terra blockchain and launched in March 2021, first meant to support the demand for stablecoin TerraUSD (UST). One year later, it had already become one of the biggest DeFi platforms based on market cap This popularity stems from the platform's promise to hand out a stable interest rate of nearly 20 percent for those looking to stake cryptocurrencies - a percentage described by some as "a benchmark yield for the whole industry*".

However, globally the volume of DeFi services is influenced by the market dynamics affecting prices of cryptocurrencies. As per the following information of Statista, globally DeFi operations touched USD 250 Billion mark sometime in November 2021.



Source: https://ezproxy.svkm.ac.in:2307/statistics/1272181/defi-tvl-in-multiple-blockchains/

However, the market size was significantly affected when value of Stablecoin like TerraUSD (UST) crashed in May 2022. Since then, uncertainty is prevailing in global cryptocurrency market and many Stablecoins lost their peg to USD. The above graph ends on June 26, 2022, when the price of Bitcoin was USD 21,481.64. Therefore, one can infer that volume of DeFi services is dependent on the price of Bitcoin which also influences prices of Stablecoins. Such volume will further deplete because as this article is being written value per bitcoin has reduced by 71.44% to USD 19,291.66 at GMT 5.30 on July 4 2021 from its peak of USD 67,553.95 at GMT on November 9, 2021.

CeFi In DeFi – Picture in Picture

Some of the FinTech companies (FTCo.) providing DeFi services, can also perform as a CeFi service provider using extended digital applications. The following is an illustrative list of such services:

- A customer, having a wallet for her/his cryptocurrency investments in say bitcoin at the FTCo's exchange, can offer a part of that as a collateral and take loan in fiat currency at a specific interest rate. Alternatively, the loan can be also extended in cryptocurrency itself,
- Intermediary services for P2P lending between two wallet holders for cryptocurrency in the FTCo's exchange for

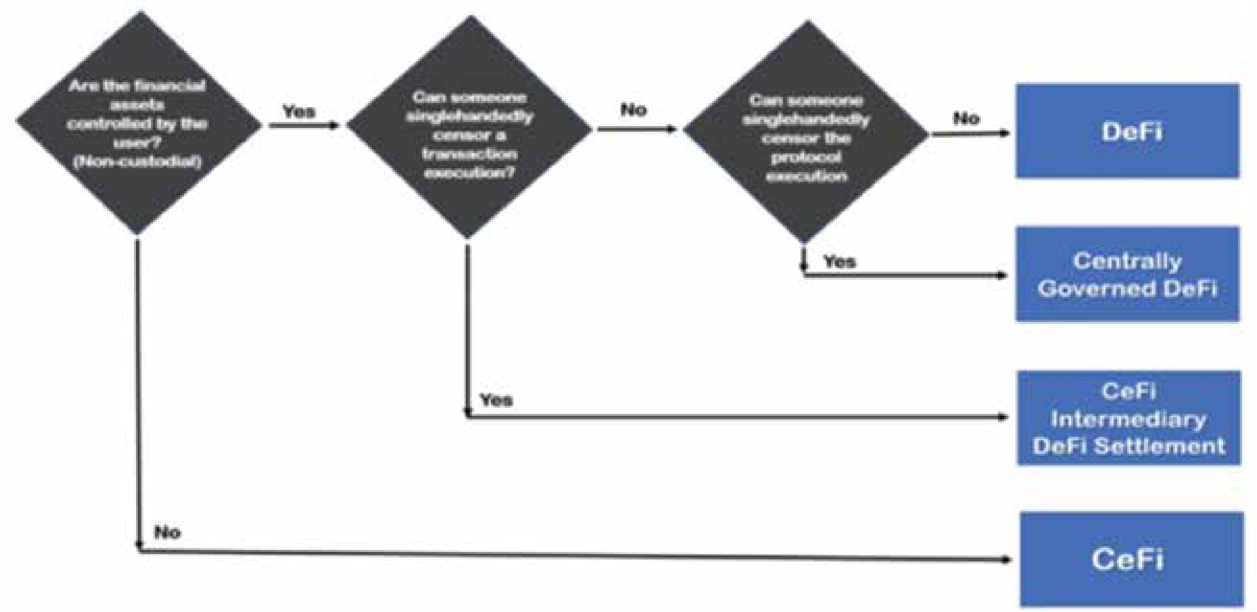
which the transaction can happen in cryptocurrency,

- Facilities for trading on derivatives by the FTCo's investor community with cryptocurrencies as underlying assets, and
- Insurance service provider to cover risks against loss of funds in wallets or wrong transfer of funds to an unintended wallet against premium to be paid in cryptocurrency or fiat currency. This service protects interest/financial loss of users from risk exposures as detailed in a subsequent section.

Comparison of CeFi Vs. DeFi

The most prevalent distinguishing features between CeFi and DeFi are around the following questions:

- Who controls the assets,
- How transparent and accountable is the system, and
- What privacy protections exist for the end user?



Source: Recreated by the author from the image at https://arxiv.org/pdf/2106.08157.pdf

As is apparent from the above decision tree `the conditions to be satisfied for determining the status of financial services provided by a FinTech company can be determined in the following manner:

- DeFi: Financial assets are to be controlled by the user without any one of the systems reserving any right to censor both protocol for execution and actual execution of transaction.
- Centrally governed DeFi: It is equivalent to DeFi except for someone operating the system has the right to censor the protocol for execution.
- CeFi Intermediary and DeFi Settlement: Custodial control of the asset is executed by the owner user, but the FinTech entity has the right to censor both execution of transaction and the protocol for the same.
- CeFI: The user is not the custodian of the asset and some player in the service system can reserve the right to censor execution and protocol for execution.

Risks Exposures for DeFi Users

Users of any DeFi system are exposed to several risks, the most common of which could be listed in the following lines:

- Intrinsic Risks: These risks may creep in when the Smart Contracts are crafted for embedding into the operating system of Blockchain platform through which DeFi services are rendered.
- Exogenous Risks: These risks may get built in the DeFi system when external protocols for other financial operations like lending, trading on derivative, insurance services, etc. are stitched into the smart contracts for DeFi.
- Governance Risks: DeFi services are operated in a decentralised environment due to the inherent nature of blockchain technology. In the absence of globally agreed regulations and code of standards so far, there are

scopes for the operators to influence the governance procedure while embedding operating protocols into the smart contracts taking advantage of users' ignorance.

- Market Risks: Volume, costs and returns from DeFi systems are largely dependent on cryptocurrency market which in turn is also influenced by traditional factors that affects external financial markets. This has more been explained above under the section 'Volume of DeFi Services'

Need for Regulations

The author in many earlier articles under this Column has reinforced the need for global demands for introduction of regulations by multilateral agencies like IMF, World Bank and BIS for private cryptocurrencies. The need for introducing a code of standards for this, like IFRS for accounting and reporting and aviation standards for flying aircrafts, need not be debated anymore. This is a must because there are reported nefarious activities like money laundering, funding terrorists, extortions by cybercriminals, and several other financial crimes being committed using cryptocurrencies. Worldwide proliferation of DeFi has further intensified the challenges of regulating cryptocurrencies. Therefore, meeting such institutional responsibilities under the garb that greedy investors are playing with cryptocurrencies cannot and should not be sighed away anymore.

One school of thought is of the view that the 'Recommendation 16' of the Financial Action Task Force (FATF) can help meeting these challenges. Because it can be applied at the intersection point of mainstream finance with cryptocurrency exchange and wallet service providers. Those exchanges convert fiat currency to cryptocurrency and vice versa.

One good news is recent introduction of the Lummis-Gillibrand Bill in the USA which is intended to serve as a regulatory framework for **digital assets, including cryptocurrencies**. It has been welcomed as a positive step, but consistency and cooperation between global regulators will be needed to achieve effective regulation and supervision of this space. Forbes' post[7] on the above inter alia include the following views - *"There are many discussions about how regulators can talk through common goals and stay aligned. There has to be some element of coordination globally and shared principles, but we will continue to see distinctions between jurisdictions on how they regulate this market."*

While the USA has put the first step forward, the foremost requirement is to form a global forum of multilateral agencies with participation of all major nations. This task group must single-mindedly focus only on cryptocurrencies and DeFi. The major objective should be to come out with a globally accepted regulation and code of standards. Each nation may be allowed to moderate their relevant acts and regulations to meet the unique requirements of their country's financial and regulatory ecosystem.

Conclusion

DeFi as a subject is evolving and gaining momentum in terms of the idea being tried out by many FinTech operators across nations. They will continue to do so because people have understood the benefits of adopting digital technologies for transforming various aspects of a common man's daily life. However, hurdles are being met as the system is heavily dependent on cryptocurrencies. Innovative design thinking and application orientation may bring in DeFi based operating solutions with adoption of CBDCs. Till that is done, the author would consider this work to have met its bit of purpose if people in general get a fundamental view on what DeFi is all about. MA

Bibliography and Webliography

All these websites have been accessed during June and the first week of July 2022.

1. *Kaihua Qin et. al., "CeFi vs. DeFi - Comparing Centralized to Decentralized Finance", arXiv:2106.08157v2 [q-fin.GN] 16 Jun 2021, https://arxiv.org/pdf/2106.08157.pdf*
2. *https://docs.google.com/viewerng/viewer?url=http://www.innoventionians.com/wp-content/uploads/2021/01/17th-Monthly-Article-on-Digital-Transformation-Currency-Dec-2020.pdf*
3. *https://wifpr.wharton.upenn.edu/wp-content/uploads/2021/05/DeFi-Beyond-the-Hype.pdf*
4. *https://docs.google.com/viewerng/viewer?url=http://www.innoventionians.com/wp-content/uploads/2021/04/18th-Monthly-Article-on-Digital-Transformation-Blockchain-February-2021.pdf*
5. *http://www.innoventionians.com/wp-content/uploads/2022/04/32nd-Monthly-Article-on-DT-Smart-Contract-April-2022-1.pdf*
6. *https://ezproxy.svkm.ac.in:2307/statistics/1298067/daily-tvl-of-anchor-defi/*
7. *https://www.iflr.com/article/2aaschem97nz7zoty84qo/global-cooperation-critical-for-crypto-regulation*

VALUE AT RISK

Abstract

This article attempts to outline the conceptual under pinning, uses, advantages and limitations of "Value At Risk", a popular risk metric, being used by banks and other financial institutions as a tool for risk management

Biplab Chakraborty
General Manager (Retd.)
Department of Banking Supervision
Reserve Bank of India, Kolkata
biplabchakraborty@yahoo.com

INTRODUCTION

"Value at risk" (VAR)is a probabilistic measure of risk. It is a risk management metric compiled on statistical methodology. Intuitively VAR is a summary statistic of likely worst loss that given portfolio(s) of assets is/are likely to suffer if subjected to volatilities of underlying risk factors over a given target time horizon within a given confidence interval. An investor holding a portfolio of assets (e.g., equity, or bonds or foreign currency) of present market value say Rs 500 million (notional) may be interested to know within a given confidence level of say 99 per cent the likely future value of his portfolio, if he holds the portfolio passively for some future time -say a day, 10 trading days or a month. The future value of the portfolio is a random variable with an associated probability distribution. Therefore, the future portfolio value cannot be predicted with certainty but a probabilistic estimate would be possible. The consequential potential profit/loss figure will be a function of the probability distribution and the current market value of the portfolio. The VAR would be the potential loss amount such that probability of eventual loss not exceeding VAR would be 0.99 or in other words the loss might exceed VAR with a low probability of 0.01. VAR is pinned to the quantile of underlying profit / loss distribution function of the portfolio(s) under consideration. The eventual loss far exceeding the VAR value might occur, *albeit* with a very low probability.

Historically, to answer a fundamental question posed by Dennis Weatherstone, the erstwhile Chairman of JP Morgan, "how much can we lose on our trading portfolio by tomorrow's close", market risk VAR methodology was evolved by JP Morgan in the aftermath of 1987 crash. This basic risk management question forms the basis for VAR in its present-day complexion. JP Morgan eventually in 1992 rolled out Risk Metrics service for VAR compilation for proprietary use by professionals at financial institutions and corporations. Ultimately, the Basle Committee approved the use of proprietary VAR by banks for working out the regulatory capital required to be maintained by them for assets held in their banking books as per the prescribed capital adequacy norms.

DEFINITION: VAR AND VAR TOOLS

VAR of a portfolio is an estimate of worst loss the portfolio might suffer over a given time horizon such that there is a low prespecified probability that likely loss would be larger. VAR assuming frozen portfolio over the horizon attempts to combine current position with the uncertainties of the risk factors at the end of the horizon.

The VAR estimate is conditioned by two parameters viz., the time horizon and a confidence interval for the estimate. Symbolically, if 'c' is the given confidence interval and the time horizon 'T" be any given time period measured in terms of trading days, and L is the loss entailed in holding the portfolio over the time horizon T, by definition VAR is the smallest loss such that

$$\text{Probability}(L>\text{VAR}) \leq 1-c.$$

For example, given 95 per cent confidence interval i.e., c=0.95% VAR would be the cut off loss such that probability of sustaining loss greater than the VAR would be less than 5 per cent if the portfolio is subjected to vagaries of its risk factors over the given time horizon T. The choice of time period T and the confidence interval 'c' solely rests with the user of the VAR consistent with the purpose for which the VAR would be used.

From the definition it is clear that VAR computation involves tracing variability of the risk factors driving the value of the portfolio, more precisely the underlying probability distribution of portfolio profit/loss over the defined holding period i.e., a summary of all possible values of profit/loss on account of the possible variations in underlying risk factors over the given time horizon and the associated corresponding probabilities thereof.

Marginal VAR is the estimate of the effect of addition of an investment position in the portfolio on the overall VAR of the portfolio. Marginal VAR allows study of portfolio risk implication of increasing /reducing an exposure /investment to a portfolio. While assessing the impacts of changing positions on portfolio risk, what is material is the individual asset's contribution to portfolio risk. Marginal VAR enables isolation of incremental security-specific risk accruing to the portfolio due to addition/reduction of exposure to a specific element of the portfolio.

Marginal VAR may be used for a variety of risk management purposes. For example, if an investor intending to reduce its portfolio VAR, subject to the given available choices to reduce individual positions, may choose for exclusion of the assets having largest marginal VAR among the assets ranked in increasing order of marginal VAR, to maximise the VAR reduction outcome.

If the rate of return of an individual investment is negatively correlated to that of a portfolio as a whole, on inclusion of this investment in the portfolio, the incremental VAR of the portfolio would be lower than individual VAR of the investment.

"Incremental VAR" refers to the change in VAR owing to a new position in the portfolio. This can be used to work out the impact of a proposed trade adding a set of exposure to an existing portfolio. Portfolio managers often grapple with the task of finding the size of the new trade which will lead to lowest possible portfolio risk.

Undiversified VAR is the VAR worked out as a sum of the VARs of individual assets. Undiversified VAR would generally be much larger than regular diversified VAR which captures the effects of inter correlations of the rate of returns of the individual assets in the portfolio

CHOICE OF HOLDING PERIOD & CONFIDENCE INTERVAL

VAR will generally increase with elongation of the holding period and widening of confidence interval. Choice of these parameters should depend on the intended use of VAR number by the user.

When VAR is intended to be used as bench mark, an organisation wide yardstick for comparing risks across different markets, choice of the parameters may be arbitrary provided consistency is maintained throughout. For example, to know whether a trading unit has greater risk than another or whether today's VAR is in line with yesterday's choice of these parameters will not matter much. If today's VAR number is not in line with that of yesterday's, a drill down exercise would be launched to know whether the increase is due to increased market volatility or bigger bets.

When VAR is used as potential loss measure, the holding period need be determined by the characteristic of the portfolio. One opinion is that the holding period should correspond to the longest period needed for orderly liquidation of the portfolio. Thus, time horizon should bear relevance to the liquidity of the constituent securities of the portfolio in terms of the length of time and the need for liquidation in normal transaction volume. Another opinion is that it is the time needed to hedge the market risk of the portfolio.

Choice of these parameters is very vital if VAR number is intended to be used to fix a capital cushion for the institution. For this purpose, the VAR measure needs to capture all risks (viz., market, credit, operational and other risks) facing the institution with precision lest for loss exceeding the VAR the capital would be wiped out triggering bankruptcy. Choice of confidence interval in this case should have a bearing to the risk aversion of the company and the cost of loss exceeding VAR. Supporting higher risk aversion and higher cost will necessitate larger amount of capital to cover likely losses and therefore the confidence level should be set greater. Simultaneously the holding period may be fixed keeping in view the time needed for corrective actions viz., raising fresh capital or reducing risk exposure as loss starts devolving. An institution decides its risk profile targeting to carry 'AAA' credit rating which corresponds to a default rate which can be converted into a confidence level for the VAR to work out the required capital cushion. Higher credit rating will mean lower probability of default and consequently higher confidence interval. If one-year default probability for AA rating is 0.06% (say) the corresponding confidence level would be 100-0.06= 99.94 per cent.

Longer time horizon would increase the default probability and therefore increase the VAR value for the same credit rating and same confidence level. Given capital level, by altering the confidence level and holding period, a desired rating can be achieved.

Choice of these two parameters is important for back-testing framework for VAR model. Back testing of VAR model involves systematic comparison of VAR numbers given by the model with realised profit and loss to detect the persistent biases if any therein. Longer time horizon reduces the number of independent observations. For example, for 10-day horizon number of observation would be 25, while for one -day horizon 252 observations would be available assuming 252 trading days in a year. Lesser number of observations tend to reduce the power of any test set up to maximise the likelihood of detection of biases in VAR forecasts. Therefore, shorter time horizon would be preferred to improve the power of back testing. Basel Committee stipulated back testing over one-day horizon while for capital calculation using VAR model 10-working day time horizon has been prescribed.

USE OF VAR

VAR can be perceived as a measure of risk capital or economic capital as cushion against unexpected losses to support financial/ business activities.

VAR is worked out by fixing appropriate holding period and confidence interval would serve as a better measure for risk when it is perceived as a measure of buffer against possible failure of the business. It has played a significant role in internal governance of financial institutions employing leverage. This risk metric has been adopted both by banks and other financial institutions as also by the Regulators.

VAR is often used by entities having exposure to several risky investments as means to monitor and control the aggregate risk level of the entity. Firms use VAR to gauge the size of future outlying losses or gains that their (or their clients') portfolios might experience.

VAR provides a framework for comparison among traders, business units and portfolios generating revenues based on Risk-adjusted Performance Measures (RAMP). RAMP enables management to adjust profit performance to entailed risk using VAR as a measure of economic capital and provides solution to the problem inherent in linking bonus of traders to profit.

VAR as a strategic tool can help management in arriving at business decisions as to which business lines should be expanded, sustained or contracted as also about the optimal level of capital to be held.

Risk budgeting involving the process of allocation and management of risk using a top-down allocation of economic risk capital starting from the asset class down to the choice of active managers and individual securities, builds on VAR.

VAR is also used to arrive at the value of collateral needed from a client for a margin loan while trading financial instruments. Buy-side entities, such as hedge funds, use VAR to gauge if a portfolio's allocation exceeds a current risk tolerance or investment mandate.

In the context of authorized risk-taking, risk limits are restrictions placed thereon. VAR is used in supporting risk limits. Risk limits expressed in terms of VAR are called VAR limits which integrate many of the advantages of exposure limits and stop-loss limits. VAR risk limits indicate risk before its economic consequences are realized and provide a reasonably consistent indication of risk.

Central counter parties/ clearing corporations use VAR approach to decide the margins to be stipulated for investors taking positions in future, option and other exchange traded derivative contracts in". VAR based margin with higher confidence level is intended to make unlikely the event of large losses wiping out the entire margin. Margins need be fixed at optimal level to avoid possible aversion on the part of traders to enter the market lowering the business level. When the market tends to be more volatile VAR based margin can be increased tweaking the volatility parameter in VAR frame work.

VAR models are used by banks to work out the required regulatory capital charge for market risk entailed in their trading books under Internal Models Approach for Market Risk" envisaged in Basel agreement.

ADVANTAGES OF VAR

VAR is just a number giving an estimate of the extent of risk in the portfolio. Measured in price units (Rupee, dollars, euros) or as percentage of portfolio value renders VAR very easy to understand, interpret and to further use in analyses.

It would be easy to measure and compare VAR of different types of assets and various portfolios. VAR is applicable to stocks, bonds, currencies, derivatives, or any other assets having price. Profitability and risk of different units may be compared allocating risk based on VAR.

VAR has extensive uses in financial risk management (viz., measure and control of risk) providing top-level view of financial risk. VAR methodology is applicable not only to balance-sheet values but also to cash flows e.g., cash flow at risk; an extension of VAR.

VAR is often a part of various financial software. Using these software VAR of a portfolio can be easily calculated after entering the holding and setting the parameters. Such availability is of great advantage.

DISADVANTAGES OF VAR

Looking at the risk exposure in terms of VAR may be misleading! VAR does not depict the worst ever loss but gives a probabilistic estimate that would not be exceeded with some frequency at the time horizon. It is oblivious of intervening losses. VAR is not the maximum that one can lose! Particularly VAR calculated with confidence level of 99 per cent might make the user complacent creating a deceptive sense of security! VAR complied with 99 per cent confidence level means that in 1 per cent of the cases (i.e 2-3 days in a year of 252 trading days) loss is expected to exceed VAR. It does not say anything about the size of the losses in those 2-3 days. Looking at VAR maximum possible loss is not fathomable. Loss on these 2-3 exceptional days might be high enough to trigger liquidation of the entity. The intervening losses are important for portfolios which are periodically marked to market and are subject to margin calls which might trigger liquidation.

VAR is not easily additive. VAR of a portfolio of two assets may not necessarily be equal to the sum of individual asset VARs as the degree and sign of correlations among the rate returns of individual assets must also be taken into consideration in working out the portfolio VAR. This poses a limitation on VAR to qualify as a coherent risk measure. VAR is not a coherent risk measure except for asset returns following normal distribution or in general elliptic distributions which are symmetric and unimodal*.

VAR models usually based on the assumption of normal distribution of asset returns, do not work in market under stress and under extreme price fluctuations. While the underlying distributions of returns of assets and portfolios are more often than not, non-normal, skewed and having excess Kurtosis, classical variance-covariance method used in compilation of VAR assuming normal distribution tends to under estimate VAR.

VAR measures only the quantile of return distribution oblivious of extreme losses exceeding the VAR level. Consequently, important information on the tails of the underlying distributions, important particularly to portfolios which are periodically marked to market, might get overlooked by VAR models.

Calculation of VAR for large portfolio is tedious and cumbersome inasmuch as it involves estimation of correlation matrix of large dimension for a large set of variables besides the volatility and rate returns of individual assets. Although various methodologies and cheaper and faster computing power have since arrived to tackle the problems of large dimensionality of the correlation matrix and risk factors associated with increasingly diversified and complex portfolios it is not without trade off with the precision and consistency of the VAR estimate.

There exist three popular methods for estimation of VAR. They are Variance-covariance (parametric), Historical Simulation and Monte Carlo Simulation methods. Compilation of VAR numbers under these three different methods for the same asset/ portfolio using same data set often leads to different VAR numbers.

VAR of a portfolio is an estimate of worst loss the portfolio might suffer over a given time horizon

CONCLUSION

VAR is a comprehensive risk measure accounting for leverage, volatility, and diversification. VAR measure enables us to make a statement of the kind "We are X per cent sure of losing more than Y amount in the next T days". It gives easy to understand means to answer "How bad things can turn out to be ". But answers do not give any guarantee as to the certainty of the maximum loss figure, which may eventually be a lot more than what is indicated by VAR. In the event of markets moving by large amounts in very short period of time dealing positions can trigger consequential losses much greater than the estimated VAR.

Firms generally use a variety of risk measures (viz., basis point value and stress testing etc.,) along with VAR to manage market risk. Stress testing intends to focus attention on what might happen when markets move abnormally giving an idea as to what would be the cost in an eventual bad day.

While for the creditors information on the potential tail loss of the business is useful as it conveys important indicators to the prospect of recovery of claims in the eventualities of default, for equity holders of limited liability entities it would not be that relevant since it hardly matters for them as to whether the entity becomes insolvent just marginally or it goes leaving a huge shortfall!

The accuracy and usefulness of VAR as a risk management tool and capital computation ingredient have come under doubts and questions in the present COVID-19 scenarios. The pandemic has caused significant disruptions in global markets which reportedly resulted in multiple VAR breaches by several banks. VAR compiled on historic data is backward looking. Procyclicality of VAR leads to under-estimation of VAR lowering market risk capital requirements of Banks before the crisis while actually higher capital is required. Similarly, when a crisis would be over VAR number would tend to shoot up increasing the market risk capital requirement while actually banks need to free up capital to inject liquidity in the market.

VAR model provides for insufficient measurement of tail risks and liquidity risk of the trading portfolio besides allowing for unrestrained diversification benefits. By a recent amendment the BIS has proposed replacement of VAR by expected shortfall. Expected shortfall is conditional expectation of potential losses exceeding the VAR at a given confidence level. This measure mitigates to some extent VAR's shortcomings in capturing the risk of extreme losses (i.e., tail risk).

In the proposed revision of Basel 2.5 VAR based models approach, expected shortfall (ES) which unlike VAR captures tail risk, has been envisaged to replace VAR to determine capital requirements for modellable risk factors (interest rates or equity prices) for which sufficient observable market data is available. For market risk factors with limited observable market data which are considered not suitable for modelling, a non-modellable risk factor (NMRF) requirement has been prescribed. NMRFs are excluded from the ES compilation. The capital requirement for each NMRF is determined by means of a stress test. MA

* Artzner postulated four desirable properties for risk measure to be reckoned as coherent viz., Monotonicity, Translational invariance, Homogeneity and Sub-additivity.

INNOVATIVE ECOFRIENDLY FINANCING: GREEN BONDS

Abstract

This article explores the concept of Green Bonds, the global scenario, the raison d'etre of these Bonds, the larger picture behind the issuance of the Green Bonds, and the Union Budget 2022 announcements pertaining to the same.

Dr. P.S.S. Murthy
Professor
Anurag University
Hyderabad
murthy.pala@gmail.com

Dr. Seema Nazneen
Assistant Professor in Management
Anurag University
Hyderabad
seemanazneenmba@anurag.edu.in

INTRODUCTION

India is combating climate change with keenness. It is already a low emitter of carbon.

While profits also called the bottom line, continue to occupy the prime place for the corporates, the shift to a triple-bottom-line of PPP (planet, profits, and people) is the new mantra. In the year 1994 Elkington, John, a British Consultant who is nicknamed "sustainability guru" in management has used the term "triple bottom line" as his method of evaluating the performance for American corporates

Prime Minister Narendra Modi has said: 'India has committed to achieving absolutely nil emissions by 2070. The PM says that it is not just walking the talk but running the talk."

"Further, the PM at the 26th Conference of Parties (CoP26), declared a fivefold strategy -termed as the *Panchamrita* a to achieve this feat. These are:

- India will get its non-fossil energy capacity of 500 gigawatts (GW) by 2030
- India will meet 50 per cent of its energy requirements from renewable energy by 2030
- India will reduce the total projected carbon emissions by one billion tonnes from now onwards till 2030
- By 2030, India will reduce the carbon intensity of its economy by less than 45 per cent

(So, by the year 2070, India will achieve the target of Net-Zero)".

The real achievement of these interventions works well with financial support. For instance, "The Center for Energy Finance estimates that for achieving net-zero, India will need about $10trn (about Rs 700 lakh crores)"

"Out of this, about $8 .4 trn will be to scale up renewable energy generation and relevant infrastructure and about $1.5 trn for setting up green hydrogen production for industrial decarbonization".

Intentions such as these gave rise to the concept of green financing, of which green bonds are a part of it. Green bonds are a novel financing initiative. They combine conventional finance with preserving the environment to continue to make it green. These bonds pack the environmental concerns too.

With the emphasis on clean energy "and to make our economy a "de-carbonized "economy, there is an urgent need to pace up the investments in these green sectors.

Needless to say, the support of the Indian financial system is the *sine qua non.*

WHAT IS A GREEN BOND?

A green bond is a bond belonging to the genre of fixed-income instruments that are specifically intended to raise money for climate and environmental projects. These projects, apart from satisfying their financing needs, address environmental concerns. These bonds are basically linked to the financial position of the companies issuing them. Going back to the 21st century these bonds were referred to as climate bonds as they were initiated to finance the special environmental savvy projects and enhance climate sustainability. The whole crux of the bonds depends on projects that support and enhance energy, forestry, and the complete ecosystem built for energy efficiency and climate protection. To make these Green Bonds attractive to the investors, they are packed with a plethora of tax incentives, exemptions, and tax credits.

HISTORY OF GREEN BONDS

Environmental concerns and issues have entered the global arena for the first time in the twentieth century. The first-ever international summit took place in Stockholm, Sweden. This UN-convened conference marked a turning point in the development of international environmental politics. It led both to the creation of the United Nations Environment Programme (UNEP) and to commitments to coordinate global efforts to promote sustainability and safeguard the natural environment. In 1990, the Inter-governmental Panel on Climate Change (IPCC) published its first assessment report. It warned that emissions resulting from human activities were substantially increasing the atmospheric concentrations of greenhouse gases which called for a global treaty. British PM Mrs.Margaret Thatcher presented a note of appreciation to the IPCC report during the second climate conference. A fervent need was felt for a global treaty to address these concerns. PM, Thatcher called for the countries to work together and to negotiate a successful framework convention on climate change in 1992.

> **To make these Green Bonds attractive to the investors, they are packed with a plethora of tax incentives, exemptions, and tax credits**

"The countries were divided into industrialized economies and developing economies at the Kyoto Protocol. Industrialized economies were referred to as Annex I which operate in their domestic markets and are eligible to sell their credits to other countries if the emissions of hydrocarbons is less than the permitted levels as per the agreement of ERPA. Later the protocol of Kyoto has gone through several amendments and changes in the year 2012 referred to as the Doha amendment, which was ratified in the year 2020 wherein 147 nations have deposited their acceptance instruments. Post-2012 amendment a new set of standards were designed and signed by 190 member countries in Paris in 2015. The US initially dropped out in 2017 and re-joined in 2020.

Green bonds were initiated in the years 2012 with a total amount of $ 2.6 billion. In 2016 the demand for green bonds increased to $ 32.9 billion with the borrowers coming from China, US & European Union. In 2017 the demand for green bonds scaled to $161 billion; in 2018 it rose to $ 167 billion, and to $ 266.5 billion in 2019 as a result of awareness among the investors about the climate change. The table below provides information on the amount raised through green bonds over the decade ending 2021.

TABLE 1: AMOUNT RAISED THROUGH GREEN BONDS

S. No	Year	Amount in Billion's
1	2012	$ 2.6
2	2013	$ 12.4
3	2014	$ 22.6
4	2015	$ 29.9
5	2016	$ 32.9
6	2017	$161
7	2018	$ 167
8	2019	$269.5
9	2020	$350.5
10	2021	$ 650

Source: World Bank report

In spite of the increasing relevance of green bonds, there is scant evidence about their ease, convenience, and popularity as compared to the other bonds, barring the "greenness". Gianfrate, G., & Peri, M. (2019)[1] (see Note 2), have, by adopting a propensity score matching approach, "studied 121 European green bonds issued between 2013 and 2017 and found that these bonds were financially more convenient than non-green. Besides being convenient and beneficial to the issuers of these bonds, there exists a secondary market for such bonds especially good for environmentally friendly corporations. Corporates have exhibited positivity and improved performance in terms of environmental rating.[23.]

Business cannot operate without caring for the environment. Any firm which is not alive to the environment

[1]Gianfrate, G., & Peri, M. (2019). The green advantage: Exploring the convenience of issuing green bonds. *Journal of Cleaner Production*, *219*, 127-135.
[2]Flammer, C. (2021). Corporate green bonds. Journal of Financial Economics, 142(2), 499-516

can no longer function. Investors are wiser and environmentally conscious and they feel that firms that promote the environment are financially material to them. Investors evince keen interest in such firms as regards the issuance of green bonds. The issuers can no longer think that issuing of green bonds is not a one-time initiative. They constantly strive for a better environment. Therefore, they take up with eagerness improvements in the green measures, such as higher environmental ratings and lower carbondioxide emissions. This experience resulted in an increase in the green investors.

GREEN BONDS AND BUDGET 2022

The Indian Government has played a key role in mobilizing funds for renewable energy projects. "Initial efforts were concentrated on building a corpus of funds—the National Clean Energy Fund, now known as the National Clean Energy & Environment Fund (NCEEF)—from the proceeds of coal cess (carbon tax on coal). The Government-owned Indian Renewable Energy Development Agency (IREDA) utilises a part of the NCEEF to lend to banks at a two-percent interest rate, which is further loaned out for renewable energy projects at a concessional interest rate. Budgeted estimates for 2017-18 show that over INR 53,410 million has been allocated to the Ministry of New and Renewable Energy (MNRE) from the fund to support renewable energy development efforts across the country"

The seeds for the green bonds in India were sown through the recent Budget. The Finance Minister Nirmala Sitharaman in her Budget speech, announced that Sovereign Green Bonds would be issued to mobilise the required funds for developing the green infrastructure. The Green bonds will have a sovereign rating, and the proceeds from their sale will be used to fund a variety of public-sector projects that would help India reduce its carbon emissions. Budget 2022, however, included no indication of the interest rate at which these green bonds would be issued

The proceeds will be deployed in public sector projects which help in reducing the carbon intensity of the economy, with an ambitious, big ticket infra projects being undertaken, the Government's commitment in this direction has been well articulated.

Mrin Agarwal, Financial Educator and Director, Finsafe India says "Green bonds are debt instruments issued by the government and are used to fund public sector projects relating to the environment/ climate,"

Now this is the opportunity for the Indian companies to tap the potential and explore the innovations in green instruments and developed nations also boost such financial instruments.[3] (note 4) (Business Today, the 30th Anniversary special., Daunting Pledge, pages 126-127)

This green transition will require significant financing. There are three key aspects to be looked into (The Hindu Business line)

- It needs to have a long-term orientation.
- It should be willing to take risks, especially on new costly technologies.
- The definition of what is green?

The Government will now raise money from investors who care about the triple bottom line and more so about the green transmission. As part of the green transmission, zero-emission of carbon is a necessary constituent.

WHAT IS ZERO EMISSION?

Zero-emission in simple terms refers to any energy source -be it in the form of a motor, engine, process, or technology that releases no polluting waste products or which disturbs the ecological balance or the climate.

India has not been a historical contributor to the greenhouse gas emissions — from 1870 to 2019, its emissions have added up to a minuscule 4 per cent of the global total.

Since 2016 the value of investments in financial products that claim to abide by environmental, social, and governmental rules has grown from $ 23 trn to $ 35 trn. As quoted in Economist, "Bloomberg Intelligence, a research firm, reckons it could exceed $ 50 trn by 2025.ESG Funds typically tell their customers that, among other things, they do their bit to tackle climate change when they invest in publicly listed companies. Most individual investors take these claims seriously". (The Economist, Feb12, 2022)

THE NEED FOR GREEN BONDS

- Post the 2008 G20 Summit, environment protection, and climate-friendly projects have become the headlines of most of the newspapers in many countries. In India as well PM Mr. Narendra Modi has made a promise to achieve nil carbon emissions by 2070 and to achieve this India needs a heavy investment and as a result, green bonds entered the market in the year 2015. As per the RBI release titled "Green Finance in India: Progress an d Challenges" India has a total debt of $16.3 billion in green bonds.
- In the year 2012 SEBI made it mandatory for the top 100 listed companies to disclose their business sustainability report to the stock market as green bonds are a part of EGG-(Environmental Social

[3]Agliardi, E., & Agliardi, R. (2019). Financing environmentally-sustainable projects with green bonds. *Environment and Development Economics*, *24*(6), 608-623

Governance). This report would basically outline the environmental risk affecting the company's business related to ESG, policies and the politics on corruption-related activities, and other factors that may affect the company in terms of ESC directly or otherwise as well.

- ESG investing is long-term investment-based sustainability of the company along with the proportional balance of a few important non-business parameters like environment, social (impact), and governance. This is beyond business capabilities and considerations. In recent years, ESG has been gaining high traction as investors are more concerned about the environment, climate change issues, social responsibility and governance of the management," says Mitul Shah, Head of Research at Reliance Securities.

HOW ARE GREEN BONDS ISSUED?

- As per the RBI report (supra), "several Indian companies have issued green bonds but most of them are listed on India INX, situated in Gandhinagar, Gujarat. The $650 million green bonds issued by SBI in 2018 were listed on INX Gujarat, Luxembourg Stock Exchange and also Singapore Stock Exchange (SGX). Other companies that have issued green bonds include Yes Bank (2015), Rural Electrification Corporation (2017) and Adani Renewable Energy (2019)", among others.
- Basically, these bonds are issued for a period of 5 to 10 years but few companies have made an issue for more than 10 years like Adani, whereas ReNew Power has issued the bonds for less than 5 years.
- Green bonds are aimed at those institutions and individuals such as high-net-worth individuals (HNIs) who wish to invest in environmentally sustainable projects around the world. However, retail investors are prohibited from investing in such bonds, but there is a direct bond-buying program for retail investors. As far as the portfolio is concerned green bonds are not for all types of investors. However, these green bonds may not pass muster as part of the investor's portfolio management. That way, green bonds are not for all investors.
- "Green bonds should be subscribed by individuals or institutions that have a long-term investment horizon and a specific investment mandate to invest in ESG-related financial instruments," says Deepesh Raghaw, Founder, Personal Finance Plan, a SEBI-Registered Investment Advisor.
- Green bonds are part of the broader ESG investing concept, but they are not the only medium for ESG investing. There are several mutual funds and other alternative green funds available to investors for ESG investing. Therefore, the challenge is making the green bonds attractive to the investors who expect returns on par with the commercial bonds and appealing to the environmentally-conscious investors.
- It is also hoped that these green bonds are likely to emerge as an innovative and disruptive financing mode ushering environmentally conscious bonds.

Green bonds, therefore, place India in the forefront of green financial initiatives. We need to propagate this concept with all earnestness in many global fora where India is a member like the QUAD. It is fervently hoped that green bonds provide the chlorophyll to the much-needed environmental financing. MA

Bibliography

1. *Investopedia*
2. *Gianfrate, G., & Peri, M. (2019). The green advantage: Exploring the convenience of issuing green bonds. Journal of Cleaner Production, 219, 127-135.*
3. *Flammer, C. (2021). Corporate green bonds. Journal of Financial Economics, 142(2), 499-516.*
4. *Agliardi, E., & Agliardi, R. (2019). Financing environmentally-sustainable projects with green bonds. Environment and Development Economics, 24(6), 608-623.*
5. *Business Today, 30th Anniversary Special.*
6. *The Hindu Business Line, 22 Feb.*
7. *Money Control.com*

Articles and websites :

1. *https://www.sciencedirect.com/science/article/abs/pii/S0304405X21000337*
2. *https://www.sciencedirect.com/science/article/abs/pii/S0959652619304019*
3. *http://envecologic.com/wpcontent/uploads/2020/05/ORF_IssueBrief_336_RenewableEnergy.pdf*
4. *https://commonslibrary.parliament.uk/the-history-of-global-climate-change-negotiations/*
5. *https://economictimes.indiatimes.com/news/economy/finance/green-bonds-to-be-rupee-denominated-with-long-tenure-dea secretary/articleshow/89384330.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst*

FOUR BLOCKS OF ATTRIBUTES OF A HIGH PERFORMING EMPLOYEE

Abstract

Functional / technical skill sets are the bare minimum requirement to perform in an organization. However, these skill sets alone are not enough to be a top performer and tagged as high performing employee. We need to have a set of behavioral attributes which make us a differentiator and put us in a growth path. Four blocks of attributes of a high performing employee are summarized as Block1: Integrity /Ethics/ Trustworthy, Block2: Discipline / Lead by Examples / Communication / Transparency, Block3: Sacrifice / Commitment / Passion, Block4: Creative thinking / Solution provider. Long-term corporate strategy, financial planning, KPIs, Scorecard and goals in an organization cannot be achieved without a high performing team. We need to identify these high caliber personnel, nurture and empower them so that they bring success at a faster pace.

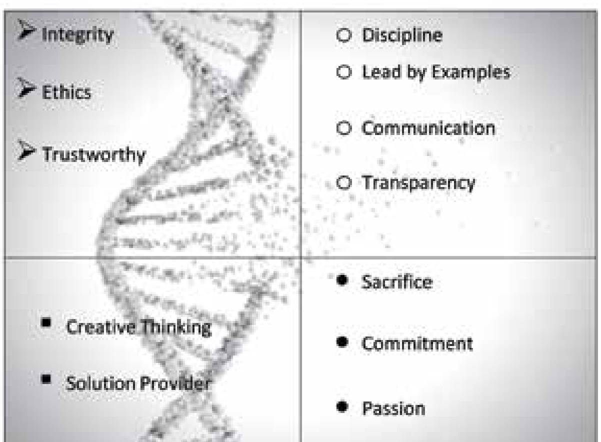
CMA Mrutyunjaya Mohanty
Group CFO
Aman Group, Dhaka
Bangladesh
ca_mmohanty@yahoo.com

While working with an MNC in the past as country CFO, my reporting manager once mentioned to me that you need to identify five '*high performing employees*' in the Finance and Accounts department. This was the culture of that MNC which have been in the business over a century and in several continents. They do identify five '*high performing'* employees in each department as well as at company level and at group level. If we successfully identify this, rest assured our organization will be able to achieve its target business performances and corporate goals.

There is no doubt that functional / technical skill sets are the bare minimum requirement to execute our task in an organization. Rather these skills are mandatory in our position to perform our work efficiently. However, having only functional / technical expertise cannot make us a top performer in our organization. We need to have a set of behavioral skills which make us a differentiator and put us in a growth path. The more we climb in the corporate ladder, the more demanding these behavioral attributes to perform. Put it differently, we need to have these attributes within ourselves (like DNA in our body) which give us the tag of a '*high performer'*.

I have been doing a little research on the subject matter and finally came out with a table of four blocks of human attributes. Each block is inter-related to others as represented in the following table.

FOUR BLOCKS OF ATTRIBUTES OF A HIGH PERFORMING EMPLOYEE



Block 1: Integrity /Ethics/ Trustworthy

The onus of building trust in an organization lies with the employee only. How many employees in an organization speak truth? Not even white lies with the pretext of one-day sick leave! But, there are some employees who do not even resort to white lies. Integrity and ethics are inbuilt in our body like DNA. It's a mindset whether we are going to be unbiased and neutral at all the time. Whether we will speak out and report if we come across any unethical issue even though we are not directly or indirectly involved. Can you be a *whistleblowe*r? It's all about from *where you come from* and what personal brand image you need to build.

Block 2: Discipline / Lead by Examples

As a boss or reporting manager directing the subordinates to discipline them is utterly ineffective if we do not lead by an example. We as a leader must show them by doing ourselves and then only it will be effective for the followers.

Block 2: Communication / Transparency

This attribute is important to build trust with the boss and among fellow employees. Timing of communication, mode of communication and what to communicate and what not to, all are very important and they all form part of transparency.

Managing an organization is about managing the people

Block 3: Sacrifice / Commitment

Can anyone sacrifice one of the most important events in their personal life for the company's interest. I have seen examples wherein some employees even sacrificed their presence during the bereavement of their parents in their hometown and rather continued attending their office work to complete some important assignments. In another real-life example, I have come across an employee who accidentally broke his rib cage in a friendly soccer match within the company premises but still continued attending office all days ignoring medical advice of bed rest for 15 days.

Block 3: Passion

Passion can drive us to put in best efforts for the organization. Without passion and 'fire in the belly' commitment will not be there. Need to create passion for the job so that instead of our work becoming boredom, we can turnaround to wonder. Convert workplace to a place for enjoyment.

Block 4: Creative thinking / Solution provider

We can find solutions for organization wide problems and issues through creative thinking. Our brain is available 24 hours a day to think about the issue, we go through every day. '*Nothing is impossible'* attitude and commitment along with passion can drive us to think through the problem areas and find our own solutions. Need to think through and search for the '*Eureka'* moment.

CONCLUSION

It is not an easy task to continue growing business performances of an organization with high expectation of top-line and bottom-line growth. At the same time, it is not impossible to achieve this. An organization is made of people. Managing an organization is about managing the people. Long-term corporate strategy, financial planning, KPIs, Scorecard and goals cannot be achieved without a high performing team. We need to identify these high caliber personnel, nurture and empower them. Soon this will have a cascading effect in the entire organization. Over a period of time the whole organization will be performing seamlessly. Shareholders and all stakeholders will be rejoiced and it will be a hallmark of "*best place to work"*. MA

References:

1. *From the practical work life experience as CFO, while working with Gerdau Steel India (a Brazilian MNC).*
2. *DNA watermark image taken from public domain google search.*

FOR ATTENTION OF MEMBERS

"Members are requested to clear their membership dues immediately and not later than 30th September, 2022. Unless the membership dues are cleared on or before 30th September, 2022, they will not be eligible to cast their vote in the forthcoming Elections to the Council and Regional Councils scheduled to be held in 2023 in terms of Rule 5 of the Elections to the Council Rules, 2006, as amended."

DYNAMIC INFORMATION FLOW BETWEEN SPOT AND FUTURE MARKETS IN AGRI-COMMODITIES MARKETS IN INDIA

Vivek Chandra Kuchhal
Research Scholar
PCJ School of Management
Maharaja Agrasen University, Baddi
vckuchhal@rediffmail.com

Dr. Anil Kumar Parti
Professor
Maharaja Agrasen University
Baddi
anilkparti@yahoo.co.in

Dr Ravi Kumar Gupta
Director
Maharaja Agrasen Institute of Management Studies
New Delhi
ravigupta29@gmail.com

Abstract

With globalisation in place after 1991 and other regulatory changes, commodity markets in India too have been developing at a fast pace. This article identifies the price discovery mechanism in some of the actively traded agricultural commodities on NCDEX, covering all the four active categories of commodities, namely, cereals, oilseeds, spices and guar complex, using the data in the time period after SEBI has taken over as regulator of commodity markets in India. An extensive literature review is conducted to identify the various processes and factors leading to an efficient price discovery process in spot and future commodity markets. VAR model is used to model the daily price data of over six years for ten commodities and arriving at conclusions regarding causality and the direction of causality between spot and future prices of chosen agri-commodities. The findings would greatly help the Government, regulators and the investors to understand the price discovery behaviour in commodity markets and plan their interventions in a timely manner.

INTRODUCTION

India is a country, where the major population is engaged in agricultural activities. The first derivative market was established as far back as in 1875 in Mumbai for cotton futures. It was then followed by future markets for commodities, like, edible oil seeds, raw jute and jute products (Kolamkar, 2003; and Ahuja, 2006). The Futures Market Commission (FMC), which is the regulator of commodity exchanges in India merged with the Securities and Exchange Commission of India (SEBI) on September 28, 2015. The futures contract was banned in India in 1966.The commodity futures contract was re-introduced by the Indian Government back in 2002, As on date, the Indian Government has only recognized four exchanges: (i) National Multi-Commodity Exchange (NCDEX); (ii) Multi-Product Exchange (MCX) (iii) National Multi-Product Exchange (NMCE); and the Indian Commodity Exchange (ICEX).

Price discovery is a process which facilitates the attainment of efficient equilibrium price through the convergence of financial market (Pati & Padhan, 2009). Commodities future markets facilitate risk management and helps in price discovery of the commodities. Some studies show that futures markets lead spot markets and play an important role in price discovery (e.g., Aslan et al. 2018; Bopp et al. 1987). Some others reach a contradictory conclusion, showing that spot prices lead to futures prices (e.g., Pradhan et al. 2020; Srinivasan 2012).

OBJECTIVE OF THE STUDY

This study aims to analyse the spot and future prices with respect to their relationship. This has been done for the selected most frequently traded agricultural commodities which are traded on NCDEX, India. The study has two objectives: firstly, to explore the price discovery for the selected commodities and the relation between spot and future prices and secondly, to study the causal relationship and the direction of causality between the spot and future prices using latest data up to August, 2021.

Research Question: How the spot and futures market prices get determined and affect each other in the agricultural commodity future market in the emerging economy India during post 2015 period for the major agri-commodities traded at NCDEX?

LITERATURE REVIEW

Commodity markets are developing fast as they offer optimum asset mix strategy, when macro-economic shocks push the investors' financial portfolios and the return on commodity assets in opposite direction. It helps investors in managing and reducing the risks with hedging and also help to optimize asset and portfolio allocation. (Belousova and Dorfleitner, 2012; Skiadopoulos, 2012; Silvennoinen and Thorp, 2013; Andreasson et al., 2016; Karyotis and Alijani, 2016). Financialization of commodity markets have triggered a sharp rise in investment in commodity markets with large inflow of investment in commodity futures market (e.g. Cheng and Xiong, 2014).

The literature on financial markets is more widely available than it is on commodity markets. The lead–lag relationship between futures and spot prices in four agricultural commodities like canola, oats, barley and wheat was studied by using Vector error correction model (VECM) [Brockman and Tse (1995)]. They concluded that for all the four agricultural commodities, the futures market played the leading role. Another study examined the price discovery and inferred that futures market leads spot in case of six commodities (turmeric, coriander, castor seed, cotton seed oil cake, sugar and soy oil) and spot market leads future in case of other four commodities (guar seed, chana, mustard seed and jeera).

RESEARCH DESIGN

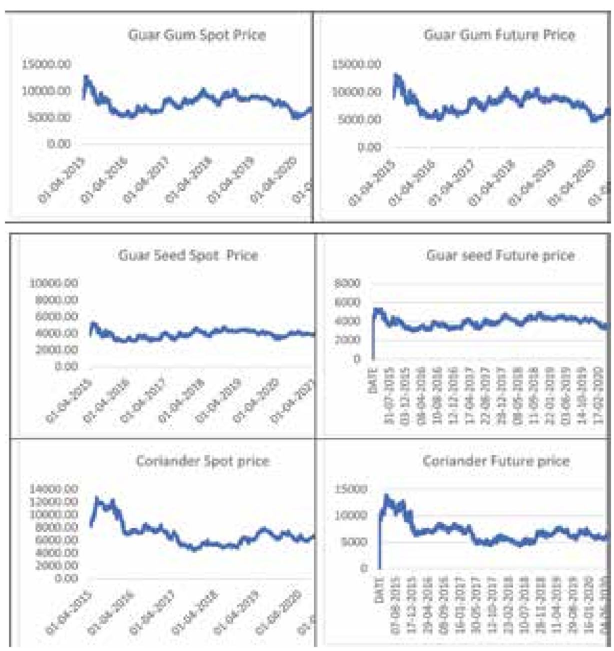
This article is based on the commodities data from four principal groups of commodities, cereals and pulses, spices, oilseeds and guar complex. A total of 10 actively traded commodities on NCDEX is taken from these four principal groups. The data pertains to the years 2015 to 2021. E-views is used to carry out the ADF test, Correlogram and other VAR tests to arrive at the results. The results are then interpreted to arrive at suitable conclusions to support the research question.

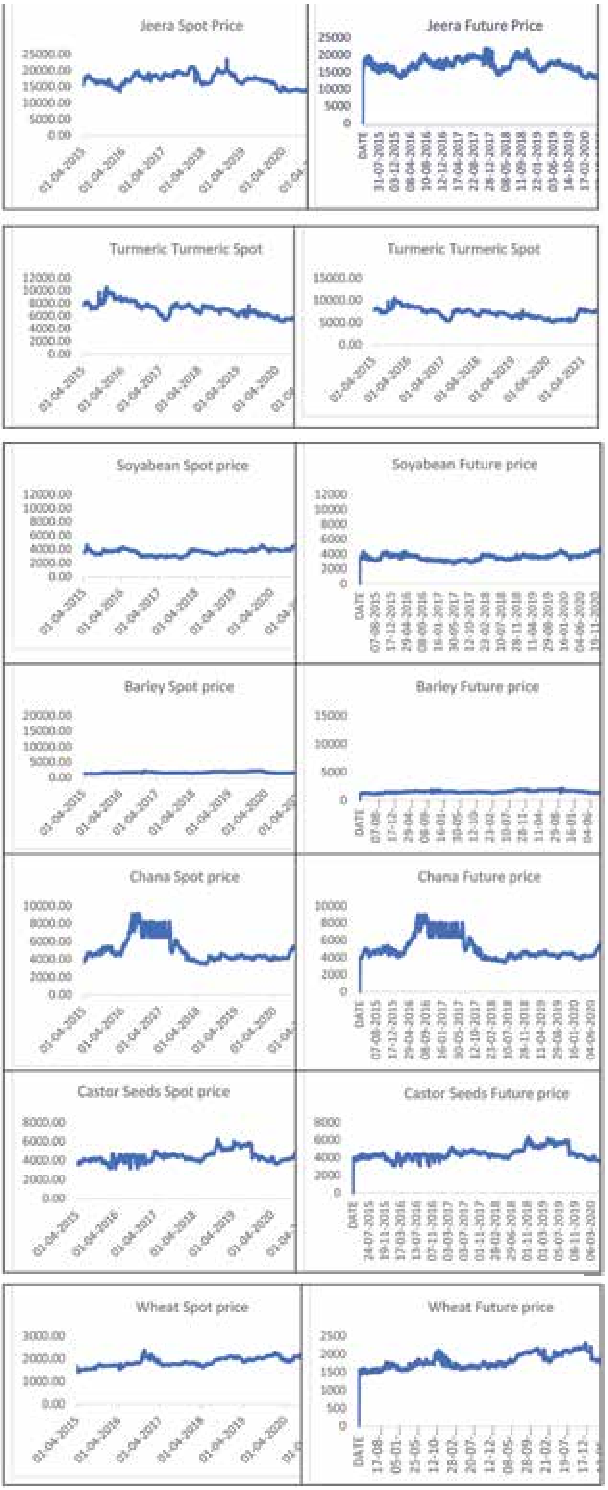
DATA ANALYSIS AND INTERPRETATION

This section discusses the behaviour of spot and future prices of agri-commodities in Indian Commodity Exchanges in spot and future markets, the historical price behaviour of the spot and future prices and about price discovery process between the spot and future prices.

Historical price behaviour of spot and future prices

The study includes different agri-commodities namely *Guar Gum, Guar Seed, Coriander, Jeera, Turmeric, Soyabean, Barley, Chana, Castor, Wheat etc.* The past behaviour of daily spot and future prices of these selected agri-commodities for the selected period 2015 to 2021 is shown below.





ADF unit root test

The different agri commodities included in the study are examined with respect to their stationary and non-stationary behaviour. The daily data of the agri commodities is collected for the period July 2015 to Aug 2021 and examined for the presence of unit root using ADF unit root test. Table 1 represents the results of ADF test, applied on the included Agri commodity time series.

TABLE 1: ADF UNIT ROOT TEST

Agriculture Commodity Series	ADF Statistics (p value)		Remark
	At Level	At First Difference	
Guar gum Spot Series	-2.112 (0.537)	-29.790 (0.000)	The included time series are found to be random walk at level and stationary after transforming series applying first difference log transformation
Guar gum Future Series	-2.300 (0.432)	-49.390 (0.000)	
Guar Seed Spot Series	-1.902 (0.652)	-33.861 (0.000)	
Guar Seed Future Series	-2.281 (0.443)	-51.329 (0.000)	
Coriander Spot Series	-1.002 (0.942)	-1.002 (0.000)	
Coriander Future Series	-1.788 (0.710)	-37.988 (0.000)	
Jeera Spot Series	-2.192 (0.493)	-35.770 (0.000)	
Jeera Future Series	-2.234 (0.469)	-21.191 (0.000)	
Turmeric Spot Series	-2.022 (0.588)	-36.951 (0.000)	
Turmeric Future Series	-2.902 (0.161)	-30.499 (0.000)	
Soyabean Spot Series	0.475 (0.999)	-13.207 (0.000)	
Soyabean Future Series	-0.659 (0.974)	-38.038 (0.000)	
Barley Spot Series	-3.510 (0.038)	-11.572 (0.000)	
Barley Future Series	-3.583 (0.031)	-11.681 (0.000)	
Chana Spot Series	-2.091 (0.549)	-9.691 (0.000)	
Chana Future Series	-2.163 (0.509)	-10.325 (0.000)	
Castor Seed Spot Series	-3.446 (0.045)	-26.242 (0.000)	
Castor Seed Future Series	-3.417 (0.049)	-50.009 (0.000)	
Wheat Spot Series	-3.822 (0.015)	-42.555 (0.000)	
Wheat Future Series	-3.406 (0.050)	-31.394 (0.000)	

Source: Created by researcher using e-views software

The results reported in table 1 indicate that the all the included agri commodity time series are non-stationary or random walk at level (**p**-value more than 0.05). However, the first log difference transformation of the selected Agri commodity series made them stationary.

Correlation analysis

The correlation analysis is applied to examine the linear relationship between the selected Agri commodities. The null hypothesis of the correlation analysis is *"There exists no significant correlation between the selected Agri commodities"*. The hypothesis is examined using Pearson correlation coefficient and its **p** value. The result of correlation analysis is shown below:

TABLE 2 : CORRELATION ANALYSIS

Correlation between	Price	Returns
Guar gum spot and future Series	.990 (0.000)	.500 (0.000)
Guar seed spot and future Series	.978 (0.000)	.440 (0.000)
Coriander spot and future Series	.968 (0.000)	.392 (0.000)
Jeera spot and future Series	.932(0.000)	.367 (0.000)
Turmeric spot and future Series	.941 (0.000)	.499 (0.000)
Soyabean spot and future Series	.988 (0.000)	.313 (0.000)
Barley spot and future Series	.989 (0.000)	.975 (0.000)
Chana spot and future Series	.991(0.000)	.632 (0.000)
Castor Seeds spot and future Series	.980 (0.000)	.795 (0.000)
Wheat spot and future Series	.905 (0.000)	.350 (0.000)

Source: Created by researcher using e-views software

The results fail to support the hypothesis that "There exists no significant correlation between the selected agri spot and future commodity prices". The results reported the presence of high positive significant correlation between the agri spot and future commodity prices. Higher the spot prices of the agri commodities, higher is the future prices.

Causality between Commodity spot and future market

This section discusses the causal or lead and lag relationship between spot and future market of the commodities. The Block exogeneity Granger's causality test and variance decomposition variance estimates are analysed and discussed in this section.

The VAR methodology starts with identifying the optimum lag length of the included spot and future series of the agri commodity. Table 3 reflects the results of lag length selection criteria for incorporating the lags of the spot and future markets of included Agri commodities.

TABLE 3 : LAG LENGTH CRITERIA

	Suggested lag period					
Commodity	**Log Likelihood**	**LR**	**FPE**	**AIC**	**SC**	**HQ**
Guar Gum	8	8	8	8	4	7
Guar Seed	8	8	8	8	4	5
Coriander	8	7	7	7	2	6
Jeera	8	7	8	8	7	7
Turmeric	8	8	8	8	3	6
Soyabean	8	7	7	7	**4**	5
Barley	8	8	8	8	8	8
Chana	8	7	8	8	7	7
Castor Seeds	8	8	8	8	3	6
Wheat	8	6	6	6	3	4

The Schwartz criteria and Hannan Quin criteria are adopted for selecting the lag length for all the commodities. Different commodities have different suggestions of lag length. This is followed by applying the Block exogeneity test in order to examine the cause and effect (lead lag relationship between the spot and future returns of the included Agri commodities. Table 4 reported the results of Block exogeneity test.

TABLE 4 : BLOCK EXOGENEITY TEST

Commodity	Dependent variable: Spot Market Returns		Dependent variable: Future Market Returns		Conclusions
	Excluded	Chi-square	Excluded	Chi-square	
Guar Gum	Future Market Returns	36.771**	Spot Market Returns	248.654**	Bidirectional causality exists
Guar Seed	Future Market Returns	84.862**	Spot Market Returns	138.267**	Bidirectional causality exists
Coriander	Future Market Returns	7.928**	Spot Market Returns	96.082**	Bidirectional causality exists
Jeera	Future Market Returns	45.078**	Spot Market Returns	99.859**	Bidirectional causality exists
Turmeric	Future Market Returns	6.858**	Spot Market Returns	46.626**	Uni-directional causality exists
Soyabean	Future Market Returns	15.575**	Spot Market Returns	71.638**	Bidirectional causality exists
Barley	Future Market Returns	130.082**	Spot Market Returns	16.662**	Bidirectional causality exists
Chana	Future Market Returns	6.054**	Spot Market Returns	200.851**	Uni-directional causality exists
Castor Seeds	Future Market Returns	7.288**	Spot Market Returns	65.622**	Uni-directional causality exists
Wheat	Future Market Returns	2.149**	Spot Market Returns	77.836**	Uni-directional causality exists

The results indicate higher level of causality in the direction from spot to future markets of guar gum. For Turmeric, Chana, Castor seeds and Wheat, unidirectional causality from spot to future market returns and the magnitude of the causality from future to spot market returns is found to be insignificant indicating no causal relationship from future to the spot market.

For all other commodities, bidirectional causality is found between spot and future market returns. The magnitude of the causality from future to spot market returns is found to be significant indicating the causal relationship from future to the spot market. Similarly, the magnitude of the causality from spot to future returns is also found to be significant indicating higher causal relationship from spot to the future market. Thus, the higher level of causality in the direction from spot to future markets is seen.

Variance Decomposition

The causality between spot and future market returns of included agri-commodities is further examined using Variance decomposition function which explains the proportion of variance in the included series due to the lagged values of the other included series as well as its own lagged values. Table 5 reflects the result of the VDF analysis for 10 lags.

TABLE 5 : VARIANCE DECOMPOSITION FUNCTION OF GUAR GUM

Variance Decomposition of DLOG(SPOT):				Variance Decomposition of DLOG(FUTURE):		
Commodity	***S.E.***	***Dlog (Spot)***	***Dlog (Future)***	***S.E.***	***Dlog (Spot)***	***Dlog (Future)***
Guar Gum	0.021	97.650	2.349	0.029	33.008	66.991
Guar Seed	0.0193	95.076	4.923	0.0259	29.535	70.464
Coriander	0.018	99.373	0.626	0.040	16.010	83.989
Jeera	0.014600	96.752	3.247	0.031288	14.474	85.525
Turmeric	0.020	99.499	0.500	0.036	23.881	76.118
Soyabean	0.016	99.052	0.947	0.036	11.075	88.924
Barley	0.175	94.432	5.567	0.168	89.267	10.732
Chana	0.026	99.673	0.326	0.036	41.601	58.398
Castor Seeds	0.026	99.541	0.458	0.031	64.975	35.024
Wheat	0.012648	99.860	0.139	0.025631	11.725	88.274

The results of VDF analysis show that the spot and future market returns of all commodities is explained to a very large extent with the help of its own lagged behaviour than due to the returns of the other market.

However, in case of future market returns of Barley and Castor seeds, it is found to be explained to a small extent with the help of its own lagged behaviour and a large extent due to the returns in the other market.

CONCLUSION

Empirical analysis depicts the dominant role of spot markets in most of the agri-commodities as compared to their future markets. In the process of price discovery for agri commodities, the spot prices reflect the impact of any new information which comes in the market and also influences the future prices of the commodities. The direction of causality is found to be bi-directional (Guar gum, Guar seeds, Coriander, Jeera, Soyabean, Barley) and uni-directional causality (Turmeric, Chana, Castor seeds and Wheat). The results reported from VDF analysis show that the market returns for eight commodities were explained by their own lagged behaviour both for spot and future market returns. Only two commodities (namely, Barley and Castor Seeds) showed that future market returns were affected more by the spot market return in their case. MA

References:

1. *Andreasson, P., Bekiros, S., Nguyen, D.K., Uddin, G.S., (2016). Impact of speculation and economic uncertainty on commodity markets. Int. Rev. Financ. Anal. 43, 115–127.*
2. *Aslan, S., Yozgatligil, C., & Iyigun, C. (2018). Temporal clustering of time series via threshold autoregressive models: Application to commodity prices. Annals of Operations Research, 260, 51–77. https:// doi.org/ 10. 1007/ s10479- 017- 2659-0.*
3. *Belousova, J., Dorfleitner, G., (2012). On the diversification benefits of commodities from the perspective of euro investors. J. Bank. Finance. 36, 2455–2472.*
4. *Bopp, A. E., & Sitzer, S. (1987). Are petroleum futures prices good predictors of cash value? The Journal of Futures Markets (1986–1998), 19(4), 705.*
5. *Brockman, P., & Tse, Y. (1995). Information shares in Canadian agricultural cash and cattle. Applied Economics Letters, 2(10), 335–338.*
6. *Chan, K. (1992). A further analysis of the lead–lag relationship between the cash market and stock index futures market. Review of Financial Studies, 5, 123–152.*
7. *Cheng, I.H. and Xiong, W. (2014), "Financialization of commodity markets", Annual Review of Financial Economics, Vol. 6:419-441, December,2014, https://doi.org/10.1146/ annurev-financial-110613-034432.*
8. *Karyotis, C., Alijani, S., (2016). Soft commodities and the global financial crisis: implications for the economy, resources and institutions. Res. Int. Bus. Finance. 37, 350–359.*
9. *Kolamkar, D.S. (2003). Regulation and policy issues for commodity derivatives in India", in SusanThomas, (ed.), Derivatives Market in India, Oxford University Press, India.*
10. *Pati, P.C., & Padhan, P.C. (2009). Information, price discovery and causality in the Indian stock index futures market. IUP Journal of Financial Risk Management, 6(3–4), 7–21.*
11. *Pradhan, R. P., Hall, J. H., & du Toit, E. (2020). The lead–lag relationship between spot and futures prices: Empirical evidence from the Indian commodity market. Resources Policy, 101934.*
12. *Schwarz, T. V., & Szakmary, A. C. (1994). Price discovery in petroleum markets: Arbitrage, cointegration and the time interval of analysis. The Journal of Futures Markets (1986–1998), 14(2), 147.*
13. *Singh, N.P., V. Shunmugam, and S. Garg. (2009), How efficient are futures market operations in mitigating price risk? An explorative analysis. Indian Journal of Agricultural Economics 64: 324–332.*
14. *Srinivasan, P. (2012). Price discovery and volatility spillovers in Indian spot–futures commodity market. The IUP Journal of Behavioral Finance, 9(1), 70–85.*
15. *Yang, J., Bessler, D.A., Leatham, D.J., (2001). Asset storability and price discovery in commodity futures markets: A new look. Journal of Futures Markets 21, 279–300. 26.*

Azadi Ka Amrit Mahotsav

ICMAI RVO

ICMAI REGISTERED VALUERS ORGANISATION

A Subsidiary company of the Institute of Cost Accountants of India
Recognised by the Insolvency and Bankruptcy Board of India

ACADEMIC MEMBER OF INTERNATIONAL VALUATION STANDARDS COUNCIL

Be a part of the Celebrations of
Azadi Ka Amrit Mahotsav
Show your Support & Participate Joyfully

ONLINE MCQ BASED COMPETITION
CASE STUDY ON VALUATION

Eligibility:-Students, Academician, Professionals, (CMA, CS, CA, CFA, CPA, MBA-Finance, Registered Valuers, IPs,Engineers Etc.

Test Can be Attempted Between

10th JULY ,2022 - 15th JULY,2022

Last date of registration 08th July,2022

3 Consolation prizes - Certificate of Appreciation

3 Certificates of merit would be given to 3 women participants apart from the prize winners.

Prizes

1st GOLD MEDAL

2nd SILVER MEDAL

3rd BRONZE MEDAL

Fees: No Participation Fees

Terms & Conditions

1. Participants will have to answer 12 Multiple Choice Questions based on Case Studies in Valuation in 20 Minutes
2. The Competition is open to all participants aged 18 years and above as on 30th June, 2022. Individuals working in ICMAI RVO(permanent and contractual), and also their immediate family members are not eligible to participate in the Competition.
3. Detailed instructions for taking the quiz would be provided to the registered candidates before the Competition window opens
4. Management reserves the rights to change /modify/alter these terms and conditions at any time.

Registration Link for Quiz participation :-
https://docs.google.com/forms/d/e/1FAIpQLSefo_WsGTWsLZsT6wb86h0SXrL3_nMJVP7k1kta9qv3xIJ6DQ/viewform

Contact Us :-9411469499/9990907530/ 8920607644 **E-mail**:- manager@rvoicmai.in

ICMAI REGISTERED VALUERS ORGANISATION
RECOGNISED RVO UNDER INSOLVENCY AND BANKRUPTCY BOARD OF INDIA

In Association with

Bengaluru Chapter
of The Institute of Cost Accountants of India

Professional Development Program

Enhancing Valuation Competency

(A not to be missed learning opportunity based on hands-on exposure and practical insights into the Valuation. The Participants would be required to work on exercises and to do calculations with the guidance of Faculty)

Learning Modules

Valuation Approaches & Methods
Startup Valuation
Valuation Report
Due Diligence and Financial Forecasting
Overview of Valuation and Valuation under various Statutory requirements

Participation Certificate would be awarded to all participants

16th July 2022 (Saturday) From 10.00 AM to 06.00 PM

Fees : 1,000 (All Inclusive) **Mode : Physical (with COVID Protocol)**

High Tea & Lunch will be Provided

CPE : 7 Hrs (for Registered Valuers)
CPE : 4 Hrs. (for Insolvency Professionals)
CEP : 4 Hrs. (for CMA Members)

Venue :- CMA Bhavan, No. 81 Mallikarjuna Temple Street, Basavanagudi, Bengaluru- 560004

Registration Link - https://www.rvoicmai.in/Event?eXVU6UXQnclfUvvk

For more details, you may also call us at 8586985549, 9457954906
or email : manager@icmaiblr.org , rvo.so1@icmai.in, programcoordinator@rvoicmai.in

Website - https://www.rvoicmai.in/ **Website - http://www.icmaiblr.org/**

Down The Memory Lane

July 2012

Shri Sushil K. Modi, Dy.CM & Finance Minister, Govt. of Bihar; Chairman, National Empowered Committee of State Finance Ministers alongwith CMA B M Sharma, Past President; CMA M. Gopalakrishnan, the then President of the Institute; CMA Rakesh Singh; the then Vice President and other Dignitaries. Seen at the back CMA S.C. Mohanty, Council member and RCM's of EIRC alongwith other dignitaries at the national Seminar on GST-Key Issues & Challenges organized by Patna Chapter on 15.07.2012.

First Prize for Excellence in Cost management-2011 Category V: Public Manufacturing: Organization (large) awarded to Rashtriya Chemicals & Fertilizers Ltd. Seen with CMA M Gopalakrishnan, the then President; Dr. M. Veerappa Moily Hon'ble Minister, MCA and Mr. Naved Masood, Secretary, MCA; Shri Gautam Sen, Director (Finance); Shri RH Kulkarni, ED Finance and Shri Suresh Warior, GDM.

Feliciation programme held at Institute's HQ on 23rd July, 2012 on the occasion of visit of Shri Mukul Roy, Hon'ble Minister of Railways, Govt. of India.

Shri Rakesh Singh, President in discussion with Shri Arvind Kumar Singh Gope, Hon'ble Minister, Rural Development, Govt. of UP alongwith CMA Sunil Singh, Chairman and CMA Vikas Srivastava, Secretary, LCCA at Lucknow on 28.07.2012.

Down The Memory Lane

July 2002

SIRC Member P.D. Esthappanu hands over a memorandum to Kerala Finance Minister K. Sankara Narayanan on KGST Act Amendment. Seen in the picture from left: Gangadharan Nair, Palakkad Chapter Chairman; P.D. Esthappanu, SIRC member; K.T. John; N.C.S. Nair, Trivandrum Chapter members; K. Sankara Narayanan and P.S.M. Hameed, Secretary, SIRC.

A group photo on the occasion of the Seminar on Cost Audit Report Rules 2001. Standing from left: S.R. Bhargave, Treasurer, WIRC; Kirti B. Mehta, Past Chairman, WIRC; P.V. Bhattad, RCM, WIRC. V.J. Talati, Past Chairman, WIRC; Ramesh M. Joshi, Secretary, WIRC and A. Dalwadi, Vice Chairman, WIRC. Sitting from the left: S.R. Ray, Immediate Past Chairman, WIRC, Dhananjay V. Joshi, Chairman WIRC and CCM, I.P. Singh, Joint Director (Cost), Cost Audit Branch, DCA; Pramod D Parkhi, Past President, ICWAI; Dr. Ashok Agarwal, CCM.

July 1992

D.P. & T Programme on Financial Management and Management Accounting. Seen in the picture S/shri S. Ramanathan; P.D. Phadke and C. Ramaswamy.

July 1982

Shri N.K. Bose, Past President, ICWAI & the Chairman of CAPA Conference, 1983 and Shri A.V. Ramana Rao, the then President, ICWAI with the members of the CAPA in Soppoto, Japan after the CAPA Executive Committee meeting.

Source: Extracted from the various issues of The Management Accountant Journal www.icmai.in

GLOBAL RECOGNITION OF CMA QUALIFICATION

Benchmarking of Intermediate and Final Course of The Institute of Cost Accountants of India by UK NARIC*

With the objective of enhancing the recognition and professional opportunities for its students and members across the globe, the **International Affairs Committee** and **Professional Development & CPD Committee** of the Institute had engaged UK NARIC (National Recognition Information Centre in United Kingdom) to conduct an independent benchmarking study for evaluating the comparability of the CMA Intermediate and Final Course in the context of the UK and UAE education systems.

UK NARIC is the designated national agency in the United Kingdom for the recognition of international qualifications and professional skills. As the National Agency, managed on behalf of the UK Government, UK NARIC is the internationally respected voice in qualification recognition offering impartial, trusted judgement on international qualifications. UK NARIC has the largest database of international qualifications in the world, with over 5,000 qualifications from more than 200 countries.

UK NARIC has made the following comparability levels recommendations in the context of the UK & UAE education system:

Course	UK Qualifications	UAE Qualifications
CMA Intermediate Course	RQF Level 6 (Bachelor's Degree Standard)	QF Emirates Level 7 (Bachelor's Degree Standard)
CMA Final Course	RQF Level 7 (Master's Degree Standard)	QF Emirates Level 9 (Master's Degree Standard)

Link to the benchmarking results of CMA qualification published in UK NARIC website:
https://www.ecctis.com/news.aspx?NewsId=1138

This independent benchmarking of the CMA qualification would ensure widespread, international acceptance of CMA qualification. The benchmarking results would strengthen the position of CMA members and help corporates gain a better understanding on the relevance and standing of the CMA qualification. It would also provide opportunities for higher studies and enhanced professional opportunities for CMA members/ semi qualified professionals in UK, Middle East and other foreign jurisdictions accepting NARIC evaluation.

**Due to the United Kingdom leaving the European Union, the UK NARIC national recognition agency function was re-titled as UK ENIC on 1st March 2021, operated and managed by Ecctis Limited. From 1st March 2021, international benchmarking findings are published under the Ecctis name.*

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

Follow us on

Behind every successful business decision, there is always a CMA

NEWS
FROM THE INSTITUTE

EASTERN INDIA REGIONAL COUNCIL

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA SOUTH ODISHA CHAPTER

The Chapter organised an evening talk on 11.05.2022 at the Chapter's Conference Hall on the topic "Role of CMAs in Power Sector". CMA Ramesh Kumar Gochhayat, DGM (F&A) IRE Ltd. Chatrapur, Odisha was the Chief Guest and spoke in detail on the topic. CMA Bharat Kumar Bhadawat, Chief, Corporate Governance, TPDL, New Delhi, as the main speaker elaborated over the importance of the subject. Shri Bijay Mohanty, CFO, TPSODL, and Shri V. P Sharma, CCO, TPSODL, Berhampur were the guests of honour and highlighted the various aspects of the topic. CMA Ashwini Kumar Patro, Chairman, South Odisha Chapter earlier welcomed the guests and invitees and briefly dealt with over the basic aspects of the topic. CMA Binod Bihari Nayak, Chairman, Professional Development Committee, welcomed and introduced the guests and CMA N. C. Kar, Chairman, Oral Coaching Committee proposed vote of thanks.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA BHUBANESWAR CHAPTER

To highlight the three day seminar on "Cost Excellence- A Sustainable Business Strategy", a press meet was conducted at the Chapter premises on 12.05.2022.

The Chapter celebrated its Annual Function –2022 cum Student Felicitation Function in a grand manner at CMA Bhawan Bhubaneswar on 22.05.2022. Smt. Sarmistha Kumari Sethi, Member of Parliament (Lok Sabha), Jajpur Constituency Odisha inaugurated the annual function as Chief Guest. Shri Ananta Narayan Jena, Hon'ble MLA, Bhubaneswar (Central Constituency) was the guest of honour. CMA Ramesh Chandra Joshi, Director (Finance), NALCO Ltd., Bhubaneswar, CMA (Dr.) Ashish P. Thatte, Council Member and Chairman, Corporate Laws Committee, ICAI, CMA Niranjan Mishra, Council Member and Chairman, Committee on Cost Management for Public and Government Services, ICAI and CMA Bibhuti Bhusan Nayak, Regional Council Member and Treasurer, ICAI-EIRC graced the occasion as special guests. All the dignitaries blessed the successful pass out CMA students in different groups for their bright professional career. More than 700 students, members/ faculties/guests actively participated in the function. CMA Himoj Mishra, the then Chairman of the Chapter while delivering welcome address, congratulated and blessed the successful students for their bright professional career. CMA Santanu Kumar Rout, the then Vice Chairman of the Chapter and Chairman of the Coaching Committee highlighted the various activities relating to students and mentioned about the performance of the students of the Chapter in the December, 2021 examinations. CMA Surya Narayan Tripathy, Secretary of the Chapter proposed a vote of thanks and CMA Saktidhar Singh , Past Chairman of the Chapter and Chairman, PD Committee also addressed and congratulated the students. Some meritorious students of the Chapter were awarded with trophies/ prize money /certificates of appreciation for their outstanding performance in the December, 2021 examinations. To mark the annual function, a blood donation camp was also organized by the Chapter in association with the Commissionerate Police, Bhubaneswar-Cuttack. Prof. (Dr.) Rama Raman Mohanty, Director , DMET, Odisha inaugurated the blood donation camp as Chief Guest whereat, 75 units of blood was donated by the CMA Students and Members.

The chapter coordinated an awareness programme on Insolvency Profession in association with the Insolvency Professional Agency of the Institute of Cost Accountants of India on 05.06.2022 at CMA Bhawan, Bhubaneswar to commemorate Azadi Ka Amrit Mahotsav (AKAM). A discussion was held on the topic "IBC, 2016 – It's Career Opportunities". More than 100 persons consisting of professional students, college students, CMA Members and stakeholders participated . Shri P Mohan Raj, Member (Judicial), NCLT, Cuttack Bench, was the chief guest and inaugurated the programme . CMA CS (Dr.) Suresh Chandra Mohanty, President (2013-14), ICAI & Insolvency Professional was the special guest. Shri Umesh Chandra Sahoo, Advocate & Insolvency Professional acted as the as resource person. CMA CS (Dr.) S K Gupta, Managing Director, ICMAI Registered Valuers Organisation, New Delhi also addressed the participants virtually. CMA Santanu Kumar Rout, Chairman of the Chapter earlier delivered the welcome address and CMA Surya Narayan Tripathy , Secretary of the Chapter proposed a vote of thanks upon conclusion. CMA Asutosh Debata, Practicing Cost Accountant and Insolvency Professional, Bhubaneswar was the flag bearer at the said awareness programme and CMA Saktidhar Singh, Chairman, PD Committee of the Chapter facilitated the programme.

NORTHERN INDIA REGIONAL COUNCIL

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA BEAWAR CHAPTER

The Chapter started a drive called "Abhivyakti" on the occasion of CMA Institute Foundation Month and also Beawar Chapter Foundation Month in May. As a part of this drive during the entire month of May, different activities and webinars were organized. Drive started with the webinar on 1st May on topic "TDS & TCS Provisions". Chief Guest of the webinar was CMA Shailendra Paliwal (Chairman-NIRC) and Guest of Honour was CMA Rajendra Singh Bhati (RCM-NIRC). CMA Mandeep Singh, Joint Secretary, Beawar Chapter acted as the Moderator of the webinar. Keynote speaker of the webinar is CMA Mitesh Chopra, Secretary, Beawar Chapter & Member NIRC Direct Tax Cell who focussed on the Concepts along with practical and technical difficulties faced by many members. CMA (Dr.) Pawan Jaiswal Ji, Chairman NIRC Direct Tax Cell was the special guest of the webinar who with his knowledge about the subject not only helped members in solving the practical difficulties faced by them but also made the session an interactive one. On 14th and 15th May, 2022 the Chapter organized a Mega Sports Event in which sports activities like Underarm Cricket, Chess (As Per International Rules) and Carom were organized. CMA Mandeep Singh Joint Secretary of the Chapter convened the programme. He told that the Chief Guest of the programme was CMA Rajendra

Singh Bhati (RCM -NIRC) and Satyanarayan Mittal (Past Chairman Kota). CMA Rupesh Kothari(Immediate Past Chairman of Beawar Chapter) welcomed the chief guests of the programme and spoke about the various other activities that chapter is going to organize in its Foundation month. CMA Rajendra Singh Bhati highlighted the value of CMA Course and its future growth aspect. CMA Satyanarayan Mittal appreciated the work done by Beawar Chapter. He said that in just 2 years Beawar Chapter has done a remarkable job and received "Best Emerging Chapter Award" from NIRC. CMA Prakash Kothari (Chairman Beawar Chapter) motivated the students and awared them about the various opportunities available. CMA Mitesh Chopra (Secretary Beawar Chapter) spoke about the success of the event. On this occasion CMA Prakash Kothari, CMA Mitesh Chopra, CMA Rupesh Kothari, CMA Mandeep Singh, CMA Ankur Singhal, CMA Mayank Pipara, CMA Shubham Sankhla, CMA Piyush Duggar, CMA Navneet Munot, Rakesh Kumawat, Rajender Jangid and other members and students were present. The Chapter organized a "CMA Marathon" on occasion of CMA Foundation Day and Beawar Chapter Foundation Day on 28th May. On the occasion of 63rd Foundation Day of the Institute and Beawar Chapter 2nd Foundation Day, CMA Marathon was organized on 28th May for its students and members. CMA Mandeep Singh, Joint Secretary of Beawar Chapter acted as Convener of the CMA Marathon. He told that the Guest of honour for the function was Chairman of Municipal Corporation, Shri Naresh Kanojiya along with the Parshad of the region, Shri Mangat Singh Monu. CMA Jyoti Maheshwari (Treasurer Beawar Chapter) spoke about the path of the marathon which started from Beawar Gurudwara sahib then continuing towards Bhagat Choraha, Ajmeri Gate, Ekta Circle, Loharan Chopad, Pali Bazar, then towards Chang Gate and then again ended at Shri Gurudwara Sahib followed by the breakfast. CMA Mandeep Singh further mentioned that marathon was joined by more than 250 students and members and amongst which top 10 winners were felicitated and all the participants were given a participation certificate. On occasion of this marathon, CMA Mandeep Singh, CMA Jyoti Maheshwari, CMA Mayank Pipara, CMA Ankur

Singhal, CMA Shubham Sankhla, CMA Piyush Duggar, Rakesh Kumawat, Rajender Jangid, Sachin Maheshwari, Dushyant Sharma, Rishita Dosi, Prishita Sharma, Diksha Chhattani, Darshni Prajapati, Ritika Bansal, Kirti Soni, Aayushi Sharma, Bhawna Ratwani, Yashika Motiyani, Sarita Choudhary, Resham Sain and others were present.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA KANPUR CHAPTER

The Chapter organised a professional meet on 30th May, 2022. The chief guest was President CMA P. Raju Iyer and guest of honour was CMA Shailendra Paliwal, Chairman, NIRC. In first phase At the outset, Chairman, Kanpur Chapter CMA R.K. Trivedi while welcoming all members and dignitaries stated that it was a historic event in which President, ICAI accepted the Chapter's invitation at short notice and agreed to address the Chapter members. CMA R.K. Shukla made a presentation in which he explained various avenues available to CMAs not only in employment but also in the area of practice as GST Audit, Internal Audit, Statutory Audit, Insolvency resolution etc. CMA Shailendra Paliwal congratulated team Kanpur and Chairman, NIRC for organising the professional meet. CMA Ajai Kumar Sharma elaborated the various activities of the Chapter. In his presidential address CMA P. Raju Iyer stated that Kanpur Chapter is one of the oldest Chapter in India and pioneer in the northern region and its members are highly active in professional up gradation. The vote of thanks was proposed by CMA A.K. Srivastava and and anchor of the programme CMA Ashutosh Mishra, Joint Secretary, K.C.C.A. President CMA P. Raju also addressed media questions and clarified various issues raised by the members.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA AGRA MATHURA CHAPTER

To commemorate the *Azadi ka Amrit Mahotsav* (AKAM), the Chapter planted a tree sapling in the Chapter campus. Founder Chairman, CMA Rajesh Gupta with other members and officials attended the celebrations. Every year when the new office bearers of the Chapter resume their offices and in every semester when the new batch starts as a mandate, they all have to plant a tree in the Chapter campus. With this initiatives of "CMA & Green Environment" the Chapter Campus is full of greenery.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA JAIPUR CHAPTER

The Chapter organized a seminar on 21st May 2022 on the topics "Overview of RERA – A professional opportunity'' and "Importance of Physiotherapy in Daily Life''. Chairman of the Chapter, CMA S.L. Swami welcomed the key speakers and all the participants. In the first technical session, CA Praniti Agarwal, leading tax practitioner explained in detail the recent changes in RERA Act and professional opportunities for CMAs. In the second technical session, Dr. Avtar Doi, Physiotherapist spoke about the importance of physiotherapy in our daily life and gave various tips for better life. The programme was conducted by Treasurer of the Chapter, CMA Deepak Kr. Khandelwal. At the conclusion, Secretary of the Chapter, CMA Sudarshan Nahar thanked the key speakers and the participants.

Under the *Azadi Ka Amrit Mahotsav* celebrations, the Chapter organised Insolvency profession awareness program on 5th June 2022 in association with IBBI and Insolvency Professional Agency of ICAI (CMA). CMA Sudarshan Nahar, Chairman of the Chapter welcomed all guests and participants. Chief Guest CMA Lalit

Maheshwari, Registrar, NCLT Jaipur, briefly spoke about the insolvency process and career opportunity for the youngsters. Dr. Saurabh Sharma, HOD (Commerce), Manipal University enlightened the participants on IBC and its impact. CMA Rama Krishna Agarwal IP briefed the process as to how to become an insolvency professional. CMA Vishnu Upadhyay IP dealt with the eligibility criteria to become IP, graduate insolvency program (GIP), from where it can be done (IICA, Maneser and NLIU, Bhopal) powers and duties of IPs etc. CMA Purnima Goyal, Treasurer of the Chapter, conducted the program. Certificates of participation were issued to all the participants. There was a request from Dr. Saurabh Sharma, Manipal University to conduct the similar programme for their students also. At the end of the programme, immediate past Chairman, CMA S.L. Swami thanked the invitees and participants.

Under *Azadi ka Amrit Mahotsav celebration,* the Chapter organised a tree plantation program at its premises on 9th June 2022 to make the environment pollution free and also as a social responsibility for Green India. Chairman of the Chapter, CMA Sudarshan Nahar, Vice-Chairman CMA Harendra Pareek, Secretary CMA Deepak Kr. Khandelwal, Treasurer CMA Purnima Goyal, immediate past Chairman CMA S.L. Swami, CMA Kapil Agarwal, CMA Deepak Mittal, CMA Bharat Swami and many other members and staff were present on this occasion. The Chapter conducted a live program on 16.06.2022 at 101.2 FM of All India Radio (Akashvani), Jaipur under the program "Margdarshan" which was transmitted from 9.15 to 10.00 am. At the program, Immediate Past Chairman of the Chapter CMA S.L. Swami described about CMA Course, Education, Training and professional avenues. Queries raised by the participants were replied satisfactorily by CMA S.L. Swami.

SOUTHERN INDIA REGIONAL COUNCIL

SIRC of ICAI - Internal Auditing and Assurance Standards Board-ICAI, jointly organized PD meeting on Internal Auditing for Sustainable Devt & Performance Measurement on 04.06.2022 at SIRC Premises. Guest of Honor: Gp Capt Dr. R.Venkataraman, Madras Management Association. As per the directives received from Headquarters, SIRC observed Bharat Ki Azadi ka Amrit Mahotsav "Green India - Tree Plantation Drive" on 09.06.2022 at its premises. CMA Rajesh Sai Iyer, Treasurer, SIRC – ICAI, students and staff members of SIRC participated in the event. The CEO & CFO's Meet was organised by SIRC on 11th June, 2022 at Hotel Hyatt Regency, Chennai. The meeting focused on the importance of the Cost & Management Accountants in Decision Making and Strategic Planning in the Corporates and Other Entities. CMA P Raju Iyer, President, ICAI highlighted the activities of the Institute in Agri-Cost Management, MSME's Sector, Internal Auditing and Assurance Services. CMA Vijender Sharma , Vice President, ICAI stressed the Importance of Forensic Audit and Performance Audit in achieving operational excellence. As directed by HQ, the International Yoga Day was celebrated at SIRC on 21st June 2022.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA BENGALURU CHAPTER

The Chapter organized "CMA Convention on Agri Value Management" at The Capitol Hotel, Bengaluru. Kum. Shobha Karandlaje, Minister of State for Agriculture and Farmers Welfare, Government of India was the chief guest. Shri Hanumanagowda Belaguri - Chairman, Agriculture Pricing Commission, Government of Karnataka, Shri.B.C.Patil, Agriculture Minister, Government of Karnataka were the special guests. Other speakers were Prof. S.K.Yadav - Director, School of Agriculture IGNOU, New Delhi, Dr.Gali Basavaraj - Deputy Director, Centre of Excellence in Farmer Producer Organisations, College of Horticulture, University of Horticultural Sciences Campus GKVIC, Dr.Ashokraj Bapugowda Patil - Officer on Special Duty to the Minister of Agriculture Govt. of Karnataka. Dr.B.N.S.Murthy, Director, Indian Institute of Horticultural Research, Prof. Chandrakanth Agro Economist and Rtd.Director ISEC, Dr.Suseelendra Desai , Dean- NMIMS University School of Agricultural Science & Technology Shripur, CMA (Dr) Paritosh Basu, Senior Professor & Chairperson of MBA (Law) Program NMIMs University School of Business Management- Mumbai, CMA P.Raju.Iyer, President , CMA, (Dr) K.Ch.A V S N Murthy- Chairman Task force on Agri Cost Management, CMA Ravendranath Kaushik, Member, Task force on Agri Cost Management, CMA Jayaram A V ., Vice Chairman BCCA, CMA Satish R., Chairman, BCCA, CMA Raghavendra B.K., Secretary BCCA, CMA Manjula B.S. , Chairperson PF, CMA Dr.Gurudath A.S. Member BCCA, CMA Vishwanath Bhat, Vice Chairman, SIRC, CMA Vijayalakshmi K.R., Coaching Chairperson BCCA and CMA Pranabandhu Dwibedy, Treasurer BCCA.

The Chapter organized a professional development programme on "GST for Beginners and Practitioners" on 04.06.2022. CMA Girish G.R, Practicing Cost Accountant, CMA Harish U, Practicing Cost Accountant, CMA Nuthan Prasad G E, Practicing Cost Accountant, CMA Srinivas G Practicing Cost Accountant, CMA Satish R ,Chairman BCCA, CMA Raghavendra B.K., Secretary BCCA, CMA Jayaram A V, Vice Chairman BCCA, CMA Sreepada H R – PD Chairman BCCA, CMA Vijayalakshmi K R – Coaching Chairman were the speakers at the programme.

The Chapter organized a Practitioners' Forum on (i) "Ind AS 101 & Ind AS 116 Applicability and (ii) The Impact of Covid -19 on Cost Allocation" at the Chapter premises – both physical and webinar . CMA Mohan R Lavi ,Partner, K.P.Rao & Co., Chartered Accountants. CMA Ramaskanda N , Sr.Partner Rao, Murthy & Associates, Cost Accountants, CMA Satish R , Chairman BCCA, CMA Raghavendra B.K., Secretary BCCA, CMA Jayaram A V, Vice Chairman BCCA, CMA Sreepada H R , PD Chairman BCCA, CMA Vijayalakshmi K R , Coaching Chairman were the speakers.

"Green India - Tree Plantation Drive - In association with MS Ramaiah Group of Institutions" a tree plantation drive was conducted at VTU Centre for PG Studies, Muddenahalli, on June 3, 2022. Dr. M K Purushottama, Principal & Director of RIBS, CMA Satish R , Chairman BCCA , CMA Raghavendra B.K., Secretary BCCA, CMA Vijayalakshmi K R , Coaching Chairman were the speakers on the occasion.

To commemorate *Azadi Ka Amrit Mahotsav* the Minister of Corporate Affairs administered a live oath to the members at the Chapter Premises on June 7, 2022 . The Chief Guest was Union Minister of Finance and Corporate Affairs Smt. Nirmala Sitharaman. The guests of honour were Shri. Rao Inderjit Singh, Minister of State (I/C) for Statistics & Programme implementation, Minister of State (I/C) for Planning and Corporate Affairs, CMA Satish R., Chairman BCCA, CMA Vijayalakshmi K R, Coaching Chairman, CMA Jayarama A.V., Vice Chairman BCCA.

The Crash Course on GST was inaugurated at Government Ramnarayan Chellaram College of commerce & Management Bengaluru. The Chief Guest was Dr. B. V. Murali Krishna, Additional Commissioner of Commercial Taxes, Government of Karnataka. Other guests of honour were CMA Satish R., Chairman BCCA, CMA Ragavendra B.K ., Secretary BCCA, CMA Vijayalakshmi K R ., Coaching Chairman, CMA Pranabandhu Dwibedy , Treasurer BCCA.

A CMA course awareness programme was arranged at All India Radio Station covering 13 stations all over Karnataka on 14.06.2022 . CMA Satish R., Chairman BCCA was the speaker of the programme.

Dhee -Vikasa Students Study Circle Meeting on "Guidance on Clearing Upcoming June, 2022 Examination" was held at the Chapter premises on 11.06.2022 when CMA Satish N., Member BCCA and CMA Saravanan K., ADCA Tax Consultant provided guidance to students.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA HYDERABAD CHAPTER

The Parliament passed a Bill to revamp the functioning of the institutes of chartered accountants, cost accountants and company secretaries, with Union Finance and Corporate Affairs Minister Smt. Nirmala Sitharaman asserted that the changes will usher in transparency and will not in any way impact the autonomy of these bodies. The chapter organised a programme on "The Chartered Accountants, Cost and Works Accountants and Company Secretaries (Amendment) Act, 2022" on May 12, 2022 whyen CMA Balwinder Singh, Former President and Central Council Member, The Institute of Cost Accountants of India, CMA B.B. Goyal, Advisor, MARF. The Institute of Cost Accountants of India, and CMA Dr. K.Ch.A.V.S.N. Murthy, Central Council Member of the Institute spoke on the various aspects and implications of the said Bill.

Dr. K. Suvarchala Rani, Assistant Professor,Bhavans's Vivekananda College of Science, Humanities and Commerce made a lucid presentation on 'Unearthing your emotional intelligence covering the points like Ability to sense emotion, controlling emotions, humanity, how to react, reaction with moments, self-management, ability to understand etc.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA VISAKHAPATNAM CHAPTER

The Chapter organized an awareness programme on Insolvency Profession with special reference to Graduate Insolvency Programme (GIP)" on 05th June 2022 at CMA Bhawan. Chief guest Shri V.V.Venugopal Rao, Director (Finance), Rashtriya Ispat Nigam Ltd, Visakhapatnam. CMA CA CS A. Chandra Sekhar, Founder Partner, SARC & Associates, Chartered Accountants, Visakhapatnam, Shri Rajendra M.Ganatra, Financial Restructuring & Registered Insolvency Professional, Ex MD & CEO at India SME Asset Reconstruction Co. Limited , and CA Ritesh Mittal, Senior Partner M/s. Sanjay Kumar Kothari and Co., Chartered Accountants & Insolvency Professional were the main speakers., CMA S.Ramprasad Chairman, CMA T.Harinarayana Vice-Chairman, CMA S.Rama Rao Secretary, CMA U.Lakshmana Rao, Treasurer of the

Chapter attended the meet.

The Chapter organized a professional development meet on “Opportunities for CMA Professionals in practice and service” on the occasion of CMA Formation day on 28th May 2022 at the Chapter premises. CMA U. Prakash, Practicing Cost Accountant , Visakhapatnam, CMA S.Ramprasad, Chairman, CMA U.Lakshmana Rao, Treasurer of the Chapter were among the eminent dignitaries who attended and spoke.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA MYSURU CHAPTER

The Chapter organized *Azadi Ka Amrit Mahotsav* Green India tree plantation drive on 09.06.2022 at Sarada Vilas College premises with the support of Dr. Sathyanarayana-Dean, Dept. of Commerce and Management of the College. The tree plantation drive was inaugurated by CMA M Ashok Kumar, Treasurer, CMA N R Desai ,MC Member and CMA S. Mallikarjuna ,Member of Mysuru Chapter of ICAI by planting saplings and it was followed by faculty Members students, staff of the Chapter and dignitaries of the college planting sapplings. The Chapter thanked the Management committee of the college, faculties, staff and students for coordinating and cooperating the programme.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA COCHIN CHAPTER

The Central Tax, Central Excise & Customs Department of the Government of India organised a webcast of the Inauguration of Iconic Week at Vigyan Bhawan on 06th June, 2022 by Shri Narendra Modi, Prime Minister as part of *Azadi ka Amrit Mahotsav* (AKAM) CMA Lajeesh K L, Chairman participated in the event as Chapter representative.

The Department for Promotion of Industry and Internal Trade Ministry of Commerce & Industry, Government of India organised an Investors Round Table Conference on 06th June, 2022 at Kochi Marriott Hotel. Shri. Piyush Goyal Minister chaired the function. On behalf of Cochin Chapter CMA Lajeesh K L, Chairman participated in the event.

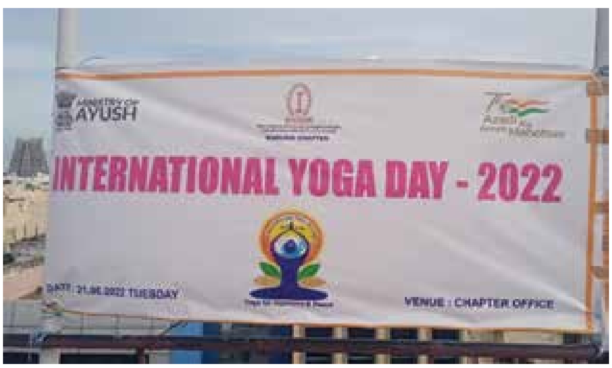
The Government of India is celebrating to commemorate the 75 years of India’s Independence. In this regard, the Ministry of Corporate Affairs (MCA) organised various Iconic events from 6th to 12th June 2022. The Institute had associated with the Investor Education and Protection Fund Authority (IEPFA) along with ICSI, ICAI, IICA, NFCG, NFRA, IBBI, NFCG & CCI to organise MCA Iconic Day event under AKAM at Vigyan Bhawan, New Delhi on 7th June, 2022. As part of this event CMA Lajeesh K L, Chairman of the Chapter, along with CMA Meena George, Secretary of the Chapter, Staff members and Students took the pledge at the Chapter premises.

The Chapter organised the “Green India - Tree Plantation Drive” as part of the Government of India, Bharat Ki *Azadi ka Amrit Mahotsav* to commemorate the 75 years of India’s Independence on June 09, 2022. The programme was inaugurated by handing over tree saplings to the nearby residents and Students by CMA (Shri.) Lajeesh K. L, Chairman of the Chapter. The Chapter Chairman also planted saplings in different locations along with CMA (Smt.) Meena George, Secretary of the Chapter, CMA (Shri.) Sankar P. Panicker, Member SIRC of ICAI. Staff members of the Chapter and Students were also present in the programme.

The Chapter organised an evening programme on the topic “Recent Changes in Schedule III of The Companies Act 2013” on 17th June 2022 at the Silver Jubilee Hall, CMA Bhavan,, Kaloor. CA Baby Paul, FCA was the speaker. CMA Lajeesh K L, Chairman of the Chapter introduced the speaker and welcomed the gathering and CMA Charujith C Mohan, Chairman, PD Committee proposed a vote of thanks.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA MADURAI CHAPTER

The Chapter organized a programme on International Yoga Day with YOGA Master Shri. R. Alagar Ramanujam on 21th June 2022, at Madurai Chapter Premises. CMA Dr S Kumararajan Chairman, CMA R K Bapulal, Vice Chairman, CMA P Mahalakshmi, Secretary and other Members participated in the programme.



WESTERN INDIA REGIONAL COUNCIL

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA NAVI MUMBAI CHAPTER

The Chapter conducted a webinar as part of CEP programme on “ESG and BRS Reporting” on 29th May 2022 via Google Meet app. The speaker for this event was CS Deepak Jain. CMA Vivek Bhalerao, Chairman of the PD Committee of the Chapter welcomed the audience and introduced the speaker and emphasized on the importance of Environmental, Social and Governance (ESG) in the industry. The speaker explained ESG and its reporting covering areas like definition of ESG, global warming, scams/frauds, ESG reporting and BRSR. The speaker summarized all the points and underlined the role of CMAs in the various areas providing ample opportunities for CMAs. The lucid presentation and interactive discussions concluded with the vote of thanks proposed by CMA L Prakash, Past Chairman of the Chapter.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA SURAT SOUTH GUJARAT CHAPTER

The Managing Committee of the Chapter took the initiative to represent the Chapter at Vice Chancellor’s office of the Veer Narmad South Gujarat University, Surat. CMA Nanty Shah- Chairman along with CMA Brijesh Mali, Past Chairman and managing Committee Member met Dr. Kishor Sinh Chavda, Vice Chancellor of the University on 15 June, 2022.

The Chapter organized a career counseling program at the Chapter Office on 13th June 2022. CMA Nanty Shah, Chairman, CMA Keval Shah, Vice Chairman, CMA K.C. Gupta, Secretary, CMA Kishor Vaghela, Treasurer and CMA Bharat Savani, Immediate Past Chairman conducted the session and motivated the students to get themselves enrolled in the course.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA PUNE CHAPTER

The Chapter arranged an Outreach program in association with MTPA & ACMA on the subject "The Maharashtra Settlement of Arrears of Tax, Interest, Penalty or Late Fee Act, 2022" on *2nd June 2022 at CMA Bhawan, Karve nagar.* Smt Renuka Nandedkar, Joint Commissioner of State Tax, Shri .Mukund Panhalkar - Dy. Commissioner of State Tax Large Tax Payer Unit-2,Pune, Smt Anjali Dhamal, Dy. Commissioner of State Tax Large Tax Payer Unit-2,Pune, Mr Ashwani Jotshi, from Automotive Component Manufacturers Association of India, CMA Manoj Chitalikar, President MTP were the speakers. CMA Rahul Chincholkar, Managing Committee Member of ICAI-Pune Chapter welcomed and introduced the speakers to the participants. CMA Dr. Sanjay Bhargave, Advisor, Pune Chapter felicitated Smt.Renuka Nandedkar Shri Mukund Panhalkar & Smt. Anjali Dhamal. CMA Nilesh Kekan, Treasurer of the Chapter felicitated Shri Ashwani Jotshi, from Automotive Component Manufacturers Association of India while CMA Shrikant Ippalpalli, Managing Committee Member of the Chapter felicitated CMA Manoj Chitalikar, President MTP. The session was very lucid and knowledge sharing. *Smt. Anjali Dhamal* discussed the various schemes of Maharashtra State on The Maharashtra Settlement of Arrears of Tax, Interest, Penalty or Late Fee Act, 2022. CMA Nilesh Kekan, Treasurer of ICAI-Pune Chapter proposed a vote of thanks.

The Ministry of Corporate Affairs (Govt. of India) organized an Investor Oath programme under *Azadi ka Amrit Mahotsav* at Vigyan Bhawan, New Delhi on 7th June 2022 in Hybrid mode in 75 locations all over India. A film on journey of Corporate Governance, and commemorative postal stamp on financial literacy and Investor awareness were also released. Launch of National CSR Exchange portal, release of Publication on IBC, Prize distribution of National Online Quiz competition on IBC and Release of E Book "A compendium on CSR" also took place on the occasion . Members from ICAI, ICSI and officials from ROCs, BLs attended the programme. CMA Nagesh Bhagane, Secretary of the Chapter, staff members and students also participated in this program.

The Government of India has embarked upon celebrating the 75 years of Independence through the 75 weeks commencing from 12 March 2021 to 15 August 2022. The celebrations are being done under the centrally launched campaign *Azadi Ka Amrit Mahotsav* with five broad themes viz., India as a Vishwa Guru, India's Rich Cultural Heritage, Atma Nirbhar Bharat, Celebrating Unsung Heroes and Ideas, Achievements & Resolve. Various programmes are organized under the theme *Azadi ka Amrit Mahotsav* all over India by the Institute. As a part of this the Chapter arranged the *'Green India* tree plantation drive" at CMA Bhawan, Karvenagar on 9th June, 2022 CMA Neeraj Joshi, Central Council Member, ICAI, CMA Chaitanya Mohrir, RCM, WIRC, CMA Nagesh Bhagane, Secretary of the Chapter, CMA Meena Vaidya, Advisor, Pune Chapter, Dr.Rajendra Khedekar, Chairman, Dnyanyog Seva Kendra Trust, Shri.Vikas Mane,Co-ordinator Bhartiya Yuvak Kalyan and Vyayam Kendra, CMA Members, staff and students of the Chapter were present on the occasion.

The Chapter organized a CEP on the topic "Insolvency Profession" jointly with Indian Institute of Insolvency Professionals of ICAI, Institute of Insolvency Professionals ICSI & Insolvency Professional Agency of The Institute of Cost Accountants of India at CMA Bhawan, Karvenagar on 9th June, 2022. The objective of the programme was to make the youth, pursuing Degree courses in Finance/

Accounts/Management/ Law/ Commerce Colleges, aware of the Insolvency Profession and the career opportunities. CMA Neeraj D. Joshi, CCM, ICAI was present at the programme. CS (CMA) Chandrashekhar Adawadkar was the speaker, CMA Shrikant Ippalpalli introduced the speaker to the participants. CMA Vishnu Sharma felicitated CMA Neeraj D. Joshi the programme.

In response to the call given by the Prime Minister Shri Narendra Modi, the Chapter celebrated the 8th International Yoga Day on 21st June 2022 at CMA Bhawan, Karvenagar. CMA Prasad Joshi, Chairman of the Chapter welcomed and felicitated the Yog guru CMA D V Patwardhan . CMA (Dr.) N K Nimkar, Past Chairman of the Chapter shared his experience about role of Yoga in health for all. CMA Nilesh Kekan, Treasurer-ICAI Pune Chapter proposed a vote of thanks.

Members of the Managing Committee of the Chapter visited Pune Municipal Corporation to felicitate CMA Smt.Ulka Kalaskar who has been promoted as Joint Commissioner of Finance of Pune Municipal Corporation from Chief Finance officer . CMA Prasad Joshi, Chairman of the Chapter felicitated Smt Ulka Kalaskar. CMA Meena Vaidya, Advisor,Pune Chapter, CMA Nagesh Bhagane, Secretary, CMA Shrikant Ippalpalli and CMA Rahul Chincholkar Managing Committee members of the Chapter congratulated and felicitated Smt Ulka Kalaskar.

The Chapter arranged a CEP on the subject "Internal Audit - A Practice" *on 24th June 2022 at CMA Bhawan, Karvenagar.* CA Anand Joshi was the speaker. CMA Shrikant Ippalpalli, Member of the Chapter welcomed and introduced the speaker to the participants. CMA Nilesh Kekan, Treasurer of the Chapter felicitated the speaker CA Anand Joshi. The session was very educative and knowledge sharing. CMA Nilesh Kekan Treasurer of the Chapter proposed a vote of thanks.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA AHMEDABAD CHAPTER

The Chapter organized as part of the CEP a workshop and Networking series on "Forensic audit" from 7th Juneto 11th June 2022. During the workshop following topics were discussed:

Introduction and Basics; Fraud and Fraud detection; Forensic Audit Methodology and procedures; Forensic Documents examination; and Legal Perspective, CMA Malhar Dalwadi, Chairman of the Chapter welcomed the speakers CA Samir Chaudhary and Dr. Kapil Kumar and also the participant members. He also introduced both speakers.

All the sessions were found to be very interactive and useful to the members.

On 7th June'2022 the Chapter's office bearers and other members participated in the Investor Oath during the MCA iconic day event under the 'Azadi ka Amrit Mahotsav' and took an Oath. Smt Nirmala Sitharaman, Finance Minister of India, addressed the participants.

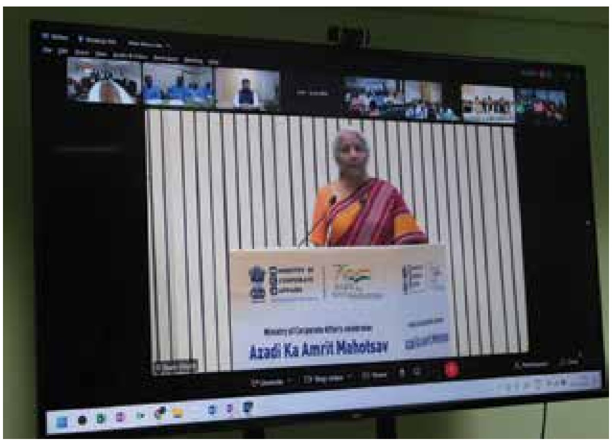
With a view to encourage and educate the existing as well as potential investors to benefit from the capital markets a programme was organized on the theme "Creating Wealth through Market" on 10th June'2022. The programme included a live inaugural address by Smt. Nirmala Sitharaman, Minister of Finance and Corporate Affairs in the august presence of MoS (Finance), Dr. Bhagwat Kishanrao Karad. Chairman of Chapter CMA Malhar Dalwadi and Secretary of Chapter CMA Mitesh Prajapati participated.

The Chapter organized a meeting to discuss the "Exposure Draft Cost Auditing Standards" on 17th, 18th and 20th June'2022. Central Council Member CMA Ashwinkumar Gordhanbhai Dalwadi and Regional Council Member CMA Ashish Bhavsar led the discussions.

International yoga day was celebrated by the Chapter on 21st June 2022. CMA Malhar Dalwadi, Chairman welcomed Shri Kaushal Vyas,Yoga Trainer and felicitated him by offering memento. Shri Kaushal Vyas gave his views on the importance of Yoga. Various aasanas of yoga were demonstrated by Shri Kaushal Vyas.

The Chapter jointly with Baroda Chapter organized a CEP webinar on "Know the Nitty Gritty of Writing a Will" on 25th June'2022. CMA Mihir Vyas, Chairman of Baroda Chapter welcomed the speaker Shri Prakash Lohana and other participants. Mr. Prakash Lohana in his lucid presentation discussed all the finer aspects of preparing a will. CMA Malhar Dalwadi, Chairman of the Chapter proposed a vote of thanks.

During the month of June 2022, the Chapter did promotional activities for CMA course. As part of Career counseling activity, Oral Coaching Committee Team members met Principals of different schools, Colleges, universities and owners of private classes and distributed pamphlet of the course contents. The Chapter created help desk to resolve the issues of students appearing in the June'22 examination.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA PIMPRI CHINCHWAD AKURDI CHAPTER

The Chapter conducted a webinar on 'Activity Based Costing' on 28th May 2022 through Google Digital platform. CMA Ashish Deshmukh, Past Chairman of the Chapter welcomed and introduced the speaker CMA (CS) Chandrashekhar Adawadkar who in his address said that activity-based costing is a costing method that identifies activities in an organization and assigns the cost of each activity to all products and services according to the actual consumption by each. Therefore this model assigns more indirect costs into direct costs compared to conventional costing. He covered the various aspects succinctly during the session.

The Chapter conducted a webinar on 'Cost Reduction is a Process' on 4th June 2022 through Google Digital platform. CMA Dhananjay Kumar Vatsyayan, Chairman of the Chapter welcomed and introduced the speaker CMA Kailash Sankhlecha, Practicing Cost Accountant & Partner – M/s M B Sharma & Associates. CMA Sankhlecha in his speech covered the topic cost control and cost reduction. Control is the process through which conformity is attempted between actual and planned performance.

The Chapter conducted yet another webinar on 'Internal Auditing' on 18th June 2022 through Hybrid Mode i.e Offline and Online mode. CMA Dhananjay Kumar Vatsyayan, Chairman of the Chapter welcomed the speaker and audience and CMA Pratap Bhagwani introduced the speaker CMA C S Adawadkar, Practicing Cost Accountant by offering a memento from the hands of the Chairman. CMA C S Adawadkar in his address briefed on the importance of internal auditing in various Government, Semi-Government, Public and Private sector entities.

DIRECT & INDIRECT TAX UPDATES - June 2022

DIRECT TAXES

- **Notification No. 59/2022 dated 6th June 2022**: In exercise of the powers conferred by sub-section (8A) of section 9A of the Income-tax Act, 1961:

  (a) eligible investment fund referred to in sub-section (8A) of section 9A of the Act, the conditions specified in

  (i) clause (e), clause (f) and clause (g) of sub-section (3) of section 9A of the Act shall not apply

  (ii) clause (k) of sub-section (3) of section 9A of the Act shall be modified in the manner "(k) the fund shall not carry on, or participate in, the day to day operations of any person in India and for this purpose the monitoring mechanism to protect the investment in such person including the right to appoint directors or executive director shall not be considered as participation in day to day operations of such person in India"

  (b) eligible fund manager referred to in sub-section (8A) of section 9A of the Act, the conditions specified in clause (b) of sub-section (4) of section 9A of the Act shall be modified in the manner "(b) the person is registered as a portfolio manager or an investment advisor in accordance with the International Financial Services Centres Authority (Capital Market Intermediaries) Regulation 2021 as notified under the International Financial Services Centres Authority Act, 2019 (50 of 2019) or such other regulations made under the International Financial Services Centres Authority Act, 2019 (50 of 2019)".

- **Notification No. 60/2022 dated 10th June 2022:** In exercise of the powers conferred by section 118 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby directs that

  (a) Chief Commissioners of Income-tax as specified in Column (3) of the Schedule attached with the notification, shall be subordinate to the Principal Chief Commissioners of Income-tax as specified in Column (2) of the said Schedule

  (b) Principal Commissioners of Income-tax as specified in Column (4) of the said Schedule shall be subordinate to the Chief Commissioners of Income-tax as specified in Column (3) of the said Schedule

  (c) Income-tax Authorities of Units as specified in Column (5) of the said Schedule shall be subordinate to the Principal Commissioners of Income-tax as specified in Column (4) of the said Schedule and

  (d) Principal Commissioners of Income-tax as specified in Column (4) at Sr. No. 15 of the said Schedule shall be subordinate to the Principal Chief Commissioner of Income-tax (National Faceless Assessment Centre), Delhi.

- **Notification No. 61/2022 dated 10th June 2022:** In exercise of the powers conferred by sub-sections (1), (2) and (5) of section 120 of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as the said Act) and in supersession of Notification No. 23/2021 dated the 31st March, 2021, except as respects things done or omitted to be done before such supersession, the Central Board of Direct Taxes hereby directs that the Income-tax Authorities of Units specified in Column (2) of the Schedule attached with the notification, having their headquarters at the places mentioned in Column (3) of the said Schedule, shall exercise the powers and functions of Assessing Officers concurrently, to facilitate the conduct of Faceless Assessment proceedings under section 144B of the said Act, in respect of all persons or class of persons, or incomes or class of incomes, or cases or class of cases in the territory of India, excluding the persons or class of persons, or incomes or class of incomes, or cases or class of cases covered by the Notification No. 57/2014 bearing S.O. 2814(E) dated the 3rd November, 2014.

- **Notification No. 62/2022 dated 14th June 2022:** In exercise of the powers conferred by clause (v) of the Explanation to section 48 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby makes the following further amendments in the notification of the Government of India. In the said notification, in the Table, after serial number 21, the following serial number and entries relating thereto, shall be inserted:

Sl No	Financial Yr	Cost Inflation Index
22	2022-23	331

- **Notification No. 63/2022 dated 15th June 2022:** In exercise of the powers conferred by clause (viiaf) of section 47 of the Incometax Act, 1961 (43 of 1961), the Central Government hereby notifies the transfer of capital asset from NTPC Limited (PAN: AAACN0255D), being transferor public sector company, to NTPC Green Energy Limited (PAN: AAICN1737G), being transferee public sector company, under the plan approved by the Central Government on 21st day of March, 2022, for the purposes of the said clause.

- **Notification No. 64/2022 dated 16th June 2022:** In exercise of the powers conferred by the proviso to item (III) of sub-clause (i) of clause (c) of the Explanation to clause (4D) of section 10 read with section 295 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct taxes hereby makes the following rules further to amend the Income-tax Rules,1962.

  (i) in rule 21AI, after sub-rule rule (2), the following sub-rule shall be inserted, namely:- "(2A) The income attributable to units held by non-resident (not being the permanent establishment of a nonresident in India) in a specified fund shall not be exempt under clause (4D) of section 10 of the Act unless the specified fund complies with sub-rule (2)."

(ii) after rule 21AI, the following rule shall be inserted, namely: — "21AIA. Other conditions required to be fulfilled by a specified fund referred to in clause (4D) of section 10 of the Act (1) For the purposes of the proviso to item (III) of sub-clause (i) of clause (c) of the Explanation to clause (4D) of section 10 of the Act, the "other conditions" required to be fulfilled by a specified fund shall be that

(a) the unit holder of the specified fund, other than the sponsor or manager of such fund, who becomes a resident under clause (1) or clause (1A) of section 6 of the Act during any previous year subsequent to the previous year in which such unit or units were issued, shall cease to be a unit holder of such specified fund within a period of three months from the end of the previous year in which he becomes a resident;

(b) for the purposes of clause (a), the specified fund shall maintain the documents in respect of its unit holders.

- **Notification No. 65/2022 dated 16th June 2022:** In exercise of the powers conferred by sub-section (1F) of section 197A read with clause (c) of sub-section (2) of section 80LA, of the Income-tax Act,1961 (43 of 1961) (hereinafter the Income-tax Act), the Central Government hereby specifies that no deduction of tax shall be made under section 194-I of the Income-tax Act on payment in the nature of lease rent or supplemental lease rent, as the case may be, made by a person (hereafter referred as 'lessee') to a person being a Unit located in International Financial Services Center (hereinafter the 'lessor') for lease of an aircraft subject to the following

(a) The lessor shall, - (i) furnish a statement-cum-declaration in Form No. 1 to the lessee giving details of previous years relevant to the ten consecutive assessment years for which the lessor opts for claiming deduction under subsection (1A) read with section (2) of the section 80LA of the Income-tax Act; and (ii) such statement-cum-declaration shall be furnished and verified in the manner specified in Form No.1, for each previous year relevant to the ten consecutive assessment years for which the lessor opts for claiming deduction under sub-section (1A) read with section (2) of the section 80LA of the Income-tax Act.

(b) The lessee shall, — (i) not deduct tax on payment made or credited to lessor after the date of receipt of copy of statementcum-declaration in Form No. 1 from the lessor; and (ii) furnish the particulars of all the payments made to lessor on which tax has not been deducted in view of this notification in the statement of deduction of tax referred to in sub-section (3) of section 200 of the Income-tax Act read with rule 31A of the Income-tax Rules, 1962.

The above relaxation shall be available to the lessor during the said previous years relevant to the ten consecutive assessment years as declared by the lessor in Form No. 1 for which deduction under section 80LA is being opted. The lessee shall be liable to deduct tax on payment of lease rent for any other year.

- **Notification No. 66/2022 dated 17th June 2022:** In exercise of the powers conferred by section 295 read with sub-section (2) of section 92CB of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby makes the following rules further to amend the Income-tax Rules, 1962. In the Income-tax Rules, 1962, in rule 10TD, in sub-rule (3B), for the words and figures "assessment years 2020-21 and 2021-22", the words and figures "assessment years 2020-21, 2021-22 and 2022-23" shall be substituted.

- **Notification No. 67/2022 dated 21st June 2022:** In exercise of the powers conferred by section 295 read with sections 194B, 194-IA, 194R, 194S and section 206AB of the Income-tax Act, 1961, the Central Board of Direct Taxes, hereby, makes the following rules further to amend the Income-tax Rules, 1962, in rule 30, with effect from the 1st July, 2022

(i) after sub-rule (2C), the following sub-rule shall be inserted, namely: "(2D) Notwithstanding anything contained in sub-rule (1) or sub-rule (2), any sum deducted under section 194S by a specified person referred to in that section shall be paid to the credit of the Central Government within a period of thirty days from the end of the month in which the deduction is made and shall be accompanied by a challan-cum-statement in Form No. 26QE.";

(ii) after sub-rule (6C), the following sub-rule shall be inserted, namely: "(6D) Where tax deducted is to be deposited accompanied by a challan-cum-statement in Form No.26QE, the amount of tax so deducted shall be deposited to the credit of the Central Government by remitting it.

- **Notification No. 68/2022 dated 24th June 2022:** In exercise of the powers conferred by sub-section (1) of section 280A of the Income-tax Act, 1961 (43 of 1961) and section 84 of the Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015 (22 of 2015), the Central Government, in consultation with the Chief Justice of the High Court of Uttarakhand, hereby designates the following Court in the State of Uttarakhand, as mentioned in column (2) of the Table, as Special Court for the area specified in column (3) of the said Table for the purposes of section 280A of the Income-tax Act, 1961 and section 84 of the Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015.

- **Notification No. 69/2022 dated 27th June 2022:** In exercise of powers conferred by sub-clause (vi) of clause (b) of the Explanation 1 to clause (23FE) of section 10 of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as the "Act"), the Central Government hereby specifies the sovereign wealth fund, namely, Seventy Second Investment Company LLC (PAN: ABICS2676N), (hereinafter referred to as "the assessee") as the specified person for the purposes of the said clause in respect of the investment made by it in India on or after the date of publication of this notification in the Official Gazette but on or before the 31st day of March, 2024 (hereinafter referred to as "said investments") subject to the fulfilment of certain conditions.

- **Notification No. 70/2022 dated 28th June 2022:** In exercise of the powers conferred by the third proviso to sub-section (2) of section 92C of the Income-tax Act, 1961 (43 of 1961)(hereafter referred to as the "said Act"), read with proviso to sub-rule (7) of rule 10CA of the Income-tax Rules, 1962, the Central Government hereby notifies that where the variation between the arm's length price determined under section 92C of the said Act and the price at which the international transaction or specified domestic transaction has actually been undertaken does not exceed one per cent. of the latter in respect of wholesale trading and three per cent. of the latter in all other cases, the price at which the international transaction or specified domestic transaction has actually been undertaken shall be deemed to be the arm's length price for assessment year 2022-2023.

- **Notification No. 71/2022 dated 28th June 2022:** In exercise of powers conferred by sub-sections (1) and (2) of section 120 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby makes the further amendments in the Notification of the Government of India, Ministry of Finance, Department of Revenue, Central Board of Direct Taxes No.70/2014 dated the 13th November, 2014.

- **Notification No. 72/2022 dated 28th June 2022:** In exercise of the powers conferred by sub- sections (1) and (2) of section 120 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby makes the amendments in the Notification of the Government of India, Ministry of Finance.

  In the said Notification, in the Schedule,- (I) in Serial Number 1, in column number (4), for entries (iii) to (ix), the following entry shall be substituted, namely:- "(iii) Chief Commissioner of Income-tax (International Taxation), Delhi"

- **Notification No. 73/2022 dated 30th June 2022:** In exercise of the powers conferred by section 295 read with section 194S of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes, hereby, makes the following rules further to amend the Income-tax Rules, 1962.

  In the Income-tax Rules, 1962 (hereinafter referred to as the principal rules), in rule 31A, — (i) after sub-rule (1), the following shall be inserted, namely:- "Provided that where the exchange has, in accordance with the guidelines issued under sub-section (6) of section 194S, agreed to pay tax in relation to a transaction of transfer of a virtual digital asset, owned by it as an alternative to tax required to be deducted by the buyer of such asset under section 194S, the Exchange shall deliver or cause to be delivered, a quarterly statement of such transactions in Form No. 26QF to the Principal Director General of Income-tax (Systems) or Director General of Income-tax (Systems) or the person authorised by the Principal Director General of Income-tax (Systems) or the Director General of Income-tax (Systems).

  (ii) after sub-rule (4D), the following sub-rule shall be inserted, namely, "(4E) The exchange referred to sub-rule (1) shall, at the time of preparing of quarterly statement in Form No. 26QF, furnish particulars of account paid or credited on which tax was not deducted in accordance with guidelines issued under sub-section (6) of section 194S."

- **Notification No. 74/2022 dated 30th June 2022:** In exercise of the powers conferred by proviso to clause (47A) of section 2 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies following virtual digital assets which shall be excluded from the definition of virtual digital asset: (i) Gift card or vouchers, being a record that may be used to obtain goods or services or a discount on goods or services; (ii) Mileage points, reward points or loyalty card, being a record given without direct monetary consideration under an award, reward, benefit, loyalty, incentive, rebate or promotional program that may be used or redeemed only to obtain goods or services or a discount on goods or services; (iii) Subscription to websites or platforms or application.

- **Notification No. 75/2022 dated 30th June 2022:** In exercise of the powers conferred by clause (a) of Explanation to clause (47A) of section 2 of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred as 'the Act'), the Central Government hereby specifies a token which qualifies to be a virtual digital asset as non-fungible token within the meaning of sub-clause (a) of clause (47A) of section 2 of the Act but shall not include a non fungible token whose transfer results in transfer of ownership of underlying tangible asset and the transfer of ownership of such underlying tangible asset is legally enforceable.

- **Notification No. 76/2022 dated 30th June 2022:** In the notification of the Government of India, Ministry of Finance, Department of Revenue, Central Board of Direct Taxes, number S.O. 2926(E), dated the 28th June, 2022, published in the Gazette of India, Extraordinary, Part II, section 3, sub-section (ii), dated the 28th June, 2022, in Schedule-II

(i) in column 4 in item (v), for "Mumbai - 2" read "Mumbai - 4";

(ii) in column 4 in item (vii), for "Mumbai - 4" read "Mumbai - 2"

- **Circular No. 11 of 2022 dated 3rd June 2022:** Clarification regarding Form No 10AC issued till the date of this Circular. It is hereby clarified that, (i) the conditions contained in Form No. 10AC, issued between 01.04.2021 till the date of issuance of this Circular, shall be read as if the said conditions had been substituted with the conditions as provided in the Table 1 with effect from 1st April, 2022. Where due to technical glitches, Form No. 10AC has been issued during FY 2021- 2022 with the heading "Order for provisional registration" or " Order for provisional approval" instead of "Order for registration" or " Order for approval", then all such Form No. 10AC shall be considered as an "Order for registration or approval" and, in such cases where Form No. 10AC has been issued,

  (a) under section code 01 (applications seeking re-registration),- (i) in the heading and in rows 6, 7, 9 and 10 the words ," provisional registration" shall be read as "registration"; (ii) in row 8 the word " provisionally registered" shall be read as "registered".

  (b) under section codes 03, 04, 05, 06 or 11 (applications seeking re-approval) (i) in the heading and in rows 6, 7, 9 and 10 the words, "provisional approval" shall be read as "approval"; (ii) in row 8 the word "provisionally approved" shall be read as "approved"

- **Circular No. 12 of 2022 dated 16th June 2022:** Guidelines for removal of difficulties under sub-section (2) of section 194R of the Incometax Act, 1961.
- **Circular No. 13 of 2022 dated 22nd June 2022:** Guidelines for removal of difficulties under sub-section (6) of section 194S of the Income-tax Act, 1961.
- **Circular No. 14 of 2022 dated 28th June 2022:** Order under section 119 of the Income-tax Act, 1961 (the Act) in relation to tax deduction at source under section 194S of the Act for transactions other than those taking place on or through an Exchange.

INDIRECT TAXES

GST

- **Notification No. 08/2022 –Central Tax dated 07th June 2022G**: In exercise of the powers conferred by sub-section (1) of section 50 read with section 148 of the Central Goods and Services Tax Act, 2017 (12 of 2017), the Government, on the recommendations of the Council, hereby notifies the rate of interest per annum to be 'Nil', for the class of registered persons mentioned in column (2) of the Table attached with the notification, who were required to furnish the statement in FORM GSTR-8, but failed to furnish the said statement for the months mentioned in the corresponding entry in column (3) of the said Table by the due date, for the period mentioned in the corresponding entry in column (4) of the said Table.

CUSTOMS

- **Notification No. 31/2022-Customs dated 7th June 2022**: In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962) and sub-section (12) of section 3 of the Customs Tariff Act, 1975 (51 of 1975), the Central Government, hereby makes the following further amendments in the notification of the Government of India, Ministry of Finance (Department of Revenue), No. 50/2017-Customs, dated the 30thJune, 2017. In the said notification, in the ANNEXURE, in Condition No. 95, in clause (ii), in sub-clause (a),-(i) for the words "one hundred and twenty-six months", the words "one hundred and sixty-two months" shall be substituted; and

  (ii)for the words "one hundred and twenty months", the words "one hundred and fifty-six months" shall be substituted.

- **Notification No. 32/2022-Customs dated 30th June 2022:** In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962), read with section 147 of Finance Act, 2002 (20 of 2002),the Central Government, , hereby exempts the goods of the description specified in column (3) of the Table below and falling within the Heading of the First Schedule to the Customs Tariff Act, 1975 (51 of 1975), as specified in column (2), when imported into India, from whole of the additional duty of Customs leviable thereon under sub-section (1) of section 3 of the said Customs Tariff Act, as is equivalent to the Special Additional Excise Duty leviable thereon under section 147 of the Finance Act 2002:

Sl No.	Heading	Description of the Goods
1	2709	Petroleum, Crude
2	2710	Aviation Turbine Fuel

- **Notification No. 33/2022-Customs dated 30th June 2022:** In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962) and sub-section (12) of section (3) of the Customs Tariff Act, 1975 (51 of 1975), the Central Government hereby makes the following further amendments in the notification of the Government of India,Ministry of Finance (Department of Revenue), No.50/2017-Customs, dated the 30thJune, 2017

  In the said notification, in the Table,

(i) against S. No. 354, in Column (4), for the entry"6.9%", the entry "11.85%" shall be substituted;

(ii)against S. No. 356, in Column (4), for the entry "7.5%", at both the places,the entry"12.5%"shall be substituted

(iii)against S. No. 357A, in Column (4), for the entry "7.5%", the entry"12.5%"shall be substituted

- **Notification No. 34/2022-Customs dated 30th June 2022: I**n exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962) read with section 110 of the Finance Act, 2018 (13 of 2018), the Central Government hereby exempts all goods falling under heading 7108 of the First Schedule to the Customs Tariff Act, 1975 (51 of 1975) when imported into India, from the whole of the Social Welfare Surcharge leviable thereon under the section 110 of the said Finance Act.

- **Notification No. 35/2022-Customs dated 30th June 2022:** In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962), the Central Government hereby makes the following further amendments in the notification of the Government of India, Ministry of Finance (Department of Revenue) No. 57/2000-Customs,dated the 8th May, 2000,published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-Section (i),vide number G.S.R. 413 (E), dated the 8th May, 2000, namely: In the said notification, in the Table, against Sl. No. 1, in Column (4), for the entry"6.9%", the entry "11.85%" shall be substituted.

- **Notification No. 36/2022-Customs dated 30th June 2022:** In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962),the Central Government, hereby makes the following amendments in the notification of the Government of India, Ministry of Finance (Department of Revenue), No.22/2022-Customs, dated the 30th April, 2022, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), vide number G.S.R. 328(E), dated the 30th April, 2022, namely :In the said notification, in the Table III, against S. No. 12, in Column (5), for the entry"6.6", the entry"11.5" shall be substituted.

- **Notification No. 37/2022-Customs dated 30th June 2022:** Seeks to continue the exemption from Integrated Tax and Compensation Cess on goods imported under AA/EPCG/EOU Schemes Seeks to continue the exemption from Integrated Tax and Compensation Cess on goods imported under AA/EPCG/EOU Schemes.

- **Circular No. 09/2022-Customs dated 30th June 2022:** Simplified regulatory framework for e-commerce exports of jewellery through Courier mode.

CENTRAL EXCISE

- **Notification No. 03/2022-Central Excise dated 30th June 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act,1944 (1 of 1944) read with section 147 of Finance Act, 2002 (20 of 2002), the Central Government, hereby makes the following further amendments in the notification of the Government of India in the Ministry of Finance (Department of Revenue), No. 05/2019-Central Excise, dated the 6thJuly, 2019, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section(i), vide number G.S.R.488(E), dated the 6thJuly, 2019. In the said notification, after the Table, the following shall be inserted, namely: Nothing contained in this notification shall apply to the goods cleared for export.

- **Notification No. 04/2022-Central Excise dated 30th June 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944(1 of 1944)read with section 147 of Finance Act, 2002 (20 of 2002), the Central Government, being satisfied that it is necessary in the public interest so to do, hereby exempts the excisable goods of the description specified in Column (3) of the Table below and falling within the Chapter, heading or sub-heading or tariff item of the Fourth Schedule to the said Excise Act, as specified in the corresponding entry in Column (2) of the said Table, from so much of the Special Additional Excise Duty leviable thereon under section 147 read with the Eighth Schedule to the Finance Act, 2002, as is in excess of the amount calculated at the rate specified in the corresponding entry in Column (4) of the said Table.

Sl NO	Chapter or heading or subheading or tariff item	Description of Goods	Rate
1	2710	Motor spirit, commonly known as petrol	Rs. 5 per litre
2	2710	High speed diesel oil	Rs. 12 per litre

- **Notification No. 05/2022-Central Excise dated 30th June 2022:** The Central Government is satisfied that the Special Additional Excise Duty be levied under section 147 of the Finance Act, 2002 (No. 20 of 2002) on Petroleum crude, and Aviation Turbine Fuel falling under heading2709and 2710respectively of the Fourth Schedule to the Central Excise Act 1944 (1 of 1944), and that circumstances exist which render it necessary to take immediate action.Therefore, in pursuance of section 147 of the Finance Act, 2002, the Central Government,hereby directs that the Eighth Schedule to the said Finance Act, 2002, shall be amended in the following manner, namely: -In the Eighth Schedule to the Finance Act, 2002, after Item No. 2 and the entries relating thereto, the following Item S.No. and entries shall be inserted,

3	Petroleum Crude	Rs. 23250 per tonne
4	Aviation Turbine Fuel	Rs. 6 per litre

- **Notification No. 06/2022-Central Excise dated 30th June 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944)read with section 147 of Finance Act, 2002 (20 of 2002),the Central Government hereby exempts the crude petroleum, falling under heading2709 of the of the Fourth Schedule to the Central Excise Act, 1944 (herein after referred to as "the said goods" produced by a person whose annual production of the said goods during the preceding Financial Year was less than two million barrel, from the whole of the Special Additional Excise Duty leviable thereon under section 147 read with the Eighth Schedule to the said Finance Act, 2002.
- **Notification No. 07/2022-Central Excise dated 30th June 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944) read with section 147 of Finance Act, 2002 (20 of 2002), the Central Government hereby exempts the crude petroleum, falling under heading 2709 of the of the Fourth Schedule to the Central Excise Act 1944,produced by a person which is in excess of crude petroleum oil produced by such person during the preceding Financial Year, from the whole of the Special Additional Excise Duty leviable thereon under section 147 read with the Eighth Schedule to the said Finance Act, 2002.
- **Notification No. 08/2022-Central Excise dated 30th June 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944) read with section 112 of the Finance Act, 2018 (13 of 2018) and section 125 of the Finance Act, 2021 (13 of 2021), the Central Government, hereby exempts the goods of description falling under Column (2) of the Table below from the whole of duties in Column (3) of the said Table when such goods are cleared for export.

Sl No	Description of item	Specified Duty
1	i) Motor Spirit commonly known as Petrol (ii) High Speed Diesel	(i) Basic Excise Duty (ii) Agricultural Infrastructure Development Cess
2	Aviation Turbine Fuel	Basic Excise Duty

- **Notification No. 09/2022-Central Excise dated 30th June 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944(1 of 1944)read with section 147 of Finance Act, 2002 (20 of 2002), the Central Government, hereby exempts Aviation Turbine Fuel, falling under the Heading 2710 of the Fourth Schedule of the Central Excise Act, 1944 (1 of 1944) from the whole of the Special Additional Excise Duty leviable thereon under section 147 of the Finance Act, 2002 (20 of 2002).Nothing contained in this notification shall apply to the goods cleared for export.
- **Notification No. 10/2022-Central Excise dated 30th June 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of1944) read with section 112 of Finance Act, 2018 (13 of 2018), the Central hereby exempts the excisable goods of the description specified in column (3) of the Table below and falling within the Chapter, heading or sub-heading or tariff item of the Fourth Schedule to the said Excise Act, as specified in the corresponding entry in column (2) of the said Table,from so much of the additional duty of excise leviable thereon under section112, read with the Sixth Schedule to the said Finance Act, 2018, as is in excess of the amount calculated at the rate specified in the corresponding entry in column (4)of the said Table,

Sl No	Chapter or heading or subheading or tariff item	Description of goods	Rate
1	2710	Motor spirit, commonly known as petrol	Rs 1 per litre
2	2710	High speed diesel oil	Rs 1 per litre

Nothing contained in this notification shall apply to any goods other than the goods cleared for export.

- **Notification No. 11/2022-Central Excise dated 30th June 2022:** In exercise of the powers conferred by section 112 of Finance Act, 2018 (13of2018),read with section 5A of the Central Excise Act,1944(1of1944) (herein after referred to as the Excise Act), the Central Government,hereby makes the following further amendments in the notification of the Government of India in the Ministry of Finance (Department of Revenue), No. 04/2019-Central Excise,dated the 6thJuly, 2019, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section(i), videnumberG.S.R.487(E), dated the 6thJuly, 2019,namely:-In the said notification, after the Table, the following shall be inserted, namely: Nothing contained in this notification shall apply to the goods cleared for export.

Sources: incometax.gov.in.cbic.gov.in

Postal Registration No. : KOL RMS /139 /2022 – 2024
License to post without prepayment, WPP License No. : MR/TECH/WPP/KOL RMS/354/2022 – 24
Posted at Mumbai Patrika Channel Sorting Office, Mumbai – 400 001
Posting Dates: 11th, 12th & 13th day of each English month only
Date of Publication 10th of every month

RNI NO. 12032/1966