

# THE MANAGEMENT ACCOUNTANT

ISSN 0972-3528

September 2021 | VOL 56 | NO. 09 | Pages - 124 | ₹ 100



## INFORMATION SYSTEM SECURITY AUDIT

*Journal of*

**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA**  
(Statutory Body under an Act of Parliament)

[www.icmai.in](http://www.icmai.in)



# Pre-Leased Commercial Property For Sale

**Lessee**

**Multinational Pharma Company**

**Area**

**14,000 sq.ft to 60,000 sq.ft**

**Location**

**Vadodara, Gujarat**

**Investment**

**Minimum 5 Crores**

**Return On Inv**

**Handsome Return**

**Salient Features**

**Clear & Marketable Title, Good Scope for Appreciation and Other Benefits**

**Brokers Welcome**

**Cell: 8140314607**

**E-mail : [leasedproperties9@gmail.com](mailto:leasedproperties9@gmail.com)**



# THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory body under an Act of Parliament



[www.icmai.in](http://www.icmai.in)

- 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 resources and professionals for the financial leadership of enterprises globally.”

## IDEALS THE INSTITUTE STANDS FOR

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

Behind every successful business decision, there is always a **CMA**

### PRESIDENT

**CMA Biswarup Basu**  
[president@icmai.in](mailto:president@icmai.in)

### VICE PRESIDENT

**CMA P. Raju Iyer**  
[vicepresident@icmai.in](mailto:vicepresident@icmai.in)

### COUNCIL MEMBERS

CMA (Dr.) Ashish Prakash Thatte, CMA Ashwinkumar Gordhanbhai Dalwadi, CMA (Dr.) Balwinder Singh, CMA Chittaranjan Chattopadhyay, CMA Debasish Mitra, CMA H. Padmanabhan, CMA (Dr.) K Ch A V S N Murthy, CMA Neeraj Dhananjay Joshi, CMA Papa Rao Sunkara, CMA Rakesh Bhalla, CMA (Dr.) V. Murali, CMA Vijender Sharma, Shri Manmohan Juneja, Shri Vivek Kulkarni, Shri Sushil Behl, CA Mukesh Singh Kushwah, CS Makarand Lele

### Secretary

**CMA Kaushik Banerjee**  
[secy@icmai.in](mailto:secy@icmai.in)

**Senior Director (Studies, Training & Education Facilities and Placement & Career Counselling, Advanced Studies)**

**CMA (Dr.) Debaprosanna Nandy**  
[studies.director@icmai.in](mailto:studies.director@icmai.in), [placement.director@icmai.in](mailto:placement.director@icmai.in), [advstudies.director@icmai.in](mailto:advstudies.director@icmai.in)

**Senior Director (Membership) & Banking, Financial Services and Insurance**

**CMA Arup Sankar Bagchi**  
[membership.director@icmai.in](mailto:membership.director@icmai.in), [bfsi.hod@icmai.in](mailto:bfsi.hod@icmai.in)

**Director (Examination)**

**Dr. Sushil Kumar Pareek**  
[exam.director@icmai.in](mailto:exam.director@icmai.in)

**Director (Finance)**

**CMA Arnab Chakraborty**  
[finance.director@icmai.in](mailto:finance.director@icmai.in)

**Additional Director (Public Relation, Delhi Office)**

**Dr. Giri Ketharaj**  
[pr.hod@icmai.in](mailto:pr.hod@icmai.in)

**Additional Director (Tax Research)**

**CMA Rajat Kumar Basu**  
[trd.hod@icmai.in](mailto:trd.hod@icmai.in)

**Additional Director (PD & CPD and PR Corporate)**

**CMA Nisha Dewan**  
[pd.hod@icmai.in](mailto:pd.hod@icmai.in), [prcorp.hod@icmai.in](mailto:prcorp.hod@icmai.in)

**Additional Director (Technical)**

**CMA Tarun Kumar**  
[technical.addldir1@icmai.in](mailto:technical.addldir1@icmai.in)

**Additional Director (Infrastructure)**

**CMA Kushal Sengupta**  
[infrastructure.hod@icmai.in](mailto:infrastructure.hod@icmai.in)

**Director (Discipline) & Joint Director (Advanced Studies)**

**CMA Rajendra Bose**  
[discipline.director@icmai.in](mailto:discipline.director@icmai.in)

**Joint Director (Journal & Publications, Studies, Training & Education Facilities and Placement & Career Counselling)**

**CMA Sucharita Chakraborty**  
[journal.hod@icmai.in](mailto:journal.hod@icmai.in)

**Joint Director (Internal Control)**

**CMA Dibendu Roy**  
[intcontrol.hod@icmai.in](mailto:intcontrol.hod@icmai.in)

**Joint Director (Information Technology)**

**Mr. Ashish Tewari**  
[it.hod@icmai.in](mailto:it.hod@icmai.in)

**Joint Director (Admin-HQ, Kolkata & Human Resource)**

**Ms. Jayati Sinha**  
[admin.hod.Kolkata@icmai.in](mailto:admin.hod.Kolkata@icmai.in)

**Joint Director (Admin-Delhi)**

**CMA T. R. Abrol**  
[admin.hod@icmai.in](mailto:admin.hod@icmai.in)

**Deputy Director (Legal)**

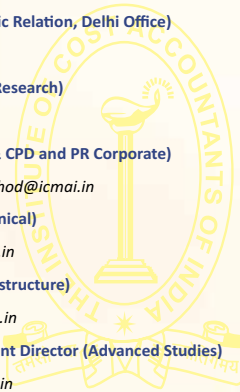
**Ms. Vibhu Agarwal**  
[legal.hod@icmai.in](mailto:legal.hod@icmai.in)

**Deputy Director (CAT)**

**CMA R. K. Jain**  
[cat.hod@icmai.in](mailto:cat.hod@icmai.in)

**Deputy Director (International Affairs)**

**CMA Yogender Pal Singh**  
[intlaffairs@icmai.in](mailto:intlaffairs@icmai.in)



## Institute Motto

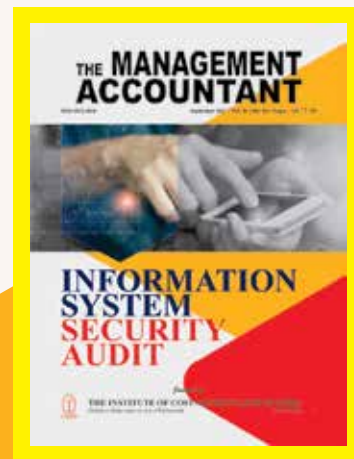
असतोमा सद्गमय  
तमसोमा ज्योतिर्गमय  
मृत्योर्मा मृतं गमय  
ॐ शान्ति शान्ति शान्तिः

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

**Headquarters**  
CMA Bhawan, 12 Sunder Street  
Kolkata - 700016

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

## INSIDE COVER STORY SEPTEMBER 2021



SEPTEMBER VOL 56 NO.09 ₹100

OVERVIEW OF INFORMATION SYSTEM SECURITY ---- (3)7

BUSINESS APPLICATION: ISSUES IN TECHNOLOGY ACQUISITION & IMPLEMENTATION ---- (4)1

INFORMATION SYSTEM (IS) AUDIT - ROLE OF CMAs ---- (4)5

MANAGING INFORMATION TECHNOLOGY (IT) SECURITY AND RISK ---- (4)8

BUSINESS CONTINUITY PLAN - THE "X"FACTOR ---- (5)2

CLOUD COMPUTING IS USHERING IN A PARADIGM SHIFT IN BUSINESS MODELS; CAN MANAGEMENT ACCOUNTING STAY UNAFFECTED? ---- (5)5

MAKE IT OR BREAK IT: THE IMPACT OF INFORMATION TECHNOLOGY AUDIT ON EFFICIENCY OF MODERN ECONOMY ---- (5)9

EMERGENCE OF CYBER SECURITY AUDIT: HOW CYBERSECURITY AUDIT WILL BE HELPFUL FOR BUSINESS IN THE AGE OF DIGITAL TRANSFORMATION ---- (6)2

### INTERVIEW



**CMA Amitava Sinha**  
Director (Finance)  
The Jute Corporation of India Ltd., Kolkata ---- (6)6

## DIGITAL TRANSFORMATION

DIGITAL TRANSFORMATION WITH ARTIFICIAL INTELLIGENCE AND ROBOTIC PROCESS AUTOMATION - ADVANCED APPLICATIONS AND REALISATION OF DESIRED ROI

6 9

## CORPORATE GOVERNANCE

CORPORATE GOVERNANCE IN POST COVID ERA: ISSUES AND CHALLENGES

7 7

## STOCK MARKET

INSTABILITY IN INDIAN STOCK MARKET IN THE BACKDROP OF ECONOMIC REFORMS: A CONCEPTUAL STUDY

8 2

## ESOP

EMPLOYEE STOCK OPTIONS SCHEME IN INDIA: SOME REFLECTIONS AND THE WAY FORWARD

8 8

## FINANCIAL MANAGEMENT

FINANCIAL MANAGEMENT IN PSUs UNDER NEW PSE POLICY

9 2

## COST ACCOUNTING

BAGASSE PRICE CALCULATION FOR CO-GENERATION IN SUGAR INDUSTRIES

9 5

## CASE STUDY

SATISFACTION OF CONSUMERS TOWARDS DIGITAL MARKETING: A CASE STUDY OF SHIVAMOGGA CITY

1 0 1

<i>Editorial</i>	06
<i>President's Communique</i>	10
<i>In Media</i>	20
<i>Indulge in Reminiscence</i>	22
<i>ICAI-CMA Snapshots</i>	32
<i>Down the Memory Lane</i>	106
<i>News from the Institute</i>	109
<i>Statutory Updates</i>	116
<i>Digital Object Identifier (DOI) August - 2021</i>	119

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 - Spenta Multimedia Pvt. Ltd., Plot 15, 16 & 21/1 Village - Chikholi, Morivali, MIDC, Ambernath (West), Dist: Thane - 421505** 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, 4<sup>th</sup> 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 19.5 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

### **Contacts for Advertisement inquiries:**

#### **Mumbai**

Rohit Bandekar  
rohitb@spentamultimedia.com  
+91 99872 79990

#### **Delhi**

Vijay Bhagat  
vijay@spentamultimedia.com  
+91 98712 71219

#### **Chennai**

Paneer Selvam  
Paneer@spentamultimedia.com  
+91 98416 28335

#### **Bengaluru**

Sandeep Kumar  
sandeep@spentamultimedia.com  
+91 98868 70671

#### **Kolkata**

Pulak Ghosh  
pulak@spentamultimedia.com  
+91 98313 42496

### **The Management Accountant Journal is Indexed and Listed at:**

- Index Copernicus and J-gate
- Global Impact and Quality factor (2015):0.563

### **DISCLAIMER -**

- The Institute of Cost Accountants of India does not take responsibility for returning unsolicited publication material. Unsolicited articles and transparencies are sent in at the owner's risk and the publisher accepts no liability for loss or damage.
- The views expressed by the authors are personal and do not necessarily represent the views of the Institute and therefore should not be attributed to it.
- The Institute of Cost Accountants of India is not in any way responsible for the result of any action taken on the basis of the articles and/or advertisements published in the Journal. The material in this publication may not be reproduced, whether in part or in whole, without the consent of Editor, The Institute of Cost Accountants of India. All disputes are subject to the exclusive jurisdiction of competent courts and forums in Kolkata only.

# EDITORIAL

Technology has impacted the auditing profession in a big way in terms of how audits are performed and the knowledge required to draw conclusions regarding operational system effectiveness, efficiency and integrity, and reporting integrity. Primarily, the impact was focused on dealing with a changed processing environment. As the need for auditors with specialized skills regarding technology grew, so did the emergence of the information systems audit profession.

Information Systems Security Audit aims to verify the security controls and evaluate the risk of information systems within the infrastructure of your organization. The audit approach to information systems is based on preventive protection against risks and the occurrence of any kind of loss to the organization. This makes it possible to address all potential weaknesses or omissions of controls and to determine whether this could lead to significant non-compliance with regulatory requirements.

Many Organizations, no matter their size or scope of operation, have come to realize the importance of using Information Technology to stay ahead in the current global scenario. Companies have invested in Information Systems because they recognize the numerous benefits IT can bring to their operations. Management should realize the need to ensure IT systems are reliable, secure and invulnerable to computer attacks. The importance of information security is to ensure data confidentiality, integrity and availability.

The Digital Revolution is transforming the traditional ways of doing business, necessitating realignment of profession to leverage the multipliers of digital

technology-enhanced efficiency, scale and speed, effectiveness, agility and giving access to newer markets. In view of the rapid technological changes, it is imperative for Information System and Security Auditors to adapt, be innovative in aiding organizations to improve its control environment and strengthen governance of IT Risks. Adoption of emerging technologies will help them to assimilate vast amounts of data and provide value added analysis in the form of data analysis and business intelligence. Cost & Management Accountants possess a unique blend of systems and process understanding and expertise in controls and governance, thereby best suited to be the perfect Information System Security Auditor.

Increased Internet penetration has given an exponential rise in sophisticated attacks on Information Technology infrastructure. Attackers are gaining access to sensitive information like credit card details and other financial information. Smartphone attacks are growing in multiple folds. Also, with the growth of 4-G services and business transactions using mobile phones, there is a substantial increase in mobile malware. In order to make our IT infrastructure resilient against these threats, there is a need for cutting-edge Research and Development efforts in Cyber Security.

Cyber security is critical for every business. Financial threats are profitable for cyber criminals and therefore continue to be an enduring part of the threat landscape. From financial malwares that attack online banking, to attacks against ATMs and fraudulent inter-bank transactions, there are many such malpractices exercised by criminals. Most of the banks or financial institutions operate with the use of technology, including the



Internet. Without a good cyber security framework, bank's sensitive data could be at risk. Although security is a never-ending process that requires continued follow-up, it is still in its infancy. Also, security audit is an unexplored area and requires a simple framework to guide the process.

The Institute of Cost Accountants of India, through its Board of Advanced Studies & Research, is continuously monitoring technological developments and taking initiatives to disseminate updated knowledge amongst our members and other stakeholders. In this direction, it is heartening to note that the Board of Advanced Studies & Research is bringing has started a Post Qualification Course on 'Diploma in Information System Security Audit (DISSA)' which includes Cyber Security, Cyber Forensics, IT Audit in Banking Sector, Cloud Computing Management etc. that will enable Cost & Management Accountants to be an advisor and to handle assurance assignments.

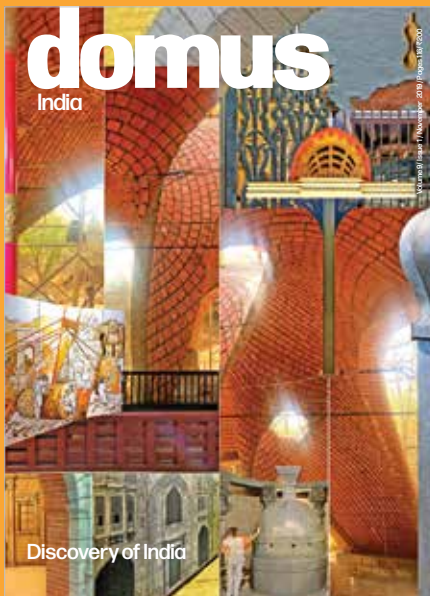
The Institute has always played a significant role in the areas of audits, advising on systems & processes and empowering business decision-making. Institute sees opportunity in building capabilities in the area of Information System Security Audit and provides assurance to business stakeholders on their IT System. Cost & Management Accountants qualified as Information System Security Auditors are competent enough to act as Compliance Analyst, Internal Auditor, IT Auditor, Audit or Assurance Services Associate, Risk Advisory Services Specialist, Web Security Specialist apart from providing professional Information System Audit services as a practising Cost Accountant.

This issue presents a good number of articles on the cover story "Information System Security Audit" written by distinguished experts. 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](mailto:editor@icmai.in). We thank all the contributors to this important issue and hope our readers will enjoy the articles.

# domus

## India

Since 1928, *Domus* has been considered the most prestigious international review of developments and thinking in architecture, art and product design, as well as cities and urbanism with a global readership of professionals, specialists and members of the general public. The Indian edition – the first *Domus* exclusively in the English language – aims to record and debate the latest architectural and artistic movements in India and the world through its exciting content and rich visuals. *Domus India* carries reviews of architectural and design projects as well as essays that are thought-provoking and engaging. Critical texts bring forth issues and concerns central to architectural practice, along with the worlds of art, design, history, culture and society in contemporary India.



### On 1-year subscription

Save 25% (INR 550)  
(11 issues @ INR 1650)

For Students:  
Save 35% (INR 770)  
(11 issues @ INR 1430)

FOR SUBSCRIPTIONS, CONTACT

Tel: +91-22-2481 1031 [domussubscription@spentamultimedia.com](mailto:domussubscription@spentamultimedia.com)



Peninsula Spenta, Mathuradas Mills Compound, Senapati Bapat Marg, Lower Parel, Mumbai 400 013  
Tel: 91-22-2481 1010 Email: [ho@spentamultimedia.com](mailto:ho@spentamultimedia.com) Website: [www.spentamultimedia.com](http://www.spentamultimedia.com)

Publishing | Printing | Online | Events

# THE MANAGEMENT ACCOUNTANT

## PAPERS INVITED

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

October 2021	Theme Forensic Audit: Tool for Fraud Detection & Prevention	Subtopics <ul style="list-style-type: none"> <li>⊙ Forensic Accounting: A way to Detect, Fight and Prevent Fraud</li> <li>⊙ Early Warning Signals (EWS) and Red Flags</li> <li>⊙ Digital Forensics, Cyber Security and Cyber law</li> <li>⊙ Fraud Risk Management Strategy</li> <li>⊙ Emerging Needs of Forensic Audit in Corporate and Banking Frauds in India</li> <li>⊙ Forensic Accounting in Stock Market Management</li> <li>⊙ Growing NPAs and role of Forensic Auditors</li> <li>⊙ Forensic Accounting and Auditing: Laws and Regulations</li> <li>⊙ Forensic Accounting and Auditing Practices: India v/s Rest of the World</li> <li>⊙ Integral role of CMAs in combating financial fraud</li> </ul>
November 2021	Theme Blockchain and Cryptocurrency: the Way Forward	Subtopics <ul style="list-style-type: none"> <li>⊙ Evolution of Accounting and Auditing with Blockchain</li> <li>⊙ Enterprise Asset Management with IoT and Blockchain</li> <li>⊙ Blockchain for Banking and Finance</li> <li>⊙ Recent development and emerging trends in Blockchain</li> <li>⊙ Blockchain: Revolutionizing Cybersecurity</li> <li>⊙ Forensics readiness of Blockchain technologies</li> <li>⊙ Cryptocurrency in India: Government's stand and legal status</li> <li>⊙ Decrypting Crypto: Prospects and Challenges</li> <li>⊙ Bitcoin: The most profound revolution of recent times</li> </ul>
December 2021	Theme Changing Contours of Indian Insurance Sector	Subtopics <ul style="list-style-type: none"> <li>⊙ Life Insurance in the post-pandemic World</li> <li>⊙ Emerging trends in the General Insurance sector and Road Ahead</li> <li>⊙ Scope of IoT in Indian Insurance ecosystem</li> <li>⊙ Global Impact on Insurance Industry in India</li> <li>⊙ Evolving role of InsurTechs</li> <li>⊙ Disruptions in Payments: Powering Innovation in a Digital world</li> <li>⊙ The winds of change in Health Insurance</li> <li>⊙ COVID-19: a Catalyst for Innovation in the Insurance Market</li> <li>⊙ Cyber Security &amp; Data Protection</li> <li>⊙ Auto Insurance: Getting ready for a Post Covid-19 Landscape</li> </ul>
January 2022	Theme Future of Banking in India	Subtopics <ul style="list-style-type: none"> <li>⊙ The Indian Banking Sector: Its journey so far</li> <li>⊙ EASE 4.0: Reform agenda for Public Sector Banks (PSBs) towards Smart Banking</li> <li>⊙ Green Banking: Ways and Practices</li> <li>⊙ India's approach to Open Banking</li> <li>⊙ The 'RBI Retail Direct' scheme: a One-Stop Solution to Facilitate Investment in Government Securities</li> <li>⊙ Cloud Banking: a Potential Game-changer</li> <li>⊙ E-payment Landscape: Trends &amp; Opportunities</li> <li>⊙ Innovation-driven Cyber Risk: Imminent Need of the Hour</li> <li>⊙ 'MSME Prerana': Empowering MSMEs amidst Pandemic</li> </ul>

*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](mailto:editor@icmai.in) latest by the 1<sup>st</sup> 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](http://www.icmai.in)



# Top-of-the-line management ideas...



Global ideas and insights. Latest trends, opinion, and practices. Innovative thinking from international gurus. In-depth case studies and more. Backed by the prestigious All India Management Association, it's what leaders in India read to succeed.



## download your digital issue now

Available on: iPad, iPhone, iPod touch and Android devices

Subscribe through Magzter, eZineMart, Magazines, Readwhere & Readly  
[www.spentamultimedia.com](http://www.spentamultimedia.com)



**CMA Biswarup Basu**  
President

The Institute of Cost Accountants of India

*“Let me not pray to be sheltered from dangers but to be fearless in facing them.*

*Let me not beg for the stilling of my pain but for the heart to conquer it.*

*Let me not look for allies in life’s battlefield but to my own strength.*

*Let me not crave in anxious fear to be saved but hope for the patience to win my freedom.*

*Grant me that I may not be a coward, feeling your mercy in my success alone;*

*but let me find the grasp of your hand in my failure.”*

– Rabindranath Tagore

My Dear Professional Colleagues,

**A**s I pen down my last communiqué as President of this prestigious Institution, I would like to start by expressing my sincere and heartfelt gratitude to all my council colleagues, government nominees, regional councils, chapters and officials of the Institute for their continued support to the activities of the Institute, despite numerous challenges posed by the COVID-19 pandemic. I am thankful to Hon’ble Union Ministers, State Ministers and Officers of various Ministries for all their cooperation and support extended to the Institute during the year. I would also like to take a moment to thank all the Past Presidents and co-opted members for their valuable suggestions and guidance throughout the year.

I started my journey in the active service of the profession in the year 1995 when I was elected as regional council member of EIRC

# PRESIDENT’S COMMUNIQUÉ

of the Institute for the term 1995-1998 & consecutively for the term 1998-2001 and later on elected for the third term 2004-2007. Moving ahead, I had the opportunity to serve as Council Member of the Institute for the two consecutive terms 2015 - 2019 and 2019 - 2023. Being elevated as Vice- President in the year 2019 and then as President of the Institute for the year 2020-2021 has truly been an honor and opportunity to serve our alma mater and to work for the development of CMA profession.

I feel overwhelmed by the love and affection showered on me and the confidence reposed on me by all of you, which enabled me to work and contribute tirelessly with perseverance through times of uncertainty, adapting to new challenges and finding creative solutions to serve the members, students and other stakeholders of the Institute.

Despite the challenges, there are various accomplishments to celebrate, such as:

- ⦿ Successful completion of prestigious project on Performance Costing System (PCS) in Indian Railways.
- ⦿ UK NARIC evaluated CMA qualification as equivalent to postgraduate degree and CMA Intermediate as equivalent to graduation degree in the context of UK and UAE education systems.
- ⦿ University Grants Commission (UGC) of India recognized the CMA qualification as equivalent to postgraduate degree for appearing in UGC-National Eligibility Test.
- ⦿ Implementation of online World Class Employability and Techno-Skill Training Facilities in the form of SAP Finance Power User, Microsoft, Cambridge University Press Soft Skill and E-Filing Training and Certification for Intermediate students.
- ⦿ Finalisation of new ‘Syllabus 2022’.
- ⦿ Updation of CAT course Syllabus.
- ⦿ Successful conduct of December, 2020 term examination through online mode.
- ⦿ More than 550 qualified CMAs from December 2020 term examination got placed in reputed organisations, which is all time high figure in the History of Campus Placement drive by the Institute, with the maximum annual package of Rs. 22 lakhs.
- ⦿ Record breaking growth in students’ admission with registration of around 32,000 students for June 2021 and 35,000 students for December 2021 term examination even during pandemic situation.

- ⊙ Constitution of three new Chapters, namely, Patna Saheb Chapter, Tirupati Chapter and Dindigul Chapter.
- ⊙ Inauguration of London Overseas Centre of Cost Accountants (LOCCA).
- ⊙ Received ex-post facto approval of the Union Cabinet for the Memorandum of Understandings (MoUs) entered into by the Institute with four Foreign Professional Accountancy Institutes namely, the Institute of Public Accountants (IPA), Australia, Chartered Institute for Securities and Investment, UK (CISI), Chartered Institute of Public Finance and Accountancy (CIPFA), UK, the Institute of Certified Management Accountants of Sri Lanka.
- ⊙ Signed MoU with Association of Chartered Certified Accountants (ACCA), UK
- ⊙ Entered into MoUs with many esteemed institutions, such as RTI Mumbai, a Training Institute of the Comptroller and Auditor General of India (C&AG), Higher Education Department, Government of Jammu and Kashmir, GPS Institute of Agricultural Management, Bengaluru, National Institute for Micro, Small and Medium Enterprises, Hyderabad, National Insurance Academy, City College, Chennai, Savitribai Phule Pune University (SPPU), National Insurance Academy (NIA), Sri Ramachandra Institute of Higher Education & Research [SRIHER], Association of Accounting Technicians (AAT).
- ⊙ Launch of Diploma Course in Information System Security Audit (DISSA) and Forensic Audit, and Certificate Course on Advanced Business Excel for Finance Professionals.
- ⊙ Launch of Certificate Course on General Insurance in association with National Insurance Academy, Integrated Technical Analysis and Advanced Derivatives in association with NISM.
- ⊙ Launch of Advanced Course on GST Audit & Assessment Procedure and Advanced Course on Income Tax Assessment & Appeal.
- ⊙ Release of 'Aide Memoire on Lending to Micro, Small & Medium Enterprises Sector (Including Restructuring of MSME Credit).
- ⊙ Release of Guidance Note on 'Internal Audit of Pharmaceutical Industry', 'Local Content in Manufacturing, Production and Supply of Goods and Services', 'Information System Security Auditors' and Exposure Draft of the Guidance Note on Internal Audit of Power Sector.
- ⊙ Release of Concept Paper on 'Augmenting the Farmer's Income: Roadmap for CMAs' and 'GST in Petroleum Sector'.
- ⊙ Release of Handbook on Departmental Audit under GST.
- ⊙ Issued an advisory for the treatment of various elements of costs in compilation of Cost Records, Cost Statements & Annexures to Cost Audit Report.
- ⊙ Release of Draft Guidelines for the Formation of Multi-Disciplinary Partnership (MDP) firms by the members

of the Institute of Cost Accountants of India as per provisions of the Cost and Works Accountants Act and Regulations.

- ⊙ Initiated a Study on Cost of Healthcare Services in India under the supervision of a High Level Committee constituted for this purpose, comprising of domain experts, government & regulators' nominees and industry representatives. The Study would recommend uniform rates for all medical procedures, irrespective of the source of funding; and performance costing & reporting system for the healthcare service providers. Besides, it will provide requisite inputs to the Government and Regulators.

I'm proud of these and the countless other accomplishments of the Institute of Cost Accountants of India in the year of the pandemic. I thank each one of you for your whole hearted support in discharging my duties as President of the Institute.

My tenure as 63<sup>rd</sup> President of this great Institute will end on 20<sup>th</sup> of this month upon election of the new President. I will be handing over the baton to the next President and I am sure that the Institute will scale further heights under his leadership.

### **Bharat Ki Azadi ka Amrut Mahotsav (AKAM)**

As our nation is commemorating 75<sup>th</sup> year of its independence, Hon'ble Prime Minister Shri Narendra Modi has urged all of us to celebrate the spirit of the freedom struggle in a befitting manner at national and international level in the form of Azadi Ka Amrit Mahotsav (AKAM) till 15<sup>th</sup> August 2023. I am happy to inform that the Institute of Cost Accountants of India is actively participating in the celebrations by organizing series of events under Azadi ka Amrut Mahotsav (AKAM).

First program on Atmanirbhar Bharat – Role of Stakeholders was organized on 3<sup>rd</sup> September, 2021 wherein CMA Chandra Wadhwa, Past President and CMA B.B. Goyal, Advisor, ICWAI MARF & Former Addl. Chief Adviser (Cost), Ministry of Finance, GoI shared a panoramic view of the Atmanirbhar Bharat Abhiyan and various policy initiatives of the Government to achieve success during the period of Azadi Ka Amrit Mahotsav.

The Institute observed 75<sup>th</sup> Independence Day all over India through its headquarters, regional councils and chapters on 15<sup>th</sup> August, 2021. I had the privilege of hoisting the National Flag during the Independence Day celebration program organized at the Headquarters of the Institute. The event witnessed the participation of CMA Chittaranjan Chattopadhyay, Council member, Past Presidents CMA Amal Kumar Das, CMA Harijiban Banerjee and CMA Mahesh Shah, Former Council Member CMA Avijit Goswami, CMA Nishant Kumar Singh, Chairman-EIRC, CMA Uttam Kumar Nayak, Vice-Chairman-EIRC, CMA Arundhati Basu, Secretary-EIRC, CMA B.B.Nayak, Treasurer-EIRC, CMA Ashis Banerjee, Immediate Past Chairman and Member-EIRC, CMA Pallab Bhattacharya, Former Chairman and Member-EIRC, CMA Abhishek Kumar Singh, Member-EIRC, and officials of the Institute.

### **Meetings with dignitaries**

On 4<sup>th</sup> August, 2021, I along with CMA P. Raju Iyer, Vice President had an opportunity to meet Shri Rajesh Verma, IAS, Secretary to the Government of India, Ministry of Corporate

Affairs, to discuss the matters related to the CMA profession including our long pending representation on name change of the Institute to the Institute of Cost and Management Accountants of India.

I am pleased to inform that CMA P. Raju Iyer, Vice President along with CMA Vijender Sharma, Chairman, Professional Development Committee & International Affairs Committee, CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute and CMA B.B. Goyal, Advisor, ICWAI MARF & Former Addl. Chief Adviser (Cost), Ministry of Finance, GoI had an opportunity to meet Shri Pankaj Jain, Additional Secretary to the Government of India, Department of Financial Services, Ministry of Finance on 16<sup>th</sup> August, 2021 to discuss about BFSIB activities.

CMA P. Raju Iyer, Vice President along with CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee, CMA Ashok B. Nawal, Member, Indirect Taxation Committee, CMA B.B. Goyal, Advisor, ICWAI MARF & Former Addl. Chief Adviser (Cost), Ministry of Finance, GoI and CMA Navneet Jain, Former RCM, NIRC of the Institute, called on Shri G D Lohani, Joint Secretary-TRU- I, Central Board of Indirect Taxes and Customs (CBIC), Ministry of Finance and Shri K. C. Varshney, Joint Secretary, Tax Policy & Legislation (TPL-I), Central Board of Direct Taxes, to discuss important professional matters on 24<sup>th</sup> August, 2021. They also handed over concept paper on GST in Petroleum Sector and Handbook on Departmental Audit under GST to the dignitaries. Later, the Institute sent a representation to Shri Varshney requesting for amendments in sections 139(9) and 145A of the Income Tax Act. In another meeting, CMA P. Raju Iyer, Vice President and CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee met Shri Sanjay Jaju, Additional Secretary to the Government of India, Department of Defence Production, Ministry of Defence.

On 25<sup>th</sup> August, 2021, CMA P. Raju Iyer, Vice President along with CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute and CMA B.B. Goyal, Advisor, ICWAI MARF & Former Addl. Chief Adviser (Cost), Ministry of Finance, GoI met Shri Supratim Bandyopadhyay, Chairperson, Pension Fund Regulatory and Development Authority (PFRDA). They also met CMA (Dr.) Manoj Anand, Whole Time Member (Finance), PFRDA. They were all presented with the publication of BFSIB.

### **Representation for inclusion of Cost Accountants under RERA Act, 2016**

I am happy to inform the members that the Ministry of Corporate Affairs has forwarded its recommendation to the Ministry of Housing & Urban Affairs w.r.t. our representation to authorise Cost Accountants for certification under sub-clause (D) of clause (l) of sub-section (2) of section 4 of The Real Estate (Regulations and Development) Act, 2016. We strongly believe that the Ministry of Housing & Urban Affairs will be bringing out the necessary amendments in the RERA Act very soon.

### **Representation to grant status of Institute of National Importance**

As was informed in my earlier communique, the Institute

has made a representation before Dr. Subhas Sarkar, Hon'ble Union Minister of State for Education, requesting that in view of significant contributions made since 1944, the Institute should be granted status of Institute of National Importance. I wish to inform the members that the Institute has formed a Task Force under the Chairmanship of CMA Chittaranjan Chattopadhyay, Council member with the objective of addressing the issues relating to the Institute's proposal to attain the Status of Institute of National Importance under the Constitution of India.

### **MoU signed with ACCA, UK**

I am delighted to inform that subsequent to the approval of the Union Cabinet, chaired by Hon'ble Prime Minister Shri Narendra Modi ji, for signing of Memorandum of Understanding (MoU) between Institute of Cost Accountants of India and the Association of Chartered Certified Accountants, United Kingdom, (ACCA, UK) in July, 2021, both the Institutes signed the MoU on 9<sup>th</sup> August, 2021 to work together towards co-operation in respect of professional training, education and examinations. The MoU was signed by me and Ms. Helen Brand, Chief Executive, ACCA which allow mutual advanced entry through exemptions from appearing majority of papers to acquire the qualification of the other Professional Body to the members of both the Institutes. I congratulate CMA Vijender Sharma, Chairman, International Affairs Committee and his team for all the initiatives and efforts in finalisation and signing of this MoU.

### **SAFA Foundation Day Webinar**

SAFA celebrated its Foundation Day on 22<sup>nd</sup> August, 2021 by organizing a Webinar on the theme "Role of Professional Accountants in Post Pandemic Economic Recovery: Focus on Financial Market". I was invited to address the participants on this occasion along with the Head of various SAFA member bodies. The Webinar was hosted by ICMA Bangladesh.

### **ICC Webinar on Investor Relations**

I am pleased to inform that CMA P. Raju Iyer, Vice President represented the Institute in a Webinar organized by The Indian Chamber of Commerce on the theme 'Investor Relations' on 12<sup>th</sup> August, 2021. During the webinar, he deliberated on the Critical role being played by CMAs on Earnings Call.

### **Webinar on CMA as Governance Professional - Challenges and Opportunities with Snippets from Bhagavad Gita**

I am happy to inform that the Institute organized a Webinar on the theme "CMA as Governance Professional - Challenges and Opportunities with Snippets from Bhagavad Gita" on the auspicious occasion of Shri Krishna Janmashtami on 30<sup>th</sup> August, 2021.

Revered Swami Bhitiharandaji Maharaj, Ramakrishna Math, Hyderabad honoured the webinar with his gracious presence as its Chief Guest and showered his blessings on the members and students of the Institute. CMA S Sakthimani, Director (Finance), FACT delivered his Key Note Address and Mr. Ruchira Perera, Council Member, CMA Sri Lanka attended the webinar as our Special Guest. CMA (Dr.) P.V.S.

Jagan Mohan Rao, Former Council Member of the Institute and Past President SAFA addressed the participants and explained the essence of Corporate Governance with reference to various Shalokas of Bhagwat Gita. CMA Swati Chaturvedi, Former Chairperson, Noida Chapter of the Institute also participated in the Webinar.

### CMA Sri Lanka Student's International Conference 2021

An International Students Conference 2021 was organized by the Institute of Certified Management Accountants of Sri Lanka (CMA Sri Lanka) on 27<sup>th</sup> and 28<sup>th</sup> August, 2021 on the theme "Building a Better Future for Accounting Professionals" through virtual mode. I am pleased to inform that CMA (Dr.) Balwinder Singh, Immediate Past President addressed the students and other participants on "Accounting Education New Imperatives", CMA Ashwinkumar G. Dalwadi, Chairman, IT Committee and CAASB on "Digitization – Impact on Accounting Profession" and CMA (Dr.) V Murali, Chairman, Members Facilities Committee on "Sustainability Development Goals 2030 & the Role of Professional Accountant" during the different technical session of the Conference.

### SAFA Virtual Training Program for the Students

South Asian Federation of Accountants (SAFA) organized a series of Virtual Training Program for the Students of all SAFA member bodies on the theme "Preparing Students to Face the Future". I am pleased to inform that CMA Asim Kumar Mukhopadhyay, Vice President Corporate Finance, Head- Business Planning and Controlling, Tata Motors Limited addressed the SAFA region students on "Industry 4.0 covering AI, Block Chain and Data Analytics" during a virtual training program on 21<sup>st</sup> August 2021.

*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

I congratulate CMA Chittaranjan Chattopadhyay under whose guidance and Chairmanship the BFSI Board and BFSI department carried out numerous activities during the year. Summary and brief notes on the various activities of the BFSI Board during the month of August 2021 are appended below:

### I. Observance of Investor Month:

I am happy to state that the BFSI Board in association with NISM had successfully observed the month of August 2021 as Investor Month by organizing four WEBINTs and a joint program with Indian Chamber of Commerce.

- 1<sup>st</sup> WEBINT with the central theme of "New Age Investment in an Era of Low Interest rate" was conducted on 7<sup>th</sup> August, 2021. Shri S.K. Mohanty, Director NISM and WTM, SEBI graced the occasion as the Chief Guest along with Shri Ravi Varanasi, Chief Business Development Officer, NSE.
- On 14<sup>th</sup> August, 2021 the 2<sup>nd</sup> WEBINT on the theme of "Demystifying Mutual funds from investor perspectives" was organized and deliberated by CMA

Nilesh Shah, Group President & Managing Director, Kotak Mahindra Asset Management Company and Shri Dharendra Kumar, Chief Executive Officer, Value Research India Private Limited.

- On 21<sup>st</sup> August, 2021, the 3<sup>rd</sup> WEBINT was organized on the theme of "IPO Investments" was deliberated by CMA Yatrik Vin, Group CFO and Head Corporate Affairs, NSE and Shri Prem from ICICI Securities.
- On 28<sup>th</sup> August, 2021 the 4<sup>th</sup> WEBINT was organized on the theme "Global Investments through Indian Mutual Funds". CMA Asim Kumar Mukhopadhyay, Vice-President and Head –Business Finance, Tata Motors Limited was the Guest of Honour and Speaker, Shri Srinivasa Rao, Chief Investment Officer, PGIM Mutual Funds was the speaker and the valedictory session was graced by Shri Nehal Vora, Managing Director, CDSL.
- On 31<sup>st</sup> August, 2021 the 5<sup>th</sup> WEBINT was organized on the theme "Investments in Capital Markets in post Covid-19". CMA Jitendra Panda, President- Head Business Strategy & Alliances, Yes Securities was the Chief Guest & Speaker and CMA (Dr.) Latha S Chari, Associate Professor, The National Institute of Securities Markets (NISM) was the Speaker in association with Durgapur Chapter of the Institute.

### Other Activities in Investor Month

- Indian Chamber of Commerce organized a webinar in association with BFSI Board on 12<sup>th</sup> August, 2021 on the theme of "Working with Dalal Street-Importance of Investor Relations". The speakers were CMA P. Raju Iyer, Vice President, Ms. Surabhi Gupta, GM, SEBI, Shri Madhu Kela, Equity Expert and Founder of M.K. Ventures, Shri Ameya Prabhu, MD, NAFA Capital, Shri Vikram Sheth, Director, New Age Strat Fin Advisors (P) Ltd., Shri Shailendra Kumar, CIO, Narnolia Securities Limited, CMA Asim Mukhopadhyay, Vice-President and Head –Business Finance, Tata Motors Limited, Shri Khushro Bulsara, Head, Investor Protection Fund, BSE and Shri Arvind Chari, CIO, Quantum Advisors.

### II. Certificate Course on General Insurance in association with National Insurance Academy:

The BFSI Board has launched a certificate course on general insurance in association with National Insurance Academy (NIA) to update the members about various facets of general insurance which are necessary for them to update their knowledge in insurance sector. The course is priced very reasonably at Rs.6000 plus GST for members to take the opportunity for skill development and knowledge dissemination. For more details, visit BFSIB portal on Institute's website.

### III. Investment Management Course in association with NISM

BFSIB and NISM started the 6<sup>th</sup> Batch of Investment Management (Level-I) started from 8<sup>th</sup> August, 2021 and the 3<sup>rd</sup> Batch of Investment Management (Level-II) from 14<sup>th</sup> August, 2021 respectively. The 1<sup>st</sup> batch of Investment Management (Level-IV) on Integrated Technical Analysis and

Advanced Derivatives also started from 10<sup>th</sup> August, 2021.

### IV. Banking Courses

BFSI started the 4<sup>th</sup> batch of Certificate Course on Treasury and International Banking from 14<sup>th</sup> August, 2021. Shri Mahesh Kumar Bajaj, General Manager, Indian Bank was the Chief Guest for the inaugural session.

Further, the 5<sup>th</sup> batch of Certificate Course on Concurrent Audit of Banks started from 29<sup>th</sup> August, 2021. Madam Zaphiya Fareed, General Manager (Inspection and Audit), Indian Bank was the Chief Guest for the inaugural session.

I request all members and students to take admission for the three certificate courses on Banking for skill development and knowledge enhancement.

### V. Representation letters for inclusion of CMAs

The BFSI Directorate has represented to various authorities and employers for inclusion of CMAs in the BFSI sector whenever such a scope has come to the notice of the Institute.

During the month, BFSI Department sent Institute's views/comments on the RBI's draft Circular for Issue & Regulations of Share Capital and Securities by Primary Urban Cooperative Banks. BFSI Department also shared brief write-up on the cost centres and utility of cost data in MSMEs for the National Centre for Financial Education (NCFE), a Company promoted by RBI, SEBI, IRDAI & PFRDA.

I congratulate the BFSI Board and BFSI department for all the initiatives and endeavor and I am sure that the BFSI Board will come out with more programs.

## BOARD OF ADVANCED STUDIES & RESEARCH

### ☉ National Webinar on 'Future of Banking in India'

I am very happy to share that the Board of Advanced Studies & Research has successfully conducted a National Webinar on 'Future of Banking in India' on 21<sup>st</sup> August 2021. The Chief Guest of the Webinar was Shri Chandra Shekhar Ghosh, MD & CEO of Bandhan Bank and the Guest of Honour was CMA Kunal Banerjee, Past President of the Institute. I had the privilege to attend the online event with my council colleagues CMA P Raju Iyer, CMA (Dr.) Balwinder Singh, CMA Debasish Mitra, CMA H Padmanabhan and CMA Chittaranjan Chattopadhyay. The technical sessions were conducted by CA Tanmay Bhargav, Associate Partner, Forensic Services & Risk Consulting, KPMG and CA Arijit Chakraborty, Management Consultant. The technical speakers highlighted various aspects of 'Forensic Audit' from a banking perspective. CMA (Dr.) D.P. Nandy, Sr. Director of the Institute delivered the vote of thanks.

Shri Chandra Shekhar Ghosh, MD & CEO of Bandhan Bank along with all the dignitaries released the 'Guidance Note for Information System Security Auditors' during the inaugural session. This Guidance Note has been developed by an expert group under the aegis of the Board of Advanced Studies & Research. This Guidance Note will be considered as an important manual for the Information System Security Auditors while they will deliver their professional services in this field. A large number of audiences viewed this important webinar.

### ☉ Diploma in Forensic Audit Course

I am delighted to convey that the Board of Advanced Studies & Research has been associated with KPMG, one of the Big Four Consulting Firms to conduct the 'Diploma in Forensic Audit' Course which will be started in this month. Already more than 100 participants have been enrolled for this Course. KPMG will act as the knowledge partner to provide its expert and experienced forensic audit team as trainers of this program.

I am thankful to CMA Debasish Mitra, Chairman, Board of Advanced Studies & Research and the entire team of Advanced Studies Department for this noble initiative for the advancement of the profession. I urge all the members and final level students to take up this value-added professional course to enhance their career openings.

### ☉ Faculty Development Program with Amity University

I am pleased to share that the Board of Advanced Studies & Research in association with Amity University, Kolkata organized a 5-days Online Faculty Development Program on 'Digital Transformation Technologies in Research & Academia' during 3<sup>rd</sup> to 7<sup>th</sup> August 2021.

The program opened with a formal inaugural note by Dr. Keya Das Ghosh, Head of Institution, Amity College of Commerce and Finance Kolkata. The FDP was inaugurated by the gracious presence and address of Hon'ble Vice Chancellor, Prof. (Dr.) Sanjay Kumar, Amity University Kolkata; CMA Debasish Mitra, Chairman, Board of Advanced Studies and Research, CMA (Dr.) D.P. Nandy, Sr. Director of the Institute. The various erudite sessions were conducted by CA Arijit Chakraborty on 'Application of Artificial Intelligence in Business Research'; CA Tarun Mahajan on 'Application of Advanced Excel in Business Research'; CMA (Dr.) P. Siva Rama Prasad on 'Application of Cloud Computing in Business Research'; Prof. (Dr.) Jadab Krishna Das on 'Application of Data Analytics in Business Research' and Senior Professor Dr. Paritosh Basu on 'Digital Transformation - Perspectives of an Academician'. The FDP was attended by 320 faculty members, research scholars and professionals across 23 states in India and 5 foreign countries.

### ☉ Prof. Damodaran on Valuation

I feel proud to convey that the Board of Advanced Studies & Research was associated with the Indian Chamber of Commerce in the prestigious online event "Prof. Damodaran on Valuation" on 27<sup>th</sup> August 2021. It was a 1-hour exciting interactive session. Prof. Aswath Damodaran, Professor of NYU Stern School of Business, USA mesmerized the audience with his erudite speech. More than 2000 participants viewed the event online.

### ☉ 8<sup>th</sup> PHD Global Rail Convention - 2021

I am pleased to convey that the Board of Advanced Studies & Research was the Knowledge Partner of the prestigious online mega convention – 8<sup>th</sup> PHD Global Rail Convention - 2021 on the theme "Future Railway Infrastructure Growth Blueprint" held on 31<sup>st</sup> August, 2021.

I had the opportunity to be present in the inaugural session along with the Guest of Honour, Shri Raosaheb Patil Danve,

Hon'ble Minister of State for Railway, Coal & Mines, Government of India, Mr. R.N Singh, Secretary & Principal Executive Director, Infrastructure, Railway Board, Ministry of Railways and other esteemed dignitaries. The Knowledge Report prepared by the Board of Advanced Studies & Research of the Institute was released in the inaugural session. CMA Debasish Mitra, Chairman, Board of Advanced Studies & Research was one of panelists in the panel discussion session 'Smart Rail Infrastructure: Creation & Upgradation'.

### ⦿ **Advanced Business Excel for Finance Professionals (with Microsoft Certification)**

The Board of Advanced Studies & Research will also start the 2nd Batch of 'Advanced Business Excel for Finance Professionals (with Microsoft Certification)' Course in this month. More than 150 participants have already been enrolled for this Course. The first batch of the same Course was successfully conducted with 200 participants.

### ⦿ **Advanced Studies Examinations**

The Board of Advanced Studies had already conducted the online examinations of the following Courses in the month of August 2021, the result of which will be published in this month –

- ▲ SAP Finance Power User Course
- ▲ Data Analytics for Finance Professionals
- ▲ Advanced Business Excel for Finance Professionals (with Microsoft Certification)

The online examination for the 1st Batch of 'Diploma in Information System Security Audit (DISSA)' has been scheduled on 12th September 2021. More than 170 participants are enrolled for this Course.

I extend my best wishes and every success to all the participants of Advanced Studies Courses.

### **CORPORATE LAWS COMMITTEE**

I congratulate the Corporate Laws Committee for successfully conducting the Webinar on Cost Audit- the Ethos of Industry on 6th August, 2021. The program was live telecasted for professionals for the interactive session through questions and answers. I appreciate the initiative taken by CMA (Dr.) Ashish P. Thatte and his committee colleagues for this session on Cost Audit. The webinar was especially interesting and attended by a large number of professionals and students as various industries wise aspects of Cost Audit was covered during the program.

The Chief Guest of the webinar was Sadhvi Niranjan Jyoti, Hon'ble Union Minister of State for Consumer Affairs, Food & Public Distribution and Rural Development who congratulated the Institute for organizing the webinar on Cost Audit. She emphasized that CMA professionals has a major part in the nation building through cost effective techniques mainly in the execution of national initiatives such as Atmanirbhar Bharat, Make in India, Digital India, Skill India, Swachh Bharat and Smart Cities through superior resource allocation and performance tracking.

Expert speakers such as CMA Kunal Banerjee and CMA Amit A. Apte, Past President of the Institute, CMA Neeraj

Joshi, Council Member of the Institute, CMA A.K. Dhingra, Consultant (Tariff), Policy & Statistics Division, Airports Economic Regulatory Authority of India (AERA), CMA R. Jayashree, Vice President (F&A)- Reliance Industries Ltd., CMA A. D Wadhwa, Senior Manager (Finance), CCL, CMA Nanty Shah, Practicing Cost Accountant and CMA Yogesh Bisht, Assistant Manager (Costing), J. K. Papers Ltd. gave a glimpse on different sectors like aviation, steel, coal, textile, construction, large industry- transfer pricing, education and paper. Industry Wise Cost Audit and its various peculiar characteristics which helped industries from gaining business insights were discussed by the panel of experts.

I hope that the Corporate Laws Committee will continue to serve the Institute by creating awareness in various areas of capacity building for members.

### **DIRECTORATE OF CAT**

#### ⦿ **CAT Supplementary Examination: August 2021 Term**

I am happy to note the revolutionary step taken by team CAT, to give an opportunity to the students, who genuinely faced issues in home-based online examination concluded on 25th July, 2021, by conducting CAT Course Part I Supplementary Examination on 3rd August, 2021. I would like to congratulate all the students who have passed the examination and urge them to now enroll for CMA Intermediate Course. Team CAT in leadership of CMA H Padmanabhan, Chairman-Committee for Accounting Technicians (CAT) deserves all praises for providing out-of-the-box services and solutions to the students of CAT course.

#### ⦿ **New ROCCs**

I am pleased to see the establishment of a new Recognized Oral Coaching Centre (ROCC) in the second most important city and an IT & Industrial hub Pune, Maharashtra, ROCC code: W-182. There has been major demand of ROCC from the aspirants of Pune and adjoining cities and with the establishment of this ROCC. I congratulate Team CAT and wish good luck to the new ROCC for its future endeavours towards CAT course.

#### ⦿ **Career Awareness Programme on CAT Course**

A virtual Career awareness programme on the topic "Certificate in Accounting Technicians (CAT) Course: Useful Career Add-on" was held on Saturday, 14th August, 2021. Besides Chairman-CAT, CMA Harshad Deshpande, former Chairman-WIRC of the Institute, CMA R.K. Jain, HoD-CAT Directorate and CMA Sanket Pandit, Practising Cost Accountant addressed and deliberated during the session.

#### ⦿ **Launching of CAT Course in Chapters of the Institute**

I am happy to see the personal efforts of CMA H Padmanabhan in taking CAT course to the next level by using the potential of Chapters of the Institutes. In his recent efforts CAT course was launched in newly constituted chapters of the Institute viz., Dindigul Chapter and Tirupati Chapter.

## ◎ WEBINT

As I informed in my last communiqué, the WEBINT series on IND AS- an initiative of the Committee for Accounting Technicians and AAT was successfully conducted last month. I am thankful to eminent resource person CMA (Dr.) Gopalkrishna Raju for giving knowledge to our Members and students. I am happy to see your positive response to this series. I heartily express gratitude to thank CMA H Padmanabhan, Chairman-CAT and AAT Board for leading the WEBINT series for the benefit of Members and Students.

## ◎ Meeting with Officials

I am extremely delighted to share that the endeavours of the delegation led by CMA H Padmanabhan have been bearing fruits. As a positive outcome of last month's Meeting of the delegation, comprising of Members of Committee for Accounting Technicians and other Council Members, with Prof. Gurmeet Singh, Vice-Chancellor of Pondicherry University on 29th July, 2021 in Puducherry, the delegation gave a detailed presentation about CAT course in Puducherry on 27th August, 2021. I am sure that soon, an agreement will be signed between the Institute and Pondicherry University.

Delegation of members of Committee for Accounting Technicians met with Shri Richards Johnkumar, Hon'ble Member of Legislative Assembly Puducherry and Shri Anbalagan, General Manager, District Industries Centre, Puducherry to implement the CAT Course in Puducherry under their skill development program.

## DIRECTORATE OF STUDIES

### ◎ Employability & Techno Skill Training for CMA Intermediate Students

The Institute had successfully launched a bouquet of online World Class Employability and Techno-Skill Training Facilities in the form of SAP Finance Power User, Microsoft, Cambridge University Press Soft Skill and E-Filing Training and Certification for its Intermediate students in August 2020.

I am overwhelmed to inform you that already more than 17,000 Intermediate students of June 2021 term have been successfully trained and groomed by the Certified Trainers in the above-mentioned Skills Training modules of 140 hours through online mode and more than 7500 students have already completed the online Skills Training Assessment Test. All successful students will receive joint certificates for each module separately.

I am thankful to CMA (Dr.) Balwinder Singh, Immediate Past President and Chairman, Training, Educational Facilities & Placement Committee and the entire team of Skills Training to take up this great initiative to nurture and mentor the students with World Class Techno-Skill Training facilities.

I am confident that World Class Skills Training facilities will enormously enhance the employment and professional opportunities of the CMA students to grow them as future-ready professionals.

### ◎ Campus Placement 2021

I am very much pleased to share that the 3rd Phase of Campus Placement drives have been organized successfully

by the Training & Placement wing of the Institute. More than 550 qualified CMAs have already received placement offers in reputed organizations like Accenture, Philips, Vedanta, ITC, ABB, CEAT, NBCC, EIL, Apex, Capita, Invenio, Consero Global, Kalpataru, OLAM, Lafarge Holcim, TCS, Capgemini, Biocon, Goldman Sachs, GAIL, REC, L&T, Tech Mahindra, Nestle, AM/NS, Mazagaon Dock, IRCON, IRFC, Infosys, Wipro, CITCO, Transrail, Runaya Group, Pricol, RSM, Randstad, and many more.

I must congratulate CMA (Dr.) Balwinder Singh, Immediate Past President and Chairman, Training, Educational Facilities & Placement Committee and the entire Placement team for their tremendous effort to make these campus placement drives the most successful in the history of Campus Placement initiatives of the Institute. I wish all success for the qualified CMAs participating in these Campus Placement initiatives.

### ◎ E-Mega Career Awareness Program

I feel elated to share that the Directorate of Studies has successfully conducted the E-Mega Career Awareness Program on the theme 'Commerce Education & Beyond – Reinforcing Young Minds' in association with the prestigious Commerce Department of the University of Calcutta on 29th August 2021. This is the 5th consecutive year; the Institute is organizing such an important event in association with the University of Calcutta.

The Chief Guest of the Career Awareness Webinar was CMA Amitabh Banerjee, CMD of Indian Railway Finance Corporation who vividly motivated the students by his charming and thought-provoking speech. Prof. Jadab Krishna Das, Dean, Faculty Council of Post Graduate Studies in Commerce, Social Welfare & Business Management (Acting), University of Calcutta and Prof. Ashish Kumar Sana, HOD, Commerce Department, Calcutta University were also present in the inaugural session. I had the privilege to attend the online event alongwith my council colleagues CMA P Raju Iyer, CMA (Dr.) Balwinder Singh, CMA Debasish Mitra, CMA H Padmanabhan and CMA Chittaranjan Chattopadhyay. The technical sessions were conducted by CMA Prof. Latha Chari, NISM, Mumbai and CMA (Dr.) D.P. Nandy, Sr. Director of the Institute. The entire event was anchored by CMA Ria Chowdhury, Assistant Director of the Institute. More than 2000 audience members have viewed this important event online.

### ◎ CMA Syllabus 2022

I am happy to share that the Institute has finalized its new 'Syllabus 2022' which will be effective from June 2023 term examinations. An eminent advisory group consisting of representatives from industry, academics and profession had given their valuable inputs and suggestions to make the syllabus rich, robust, contemporary, strategic, industry-friendly and global. After several deliberations and brain-storming sessions, we have now finalized the syllabus which will bring new subject areas like Business Communication, Business Data Analytics, Quantitative Techniques in Decision Making, Risk Management in Banking & Insurance, Entrepreneurship & Start Up etc. Syllabus 2022 will give more emphasis on strategic issues to inculcate decision making and case-study based approaches among the next-gen students.



I am very much enthusiastic that the rich international level curriculum and pedagogy will brand CMA Course Going Global and students completing CMA Course will come out with flying colours.

### DIRECTORATE OF JOURNAL & PUBLICATIONS

To make The Management Accountant Journal more intellectually stimulating and professionally enriching the Directorate has published Cover Stories on the topic: Agricultural Costing, Atmanirbhar Bharat, Insurance Sector in India, Telecommunications, FDI, Natural Resource Accounting, Railways, GST, Information System Security Audit, etc.

The directorate took several new initiatives under the Chairmanship of CMA (Dr.) K.Ch. A.V. S. N. Murthy, such as incorporation of special columns in the Journal like Statutory Updates, Digital Transformation, Down the Memory Lane and Budget highlights for benefit and knowledge of our members, Dedicated pages to incorporate Digital Object Identifier (DOI) nos. for the published articles, incorporated wonderful insights on issues related to Banking under the Column "CMAs speak on Opportunities in Banking and Finance".

The Journal also featured Interview by renowned personalities like, CMA Ajay Agarwal (ICoAS), Director Finance, Security Printing and Minting Corporation of India Ltd. (SPMCIL); CMA Umesh Dongre (ICoAS), Director Finance & Chief Financial Officer, Rashtriya Chemicals and Fertilizers Ltd.; CMA Baldev Kaur Sokhey, Director (Finance), NBCC (India) Ltd. and CMA Subhas Kumar, Director Finance & CMD (Additional Charge), ONGC. Mr. Rajneesh Jain, President & Chief Financial Officer (CFO), Reliance Jio Infocomm Limited, a role model for all the young CMAs shared the key lessons that led him on the path to success. This issue is featuring the Interview by CMA Amitava Sinha, Director (Finance), The Jute Corporation of India Limited.

The Journal also featured an article in several editions by CMA (Dr.) Paritosh Basu, Senior Professor, NMIMS School of Business Management on Digital Transformation highlighting the latest developments in digital transformations both in India and abroad. This column has been highly appreciated by the readers.

I am pleased to share that The Management Accountant journal is now available in 94 countries across the world and we are continuously trying to increase the same to other parts of the world. The journal is available on apps for reading through third parties viz. Magzter and Readwhere and we are also trying to enlist the same to other platforms mainly at the International Level.

### MEMBERSHIP DEPARTMENT

I take this opportunity to congratulate and extend a warm welcome to all the 301 members who have been granted Associate memberships and 62 Associate members who have been granted Fellowship during the month of August 2021.

From our records it is observed that some members are yet to pay the membership fees for 2021-22 which is required to be paid latest by 30th September 2021. I call upon all members to take full advantage of the online facilities available for making such payments through links as given below -

- without login: <https://eicmai.in/MMS/PublicPages/UserRegistration/Login-WP.aspx>
- with login: (preferred method) <https://eicmai.in/MMS/Login.aspx?mode=EU>.

I also request all members to please follow the institute's website on a regular basis where all the Notifications and announcements are made, so that members can keep themselves updated of all the announcements in respect of important information, requirements and developments.

I congratulate CMA (Dr.) V Murali, Chairman of the Members Facilities Committee under whose guidance the committee and membership department functioned exceptionally well even during periods of lockdown and restrictions.

### PROFESSIONAL DEVELOPMENT & CPD COMMITTEE

I am pleased to inform you that on Institute's representation, West Bengal University of Animal & Fishery Sciences considered Cost Accountants for Internal Audit of the university.

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 August 2021, where services of the Cost Accountants are required in Central Coalfields Limited, Municipal Corporation Ranchi, Himachal Pradesh State Civil Supplies Corporation Limited, Jamshedpur Notified Area Committee, Maharashtra Natural Gas Limited, Madhya Pradesh Power Generating Company Limited, State Bank of India Thiruvananthapuram, State Bank of India Thiruvananthapuram, Coal India Limited, Braithwaite & Co. Ltd., New Okhla Industrial Development Authority (NOIDA), North Eastern Electric Power Corporation Limited, Uttar Pradesh Rajya Vidyut Utpadan Nigam Limited, Uranium Corporation of India Ltd., Jadugoda, Oil India Limited, Central Cottage Industries Corporation of India Ltd., National Institute of Design, Assam, Indian Renewable Energy Development Agency Limited (IREDA), Bharat Sanchar Nigam Limited, HLL Lifecare Ltd., etc.

During the month Professional Development and CPD Committee organized webinars on "Balance Score Card" and "EPC Contract-Accounting Perspective".

During the month, Professional Development & CPD Committee associated with the PHD Chamber of Commerce and Industry conducted webinars on "Recent Changes in Tax Implications of Restructuring of Business" and "How to prepare and Face Audit & Assessment by GST Department".

During the month, around seventy five webinars were organized by the different committees of the Institute, Regional Councils and Chapters of the Institute on the topics of professional relevance and importance. I am sure our members are immensely benefited from the deliberations in the sessions.

### REGIONAL COUNCIL & CHAPTERS COORDINATION COMMITTEE

I congratulate CMA (Dr.) K Ch A V S N Murthy, Chairman of the Regional Council & Chapters Coordination Committee

## PRESIDENT'S COMMUNIQUÉ

under whose guidance the committee carried out all its activities.

During the year the committee recommended opening of 3 new chapters and successfully held 4 online Regional Level Chapters Meet for Accounts, Budget and Chapter AGM and an online National Regional Council & Chapters Meet. The committee also conducted programs and webinars of various topics of professional relevance for all stakeholders.

### TAX RESEARCH DEPARTMENT

The Tax Research Department organized the second batch of "Filing of Return of Income - Provisions, Procedures and how to address issues" on the requests received from the members and students. The second batch conducted on the 20th, 21st and 22nd of August got an overwhelming response and in order to meet the demand of the learners, third batch will be conducted from the 11th to 13th of September, 2021. I am elated to notice the enthusiasm of the candidates. The department also submitted representations on Suggestions on New Foreign Trade Policy (2021-26) and Suggestions to GSTN Meetings with specific emphasis on (i) Significant changes in GSTR-1, GSTR-2A, GSTR-2B and GSTR-3B Returns & Integration (ii) Recent changes in Registration & Refund (iii) New Functionalities & Tools required (iv) Changes in available Functionalities. The department also conducted webinars on the topic, Importance of Cost Audit in GST and E-Return Intermediary. The Taxation courses are being carried on seamlessly. The 93rd and 94th Bulletin has been published and the Taxation portal is being updated on a regular basis.

### ICMAI REGISTERED VALUERS ORGANISATION (RVO)

I am pleased to share that ICMAI RVO has organized the Certificate Course on International Valuation Standards (General), Learning Session on Valuation, Orientation Program on Valuation, Master Class for RVs/IPs, Master Class on Valuation, Soft Skills, 3 Days Learning Session on Case Studies, Learning Session on Valuation- Zomato Valuation -Case Studies, Power Learning Series Emerging Trends in Valuation and 15th Online Batch of seven days program on Securities or Financial Assets during the month.

### INSOLVENCY PROFESSIONAL AGENCY (IPA) OF THE INSTITUTE

I am pleased to inform that the Insolvency Professional Agency of the Institute has taken various professional development initiatives during the month for its members such as organizing Learning Sessions for Insolvency Professionals on 1<sup>st</sup> August, Master Class on Liquidation from 12<sup>th</sup> to 14<sup>th</sup> August, Certificate Course on Soft Skill Development of Insolvency Professionals from 27<sup>th</sup> to 29<sup>th</sup> August and 46<sup>th</sup> & 47<sup>th</sup> Batch of Pre-Registration Educational Course.

### ICWAI MANAGEMENT ACCOUNTING RESEARCH FOUNDATION (MARF)

I am pleased to inform you that National Highways Authority of India (NHAI) has awarded Management Development Program (MDP) to ICWAIMARF for 5 days duration for their Finance and Accounts personnel to be conducted at 8

locations across India. 1st Program was held successfully from 9th August-13th August, 2021 at New Delhi, that was inaugurated by CMA BB Goyal, Former Addl. Chief Adviser, Ministry of Finance in presence of Shri Sunil Prakash Bhardwaj, Chief General Manager (Admin/HR)-I, Col. Vinay Shahi, General Manager (Admin/HR)-I, Lt. Col. Sukhwant Singh Dhinsa, General Manager (Admin/HR)-IIC, NHAI, CMA J K Budhiraja, CEO, ICWAI MARF and Shri Rajesh Agarwal, Chief General Manager (Finance), Power Finance Corporation Ltd.

2nd MDP for Finance & Accounts personnel of NHAI has also been conducted successfully by ICWAI MARF from 23rd August-27th August, 2021 at Kolkata, that was inaugurated by Shri Sunil Prakash Bhardwaj, Chief General Manager (Admin/HR), NHAI in presence of CMA J K Budhiraja, CEO, ICWAI MARF and Shri Rajesh Agarwal, Chief General Manager (Finance), Power Finance Corporation Ltd. I am pleased to inform that CMA P. Raju Iyer, Vice President & Board Member, ICWAI MARF and CMA Chittaranjan Chattopadhyay, Chairman, BSFI Board & Board Member, ICWAI MARF were Chief Guest and Guest of Honour respectively in the Valedictory Session on 27th August, 2021. In their addresses, they have congratulated the participants on successful completion of MDP and thank them for their excellent rating for the program conducted by ICWAI MARF during 5 days. They have also given the insights on CMA Main Course and various Certificate Courses being conducted by BSFI Board and Advanced Studies and requested the participants to register themselves for the courses which will help them in their career growth and improved working. In the concluding session, CMA P. Raju Iyer, Vice President and CMA Chittaranjan Chattopadhyay my council colleague along with officials of NHAI distributed the Certificates and Aide Memoire on Lending to Micro, Small & Medium Enterprises Sector to participants of MDP.

At the end, I would like to reproduce a famous quote by former President of India, Late Dr. A. P. J. Abdul Kalam -

*"A dream is not that which you see while sleeping, it is something that does not let you sleep."*

I wish prosperity and happiness to members, students and their family.

Be safe and healthy!

With warm regards,



**CMA Biswarup Basu**

September 3, 2021

It's time to gift yourself a good read. As they say...

WHENEVER YOU READ A GOOD MAGAZINE SOMEWHERE IN THE WORLD A DOOR OPENS TO ALLOW IN MORE LIGHT



For information on subscription and advertising please contact:

2nd Floor, Peninsula Spenta,  
Mathuradas Mill Compound, Senapati Bapat Marg,  
Lower Parel, (West) Mumbai 400013,  
Tel. No. : +9124811010 Ext No: 1031 /1024  
circulation@spentamultimedia.com

**INTERVIEW: BISWARUP BASU,**  
 president, Institute of Cost Accountants of India  
**'Any further cut in average  
 GST rate to adversely impact  
 Centre, states' spending'**

Once the pandemic settles down, the GST Council can merge the tax rates from the existing four slabs to three slabs so that the compliance burden is minimised for the taxpayers and ensure that there is no revenue loss to the government, opines Biswarup Basu, president, Institute of Cost Accountants of India. In an interview with **Mithun Dasgupta**, Basu says in the aftermath post-Covid scenario, cost & management accounting has acquired prime spot to ensure survival, continuity and sustainability of a business. *Edited Excerpts:*



**continue going ahead?**  
 Yes, the relaxation of the restrictions has helped the industry come back to normalcy to a large extent by increasing the GST revenues for July 2021. Apart from these, the digitisation initiatives in the GST have also contributed a lot. However, GST collections growth will continue as the ITC control measures are now in place. Le by way of matching with GST: 2a data. However, system control by way of GST:2 will further strengthen the system and avoid revenue leakage.

As Covid has created significant challenges for financial institutions and companies, how has it changed the conventional roles of a cost & management accountant?

In the pandemic period, we developed two very important documents – "Conceptual Approach to Board Reporting Framework – A Post Covid-19 Corporate Governance Perspective" and "Post Covid-19 & Lockdown – Technical Guide on Business Continuity Plan" – that would certainly help in proper board-level monitoring and evaluation and in preparing right business continuity plans post lockdowns. We have also developed activity-based performance costing system that would assist the organisations to correctly and timely measure and assess the performance of different activities/operations.

**What are your views on the current GST rate structure? What have been the implications of the current regime in today's cost & management accounting functioning?**

The current average rate of GST is a mouth-bite 11%, which is very less than what it has been envisaged. Any further reduction will impact the collections and have an adverse impact on the central and state government spending, which will impact the growth. Once the pandemic settles down, the GST Council can merge the tax rates from the existing four slabs to three slabs so that the compliance burden is minimised for the taxpayers and at the same time ensure that there is no revenue loss to the government.

The GST collections in July crossed ₹1 lakh-crore mark after the easing of Covid-curbs. Do you expect this to



Clipped from - Financial Express Kolkata - August 31, 2021  
 Read it digitally on the Magzter app

THE HINDU  
**BusinessLine**  
 PORTFOLIO

MULTI-DISCIPLINARY FIRMS

**Cost Accountants Institute to frame separate guidelines**

Norms to be issued once proposed change in regulation is notified, says its President

By KR SRIVATS

New Delhi, August 21

The Institute of Cost Accountants of India plans to separately issue guidelines on multi-disciplinary partnerships (MDPs), its President Biswarup Basu has said. This will be in addition to the regulatory change that the Institute is now bringing about to enable its members in practice to form MDP with members of other professional bodies.

"Yes, MDP guidelines would be separately issued. We have already issued a draft regulation and have sought views/comments from all stakeholders. Based on the views and suggestions received, we would finalise the MDP guidelines," Basu told BusinessLine.

A few days ago, the Institute set the ball rolling for its members in practice to form multi-disciplinary firm with the members of other professional bodies. It has now

come out with draft regulation for this purpose, more than two months after the Corporate Affairs Ministry (MCA) gave its nod for the multi-disciplinary partnership framework. The Institute of Cost Accountants of India has about 85,000 members, including 4,000 cost accountants in practice.

The draft notification is issued by the Institute on August 17 said the multi-disciplinary firm can be set up in accordance with the "regulating guidelines" of the Council for Functioning and Regulation of such firm.

As many as 45 days have been given for public comments on the draft notification.

Basu said that MDP guidelines would be issued after the proposed amendment in the CWA regulation is notified. This would mean that guidelines can be expected only in October as the 45-days window closes only in early October.



Biswarup Basu, President

**Gearing up for MDPs**

• The Institute of Cost Accountants of India issued draft regulation on Aug 17

• Members in practice to be enabled to form MDPs

• 45 days 'window for stakeholders' comments

• The Institute will frame detailed guidelines once the regulatory change gets notified

Asked if a member of the institute who does not hold certificate of practice can enter into an MDP, Basu replied in the negative. "The MDP can be formed only by the members in professional practice. A member of the institute not holding a full-time certificate of practice is not permitted to enter into an MDP. Same is the case with all other professionals viz chartered accountant, company secretary, engineer and architect. Only an actuary who does not hold certificate of practice may be permitted

by the central government or the council to become a partner in an MDP of professionals in practice," Basu added.

**Other professional bodies**

Already, the Chartered Accountants Institute has amended the form concerning multidisciplinary partnership and framed guidelines for its members.

The Institute of Company Secretaries of India (ICSI) too is in the process of issuing guidelines, sources said. "The ICSI Council is yet to approve

the guidelines which are being framed. The committee looking into it has given its recommendations and we expect the draft guidelines to be issued for public comments shortly," a senior ICSI official said.

A multi-disciplinary firm is one that provides both financial audit and other services including cost audit, secretarial audit, actuarial and valuation services under one roof. Globally, Germany, Australia, UK and other European countries have adopted the multi-disciplinary partnership model with different conditions.

Having a multi-disciplinary partnership structure is seen as an important step in building the necessary size and competence to grow into a global firm. Recently, Commerce and Industry Minister Piyush Goyal had exhorted the CA Institute – on the occasion of the 73rd CA Day – to have the first set of global CA firms in the next three years.



From The Economic Times

CPD News | Latest CPD News

**'IBC is a success, now time to bring individual, group and cross border insolvency'**

Individual insolvency provisions should be operationalised sooner to provide succour to the individuals facing financial hardships, says Biswarup Basu, President, Institute of Cost Accountants of India.

Mahesh Arora • ET CFO • August 04, 2021, 06:48 IST



Dr Biswarup Basu, President, Institute of Cost Accountants of India

India's Insolvency and Bankruptcy Code (IBC) has been a success so far in its five years of existence and has brought about a "significant change" in the corporate landscape of India in terms of credit culture, feels Biswarup Basu, President at the Institute of Cost Accountants of India. He suggests now is the time to bring individual, group and cross-border insolvency frameworks to further strengthen the framework.

Edited excerpts.

Published in ET CFO dated: 04.08.2021

For details:

<https://www.economictimes.indiatimes.com/news/ibco-a-success-now-time-to-bring-individual-group-and-cross-border-insolvency/6502387>



From The Economic Times

CPD News | Latest CPD News | Interviews

**CMAs need to change from 'Cost Accountants' to 'Value Accountants': ICAI Pres Biswarup Basu**

The role of CMAs in the changing world requires the need to re-skill the CMAs in high-end tools such as Activity Based Costing, Process-Based Costing, or target costing etc. There is a need to change the agile mindset - promote diversity in thinking and imbibe multi-disciplinary skills, he said.



Biswarup Basu, President at the Institute of Cost Accountants of India

Biswarup Basu, President at the Institute of Cost Accountants of India, in the interview below, discussed the role of cost and management accountants (CMAs) in pandemic. There is a need for CMAs to imbibe multidisciplinary skills and strive to become value accountants, he strongly urged. Below are edited excerpts:

**Q: What should the role of CMAs look like in today's changing world?**

In today's changing world, CMAs need to change from 'Cost Accountants' to 'Value Accountants', 'Cost Insight' to 'Operational Excellence'; and 'Performance Insights' in an 'Architect of Future Value'. This would require moving from 'Tangible Skills' to 'Intangible Skills'.

Published in ET CFO dated: 16.07.2021

For details:

<https://www.economictimes.indiatimes.com/news/ma-need-to-change-from-cost-accountants-to-value-accountants-and-prepare-for-future/64461995>



From The Economic Times

CPD News | Latest CPD News

**'Include CMAs under accountant definition, they are no threat to CAs'**

We are looking change in the definition of Accountant in the Income Tax Act, 1961 as both the CA and CMA are known as 'accountant' as per their regulations, says President, Institute of Cost Accountants of India, Biswarup Basu. The move will create healthy competition based on competence, ethics and performance and supplement efforts in improving the quality of services, he says.



Dr Biswarup Basu, President, Institute of Cost Accountants of India

The Institute of Cost Accountants of India has been asking the government to include cost management accountants, or CMAs, in the definition of 'accountant' under the existing Income Tax regulations, but to no avail so far. It has concluded that there should not be any differentiation between chartered accountants and cost accountants under the Income Tax regulations and they should be treated at par in terms of accountant opportunities.

By including, it argues that the overall supply of accountants will increase, benefiting both the CA and the CMA professions as well as the companies themselves. However, the CA Institute has been strongly opposing such a move, thinking otherwise. Even the Direct Tax Code (DTC) Task Force set up under former CEST member AnilVijay Banerjee had not suggested any change in the definition of the accountants.

In an interview, President, Institute of Cost Accountants of India, Biswarup Basu, tries to make his case as to why the finance ministry should consider changing the definition of accountant. He also talks about the Institute's request for a change in the Income Tax Act and the Institute of Cost and Management Accountants of India (ICMAI), where again the CA Institute has opposed. Below are edited excerpts:

Published in ET CFO dated: 09.07.2021

For details: <https://www.economictimes.indiatimes.com/news/ma-include-under-accountant-definition-why-no-need-to-worry/64256167>

**OPINION, P2**  
**'Business only with governments'**  
ADDRESSABLE\_PUNJABIAN

**IDEA EXCHANGE**  
**AJIT MOHAN**  
'Disproportionate energy on tech firms vs govt narrative. The conversation must happen but not framed as a daily debate' Page 7

**FE LINES**  
**Making first waves**  
Surfing, climbing, skateboarding, tennis, football and cultural have made their Olympic debut Page 6

VEL 16 NO 22 Follow us on Twitter & Facebook. App available on App Store & Play Store [WWW.FINANCIALPRESSON.SUNDAY](http://WWW.FINANCIALPRESSON.SUNDAY)

# FE SUNDAY

**FINANCIAL EXPRESS ON SUNDAY** HEAD TO LEAD

**SPOTLIGHT**  
**MIND OVER MEDAL**  
**MEDAL**  
The Simone Biles incident has brought into focus mental health issues among athletes Pages 8-9



## GST is one of the biggest successes of this government

A significant communication with **CMA Biswarup Basu, President - The Institute of Cost Accountants of India** on GST implementation and other related subjects

### How was your experience during four years journey of GST implementation in India?

It was a very difficult task to implement GST, which is one nation one tax in the federal country of ours, where many States have different governments with different ideology and other lot many hurdles including technological challenges. In spite of the same, Hon'ble Prime Minister Shri Narendra Bhai Modi and then Hon'ble Finance Minister, Late Shri Arun Jaitley had overcome all such hurdles and ensured amendment in the Constitution of India for long term success of GST and ensured 100% success through Co-operative Federalism, which is the foundation of not only the GST, but making India united for nation building. In my opinion, GST is one of the biggest successes of this government.

### You are saying this is a big success, but all the stakeholders including taxpayers and professionals (CMA/CA) were totally occupied and made number of representations to the government. Will you still say it is big success, how?

One has to appreciate that when the system was designed, there were some teething problems in the technology & unfortunately, it took much more time to resolve the technology related issues. However during this period, govt. was watchful and listening to the issues of all stakeholders and resolving the technology issues at one end and also extending time period for compliances. Initially, GST Council meetings were held very frequently to resolve all the difficulties faced by trade and industries. Therefore, to resolve various issues emerging out of GST implementation, several amendments and circulars have been issued. Further, COVID-19 pandemic has very adversely affected all the economies of the world including India. Still GST collections remained more than Rs. 1 lakh crore per month. In fact, it peaked to Rs. 1.41 lakh crore in April 2021. The success of GST can also be determined by sharp increase in the number of taxpayers in spite of

increase in the threshold limits.

### What factors have you considered for rating GST as a success?

As I said, there is considerable increase in number of taxpayers in spite of increasing the threshold limits and stable revenue collections given the adverse impact of pandemic on the economy. Other factors that favour overall success of GST are introduction of E-Way bill and removing all bottlenecks of inter-state movements of goods, introduction of E-Invoicing (Phase wise), introduction of filing quarterly returns and introducing IFF system, giving relaxation to the small taxpayer including MSME, resolving technological issues, reduction of rates and timely review of GST Rules, Provisions, Laws and making the required amendments to address the issues raised by stakeholders. These factors have also helped in improving ease of doing business through substantial reduction in interface with government officials.

### Lot of exporters have faced the problems in getting the refund and now demand notices are getting issued for recovery of the refund amount already granted. What are your comments?

We are aware of this issue. Government made number of changes in the provisions relating to granting the refund under Rule 89(4) and 96(10) of CGST Rules 2017 with retrospective effect and few of these changes were contradictory with each other. As a result, the exporters faced lot of difficulties in getting the refund arising out of technological issues as well as contradictions in various notifications. However, now the finality has been given and there are no more contradictions or disputes. We have already made representation to the government not to recover the refund, which was granted after proper scrutiny of relevant records. We have also said that no interest and penalty should be recovered as there was no fault of the stakeholders.

### Taxpayers are getting confused on account of various different advance rulings of different state government Advance Ruling Authorities. What will you advise the government to reduce the scope of litigation.

Any major variations in the decisions given by Advance Ruling Authority of different State Governments would lead to more confusions and the entire purpose of Advance Ruling framework will get defeated, if such a scenario continues. Taxpayers are of the view that majority of the advance ruling decisions are solely in favour of the state revenue and do not address the issues. Based on these revenue favourable decisions, revenue authorities are issuing the demand notices. Since an advance ruling decision has binding

effect on the taxpayer, Advance Ruling Authorities of different State Governments should be more careful & responsive to avoid contradictions or confusions. However, in the opinion of our Institute, it is advisable that Advance Ruling Authority should have judicial member and National Advance Ruling Authority to be constituted for removing such conflicts. **Section 35 of CGST Act 2017 has been amended and notified whereby there is no need of certification by Cost Accountant or Chartered Accountant in the Form GSTR-9C. Don't you think it is a set-back for your institute and professionals?**

This is an unfortunate decision of the Government and there will be adverse impact on the taxpayer. Taxpayer will have to bear high interest cost as well as pay the penalty when such errors and omissions will be detected during departmental audit. Cost Accountants were hand-holding the trade & industry while certifying GSTR-9C and improving the system of taxpayer for being 100% statutory compliant and also the payment was getting deposited at the time of filing annual return. By virtue of these multiple benefits, large number of taxpayers have al-

ready engaged the Cost Accountants to do the same work and also enabling the taxpayer to do self-certification. Meanwhile, we have already made representation to the government to withdraw such amendment which is neither beneficial to the revenue authorities nor to the taxpayer. **What are your recommendations to the government which needs to be addressed on top priority?**

1. First & foremost, there is a need to form Appellate Tribunal.
2. Remove technology related difficulties and resolve issues as mentioned above.
3. Set-up more friendly GSTN Helpdesk.
4. Deploying Data Analytics Tool to ease the burden of compliant & honest taxpayer.
5. Introduce the GST Rating System of taxpayer as envisaged.
6. Integrate the principles of design thinking in the GST compliance processes by way of pre-filled returns.
7. Establishing and fostering mutual trust and understanding with the taxpayer.
8. Re-establishing consensus and trust amongst all GST council members.
9. Resolving the issues of unpaid compensation cess to the states.
10. Quick resolution and redressal mechanism of queries and issues faced by the taxpayer
11. Inviting suggestions from trade and industries before GST Council Meeting to address their concerns.
12. Constitution of National Advance Ruling Authorities consisting of judicial members
13. Formation of GST Tribunals having equal representation of judiciary and technical members
14. Re-introduction of submission of GSTR-9C, which is certified by Cost Accountant and other professionals or providing reconciliation of Annual Accounts with Audited Financial Statement.
15. Coverage of petroleum products in the GST for seamless flow of input tax credit and reduction of cost.
16. Removal of blocked credit provision.



## Indulge in Reminiscence - Global Summit 2020



The Institute organized *Global Summit 2020* from 9<sup>th</sup> -11<sup>th</sup> January 2020 at Ashok Hotel, New Delhi. The theme of the summit was “*Mission 5 Trillion – CMA as a Cryogenic Force*” that aligned with the goal set by Hon’ble Prime Minister of India to achieve USD 5 Trillion Economy by 2024. The Institute was extremely proud to have eminent dignitaries like: Mr. Som Prakash, Hon’ble Union Minister of State for Commerce & Industry, Mr. Anurag Thakur, Hon’ble Minister of State for Finance & Corporate Affairs and Mr. Piyush Goyal, Hon’ble Union Minister for Railways and Commerce & Industry.

We were fortunate enough to have a galaxy of eminent speakers like Mr. Alan Johnson, Deputy President, International Federation of Accountants (IFAC); Mr. Alan Hatfield, Executive Director of Strategy and Development, ACCA-UK; Ms. Daping Gao, Deputy Director General, Ministry of Finance, People’s Republic of China; Prof. Graham Terry, Professor, University of Johannesburg, South Africa; Prof. Lakshman R. Watawala, President, Institute of Certified Management Accountants of Sri Lanka; Prof. Luckmika Perera, Director, Deakin Integrated Reporting Centre, Australia and Mr. Paul Sharman, President, Focused Management Information Inc, Canada from across the globe.



## Indulge in Reminiscence - Global Summit 2017



The Institute successfully organised the **Global Summit - 2017** on the theme “**Academic & Economic Reforms – Role of Cost & Management Accountants**” on June 29 & 30, 2017 at Science City Auditorium & EZCC, Kolkata. The event was graced by Shri Pranab Mukherjee, Hon’ble President of India, Shri Keshari Nath Tripathi, Hon’ble Governor of West Bengal and the Hon’ble Union Minister of State for Finance & Corporate Affairs, Shri Arjun Ram Meghwal.

Hon’ble President of India appreciated the exemplary work done by the Institute in producing skilled business professionals who are contributing to nation building by saying that education is democratic dividend and professional organisations like ICAI are playing a key role in this regard. He added that the government’s emphasis on skill building with the Make in India, Start-up India, and Digital India initiatives will bear fruit in the days to come. Referring to the Goods and Services Tax (GST), which is set to be implemented from July 1, 2017, the President said that It will be the biggest ever tax reforms in the country. While admitting that there is likely to be some teething troubles when the GST system comes into effect, he expressed hope of ironing them out within the shortest possible time.

The Institute in this mega event declared the launch of Goods and Services Tax (GST) helpdesk to enable businesses comply with the new system which will come into effect from the midnight of 30 June/1 July. The helpdesk will also assist professionals acquire proper knowledge about the new tax structure. The ICAI’s decision to introduce the cell was welcomed by representatives of corporate houses and professionals present at the event and is expected to go a long way to eliminate the confusion that exists regarding GST and its provisions.

## Indulge in Reminiscence - Global Summit 2008



The first ever *Global Summit on Repositioning the Management Accountant* was launched with splendour, colour and participation from many countries on 10<sup>th</sup> January, 2008 at Vigyan Bhawan, New Delhi. The huge hall was bristling with delegates and the management accounting profession brimming with confidence took the first stride in bringing seven CMA bodies and participation from Germany and Japan. The Summit was inaugurated by Hon'ble Union Minister of Corporate Affairs Shri Prem Chand Gupta and the Valedictory Session was addressed by Shri Pranab Mukherjee, Hon'ble Union Minister of External Affairs. Both the Ministers foresaw a great future for the profession elevated to the world-class.





{ We Offer More Than **Solutions**; We Create **Relationships!** }

We believe that your brand and services are best served by reaching out regularly to your stakeholders. Hence, custom publications to us are **Relationship Publishing**, that effectively strengthen your brand with your customers.

With a portfolio of over 35 custom magazines, 7 consumer titles, 3 event properties, a state-of-the-art printing press, more than 80 clients for web-based publishing solutions and a growing list of clients for content services and book publishing, **Spenta Multimedia Pvt Ltd** has an average monthly readership of over 5.5 million across the genres of travel, retail, lifestyle, beauty, pharma, finance and management.

**Contact** us to see how you and your brand can grow with India's leading media house.



2nd Floor, Peninsula Spenta, Mathuradas Mill Compound,  
N.M. Joshi Marg, Lower Parel, Mumbai - 400013.  
Tel: 022 2481 1010 / 6734 1010  
Email: ho@spentamultimedia.com  
Website: www.spentamultimedia.com



Spenta Multimedia wins four awards at the 57th (ABCI) Association of Business Communicators of India-Annual Awards 2017.

**Publishing | Printing | Online | Events**

Glimpses of  
**Independence Day Celebration**  
by the Institute





# THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

[www.icmai.in](http://www.icmai.in)

1800 346 0092/  
1800 110 910

studies@icmai.in

Since 1944

The Institute of Cost Accountants of India is a premier professional Institute and a Statutory Body established under an Act of Parliament under the administrative control of Ministry of Corporate Affairs (MCA), Government of India to regulate and develop the profession of Cost and Management Accountancy (CMA) in the country.

## CMA LEADS

5,00,000+ Students

85,000+ Alumni

4 Regional Councils

112 Chapters across India

54 CMA SC & 382 ROCC

11 Overseas Centres

Largest CMA body in Asia

2<sup>nd</sup> Largest CMA body in the Globe

## CMA COURSE GOING GLOBAL

### CMA Course - Eligibility Criterion

- Admission in Foundation Course
  - Passed Class 10 (Require to pass 10+2 before appearing in CMA Examination)
  - 10+2 Pass or its equivalent (Students appearing for 10+2 also apply on provisional basis)
- Registration to Intermediate Course
  - Passed CMA Foundation Examination
  - Graduates of any discipline (Students awaiting final result also apply on provisional basis)
  - Qualified Engineers

### Core Strengths of CMA Profession



### Course Fees

FOUNDATION - Rs. 6,000/-

INTERMEDIATE - Rs. 23,100/-\*

FINAL - Rs. 25,000/-\*

\*Installation facility available

### Important Job Roles For CMAs

- CMD
- CEO
- COO
- CFO
- Director - Finance
- President - Finance
- Vice President - Finance
- Head of Finance
- Strategic Head
- Cost Advisor
- Finance Controller
- Cost Controller
- Risk Manager
- Business Analyst
- Research Analyst
- Dean/Professor of Finance

and many more ....

### Career Opportunities for CMAs



University Grants Commission (UGC) recognizes CMA Qualification as equivalent to PG Degree.

CMA Qualification is recognised by NARIC (National Recognition Information Centre of UK) as equivalent to Master's Degree in U.K. and UAE.

### Overseas Centres

Bahrain | Botswana | Canada | Dubai | London | Muscat | Nepal  
Singapore | Tanzania | Washington | Zambia

# ADMISSION OPEN

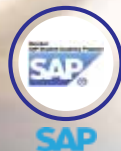
# 2021



As a long-term vision of the Institute and professional social responsibility towards the society, the Institute needs to ensure 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.

## Skills Training

WORLD CLASS EMPLOYABILITY AND TECHNO SKILL TRAINING FACILITY FOR CMA INTERMEDIATE STUDENTS



### Participating Companies in Campus Placement Drive 2021

+91 96810 44456 | skilltraining@icmai.in



Highest CTC offered INR 22 lakh p.a. | Avg. CTC offered INR 10 lakh p.a.

And Many More ..



The Institute of Cost Accountants of India

Headquarters: CMA Bhawan, 12 Sudder Street, Kolkata - 700016

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

+91 94323 82747 | placement@icmai.in

Behind Every Successful Business Decision, there is always a CMA

Follow us:

**ONLINE FACULTY DEVELOPMENT PROGRAMME**  
**DIGITAL TRANSFORMATION TECHNOLOGIES IN RESEARCH & ACADEMIA**  
**(3<sup>rd</sup> August - 7<sup>th</sup> August 2021)**



Organised By  
**Amity College of Commerce & Finance, Kolkata**



In Collaboration with  
**Board of Advanced Studies & Research, The Institute of Cost Accountants of India**

The weeklong Five-Day online FDP entitled “Digital Transformation Technologies in Research and Academia” for academicians and practitioners was organised by the Amity College of Commerce and Finance Kolkata during the period 3<sup>rd</sup> August to 7<sup>th</sup> August 2021 through MS Teams. This FDP emphasised insights into Application of Digital Technologies in Research and Academia. The programme intended to cover issues like conceptual clarity and the participants got a better understanding of the theoretical and practical insights on various aspects of research along with modern educational technologies like Data Analytics, Artificial Intelligence (AI) in Higher Education.

The course covered issues like introduction to digital transformation, application of Excel in business research, application of data analytics, cloud computing, and artificial intelligence in business research. The purpose of organizing the programme is primarily to promote the capacity building of the research scholars and faculty members and enhance the overall research potential. It aims to equip Academic Leaders to transform India into a Knowledge Economy.

The sessions covered theoretical aspects of digital transformation technologies, with an emphasis on pedagogical techniques designed to help participants in the delivery of courses they would offer in the future and apply this knowledge in their research.

The faculty development programme covered 10 technical sessions delivered by 5 resource persons of diverse backgrounds that include industry-academia profiles and from reputed organizations.

**Inaugural Session – Day 1 (3<sup>rd</sup> August 2021)**



The programme opened with a formal Inaugural note initiated by Dr. Keya Das Ghosh, Head of Institution, Amity College of Commerce and Finance Kolkata. The FDP was inaugurated by the gracious presence and address of Hon’ble Vice Chancellor, Prof.

(Dr.) Sanjay Kumar, Amity University Kolkata; CMA Debasish Mitra, Chairman, Board of Advanced Studies and Research, ICAI; CMA (Dr.) D.P. Nandy, Sr. Director, Board of Advanced Studies and Research, ICAI. Other HoDs, faculty members, staff and the participants were also present in the inaugural session.

**Summary of Sessions – Day 1 (3<sup>rd</sup> August 2021)**

The technical session of the Day 1 was addressed by the Resource Person Mr. Arijit Chakraborty, Chartered Accountant and Senior Consultant on the topic *Application of Artificial Intelligence in Business Research*. The discussion of the session covered issues like introduction to Artificial Intelligence in business research, recent updates on intelligent automation, machine learning operation, chatbots, artificial intelligence in industry use.



**Summary of Sessions – Day 2 (4<sup>th</sup> August 2021)**

The technical session of the Day 2 was delivered by Mr. Tarun Mahajan (Chartered Accountant, CFA, Registered Valuer) on the topic *Application of Advanced Excel in Business Research*. The session focused on the contents like concept of pricing of frequently traded shares, hands on application of VLOOKUP, MATCH, INDEX, logical functions etc, extracting capital market data and analyzing those data.





### Summary of Sessions – Day 3 (5<sup>th</sup> August 2021)

The technical session of the Day 3 was delivered by CMA (Dr.) P. Siva Rama Prasad, Retired Assistant General Manager of State Bank of India on the topic *Application of Cloud Computing in Business Research*. The important contents discussed in the session were IT functions in business houses, business goals while adopting cloud computing, regulatory compliances while using cloud computing, its technical limitations, major requirements to consider while evaluating CSPs etc.



### Summary of Sessions – Day 4 (6<sup>th</sup> August 2021)

The technical session of the Day 4 was delivered by Prof. (Dr.) Jadab Krishna Das, Professor and Dean (Acting), University of Calcutta on the topic *Application of Data Analytics in Business Research*. The session covered with the contents like application of business research, big data, sources of big data, digital transformation



and big data generation, challenges of big data, big data analytics in business, digital technologies.

### Summary of Sessions – Day 5 (7<sup>th</sup> August 2021)

The technical session of the Day 5 was addressed by the distinguished resource person Senior Professor CMA (Dr. Paritosh Basu from Narsee Munjee Institute of Management Studies Mumbai who enlightened us with an overview of *Digital Transformation- Perspectives of an Academician*. In his in-depth discussion, he has covered the important aspects like digital transformation with blockchain technology, emerging technology impacts on digital transformation of business, a journey of digital transformation, OECD's guidelines for digital transformation of government services and emerging ecosystem.



### Summary of Valedictory Session (7<sup>th</sup> August 2021)

The last day of the FDP had its valedictory session. It began with a brief outline of the sessions of the faculty development programme. Report of the programme was presented by Dr. Mili Kar, Faculty, ACCF Kolkata and Vote of Thanks was proposed by Dr. Keya Das Ghosh, Head of the Institution, ACCF Kolkata. The session ended up with assessment and voice of feedback.

#### Key Information about Participation:

- **Application Received:** Total participants applied for this programme is 345
- **Selected Participants:** Total participants selected for this programme is 320
- **States Covered:** Application received from across the country covering 23 States

#### Premier Institutes from India:

The programme has received applications from many reputed and premier institutions like University of Mumbai, University of Calcutta, Utkal University, Chandigarh University, Vidyasagar University, Assam University, Tripura University, Central University of Himachal Pradesh, The Institute of Cost Accountants of India.

#### Foreign Institutes:

The programme has also received responses from several foreign institutions namely Princess Nourah Bint Abdulrahman University (Saudi Arabia), American University of the Middle-East (Kuwait), Ambo university (Ethiopia), Jazan University (Saudi Arabia), East Africa College (Ethiopia).

# MANAGEMENT DEVELOPMENT PROGRAMME CONDUCTED BY MARF ICWAI

AT NEW DELHI (9<sup>TH</sup> TO 13<sup>TH</sup> AUGUST, 2021) & KOLKATA (23<sup>RD</sup> TO 27<sup>TH</sup> AUGUST, 2021)



Welcome to CMA P. Raju Iyer, Vice President & Board Member, ICWAI MARF by Mr. Dinesh Kakkar, DGM(F) during Valedictory- Kolkata (23-27 Aug 21)



Address by Chief Guest, CMA P. Raju Iyer, Vice President & Board Member, ICWAI MARF, in Valedictory Session Management Development Programme for NHAI at Kolkata on 27<sup>th</sup> Aug 2021



Distribution of Certificates to NHAI officers by CMA P. Raju Iyer Vice President & Board Member, ICWAI MARF & CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board, Indirect Taxation Committee & Board Member, ICWAI MARF during Valedictory session (23-27 Aug 21)



Shri BB Goyal, Former Chief Adviser, Ministry of Finance, Chief Guest at the programme addressing at New Delhi 9-13 Aug 21



Group Photo- MDP New Delhi from 9-13 Aug 2021



Stage Photo Inauguration MDP New Delhi 9-13 Aug 2021



www.icmai.in

# BOARD OF ADVANCED STUDIES & RESEARCH

## CHALLENGING CAREERS EXCITING COURSES

*Think beyond horizon...*

**10% DISCOUNT**  
FOR THE MEMBERS OF THE INSTITUTE

**25% DISCOUNT**  
FOR THE STUDENTS OF THE INSTITUTE

*Substantial discount on the Course fees is available for bulk enrolment*



### Diploma in Forensic Audit

For CMAs & CMA Students Only  
Basic Course Fee: ₹20,000/-  
Duration: 100 Hrs  
Knowledge Partner: **KPMG**



### Diploma in Information System Security Audit

For CMAs & CMA Students Only  
Basic Course Fee: ₹20,000/-  
Duration: 100 Hrs



### Certificate Course in Data Analytics for Finance Professionals

Basic Course Fee: ₹20,000/-  
Duration: 100 Hrs



### SAP Finance Power User Course (SAP Learning Hub & SAP S/4HANA)

Basic Course Fee: ₹20,000/-  
Duration: 80 Hrs



### Certificate Course in Advanced Business Excel for Finance Professionals (with Microsoft Certification)

Basic Course Fee: ₹6,000/-  
Duration: 50 Hrs



### Executive Diploma in Business Valuation

(with Financial Modeling)  
Basic Course Fee: ₹20,000/-  
Duration: 100 Hrs



### Executive Diploma in Cost & Management Accounting for Engineers

Basic Course Fee: ₹30,000/-  
Duration: 100 Hrs



### Certificate Course in Arbitration

Basic Course Fee: ₹20,000/-  
Duration: 50 Hrs

Case Study based  
Pedagogy

Best Faculty from  
Industry & Profession

Online Live &  
Recorded Classes

Online Assessment

10 CEP Hrs for  
CMA Members

**For more details, please visit:**

*\*Applicable GST will be Charged* [https://icmai.in/Advanced\\_Studies/](https://icmai.in/Advanced_Studies/)

**Online Admission:**

<https://icmai.in/ADVSCC/DelegatesApplicationForm-New.aspx>

\*KPMG International's Trademarks are the sole property of KPMG International and their use here does not imply auditing by or endorsement of KPMG International or any of its member firms.

## THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

Behind every successful business decision, there is always a **CMA**

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

advstudies@icmai.in



CMA Biswarup Basu, President of the Institute along with CMA P Raju Iyer, Vice President, CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute and CMA B.B. Goyal, Advisor, ICWAI MARF & former Addl. Chief Adviser (Cost), Ministry of Finance, GoI had an opportunity to meet Dr. Subhas Sarkar, Hon'ble Union Minister of State for Education on 4<sup>th</sup> August, 2021 to discuss important matters related to the profession.



CMA Biswarup Basu, President of the Institute along with CMA P Raju Iyer, Vice President, CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute met Dr. Subhas Sarkar, Hon'ble Union Minister of State for Education on 4<sup>th</sup> August, 2021 to discuss important matters related to the profession.



CMA Biswarup Basu, President of the Institute along with his team met Dr. Subhas Sarkar, Hon'ble Union Minister of State for Education on 4<sup>th</sup> August, 2021 to discuss important matters related to the profession.



CMA P. Raju Iyer, Vice President along with CMA Vijender Sharma, Chairman, Professional Development Committee & International Affairs Committee and CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute extending greetings to Shri Pankaj Jain, Additional Secretary to the Government of India, Dept of Financial Services, Ministry of Finance on 16.08.2021.



CMA P. Raju Iyer, Vice President along with CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute extending greetings to Shri Sanjay Jaju, Additional Secretary to the Government of India, Department of Defence Production, Ministry of Defence on 24.08.2021



CMA P. Raju Iyer, Vice President along with CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute and CMA B.B. Goyal, Advisor, ICWAI MARF & Former Addl. Chief Adviser (Cost), Ministry of Finance, GoI extending greetings to CMA (Dr.) Manoj Anand, Whole Time Member (Finance), Pension Fund Regulatory and Development Authority (PFRDA) on 25.08.2021





CMA P. Raju Iyer, Vice President along with CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute and CMA B.B. Goyal, Advisor, ICWAI MARF & Former Addl. Chief Adviser (Cost), Ministry of Finance, GoI extending greetings to Shri Supratim Bandyopadhyay, Chairperson, Pension Fund Regulatory and Development Authority (PFRDA) on 25.08.2021.



CMA P. Raju Iyer, Vice President along with CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute, called on Shri G D Lohani, Joint Secretary-TRU- I, Central Board of Indirect Taxes and Customs (CBIC), Ministry of Finance, to discuss important professional matters on 24.08.2021.



Glimpses of the MOU signing ceremony between the Institute of Cost Accountants of India and ACCA, UK on 9<sup>th</sup> August, 2021.



Glimpses of the MOU signing ceremony between the Institute of Cost Accountants of India and ACCA, UK on 9<sup>th</sup> August, 2021.



CMA (Dr.) Ashish P. Thatte, Chairman, Corporate Laws Committee along with CMA Neeraj D. Joshi, Chairman, Management Accounting Committee extending greetings to Shri Narayan Tatu Rane, Hon'ble Union Minister for Micro, Small and Medium Enterprises on 2<sup>nd</sup> August, 2021



CMA Neeraj D. Joshi, Chairman, Management Accounting Committee and CMA (Dr.) Ashish P. Thatte, Chairman, Corporate Laws Committee extending greetings to Shri C.R. Patil, Hon'ble Member of Parliament (Lok Sabha), Navsari, Gujarat on 2<sup>nd</sup> August, 2021.



Sri. Anbalagan, GM, DIC Puducherry met by Chairman CAT and AAT Board CMA H Padmanabhan, Sri Sushil Behl, Govt Nominee to ICAI, CMA P V Bhattad and CMA Rakesh Singh Former Presidents ICAI and Puducherry Chapter TEAM



Sri. Vivilian Richards Johnkumar, MLA Puducherry met by Chairman CAT and AAT Board CMA H Padmanabhan, CMA Rakesh Singh Former President, Sri. Sushil Behl, Govt Nominee to ICAI, CMA P V Bhattad Former President and CMA Thananjayan Chairman Puducherry Chapter



CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute extending greetings to Shri Rao Inderjit Singh, Hon'ble Union Minister of State for Corporate Affairs and Minister of State (Independent Charge) for Statistics & Programme Implementation and Planning on 5<sup>th</sup> August, 2021



CMA Neeraj D. Joshi, Chairman, Management Accounting Committee and CMA (Dr.) Ashish P. Thatte, Chairman, Corporate Laws Committee had an opportunity to greet Dr. Bhagwat Kishanrao Karad, Hon'ble Union Minister of State for Finance on 29<sup>th</sup> July, 2021



CMA (Dr.) Ashish P. Thatte, Chairman, Corporate Laws Committee extending greetings to Smt. Darshana Vikram Jardosh, Hon'ble Union Minister of State for Railways and Textiles on 29<sup>th</sup> July, 2021



# THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

[www.icmai.in](http://www.icmai.in)

Headquarters: CMA Bhawan, 12 Sudder Street, Kolkata - 700016  
Delhi Office: CMA Bhawan, 3 Institutional Area, Lodhi Road, New Delhi - 110003

✉ [advstudies@icmai.in](mailto:advstudies@icmai.in)

+91 98745-32127  
+91 94323-82747  
+91 33 4036 4779  
+91 33 4036 4789

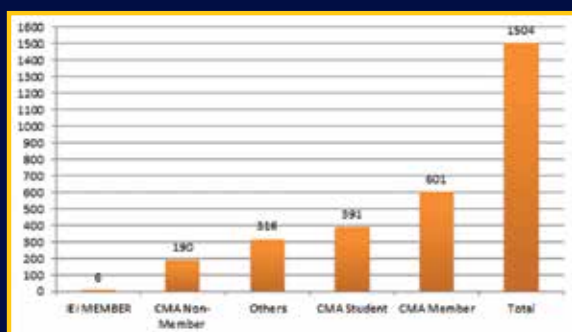
## BOARD OF ADVANCED STUDIES & RESEARCH

### PERFORMANCE AT A GLANCE: APRIL 2020 - AUGUST 2021

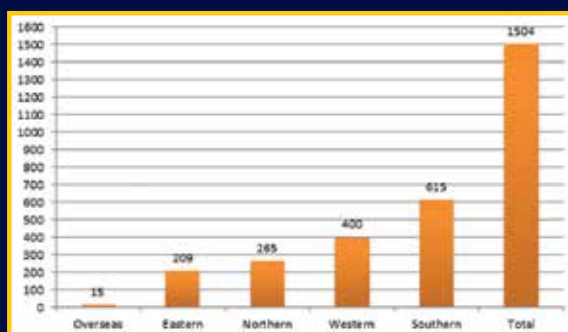


## STATUS OF ONGOING ADVANCED STUDIES COURSES APRIL 2020 - AUGUST 2021

### PROFESSION WISE COMPOSITION



### LOCATION WISE COMPOSITION



\* AUSTRALIA | BAHRAIN | BANGLADESH | CANADA | INDONESIA  
KUWAIT | OMAN | PAKISTAN | QATAR | RWANDA | SINGAPORE  
THAILAND | UAE | USA Etc.

### GENDER DIVERSITY



Behind Every Successful Business Decision, there is always a **CMA**



# THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

[www.icmai.in](http://www.icmai.in)



NATIONAL  
INSURANCE  
ACADEMY

## ONLINE CERTIFICATE COURSE IN GENERAL INSURANCE

### Program Objectives

The objective is to equip members and students of the Institute in areas of General Insurance for equipping them to understand and comprehend various insurance aspects and have a working knowledge on the various aspects of General Insurance.

### Program Takeways

The objective is skill development and knowledge enhancement of members on matters pertaining to insurance.

### Key Contents

5 Modules  
Coverage in Fire Insurance, Cargo and Marine, Health, Liability and Miscellaneous 25 hours capsule

### Course Fees

We propose to charge a fee of **Rs. 6000 + GST** at applicable rates for the program.

Details of Payment is stated in BFSI Portal of the Institute's website

### Who Can Attend

- Graduates of any discipline
- Students of the ICAI
- Members of the ICAI

### Course Timing

Saturdays and Sundays from 11.30 a.m. to 1.30 p.m.

### Course Details

#### MODULE - I

##### FUNDAMENTALS OF INSURANCE

- ✓ BUILDING BLOCKS OF INSURANCE
- ✓ LEGAL ASPECTS OF INSURANCE
- ✓ PRINCIPLES OF INSURANCE
- ✓ FUNDAMENTALS OF GENERAL INSURANCE
- ✓ SIGNIFICANCE OF IRDAI REGULATIONS IN INSURANCE BUSINESS

#### MODULE - II

##### FIRE INSURANCE

- ✓ COVERAGE
- ✓ CONDITIONS AND EXCLUSIONS
- ✓ SPECIAL COVERS AND CLAUSES
- ✓ BUSINESS INTERRUPTION
- ✓ FIRE CLAIMS AND ROLE OF SURVEYORS IN LOSS ASSESSMENT

#### MODULE - III

##### MARINE CARGO INSURANCE

- ✓ MARINE INSURANCE ACT
- ✓ CARGO CLAUSES
- ✓ TYPES OF CARGO
- ✓ MARINE UNDERWRITING
- ✓ MARINE CLAIMS

#### MODULE - IV

##### MOTOR INSURANCE

- ✓ COVERAGE OF MOTOR LIABILITY
- ✓ PACKAGE POLICIES
- ✓ MOTOR UNDERWRITING
- ✓ MOTOR OWN DAMAGE CLAIMS
- ✓ MOTOR THIRD PARTY CLAIMS

#### MODULE - V

##### HEALTH, LIABILITY AND MISCELLANEOUS INSURANCE

- ✓ HEALTH POLICY COVERAGE & UNDERWRITING
- ✓ HEALTH REGULATIONS
- ✓ BASICS OF LIABILITY
- ✓ LIABILITY INSURANCE PRODUCTS
- ✓ BURGLARY AND PERSONAL ACCIDENT
- ✓ CLAIMS INTIMATION AND NECESSARY FOLLOW UP

### For more details

Course Coordinator from BFSI Department

**CMA Dibbendu Roy** - Joint Director

E-mail: [bfsi@icmai.in](mailto:bfsi@icmai.in)

Mobile: 96434-43047 / 83686-93781

**Dr. Steward Doss** - Faculty, Marketing

Email: [gdoss@niapune.org.in](mailto:gdoss@niapune.org.in)

Mobile: 9765203257

**Behind Every Successful Business Decision, there is always a CMA**

# OVERVIEW OF INFORMATION SYSTEM SECURITY

## Abstract

*The early 2000's saw the explosive growth of Information Technology, computing devices, the internet and all sorts of information systems. Today there is no aspect of our lives that is yet untouched by these devices. Commerce, trade, transportation, communication, education all depend on information systems in more than a few ways. But more reliance on information technology also means greater importance of securing them against threats and risks. In this article we give an overview of information-system security and some of its basic tools and technologies.*

As per Laudon and Laudon, an **Information System** can be defined as a set of interrelated components that collect, process, analyze, store and distribute information to support decision making, coordination and control in an organization. Some examples of information systems are Transaction processing system, management information system, decision support system, knowledge management system and business intelligence system.

ISACA, an international body concerned with information systems, defines information security as: 'Ensures that within the enterprise, information is protected against disclosure to unauthorized users (confidentiality), improper modification (integrity), and non-access when required (availability)'. Thus, **information security** or **InfoSec**, is the set of systems, processes and mechanisms that protect information systems from unauthorized access, modification and destruction.

The whole concept of information security is built around the three tenets of **Confidentiality**, **Integrity** and **Availability**. For an information system 'Confidentiality' refers to the aspect of accessibility. It means that there should be safeguards against unauthorized access, use and dissemination of information. 'Integrity' refers to the aspects of accuracy, credibility, completeness, and protection against unauthorized modification of data. 'Availability' means the system should be available to those who need it and when they need it. Thus, a system should have safeguards against risks that can render it unavailable to authorized users.

### Tools for Implementing Information Security

Information security aims at securing systems throughout the total information lifecycle, right from the time it is



**CMA Arnab Chatterjee**  
Ex-Principal Consultant  
Oracle Consulting, Kolkata  
[c\\_arnabus@yahoo.com](mailto:c_arnabus@yahoo.com)

acquired till the time it is processed and finally stored for future use. Here we discuss some of the tools that are used to secure information systems.

### 1. Access Control

The objective of access control is to ensure that information and information systems are accessible only to authorized users. It is enforced using three separate measures, namely, identification, authentication and authorization, usually managed together through 'Identity Management software'.

In the identification step, authorized users are identified

**The whole concept of  
information security is built  
around the three tenets of  
Confidentiality, Integrity and  
Availability**

through unique user-ids and user-names. Strict control is exercised over user creation and modification to prevent unauthorized personnel from gaining entry into the system.

The authentication step consists of a challenge which the user has to clear in order to gain entry into the system. The challenge may be in the form of static or dynamic passwords, smart cards or some form of biometric information. A static password remains constant over a period and is tagged to the specific user entering it. A dynamic password, on the other hand, is one that is generated by a token and changes frequently, usually every minute. Or, it could be in the form of a one-time password or OTP which is valid only for a single use or transaction. A smart card does away with the concept of passwords entirely and depends on information encoded onto a chip embedded in the smart card. The information encoded on the chip cannot be accessed or modified by the holder of the smart card, thus ensuring its integrity. Biometric verification employs individual human traits such as fingerprints, palm prints, faces, retinas and voices to identify an individual and grant or deny access. There can also be two-factor or three-factor authentication systems that employ a combination of two or more of these challenges.

Authorization determines the level of access granted to an individual and follows the 'need-to-know' principle. Even within the same department in an organization, not all personnel need access to all kinds of information. Instead, there are clear responsibilities assigned to each person about his area of work. Access to systems is restricted based on the same criteria. It determines which users should be granted access to what kinds of information. For example, a purchase department employee should not be able to see the sales orders or personnel information. Authorization also determines the kind of actions a user is permitted to perform. It determines if the user should be only able to enter and edit information or delete it, or just view it in a read-only mode. For instance, a management user should not have the privilege to enter, edit or delete transactions and 'report generation' should be their sole privilege.

## 2. Network Security with Firewalls, Intrusion Detection Systems and Demilitarized Zone

Firewalls are hardware or software based applications that act as a barrier between an external or untrusted network such as the internet and a trusted network within the organization. They monitor, restrict and control ingoing and outgoing network traffic based on predefined security rules. In most cases firewalls are installed on systems that are separate from the internal network to prevent external traffic from directly interacting with internal systems. Different firewall technologies such as packet filtering, application proxy filtering and network address translation are used in combination for effective protection.

Intrusion Detection Systems (IDS) are often used concurrently with firewalls for added protection. They are placed at the most vulnerable points in a corporate

network for real time monitoring of both internal and external threats. IDS can detect security attacks in progress and take immediate corrective action by shutting down critical parts of the affected system. By analyzing huge volumes of network traffic IDS can recognize intrusion patterns and predict future attacks more effectively.

A demilitarized zone (DMZ) is a subnetwork that adds an extra security layer by separating all internet traffic from an organization's internal network. Thus all external traffic terminates in the DMZ and the internal network remains unreachable behind the corporate firewall. Services that need access to the internet such as emails, FTP sites, proxy servers, DNS applications are usually placed in a DMZ. The image in figure 1 shows the relation between these three aspects of network security.

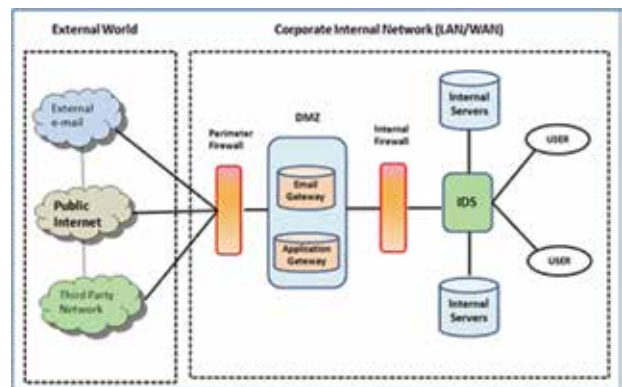


Figure 1: Components of Network Security

Source: Author

## 3. Anti malware applications

Malware are softwares intentionally designed to cause damage to information systems. They come in a variety of forms such as computer viruses, worms, adwares, keyloggers, botnets, rootkits, ransomwares, spywares, trojans and so on. Whatever their name, the objective of malware is to inflict damage, cause disruption and steal information from systems for illicit gains. The image in figure 2 shows some of the most common types of malware used to infiltrate information systems.



Figure 2: Malware Types

Source: [techtarget.com/definition/malware](http://techtarget.com/definition/malware)

Ransomware, one of the deadliest types of malware, encrypts all the contents of a computer and renders it unusable till such time a ransom is paid to get the decryption key that can help the owner get back their system. Spyware, another type of malware, gathers critical information without any authorization or consent of the user and sends it to the attacker. Banks, financial institutions, governments, universities and even hospitals have faced these types of threats with global losses running into billions of dollars.

With so many types of malware, it is imperative to have defensive technologies, such as antivirus and antispyware, which can handle and neutralize threats to information systems. Disk encryption and file-system encryption are another kind of security software that is often used along with antimalware for added protection. It encrypts the data stored on a computer and thus help in protecting its confidentiality.

Usually, all such security solutions are administered centrally by organizations for both cost-effectiveness and better control. Antivirus and antispam protection is implemented on all kinds of vulnerable devices such as internet gateways, network switches and routers, servers, workstations etc. For greater control, organizations with strong security policy also prohibit individual users from having administrative privileges on any single system. Similarly, most organizations do not allow the installation and use of unlicensed software or freeware, since they are a major source of viruses and other malware. Moreover, periodic virus scans, software patching and software updation are managed centrally so that no individual user can introduce vulnerabilities.

#### 4. Encryption and Digital Certificates

Encryption is the process of converting data into a form that makes it unreadable by anyone other than

the sender and the intended receiver. Two of the most common methods of encryption used extensively for securing communications over a network, especially the internet, are **Transport Layer Security (TLS)** and **Hypertext Transfer Protocol Secure (HTTPS)**. These protect the confidentiality and integrity of exchanged information and ensure the data has not been tampered with while in transit.

A Digital Certificate is an electronic document issued by a trusted third party known as a Certificate Authority to verify and prove the identity of the certificate holder. The certificate holds identity information about its holder and the **digital signature** of the certifying authority. The digital signature authenticates and identifies the certifying authority.

#### Business Continuity Management (BCM)

Sometimes inspite of implementing the best tools and technologies information systems fail due to a variety of reasons. Business continuity management is concerned with protecting an organization's business functions against such failures and minimizing their impact. An effective BCM should cater to both intentional and unintentional interruptions, and should also be able to address challenges arising from natural disasters like epidemics, floods, or earthquakes. **Business Continuity Planning (BCP)** and **Disaster Recovery Planning (DR)** are two of the most important aspects of BCM.

The objective of **BCP** is to ensure availability of business systems in the event of a disaster. It identifies critical business processes and systems, their associated risks and actions needed to ensure continuity. Accordingly, alternate systems, sites and personnel are maintained who take over the functions in case of a catastrophic failure.

**DR**, a subset of BCP, deals with restoration of computing and communication systems by focussing

on various backup and restoration technologies. A typical DR system is designed in a way that live production data is simultaneously maintained at another site at all times. In case of an interruption business operations are conducted from the DR site and system. Such mission critical systems are used in financial institutions, stock exchanges, telecom networks, rail and air transport operations, where interruptions can have severe consequences.

#### Conclusion

Instances of large scale attacks on information systems have increased manifolds over the years. Banks, ecommerce, social media sites, governments, transportation networks, nothing has been left untouched. It is estimated that about a quarter of the global population has been affected by data breaches in some way or the other. And the damaging impact of a breach is not limited to an organization's operations or its finances. It also hurts its reputation and credibility, something which cannot be easily measured but which ultimately leads to a loss of business. Hence, it can be said that Information System Security is a business imperative and implementation of a stringent Information Security Policy is the key to its survival in today's digital age. **IMA**

#### References:

1. *Management Information Systems (14<sup>th</sup> Edition)*, by Laudon and Laudon
2. *Wikipedia: [https://en.wikipedia.org/wiki/Information\\_security](https://en.wikipedia.org/wiki/Information_security)*
3. *Information Systems Audit and Control Association (ISACA): <https://www.isaca.org>*



# THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

[www.icmai.in](http://www.icmai.in)

Statutory Body under an Act of Parliament

## DIRECTORATE OF STUDIES TRAINING & PLACEMENT

✉ [skilltraining@icmai.in](mailto:skilltraining@icmai.in)  
[skilltraining.support@icmai.in](mailto:skilltraining.support@icmai.in)

**SAP FINANCE  
POWER USER  
COURSE**  
[60 Hours]

**MICROSOFT  
EDUCATION**  
[40 Hours]

**CAMBRIDGE  
UNIVERSITY  
PRESS  
SOFT SKILL**  
[20 Hours]

**E-FILING**  
[20 Hours]

# ONLINE SKILLS TRAINING

# CMA INTERMEDIATE STUDENTS

Round the Clock CHAT facility  
with the Counsellors

### Skills Training Partners



SAP



MICROSOFT



CAMBRIDGE  
UNIVERSITY PRESS

Institute's Knowledge Support of  
Additional 140 Hours

Online Assessment &  
Performance Monitoring

Certification on  
Skills Training Modules

World Class Employability and  
Techno Skill Development Program

# CMA COURSE GOING GLOBAL

For Online Skills Training Modules

<https://icmai.nergy360.com>

Behind Every Successful Business Decision, there is always a **CMA**



# BUSINESS APPLICATION: ISSUES IN TECHNOLOGY ACQUISITION & IMPLEMENTATION

## Abstract

*Information technology is an important and effective tool in business decision making process. It is a very important decision to the management before the acquisition process of the technology and its application. This may be bought, lease or in-house built or outsource but in every organization before finalizing, the key factors in acquisition of the technology should be examined carefully. It is a strategy that depends on many factors i.e., cost of acquisition, implementation and maintenance etc. The success of this technology acquisition depends on proper planning, identification and justification etc.*



**CMA Krishnendu Prasad Ray**

GM (Finance) &  
Head, Internal Control & Audit (Retd.)  
NEEPCO Ltd., Shillong  
[cmakpray@gmail.com](mailto:cmakpray@gmail.com)

## Introduction:

The application of information technology has increased substantially as and when the complexity arises in managing the business activities. It is an important tool that helps and smoothens in managing the operational activities of the organisation and do it in a planned way. The present business environment is complex and is becoming more and more complicated day by day. In this complex business environment, the management needs sound and efficient management information system. Without this, managing the affairs of business is becoming difficult. Moreover, in order to achieve the goal, the organisation needs improved technology system. The poor design with a

defective technology invites various troubles that affect the performance and the in the long run, the organisation may collapse.

In every organisation, acquisition of information technology is an important decision-making process which involves various the key factors i.e., planning, designing, acquiring, developing, implementing and reviewing etc. In the technology acquisition process, the management 's success is the system that is decided to be adopted must be a well-designed system. The foundation of sound information technology system consists of the following core concept i.e., i. Advanced Technology networks system, ii. Advanced Database system, iii. Improved Data warehouses, iv. Advanced software & hardware systems, v. Easy operating procedure, vi. Sound communications networks vii. Finally, the risk factors involved in the acquisition of the system. In the acquisition process, a collective decision making will help to establish the best option for removal of future hurdles of the organisation.

## Strategy in the acquisition process:

The Technology acquisition requires not only a substantial amount of fund and it is for a long-term investment requirement. A careful decision helps the management to save a lot in various aspects. The decision of acquisition involves passing through various stages i.e., from the decision to buy the specific technology and up to the stage of implementation, development and maintenance etc. Each process involves assessment and evaluation of the strategic value, potential cost benefit analysis and

the competitive advantages due to business transformation. A range of information technology applications are available and each application stipulates its own approaches, methods and techniques etc. Moreover, there are different method of acquisitions, the same can be acquired either by buying or leasing or outsourcing or by in-house development etc. The following are the important areas which needs attention before the acquisition of the application system:

- i. Objectives of the business enterprise,
- ii. Present achievement and the future plan of the business,
- iii. Estimation of the value and benefits in each case of decision of the acquisition process,
- iv. Evaluation of the benefits available over the long-term investment;
- v. Assess the other risk factors involved in the system;
- vi. Operating system and manuals,
- vii. Guarantee of Post-acquisition service and maintenance,

#### Steps in the acquisition process:

The decision making in Technology acquisition involves a thorough discussion in the management level because of the following reasons;

- a. This acquisition needs a considerable amount of corporate fund and it is a long-term investment,
- b. It invites a change in the operating system of the organisation.

The acquisition process passes through various stages and at various level that starts from identification of the suitable technology and analysis of alternative solutions available and finally, the decision to acquire an application suitable to the organisation. The process involves the following stages:

#### 1. Planning: The very first step

### In the technology acquisition process, the management 's success is the system that is decided to be adopted must be a well-designed system

in the technology acquisition is the planning. It involves a detail study of the business process, objectives of the organisation and exact requirement of the technology support etc. This planning process involves the following three steps;

#### a. Identification of the system:

Identify the exact system that will match the requirements of the organisation. Any specific process requirement should be carefully studied and to be prioritized and technically suitable. A careful analysis is required to ensure that the system is going to adopt must functionally be able to meet the requirements of the business processes.

#### b. Justification of the system:

The requirements should incorporate information about system inputs, information to be processed in the system and the information expected out of the system. Each should be clearly defined so that gaps between the requirements and expectations are minimised. Moreover, the users can avail of the other associated benefits which can be justified with its cost benefits factors. Evaluating the competitive advantages of each system will help the decision-making process. Moreover, evaluation of the long-term effect on the business process of the organisation.

#### c. Budget Allocation: Finally, a decision is to go with specific application, timetable, budget allocation for the acquisition, and system expectations etc. An adequate budget provision

is needed that support to acquire the application.

#### 2. Restructure the Information system:

During the process of acquiring Information Technology, the organisation should remodel its Information System architecture. Review the system so that the objectives are fulfilled by the capabilities of the specific applications of this system.

There must be a strategic planning that to develop specific application which will be able to meet the constrained as defined by the system architecture. Accordingly, the application portfolio may be changed or restructure corresponding to the requirements.

#### 3. Identify the alternative model:

There are several options available and some of the alternatives are as follows:

- i. In-house system development,
- ii. Buy the commercially available system;
- iii. Buy a custom-made system;
- iv. Leasing from service provider;
- vi. Outsourcing from other companies;
- vii. e- market or consortium arrangement;
- viii. Use a combination of the above;

**4. Feasibility study:** A feasibility analysis is important in identifying the advantages or disadvantages or limitations for each alternative available. The feasibility study involves the following: a. Economic feasibility, b. Technical feasibility, c. Operational advantages, d. Legal aspects, e. Contractual conditions, f. Political aspect, if any, g. security system, h. Threats, if any, i. other controls system which will be beneficial to the organisation's operating process.

**5. Selection Process:** Once the evaluation of all the proposals is over, selection of the best available alternative is to be done. There are various methods to invite the bids

from the system providers and the developers. The steps involved in this process are i.e., request for information, invites for bid and invites for proposal etc. A request for information is used from vendors for a specific intention. It acts as a tool for determining the alternatives in order to meet the organization's requirements. A well-structured selection process ensures that the process is complete and full proof in all respect. It helps the process to be completed within the time frame.

**6. Evaluation Process:** It is a most crucial stage in the technology acquisition process. In this process, the key persons entrusted to the acquisition process reviews and submits the details analysis of the selection criteria adopted, its advantages & disadvantages, if any and finalises the best match. This involves the following steps:

- a. Study the vendor's background: Both technical & financial;
- b. Evaluation criteria and other norms etc accepted,
- c. Evaluation of the details applications process to be provided in the system,
- d. Examination of the providers details and its solutions process,
- e. Operation manuals and training for the personnel,
- f. Negotiation process,
- g. Deciding the service agreements i.e.
  - i. Responsibilities of the buyer and the service providers,
  - ii. Framework for designing support services,
  - iii. Priority or privilege to have most of the control over their system,
  - iv. Warranties & Guarantees,
  - v. Other legal aspects, etc.

**7. Drafting the MOU:** Once the negotiation process, other technical and contractual matters are over, the next step is the drafting and signing the Memorandum of understanding

(MOU). It should be drafted neatly, check the areas to be covered in the MOU and accepted by both the parties. The MOU should contain the date and duration when the system is to be installed in all respect.

**8. Installation & Implementation of the selected Technology:** This step involves two stages i.e. one is installation of the system and another is the implementation of the system purchased. Installation of the selected technology and the application is to be tested and user reactions need to be evaluated. Both the management and the operating personnel may discuss jointly about the organizational issues i.e., conversion strategies, training, and resistant to change etc.

**9. Reviewing & Monitoring:** This step involves two stages i.e.; one is reviewing the system installed and another is monitoring the system and its operation process. Technology acquisition process is a very sensitive process which requires a continuous review on ongoing basis. A software solution and adequate support from the providers must satisfy the users requirements. The maintenance and operation of the software is a vital issue due to rapid technological changes. Hence, it is required to be evaluated whether the acquisition is in compliance with institutional processes and standard operating procedures. Standard project management techniques and tools are useful for this task for operation, maintenance, and evaluation.

#### Evaluation of alternative's acquisition process:

In the technology acquisition process, many alternatives are available like buying, leasing, in-house developing, or outsourcing etc the system, but deciding to acquire the most suitable IT applications in the organisation is a challenging one.

Some critical factors that evaluation is to be done on priority basis before finalising the preferred procurement / acquisition strategy. The options are as follows that needs evaluation:

- 1. Buying the applications:** Sometimes, buying a readily available solution is more viable in some organisation. But it requires business adaptability and the functionality of the system, but before selecting a readily available package, organizations should consider the key factors like (i). stability of the providers, (ii). necessary customer support system available, (iii). operating systems, (iv). Hardware & software, (v). customisation process etc. It may be less costly.
- 2. Leasing the applications:** It involves substantial fund but leasing the system will be time saving as compared to other options. It is a preferred choice for a small or medium sized enterprise who are able to afford considerable volume of investment in the applications system.
- 3. In-house development applications:** In this process, the organisation develops and builds the application in-house i.e., within the organisation. This is good for those who possess the resources and time to develop the technology applications by its own. It is a costly matter and time consuming. The most advantage of the in-house built system is that it will be able to meet all the requirements of the organisation.
- 4. Outsourcing the application:** It is a strategic decision by hiring the outside resources. It is very important to decide that whether the operational activities of the system will be handled either by the internal staff and or by the outside resources. In this process, it is important to the management to decide what to outsource. Moreover, it is also to decide whether the outsourcing should

be tied to the organization’s core competencies and its critical success factors. Once the task relates to both the core competency and the critical success factor, the decision to outsource should be avoided. It is less costly as compared to the in-house system.

**Success & failure of technology acquisition process:**

In reality, which technology acquisition will be suitable that varies from business to business, its future growth plan and many associated factors etc. Hence, a detailed study of the organisation process helps in taking a sound decision in choosing the best system to be acquired. This is a technology which is fast changing. Within a very short span, it becomes either redundant or obsolete. There are some common factors which influence over the outcomes that need attention. The decision in the acquisition process and the success or failure in the acquisition process depends on evaluation of key factors which are briefly outlined below:

- i. Strategic plan and vision of the management,
- ii. Management support,
- iii. Financial justification i.e., cost effective,
- iv. Budget support in procurement and maintenance,
- v. Availability of the expertise and the operating system,
- vi. Regular communication from the users,
- vii. Performance Review on regular basis,

**Conclusion:**

Leverage the goals of the business enterprise is very important task and to do it, the acquisition of information technology is a must and especially when the present business environment is complex and is becoming more complicated in the future days. The technology acquisition is a powerful way for the business enterprise in order to meet the increasing demands. To make the acquisition process successful, the factors incidental to, requires to be considered before taking acquisition

strategy. The management should consider the factors like company’s business strategy, its IT strategy, core competence, other various success factors etc. A wide range of specific information system are available and understanding of the system and implementation methodology is required before deciding and finalising the particular technology to be adopted. Moreover, the acquisition only is not the end of the process, its implementation, monitoring, regular evaluation and development of the system is also very crucial for the success of the Information Technology acquisition. **MA**

**References:**

1. *Gregory Olsen Endowed Chair and University Distinguished Professor of Computer Science and at Fairleigh Dickinson University, Teaneck, New Jersey, USA,*
2. *www.britanica.com*
3. *www.umsl.edu*
4. *www.researchgate.net*
5. *www.wssu.edu*
6. *www.oreilly.com*

Dear Readers,

Complete your 2018, 2019 & 2020 volumes immediately with missing issues. We are glad to inform all the Journal lovers that ‘The Management Accountant’ Journal, Volume – 53, Year – 2018, Volume – 54, Year – 2019 and Volume – 55, Year – 2020 would now be available at 50% discount (*courier charges extra*) for sale\* & until stocks last.

Month	Volume – 53, Year – 2018 Special Issue Topic	Volume – 54, Year – 2019 Special Issue Topic	Volume – 55, Year – 2020 Special Issue Topic
January	Paradigm Shift in Indian Banking Sector	Indian Banking Scenario: Dynamism and Optimism	Steering Transformation in Banking
February	Transforming Energy Sector	Contemporary Issues in Corporate Governance	Arbitration and Conciliation: Challenges and Prospects
March	Fair Value Accounting: Changing Contour of Financial Reporting in India	Artificial Intelligence – An Emerging Trend of Technology	The Next Gen Women: Equal Rights, Opportunities and Participation
April	Capital Market & Derivatives	Public Sector Accounting	* Internal Audit: The way forward
May	Foreign Trade Policy of India	Big Data Analytics in Accounting and Auditing	* National Education Policy (NEP) – Changing Contour of Indian Education Eco-System
June	Block chain Technology: A Game Changer in Accounting	Industry 4.0 Leveraging for Efficiency, Adaptability, Productivity	* Environmental Management Accounting: Issues and Practices
July	Indian Railways: CMAs as Game Changers	Integrated Transport Ecosystem - The Way Ahead	* Goods & Services Tax (GST): Recent Changes and Emerging Issues
August	Doubling Farmers’ Income: Strategies and Prospects	GST Audit Emerging Scope for CMAs	* Driving India towards 5 Trillion Dollar Economy
September	Professional Scepticism	Cost Governance	Insurance Sector in India: Today’s reality and the path ahead
October	Global Management Accounting Research	Financial Technology (Fintech) - Changing Landscape in Financial Services	Self-Reliant India: Pathway to a Robust Economy
November	Skill Development and Employability	Real Estate Investment and Capital Markets	Agricultural Costing & Pricing
December	Corporate Social Responsibility & Beyond	Startups and Entrepreneurship	Indian MSMEs: Key to Economic Restart

\*per issue cost Rs. 70/- (inclusive all) \*No Copies Printed due to Lockdown / No Print Version Available

Send your requests to:

Editor  
 Directorate of Journal & Publications  
 The Institute of Cost Accountants of India  
 (Statutory body under an Act of Parliament)  
 CMA Bhawan, 4<sup>th</sup> Floor, 84 Harish Mukherjee Road  
 Kolkata – 700025; Email: journal@icmai.in

# INFORMATION SYSTEM (IS) AUDIT - ROLE OF CMAs

## Abstract

*Information Systems Audit means an examination of the management controls within an Information Technology infrastructure and business applications. It can be also known as Computer Audits. It reviews the performance of company's operational systems. Role of CMA is to ensure the audit trail of the system. In case of Govt. websites, CMA can also help software developer, Government and ultimate benefit will be passed on to the taxpayers.*



**CMA Shweta Shah**

Tax Consultant  
Vadodara

[shah\\_shweta89@yahoo.in](mailto:shah_shweta89@yahoo.in)

**Meaning:** Information Systems Audit means an examination of the management controls within an Information Technology infrastructure and business applications. It can be also known as Computer Audits.

**Role:** To evaluate the control environment and internal controls regarding

- IS governance structure
- general controls
- application controls
- system development
- backup and disaster recovery
- data integrity
- system security.

**Objective:** Objectives of IS Audit are to obtain reasonable assurance that an organisation

- ✓ safeguards its data processing assets
- ✓ maintains data integrity
- ✓ achieves system effectiveness & efficiency

**Importance:** It reviews the performance of company's operational systems. Also companies are become able to

- evaluate its actual performance of operations against planned one
- validate that objectives pursued by it remain relevant

### Responsibilities of IS Auditor:

- Evaluate risk, document processes & systems in Flow Chart
- Form & Design audit programs
- Review to ensure high quality deliverables & minimum review iterations
- Apply audit lessons to reduce recurring review comments
- Draft written reports and audit findings and present the same to the management
- Suggest enhancement in controls, policies & procedures
- Follow- up on client execution of management actions
- Demonstrate project management skills
- Manage audits to meet target dates within budgeted hours
- manage multiple projects
- Communicate hurdles & status of projects to Audit

- services management
- Manage technology governance methodologies & frameworks
- Assess technology risk and accordingly develop audit plans
- Measure control requirements and compliance
- Oversee and report status of audit remediation activities
- Handle completion of corrective actions
- Innovate control automation to minimize compliance cost
- Guide on emerging operational, legal & regulatory compliance matters

**Principles of Audit:** Auditor has to adhere following 7 principles:

1. Integrity
2. Fair Presentation
3. Due Professional Care
4. Confidentiality
5. Independence
6. Evidence-based approach
7. Risk-based approach

**Auditing Process:** IS Audit process includes -

- ⊙ obtaining background information

- ⊙ understanding the controls
- ⊙ developing the audit plan
- ⊙ compliance test of controls
- ⊙ use of analytical review procedures
- ⊙ preparing summary of evidences
- ⊙ evaluation
- ⊙ giving an opinion

**Factors influencing organisation towards controls & audit are:**

- Cost of computer abuse
- High costs of computer error
- Organisational cost of data loss
- Value of hardware & software personnel
- Maintenance of privacy
- Costs of incorrect decision making

**Role of CMA:**

**1. Information System Audit of Tally Accounting Software:**

First of all, Cost & Management Accountant will understand the whole system of Tally established in an organization because though its a readymade software, it can be used according to client's requirement.

- ⊙ Will analyse the whole

database of the software whether all records entered are properly saved or not.

- ⊙ All required reports can be generated smoothly and showing correct information in such reports
- ⊙ Ensure that all data are secure in backups.
- ⊙ Proper backups facility is being developed or not.
- ⊙ Whether all passwords in use are with of high security or not.
- ⊙ By implementing the software whether the purpose of the organization is served or not.

**2. Information System Audit of SAP:**

Many organizations today, for security & uniqueness purpose, are developing their own separate SAP softwares according to the requirement.

For such SAP Softwares, Implementation and control both are very important.

- ⊙ SAP is the need-based system of an organisation starting from procuring of materials to sale, purchase, stock and determining the need of next material.
- ⊙ CMA will ensure whether all the transactions are recorded properly alongwith dates by the entity.
- ⊙ Whether all records of materials entered and materials sent from one department to another i.e. from warehouse of Raw Materials to WIP, from WIP to Semi-Finished goods section, from Semi-Finished goods to warehouse of Finished Goods, etc.
- ⊙ In payments section,



whether audit trail is followed by the system or not. For example, receiving bill by the accounts department for payment, approval of payment, preparing cheque or online transaction record available, whether accounting entry has been passed and accordingly bank balance has been adjusted or not in the system.

- ⊙ In Receipts Section, whether bill has been raised properly from system and sent via e-mail to the client, whether record for approval of payment by the client, check for receipt of money into account directly or cheque then presented cheque has been entered into software promptly and bank balance has been adjusted accordingly in the system or not.

Thus, Role of CMA is to ensure the audit trail of the system.

### 3. Information System Audit of GST Portal:

GST Portal is the latest example of Information System Security Software.

GST Portal is providing the services for –

- Registration of Account of the taxpayer
- Uploading different returns of the taxpayers
- Downloading the filed returns in excel as well as in json format
- Displays input credits available to the taxpayer via Electronic Credit Ledger
- Making payments of taxes via challans
- Showing tax payments success via Electronic

### Cash Ledgers

CMAs can help to software developer to ensure whether portal is efficient enough to provide above all services to taxpayers as well as Government.

Whether it is able to generate reports of the taxpayer required by the Department.

Whether auto updating of Electronic Credit Ledger correctly showing credits of taxpayers as per GSTR-2A/ GSTR-2B.

Whether Electronic Cash Ledger is showing tax amount paid by taxpayers correctly or not.

On another side, CMA can guide to Government about what hurdles people find in using portal as well as which extra reports plus ease of software required for portal's success.

Accordingly, CMA recommends to software developer and provides detailed explanation to him.

### 4. Information System Audit of Income Tax Website:

Income Tax Website, similarly as GST Portal, is providing services to taxpayers for –

- ⊙ Registration on website
- ⊙ Filing of Returns
- ⊙ Answering of Notices
- ⊙ Raising Grievances for Queries or confusions
- ⊙ E-Proceedings about outstanding demands
- ⊙ Compliance procedure for seeking information from department
- ⊙ Payment of taxes ( now onwards)
- ⊙ Gathering or getting past returns, etc.

Here also, CMA can help to software developer, Government and ultimate

benefit will be passed on to the taxpayer.

- Whether website is working smoothly or not.
- Whether database of taxpayers saved on the website is secured or not.
- Data Security is now must because, for e-payment of taxes, people use Net Banking or Other mode which have personal passwords and they have direct links to their bank accounts.
- Data loss is very much suffer for Government first and then taxpayer too.
- CMA can also help by analyzing value of engaging hardware & software persons by the Software Developer and, thereby, to the Government.

### Also Cost & Management Accountants can help to the software developer in following manner:

- ⊙ by analysing the software working process of existing level.
- ⊙ by informing them new effects required or modifying existing effects, if required, into the software developed by developer.
- ⊙ by guiding about principles, rules of respective Acts and its provisions for e.g. Provisions of Income Tax, Goods & Service Tax, Rules of Accounting, Rules of Cost Accounting, etc. **MA**

### References:

*Wikipedia & similar pages via surfing for Meaning, role, objectives, principles & responsibilities.*

# MANAGING INFORMATION TECHNOLOGY (IT) SECURITY AND RISK

## Abstract

*Data and information are a valuable and very vital aspects and components of any present organization in the age of technology. It is an undeniably beneficial resource which enhances the quality of activity of any organization in terms of perfection, effectivity, timeliness etc. Therefore, there is a prominent and eminent requirement to have an adequate risk management process and techniques in place so that the risk of any threats can be immediately arrested and seized without causing any impairment or damage to the health of the organization.*



**Subhasish Roy Chowdhury**

Senior Risk and Vulnerability Manager (Retd)  
(Bennett Coleman & Co. Ltd. – The Times of India Group), Mumbai

[roychowdhurysubhasish@gmail.com](mailto:roychowdhurysubhasish@gmail.com)

## INTRODUCTION

The present digital age indulges organizations to use information technology platform for efficient data and information management thus aiding in achieving business objectives. Information technology connotes the use of computers and allied technologies to store, process and retrieve data and information. It is more prospectively termed and Information and Communication technology. Data handling has been a human activity since the Sumerians in Mesopotamia developed writing in about 3000 B.C. however, the term ‘Information Technology (IT)’ was first used by Harold J. Leavitt and Thomas L. Whistler in an article which appeared in Harvard Business Review in 1958. IT involves three key categories viz. processing techniques, application of statistical / mathematical methodologies to decision making and simulation of higher order thinking with the help of computer-based programming.

## RISK MANAGEMENT

Risk Management identifies and access risks, applies appropriate methods to reduce its impact on organization’s

health and objectives or mitigate it to an acceptable level of tolerance so that it controls any threat or vulnerability to an organization’s resources, capital, and revenue. Risk Management clearly involves a perpetual cycle of five critical steps viz. identify, analyze, action, monitor, control. Risk Management envelopes the process of making and carrying out decisions with a view to minimize risk fatalities on the organization.

## IT RISK MANAGEMENT

Risk to information technology is becoming more and more alarming and spreading like a wildfire in the aftermath of Covid 19 pandemic due to threats of potential business disruption through cyber-attacks, hacking, crashing of data architecture. IT risk management prioritizes measures to combat and fast reduce the impact on business technology which forms the plinth of business data and information system. IT risk management is a product of likelihood of its occurrence and its severity as it increases with the volume of compromised systems, probability of data leakages etc.

## INFORMATION TECHNOLOGY RISK ASSESSMENT AND MITIGATION - STEPS

Risk assessment and mitigation helps in fetching appropriate controls to mitigate such risks. Risk Assessment methodology encompasses following key steps viz:

### 1. System Characterization:

- a) IT System characterization includes risk assessment scope, delineates operational accreditation and shares information like hardware / software / connectivity / responsibility etc., system mission, data storage mechanism / criticality / sensitivity, suggesting information gathering methods to implore information relevant to the IT system environment.
- b) Other inputs/information required for preparing the scope are list of support and application



users, security architectural controls and policies, network diagram – system interface / input – output flowchart, management and operational IT controls like behavioral policies, security planning, personnel security / back-up / contingency, BCP and DRP, data center policies / practices, environmental security like control over humidity, pollution, temperature etc. Information gathering techniques can be through Questionnaire, On-site personal Interviews, Document / Policy reviews, use of Auto Scanning tools.

**2. Threat Identification:** Threat Source indicate a circumstance, environment or event which entails potential harm and damage to the IT System infrastructure. The most common nature of threats to information technology may be the following:

- a) Electronic threats by hacker / cracker: consequential to fraudulent interference and intervention to the technology by way of access of website by hacker, infected programs by a bug, falling victim to a fraudulent email or website.
- b) Ethical threats by data leakage etc.: criminal cybercrimes comprising of information destruction, illegal information disclosure / leakage for fraudulent monetary or otherwise gains, unauthorized data alterations, spoofing, malicious software installation,
- c) Physical threats: consequential to physical access or damage to technology related resources like servers, data conduits, databases.

## Risk Management clearly involves a perpetual cycle of five critical steps viz. identify, analyze, action, monitor, control

Threats can be in the form of theft, damage by fire or flood. earthquakes, tornadoes, electrical storms etc.

- d) Technical threats: consequential to technical inabilities like crashing of a computer system, failure to retrieve data on a failed hard drive of which no back up is available, lack of preventive maintenance, irregular data back-ups
  - e) Infrastructural threats: loss of internet connectivity, low bandwidth of internet can be interruptive to the business process
  - f) Human errors: this can become a major threat when an employee intentionally or unintentionally deletes important data, fails to follow laid down security procedures
  - g) Environmental threats: consequential to long term power failure followed by power back-up failure / disruptions, pollution, chemical or liquid leakage on the physical infrastructure.
  - h) Espionage threats: consequential to deriving competitive and economic advantages and is demonstrated through economic exploitation, social engineering, hidden data mirroring etc.
- 3. Vulnerability Identification:**
- a) Vulnerability is related with defenseless susceptibility and exposure to threats. All exploitable potential system vulnerabilities

(system flaws / weaknesses) should be engrained in the risk mapping and addressal mechanism.

- b) Potential vulnerabilities are system identifiers of exited employees remaining unblocked allowing a route to dial into the organization's network and access proprietary data, Firewall allows inbound telnet and guest ID is enabled on the server which allows hackers/crackers to access IT system, new patch work hasn't yet been applied to the vulnerable flaws which have been identified , water sprinklers are used mindlessly in data centers to douse fire without covering the servers and equipment with tarpaulins or using alternative fire dousing techniques which will not cause damages to the servers and equipment.
- c) Knowledge or information sources for identifying threats and suggesting hot fixes, service packs, patches, and other remedial measures that may be applied to eliminate or mitigate vulnerabilities. are liaisioning with industry connects or surfing the internet to gather more granular information about various types of vulnerabilities – its causes and redressal prescriptions. Some other sources are previous risk assessment documentation, audit reports, system anomaly reports, security review reports, system testing and evaluation reports, testing of DRP (data recovery plan). Some proactive methods deployed in identifying system vulnerabilities depending on its criticality are AVCT (Automated Vulnerability Scanning Tool), ST&E (Security

Test and Evaluation) and PT (Penetration Testing)

#### 4. Control Analysis:

- a) This step focuses on analysing the controls which have been implemented or are planned for implementation for minimizing / eliminating the probability of threat creating vulnerability.
- b) System control encompasses (i) Technical Controls like safeguards over hardware, software, firmware and involves access control, identification and authentication mechanisms, encryption mechanism to abstain intrusions and (ii) Non-Technical Controls involving security policies, operational procedures, physical / environmental safety.
- c) Control Categories are (i) Preventive which inhibits probability of violating security policies through enforcing access controls, encryption and authentication and (ii) Detective which warns or raises alerts of violations or any attempt of violations of security policies through auto creation of activity trail logs, checksums etc.

‘Control Analysis and risk mapping’ can be better exercised through developing an effective and systematic checklist validating security / policy compliances or non-compliances.

#### 5. Likelihood Analysis:

- a) A ‘Likelihood of Occurrence’ matrix may be prepared based on (i) Capability / Motivation of threat source (ii) Nature/ extent of vulnerability (iii) Efficacy and existence of current controls.
- b) A ‘High-Medium-Low’ matrix based on likelihood of risk occurrence can

## Risk to information technology is becoming more and more alarming and spreading like a wildfire in the aftermath of Covid 19 pandemic

be prepared to further filter and pinpoint risk mapping for better and focused redressals. ‘High’ indicating that the threat source is highly motivated where security controls to prevent such vulnerabilities are weak and have a strong need for corrective measures. ‘Medium’ indicating that the threat source is highly motivated however, controls are in place which may impede successful exercising of the vulnerabilities however, may require additional corrective actions. ‘Low’ indicates that the threat source lacks both motivation and capability or effective controls are in place to prevent or largely impede exercising of the vulnerabilities hence, need to determine whether corrective actions are still required or decide to accept the risk.

#### 6. Impact Analysis:

- a) This assesses adverse impact of a vulnerable threat predominantly based on System Mission (what the IT processes and controls are expected to perform?), Data Criticality (what is the significance of the IT processes and systems to the firm?) and System / Data Sensitivity (how sensitive are the data and information which are intertwined into the IT system and processes?).
- b) This information can be

sourced from ‘Business Impact Analysis Report’, ‘Asset Criticality Assessment Report’. Degradation of IT processes and controls can lead to (a) loss of integrity of system and data reducing IT assurance mechanism to the firm (b) loss of availability of IT systems to its end users due to non-functionality, operational ineffectiveness (c) loss of confidentiality due to unauthorized disclosure and access of firm’s data and information

#### 7. Risk Mitigation/ Control Recommendation:

- a) This encompasses prioritization, evaluation, implementing appropriate remedial plans and controls to reduce the risk. Using ‘least cost – most appropriate and best’ approach to mitigate the risk to an acceptable level should be the key strategy which can be achieved through (i) appropriate risk assumption (ii) proactive cause and consequence analysis to avoid risk occurrence (iii) immediate redressal of vulnerable risks (iv) risk transference through insurance (v) continuous and perpetual research, acknowledgement and redressal mechanism.
- b) Residual or left-over risks and mitigation should always be kept under the radar without going unnoticed and left to embody itself larger in terms of likelihood of occurrence and magnitude, detrimentally affecting the organization. Whenever, such adverse nature of residual risk is pre-empted and foretold, IT Risk Manager should act with precautions to dig into its root cause and medicate it so that it stays benign and

non-lethal.

## 8. Result Documentation:

- a) IT Risk Manager should mandatorily prepare a very comprehensive “Risk Assessment” document containing granular detailed trajectory of all possible and prevailing IT risks, responsibility of management and accountability, guards already in place, design and exception testing mechanism of the risks to ensure existing guards are working well, additional dosage of guards required, residual risks and its monitoring mechanism.
- b) Additionally, IT Risk Manager should evaluate the ‘Disaster Management / Recovery and Business Continuity Plan - DRP-BCP’ to reassure its comprehensibility based on periodic testing and test results which are documented so that, pre real time awareness/training to handle any distress prevail.

## INTEGRATION OF RISK MANAGEMENT INTO SDLC (SYSTEM DEVELOPMENT LIFE CYCLE)

Effective risk management must should be intertwined into the SDLC. Risk management is a re-iterative mechanism performed during every major phase of SDLC. There are five phases in an SDLC viz.:

- a. “Initiation” - requirement for an IT system is felt and realized and its scope is well documented, risks identified are used for supporting the development of IT system and security requirements.
- b. “Development / Acquisition” - IT system can either be designed / programmed / constructed in-house by a competent team of specialists or purchased. Risks identified herewith can be a useful aid w.r.t architectural

and design trade-offs in course of its development.

- c. “Implementation” - configuration, enabling, testing and verification of system security features. Risk management aids in assessing system securities required for the modelled system environment before it is implemented.
- d. “Operation and Maintenance” indicating the system performs its functions appropriately even when it undergoes various stages of hardware and software related modifications as well as changes related with amendments in company structures, policies and procedures. Risk management helps in periodic system reauthorization / reaffiliation whenever changes are made in its operation and production environments.
- e. “Disposal” indicating disposition of hardware / software like moving, archiving, discarding, destroying information and sanitizing the system. Risk management gets involved in the disposal or replacement process to ensure proper disposals and appropriately handling of the residuals along with secure and systematic system migration.

### Conclusion:

Due to existing threats and vulnerabilities in the IT landscape of an organization, it is quite mandatory to implement management plan and program to curb such threats. It is predominant requirement to fish out all the precarious risks in the system and processes, design a comprehensive mitigation roadmap and link it with the ‘key performance indicators’ of line and staff managers who play an important role in running the processes, for appropriate implementation with support from organization’s management. Organization can also put in place a ‘Cyber Security Maturity Model’ to continuously monitor the emerging risks and its faster mitigation. Successful IT risk management will largely depend upon commitment of top management, whole hearted participation of the IT team, competent risk assessor,

awareness and co-operation of user community, continuous evaluation and sanitization process. Adverse effects of a colossal failure in managing the risks can be damage to business reputation, productivity. **MA**

### References:

1. Gary Stoneburner, Alice Goguen, Alexis Feringa (July 2002) *Risk Management Guide for Information Technology Systems Recommendations of the National Institute of Standards and Technology NIST Special Publication 800-30*.
2. Hamid Tohidi ( Islamic Azad University, South Tehran Branch, Tehran, Iran – 2010 ) *The Role of Risk Management in IT systems of organizations*, [www.sciencedirect.com](http://www.sciencedirect.com) , *Procedia Computer Science* 3 (2011) 881–887 , 1877-0509 , Published by Elsevier Ltd.
3. Sikender Mohsienuddin Mohammad (June 2020) *Risk Management in Information Technology*, <https://www.researchgate.net/publication/342154796> , SSRN *Electronic Journal*
4. Simplilearn ( 2021 ) *Top IT Risk Management Strategies and How to Apply Them*
5. Jim Boehm, Peter Merrath, Thomas Poppensieker, Rolf Riemenschnitter; and Tobias Stähle (November 2018) *Cyber risk measurement and the holistic cybersecurity approach (McKinsey & Company)*
6. Conrow, Edmund H (2004) “Risk Management for Systems of Systems.” *Systems and Software Technology Conference, Salt Lake City, UT*.
7. Thakurta, R. (2014). ‘Managing Software Projects Under Foreseen Uncertainty’ *Journal of Information Technology Management*, 25(2), 40-52.
8. Knut Haufe et al. (2016). ‘A process framework for information security management’ *International Journal of Information Systems and Project Management*, 27-47.
9. L. Lema et al. (2015). ‘ITIL in small to medium-sized enterprises software companies: towards an implementation sequence’ *Journal of Software: Evolution and Process*, vol. 27, no. 8, 528–538.
10. Talet, A. N., Mat-Zin, R., & Houari, M. (2014). ‘Risk Management and Information Technology Project’ *International Journal of Digital Information and Wireless Communications*, 4(1), 1-9.
11. <https://www.slideshare.net/jderienzo/nist-800-30-flow-chart>

# BUSINESS CONTINUITY PLAN - THE “X”FACTOR

## Abstract

*In the present scenario, Data is the most valuable asset and is to be secured like a treasure. It is not only important to protect the data but also to make the data compatible for the future. An entity must not only focus to derive profits in the prevailing market, but also need to ascertain the threat that would affect the future and its existing market. The spent on Business Continuity Plan and Recovery Strategy is thus an investment and not an expenditure anymore. CMAs, on having comprehensive corporate and costing expertise can assist the Company in framing and implementing the BCP.*

## Introduction

**W**e have to accept the universal truth- “The Uncertainty”. ‘It is almost impossible to predict the future except by means of a Thumb Rule or a Trend Line which could only normally give probabilities or can have a Trail or Error Mechanism. It is to be noted that a Business whether Big Corporate or a Small Entrepreneur runs through this continuity threat all the time. There could not be any better time to explain the Business Continuity Aspect than this current Covid-19 pandemic scenario. Many booming businesses and projects have come to a standstill or even has shut down due to this unprecedented shutdown of various sectors of Economy and it can be clearly summarized that these units have wound up because of the absence of the above “X”Factor- Business Continuity Plan (BCP) and Disaster Recovery Strategy.

The Auditors and Regulators have now included the Business Continuity Plan and Disaster Recovery Strategy in their checklist and has started evaluating their clients based on how strong and ready the entity is, to face the unknown. This has made the Corporates vigilant especially in the IT Side and a separate department and strategy has now been put in place to technically frame a strong policy to move against the turbulence.

BCP is also known as the Mechanism which will determine the maximum time in which the Company could survive the unexpected crisis and a system which will be automatically implemented to prevent it from shut down or a sudden halt.

## Why BCP??

There is always a traditional concept of Plan B which is considered as the alternative step to balance with the contingencies and if the same is technically reduced to



**CMA (CS) R. Ram Ganesh**

Company Secretary  
Kerala State Backward Classes Development  
Corporation Limited, Thiruvananthapuram  
[rg0801@gmail.com](mailto:rg0801@gmail.com)

writing with approval of the Board of Directors can be thus termed as the Business Continuity Plan. It is inevitable for a Business to make adequate systems in force to maintain the momentum in the event of uncertainty in order to survive the Economic Turbulence and safeguard the Shareholders and Stakeholders at large. It is pertinent to note that Stakeholders viz:- the Government, Sectoral Regulators, Consumers and the Employees needs to get protected in the tough times of the business which is having a significant influence on them and hence it is now made as a Statutory Responsibility to have a Concrete Business Plan for Continuity.

The framing of BCP and Recovery Strategy policy for a Company is a strong backbone and support to both the Management and the Stakeholders that it ensures the Company has foreseen the threats and has made its system adaptive to any adverse situations. This will not only make the Company secured but also it helps the Company to remain updated or sometimes advanced, in this ever changing

unpredicted business environment. In the initial stages during the framing of BCP policy itself, the Company could determine the gap between its present functionality structure and its expected model. The Company would take vigilant steps to reengineer and face-lifts its entire processes. The various stages of framing the BCP Policy involves updation of systems and training of employees to make the Company acquaint to get itself ready for any unforeseen crisis. Like this way, the Company ensures its better quality output and efficiency in its operations which eventually improves its market share and enriches its brand and market value.

### Recovery Strategy

When the BCP Policy ensures the continuity in operation during crisis, the Recovery Strategy supports the entity to retrieve the lost data or protects the valuable information which is indispensable to survive in the present. The Recovery Strategy is thus an inseparable part such that without it, the BCP has no value whatsoever. It is worthless to continue the operations fearing about the uncertainty without having relevant data which was being put in use. Recovery Strategy involves taking timely backups, storing the data in an external device, setting up a mechanism where its theft or probability of losing the same is remote etc. The efficiency of the Company is determined by evaluating how quick it has restored the lost data and how streamlined its systems are in order to prevent the data loss or theft.

### Stages of Framing BCP and Recovery Policy

The concept of BCP is a phase wise process and need to be implemented in a systematic way. An unplanned or sudden implementation without abiding to a proper procedure will not only make the BCP worthless, but will hit back the Entity. Recommended stages of BCP Implementation is as follows;

- ⊙ Analysis of the Existing system and the expected one.

## The framing of BCP and Recovery Strategy policy for a Company is a strong backbone and support to both the Management and the Stakeholders that it ensures the Company has foreseen the threats and has made its system adaptive to any adverse situations

- ⊙ Evaluate the existing quality of output and market position.
- ⊙ Peer Review of its Competitor or Supplementary Manufacturer
- ⊙ Hiring an expert or recruiting a BCP Professional.
- ⊙ Drawing a rough plan including the estimate and sketching down the processes involved
- ⊙ Imparting Training to the employees to enlighten them the need for the change.
- ⊙ Drawing the Budget and getting the approval to implement the Strategy.
- ⊙ Procurement Processes in line with the expected market change.
- ⊙ Implementing the mechanism to monitor the market and alerting provisions to put the BCP into place as and when required.
- ⊙ An exclusive system to update the system and policy to ensure continuity and recovery.

### Various Issues w.r.t BCP and Recovery Strategy Policy

Framing a BCP and Recovery Strategy Policy, since it has become mandatory, it is to be put in place without delay by those Companies having a huge Market Capitalization. However, a mere policy for the Compliance sake will have many catastrophic complications. The BCP has to be drafted with utmost care and

precaution considering all the existing factors and fluctuation that would affect the product line or operations of the entity. It must consider the cost involved for a change to be acquainted what is stated in the BCP.

The snippet of issues or challenges while drafting or implementing the BCP are as follows;

- ⊙ It is a time consuming process
- ⊙ Cost and Manpower is involved.
- ⊙ A flexible policy will make the BCP liberal and a Rigid one will make it unadaptive, hence a Balance is required to put in practice.
- ⊙ An exclusive system need to be implemented and an MIS to inform the Management the Status of operations The Company should analyze whether the scope of BCP ie:- whether it has to be for a long term or a short term.
- ⊙ The Adequate Budgetary Support must be given to implement BCP without which it will remain in papers.
- ⊙ The BCP should be vetted by an expert and must be viable and implementable.

### Opportunities for the CMAs under BCP and Recovery Strategy

BCP is an elaborate process involving analysis of present scenario of Operations and foreseeing the market and technical conditions of the entity for the future. The phase wise implementation of BCP must be strategic and cost effective. The BCP shall not be either implemented earlier nor be delayed. An accurate system must be present to evaluate the pulse of the market and alert system to hint the Company so as to implement the BCP. Considering the characteristics of BCP, CMAs can contribute to the entities in the following verticals;

- ⊙ Drafting Comprehensive BCP Strategy as a Consultant.
- ⊙ During Cost Audit, the CMA can locate the exact position of the market and can hint

the Management the time within which BCP need to be implemented.

- ⊙ As a Systems Auditor keeping the DISSA Course perspective, adequate Recovery Strategy can be opined by the Cost Auditor.
- ⊙ CMA can devise strategies to be adopted while implementing BCP stressing on the Cost Benefit Aspect.
- ⊙ In the IT side, various Hacking, Phishing and other cyber-crime

related activities lead to a Complete standstill of the entity and CMAs can design check points to crosscheck whether adequate security control systems are put in place.

- ⊙ As an Internal Auditor also, the CMA can escalate the major deviations in the standards to the Audit Committee and can compel the Management to operate the BCP strategy.

### Summary

BCP and Recovery Strategy is foreseeing tool for an entity which makes it ready to sail during any uncertain events. However, if the BCP is not designed to the tune of market operations or in case if it is not present, the entity will have an impact that it would not be able to recover even when the market becomes stable later on, ie:- it will irreparable multiplying cascading impact. **MA**

### References

*Author's Own View*



## The Institute of Cost Accountants of India

(Statutory Body under an Act of Parliament)

[www.icmai.in](http://www.icmai.in)

**Research Bulletin, Vol. 47 No. II July 2021 (ISSN 2230 9241)**

### Call for Research Papers/Articles

We invite you to contribute research paper/article for “Research Bulletin”, a peer-reviewed Quarterly Journal of The Institute of Cost Accountants of India. The aim of this bulletin is to share innovative achievements and practical experiences from diverse domains of management, from researchers, practitioners, academicians and professionals. This bulletin is dedicated to publish high quality research papers providing meaningful insights into the management content both in Indian as well as global context.

### Guidelines to submit full Paper

- Soft Copy of the full paper should be submitted in double space, 12 font size, Times New Roman, keeping a margin of 1 inch in four sides, MS Word (.doc) format.
- Each paper should be preferably within 5000 words including all.
- An abstract of not more than 150 words should be attached.
- The cover page should contain the title of the paper, author's name, designation, official address, contact phone numbers, e-mail address.

### Papers are invited on the following topics, but not limited to:

- ⊙ Capital Markets in India
- ⊙ Clean and Green Energy: The Way Forward
- ⊙ Digital Democracy: Re-imagining the Future of Education Sector in India
- ⊙ Cyber Forensics
- ⊙ Amendments to GST Framework
- ⊙ IT Audit in Banking Sector
- ⊙ MSME
- ⊙ Insurance Amendment Bill: Need of the hour
- ⊙ CSR
- ⊙ Corporate Governance
- ⊙ Aatmanirbhar Bharat: Towards Self Reliant India
- ⊙ Aviation sector hit hard by Covid-19
- ⊙ Agriculture in India: Introduction of Farm Bills
- ⊙ Healthcare Cost Management
- ⊙ SAP and Data Analytics

**Papers must be received within 15<sup>th</sup> September, 2021 in the following email id:**

[research.bulletin@icmai.in](mailto:research.bulletin@icmai.in)

# CLOUD COMPUTING IS USHERING IN A PARADIGM SHIFT IN BUSINESS MODELS; CAN MANAGEMENT ACCOUNTING STAY UNAFFECTED?

## Abstract

*Cloud services are just not a Technology but a major strategic shift inducing new business models and it unleashes tectonic forces affecting the very traditional business assumptions. It is an outcome of the rapid changes wrought by digital technologies and may be considered as a major facilitator of Digital Transformation. It drastically changes the expectations of customers, partners, and employees and thus, leads to major changes in the conditions under which business is done. Viewed from a strategic lens, it brings about a radical shift in the way in which a business create, delivers and captures value. Management Accountants should understand the strategic implications of the cloud approach and should appropriately modify the costing, valuation and decision making methodologies.*



**CMA Mani P Sam**  
Professor  
Rajagiri Business School  
Cochin  
[manipsam@rajagiri.edu](mailto:manipsam@rajagiri.edu)



**Dr. Issac K Varghese**  
Asst. Professor  
Loyola Institute of Business Administration  
Chennai  
[issackvarghese@gmail.com](mailto:issackvarghese@gmail.com)

### What are the opportunities emanating from cloud computing?

Cloud computing is built over networks of remote servers and applications to access, store, manage, and process data. The access is generally over the Internet. It is

generally divided into three primary service models covering Infrastructure (Infrastructure as a Service - IaaS), Platforms (Platform as a service - PaaS), and Software (Software as a Service - SaaS). Businesses can choose between private, public, or hybrid cloud deployment models

depending on their needs and security concerns. In all these models the Businesses do not invest in those Assets and the facilities are enjoyed by incurring revenue expenses. No ownership means there is no entry in the Balance sheet under Assets but all the benefits are enjoyed without the

attendant risks.

Software as a Service (SaaS) is currently the largest segment of cloud computing and account for more than half of the revenue. Applications for Customer Relationship Management (CRM) and Enterprise Resource Planning (ERP) are the more popular ones. Businesses pay for access to software and databases and they maintain the transactions and data. The service provider takes care of the required applications, infrastructure and platforms. Salesforce, Microsoft, Adobe, and SAP are the major players in this segment.

Infrastructure as a Service (IaaS) offers Businesses access to IT Infrastructure like storage, servers, virtual machines, and networking along with off-site support. Though it is only about half the size of the SaaS market it is expected to pick up momentum in the near future. A direct fallout will be the stagnation or reduction in the traditional IT infrastructure spending. Amazon Web Services, the market leader, controls almost half of the market while Microsoft and Alibaba remain the other major players.

Platform as a Service (PaaS) is targeted at businesses involved in application development. The offered platform may include an operating system, web servers, databases, and the access to one or more programming language environments. The major players in this segment are Microsoft Azure, Amazon Web Services, Google Cloud, and IBM Cloud. Though this segment is also poised for growth, its share is expected to remain small when compared to the other two.

#### **How does cloud computing change business models?**

As explained earlier, the direct impact of the cloud services is to eliminate the linkages between Asset ownership and business capability. Previously businesses had to necessarily invest in IT infrastructure and software and continuously upgrade them. Businesses had to stay put with the invested infrastructure

## **Cloud computing is built over networks of remote servers and applications to access, store, manage, and process data**

and software for long. All these have changed with the introduction of cloud services. Any Business can access the latest infrastructure and software by paying for the extent of use. Also the payment or financing arrangement does not have to be upfront like a capital purchase decision. However, it also allows news services developed around the shift to the cloud. Many new businesses want to migrate their existing cloud server systems and applications to the cloud. Most of the applications may not be cloud ready for a “lift and shift” operation. So it offers opportunities for services around the migration to cloud requirements.

If you review it from a core competency perspective, the businesses may be becoming more and more focused on their core competency or value adding activities which help them to retain their competitive advantage. New businesses offering cloud based services will have to develop abundant capabilities in securing the IT environment, access and data transfer processes to ensure that

## **New businesses offering cloud based services will have to develop abundant capabilities in securing the IT environment, access and data transfer processes to ensure that the cyber security capabilities are continually upgraded**

the cyber security capabilities are continually upgraded. From a business perspective shifting to the cloud will have to be viewed from a strategic perspective as to what all should be on the cloud and what benefit really accrues the business by shifting to the cloud. All these decisions are critical from a management accounting perspective and due methodologies are to be developed to assist the top management in arriving at such strategic decisions.

A typical example is the deployment of industry 4.0 across a manufacturing organization. Security challenges posed by going online may have to be reviewed through a strict cost benefit analysis. It is said that the progress of adaptation of Industry 4.0 is moderated by the security threats associated with a fully connected and IOT activated production environment.

#### **Management Accounting Challenges and Opportunities**

Capital budgeting for new investments will invariably have a Cloud component. Even the hardcore manufacturing factory and premises may have the IT infrastructure and software on the cloud. When it is a multi-location manufacturing involving multiple supply chains the complexity is still greater. Cost accounting will have to be Activity based for accommodating the various interconnections and different models of usage and payments involved.

Pricing mechanism to be adopted by a cloud service provider is also not easy. They are the ones having all the capital investments and the services are prices based on usage. Flexibility in using the various infrastructural elements as well as the capability to reconfigure on a predictive basis may be the winning characteristics. Predictive maintenance and flexibility to share and shift load across the global facilities will also be needed. Taxation and transfer pricing restrictions across countries will also pose difficulties.

The biggest potential is the collaborative decision making which



will be facilitated when cloud services are engaged. There is no location specific limitations or advantages and all the different offices and locations will access to the same tools and data, which can democratize the decision making.

In a way the cloud infrastructure may be more secure than data stored at a location but connected.

The biggest advantage is the much better Disaster Recovery and Business Continuity capability offered by a cloud environment. Flooding or earthquakes at a location will not affect your work which can be carried out elsewhere. Also the transactions and actions which are required to be initiated with respect to the affected location also become faster and

effective as the other locations and offices can share the load and initiate action.

Yet another advantage of cloud services is the scalability. We can any number of new offices or employees at will. So what happens to the notion of fixed cost associated with creating a capability? When Asset is transformed into a service, most of the fixed cost has got transformed into variable cost.

**Probable Costing Systems**

Growth rates predicted for cloud services is pretty robust and hence both the service providers and users will have to tweak their costing systems to remain competitive (and to ensure that no money is left on the table). Those who avail cloud services

would have succeeded in replacing capital investment with a variable expense. However, the costing may not be that simple. Cloud service providers offer a bouquet of services and the users will pick up various service elements to meet their business requirements. Cloud service providers will have to rely on predictive costing systems like target Costing to arrive at prices acceptable to the market. Further complexity is brought by the fact that a Cloud Service Provider is also a Cloud service user. Pricing may be a key to growing market share and ensuring growth. Management Accountant will have to improvise and continuously adapt to design an appropriate costing system. The table below makes an attempt to summarize the possible approaches.

Nature of Business	Possible costing system	Observations
Cloud Service Provider	Predictive Costing system like Target Costing	It may also be possible that a Cloud Service Provider is also user of Cloud Services. For example a SaaS provider may obtain the necessary Infrastructure as a IaaS
Cloud Service User	Activity Based Costing	The various elements picked up to meet the Business requirements will have to be appropriately linked to the various products and Services offered by the Business

The use of Activity Based Costing for users of cloud services appears to be a natural choice when there is a causal relationship between the service consumed and the product and/services offered by the Business. However, the treatment will have to be different when it is a transformation from owned or leased assets to a Cloud Service. For example, a multi-location manufacturing company may decide to migrate its ERP to the cloud. All the existing network/hardware assets and licenses pertaining to the current ERP system may have no further use. Individual users will now connect to the ERP on the cloud using may be mobile devices. IOT devices and sensors may upload the data directly to the cloud. It is essential to understand the change in processes and operations brought about by the migration to the cloud before

embarking upon a tweaking of the existing costing system or introducing a new one.

**Developing a strategy appropriate for your Business**

As explained earlier the decision

to migrate to the cloud is a strategic decision and made purely based on business requirements and not because it is the latest technology. Also the decision to use a public cloud or a private cloud is also a business decision. Regulations of your industry



or the specific requirements of your customers may influence your decision for a particular configuration. It is necessary to derive your cloud migration goals based your business strategy. Failure to clearly define the cloud migration goals, requirements or challenges can cause serious problems. When it involves a major change to your processes or operations, adequate and timely staff training should be planned and imparted. Also buy-in at all levels may be required as Information has become a major factor of production.

**Intangible Asset Market Value Study**  
**COMPONENTS of S&P 500 MARKET VALUE**



SOURCE: OCEAN TOMO, LLC INTANGIBLE ASSET MARKET VALUE STUDY, 2020  
 \*INTERIM STUDY UPDATE AS OF FY2020

(reproduced with permission. source: <https://www.oceantomo.com/intangible-asset-market-value-study/>)

We should always bear in mind that the Tangible Assets are losing their importance and Intangible Assets are emerging as the differentiator in market valuation. The study

conducted by Ocean Tomo (<https://www.oceantomo.com/intangible-asset-market-value-study/>) on the components of S&P 500 market values highlights the transition from Tangible Assets to Intangible assets. Tangible assets formed 83% of the market value in 1975 but it fell to 13% by 2015. It is a true reflection of

the steady transition from the Asset based business model to the services based business model. **MA**

**References/ Further readings:**

1. [www.oceantomo.com](http://www.oceantomo.com)
2. [www.statista.com](http://www.statista.com)

**HOLIDAY HOME AT PURI (ODISHA)**



ICAI Employees' Co-operative Credit Society Ltd. has its Holiday Home at Puri for Employees, Students and Members of ICAI and others. Rooms are well furnished with attached bath, Generator and Cable line facilities. Kitchen facilities are also available.

**PURI (ODISHA) - FOUR ROOMS**

**HARIN GUEST HOUSE**  
 NEW MARINE DRIVE ROAD  
 BESIDE BIRLA GUEST HOUSE PURI  
 SEA IS VISIBLE FROM THE BALCONY  
 (THE BEACH IS JUST ONE MINUTE WALK)

**ROOM RENT - PER ROOM PER DAY Rs. 600/-**  
 CHECK OUT - 5:00 (MORNING)

For details, Contact:

ICAI Employees' Co-operative Credit Society Ltd.  
 12, Sudder Street, Kolkata - 700 016  
 Phone: 9434613148 / 9903498221  
 E-mail: exam.officer4@icmai.in / studies.asstt1@icmai.in

# MAKE IT OR BREAK IT: THE IMPACT OF INFORMATION TECHNOLOGY AUDIT ON EFFICIENCY OF MODERN ECONOMY

## Abstract

*This paper provides an overview of the adoption and expansion of the Information Technology (IT) following the revolution in the early 1990s. The importance of IT in the financial development has been touched upon drawing inferences from various studies conducted in this field. It has become an indispensable part of the business operation in the modern world. For sustainable development of the IT facilities, IT Audit is inevitable. However, there are certain intricacies to be considered while framing an audit in general, and IT in audit in particular. We mention some of the research suggesting the possible problems and corresponding overcoming of these issues. Therefore, the imperative of further research in this area to come up with ideas about better implementation and designing of audits to overcome the loopholes is tangibly present.*



**Hirakjyoti Basak**

M.Sc. (Economics)  
London School of Economics and Political Science  
(LSE), United Kingdom  
[hirakjyotibasak1998@gmail.com](mailto:hirakjyotibasak1998@gmail.com)



**Subhasree Basak**

Research Scholar  
University of Calcutta  
Kolkata  
[subhasree.piu@gmail.com](mailto:subhasree.piu@gmail.com)

“Information Technology and business are becoming inextricably interwoven. I don’t think anybody can talk meaningfully about one without the talking about the other.”

- Bill Gates

### Introduction

“With great power comes great responsibility”. Abstracting away from the debate circling provenance of the aforementioned popular aphorism, the proverb becomes particularly pertinent in the realm of pervasiveness of Information Technology (IT) or Information System (IS) in modern economy. Beyond doubt, as is confessed by some of the greatest entrepreneurs of present world, IT has reached virtually all aspects of modern business to such a great magnitude that one might have a hard time to imagine conducting activities without it. However, juxtaposing the possible pitfalls inherent in IT-driven activities in the scenario of improper management, it is a no-brainer that IT audit is the call of the hour. The solution demands a thoughtful discussion since contradictions remain about IT audit in the way in which it should be undertaken.

### Brief Overview of IS Audit

In today’s world, data on confidential and important issues such as finance and health are stored and transferred electronically. At the turn of 1990s, the world economy

was bracing themselves for the IT revolution. Organizations started to implement Entrepreneur Resource Planning (ERP) which manages multifaceted processes such as sales, management, human resources, quality control, production and distribution, etc. The protection of individual interest relies on whether the system of digital organization of business is secured. Due to its importance, there has been surge in research in IT audit. Yang and Guan (2004) nicely emphasizes how the role of IT audit is important in the spectrum of present world, with their study being concerned with the United States.

According to Hermanson et al. (2000), Institute of Internal Auditors (IIA) (2000), the percentage of Electronic Data Processing (EDP) auditors to total auditors has ranged from 14% to 24%, the figure being significantly above in the industries which are relatively technology

**“Information Technology and business are becoming inextricably interwoven. I don’t think anybody can talk meaningfully about one without the talking about the other.”**

**- Bill Gates**

intensive. Given the evolving role of IT, IS audits are formal ways in which a business entity ensures that its activities are complying with the established standards of practice in that particular domain. IT audits can be conducted as a part and parcel of overall audit. The quality of operations of an entity relies extensively on the apt management of its digital operations. Ergo, the study

of IT audits is appropriate for modern business efficiency.

#### **Evidence of the Importance of IT in Financial Development**

The academic literature provides ample evidence for reinstating the significance of information system in financial development of a region. Alshubiri et al. (2019) uses Fixed Effects (FE) estimation to investigate the importance of ICT in financial development of six Gulf Corporation Council (GCC) countries from 2000-2016. Specifically, they find that a per cent rise in fixed broadband contributes to 2 per cent increase in financial development, while the corresponding figure for the independent variable internet users stands at 0.09 per cent. It points at the imperative for further information system orientation to bolster efficiency of different sector.

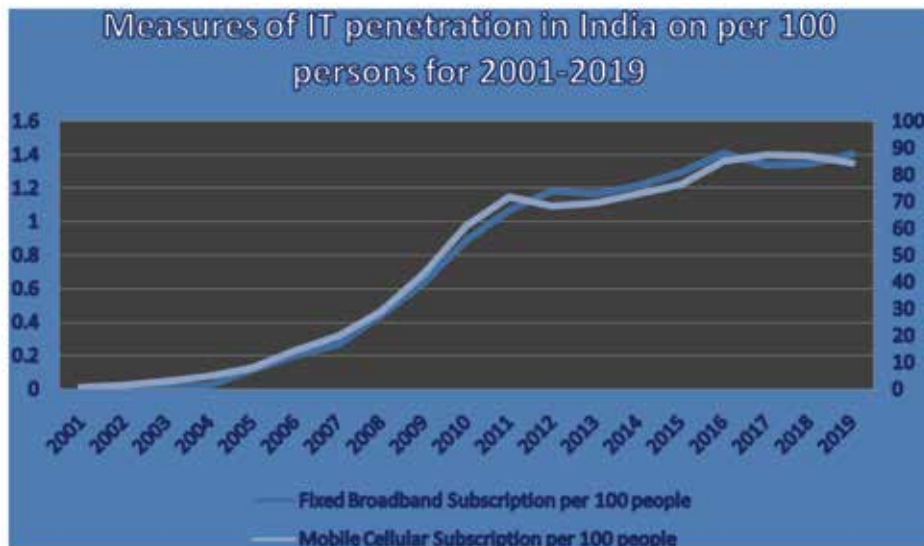


Figure 1. Measures of IT penetration in India per 100 persons for 2012-19

Source: World Bank

The figure above presents a depiction of the penetration of IT related measures in India for the period 2001 to 2019. This figure further underlines the importance of managing the IT system properly given its burgeoning nature of pervasiveness in the country and its effect on financial development.

Pierri and Timmer (2020) present recent evidence about the stability that information system offers for the financial scene of the economy showing that these ensured that the banks and lending agencies were more adapted to the financial shock of 2007-08. Having outlined the importance of IS for any economy, we

now turn our attention to the subtleties that must be taken into consideration while framing an IT audit procedure to ensure that it meets its desired objectives.

#### **Not So Easy! – Nuances of framing IT Audit**

In the above discussion we laid

stress upon the inevitability of IT dependence for a successful business in the current economic scene. Necessarily, it requires protection to ensure that the system is able to manage the reliance on IT and abiding by the outlined standards. Towards that end, the need for IT audit is evident. However, it is unfortunate that simply suggesting an IT audit is not the panacea. Rather, intricacies of various dimensions have to be considered while designing audit. Here we lay bare some important areas where the audit design must be studied carefully to ensure that the attempt of audit meets its goalposts to a T.

A study, influential in its magnitude, of environmental standard audit by Duflo et al. (2013) suggests that private auditors hired for environmental compliance reporting necessarily reported underestimated levels of pollution. However, proper incentives can allay the issue.

Moreover, simply having government rules and agendas in places cannot solve the issue. In Desmedt et al. (2017) that studies the effect of Belgian Court of Audit on Federal Administration for the time period 2005-2010 finds that Court of Audit's effect on the entities audited did not generate radical changes in the organizational life of the auditees.

Thus, while it is rather safe to say that the need for IT audit is rising, a

lot of work still needs to be done in finding out ways for efficient audit. Therefore, research is imperative on finding ways for designing effective audits which truly reflect and bring positive impact on the performance of the firms in terms of IT management.

### Conclusion

This article pointed to the changing nature of Indian Economy in terms of its adoption of IS facilities. Moreover, there are tangible benefits from the use of IT in business operations as is pointed out by various studies in this field. Furthermore, we laid stress on developing proper measures to make the IT reliance successful and sustainable. The formulation of IT audit, nevertheless, is far from simple. There are lessons to learn from the designing of audits and their loopholes, the role of incentives in the effectiveness and veracity of these reports by auditors as well as the response to audit reports by auditees. Therefore, there is a strong need for research in the field of implementation of IT audit given that IT seems to be a long way companion for modern business. **MA**

### References

1. Duflo, E., Greenstone, M., Pande, R. and Ryan, N. (2013): *Truth-telling by third-party auditors and the response of polluting firms: Experimental evidence from India*, *The*

*Quarterly Journal of Economics*, 128(4), 1499-1545.

2. Hermanson, D.R., Hill, M.C. and Ivancevich, D.M. (2000): *Information technology-related activities of internal auditors*, *Journal of Information Systems (Supplement)*, 14(1), 39-53.
3. *Institute of Internal Auditors (IIA), Percent Audit Staff IT/IS Auditors – All Insurance Companies (2000)*, <http://www.gain2.org/itis.html>.
4. Yang, D.C. and Guan, L. (2004): *The evolution of IT auditing and internal control standards in financial statement audits: The case of the United States*, *Managerial Auditing Journal*, 19(4), 544-555.
5. Desmedt, E., Morin, D., Pattyn, V. and Brans, M. (2017): *Impact of performance audit on the administration: a Belgian study (2005-2010)*, *Managerial Auditing Journal*, 32(3), 251-275.
6. Alshubiri, F., Jamil, S.A. and Elheddad, M. (2019): *The impact of ICT on financial development: Empirical evidence from the Gulf Cooperation Council countries*, *International Journal of Engineering Business Management*, 11(2), 1-14.
7. Pierri, N. & Timmer, Y. (2020): *Tech in Fin before FinTech: Blessing or Curse for Financial Stability?*, *CESifo Working Paper Series 8067*, CESifo.

## Kind Attention CMA Students !!!

Dear Students,

Expand your Knowledge with **The Management Accountant - The Journal for CMAs**. The Journal (ISSN 0972-3528) started its Journey in 1966. We have expanded our Readership from 1 to 94 Countries. The Management Accountant Journal is indexed at Index Copernicus and J-gate. It is also having Global Impact and Quality factor (2015):0.563.

The Articles incorporated here are written on current topics covering various interesting areas of Finance, Tax, Laws, Cost & Management, Economics, Accounts, Professional Updates, Interviews of eminent personalities, Information related to Examinations, Newly Launched courses, Placement news, etc. makes the Journal more Student-friendly.

Kindly note: 70% Discount is available for CMA Students

- If delivered via Ordinary Post - ₹300/- for 12 issues for registered students of the Institute
- If delivered via Courier/Speed Post - ₹550/- for 12 issues for registered students of the Institute (₹250 for Courier Charge in addition to ₹300)

Subscribe now: [http://icmai-rnj.in/public/journals/254/images/MA\\_Subscription.pdf](http://icmai-rnj.in/public/journals/254/images/MA_Subscription.pdf)

# EMERGENCE OF CYBER SECURITY AUDIT: HOW CYBERSECURITY AUDIT WILL BE HELPFUL FOR BUSINESS IN THE AGE OF DIGITAL TRANSFORMATION

## Abstract

*Cybersecurity has become one of the serious challenges faced by every type of organization and society. A cybersecurity audit is a complete evaluation and analysis of the IT infrastructure of a business organization. In protecting businesses in the ongoing battle against cyber threats, the cybersecurity audit plays a vital role. This article explores the new buzzword “cybersecurity audit” and we also attempt to answer how cybersecurity audit will be helpful for business firms in the age of digital transformation.*



**Vishnu P K**

Junior Research Fellow  
Sree Narayana College, Kannur  
[vishnupk38@gmail.com](mailto:vishnupk38@gmail.com)



**Dr. Anil P V**

Assistant Professor  
Pazhassi Raja NSS College, Mattannur  
[anil1830@gmail.com](mailto:anil1830@gmail.com)

## Introduction

Computer networks and information technology solutions have become increasingly important in our culture, business, and economy as a whole. The enormous rise of digital connectivity has resulted in a significant increase in cyber-attack events (Jaccard & Nepal, 2014). The risk of cyber attacks is growing as companies adopt new digital technology (Amir et al., 2018; Li et al., 2018). The growing network complexity resulting from digital innovation typically creates new network loopholes for cyber attackers. In addition, companies affected by cybersecurity threats have long-lasting economic and reputation damage (Agrafiotis et al., 2018; Kamiya et al., 2018). If these vulnerabilities are left uncontrolled, companies need to have strong cybersecurity programs. The administration of cybersecurity audits is a critical component for the success of these initiatives. Organizations can detect gaps in their cybersecurity infrastructure by conducting frequent cybersecurity audits. Audits may also be used by organizations to assess their compliance with various rules and legislation. Businesses can efficiently assess their safety position as their networks expand and become more complicated through an established cybersecurity audit program.

## Methodology

The study has been developed to explore the core meaning and relevance of the new term ‘cybersecurity audit’. It has also

focused on answering how cybersecurity audit will be helpful for business firms in the era of digital transformation. In this context, the researcher has focused on meeting the following research questions in the study. The questions are as follows:

1. What is the core meaning of cybersecurity audit?
2. How Cybersecurity Audit will be helpful for Businesses?
3. What steps can a business take to ensure cybersecurity?

The researcher found qualitative research to be appropriate for the current study. Qualitative research includes gathering and evaluating non-numerical data. It can be used to acquire a deeper understanding of an issue or to develop new research ideas. Therefore, to explore the core meaning of cybersecurity audit, qualitative research was employed. To introduce, describe, and assess the meaning of cybersecurity, a list of published papers consisting of research articles, news reports, magazines, government reports were collected.

## Cybersecurity is about more than simply technological resilience or IT security; it is also about the protection of information and data

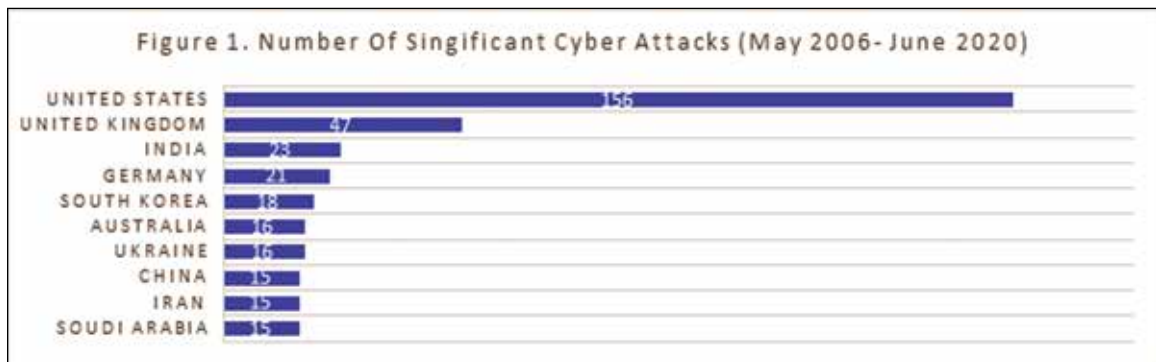
### Cyber security

The American Institute of Certified Public Accountants (2018) stated that “Cybersecurity is one of the top issues on the minds of management and boards in nearly every company in the world—large and small, public and private.”

Cybersecurity is about more than simply technological resilience or IT security; it is also about the protection of information and data (Solms & Niekerk, 2013). The main reasons why hackers succeed are misguided assurances from the internal team or cybersecurity company and a false sense of security. They focus on your processes, people, procedures, and weakest connections.

Cybersecurity is the collection of technologies, procedures, and strategies that are intended to safeguard networks, computers, programs, and data from cyberattacks, damage, or illegal access (Haapamäki & Sihvonen, 2019). Data is becoming digitized more and more and the internet is utilized to store, access, and retrieve critical data. A research from cybersecurity Ventures forecasts that cyber-attacks would cost the global economy a shocking USD 6 trillion per year by 2021. Protecting this information is no longer a luxury, but rather a mandate for most companies and government organizations throughout the world. Thus, cybersecurity comprises the protecting information transferred over any computer network.

To find out which countries in the globe have faced the world’s most “major” cyberattacks from May 2006 to June 2020, Specops Software has evaluated the current statistics from the Centre for Strategic and International Studies (CSIS).



Source: Specops Software

According to Specops Software’s research, the United States of America has witnessed a total of 156 cyber-attacks between May 2006 and June 2020. Following the United States, the United Kingdom had the second-highest number of attacks between May 2006 and June 2020. India ranks third, with 23 major cyber-attacks. In June 2020, the country was the victim of a high-profile cyber-attack in which malware was used to track keystrokes, record audio, and steal personal credentials from nine human rights activists.

### What is cyber security Audit

A cybersecurity audit is a systematic and impartial evaluation of an organization’s cybersecurity. An audit ensures adequate safety controls, policies, and procedures are implemented and operated efficiently.

Cybersecurity audits serve as a checklist for businesses to utilize when evaluating their security policies and processes. Organizations conducting an audit can check if they have the necessary safety procedures in place and ensure that they comply with the

relevant requirements, or not. This enables organizations to be more vigilant when developing cybersecurity strategies and policies. To avoid conflicts of interest, cybersecurity audits are done by third-party vendors. They can also be managed by an internal team as long as they operate independently of their parent company.

### How cyber security audit will be helpful for business?

A cybersecurity audit provides the greatest degree of confidence for existing cyber risk management

system. It provides a new point of view for evaluating and improving security management. The following are significant advantages of IT security audits:

- ⊙ Address and highlight weak areas
- ⊙ Provides a thorough internal and external security examination.
- ⊙ Identify security loopholes
- ⊙ Determines whether business firms need to improve system security.
- ⊙ Provides advice on how to use technology to improve corporate security.
- ⊙ Keeping a step ahead of hackers
- ⊙ Reputation
- ⊙ Enhanced technology and safety performance

#### Cyber security risk management: What steps can business take?

The business firm has to take all feasible efforts to establish a strong cybersecurity capacity in this era of global digital flows. Protection plans cannot be exclusively centered on companies must also include the human aspect. They must aim to establish digitally sustainable cultures in which cybersecurity is an everyday responsibility for key stakeholders at all levels.

An effective cybersecurity strategy enables the business to act quickly and reduce the occurrence and possible impact of any attack. Firstly, the organization should develop a cybersecurity plan and policy in collaboration with management and the board of directors, discover and exploit possibilities for the company to increase the capacity to recognize, evaluate and reduce cybersecurity risks, then the organization should be vigilant about the number of persons who access the company data; therefore, company restricts the number of persons who

have privileged access to sensitive data.

The organization should analyze and reduce possible threats resulting from the acts of an employee or a company partner and making awareness and understanding of cyber threats of the board. The auditor makes sure that the board remains actively involved with cybersecurity issues and check for the formal integration of cybersecurity risks into the audit plan. A focus should be given to developing and maintaining an awareness of how the organization and its cybersecurity risk profile are affected by evolving technology and trends. Finally, addressing any IT/audit staff and resources shortages as well as the lack of associated technologies/tools which might prevent cybersecurity risk management initiatives.

#### Conclusion

With the rapid growth of cyberattacks, cybersecurity is increasingly important in all organizations. This increase requires auditors to evaluate cybersecurity practices, programs, and tools to ensure that their businesses have good cyber governance. Cybersecurity vulnerabilities can represent a severe threat to the whole organization, thereby increasing the requirement for highly trained IT auditors in cybersecurity audits.

To conclude, this study aimed to provide an overview of cybersecurity audit. The study categorizes research issues in the field of cybersecurity that would help academics, practitioners, and the public. This sort of discussion is essential for the understanding of cybersecurity and may be used to identify new avenues for future study.

MA

#### References

1. Agraftotis, I., Nurse, J. R. C., Goldsmith, M., Creese, S., & Upton, D. (2018). *A taxonomy of cyber-harms: Defining the impacts of cyber-attacks*

- and understanding how they propagate. *Journal of Cybersecurity*, 4(1), 1–15. <https://doi.org/10.1093/cybsec/tyy006>
2. *Cybersecurity risk management reporting factsheet*. (2018). American Institute of Certified Public Accountants (AICPA).
3. Amir, E., Levi, S., & Livne, T. (2018). Do firms underreport information on cyber-attacks? Evidence from capital markets. *Review of Accounting Studies*, 23(3), 1177–1206. <https://doi.org/10.1007/s1142-018-9452-4>
4. Gordon, L. A. (2005). *Managing Cybersecurity Resources: A Cost-Benefit Analysis*. McGraw-Hill Education.
5. Haapamäki, E., & Sihvonen, J. (2019). Cybersecurity in accounting research. *Managerial Auditing Journal*, 34(7), 808–834. <https://doi.org/10.1108/maj-09-2018-2004>
6. Jaccard, J. J., & Nepal, S. (2014). A survey of emerging threats in cybersecurity. *Journal of Computer and System Sciences*, 80(5), 973–993. <https://doi.org/10.1016/j.jcss.2014.02.005>
7. Kamiya, S., Kang, J. K., Kim, J., Milidonis, A., & Stulz, R. M. (2018). What is the impact of successful cyberattacks on target firms? *National Bureau of Economic Research, Working Paper No. 24409*. Published.
8. Li, H., No, W. G., & Wang, T. (2018). SEC's cybersecurity disclosure guidance and disclosed cybersecurity risk factors. *International Journal of Accounting Information Systems*, 30, 40–55. <https://doi.org/10.1016/j.accinf.2018.06.003>
9. Specops (2020), “The countries experiencing the most ‘significant’ cyber-attacks”, available at <https://specopssoft.com/blog/countries-experiencing-significant-cyber-attacks/>
10. Solms, R. V., & Niekerk, J. V. (2013). From information security to cyber security. *Computers & Security*, 38, 97–102. <https://doi.org/10.1016/j.cose.2013.04.004>

### Kind Attention !!!

Hope you are getting The Management Accountant Journal in physical form at your doorstep regularly. If not, requesting esteemed Members, Students and Subscribers to mail us at: [journal@icmai.in](mailto:journal@icmai.in) for smooth and uninterrupted delivery of the same.



# EXPAND YOUR KNOWLEDGE

## THROUGH E-LIBRARY IN ASSOCIATION WITH J-GATE

### FREE!!



Members & Students now access **60 millions** Journal Articles including 14 million full text articles

# e-library

## for members & students



J-Gate is the most comprehensive database & gateway to access research information from over **60 Million journal articles** with access to **14 Million Full Text** articles updated daily covering multiple subject domains like Engineering and Technology, Social and Management Sciences, Arts and Humanities.



- \* All journals are indexed cover to cover with each article having links to full text.
- \* Most articles carry author email addresses for the researchers to connect with them.
- \* Customized platform for configuring library subscribed journal and user favorite journals.
- \* Unified platform to discover all subscribed journals through a single interface.



Under J-Gate Social Sciences and Humanities Total Indexed Journals - 12,074, Full-Text Journals - 5,329.

### Key Benefits to Members & Students of e-library

- ⊙ Save and Retrieve Search History
- ⊙ Receive Email alerts and/or RSS Feeds on your favorite topic.
- ⊙ Table of Content alerts
- ⊙ Subject alerts
- ⊙ Create My Favorites
- ⊙ Save your Favorite items
- ⊙ Share your Favorite items with your peers
- ⊙ View the items shared with you

### REGISTER YOURSELF BY FOLLOWING THE STEPS BELOW- To receive your own log in credentials:

- ✓ Go to: <http://icmai-rnj.in/>
- ✓ On the right hand side of the web page (for new users) there is an option "click here to receive your J-Gate Login Credentials", click on it and you will get a registration form. Fill out the form as indicated. And you will get the login details within 7 working Days.

Members & Student of the Institute are requested to kindly reach us at [journal.hod@icmai.in](mailto:journal.hod@icmai.in) for any problem related to e-library or J-Gate. You can also write to us in case if you need any training on J-Gate.

#### Headquarters

CMA Bhawan, 12, Sudder Street, Kolkata 700016  
Tel: +91 33 2252-1031/34/35

#### Editorial Office

CMA Bhawan, 4<sup>th</sup> Floor, 84 Harish Mukherjee Road  
Kolkata -700 025  
Tel: +91 33 2454-0086/0087/0184

#### Delhi Office

CMA Bhawan, 3 Institutional Area  
Lodhi Road, New Delhi -110003  
Tel: +91 11 24622156, 24618645



## THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

Behind every successful business decision, there is always a **CMA**



**CMA Amitava Sinha**  
*Director (Finance)*  
*The Jute Corporation of India Ltd., Kolkata*

**S**hri Amitava Sinha, had assumed the charge of Director (Finance) of The Jute Corporation of India on 10 December 2020. A B. Com from the University of Calcutta and an Associate Member of the Institute of Cost Accountants of India, started his career with MSTC Limited, a Schedule-B, Miniratna Category-1 PSU, engaged in the business of e-Commerce and trade finance business. He was posted at their Western Regional Office (WRO) at Mumbai and served there for approx. 17 years (from May 1991 to May 2008). Shri Sinha was one of the core team members of WRO during the transformation of operations from manual to computerised system. In May 2008, he was transferred to the Head Office at Kolkata. Shri Sinha lead the development of the e-commerce (Forward and Reverse e-auction) platform with assistance from the System department to cater to the requirements of MSTC's clientele. In Trade Financing, Sri Sinha's contribution was the implementation of the revised model of business to mitigate credit risk. His other notable expertise lies in areas like Corporate Financing, budget compilation and monitoring, drafting MoU, JV related issues, IPO etc.

Shri Sinha was appointed as the Chief Financial Officer at Mahindra MSTC Recycling Pvt Ltd at Mumbai in June 2017, which is a 50:50 JV between MSTC & Mahindra Accelo (a group company of Mahindra & Mahindra). Mahindra MSTC Recycling Pvt Ltd was incorporated to set up country's 1st auto shredding and vehicle recycling infrastructure. Being the first such Company in the organised sector, it had no precedence on accounting matters related to this industry in India. Sri Sinha, in his capacity of CFO had played a defining role in setting up benchmarks in various accounting related issues like, Defining the Bill of Material; Assigning the aggregate cost; Allocating manufacturing overheads; Developing cost of goods sold forecast model for new business; implementing inventory management; selecting and implementing time tracking system to better accounts to enable accurate and efficient reporting. The Company commissioned its first plant in December 2018 and within November 2020 commissioned another two plants. In a short span of under two years the Company reported Profits Before Tax in October 2020, under the able financial stewardship of Shri Amitava Sinha.

Shri Sinha believes in hard work, sincerity, working in diverse areas, inter-personal skill, boundary management to create great place to work.

**Q.1 What benchmarks have your esteemed organization established since its inception and what significant milestones has it achieved?**

**Ans:** Benchmarks – Standardization of contentious parameters in Jute trading operations like fixing standard moisture content limit in raw jute during purchase and sales.

Milestones achieved – JCI's benchmarking of the above

has been accepted by the industry and the same is being followed as a standard for acceptable moisture content in raw jute across the industry.

**Q.2 Which innovative projects are there in your pipeline for the next 2 to 3 years to promote "Doubling Farmer's Income"?**

**Ans:** The production of raw jute has remained more or less unchanged over the last few years at about 25 kgs per hectare. However, there is scope for increasing this production levels to as much as 3000kgs per hectare. If this can be realized, it will give a huge impetus to the income of the jute farmers. JCI has already envisaged some projects in these directions.

1. ERP based operations to complete payment to farmers within 3 working days or less;
2. Involvement of rural agencies like Cooperatives, PACs, SKUs etc to enhance reach of MSP operation in remote jute growing locations;
3. Agronomical support to the farmers throughout the year for better yield and quality of jute and other crops.

**Q.3 In the present situation, how technological intervention can improve resilience in the jute business?**

**Ans:**

1. Portable Bale Press Machine – For reduction of manpower involvement and packing time of Jute Bale.
2. Analog Weighing Machine – For enhancement of accuracy in measurements and less weighing time.
3. Grading Instruments – For standardization of jute grading practices and lessening the dependence on the more subjective hand and eye estimation method.
4. ERP based procurement operation – duplication of works- quick direct payment to farmers' accounts, real time information of procurement, sale and stock position. ERP based HRMS module may help effective utilization of optimum manpower along with proper implementation of HR Policies.
5. Portable Instruments for checking fibre quality, Moisture Meters, Tensile Tester, Fineness Tester etc portable machines may help random checking of purchased jute fibre for assessing different fibre qualities in line with BIS Specifications.
6. Broadband or Optical Fibre Internet connectivity helps in flawless procurement operations in a much faster and easier way with minimum man hours requirement.

**Q.4 What is the future outlook for the Indian Jute Sector for the next couple of years and JCI's role behind it?**

**Ans:** Presently, due to low productivity, presently, the Jute industry is not in a position to supply the Government's requirement of Gunny Bags. While the Demand size is 43 Lakh bales, production is far less at around 30 Lakh bales. The jute growing area is going down over the years due to urbanization and industrialization. In the event of land under cultivation decreasing, productivity can be increased by maintaining the production at same levels. JCI is also focusing on yield with quality of jute. With the help of different farmer friendly policies and interventions through different projects / schemes for improved jute agronomic practices of Government of India, Indian Jute sector will be able to produce better quality jute with better yield. This will reduce import of jute from Bangladesh with good production volume and better-quality jute, more and more domestic and overseas demands will be created which in turn will improve farmers' economic condition and jute cultivation practices.

JCI's role –

1. JCI as implementing agency of different Govt schemes / projects will assist farmers to adopt improved agronomic practices for jute cultivation;
2. As Govt. procuring agency will safeguard farmers from being

- exploited by private traders;
- JCI either through MSP Procurement Operations and / or Commercial Procurement Operations is committed to procure better quality jute, produced under supervision of Project I-CARE, at its Purchase Centres or at the door step of farmers where JCI has no Purchase Centres. JCI's intervention may directly reduce import of good quality jute from Bangladesh.
  - Jute Diversified Business activities will assist marketing support to MSMEs, WSHGs, SHGs, Startups, NGOs etc and thus will assist improvement in socio-economic status of jute farming families who are actually the artisans/ workers of above manufacturing entities;
  - E-Commerce and Franchisee operations will make various jute items available at affordable rates on PAN India basis and thus creating jute demand;
  - JCI through its trading operations of Jute Geo-Textiles (JGT) and Jute Agro-Textiles (JAT) will ensure optimum price level along with timely supply of quality items for different projects of various Govt. Departments like PWD, Irrigation, Railways etc.

**Q.5 How successful has Jute-ICARE (Improved Cultivation and Advanced Retting Exercise for Jute) Initiative proved?**

**Ans:**

- Year to year basis, a greater number of farmers are getting enrolled in Jute I Care Project.
- Registration of area for cultivation has also increased to 1.60Lakh hectares; Blocks 160
- Increasing awareness of farmers to use certified jute seeds with around 90% to 95% germination level to increase productivity. Conversely, reducing the availability and use of spurious seeds.
- Inspiring and encouraging jute farmers to adopt mechanization in cultivation followed by use of retting accelerators for faster retting process.
- Productivity has increased by around 7% to 8%
- Quality has improved by one to two grades
- Construction of retting pond and creating drainage channels in jute field will help farmers to combat

vagaries of weather like draught and / or flood and heavy rains.

- All these have helped improvement in quality and yield of produced jute.

**Q.6 The Govt. was pondering to increase the MSP of raw jute for 2021-22. How The Jute Corporation of India (JCI), the central government's nodal agency to undertake price support operations, is initiating the process?**

**Ans:**

- JCI has undertaken massive publicity of new MSP Rates declared by the Government. Various methods of publicity adopted are: intimation to State Administrations like Blocks, Panchayats; Loud Speaker announcement and Leaflet distribution in jute growing localities, Newspaper notification etc.
- JCI has introduced a Tollfree Helpline number for addressing queries of farmers.
- JCI has invited EOIs from interested outsourcing agencies beyond existing agencies to ensure extensive MSP operations in wider remote jute growing locations.
- Besides, JCI is carrying out various demonstrations on improved cultivation practices where farmers are made aware of new MSP rates and JCI purchase centres.
- Along with carrying out MSP purchase operations of raw jute at its own Purchase Centres, JCI will also move to remote jute growing locations where it has no Purchase Centres to procure jute from farmers under its Mobile Purchase Operations endeavour at MSP Rates.

**Q.7 This year's budget has come with a number of positive updates for Textile sector. According to you, what more improvement is required in this arena?**

**Ans:** GST Rates on finished jute items are required to be reviewed. At present, finished jute items attract either 5% or 12% GST which are on the higher side.

**Q.8 How the textile sector got benefitted from push for 'Aatma Nirbhar Bharat'? Elucidate your views in this regard.**

**Ans:** With the slogan "Vocal for Local", Startups – MSMEs- WSHGs – NGOs are getting marketing support and business scope to manufacture various

jute diversified products including jute handicraft items. Employment generation scope is increasing, causing improved socio-economic condition of the country.

By adopting improved agronomic practices by farmers, produced jute quality and quantity are increasing and thus reducing import of jute from Bangladesh. All these efforts are in the endeavor to materialize the "Aatma Nirbhar Bharat" concept.

**Q.9 What more eco-friendly and cost-effective measures are you planning to make our Nation proud?**

**Ans:**

- Use of natural manure in cultivation is an eco-friendly initiative. Jute itself is eco-friendly biodegradable fibre. Jute cultivation increases land fertility which helps cost effective cultivation of successive crops in the same field.
- Dry retting exercises may be contemplated as eco-friendly and cost-effective measures which will put India in the Global Matrix as a major contributor to conservation of World Environment.

**Q.10 What emerging roadblocks (if any) are you facing to meet customer's satisfaction and framing of pricing mechanism strategies in this pandemic situation? How do you deal with the same?**

**Ans:** There are few roadblocks which are proving to challenges to meet customer's satisfaction to a certain extent, like framing of a comprehensive policy for pricing of raw jute. There is limited scope of usage of large-scale mechanisation in agronomic practices, increasing trend of transport cost, hike in raw material prices mainly for Jute Seed and other agronomic inputs and ultimately jute fabrics.

**Q.11 What one piece of advice would you give to the young CMA professionals?**

**Ans:** Challenge conventional thinking and innovative use of the available resources to drive positive changes in the lives of our stakeholders and communities.

**Q.12 What are the various ways your organization can integrate with our Institute for the diverse avenues in professional development matters?**

**Ans:** Conducted a customized training program for employees recently, on banking. Many of our employees are joining various useful training programs conducted by The Institute of Cost Accountants of India. **MA**



# DIGITAL TRANSFORMATION WITH ARTIFICIAL INTELLIGENCE AND ROBOTIC PROCESS AUTOMATION - ADVANCED APPLICATIONS AND REALISATION OF DESIRED ROI



**CMA (Dr.) Paritosh Basu**

Senior Professor  
NMIMS School of Business Management  
Mumbai  
[paritosh.basu@sbm.nmims.edu](mailto:paritosh.basu@sbm.nmims.edu)

## Introduction

Artificial intelligence as an idea did not originate post advent of information and communication technology. Its genesis and evolution could be traced in applications of scientists many centuries ago as have been established in published literature of several research scholars. Theoretical and technological narratives for this were underpinned and bolstered by scientists such as Alan Turing, Marvin Minsky, and John McCarthy. The possibility of a computing machine attaining cognitive capabilities of a human being was first experimented and christened by John McCarthy. Readers may know more about genesis, evolution,

fiction, and challenges in applications of artificial intelligence (AI) in one of the author's articles under this column which was published in April 2020<sup>1</sup>.

The fountainhead of inspiration for artificial intelligence (AI) as a digital technology is the cognitive capabilities of human beings. Digital scientists are relentlessly aiming to develop computerised solutions by emulating and recreating many cognitive and functional capabilities of human brains equally efficiently in a computing device. They are trying to innovate digitally programmed systems for reasoning and taking decisions. Applications of such AI driven solutions are adding momentum for advancements of individuals, growth of business entities with far reaching potential for value creation in both tangible and intangible terms. The author in his research study could gather that many startup entities, working in this field, have started claiming that AI is gradually outshining human brains in certain activities which need sharper and diversified applications of cognitive skills. However, such claims are not beyond controversies.

## Humane Features of Human Beings

Human beings have the power of empathy and sympathy which help conducting themselves with humane qualities namely benevolence, compassion, gentleness, caring, civility, etc. Oxford Dictionary has defined the word 'empathy' as the "Ability to understand and share the feelings of another" and sympathy as the "Feelings of pity and sorrow for someone else's misfortune." These two features help a person handling

Image Source: <https://blogs.3ds.com/northamerica/robotic-process-automation-the-first-step-in-digital-transformation/>

societal and humanitarian issues with applications of brain, mind, and heart. This in turn provide mental support to maintain ethics, societal peace, and rule of law.

Besides cognitive intelligence human beings also have emotional intelligence. The same lexicon has defined it as *“The capacity to be aware of, control and express one’s emotions and to handle interpersonal relationships judiciously and empathetically.”* In other words, emotional intelligence is the combination of attitude, aptitude and competencies backed by power of knowledge, wisdom, and application orientation. Emotional intelligence helps a man effectively coping with both positives and negatives of life. It plays an important role in personal and professional growth of individuals who must take and execute decisions under stressful and challenging situations to ensure least possible sufferings from risks and move ahead with peace and sustainable success for inclusive happiness.

## Objective

The above discourse raises certain intriguing questions? Whether that day would come or is already there when a computing device would be able to recognise words and facial expressions that will enable it to read the state of mind and mood of a person. Whether the computing device would be able to ascertain and appreciate the gravity of a given situation and challenges being faced by the user from the voice and data inputs that are being provided as inputs? Would the device be successful in handling, as efficiently as a human being, the dynamics of the user’s mood, mental situation and extend help to win over the prevailing stress and challenges? The next level of question is whether a computing device be able to apply emotional intelligence for affirmatively reacting with expressions of sympathy and empathy during man-machine interactions?

All these would require algorithms of AI and the process of training a computing device to instil and help the device attaining emotional intelligence. It would be of interest to predictively assess what would happen to humanity when all these are achieved by digital

scientists, if at all? One last question is whether robots and robotic process applications would be able to replace some of the qualities of certain small creatures of nature which are friends of human beings and help earning livelihoods.

Finding answer to the above questions require extensive research and predictive analyses. Given the limited scope, this paper would make efforts to examine some of the recent advanced applications of artificial intelligence and the impacts thereof on commercial world, society and the way living life by human beings. Efforts would be made to appreciate how cost-benefit trade-off can be achieved and what all ethical qualities are required for ensuring that no harm is done to humanity while achieving this.

## AI Ecosystem and Advancements

The current AI ecology comprises of machine learning (ML), robots and robotic process applications (RPA), artificial neural networks (ANNs), etc. In ML computer programs are made to learn in a supervised or non-supervised environment from existing data and apply the attained information/ knowledge to new data. ML has the capability to modify and/or update the old learning points when new data is fed into it. This process helps predicting or providing inferences which can be interpreted for framing further strategic plan and executing actions. Big data analytics has the capability of performing the same when huge volumes of unstructured data are fed into the system. However, none has guaranteed so far that the learning points generated by AI driven systems are always correct and the provided information/inputs for drawing inferences are flawless. Needless to say that human beings also make mistakes.

Rapid advancement of computing technology, power of processing at lightning speed, open-source platforms and collaborative learnings have facilitated newer capabilities of AI and it’s branching out to various areas of cognitive capabilities. Last few decades have witnessed advancement of AI into fields of linguistic, mathematical, and logical reasoning abilities. Digital scientists are trying to progress towards

the next generation of AI applications with orbital changes to the direction of emotional intelligence. It would be worthwhile here to note the famous quote of Ginni Rometty, former CEO and Executive Chairman of IBM. She said, *“Some people call this artificial intelligence, but the reality is this technology will enhance us. So instead of artificial intelligence, I think we’ll augment our intelligence.”*

Let us forget and miss to appreciate that what all has been done and achieved in the field of AI are because of the good work of humanin brain only. Sequential learning capability of Google’s DeepMind is enabling AIs to learn multiple skills. All these are now attributing into AI the ability to comprehend the physical world to a certain extent. These capabilities of AI are being exploited by various industries for performing tasks that need human judgements and interventions. The case in point is unmanned cars, robotic surgeons, humanoids, etc. Hence essentially human beings are making computing devices to attain all these capabilities The following is a summarised enumeration of various advancements and branching outs of AI into various areas:

- ⊙ **Expert Systems:** Solves complex problems as an expert by extracting the required knowledge stored in its knowledge base derived with complex and advanced tools for analyses of both structured and unstructured data and other inputs.
- ⊙ **Natural Language:** Content Extraction, Machine translation, Answer questions, Decision tree, Classifications based on commonalities of attributes, etc.
- ⊙ **Planning:** Creating algorithms for analysing past data, generating strategic plans<sup>N1</sup> and applications thereof to operations, e. g., marketing, business risk management, defence, healthcare, cybersecurity, public transportation, etc.
- ⊙ **Machine Learning:** Reduce dimensions, Deep learning, Random Forest<sup>N2</sup>, Regression classifier, Decision trees,

Clustering, etc.

- ⊙ **Vision:** Neural Network, Reduction of dimensions, Deep learning, Convolutional Neural Network, Recurrent Neural Network<sup>N3</sup>
- ⊙ **Robotics:** Humanoid, Soft robotics, Swarm robotics, Touch robotics, Serpentine robots for both commercial and non-commercial applications. Robots have also been made to, serve food, cook foods, present performing arts like singing and dancing, including appreciation of dancing steps and reproducing the same to the tune of a common song/music

- ⊙ **Speech:** Recognition of speech, Conversions of speech to text and text to speech

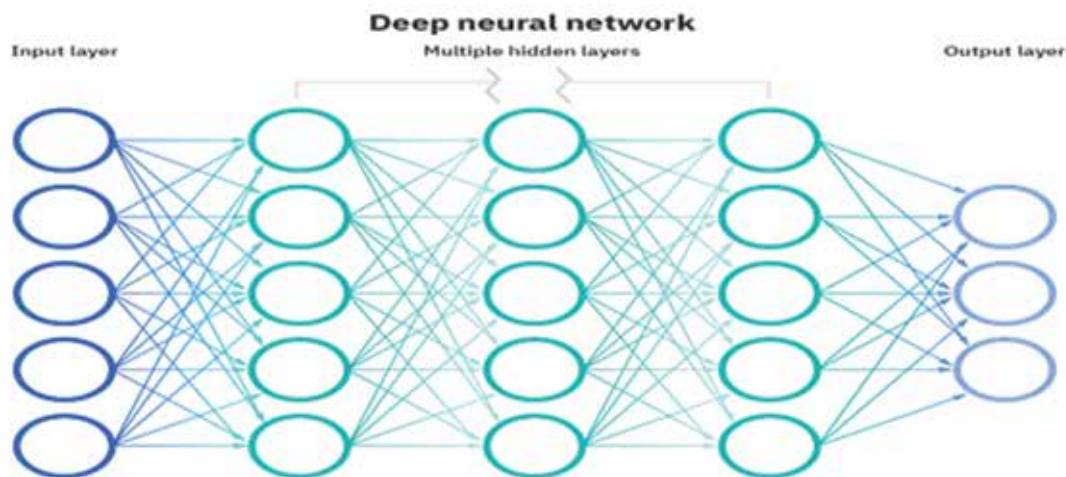
### Notes

N1: Data used, and inferences drawn for such planning can be made functional in a Physical-Digital-Physical (PDP) Loop. Data is first collected from transactions conducted at the physical operating place that is the market(s) for buying and selling. In the second step the data is processed/analysed using AI tools to make meaning out of the data and drawing inferences. From the inference so drawn strategic plans with execution tactics are framed for taking back to the marketplace for execution/ conducting business operations. Thus,

the flow continues in the PDP Loop.

N2. “*Random forest is a simple but powerful AI process which uses the wisdom of crowds. “In data science speak, the reason that the random forest model works so well is: A large number of relatively uncorrelated models (trees) operating as a committee will outperform any of the individual constituent models”.*”<sup>2</sup>

N3. “*Neural networks are a subset of machine learning and are at the heart of deep learning algorithms. Their name and structure are inspired by the human brain, mimicking the way that biological neurons signal to one another*”<sup>3</sup>. This is also known as Artificial Neural Networks (ANNs).



Source: <https://www.ibm.com/cloud/learn/neural-networks>

To start with an ANN needs training data for understanding and developing capabilities to increase accuracy by fine tuning the algorithm. Once the training process is completed this powerful tool can classify and cluster data at a high speed. Such a power powerful tool is applied for recognition of human speech, animal sounds and images. It can also recognise certain elements in a few minutes as compared to what a human being can do in a few hours. One of the most popular examples of neural networks is Google’s search algorithm.

According to Statista, one of the most eminent and credible entities in digital technology field, “*The current wave of growth in the AI industry is as much about the abundant availability of big data as it is about software and hardware. The amount of big data*

*being generated by today’s increasingly digitized economy is growing at a rate of 40% each year and is expected to reach 163 trillion gigabytes by 2025.*”<sup>4</sup> That such exponential growth in big data is impelling and accelerating the pace of AI algorithms with advancements in capabilities prima facie leave no scope to doubt. Because of all these, digital scientists are moving ahead with more and more customization of AI based solution building for meeting versatile sector specific requirements like healthcare, automobile, BFSI, entertainment, healthcare, telecommunication, education and so on.

The author in his previous article<sup>1</sup> under this column has mentioned about the following three stages of Artificial intelligence:

- ⊙ ANI: Artificial Narrow Intelligence - Capability in a specific context, e. g., weather forecasting,
- ⊙ AGI: Artificial General Intelligence - Capability to perform cognitive functions at equal level of a human being across wide variety of domains; and
- ⊙ ASI: Artificial Super Intelligence - Entering the stage of science fiction when AI will surpass all hitherto seen human intelligence.

There is hardly any doubt about the present position that AI has achieved the level ANI. However, any amount reading of published literature may not help a researcher to reach a conclusion

with conviction whether AI has reached the level of ‘General Intelligence’ with the versatility and perfection across wide variety of domains that a human being can perform in matters of cognitive intelligence. There seems to be no doubt that ASI is still a distant dream. However, one may not lose sight of the famous quote of Ray Kurzweil, a famous American inventor and futurist. He said, “*Artificial intelligence will reach human levels by around 2029. Follow that out further to, say, 2045, we will have multiplied the intelligence, the human biological machine intelligence of our civilization a billion-fold.*”

### Certain Unique Applications of AI

The author in his previous article<sup>2</sup> on artificial intelligence has provided narratives for many innovations using AI and ML. Keeping in view the above discourse it would be worthwhile to briefly mention about certain recent developments in the field of artificial intelligence, advanced applications and impacts thereof. Based on the limited research of the author and due to the limitation of space the following summary is being presented in this regard:

- ⊙ **AI for medical diagnoses and treatment:** Innovative applications of AI are helping medical science in numerous ways. Millions of pathology reports, X Ray plates, ECG reports, sonography plates, 3D MRI and CT Scan images, outcomes from medicinal treatments and operations done have been/ are being studied along with patient conditions pre and post treatments. AI based algorithms, and its ability to process natural language have made machines to read, learn, and attain predictive abilities with near cent percent accuracy. All these are helping doctors and clinicians for the following:
  - ⤴ Conclusively understand and appreciate past cases in terms of patients’ symptoms and physical conditions, findings of tests performed, diagnoses done, effects of treatments, rates of recovery and survival,
  - ⤴ Diagnose patients’ ailments in future with more conviction in prognosis and offer improved line/ method of treatment and physical operations with enhanced effectiveness to remedy sufferings,
  - ⤴ Remote monitoring of patients’ ailments/health conditions, perceivable impacts of treatments done, and providing corrective actions if desired results are not achieved,
  - ⤴ Predict developments that may happen with treatment in terms of recovery, time required and unfortunate event of fatality, if at all.

Due to limitation of space examples are not being quoted. However, readers may be aware of how medical professionals and pharmacists around the world have developed instant knowledges about the mutations of Covid-19 virus, approved vaccines, medicines, etc., and dynamically decided about line of treatment based on data analyses and interpretation with the advanced applications of AI algorithms.

- ⊙ **Artificially intelligent personal companion:** Microsoft is developing Xiaoice as an artificially intelligent

personal companionship product. This product would also facilitate the process of work force management in many ways, which in turn would help speeding up its further development and the process for wider adoption. Microsoft has claimed to have developed Xiaoice in its Software Technology Center in 2014 “*based on emotional computing framework. It’s consumer adoption in China is a stunning achievement that Microsoft has not talked much about in the West*”.

- ⊙ **Robot personal assistant:** Emotech, a London based company has developed the prototype of an artificially intelligent and voice-controlled Robot Assistant with unique personality. It has been christened as Olly. It is a cup shaped device with an eyeball which can blink while interacting with its user.



Source: <https://techcrunch.com/2015/12/07/olly/>

Emotech founders are reported to have claimed that “*Based on the AI and the machine learning, we create a special persuading system which [along with the owner] will give Olly special personality, ..... Your Olly will be different to my Olly. Because your personality is different to mine, and your lifestyle is different. “For example... I’m quite curious about everything, so my Olly is more pro-active, talks fast and any time when I try to communicate with Olly, Olly always try to give me more information, more options to suggest. But if the person who is more serious, is more logical, all the information Olly will give is not like my very emotional [Olly] but that one will be very data driven.”*” Readers might have observed from this claim that Olly would have versatile capabilities in terms of understanding the requirements of its master and assist accordingly. Hence the capability of the software is not unidirectional as is presently being seen in certain similar applications like that of Alexa.

- ⊙ **Humanoid:** Readers must have heard about the humanoid Sophia. This she humanoid can give interviews, deliver keynote speeches in conferences, interact with participants and answer their in questions. It has also successfully attended various talk shows including Jimmy Fallon’s ‘The Tonight Show’. Sophia has already attained celebrity status and been conferred with citizenship of Saudi Arabia. The creator of Hong Kong based company Hansen Robotics has plans to create more such humanoids with wide range of capabilities like those of Sophia, which according to them can “*..... have immediate applications as media personalities in movies and TV shows, entertainment*



*animatronics in museums and theme parks, and for university research and medical training applications.<sup>7</sup>”*

- ⊙ **Plantix for agricultural crop management:** Plantix is a unique application of a startup called PEAT. It is powered by AI for image recognition and is uniquely capable to study images of crops and classify those images according to reasons based on previously learnt knowledge. Based on such segregation Plantix can prompt the specific disease the plants of a particular field area are suffering, reasons thereof, and provide names of insects and pests that have attacked the standing crop. It can also prescribe the remedial actions and insecticides/pesticides to be used for remediation. The camera of Plantix can be set on a running mode for videography and continuous monitoring. All these in turn would reduce human interventions and errors of judgement which in turn would lead to higher yield of harvest and higher income of farmers.
- ⊙ **RoboBees for framers that pollinate crops:** These small robots have embedded AI and GPS systems and are fitted with powerful cameras equivalent to the eyes of bees. These can fly like a drone, withstand waves of breeze and water, and mimic buzzing sound of flying bees.

Such RoboBees can help farmers to identify field areas where there are needs for pollinating crops for efficient sprouting to ensure higher crop yields. World is presently facing receding trend in population of honeybees and these RoboBees are being made to do what nature’s tiny creatures can do

This solution would go a long way to solve the problem arising from such shortage. This innovative application of robotic process automation and AI was first patented by researchers of Harvard University. Mass applications of these RoboBees are being worked out by Walmart to help Beehive farmers. Research is also on to for developing artificial beehives with applications of robots for continuous caring and monitoring of this endangered specie of pollinators contributing for livelihood of farmers.

- ⊙ **Expert AI Perfumers:** Researchers from IBM in collaboration with a German perfume manufacturer have used the power of AI based solutions for enhancing and diversifying the capacity human perfumers for smelling. This solution would help creating new perfumes using inputs provided by the AI based digital solution.

The researchers have first exhausted olfaction analysis of existing fragrances generated

by various chemical formulae. AI Perfumer was then used to study the historical trend of selling each of the existing perfumes by that manufacturer. Chemical compositions of those high selling perfumes were further experimented by varying chemical compositions using outputs provided by the solution. This process helped producing more variety of perfumes with unique fragrance befitting demographic patterns and choice of customers in different geographical regions.

- ⊙ **Artificially Intelligent Toothbrush:** Tooth decays and resultant sufferings are very common ailments of people across the world. The R&D group of Kolibree has developed a toothbrush called Ara, an award-winning innovation, which has embedded AI powered IoT, sensors below its bristles and Bluetooth connectivity. It can detect brushing duration, pattern movements, mouth area covered, frequency of the use, and transfer the information to an App of the user’s smart phone. Post this the software can compare the detected pattern and habit with the ideal ones as suggested by dentists. This in turn can advise the user what corrections she/he should affect in her/his way of brushing teeth for improved health and hygiene of teeth and gum.



Source: <https://www.iiotworlds.com/spazzolino-con-intelligenza-artificiale-2/>

⊙ **RoboJudge for Beauty Contests:** Artificially intelligent robots are being appointed for judging beauty contestants. All data and information related to desired features that are ideal for winning related to look, facial expression, body measurement, skin texture and complexion, smiling patterns, etc. are fast being fed into the AI based solution. For initial screening of several photos and data of each contestant are fed into the system to generate the short list. Robots are appointed for judging the winner. However,

spectacles are not allowed. Days are not very far when Humanoids would be engaged for interacting with contestants with intelligent questions for finally declaring the winner and runner ups.

⊙ **AI powered machines composing lyrics and music for superhit songs:** Readers may be aware that AI based cognitive tools can read lyrics, listen to music, and observe musical melody patterns of thousands of songs/ orchestrated music and store for its subsequent use. The system can then study reported

mathematically indicated indices to judge popularity level of each song and read critic's comments. The AI powered tool can then correlate and combine these two sets of information to write melodious lyrics and compose music/songs. *"IBM's Watson Beat is a cognitive cloud-based music program developed using AI and machine learning that can assist artists in creation of original compositions. Built on IBM's famed artificial intelligence platform Watson Beat uses users' audio samples to compose original music."<sup>8</sup>*



Source: <https://medium.com/syncedreview/ais-growing-role-in-musical-composition-ec105417899>

AI based solutions have also been ideated for machines to suggest and play the most suitable music/songs based on interpretation of captured images, facial expressions and movements of body, hand legs of a dancer. AI based software with cognitive abilities are also being applied simultaneously with Blockchain platforms for protection of IPRs and musical rights of singers and musicians by detection and prevention of piracy.

⊙ **Serpentine robots for rescue operations:** Natural disasters like earthquake and

flood causing landslides, land caving and falling of houses buildings in huge heaps of debris with human beings trapped in those are now frequent events humanity is experiencing. Lots of precious lives are being lost and wealth being destroyed. Serpentine or snake robots help while conducting rescue operations by detecting living and other objects to be recovered. These are designed using a software like that of Google Sketchup. To attain capabilities of penetrating through small holes and moving ahead with flexible motions like that of a

snake, these robots are built with multiple actuatable joints. These provide multiple degrees of liberty in movements towards frequently changed directions. Some of such snake bots can also swim deep into water bodies.

These serpentine robots can be fitted with high powered sensors and cameras to detect living/biological substances with features of human beings, animals, explosives, precious items, etc. Bluetooth fitted into the robot can emit signals and send pictures to the connected computing device.

The handler of snake robot can use a remote-control device to instruct the robot to penetrate huge heaps of debris following a particular path, or swim into water bodies following her/his directions. Else the robot can also independently move ahead following the signals from the implanted sensors. Such serpentine robots thus can help saving hundreds of lives and recover desired objects by first spotting those and then sending signals and images for rescuing team to search the exact spot prompted by the robot.

## ROI from AI Projects

Readers by now must have understood that projects for digital transformation of operations with applications of various tools from the stable of artificial intelligence and robotic process automation is different from any other project in areas of information and communication technology. AI driven initiatives are largely dependent on collection of data of past and present periods, safely preserve those and use for the right cause. It would be worthwhile to quote here from an article of MIT's Sloan Management Review of August 2021 titled 'Achieving Return on AI Projects'. It writes:

*“Several surveys suggest a low level of returns thus far, in part because many AI systems were never deployed: A 2021 IBM survey, for instance, found that only 21% of 5,501 companies said they had “deployed AI across the business,” while the remainder said they are exploring AI, developing proofs of concept, or using pre-built AI applications. Similarly, a VentureBeat analysis suggests that 87% of AI models are never put into production. And a 2019 MIT Sloan Management Review/Boston Consulting Group survey found that 7 out of 10 companies reported no value from their AI investments. This makes sense: If there is no production deployment, there is no economic value”.*

The author of this article has made efforts to think through the above research findings which are not that encouraging. From the perspective of a finance professional, as the author is, success of AI based projects in all probability depends on certain factors which can be christened as '12Rs of Success' for digital transformation with AI Technology'. Those are:

- ⊙ Selection of the 1 Right AI Project and
- ⊙ executing the same using the 2 Right set of Data
- ⊙ for the 3 Right Purpose
- ⊙ at the 4 Right Time
- ⊙ with the 5 Right Analyses and MLs
- ⊙ deploying the 6 Right Tool(s)/ Software and
- ⊙ 7 Right Manpower
- ⊙ for generating the 8 Right Outputs
- ⊙ that are relevant for taking the 9 Right Decision and
- ⊙ updating past learning points at 10. Right Intervals with again the right set of data
- ⊙ at the 11 Right Cost
- ⊙ for the 12 Right Return.

Striking one single chord that resonates all the above 12Rs in an orchestrated manner is essentially a difficult task and that needs deployment the right manpower with requisite knowledge and experience. It needs intensive efforts for changing mind set and longstanding impacts of organisational genomics, setting aside legacies and ushering in the new policies and processes for digital transformation. At the organisation and CXO levels the following prerequisites are to be met before embarking on the journey:

- ⊙ Appropriate re-articulation of the vision and mission of the organisation subsuming the intent for digital transformation

of business duly aligned with business strategies,

- ⊙ Unwavering commitment for deployment of resources both in terms of finance and trained manpower,
- ⊙ Steadfast pledge for maintaining ethics and morality in data and AI project management as are followed for corporate governance of the entity,
- ⊙ Treat every single project as a separate profit centre with pre-defined result oriented KRAs and KPIs, including returns in tangible terms for close-circuit monitoring of progress and embedding the same into the balance score card of employees responsible for the project,
- ⊙ Excellent professional and working relationships between members of both data management and operating teams for collection, first-hand analysis, and preservation of data,
- ⊙ Successfully conduct change management and making human resources ready by training and development and creating an environment for continuous learning, unlearning, and relearning.

It may not be necessary for every organisation to internally manufacture products and develop/customise software with applications of artificial intelligence and robotic process automation befitting the organisational requirements. All these may be quite time consuming and expensive with involvement of considerable quantum of capital investments. Not all organisations can afford such large quantum of funds and wait for the development process to be completed before commercial exploitation starts. Thousands of startups all around the world are developing products, platforms and

customised application-oriented software which can be used for multiple purposes to meet multifarious business requirements. Glimpses of a few of these have been narrated in a preceding section of this article. Digital giants and consulting firms also provide services for implementation of digital technologies. Business organisations can collaborate with such startups adopting one or more of the following options:

- ⊙ Mergers and acquisitions of one or more startup entities which has developed such products and software,
- ⊙ Entering contractual arrangements for strategic alliance with mutually agreed terms and conditions,
- ⊙ Use manufacturing facilities of those entities with leasing arrangements and obtain annual licences for software use paying annual fees including for maintenance,
- ⊙ Participate in crowdfunding of identified startups whose products and software applications are found to be relevant and desirable for adoption once those are ready with condition for collaboration in future. Readers may read more about strategies and options for such crowdfunding in one of his article<sup>9</sup> published under this column, and
- ⊙ Engage digital giants and/or consulting firms for help and support during the journey of digital transformation with AI based projects.

Mindful adoption of one or more of the above strategies would help organisations to improve profit and profitability from such projects.

## Artificial Intelligence and Ethics

Any such article on digital technologies remains incomplete without discussions on the related

dimensions of ethics and risks. In the second half of his earlier article<sup>2</sup> the author has briefly dealt with such aspects related to digital transformation with AI and RPA. He would urge readers to refer the same. Another article is being ideated to cover these dimensions in more details and examples from real life, which can be published under this Column in near future.

## Conclusion

Artificial intelligence and robotic process automation is no longer a wishful thinking. Neither those can be wished away. Selective and cautious applications of these technologies would certainly be able to generate benefits for humanity, Business organisations, government agencies and large NGOs would have to adopt and move ahead with digital transformation including projects with applications of AI and RPA sooner and later. This hypothesis has affirmatively been proved already by many startups and digital giants like Google, IBM, Apple, Facebook etc. If startups can graduate to Unicorn status, why not established business can earn profit from digital transformation projects. Names of many such startups have also been referred in this article and the authors earlier articles.

It is never a desirable proposition that losses are incurred as have been suffered by many of the organisations covered in the research survey results and reported in the aforesaid article of MIT Sloan Management Review. The author is of the view that one or more extensive empirical research(es) should be conducted to understand and appreciate the reasons for not generating desirable results from such projects. The objective should be to find out reasons for such projects generating losses or less than desirable ROI. However certain measures have been suggested above by the author which commercial organisations may find useful to adopt for ensuring profit and profitability from AI and RPA based projects. MA

## Webliography and Bibliography

All these websites have been accessed during August 2021.

1. <https://docs.google.com/viewerng/viewer?url=http://www.innoventionians.com/wp-content/uploads/2020/04/8th-Monthly-Column-Digital-Transformation-April-2020.pdf>
2. <https://towardsdatascience.com/understanding-random-forest-58381e0602d2>
3. <https://www.ibm.com/cloud/learn/neural-networks>
4. <https://www.statista.com/study/50485/artificial-intelligence/>
5. <https://techcrunch.com/2020/07/12/microsoft-spins-out-5-year-old-chinese-chatbot-xiaoice/>
6. <https://techcrunch.com/2015/12/07/olly/>
7. <https://builtin.com/artificial-intelligence/examples-ai-in-industry>
8. <https://medium.com/syncedreview/ais-growing-role-in-musical-composition-ec105417899>
9. <http://www.innoventionians.com/wp-content/uploads/2020/12/16th-Monthly-Article-on-Digital-Transformation-December-2020.pdf>

# CORPORATE GOVERNANCE IN POST COVID ERA: ISSUES AND CHALLENGES

## Abstract

*Corporate governance is a buzzword not only at the national but at the international level as well. Corporate governance professionals and academicians have seen various challenges in the last couple of years because of Covid 19 pandemics across the globe. In this paper, an effort is made to look at a glance the challenges and issues that have emerged globally because of this pandemic. The paper aims to study challenges and issues relating to corporate governance in post covid era.*



**Dr. Ashish Joshi**

Associate Professor  
Pandit Deendayal Energy University  
Gandhinagar

[ashish.joshi@rediffmail.com](mailto:ashish.joshi@rediffmail.com)



**Prof. (Dr.) Hitesh Shukla**

Professor  
Department of Business Management  
Saurashtra University, Rajkot

[hshukla72@yahoo.com](mailto:hshukla72@yahoo.com)

## Introduction:

Corporate Governance has emerged as an important concept for the last two decades at the National and International Levels. The importance has further increased because as

of July 22, 2021 total of 4,744 Companies is listed in the Bombay Stock Exchange, which has a cumulative Market Capitalization of Rs. 2,33,94,917 Crore. This shows that a huge amount of money from various categories of investors is invested in these companies. Moreover, the various organizations, including Employees Provident Fund Organization, are also invested in the stock market.

The companies find conducting business in the midst of pandemics like Covid 19 is a considerable challenge. Globally, many governments handling Covid 19 outbreak have put varied restrictions. There are several risks and issues are faced by corporates. However, their extent and impact vary with the size and nature of the business. Some of the restrictions have put companies in complex challenges and questioned the business's survival in the new reality.

## Corporate Governance Challenges at a glance:

Because of Pandemic, several new Corporate Governance challenges have emerged. First Challenge is about the conducting board meetings as well as Annual General Meeting. Second challenge is administration and maintenance of security and confidentiality of records. Third challenge is business continuity, disaster recovery and safeguarding advance planning. Fourth challenge is about maintaining balance between dividend decisions, liquidity management and incentives to various stakeholders. Fifth challenge is about disclosure in context of prevailing act and listing regulations.

All five of the above are examples of what many corporates are dealing with in such situations at the moment.

The researcher and practitioner should revisit Corporate Governance practices considering the global pandemic. The First point is structured attention to stakeholders

as the pandemic has shown the importance of every stakeholder group to the company. The second is attention on Business – Society Intersect as it is proved that corporates cannot disconnect themselves from society at large. The third point is about comprehensive approach to compensation because the pandemic situation has led to significant income disparities. The fourth point is about deliberations on decision making because importance of qualitative judgment has significantly increased. The fifth point is about composition of board of directors in context of qualification, experience, achievements etc. The sixth point is about role of director as Covid-19 has made the director’s job far more challenging.

Various international agencies have conducted several rigorous interviews with various stakeholders like investors, pension fund managers, proxy advisors, and other corporate governance professionals.

The key trends predicted by the said agency for the year 2020 were as:

1. Greater focus on the Environmental and Social (E&S) aspect of Corporate Governance, i.e., Environmental, Social, and Governance (ESG) criteria.
2. The increasing importance of Corporate Purpose.
3. Better board oversight of corporate culture and Human Capital Management (HCM).
4. Diverse and expansive view of board diversity.
5. More comprehensive and more considerable activism of various stakeholders.

However, the Covid 19 pandemic has changed the scenario globally, and the revised global trends predicted for Corporate Governance are summarized under the following heads.

1. Risk of climate change.
2. Diversity, Equity, and Inclusion

**In India, there is a great concern about the “Independence” of Independent Directors in Indian companies**

(DE&I).

3. Convergence of Sustainability Reporting Standards.
4. Human Capital Management (HCM).
5. Return of activism and increased Capital Market Activity.
6. Virtual Board and Shareholder Meetings.

Because of the pandemic, new issues and challenges have emerged across the globe. Several business dynamics have changed, and new trends have emerged.

⊙ US and Canada:

Diversity, Equity, and Inclusion:

The investors and other stakeholders have indeed started demanding new disclosure in the context of diversity, equity, and inclusion.

ESG Oversight and Disclosure:

Several institutional investors have started focusing on the “E” and “S” aspects of corporate governance in the USA. The environmental, social aspects and climate change are gradually getting more focused attention of various stakeholders.

Human Capital Management and Corporate Culture:

In the USA, the Human Capital Management and Human Capital related expectations have significantly increased. The stakeholder’s inquisitiveness towards employee safety and retaining human capital has increased.

Executive Compensation: The scrutiny regarding executive pay and incentive in light of the circumstances faced by the company has been enhanced. The boards may consider the reputational risks, including executive compensation decisions, in the circumstances of tough financial targets.

In Canada, it is expected that the scrutiny on “say – on – pay” will be increased compared to previous years. The trend related to incentive plans may be continued in the coming years.

Technology and Cyber Security:

It is estimated that almost 60 percent of the GDP of the USA is directly or indirectly depends upon technology. It is estimated that companies will place enhance scrutiny on board oversight and disclosure around the risk.

Increased Capital Market Activity:

Shareholder activism as well as The Special Purpose Acquisition Company (SPAC) numbers have increased significantly.

Virtual Shareholder Meeting: The Multi-Stakeholder Working Group on Practices for Virtual Shareholder Meetings has codified several practices.

⊙ Brazil:

The year 2020 was more challenging for Brazil because of the pandemic. However, the Market Capitalization or the total value of all shares of all securities traded on the B3 - Brasil Bolsa Balcão was approximately USD 988374 Million in 2020.<sup>(1)</sup>

It was observed that the foreign institutional investors are reducing their investment in Brazil mainly because of environmental factors and negative outlook.

### ESG agenda:

In Brazil, the boards are not yet fully integrated, especially in the context of ESG related areas. There is an emergence of the ESG agenda in post covid era.

### Gender Diversity:

In Brazil, only 11 percent of directors are women directors, and therefore, pressure towards gender diversity may increase.

### Public Company Governance:

It is expected that post covid the Brazilian Corporates may need to increase their capital. Therefore, the boards need to garner enhanced practices in the context of corporate governance. In the future, the practice of hybrid AGM may emerge.

### Preferred Voting Rights:

In Brazil, several technology companies have argued

for preferred voting rights. However, investors may continue emphasizing the minority shareholder's protections.

### ⊙ European Union:

#### Climate Change and Other Environmental priorities:

The pandemic has changed entire European Union (EU). At the end of the year 2019, the EU presented the "Green Deal", and in the year 2020, saw the proposal of new climate law to reach net-zero carbon emissions by the year 2050.

#### Common standards in ESG / Sustainability Reporting:

It is expected that European Union Financial Reporting Advisory Group (EFRAG) is likely to release the report on revising the Non-Financial Reporting Directive (NFRD), mandating the use of a common set of standards. The EU Green Deal also has implications for financial as well as non-financial reporting.

It is expected that International Financial Reporting Standards

(IFRS) may incorporate guidance around climate risk in a significant manner.

### Shareholder Rights and Proposed Solutions:

In European Union, the Shareholder Right Directive II aims to increase the level and quality of asset owners as well as asset managers.

### Board Chair Independence:

It is expected that the Independence of European Union Boards is likely to face several challenges.

### BREXIT:

It may be possible that in 2021 the deal between UK and EU may see disruption and uncertainty.

### ⊙ United Kingdom:

#### Climate Change and Environmental Priorities:

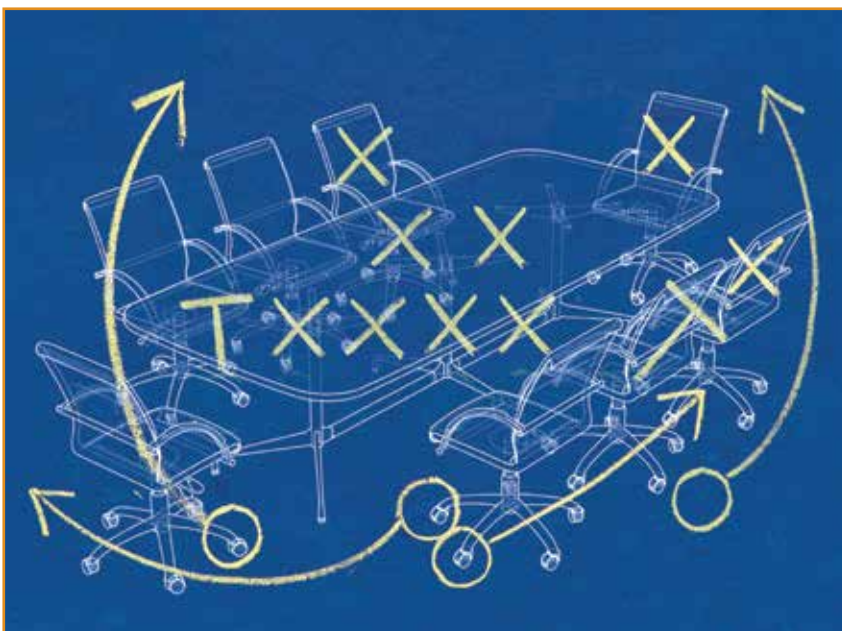
As there are not set global standards for Non-Financial Reporting, the Financial Reporting Council (FRC) of the UK has encouraged the UK companies to refer to the guidelines of the Taskforce on Climate related Financial Disclosure (TCFD) and Sustainability Accounting Standard Board (SASB).

### Diversity on Boards:

Recently the diversity on boards of the UK has increased significantly. This may be because of social justice protests in the UK and around the world.

### Social Justice, Equity and Inclusion:

Social justice has garnered greater importance these days. The investors do consider how companies have treated their employees, suppliers, and customers.



**Remuneration Scrutiny:**

In the UK, companies need to mention the outcome of the remuneration process due to Covid 19. Moreover, the operations-related aspects in Covid 19 also need to be mentioned in the communication to stakeholders.

**Shareholder Rights and Proposed Solution:**

The 2018 UK Governance Code was effective only for companies with effect from the fiscal year starting January 2019. However, it was noted that several new provisions were yet to be complied with by the companies.

⊙ **Asia Pacific:**

The Asia Pacific Region was also not spared from the Covid 19 pandemic. Hence the Corporate Governance practices here also have seen several changes. Some observations are as under:

⊙ **Australia:**

**ESG Inclusion and Board Accountability:**

In view of wildfires, several Australian Securities Exchange (ASX) companies have moved a long way and responded to environmental concerns. Because of the pandemic, the shareholders may focus on socially focused proposals.

**Remuneration:**

Some of the ASX 300 companies were hardest hit by the pandemic. These companies have announced a reduction in fixed as well as flexible pay of the directors.

**Diversity on Board:**

Some domestic and international investors have focused on ethnic and gender

diversity on the boards.

⊙ **Japan:**

Tokyo Stock Exchange is one of the leading stock exchanges in the world. It has approx. 2,300 listed companies with a combined market capitalization of US\$ 5.6 trillion in February 2019. <sup>(2)</sup>

A country like Japan is also not spared from pandemic-related matters, and they are also facing issues related to corporate governance related issues.

**Climate Change:**

It is observed that Japanese Companies have better reporting under Task Force on Climate-Related Financial Disclosures (TCFD).

**Independence:**

Because of awareness among various stakeholders, the independent director has witnessed a sizable increase in their overall proportion among all directors in Japan.

**Gender Diversity:**

The number of Japanese companies with Female directors increased from 45 percent in 2019 to 50 percent in 2020.

**Compensation:**

Japan has seen greater emphasis regarding the adoption of compensation plans linked to performance.

**ESG Shareholder Activism:**

Japan has released the revised stewardship code in 2020, which maintains the “Comply or Explain” approach.

⊙ **Singapore:**

The pre and post-pandemic

issues in the context of corporate governance can be narrated as under;

**Strengthening Board and Director Independence:**

The Singapore Exchange (SGX) list rules require at least one-third of the board members as Independent Directors. Moreover, there is also a time limit of nine years for serving on the same board.

**Stricter Auditor Regulations:**

With effect from February 2021, the companies listed in SGX need to appoint a local auditor approved by the Accounting and Corporate Regulatory Authority.

**Gender Diversity:**

Singapore corporates have moved forward in this direction of Gender Diversity. Singapore’s Ministry of Social and Family Development set 20 percent of women directors by 2020.

⊙ **Other Asian Countries:**

It was observed that in Hong Kong, the exchange listing rules became effective from July 1, 2020. The boards will even be questioned about the sustainability risk and strategy.

There is a strong focus on the “No Coal” policy in Korea, which led to many banks and energy companies declining Finance Coal related power projects in Asia.

In India, there is a great concern about the “Independence” of Independent Directors in Indian companies. There are several key issues faced by Indian corporates in post Pandemic eras like regulatory requirements, timely disclosure and effective communication with various stakeholders,



and ESG issues as well. Other issues concern with corporate governance includes regulatory issues regarding post lockdown, working capital, and capital infusion-related issues caused by Covid-19; the wellbeing of employees, key managerial personnel, the reputation of promoters, especially among the business and banking community; and issues regarding other liabilities.

### Conclusion:

From the perspective of corporate governance, it can be mentioned here that the Covid 19 crisis may trigger several changes in governance mechanisms in the long term. This may enable firms to either prevent or respond to the occurrences of potentially similar events. The importance of corporate governance was already increasing, but the

Pandemic of Covid-19 changed some of the Corporate Governance-related aspects significantly. The Environmental, Social, and Governance (ESG) integration has also accelerated the trend of factors into decision making by focusing both the role of business in confronting broader societal issues and the need for strong corporate governance. **MA**

### References:

1. *Rusty O'Kelley, Anthony Goodman, and Laura Sanderson, Russell Reynolds Associates, 2021 Global and Regional Trends in Corporate Governance Harvard Law School Forum on Corporate Governance, March 2021*
2. *Deloitte & Touche South Africa NED Programme, Post Covid 19: The benefits and challenges of virtual shareholder general meetings, September 2020*
3. *Sharad Abhyankar and Saranya Mishra, India: Corporate Governance In the Times of Covid -19, Modaaq.com, April 2020*

4. *Robert G. Eccles, Lessons From Covid-19 For Company Board Directors: Here is how to upgrade your Corporate Governance, Forbes, March 2021*
5. *William Kucera, Jodi Simala, and Andrew Noreuil, Mayer Brown LLP, COVID-19, and Corporate Governance: Key Issues for Public Company Directors, Harvard Law School Forum on Corporate Governance, April 2020*
6. *Price Water House Coopers, COVID-19: Some considerations relating to Corporate Governance, July 2021*
7. *Lynn S. Paine, Covid-19 Is Rewriting the Rules of Corporate Governance, Harvard Business Review, October 2020*

### Web Resources :

1. <https://knoema.com/atlas/Brazil/topics/Economy/Financial-Sector-Capital-markets/Market-capitalization>
2. <https://www.valuwalk.com/2019/02/top-10-largest-stock-exchanges/>



## THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(Statutory Body under an Act of Parliament)

### BANKING, FINANCIAL SERVICES AND INSURANCE BOARD

## ADMISSION

has started for the

- 5<sup>th</sup> Batch of the Certificate Course on Treasury and International Banking &**
- 5<sup>th</sup> Batch of Certificate Course on Credit Management of Banks &**
- 6<sup>th</sup> Batch of Certificate Course on Concurrent Audit of Banks and**
- 7<sup>th</sup> Batch of Certificate Course on Investment Management (Level - I) and (Level-III) Batch No. 2 in collaboration with NISM**

Please login to the BFSI portal for further details.

The link is stated as follows: [https://icmai.in/Banking\\_Insurance/Courses.php](https://icmai.in/Banking_Insurance/Courses.php)

For details please call the department:

**CMA Dibbendu Roy**  
Joint Director  
96434 43047 / 83686 93781

**Ms. Indrakshi Bhattacharya**  
Research Associate  
98302 49447

Please email to [bfsi@icmai.in](mailto:bfsi@icmai.in) for any queries

# INSTABILITY IN INDIAN STOCK MARKET IN THE BACKDROP OF ECONOMIC REFORMS: A CONCEPTUAL STUDY

## Abstract

*Stock market is an integral part of financial markets and a constituent of financial system. Performance of the stock market is a barometer of economic growth. A stable market with less volatility is expected to perform better in the short run. However, in the long run, a stable market may turn into a stagnant one since possibilities of speculation would reduce in such market. Out of several reasons that may cause instability in the market, economic openness is the most crucial one. In this backdrop, the paper is an attempt to set a theoretical underpinning on financial system and financial market from global and Indian point of view with special reference to the stock market operations in the country. The paper also delves into the reasons and possible solutions of stock market instability in the backdrop of economic interdependencies among countries.*



### Dr. Mitrendu Narayan Roy

Assistant Professor, Goenka College of Commerce and Business Administration & Visiting Faculty,  
Department of Commerce  
University of Calcutta, Kolkata  
[mitrenduroy@gmail.com](mailto:mitrenduroy@gmail.com)



### Professor (Dr.) Siddhartha Sankar Saha

Professor, Department of Commerce  
Director, CUCSE-CEFM & IQAC  
University of Calcutta, Kolkata  
[drsiddharthasxc@gmail.com](mailto:drsiddharthasxc@gmail.com)

## 1. Introduction

*“The world has witnessed unprecedented economic globalisation over the past few decades in terms of movement of goods, finance and labour. With rapid globalisation, the world has become much more independent. This has also heightened the risk of social, economic and environmental shocks spreading from one country to another with adverse effects and increased economic insecurity”*

--- United Nations Report (2010).

**L**iberalization, Privatization and Globalization (LPG) are the three pivot constituents of modern economic system. Limiting restrictions in foreign participation and deregulation in the domestic market paved the way for openness of the financial markets, especially in the emerging economies. It resulted in (a) removal or deregulation of differential pricing of financial assets; (b) changes in operating framework of monetary policy; (b) a shift from controlled supervision to market driven pricing mechanism; (d) changes in the foreign exchange laws, accounting standards, corporate governance policies and banking supervision norms. It also facilitated free flow of capital from one country to another and even within domestic boundaries. Investors got access to the global financial market. Infrastructural and technological advancement due to the financial influx also developed the domestic market. In India, significant reforms were initiated in 1991 that can be regarded as the year when Indian economy was made open to the world. The reforms were undertaken broadly in the form of free pricing, improvement in payment and

settlement mechanism, participation in the foreign market and introduction of new financial instruments (RBI Report, 2007). However, with Indian financial market going global, financial interdependencies among economies also led to instability in the financial market. Hence, policymakers who are entrusted with the responsibility of maintaining market stability are becoming increasingly interested in studying the level of volatility in the stock market which is believed to be a barometer of the financial market (Gallo and Otranto, 2004). The study is therefore an attempt to provide constructive insight into financial market operation in the country with special emphasis on stock market stability.

## 2. Financial System and Market: A Review

### 2.1 Structure of the Financial System

Financial system provides a bridge between the savings surplus unit (current income exceeds current expenditure) and the savings deficit unit (current expenditure exceeds current income)

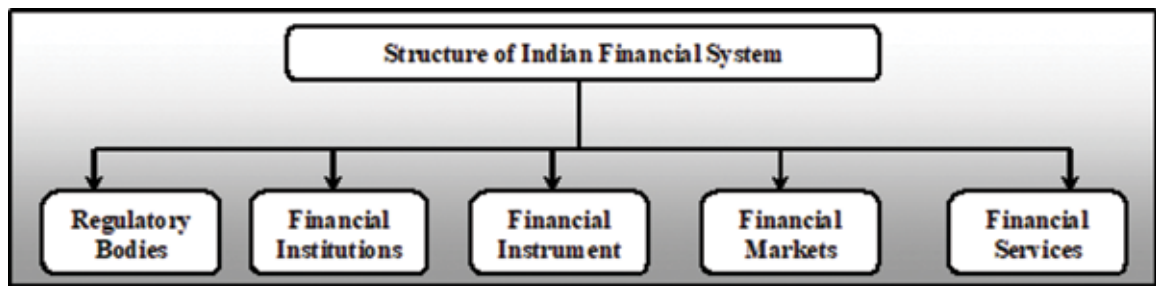
in the economy by providing the former with the opportunity to transfer capital funds to the later. While the structure of the financial system in different countries is inherently similar, they may differ based on the economic condition of the respective country. Basically, financial system plays a critical role in mobilisation of savings, allocation of the same to the productive units and thereby facilitating economic growth. Domestic savings include savings mobilised from household, Government and private sector which can be utilised for production of goods and services that will ultimately add up to the Gross Domestic Product (GDP) of the country (Saha, 2021). It ensures mobilisation of savings in an efficient way and provides a liquid market for the borrowers with easy access to funds. It also offers the investors with short term and long term investment opportunities and invokes their greater participation in the market by issuing securities of smaller denomination (Bencivenga and Smith, 1991). Financial system also provides the investors with the opportunity of diversifying the unsystematic risk of their portfolio by letting them

have their exposures in a number of investment opportunities. The financial intermediaries, an integral part of the financial system also plays an important role in this respect (Obstfeld, 1994). Financial system also ensures efficient allocation of scarce capital resources over productive avenues by assessing the pertinent information in the market. In fact, financial institutions are more efficient in evaluating such market information as compared to individual investors (King and Levine, 1993). Stock market, which is a fundamental segment of the financial market and constituent of the financial system, provides liquidity to the corporate investors (Nieuwerburgh, Buelens, and Cuyvers, 2006).

### 2.2 Indian Scenario

In India, financial system implies a set of complex and interrelated factors organised in a particular form to deal with the financial issues in the economy. Regulatory bodies, financial institutions, financial market, financial instruments and financial services are the major components of this system.

Exhibit 1: Structure of Indian Financial System



(Source: Adapted from Saha, 2021, p.14)

While financial system with respect to a country prevails in international, regional and organisational level, it is primarily classified under formal and informal sector. The formal sector is regulated by independent bodies that govern different areas, such as banking [Reserve Bank of India (RBI)], capital market [Securities and Exchange Board of India (SEBI)], insurance [Insurance Regulatory and Development Authority (IRDA)] and other service sectors. They work in tandem with the concerned ministries of the Government [Ministry of Finance (MoF), and Ministry of Corporate Affairs (MCA)] that regulate

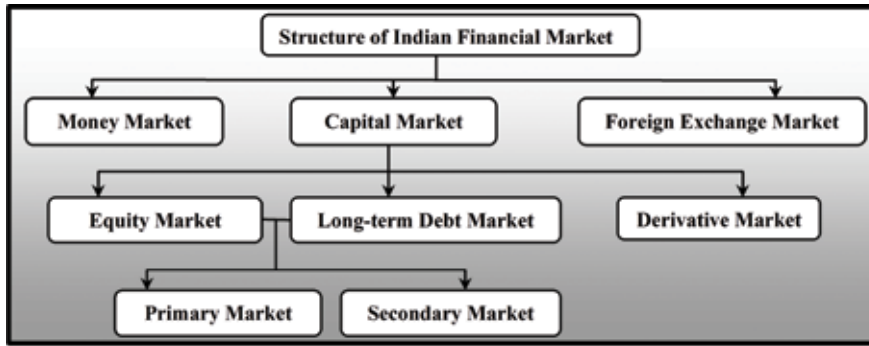
the financial sectors (Pathak, 2008).

### 3. Financial Market: A Concept

Financial market is a physical or virtual platform where financial assets are created and transferred among market participants. It is broadly classified into money market, capital market and foreign exchange market. Regulatory bodies (e.g. MoF, MCA, RBI, SEBI, IRDA, etc.) control financial market operations. While securities with maturity of less than one year is traded in money market (call money, T-bill, commercial paper, certificate of deposit, and Repo), securities with maturity of more than

one year is traded in capital market (equity share, corporate or Government debt and derivatives). Capital market, however, can be classified into primary and secondary market. While securities (equity and debt) are first issued in the primary market, they are traded in the secondary market. In fact, secondary market provides liquidity to the existing investors, without generating new capital. The entire operations in the financial market is actually facilitated by the financial institutions which have an important role in channelling long term and short term resources for commerce and industry.

**Exhibit 2: Structure of Indian Financial Market**



*(Source: Adapted from Saha, 2021, p.14)*

After the introduction of economic reforms 1991, an enhanced corporate performance was solicited to uplift the country’s economy to the world in the backdrop of liberalisation. Naturally, a few of the menace of pre-reforms era, such as price controls, entry barriers, transaction restrictions, high transaction costs and low liquidity, have been done away with to give the financial market a breather to reconstruct India’s economy. Phasing out of the administered pricing mechanism, removing barrier restrictions, introducing new instruments, establishing an institutional framework, upgrading technological infrastructure and ensuring transparent market practices were some of the reforms introduced in that era that shaped the market in its present form (Saha, 2021).

**4. Stock Market: An Insight**

**4.1 Basic Structure**

The segment of the capital market where financial securities are first issued is known as primary market. While the market is instrumental in mobilisation of financial resource, it does not provide liquidity to the market players. With a view to facilitating this benefit to the investors, a secondary market is in place as an integral part of the capital market where investors have the opportunity to

trade on the existing financial securities listed in designated stock exchanges or over-the-counter (OTC). Hence, the secondary market, more colloquially known as the stock market is a virtual platform where investors based on their risk/return perception trade on the existing financial securities with the help of the market brokers and host of intermediaries who assist in clearance and settlement procedure. While OTC markets are informal markets where all spot trades take place with immediate payment and delivery, trades on securities listed in designated stock exchanges are settled on T+2 rolling settlement cycle with effect from April 2003 (SEBI, 2018).

**4.2 Stock Exchanges**

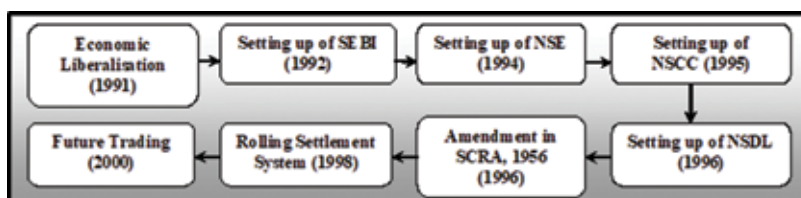
Currently, there are nine stock exchanges operating in India, out of which the Bombay Stock Exchange Ltd. (BSE), National Stock Exchange of India Ltd. (NSEIL) are permanent stock exchanges where securities are traded. The SEBI has granted exit to a host of stock exchanges operating in different parts of India including OTC Exchange of India (OTCEI) over the period of 2013-2018. Union Government by the power vested by the constitution regulate the functioning and trading of the stock exchanges and protect the interest of the investors based

on Securities Contracts Regulation Act (SCRA) 1956 (as amended by the Finance Act 2017) and Securities Contract Regulation Rules 1957. The legislative jurisdiction for stock exchanges include (a) recognition and regulation of stock exchanges; licensing dealers; (b) recognition of contracts; (c) controlling speculation; (d) restricting rights of equitable holders of shares; and (e) empowering Government to compel a public limited company to get their shares listed with the stock exchanges.

**4.3 Stock Market Reforms**

The foundation of economic liberalisation in Indian economy was set in 1970 by relaxing certain controls on the industrial sector (e.g. modification of licensing procedures; relaxation of the provisions of Foreign Exchange Regulation Act (FERA); freedom in fixing issue price, etc.). Since then only banks have fulfilled the long term financial needs of the economy. Following economic reforms in 1991, the financial requirement for expansion, modernisation and diversification of corporate entities could not be met by banks and other financial institutions which prompted the corporate entities to enter capital market. It led to tremendous growth in the resource mobilisation and a spurt in the number of companies going public.

**Exhibit 3: Important Milestones in Indian Stock Market in Post-Liberalisation Era**



*(Source: Compiled by the Authors)*

With a view to coping with the growing demands for issue management by the companies, commercial banks and other financial consultancy firms entered the domain of merchant banking. With the entry of foreign institutional investors (FIIs) and venture capital firms (VCs), euro-issues, free pricing, new trading practices, spurt in the number of stock exchanges, entry of new players, such as private sector mutual funds (MFs), the market reached new heights. In 1992, SEBI Act was passed repealing the erstwhile Capital Issues (Control) Act 1947 and the SEBI was established to regulate capital market operations. A paradigm shift was observed in trading mechanisms with modern technological interventions. The NSE in 1994 introduced nationwide fully automated screen based trading system (SBTS) replacing the then open outcry system. The National Securities Clearing Corporations (NSCC) and was set up in 1995 to facilitate clearing and settlement mechanisms. With a view to ensuring free transferability of shares through de-materialised trading, Depositories Act 1996 was passed and National Securities Depository Limited (NSDL) and Central Depository Services Ltd. (CDSL) were set up. Rolling settlement mechanism was introduced in 1998 substituting the erstwhile *badla* system for the dematerialised segment of all the companies. In 2000, trading on futures was started in bourses. A wide range of innovative and hybrid instruments such as index futures, stock futures, index options, stock options, currency futures (introduced in 2008), interest rate futures (introduced in 2009) have been introduced from time to time allowing the investors to hedge their risk exposures. Corporatization and demutualisation of stock exchanges (2001), establishment of investor education and protection fund (IEPF) (2001 by the MCA, Government of India), launch of volatility index (2008 by the NSE), allowing direct market access (DMA) to institutional investors (by the SEBI in 2008), launch of securities lending and borrowing scheme (2008) were some of the major reforms in the securities market (Saha, 2021).

#### 4.4 Stock Market Scandals

While reforms in capital market ushered new era in Indian economy, it was not devoid of malpractices and scams carried out by a few unscrupulous persons in India. Since 1990, a series of market scandals led to financial distress to small investors, eventually driving them away from the market. A few infamous cases of insider trading and fraudulent and unfair trade practices that pointed out the inadequacies and inefficiencies of stock market and questioned its stability in the long run are highlighted as follows (Saha, 2021):

- (a) **Harshad Mehta Scam (1992):** Mr. Harshad Mehta, a renowned stock broker committed this systematic stock fraud of more than Rs. 1000 crores using bank receipt and stamp paper. The scam resulted in decline in BSE 30 Index (SENSEX) from 4500 to 2500 representing a loss of Rs. 1 lakhs crores in market capitalisation.
- (b) **Ketan Parekh Scam (2001):** Mr. Ketan Parekh, another renowned stock broker artificially triggered the prices of certain chosen securities using large sums of money borrowed from a bank, in which he himself was a director.
- (c) **Satyam Scam (2009):** Satyam Computer Services Ltd. a major Information Technology (IT) company in 2008 charged for its involvement in a \$140 billion fraud involving misappropriate of cash in their acquisition of Maytas and creation of many fake invoices and customers to inflate their revenues and earnings. Their statutory auditors were also suspected of faulty review of financial statements. Satyam share price plunged by 97.6% in BSE leading to a total loss market capitalisation to the extent of Rs. 1 lakhs million.

#### 4.5 Stock Indices

Stock market is an integral part of the financial market and a constituent of the entire financial system where shares of the listed companies are traded. However, in order to measure

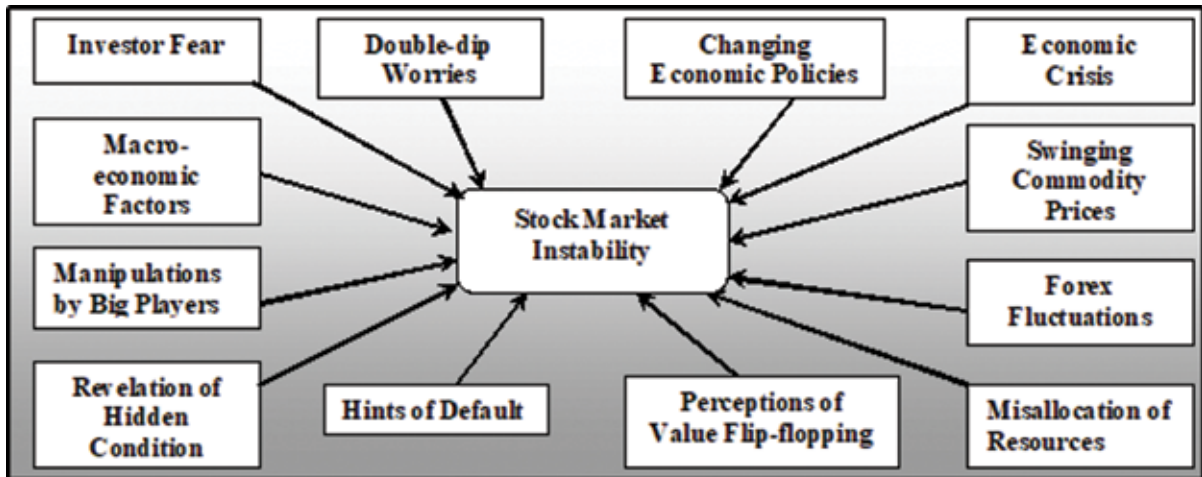
the stability of the stock market at a particular point of time, it may not be feasible to take an account of all the securities being traded. Hence, a stock index is developed for the entire stock market or a segment thereof. The index is nothing but a relative change in weighted average values of a set of stock selected arbitrarily in the current period as compared to a base period. As an index captures the movement of well diversified and highly liquid stocks, it reflects the behaviour of the entire equity market, works as a benchmark to portfolio performance, and diversifies risks of index based securities. While the inception of stock index dates back to 1896 with Dow Jones Industrial Average, there has been a paradigm shift in stock indices over the passage of time. Standard & Poor's (S&P) 500 (USA), Shanghai Stock Exchange (SSE) Composite Index (China), Nikkei 225 (Japan), Dax Performance Index (Germany), etc. are some of the notable global stock indices. In India, S&P BSE Sensitivity Index (SENSEX) and CNX Nifty are two most popular stock indices that typically belong to the BSE and the NSE respectively (Saha, 2021).

### 5. Stability of the Stock Market

#### 5.1 Reasons behind Instability in the Market

Stability and volatility are the two sides of the same coin. A stable market is comparatively less volatile and vice versa. Investors' reaction and psychology towards available market information impact the volatility in the market. However, presence of a strong regulatory framework, stringent legal provisions and investor grievance redressal system has strong influence on investor sentiment towards creation of a stable market (Sehgal, et al., 2009). Investors' fear of losses in the adverse market conditions, mixed reaction of risk-aggressive and risk-averse investors (double-dip worries), changes in economic policies of the Government, severe economic crisis, swinging commodity prices, crude oil price shocks, foreign exchange fluctuations, misallocation of the resource mobilised from the market etc. are the possible reasons behind volatility in the market.

**Exhibit 4: Reasons behind Stock Market Instability**



*(Source: Compiled by the Authors)*

In addition to that, perceptions of value flip-flopping, hints of a default, revelation of hidden conditions, and manipulation by big players often cause instability in the market (Nisha, 2014). Stability of the stock market also depends on the relationship between stock returns and macro-economic forces, such as money supply, inflation, industrial production, and so on (Panetta, 2002).

**5.2 Global Environment**

In the last two decades, the world has seen quite a few dramatic developments in the international financial market, such as abolition of fixed exchange rate regime, growing internationalisation, growing volume of international transactions, tremendous growth in international credit, better travel and communication system, transformation in the international monetary system, and so on (Hanley and Lloyd, 1978). These developments have paved the way for economic interdependencies and affected the relationships among security prices from different countries. If the stock returns in different countries are less correlated, it facilitates portfolio diversification across international boundaries. However the correlation matrix of cross-country security returns should be fairly stable over different time periods (inter-temporal stability) to facilitate forecasting and reaping the benefit of diversification (Kaplanis, 1988).

**5.3 Indian Environment**

India initiated economic reforms in 1991. Since then, Indian economy has opened its avenues for global investors and Indian investors entered into multilateral trade agreements. In the last seven years, cumulative net foreign portfolio investment (FPIs) is showing an increasing trend registering a compounded annual growth of 14.28% (SEBI, 2017). This results in dependence of Indian equity market on their global counterparts. It was realised that Indian economy cannot be kept separate from the global headwinds like changing interest rates of Federal Reserve (US), credit crisis in the Europe, ‘Greek contagion’, cooling off of Chinese economy, etc. Thus as the world economy changed, Indian stocks were greatly affected. Naturally, instability in global capital markets was quickly passed on to the Indian bourses resulting in volatility here. In 2008, sub-prime worries in the United States (US), cooling off of the US housing market, reduction in FPI flows led to instability in Indian market. In the post-crisis era, however, global economy is growing at a rate which was faster than expected. Emerging economies are experiencing robust recovery with strong internal demand and rebound in global trade. However, fiscal vulnerabilities still pose a cause of concern. While 2007 was the year of worst performance for Indian economy, the fundamentals and growth were still intact. Despite a hardening of market interest to curb inflation, a

rebound in corporate activity helped put back Indian economy in its previous state. However, increase in dividend distribution tax and excise on cement in the budget of 2007-08 negatively affected market sentiment.

**5.4 A Few Suggestions to Improve Stability**

In the current scenario, the indecision with respect to market movement calls for the large cap organisation to maintain a stable track record of growth and margin. Long term product viability, good corporate governance practices, visibility and scalability of the business increases the stability of prices of large cap stocks and the stability of stock market as a whole (Soundararajan, 2010). Indian financial system has made a remarkable progress towards maintaining stability of the stock market. However, the market still suffers from vulnerabilities and incongruities due to inter-linkages among economies. Worsening asset quality of the banking sector and pressure on liquidity are also adding up to the worries. Refinancing infrastructure loans through capital market may alleviate pressure on banks. However, banks are resilient to these adverse shocks and in the near term stability of the market should not be cause of concern. Stability of the stock market is directly linked with its liquidity positions. Hence, the market should promote fixed income securities. Banks should also reduce holding of Government bond in line with

international liquidity requirements with a view to upgrading corporate insolvency framework. Financial institutions participating in the market should gradually reduce their holding in Government securities and allow greater access of domestic and foreign players towards productive economic activities to ensure sustained growth. Finally, stability of the stock market depends upon the regulatory structure of the country. While the regulatory and supervisory regime is well structured in line with the international standards, there is still room for improvement with respect to independence of regulatory agencies; stringent supervision of financial conglomerates; reduction in exposure to related-party transactions; valuation and solvency requirements in insurance contracts; independence of auditors and rating agencies; and strict monitoring of corporate compliance with accounting, reporting and auditing standards (IMF, 2017).

## 6. Conclusion

The need for liberalisation, globalisation and privatisation was felt by the global leaders quite a few decades back. Since then developed and emerging economies had actively participated in multilateral trade agreements, foreign direct investments and foreign portfolio investments. Lax regulatory norms, technological advancement in reducing communication barriers also led to a massive cross country flow of funds. Since a considerable proportion of this fund had been channelled through stock market, it had also upgraded itself to keep up to the change. Naturally, performance of the stock market today is not influenced only by the macroeconomic headwinds, but also by other externalities originating in other countries. The policy markers of a particular country should be cautious about possible shocks in the domestic market arising out of global crisis and should take adequate measures for its aversion in the long run. India, being one of the emerging economies of the globe initiated the process of liberalisation in 1991. Since then, its participation in global stock markets has increased significantly. Indian stock markets have also adapted to this change. Probably because of these reasons, even during

## Policymakers who are entrusted with the responsibility of maintaining market stability are becoming increasingly interested in studying the level of volatility in the stock market which is believed to be a barometer of the financial market

global economic crisis that originated in the US, India was able to maintain the stability of the stock market to a satisfactory level. **MA**

### References

1. Bencivenga, V., and Smith, B. (1991). *Financial Intermediation and Endogenous Growth. The Review of Economic Studies*, 58(2), 195-209.
2. Gallo, G. and Otranto, E. (2004). *Contagion and Interdependence in Financial Markets: A New Approach. FEDRA Working Papers*.
3. Hanley, R. and Lloyd, W. (1978). *An Examination of the Stability of the Inter-temporal Relationships among National Stock Market Indices. Nebraska Journal of Economics and Business*, 17(2), 55-65.
4. IMF (2017). *Country Report No. 13/8. India: Financial System Stability Assessment Update. Accessed from <https://www.imf.org/en/Publications/CR/Issues/2016/12/31/India-Financial-System-Stability-Assessment-Update-40231> on 04-05-2019*
5. King, R. and Levine, R. (1993). *Finance and Growth: Schumpeter might be Right. The Quarterly Journal of Economic*, 108(3), 717-737.
6. Nieuwerburgh, S., Buelens, F. and Cuyvers, L. (2006). *Stock Market Development and Economic Growth in Belgium. Exploration in Economic History*, 43(1), 13-38.
7. Nisha (2014). *Stock Returns and Volatility: A Study of Indian Stock Market (Ph.D. Thesis). Department of Commerce. Maharshi Dayanand University. Rohtak.*
8. Obstfeld, M. (1994). *Risk-taking, Global Diversification and Growth (No. w4093). National Bureau of Economic Research.*
9. Panetta, F. (2002). *The Stability of the Relation between the Stock Market and Macroeconomic Forces. Economic Notes by Banca Monte dei Paschi di Siena SpA*, 31(3), 417-450.
10. Pathak, B. (2008). *The Indian Financial System. Pearson Education India.*
11. RBI (2007). *RBI Report on Financial Market Integration.*
12. Saha, S. (2021). *Indian Financial System: Financial Markets, Institutions and Services (2nd Edition). Chennai: McGraw-Hill.*
13. SEBI (2017). *Handbook of Statistics on Indian Securities Market.*
14. SEBI (2018). *Master Circular – Chapter 3: Settlement. Accessed from [https://www.sebi.gov.in/sebi\\_data/commndocs/apr-2018/Chapter%203\\_p.pdf](https://www.sebi.gov.in/sebi_data/commndocs/apr-2018/Chapter%203_p.pdf) in June 2019.*
15. Sehgal, S., Sood, G. and Rajput, N. (2009). *Investor Sentiment in India: A Survey. Vision – The Journal of Business Perspective*, 13, 13-23.
16. Soundararaj, K. (2010). *Evaluation of Stock Market Volatility and Seasonality Effect in Bombay Stock Exchange and National Stock Exchange (Ph.D. Thesis). Alagappa Institute of Management. Alagappa University. Karaikudi.*
17. United Nations (August 2010). *UN General Assembly Report (65th Session). Accessed from <https://www.un.org/en/ga/65/meetings/mauritiusrview.shtml> on 02-05-19*

# EMPLOYEE STOCK OPTIONS SCHEME IN INDIA: SOME REFLECTIONS AND THE WAY FORWARD

## Abstract

*Employee Stock Options Scheme is widely used by companies as part of employee retention and compensation strategy. With the growth in number of start-ups in India, popularity of such schemes has further increased. The aspects of taxation, compliance and accounting treatment must be further eased out to build confidence of all stakeholders in this lucrative alternative of boosting productivity, efficiency and effectiveness in Indian organizations.*



**Prof. (Dr.) Ambuj Gupta**

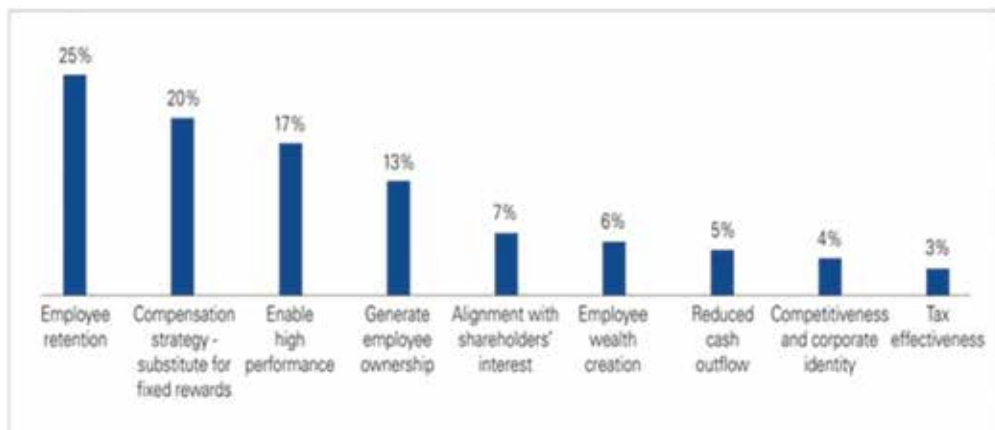
Professor

Kirloskar Institute of Advanced Management Studies  
Pune

[gupta.ambuj@gmail.com](mailto:gupta.ambuj@gmail.com)

The Employee Stock Options Scheme has been widely acknowledged across the world for enhancing the productivity, efficiency and effectiveness of the organizations. This happens through retaining the top talent in the organization. According to India's ESOP Survey 2021 by the consulting firm KPMG, 25 percent of organizations use ESOPs as employee retention strategy. Then, there are other objectives in line, viz. compensation strategy, enabling high morale and performance, generating employee ownership, aligning with shareholders' interest, employee wealth creation, reduced cash outflow, competitiveness and maintaining corporate identity and tax effectiveness. See Figure 1 for percentage of companies giving weightage to these objectives for institutionalizing ESOP schemes in their organizations.

**Figure 1: Objectives of ESOP Schemes in India**



Source: 'KPMG in India's ESOP Survey 2021'



A closer look at the statistics and trends associated with adoption of ESOPs in India revealed that two-third of listed companies and one-third of unlisted companies have offered ESOPs till now. If we refer to IT companies, a majority of employees are being given ESOPs with time-based vesting. In a recent development, Infosys - the Indian IT major decided to extend the employee stock options to even lower levels of hierarchy. (May, 2021) In non-IT companies, ESOPs are mainly offered to senior and middle management employees, usually with performance based vesting. With reference to the mode of structuring ESOPs, more companies prefer a direct route (without an ESOP trust). The biggest challenges for Indian companies rest with management of ESOPs, keeping proper records and regulatory compliance including third-party administration.

On the other side, an investigation into employees' behaviour and perception about ESOPs unfolds that Indian employees' prefer to exercise the vested options early, mostly after one year as beyond one year, tax on long-term capital gains can be free, subject to some conditions. The awareness and acceptance for ESOPs is also found low as most of the employees find it complicated and usually don't ask for ESOPs from their employers. Even if, they are offered ESOPs, they are not ready to sacrifice and take a cut in their salaries in lieu of ESOPs.

### ESOPs in Indian Start-up Ecosystem

The Indian start-up ecosystem is booming particularly after the government announced 'Start-up India, Stand-up India' scheme in 2016 to support entrepreneurship through various government incentives. India is now home to 21 Unicorns valued at \$73.2 billion. Also, Indian start-ups are likely to contribute \$ 1 trillion in the Indian dream of \$5 trillion economy

## The biggest challenges for Indian companies rest with management of ESOPs, keeping proper records and regulatory compliance including third-party administration

by 2025. In this bandwagon, ESOPs also found favour from government and start-ups were allowed to offer ESOPs to even those promoters & directors which are holding more than 10 percent of the outstanding equity share capital of the company, which is otherwise not allowed in non-start-ups. Further, start-ups are now making larger ESOP pools (from 10 percent to 15-20 percent) at a much earlier, even pre-Series A level. Some start-ups are also offering much longer holding period for exercise of options post vesting period, up to the happening of the liquidity event.

If we look into the success stories of ESOPs in the context of Indian start-ups, the \$16 billion sale of Flipkart to Walmart in 2018 is the biggest one in which a Flipkart employee owning 10,000 shares made \$1.25 million at \$125 per share post-Walmart deal. Another case worth mentioning is to that of Udaan. The employees who joined the newly formed start-up Udaan had earlier worked with Flipkart, so they accepted ESOPs even to the extent of 50 percent, in lieu of their cash salaries. Also, the three Udaan founders also set an example by accepting ESOPs in lieu of cash salaries. The results were seen in the form of higher valuation of Udaan (\$2.8 billion) at a much faster pace as the company could invest the cash saved, back into the business.

### ESOP Buyback

The trend of ESOP buyback began in 2018 when Flipkart completed a 100 percent buyback of vested

ESOPs. In case of an ESOP buyback, employees sign a letter in agreement to forfeit their vested ESOPs and, in return, company provides them a salary bonus that is equivalent to the current price of the number of shares under vested ESOPs. Employees are required to add this money into their income and pay tax as per prevailing income tax rates. Also, employees get premium under ESOP buyback programme particularly when founders want to replenish the ESOPs pool without diluting the shareholding of the company further. Table 1 gives the glimpse of the popularity of ESOP buyback programme in start-ups.

### ESOPs Taxation in the hands of Employees

The tax treatment of ESOPs in the hands of employees is within the context of whether the company is listed or unlisted. For listed companies, it is the exercise price which is deemed as a perquisite at the time of allotment, however for all unlisted companies, it is taxed at fair market value (FMV) determined by a category 1 merchant banker registered with SEBI. Accordingly, for transfer of shares, in case of listed companies it is the difference between sale price and exercise price which is taxed while for unlisted companies, the difference between the sale price and fair market value (FMV) is determined for taxation.

There are issues with the income tax treatment of ESOPs. When share price dips after the allotment of shares under vested ESOPs, an employee not only faces a capital loss, but also such employee finds to have been paid the higher perquisite tax on the notional gain realized at the time of allotment of shares. Further, in case of a start-up, if start-up fails later, there is a further capital loss and loss of value. There has been demand from various section of employees that tax should be charged on the liquidity event or sale of shares only.

Table 1: ESOP Buyback Programme in Start-ups in India

Date	Start-up	Important Details	Quantum of ESOP Buy-back	Employees Impacted
<b>2019</b>				
Sep 2019	Moglix	Online B2B industrial goods marketplace, Senior employees	\$1 to 2 Mn	25
Nov 2019	CarDekho	Automobile start-up, employees who served 4 years and holding ESOPs	\$3.5 Mn	71
<b>2020</b>				
Mar 2020	Unacademy	Edtech start-up, cash out 25% to 100% of vested options	\$5 to 6 Mn	145
Apr 2020	CarDekho	Second ESOP repurchase plan, cash out 50% of vested options	\$3.5 Mn	100
Sep 2020	Zerodha	Online Brokerage Firm offered ESOP buyback programme as a 10-year anniversary gift	\$13 to 14 Mn	700
Oct 2020	UrbanCompany	Online On-demand home services platform	\$5 Mn	183
Nov 2020	Razorpay	India's first converged payments solution company, upto 30% of vested options	\$4 Mn	400
Nov 2020	PharmEasy	Online pharmacy, to instill confidence in staff amidst the COVID-19 pandemic	\$3 Mn	40-45
Nov 2020	Oyo	Online hotel booking start-up, mostly entry and mid-level employees	\$20 Mn	600

From financial year 2020-21, a new amendment has been introduced with reference to income tax calculation. An employee who gets ESOPs from an eligible start-up is not required to pay tax in the year of exercising the option, rather, this 'perquisite' tax can be deferred to earlier of any of the following events: (1) expiry of five years from the year of allotment of ESOPs, (2) date of sale of ESOPs by the employee, or (3) date of termination of employment. This is a step in the right direction, but the limitation with this amendment is that tax benefits on ESOPs are available to only those start-ups which fulfil the following conditions:

- ⊙ Start-up must have been incorporated between April 1, 2016 and March 31, 2022
- ⊙ Total turnover of the start-up must be less than \$ 15 million for the year in which benefit is availed
- ⊙ Start-up must be certified as eligible start-up by Inter-Ministerial Board (IMB) of the Government of India

There are around 38000 start-ups in India which are recognized by the Department for Promotion of Industry and Internal Trade (DPIIT), however, only 264 start-ups would be eligible to avail the tax benefit on ESOP, for being certified by IMB. Also, the new amendment is only a relaxation on taxation of ESOPs but not actually a tax exemption.

#### ESOPs and SEBI-Capital Market Compliance

All listed companies are required to comply with SEBI (Share-based Employee Benefits) Regulations, 2014. For implementation of ESOP scheme, shareholders' approval is required through special resolution of the board. For administration, a compensation committee with three or more non-executive directors is to be constituted. If scheme is administered through Trust, then to maintain sanctity of Trust, necessary compliance is required with SEBI (Prohibition of Insider Trading) Regulations, 2015. Finally, an Auditor's Certificate is to be presented in the Annual General Meeting for all

compliances done by the company.

#### ESOPs and Company Law Compliance

All public and private companies are governed by Companies Act (2013) and Companies (Share Capital and Debentures) Rules, 2014. The term 'employee' excludes independent directors, promoters, consultants, directors holding directly or indirectly more than 10 percent of the issued capital. A minimum period of one year is mandated between grant of options and vesting of options. In Director's report, detailed disclosures are required. The value of shares purchased with the loan granted by company to the ESOP Trust, can't exceed 5 percent of the paid-up share capital and free reserves of the company. The constitution of Trustees is prescribed to ensure independence of Trustees.

#### ESOPs and Accounting Treatment

As per Ind AS 102 (the IFRS converged reporting standard applicable to listed companies and

non-listed companies that meet a certain turnover criteria) notified by the Ministry of Corporate Affairs (2015), companies have to mandatorily do accounting and reporting of ESOPs by Fair Value Method (FVM).

For companies below a threshold level of turnover, companies have option to choose between Intrinsic Value Method (IVM) vs. Fair Value Method (FVM) as per 'Guidance Note on Share-based payments (2005)' issued by the Institute of Chartered Accountants of India (ICAI) - the apex body of chartered accountants in India. Most companies tend to adopt the intrinsic value approach as it results in lower accounting charge, but if company is growing and it is soon likely to transit to Ind-AS, the charge to income statement might change considerably, including allowance for a large one-time charge for all the unvested ESOPs, which might have been accounted for an intrinsic value basis till date. This is certainly a cumbersome process.

### ESOPs and Indian Public Sector

The public sector banks in India still commands a substantial share of the banking landscape. However, these banks lag considerably in performance metrics when it is compared to their peers' private banks. Employees in these banks, who are paid fixed salaries, have to be given performance-based ESOPs to incentivize for good performance. (Economic Survey, 2020)

Further, the guideline from the Department of Public Enterprises (DPE) which is the nodal department for all the Central Public Sector Enterprises (CPSEs) and formulates policies pertaining to CPSEs, states that 10-25 percent of performance related pays should be paid in the form of ESOPs to public sector employees which is under different stages of implementation.

### ESOPs in COVID Pandemic

During Covid times, companies have been found conserving cash and

offering more ESOPs to employees. On the contrary, around 10000 employees who were laid-off during Covid pandemic found their ESOPs terminated overnight. This is a bigger issue with ESOPs which need to be addressed. Besides, start-ups include clauses in their ESOP schemes which allow them to withhold vesting in times of stress which might be misused. Last but not the least, as stock prices went underwater and plummeted for a few companies, employees are also demanding re-pricing of stock options. MA

(This article is based upon the presentation given by the author in 'The Beyster Symposium 2021' hosted virtually by the Institute for the Study of Employee Ownership and Profit Sharing, Rutgers University, USA from 28<sup>th</sup> to 29<sup>th</sup> June 2021)

### References

1. Dalal, Mihir (2020) *The pitfalls of ESOP lifelines at startups.* [online] <https://www.livemint.com/industry/retail/the-pitfalls-of-esop-lifelines-at-startups-11592322029892.html>
2. ESOPDirect (2020) *Impact of Covid 19 on ESOPs and your response.* [online] [https://www.esopdirect.com/wp-content/uploads/2020/04/COVID19-Newsletter\\_2.pdf](https://www.esopdirect.com/wp-content/uploads/2020/04/COVID19-Newsletter_2.pdf)
3. ET (2021) *ESOP for public sector bank employees mooted.* [online] <https://economictimes.indiatimes.com/industry/banking/finance/banking/esop-for-public-sector-bank-employees-mooted/articleshow/73808361.cms?from=mdr>
4. ET (2021) *Tax ESOPs at the time of sale, Local Circles tells DPIIT.* [online] <https://crazyaboutstartups.com/tax-esops-at-the-time-of-sale-local-circles-tells-dpiit/>
5. Gupta, Ambuj (2010) *A Critique's View of Employee Stock Options in India: Re-assessment and Perspectives.* [online] SSRN: <http://ssrn.com/abstract=1692057>
6. HRK News Bureau (2021) *Infosys expands its ESOP programme to benefit lower-level staff too.* [online] <https://www.hrka.com/news/compensation-benefits/infosys-expands-its-esop-programme-to-benefit-lower-level-staff-too/>
7. Jain, Shalini (2020) *Are ESOPs still lucrative for start-ups.* [online] [https://www.ey.com/en\\_in/tax/india-tax-insights/are-esops-still-lucrative-for-start-ups](https://www.ey.com/en_in/tax/india-tax-insights/are-esops-still-lucrative-for-start-ups)
8. Kashyaap, Sindhu (2020) *Decoding Budget 2020: Will the ESOP tax boost actually help startups?* [online] <https://yourstory.com/2019/11/decoding-budget-2020-esop-tax-startups/amp>
9. KPMG ESOP Survey Report 2021 [online] <https://home.kpmg/in/en/home/insights/2021/05/esop-survey-report-2021.html>
10. Krishnan, Sanjeev (2020) *Understanding ESOPs valuation: Why it is crucial for startups.* [online] <https://www.cnbcvt18.com/views/understanding-esops-valuation-why-it-is-crucial-for-startups-5327041.htm>
11. Kumar, Pooja (2020) *Employee Ownership in India* [online] <https://rady.ucsd.edu/centers/beyster/media/newsletter/2020/winter%20-%20final/employee-ownership-in-india/index.html>
12. Pai, TV Mohandas and Pai, Siddarth (2020) *Budget 2020: India's ESOP taxation harshest amongst all start-up hubs.* [online] <https://www.financialexpress.com/budget/budget-2020-indias-esop-taxation-harshest-amongst-all-start-up-hubs/1856266/>
13. Raj, Roshan (2021) *The flurry of ESOP Buybacks in India.* [online] <https://mystartupequity.com/blog/esop-buybacks-in-india/#:~:text=Since%20then%2C%20there%20has%20been,their%20employees%20via%20ESOP%20buybacks>
14. Raote, Aarti (2020) *Challenges In ESOP.* [online] <https://www.outlookindia.com/outlookmoney/magazine/story/challenges-in-esop-542>
15. Singhatiya, Arvind (2020) *All you need to know about ESOPs.* [online] <https://yourstory.com/2020/02/esops-know-tax-employer-benefits/amp>
16. Tejasvi (2021) *DPIIT: Submission highlighting policy reforms to promote start-ups in India.* [online] <https://community.nasscom.in/communities/policy-advocacy/dpiit-submission-highlighting-policy-reforms-promote-start-ups-india>

# FINANCIAL MANAGEMENT IN PSUs UNDER NEW PSE POLICY

## Abstract

*Under the new Public Sector Enterprises Policy while the GOI wants to limit its participation in commercial organization the existing PSEs which are economically viable and have proven track record has the chance to improve their management and attain greater heights. There are certain key elements of financial management which if implemented in true spirits should enable these PSEs not only to survive the open competition but also attain greater heights.*

**U**nder the New Public Sector Enterprises (PSEs) Policy announced by GOI in February 21(Ref#1), maximum 4 PSEs will be allowed in following **strategic sectors**:

- a) Atomic Energy Space and Defense
- b) Transport and Telecommunications
- c) Power, Petroleum, Coal & Other Minerals
- d) Banking, Insurance & Financial Services

In other sectors, defined as **non strategic**, PSEs will either be closed or privatized as GOI feels that “government should have no business to be in business.”

Though in the long run this policy may lead to open competition and accelerate economic development by encouraging private capital and FDIs along with competitive growth of those PSUs which successfully adapt the challenging scenario, in the immediate run it challenges many an existing PSEs to quickly adapt to the emerging realities to survive the radical changes.

This has particularly re emphasized the vital role of objective oriented financial management of these companies on benchmark commercial practices from their current focus on mere compliance of the set rules taking precedence over business indicators.

In view of the above certain fundamental suggestions on key aspects of the financial management, described as under, needs to be seriously revisited to tone up the overall commercial orientation to quickly get realigned to the required paradigm shift.

These elements are not new in the current PSEs framework and therefore what is needed is only an objective oriented implementation of the same.

### A. Financial Aspects of Purchase function :

1. Quantity proposed (in Material Requisition or Indent)



**CMA Padmanabhan Satyes Kumar**

Ex. Dy General Manager (BHEL)  
Haridwar

[satyeskumar@yahoo.com](mailto:satyeskumar@yahoo.com)

is based on the current stock levels, lead time and matched with approved production/ delivery plan.

*Advance Manufacturing Action (AMA) for anticipated orders entails the risk of wastage in case such orders do not materialize.*

2. *Specification/ quality of material/ services is optimally defined to avoid any wastage of resource due to lower quality as well as any unwarranted cost implication of avoidable frills.*

*Ignoring quality not only results in wastage but also disrepute with the ultimate customer while avoidable cost impairs competitive edge.*

3. *Ensure competence of the selected supplier/service-provider while arriving at competitive cost. Proven supply chain is inevitable for long term success and reduction of time.*

4. *Policy compliance should not be an end in itself but only as means to arrive at a prudent decision. Mere compliance is futile if objective (to purchase right material at right time & minimum cost) is defeated.*

5. *Capital purchase is based on life cycle cost by*

*integration of future cost of spares as well as other obsolescence factors.*

6. Ensure *independently that there is no downward price trend* before any *Repeat Order (RO)* is placed.
7. Confirm that the *shelf life of the materials converge with the production plan* based as per confirmed orders in hand for *reducing the risk of expiry & wastage.*
8. *Analysis of the price to confirm the reasonability of rates is the most important and should be based on the fair price, trends, foreign exchange components etc. and within the approved estimates made on prudent and practical norms including last purchase price (LPP).*
9. Proper *review of the make vs. buy analysis* based on marginal cost being higher than purchase price *in case of underutilization of the in-house capacity. All sunk cost to be excluded from such decisions.*
10. Evaluation of the *lease purchase vs. outright purchase based on tax and technological aspects of high obsolescence items.*

**B. Financial Aspects of Contract Management:**

1. *Pre audit of Draft Tender documents* before floating the same *reduces the ambiguity/contradictions amongst the various commercial clauses leading to misleading bids or confusion in the implementation stage. It saves crucial time needed for the retendering process owing to any deviations in the NIT or gross errors in the NIT.*  
*Also the doctrine of Contra Proferentem makes pre audit a must.*  
*The Doctrine provides that in case any contract clause has more than one interpretation, court will uphold the specific interpretation which is more favorable to the party which has not drafted the Contract.*

**In other sectors, defined as non strategic, PSEs will either be closed or privatized as GOI feels that “government should have no business to be in business.”**

*It also ensures protection of bidder against lack of adequate disclosures.*

2. Implication and convergence of *important commercial clauses* like payment terms, contract duration, price escalation formulae, Liquidity Damages (LD) etc. *at the award stage. Any contradiction on crucial commercial clauses makes the contract onerous during its implementation stage and result in loss.*
3. Reconfirm *Value for Money (VFM) analysis* in the *estimated cost.*  
*Unlike purchase where Last Purchase Price (LPP) generally indexed for time becomes the estimate for basic price justification, contract estimates are built up from the scope content & Bill of Quantity and hence a detailed process/policy of vetting of estimates is cardinal to optimize the VFM chain prior to calling for bids.*
4. *Transparency/Equity/ Level Playing field* for all bidders including the Integrity Pact through *Independent External Monitor (IEM).*  
*To improve the probity of contract finalization and execution, such a Pact is important where the IEM plays the role of a neutral umpire.*  
*Also as it covers full implementation period including warranty cover, it can be a safeguard for ensuring the fulfillment of all contractual obligations.*
5. *Benchmark practices to guide the first time Tenders as the*

*organization does not have any in house experience/history/ data base and hence a studied approach across the industry is inevitable.*

6. Ensure *Material stock accounting* in composite maintenance contracts.  
*This critical aspect was noted in composite contracts like capital overhaul of high value machines through a Special condition in the Tender for adjustments of the spares prices assumed during estimation vs. actually needed on the job.*
7. *Rationalization of design aspects* for optimum expenditure.  
*Known as “Excess Engineering” where the challenge was to optimize the design parameters to optimize the expenditure while ensuring that the purpose of such outlay is not compromised.*
8. *Reverse auction* as a means of dynamic price rationalization.  
*Seen as one of the most revolutionary process adopted by PSUs this entails dynamic coded electronic bidding amongst the technically qualified agencies leading to substantial competitive price.*  
*However, the challenge is to sincerely avoid unworkable bid which may hamper the contract execution, which can be guarded through fixing the acceptable price bands- say +/-20% on estimated value and any bid above or below the band, known as *Abnormally High Rate (AHR)* and *Abnormally Low Rate(ALR)* stands disqualified for evaluation.*
9. *Compliance of CVC guidelines* on similar contracts and the impact of same to preserve financial interest of the PSU.  
*This aspect is critical for any Public undertaking and hence finance should remain updated on such guidelines and directives of the CVC.*
10. *Suspension of Business dealings*

with the registered contractor.

*In a typical case the policy was resulting in narrowing of the bidders leading to adverse bids and hence decision to review the suspension was necessitated leading to substantial competition and savings.*

*This is an abject pointer to the fact that the spirit of the rules is more important than its letters for better interest of the organization flexibility is required without dilution of the core policy.*

### C. Financial aspects of Sales & Pricing Proposals:

1. *Costing review to confirm inclusion of all direct cost as well as allocation of proportionate overheads.*

*Check on complete cost compilation to ensure inclusion of all direct and proper allocation of all indirect cost elements. Also disclosure of various assumptions/ basis of cost incorporated are to be verified.*

2. *Bill of Materials (BOM) assumed in the cost structure is sufficient as per all the product/project requirements for complete scope.*

*This is vital for Turnkey contract or Engineer, Procure and Construct (EPC) kind of works where the customer's requirement is only stated in final outcome from such projects. While a lower BOM gives some advantage to win the bid the same may pose risk of additional cost at the execution stage and hence needs to be optimized to balance both.*

3. *Suitable buffer provision is added to the material cost as per the previous average trends to achieve the same final product. Example: Turbine Blades wherein for every n number blades required for mounting on the turbine an additional x number is required owing to the highly precision finish of such blades and unless the suitable*

*buffer provision in the cost this may result in uncovered cost.*

4. *Suitable price escalation for the contract execution period.*

*For a long duration contracts, especially at a firm price, a prudent escalation is to be built in bid based on the trend of prices.*

5. *Credit terms are consistent with the Board approved policy relevant for the customer segment contained in the bid proposal.*

*For securing the credit risk, PSUs insist on Letter of Credit (LC).*

6. *Adequate loading of implication of the contract LD and guarantees applicable in case customer requirements is too stringent.*

*Normal project delivery capability forms the basis for this.*

7. *All tax elements is been suitably covered in price.*

*Generally reimbursable on actual, but this needs to be verified.*

8. *Technical penalties are suitably guarded in the quoted price.*

*Technical LD or penalties are levied for either shortfall in demonstrated outputs or on excess inputs from the targeted parameters and may sometime be very big if not suitably provided in the contract cost. Also back to back pass on clause with suppliers ensures the minimum risk.*

9. *Collaborators terms and cost are suitably included in the offers.*

*This is to avoid unguarded commercial implication or unexpected litigation from collaborators.*

*Suitable cover for applicable contractual obligations/ guarantees based on review of the case to case conditionality of Tender.*

### Financial Management Process:

- a. *Constant Review of the*

*fundamental assumptions during the implementation of any decision and external factors for rolling course corrections is inevitable.*

- b. *Some PSUs provide for committee of Cross Functional Team (CFT) for decision making. However, in practice, sometimes it is noted that, this committee merely becomes an organ for dilution of accountability.*

*In my opinion the best convergence of Commercial, Finance and Technology (CFT) to be ensure -wherein Finance chain enables the basic Technological/ product/process of the organization to achieve the ultimate Commercial targets.*

- c. *SPIRIT of the policy to be adhered rather than blind compliance of the letters (known as "Manualities" in Public Administration).*
- d. *Cost controls & cost reduction measures to be improved continuously.*

### Conclusion:

*Financial Management in PSUs till now is mostly focused on the process and policy compliance which relegates the commercial aspects and time taken for such decisions .*

*With the onset of the new PSE Policy they will now be required to really make a paradigm shift towards the core competitive business aspects and its true implementation to ensure that the financial canons and policy matters are truly followed in letter and spirit so that the financial interest is guarded in all respects and also ensure sustainable growth. MA*

### References

1. *Ref#1- Press Information Bureau ( GOI ) details dated 12<sup>th</sup> February 2021 on the New PSE Policy*

*Note: All the other points in this article has been compiled with my working experience of over 25 years in many PSEs and Government departments.*

# BAGASSE PRICE CALCULATION FOR CO-GENERATION IN SUGAR INDUSTRIES

## Abstract

*The economic value of Bagasse improved in sugar business and it is a time to consider it as Joint Product. It is important to have a proper scientific method to calculate Bagasse Price for calculating correct Steam and Power cost. This paper illustrates four methods to calculate Bagasse Price for internal transfer of Bagasse from Sugar Plant to Co-generation plant. Correct bagasse price will help to evaluate cost of power generated in Co-generation vs other sources.*

### A. OBJECTIVE

The objective of this paper is to find out the correct bagasse price required to be charged for bagasse while transferring it from Sugar Business Unit to Cogeneration Unit in Sugar Industries.

### B. PREAMBLE

The sugarcane first passes through Knife / Shredder / Fiberizer after weighing the same on weigh bridge. Sugarcane cells containing sugar juice is ruptured at this stage and it converted to small fibrous pieces. Smaller the piece is considered best for further process. The small pieces of sugarcane are crushed in sets of Four / Five mill tandem or diffuser with one mill tandem.

The juice is extracted in mill and collected separately. The left-over fibrous material is known as Bagasse. The Bagasse is consisting of Fiber, Moisture & Brix including POL. The weight of bagasse is derived from following formula.

Weight of Bagasse = Weight of Sugar Cane + Imbibition water – Weight of Cane juice

The bagasse is having following application

- As Fuel in Boiler for steam generation - The steam is used to operate prime mover of Fibrizer, Mill, Boiler feed pump & Turbo alternator. The back pressure Steam obtained after running the Prime Mover is used in sugar process. Thus, steam generated in Boiler are used for dual purpose (Sugar Process & Prime mover energy).
- As porous material in Oliver Filter – It is mixed with solid suspended material of press mud prior to vacuum filtration.
- Sold in Market as raw material for other industries (paper etc.)

For standalone Sugar business, Bagasse is considered



**CMA Lt. Dhananjay Kumar Vatsyayan**

Practicing Cost Accountant  
Pune

[dvatsyayan@yahoo.com](mailto:dvatsyayan@yahoo.com)

as bi-product of sugar industries. But integrated Sugar Industries along with Co-generation, having Sugar and Power as joint products of equal economic value. The Bagasse got importance because of competitive power price being offered.

Bagasse are used in Co-generation as fuel for generating surplus electrical energy after matching the process steam requirement. 30%-40% Electrical Energy are sufficient to meet the energy requirement of sugar plant and balance 60%-70% Electricity are being exported to state grid. With new development, bagasse is considered as joint product and not as bi-product.

The Sugar Business and Co-generation are treated as two separate profit centers or two separate virtual company. Bagasse produced in Sugar Business used by Co-gen business and Steam & Electrical Energy produced in Co-gen is used in Sugar Business. The cost of sugar manufacturing and power generated in Co-gen are highly dependent on Bagasse price being charged. The Bagasse price charged are not uniform and it vary from plant to plant.

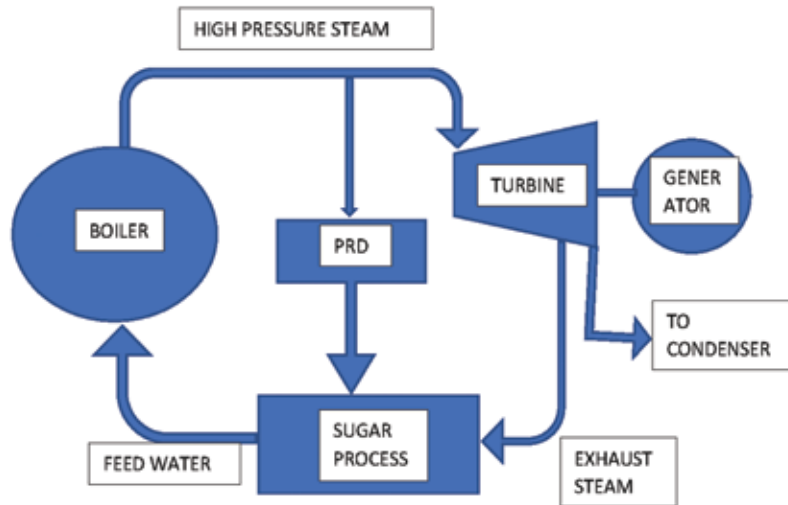


FIGURE 1 – Typical steam flow cycle in Cogen

One of the following four method can be used for Transfer Price of Bagasse while transferring from Sugar unit to Cogeneration unit. Average price of price calculated as per these methods can also be adapted.

**C.METHODOLOGY ADAPTED AND CALCULATION**

In order to devise a scientific calculation of bagasse price, following methods are recommended to resolve this issue.

**1. Price fixed by Govt. bodies**

– Govt. bodies like MERC (in Maharashtra) prescribe certain rate based on pegging calorific value of Coal and its price. It is considered that bagasse is a replacement of Coal being used in Thermal Power Plant. The bagasse price fixed in this process doesn't consider quality of Bagasse. However, it specifies the Calorific value of Bagasse. The rates declared by MERC are based on Coal price are as under.

Sr.	Financial Year	Rate Rs/ MT
1	2020 - 21	2632.00
2	2019 - 20	2506.81
3	2018 - 19	2384.25

4	2017 - 18	2346.16
---	-----------	---------

The Bagasse price for Financial Year 2019 – 20 is Rs **2506.81** Per MT. It can be used for calculating steam cost and power cost subsequently.

**2. Calorific Value based calculation**

– Bagasse is used as fuel in boiler. However, various other fuel (Cane Traces, Bio mass, Fire Wood, Coal, Briquets etc.) can also be used in boiler as a substitute of bagasse. These fuels can be used along with bagasse and mixing ratio depends on boiler design. The price of these fuel varies from season to season and area to area depending demand & supply.

Cogeneration boiler of Sugar plant can use Cane traces, Wood and Coal as fuel. Other biomass like Rice Husk, sawdust, Briquette etc. are bot being used as Cogeneration fuel in Integrated Sugar plant. However, these material are used as boiler fuel in other industries.

For calculating the bagasse price, first tabulated the current price and calorific value of these fuels. From this table average price of fuel per unit of energy is calculated. The average Price of fuel per unit of energy is multiplied by Calorific Value of Bagasse.

The price of biomass and other

fuel are extracted from internet on 19 Feb 2021 from various site. The spot price (Without negation) has been considered for calculation purpose. Generally, the calorific value of any fuel is having a range (Minimum & Maximum value). For calculation purpose, mid value of the range can be considered.

The calorific value of Bagasse depends on Moisture & POL content in Bagasse. Higher Moisture & POL content will have lower calorific value. Generally, Moisture content of fresh Bagasse (From Mill without drier) are around 49% - 51%. The POL % of bagasse is 2% to 3%. The moisture content of dried bagasse may go down to 30%. However, the quality and calorific value of bagasse will adversely be affected after getting wet in rainy season.

Some industries are using bagasse dryer near the mill. The moisture content of Bagasse gets reduce by 2% -4% and the calorific value of bagasse will increase but weight of bagasse will decrease because of drying.

It is recommended to calculate Calorific Value of Bagasse based on Moisture % Bagasse, Brix % Bagasse, POL % Bagasse & Ash % Bagasse. The calculated Calorific value should be used for Bagasse pricing under this method.



## Working for Bagasse rate based on calorific value

Sr.	Particulars	Rate (Rs/MT)	GCV K Cal / Kg	Fuel Rate Rs / M Cal	Transport for 50 KM	Loading/ Unloading	Total (Rs / MT)	Fuel Rate Rs / M Cal
1	Fire Wood - Mango	6,000	4,613	1.30	154.03	90	6,244	1.35
2	Fire Wood - Kikar	6,000	4,613	1.30	154.03	90	6,244	1.35
3	Fire Wood - Mix Wood	5,000	4,613	1.08	154.03	90	5,244	1.14
4	Fire Wood - Brown Wood	5,300	4,613	1.15	154.03	90	5,544	1.20
5	Bio Mass	3,500	4,661	0.75	154.03	90	3,744	0.80
6	Coal	8,200	7,900	1.04	154.03	90	8,444	1.07
7	Rice Husk	7,000	3,950	1.77	154.03	90	7,244	1.83
8	Wooden Sawdust	3,500	3,800	0.92	154.03	90	3,744	0.99
9	Bio mass Briquette	5,500	4,000	1.38	154.03	90	5,744	1.44
10	Soya Bean Husk Briquette	4,000	4,170	0.96	154.03	90	4,244	1.02
11	Coal Briquette	3,800	5,319	0.71	154.03	90	4,044	0.76
12	Bio Coal Briquette	3,700	4,050	0.91	154.03	90	3,944	0.97
13	Saw dust Briquette	5,900	3,898	1.51	154.03	90	6,144	1.58
14	Sugar Cane Leaves / Trac	2,100	3,996	0.53	154.03	90	2,344	0.59
<b>Average Value</b>				1.09				1.15
<b>Bagasse Cost</b>		<b>2,484</b>	<b>2,270</b>				<b>2,609</b>	

### Assumptions

1	Transport Cost	Rs 3.08 / KM / MT
2	Transport Distance	50 KM
3	Loading / Unloading Charge	Rs 90 Per MT

**Bagasse Cost ex works Rs 2,484 and at factory gate Rs 2,609 Per MT based on calorific value.**

### 3. Market Rate based system –

The Bagasse is a freely traded goods in Market. However, the price of Bagasse will change based on locality, season and quality of bagasse.

I selected one Sugar Industry of a district on random basis. Three sample of Purchase and three sample of Sales from different district has been considered. These figures had

been derived from financial (TB / P&L account) record of the sugar industry. We also collected three sample of spot trading rate from internet on 19 Feb 2021. The internet rates are as indicated there without any negotiation. The average purchase price, sales price, trading price and overall average (Simple average) has been considered. The handling and transport expenses added to average

price to arrive at landed price of Bagasse.

The Bagasse price calculated under this method is easy to calculate and more reliable to use. However, it changes plant to plant, area to area and season to season. Because of fluctuation, it can be used as guide line and not as reliable source of information.

### Bagasse Price calculation based on Market Data

Sr.	District	Transaction Type	Items	UOM	Quantity	Amount	Rate	Handling Expense	Rate
						Rs	Rs / MT	Rs	Rs / MT
1	Jalna	Purchase	Bagasse	MT	18,609	5,00,66,515	2,690.41	38,48,722	206.82
2	Nagar	Purchase	Bagasse	MT	11,201	3,53,64,254	3,157.24	6,98,576	62.37
3	Solapur	Purchase	Bagasse	MT	1,195	31,06,116	2,600.00	5,49,309	459.80
<b>Average Purchase</b>							<b>2,815.88</b>		<b>243.00</b>
4	Karad	Sale	Bagasse	MT	59142	11,20,31,038	1,894.28	Not Applicable	
5	Pune	Sale	Bagasse	MT	67	1,66,825	2,500.00	Not Applicable	
6	Nasik	Sale	Bagasse	MT	6,402	1,47,21,064	2,299.39	Not Applicable	
<b>Average Sales</b>							<b>2,231.22</b>		
7	Pune - India mart	Trade	Bagasse	MT			2,950.00	Extra	Extra
8	Mumbai - India Mart	Trade	Dried Bagasse	MT			3,000.00	Extra	Extra
9	India Mart	Trade	Bagasse	MT			2,700.00	Extra	Extra
<b>Average Trading</b>							<b>2,883.33</b>		
10				MT	Over all Average		2,643.48		
11				MT	Handling Expense		243.00		
12				MT	<b>Total Bagasse Price</b>		<b>2,886.48</b>		

The Landed Price of bagasse calculated under this method is **Rs 2886.48 Per MT**.

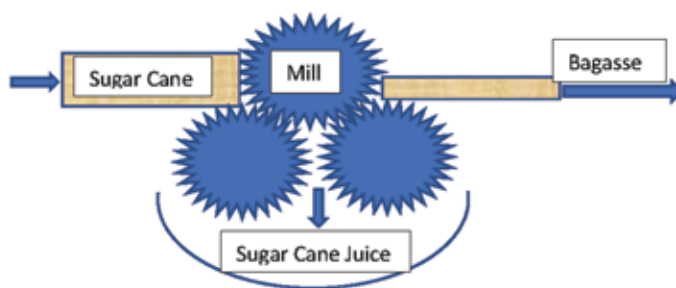
**4. Split off cost method considering Bagasse as Joint / Co-product of sugar** – The Price of Sugar cane and price of Sugar are controlled by Govt. Other parameters like recovery (Pol % Cane), Fiber % Cane, Java ratio etc. vary from area

## COST ACCOUNTING

to area and depend on variety of cane, rain fall, soil quality, atmospheric condition (temperature & humidity)

etc. The sugar loss in process and expenses will vary from plant to plant based on equipment condition,

technology and skill of man power employed. It is complex to calculate uniform bagasse rate.



One factory randomly selected in a district and four districts of Maharashtra selected for calculation purpose. The actual data from financial (P&L and Balance Sheet) and RT 8(C) / RT 7 (C) has been extracted for calculation. The cost at split off point (Mill operation) calculated with actual plant data. The split off cost reduced by juice cost (Obtained by backward calculation of Sugar Process) from sugar price considering zero profit.

In this method Bagasse are considered as Joint Product of sugar. Cost at split off point is calculated by deducting all expenses from revenue generated. Profit in sugar business are not considered.

Sr.	Particulars	UOM	Nagar	Beed	Pune	Sangali	Combined	
<b>A. Material Balancing</b>								
<b>Input</b>								
1	Crushing	Crushing	MT	3,57,369	4,67,771	9,74,615	5,10,099	23,09,853
2	Imbibition	Water	MT	81,401	1,19,145	2,35,621	1,40,771	5,76,938
3	Sub Total		MT	4,38,770	5,86,915	12,10,236	6,50,870	28,86,791
<b>Out Put</b>								
4	Bagasse		MT	86,762	1,26,161	2,50,240	1,48,423	6,11,586
5	Sugar Cane Juice		MT	3,52,008	4,60,754	9,59,996	5,02,447	22,75,205
6	Sub Total		MT	4,38,770	5,86,915	12,10,236	6,50,870	28,86,791
<b>B. Calculation of Bagasse Cost</b>								
Sr.	Particulars	UOM	Nagar	Beed	Pune	Sangali	Combined	
1	Cane Cost	Rs	89,81,42,996	1,20,96,48,792	2,65,24,32,894	1,53,56,37,209	6,29,58,61,891	
2	H & T Cost	Rs	22,53,40,437	29,84,75,955	68,01,40,824	26,87,62,219	1,47,27,19,434	
3	Other Cane related Ex	Rs	4,41,17,283	1,14,32,569	2,61,00,472	3,40,50,282	11,57,00,606	
4	Water	Rs	7,93,664	8,94,776	40,17,334	8,31,959	65,37,733	
5	Power	Rs	4,39,56,387	4,67,65,388	9,09,90,032	3,88,49,115	22,05,60,922	
6	Sub Total at Split off		1,21,23,50,766	1,56,72,17,480	3,45,36,81,556	1,87,81,30,785	8,11,13,80,587	
7	Less - Sugar Cane Juice Cost	Rs	-83,10,04,281	-1,14,56,21,309	-1,99,36,91,524	-1,22,36,57,343	-5,19,39,74,456	
8	Bagasse Cost	Rs	38,13,46,486	42,15,96,171	1,45,99,90,032	65,44,73,442	2,91,74,06,130	
9	Bagasse Quantity	MT	86,762	1,26,161	2,50,240	1,48,423	6,11,586	
10	Bagasse Rate	Rs/ MT	4,395.32	3,341.73	5,834.36	4,409.52	4,770.23	

The Bagasse price calculated under this process is **Rs 4,770.23 Per MT.**

The cost of sugar cane juice is calculated as under.

## COST ACCOUNTING

Sr.	Particulars	UOM	Nagar	Beed	Pune	Sangali	Combined
<b>C. Rate</b>							
1	Sugar	Rs/Mt	31,875.74	31,274.71	27,193.79	30,259.35	29,434.94
2	Molasses	Rs/MT	7,000.00	7,000.00	5,384.41	4,507.37	5,787.65
3	Press Mud	Rs/MT	100.00	200.00	367.54	116.18	234.65
4	Power	Rs/ Unit	6.15	4.65	3.89	4.48	4.79
5	Steam	Rs/MT	1505.01	1,510.31	1,459.44	1,540.75	1,503.88
6	Water	Rs/ CUM	9.75	7.51	17.05	5.91	10.06

<b>D. Quantity</b>							
1	Sugar	MT	37,150	51,183	1,06,410	65,065	2,59,808
2	Molasses	MT	17,775	19,878	46,310	21,069	1,05,031
3	Press Mud	MT	11,998	15,395	33,007	18,882	79,282

<b>F. Revenue</b>							
1	Sugar	Rs	1,18,41,83,579	1,60,07,18,019	2,89,36,91,194	1,96,88,24,608	7,64,74,17,400
2	Molasses	Rs	12,44,25,000	13,91,43,830	24,93,50,533	9,49,65,861	60,78,85,224
3	Press Mud	Rs	11,99,818	30,79,014	1,21,31,300	21,93,639	1,86,03,771
4	Sub Total Revenue	Rs	1,30,98,08,397	1,74,29,40,863	3,15,51,73,027	2,06,59,84,108	8,27,39,06,395

<b>G. Expenses</b>							
1	Chemical	Rs	1,22,85,843	87,28,101	2,60,32,061		4,70,46,005
2	Power	Rs	42,85,748	45,02,528	83,40,753	40,67,731	2,11,96,760
3	Steam	Rs	14,11,14,067	19,49,51,011	39,31,39,946	21,11,15,239	94,03,20,262
4	Employee	Rs	7,49,58,351	15,36,02,779	4,57,55,065	8,67,17,343	36,10,33,539
5	Direct Expense	Rs	80,48,801	1,59,879	21,13,057	38,07,436	1,41,29,173
6	Consumable & Stores	Rs	8,08,792		37,93,797		46,02,589
7	Repair & Maintenance	Rs	2,57,60,539	5,46,98,930	6,81,12,996	4,52,30,809	19,38,03,274
8	Quality	Rs	2,08,329	34,995	1,64,57,677	1,06,953	1,68,07,954
9	Technical Know How	Rs	2,51,280				2,51,280
10	Depreciation	Rs	2,57,18,410	1,40,98,742	9,03,76,261	3,39,65,903	16,41,59,315
11	Production Over Head	Rs	1,16,44,164	51,44,346	72,23,390	5,27,79,293	7,67,91,193
12	Industry Sp. Expenses	Rs	22,46,776	32,59,664	69,38,518		1,24,44,958
13	Packing Cost	Rs	1,29,20,770	1,68,24,711	3,30,59,459	1,75,96,179	8,04,01,119
14	Admin Overhead	Rs	2,54,43,744	4,53,74,675	10,85,89,217	6,00,37,770	23,94,45,408
15	Saling Expense	Rs	49,23,777	29,30,987	38,50,700	4,89,14,547	6,06,20,010
16	Interest & Finance Ch.	Rs	12,81,84,725	9,30,08,205	34,76,98,606	27,79,87,563	84,68,79,099

17	Sub Total	Rs	47,88,04,117	59,73,19,554	1,16,14,81,503	84,23,26,765	3,07,99,31,939
18	<b>Cost of Cane Juice at split off</b>	<b>F4-G17</b>	<b>83,10,04,281</b>	<b>1,14,56,21,309</b>	<b>1,99,36,91,524</b>	<b>1,22,36,57,343</b>	<b>5,19,39,74,456</b>

<b>H. Miscellaneous Data</b>							
1	Power Mill	KWh	20.00	21.50	24.00	17.00	20.63
2	Power Boiling House	KWh	1.95	2.07	2.20	1.78	2.00
3	Steam % Cane in Process	%	41.16%	43.29%	43.36%	42.14%	42.49%
4	Sugar Enthalpy to Total	%	63.74%	63.74%	63.74%	63.74%	63.74%
5	Packing	Rs/MT	347.80	328.72	310.68	270.44	309.46

## D. CONCLUSION

The Bagasse price calculated under various method are not uniform and it vary a lot.

Sr	Method adopted	Bagasse Price Rs / MT	Remarks
1	Price fixed by Govt. Bodies	2,507/-	It is generally being used for calculating steam & Power cost by Sugar Industries
2	Price calculated based on Calorific Value of various boiler Fuel	2,609/-	It changes from month to month
3	Market Rate of Bagasse	2,886/-	It changes from month to month and area to area.
4	Split of method considering Bagasse as joint product	4,770/-	It changes factory to factory
	Average Price	3,193/-	Recommended Price

The average price (Rs 3,193/- per MT) of bagasse may be used as most reliable transfer price. In absence of other method Price fixed by Govt. Bodies (Method 1) are being

frequently used by industries. MA

### References

1. RT 8(C) and RT 7(C) of sugar factories.

2. Raw data collected from various sugar factories.
3. Internet for latest price of various fuel.
4. Bureau of Energy Efficiency



**IEM-UEM GROUP**  
New Town, Kolkata - 1, Salt Lake, Jyoti  
Salt Lake, Kolkata  
Approved by AICTE & recognized by UGC



**IEM**  
Institute of Engineering & Management



**IRPSS**

**International Conference on  
Innovative Research Practices in Social Sciences (IRPSS-2021)**  
Kolkata, India | 10, 11 & 12 December, 2021



**ROUTLEDGE**  
Taylor & Francis Group

### Call for Papers

## International Conference on Innovative Research Practices in Social Sciences (IRPSS-2021)

Organised by Department of Business Administration, Institute of Engineering & Management, Kolkata

### Eminent Speakers

- ⊙ Prof. Philip Kotler, S.C Johnson Distinguished Professor, Kellogg School of Management
- ⊙ Prof. David Aaker, Berkeley's Haas School of Business (UC)
- ⊙ Prof. Jochen Wirtz, National University of Singapore
- ⊙ Prof. Justin Paul, Universidad de Puerto Rico
- ⊙ Dr. Subhadip Roy, Professor, Indian Institute of Management – Ahmedabad
- ⊙ Dr. Sandip Anand, Professor, Xavier Institute of Management, Bhubaneswar

### Conference Tracks

- ⊙ Marketing
- ⊙ Finance & Accounting
- ⊙ Human Resource Management
- ⊙ Economics
- ⊙ Entrepreneurship, Social Issues & Public Policies
- ⊙ General Management

### Publication

Accepted papers will be published in an edited book **“Social Science Research: Sustainable Practices”** By Taylor & Francis Routledge Publication

### Pre-conference Workshop

All registered participants will get an opportunity to attend the Workshop on Structural Equation Modelling using AMOS on December 10, 2021.  
Resource Person: Dr. S. Srinivasan, Vinod Gupta School of Management, IIT-Kharagpur

### Deadlines to Keep in Mind

Full Paper Submission Deadline: **September 30, 2021**  
Registration Deadline: **October 14, 2021**  
Conference Dates: **December 10, 11 & 12, 2021**

Conference Website: <https://iemirpss.org/>  
Conference alerts: <https://conferencealerts.com/show-event?id=236474>

Academic Partner

Indian Economic Association





**AIM ACADEMY**  
of Indian Marketing

Indian Accounting Association



For more details, please e-mail at: [irpss.conference@iemcal.com](mailto:irpss.conference@iemcal.com)

# SATISFACTION OF CONSUMERS TOWARDS DIGITAL MARKETING: A CASE STUDY OF SHIVAMOGGA CITY

## Abstract

*Digital marketing plays pivotal role in the digital era in global context. The fundamental purpose of digital marketing is to permit the buyers to coalesce with the products by virtue of digital media. Digital marketing accelerates public relation, information management, sales and customer services. In the above context this study establishes the power of digital marketing by taking consideration of consumers' preferences and satisfaction. The examined sample consists of hundred respondents, which have been randomly selected to evaluate the level of satisfaction of consumers towards digital marketing. The collected data has been analysed with the help of selected statistical tools and techniques.*



**Dr. Mahesha V**

Chairman  
Department of Commerce  
Karnataka State Open University, Mysore  
[maheshmcom69@gmail.com](mailto:maheshmcom69@gmail.com)



**Manjunatha H R**

Research Scholar  
Department of Commerce  
Karnataka State Open University, Mysore  
[manjugowda.ry@gmail.com](mailto:manjugowda.ry@gmail.com)

## Introduction

Growth of digital communication channels and in specific social networks, the role of digital marketing takes on progressively important item in determining the overall marketing plans (Ivan S Domazet and Sladjana Neogradi 2019). Today's eonInternet has opened gateway of numerous variety of opportunities for businesses, via social networks, one cannot only share a picture of one's

celebrations but also earn customers for one's business and reach them conveniently. The digital media transmits information and help boost a business with speed and easiness. The use of the internet and social media have changed consumer behaviour and the ways in which companies conduct their business. Social and digital marketing offers significant opportunities to organizations through lower costs, improved brand awareness and increased sales (With the superpower of globalization, the cities in India are not only become

digital but people also are in receipt of transforming themselves to the digital era. In this trend digital marketing plays a vital role in modern business environment and in the life of an individual. The supreme purpose of digital marketing is to allow the buyers to intermingle with the products by virtue of digital media. Digital marketing includes public relation, information management, sales and customer services. The term digital marketing used for interactive, targeted, and measurable marketing of essential products or

## CASE STUDY

services using digital technologies to reach the onlookers, turn them into a customers and retain them.

### Objectives of the Study

In the light of above background the study endeavour to analyse the satisfaction of consumers towards digital marketing from the view point of amenities and strategies of this marketing system. Besides the present study also aims to understand preferences of the respondents.

### Hypotheses

The following hypotheses have been formulated by keeping the objectives of the study in the mind.

1.  $H_{01}$ : There is no significant relationship between gender of the respondents and usage of internet
2.  $H_{02}$ : There is no significant relationship between the occupational of the respondents and the accessing place of the internet.

### Scope of the Study

The geographical area for the study is limited to Shivamogga city. The study covers only the level of satisfaction towards digital marketing. The samples collected from different areas within the coverage of Shivamogga city.

### Methodology

The present research work is descriptive study. The study depends on both primary and secondary data but it focus more on primary data. The primary data has been collected through structured questionnaire. The First part contains the demographical aspects of the respondents and second part contains the questions relating to measures the satisfaction of consumers towards digital marketing. Secondary data collected through various sources like, websites magazine and reputed journals. The sample size for the present study is 100 respondents of Shivamogga city. Sample has been collected by using convenience sampling technique. For analyses purpose descriptive statistics have been used.

### Satisfaction analysis of the respondents

In the light of the above, an attempt is made here to analyse the responses obtained from the respondents.

Table 1 represents the demographic profile of respondents. Majority of the respondents are male and under the age group of 21-35 years and majority of the respondents (68%) have degree and above. More number of the respondents falls into the annual income group of Below 1 lakh.

**Table –1: Demographic Profile of the Consumers**

Sl. No.	Particulars	No. of Respondents	Percentage (%)
(1)	Gender:		
	Male	58	58

	Female	42	42
	Total	100	100
(2)	Age (years):		
	Below 20	10	10
	21 – 35	68	68
	36 – 45	12	12
	46 – 55	10	10
	Above 55	-	-
	Total	100	100
(3)	Educational Qualification:		
	Up to SSLC	12	12
	PUC	22	22
	Degree and above	66	66
	Total	100	100
(4)	Occupation:		
	Student	20	20
	Govt Employee	8	8
	Agriculture	10	10
	Business	18	18
	Others	44	44
	Total	100	100
(5)	Annual Income ( ` lakhs):		
	Below 1	50	50
	1 to 5	34	34
	5 to10	8	8
	Above 10	8	8
	Total	100	100

Source: Field survey

### Hypothesis

$H_{01}$  There is no significant relationship between gender of the respondents and usage of internet

**Table – 2: Gender wise Classification of respondents for usage of Internet**

Purpose of Using Internet	Gender		Total	Test Results
	Male	Female		
Shopping	22 (18.56) [0.64]	10 (13.44) [0.88]	32	$X^2 = 2.8838$  $p = .577451$  $p < .05$
Social Networking	24 (29.00) [0.86]	26 (21.00) [1.19]	50	
Education	08 (5.80) [0.83]	02 (4.20) [1.15]	10	
Banking	02 (2.32) [0.04]	02 (1.68) [0.06]	04	
Mailing	02 (2.32) [0.04]	02 (1.68) [0.06]	04	
Total	58	42	100	

Source: Field survey

Table 2 clearly reveals the Gender wise Classification of respondents for usage of Internet. Out of 100 respondents, 58 of them are male respondents and 42 are female respondents. Among 58 male respondents 24 are using internet for the purpose of social networking, 22 respondents are using it for the purpose of shopping, 8 of them are

using it for education purpose and only 2 respondent each are using it for the purpose of banking and mailing purpose. Out of 42 female respondents, 26 are using it for the purpose of social networking, 10 of them are using it for shopping purpose and for the purpose of education, and Banking and Mailing is only 1 each respectively.

When we consider the gender and internet usage of the sample respondents we can analyse that the pattern of distribution of internet usage is the same. The  $X^2$  value is 2.8838 and p value is .577451 which indicates that there is no significant difference in the opinion expressed by female respondents towards usage of internet.

**Table -3: Classification of respondents based on their educational background for usage of devices**

Use of Device	Educational Background			Total	Test Results
	Up to SSLC	PUC	Graduation and above		
Desk Top	02 (0.72)(2.28)	02 (1.32)(0.35)	02 (3.96)(0.97)	06	$X^2 = 9.0308$ $p = 0.171851$
Lap Top	02 (1.20)(0.53)	04 (2.20)(1.47)	04 (6.60)(1.02)	10	
Tablet	02 (1.20)(0.53)	02 (2.20)(0.02)	06 (6.60)(0.05)	10	
Smart Phones	06 (8.88)(0.93)	14 (16.28)(0.32)	54 (48.84)(0.55)	74	
Total	12	22	66	100	

Source: Field survey

The above table substantiated that, there is a 12 respondent's fall below SSLC, out of which 2 respondents using desk top, laptop and tablet for internet purpose. Remaining 6 respondents were using smart phones. There is 22 respondents falls the education level of PUC. Out of which a respondent using desktop, 4 and 2 were using laptop and tablet respectively. The remaining

14 respondents were using smart phones for using internet. There is a 66 respondent's falls the education level of graduation and above. Out of which a respondent using desktop, 4 and 6 were using laptop and tablet respectively. The remaining 54 respondents were using smart phones for using internet.

When we consider the educational background and usage of device the

sample respondents we can analyse that the pattern of distribution of device usage is the same. The  $X^2$  value is 9.0308 and p value is 0.171851 hence, there is no significance.

**Hypothesis**

$H_{02}$  There is no significant relationship between the occupational background of the respondents and the place of accessing the internet.

**Table -4: Classification of respondents based on occupational background for access of Internet**

Place of Access	Occupational Background					Total	Test Results
	Student	Government Employee	Agriculture	Business	Others		
House	12 (12.00)	4 (4.00)	4 (4.00)	18 (18.00)	4 (4.00)	42 (42.00)	$X^2 = 26.5046$ $p = .047328$  $p < .05$
Office	2 (2.00)	2 (2.00)	2 (2.00)	2 (2.00)	10 (10.00)	18 (18.00)	
Internet café	2 (2.00)	2 (2.00)	2 (2.00)	2 (2.00)	6 (6.00)	14 (14.00)	
College	2 (2.00)	2 (2.00)	2 (2.00)	2 (2.00)	2 (2.00)	10 (10.00)	
Others	2 (2.00)	2 (2.00)	4 (4.00)	6 (6.00)	2 (2.00)	16 (16.00)	
Total	20 (20.00)	12 (12.00)	14 (14.00)	30 (30.00)	34 (24.00)	100 (100)	

Source: Field survey

From the above table it is very clear that, 42% of the respondents were accessing the internet from house, among 18 % of them are from business background, 12% are belong to students community and remaining are from Government Employee, Agriculture and from other background which works out to 4% each respectively. 18% of the respondents were accessing the internet from office, among 10 % of them are from other background and remaining are from student, Government Employee and Agriculture background which works out to 2% each respectively.14%

of the respondents were accessing the internet from internet cafe, among 6 % of them are from other background and remaining are from student, Government Employee and Agriculture background which works out to 2% each respectively.

10% of the respondents were accessing the internet from office, among other background, student, Government Employee and Agriculture background which works out to 2% each respectively.16% of the respondents were accessing the internet from house, among 6 % of them are from business background,

4% are belong to Agriculture community and remaining are from Government Employee, student and from other background which works out to 2% each respectively.

When we consider the occupational background of the respondents and the place of accessing the internet, we can analyse that the pattern of distribution of place of accessing the internet is different. The  $X^2$  value is 26.5046 and p value is .047328 which indicates that there is a significant difference in the opinion expressed by respondents towards the place of accessing the internet.

**Table – 5: Classification on the basis of online procedure followed for purchase of product**

Procedure followed while purchasing of product through online	No of respondents	Percentage
I buy the product through online after analyzing the product information provided by the online.	36	36
I get the product information from the website and discuss with others before placing the orders through the online.	44	44
I get the product details from the internet and visit nearest shops to verify the details and place the order either online or buy the local shop	10	10
I get the product details from the website but i buy at local dealers and shops.	10	10
<b>Total</b>	<b>100</b>	<b>100</b>

Source: Field survey

The table exhibit that, the online marketing will grow due to the following reasons of the respondents were shows that, 36% of the respondents opinions I buy the products through online after analyzing the product information provided by the online, 44% of the respondents opinions were I get the products information from the website and discuss with others before placing the orders through online, 10% of the respondents opinions were I get the products details from the internet and visit nearest shops to verify the details and place the order either online or buy the local shop and 10% of the respondents opinions were I get the products details from the website but I buy at local dealers and shops.

**Table – 6: Classification on the basis of order of priority the reasons for purchasing online**

Sl. No.	Reasons for purchasing online	Priority frequency	Rank
1	Safety and security	14 (14%)	3
2	Easy to handle	26 (26%)	1
3	Time saving and speed process	12 (12%)	4
4	Reliability	18 (18%)	2
5	Good deals offered by the company	2 (2%)	8
6	Wide range of choice	10 (10%)	5

7	Payment system is very easy	2 (2%)	8
8	Quality delivery of products and services	6 (6%)	6
9	Product information gathering	6 (6%)	6
10	Easy to access to global market	4 (4%)	7
<b>Total</b>		<b>100</b>	

Source: Field data



**Graph – 1: Ranking on the basis of reasons for purchasing online**

The above table witnessed that, 18 respondents are purchasing products through online because of its reliability.26 are for easy handle, 14 are for reason of safety and security provided in online purchase. 12 are for



time saving and speed process.10% respondents are purchasing for the reason of wide range of choice

and 6 respondent are using online purchase because of quality delivery and product information gathering

respectively. Remaining 2% of respondent are for good deals and easy payment system respectively.

**Summary of Major Findings**

Hypotheses	Result
H <sub>01</sub> There is no significant relationship between gender of the respondents and usage of internet	No Significant (P > .05)
H <sub>02</sub> There is no significant relationship between the occupational background of the respondents and the place of accessing the internet.	Significant (P < .05)

1. Many of the male respondents are using internet for social networking. Many of the respondents fall between the graduate and above background and they use smartphones for internet.
2. Majority of the respondents get into the internet at house. Many of them use for the sake of product information from the website and discuss with others before placing the orders through the online.
3. Customers are purchasing the product through online, due to easy handling in digital marketing.

are most important element to success and failure of these kinds of marketing strategies. The level of satisfaction of individuals is having direct linkage towards their post purchasing behaviour. As a result of the study customer can have wide range of varieties, they can compare the price of product with among sellers and purchase products through online is much easier than physical and which is safe and secure. Hence, this electronic media create more awareness regarding its facilities, offers and its working mechanism.

**MA**

**References**

1. Charles Gibson (April 2015). *Effectiveness of Digital Marketing in the Challenging Age: An Empirical Study. International Journal of Management Science and Business Administration. 1(6): pp. 69-80.*
2. Dr. S. Sivasankaran (September 2017). *Digital Marketing and Its Impact on Buying Behaviour of Youth. International Journal of Research in Management & Business Studies. 4(3); pp 35-39.*
3. Ivan S Domazet and Sladjana

**The supreme purpose of digital marketing is to allow the buyers to intermingle with the products by virtue of digital media**

Neogradi (2019). *Digital Marketing and Service Industry: Digital marketing in the Banking Industry. Managing Diversity, Innovation and Infrastructure in Digital Business. Pp. 21.*

4. NaseethAhamedNizar and ChrishankarJanathanan (2018). *Impact of Digital Marketing on Consumer Purchase Behaviour. APIIT Business, Law and Technology Conference.*
5. Pooja Sharma, Sushant Gupta and Deepika Kapoor (2020). *Digital Marketing and Consumer Millennials: A Comparative Study of Men, Women and Transgender Consumers Buying Behaviour in Punjan. Indian Journal of Marketing. 50(3). pp. 47-57.*

**Concluding Remarks**

Digital marketing plays a stupendous role in modern business culture. Digital marketing is the fastest e-commerce solution available to customers. Digital marketing is the avenue of electronic communication which is used by the marketers to authorise the goods and the services towards the marketplace. The supreme purpose of the digital marketing is to satisfy the consumers and allows the customers to intermingle with the product by virtue of digital media. The attitude and loyalty of consumers

**Kind Attention !!!**

To make the wide publicity of your Region and Chapter of the Institute we print the matters/happenings/news achievements/activities related to your Region and Chapter. For the wide coverage of the same you are hereby requested to provide us the brief write-ups related to any activities organised by your Region and Chapter for the purpose of publication in *“The Management Accountant”* Journal along with the selected high resolution pictures (.jpeg format) within 45 days of the date of the event and within 20th of every month to [editor@icmai.in](mailto:editor@icmai.in)

# Down The Memory Lane

September 2011



Shri M. Gopalakrishnan, President, ICWAI addressing the dignitaries and guests during the CEO/CFO meet held at Taj Bengal, Kolkata on 16.09.2011



Shri M. Gopalakrishnan, President, ICWAI; Shri Jaydeep Shah, Vice President; Ms. Parveen Mahmud, President, ICA Bangladesh; Shri Komal Chitracar, Past President, SAFA (Nepal); Shri A.N. Raman, President, SAFA; Mr. Muhammad Rafi, Vice President, SAFA; Shri Lakshman Watawala, President, CMA Sri Lanka; Shri Sudarshan Pande, President, ICA, Nepal; Shri Sudhir Sharma, Executive Secretary, SAFA. (Standing from left) Shri Paramananda Adhikari, Director, ICA Nepal; Shri Madhu Bir Pande, Vice President, ICA Nepal; Shri Amit Apte, CM, ICWAI; Shri A. Om Prakash, CM, ICWAI; Shri Suvod Kam, CCM, ICA Nepal; Shri Mazumder, CCM, ICMA Bangladesh; Mr. Sujeewa Rajapakse, Vice President, ICA, Sri Lanka; Mr. A. Aziz, CCM, ICMA Bangladesh; Mr. Mushtaq Madraswala, Executive Director, ICMA Pakistan; Shri Mudit Vashishtha, SAFA Nodal Officer, ICAI

## National Students' Fest 2011



Memento being handed over by Shri M. Gopalakrishnan, President, ICWAI to Dr. Veerappa Moily, Hon'ble Union Minister of Ministry of Corporate Affairs. Seen are Shri B.R. Prabhakar, Chairman, SIRC (fourth from right), Council Members Shri A.S. Durga Prasad (third from right), Dr. P.V. S. Jagan Mohan Rao (second from right) and Shri A.Om Prakash (extreme right)



Dr. Veerappa Moily, Hon'ble Union Minister of Ministry of Corporate Affairs handing over medal and certificate to one of the rank holders of ICWAI (Final) Exams in June 2011. Also seen are Shri M. Gopalakrishnan, President, ICWAI; Shri B.R. Prabhakar, Chairman, SIRC (standing next to Hon'ble Minister); Council Members Shri A.S. Durga Prasad (standing second from right) and Shri A. Om Prakash (standing extreme right)

## September 2001



V.V. Deodhar, President, ICWAI in a meeting on 07 September 2001 at Delhi with Shri Arun Jaitley, Union Minister of Law, Justice & Company Affairs. Others seen in the picture: Chandra Wadhwa, CCM, Kunal Banerjee, Vice President, D.V. Joshi, CCM

# Down The Memory Lane



V.V. Deodhar, President, ICWAI meeting Chief Minister of Goa, Shri Manohar Parrikar alongwith S. Ramanathan, CCM & Past President at Goa on September 2001



V.V. Deodhar, President, ICWAI at the inauguration of US GAAP and International Accounting Standards programme in Mumbai

**September 1991**



V.V. Deodhar, President, ICWAI, alongwith (from right) D.C. Bajaj, Past President and CCM; Prof. K.L. Kamal, Vice Chancellor, University of Rajasthan; N.K. Puri, MD, SBBJ; Dr. B.L. Gupta, Chairman, Jaipur Chapter and Dr. B.K. Mishra, Secretary, Jaipur Chapter



Shri Narendranath Dey, Minister-in-Charge, Dept. of Food & Supply, Government of West Bengal; Shri D.K. Ghose IAS, Secretary, Department of Food & Supplies, Government of West Bengal; Shri P.D. Phadke, President; Shri S.R. Acharyya, Secretary; Shri S. Ramanathan, Chairman, CEP Committee of the ICWAI with Council Members of EIRC; Officers of Government of West Bengal and the ICWAI and the participants of the programme at the inaugural Session of the Training Programme on Management of Supply of Essential Commodities through Public Distribution System

**September 1981**



Sitting (L to R): S/Shri A.V. Ramana Rao, President, ICWAI; Hon'ble Minister Jatin Chakraborty, PWD & Housing, Government of West Bengal; Amitava Bhattacharjee, Central Council Member, Dr. R.N. Mishra, Chairman, EIRC addressing the programme on Cost and Management Audit- A service to Industry and Government on 05th September, 1981



Shri N.N. Pai, CMD, IDBI delivering inaugural address in the Seminar on "Term Lending on 28 September '81. Shri H.T. Parekh, Chairman, HDFC is on his right and Shri G.R. Kulkarni, Shri K.B. Varnekar and Shri R. Manikkam on his left

*Source: Extracted from the various issues of The Management Accountant Journal*

# 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

A programme for inauguration of Oral Coaching of the Chapter for the December – 2021 semester had been conducted on 31.07.2021 through both online and offline mode. The programme has been inaugurated by lightening the sacred lamp before the Lord Jaganath by the Chairman, Secretary and Chairman of Oral Coaching of the Chapter with a warm welcome to the Students and Faculties. The meeting was addressed by the CMA Ashwini Kumar Patro, Chairman, CMA Rajkiran Padhi, Secretary and CMA N. C. Kar, Chairman, Oral Coaching Committee and the Faculties. The meeting ended with thanks to all for their presence which made it a grand success.



### THE INSTITUTE OF COST ACCOUNTANTS OF INDIA BHUBANESWAR CHAPTER

The Chapter observed the 75th Independence Day at its premises at CMA Bhawan following all precautionary measures issued by the Govt. to contain spreading Pandemic COVID-19. CMA Manas Ranjan Lenka, Past Chairman, ICAI-Bhubaneswar Chapter unfurled the National Flag as “Chief Guest” and addressed on the Occasion. CMA Himoj Mishra, Chairman of the Chapter, CMA Santanu Kumar Rout, Vice Chairman Cum Treasurer, CMA Surya Narayan Tripathy, Secretary and CMA Saktidhar Singh , Chairman, PD Committee and Past Chairman of the Chapter also joined and addressed on the occasion. Considering Pandemic COVID-19, it was restricted only among Staffs and MC Members. Accordingly arrangement was made for Webcast for view of Members, Faculties and Students. The Chapter, SEBI and BSE have jointly organized a WEBINAR on the theme “Investing and role of Regulators in India” on 19th August, 2021 to commemorate observance of August 2021 as Investor Month as declared by our Institute and create awareness on capital market & its mechanism. Shri Yogesh Bamardekar, Additional General Manager, BSE IPF, Mumbai delivered on “ Basics of Investment”, Shri Anshuman Das, DGM, SEBI, Bhubaneswar RO shall delivered on “Role and Responsibilities of SEBI”, Shri Raghunath Nayak, BSE, Bhubaneswar delivered on “Role of Mutual Fund in Wealth Creation”, CMA Himoj Mishra , Chairman of the Chapter

delivered the Welcome Address and highlighted about CMA Profession, Bhubaneswar Chapter and their activities . CMA Saktidhar Singh, Chairman, PD Committee and Past Chairman of the Chapter delivered and extended vote of thanks.



## NORTHERN INDIA REGIONAL COUNCIL

### THE INSTITUTE OF COST ACCOUNTANTS OF INDIA JAIPUR CHAPTER

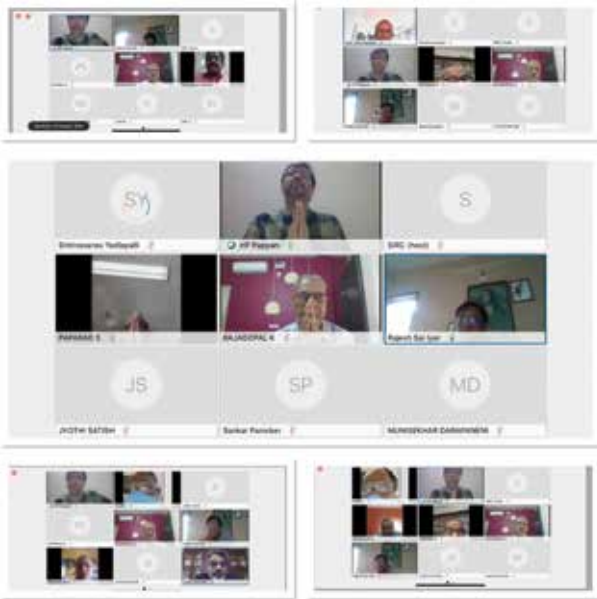
The Chapter celebrated the 75th Independence Day on 15th August 2021 at its Premises. Chairman of the Chapter CMA S.L. Swami hoisted the National Flag along with Members and Staff. On this occasion CMA S.L. Swami welcomed all the participants. He also apprised the members about various activities, achievements and latest developments at Jaipur Chapter. Program was conducted by CMA Sudarshan Nahar, Secretary of the Chapter.



## SOUTHERN INDIA REGIONAL COUNCIL

SIRC arranged a Condolence Meet to observe the sad demise of CMA V. Kalyanaraman, Former President ICAI and SAFA on Sunday 6th June, 2021 at 11. 00 a.m. through online. In the Meet, President – ICAI, Regional Council Members – SIRC and Council Members – ICAI shared their memories of Shri Kalyanaraman on the milestones achieved, awards conferred for his contribution to our CMA Profession and service rendered to the society. CMA H. Padmanabhan, Council Member – ICAI who conducted the event in his address highlighted that Shri Kalyanaraman was the Father of our CMA Profession and also the first Cost Accountant who was elected as President of SAFA. While concluding, CMA Papparao Sunkara, Chairman –SIRC thanked all the members who have participated in the meet. As per the directives received from the Tax Research Directorate, ICAI, on the eve of ‘GST Day Observation Week – The Journey

of GST and Way Forward – Atmanirbhar Bharat’ SIRC – ICAI organised a Webinar on 7th July, 2021. Shri G. Ravindranath, IRS, Principal Commissioner – GST & Central Excise, Chennai North was the Chief Guest. Guest of Honor was Mrs. Nalina Sofia, IRS – Joint Commissioner, Chennai South who in her address on ‘Recent Updates in GST’ briefed our Members on the topics such as ‘Amnesty Scheme – Relief on Late Fee for pending returns’, ‘Refunds’, ‘E – Way Bills’, ‘E – Invoicing’, ‘Fake – Invoice’ etc. CMA Jatin Christopher, GST Consultant was the Guest Speaker who addressed our members on the topic, ‘GST Expectations – Fulfilled or Awaited’. At the Interaction Session, members’ queries were replied by the Guest Speaker in a suitable manner. Around 50 members actively participated in the Webinar.



**PD WEBINAR by SIRC of ICAI  
GST WEEK CELEBRATION  
GST So Far & The Way Forward  
(Topic : GST - Expectations Fulfilled or  
Awaited) on Wednesday, July 7, 2021**



On the Eve of 75<sup>th</sup> Independence Day Celebration, CMA H. Padmanabhan, Council Member & Chairman, CAT & AAT Board – ICAI hoisted the National Flag at the Premises of SIRC – ICAI, Chennai on 15th August, 2021 . Due to COVID – 19

pandemic alerts only a very few Staff members of SIRC and support staff participated in the Flag Hoisting Ceremony. After hoisting the National Flag, CMA H. Padmanabhan greeted the staff members present and advised them to be safe and wished all to be healthy. Mr. P. Balamurugan, Assistant Director – SIRC also thanked CMA H. Padmanabhan and wished the staff members to be safe.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA  
BENGALURU CHAPTER**



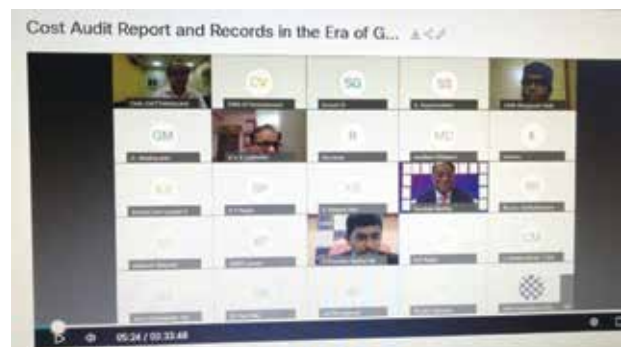
The Chapter organized two professional development Meets on July and August 2021 and CMA N.Ramaskanda, Past Chairman - BCCA, Practicing Cost Accountant, CMA B.R.Prabhakar, Past Chairman - SIRC, Practicing Cost Accountant were the coordinators of the Meets. CMA Raju Iyer, Vice President, ICAI, CMA Murali Prasad, Practicing Cost Accountant, CMA TCA Srinivasa Prasad, Former Advisor (ERP), NMDC Ltd & Executive Director (F&A), SAIL & Former Central Council Member- ICAI, CMA Dr. G.Chidambara, Sr.Director, Cloud Applications Consulting, Oracle India., CMA Dr.Ganesaraman K, VP & Head - Global Internal Audit, CMA Manjula B.S.- Chairperson BCCA, CMA Sreepada H R – PD Chairman BCCA, CMA Kumar H N – Vice Chairman BCCA, CMA Satish

R – Secretary & Coaching Chairman BCCA, CMA Vishwanath Bhat, Secretary SIRC were the speakers of the Meets. The Chapter organized practitioner’s forum on “Overview of Cost Audit” at Bengaluru Chapter, through online Webinar and CMA S.Venkanna, Past Chairman - BCCA, Practising Cost & Management Accountant. CMA Kumar H N – Chairman BCCA, CMA Jayarama A V – Secretary BCCA, CMA Pranabandhu Dwibedy – Chairman - Practitioners’ Forum, CMA Raju Iyer, Vice President, ICAI, CMA S C Mohanty – Past President ICAI, CMA Dr.Jagan Mohan Rao – Past President ICSI were the speakers of the programme. 110th Bath Oral Coaching Inauguration” at Bengaluru Chapter, through online Webinar on August 14, 2021. Dr.R.Krishna, Professor & Director – Strategic Initiatives, AIMS – IBS ‘B’ School, Electronic City, Bangalore was the chief guest of the programme. Independence day Celebration on August 15, 2021 at the Chapter and Sri. Shankar Bidari, IPS (Retd). Former Director General of Police, Karnataka State was the chief guest of the event.

### THE INSTITUTE OF COST ACCOUNTANTS OF INDIA HYDERABAD CHAPTER

The Chapter organized a virtual session on “Improper GST Return Filing and Impact on State Revenue on July 3, 2021. Smt. Neetu Prasad, IAS., Commissioner of Commercial Taxes- Govt of Telangana has given Comprehensive update on GST evaluation in Telangana state. CMA S. Papa Rao, Chairman – SIRC & Central Council Member, CMA Dr. K.Ch. A.V.S.N. Murthy, Central Council Member, CMA D. Zitendra Rao garu – Practising Cost Accountant, CMA B. Mallikarjuna Gupta - Sr. Vice President -Taxation Practices, ArBhar Consulting Pvt. Ltd, CMA D.V. Rambabu -Practising Cost Accountant, CMA A.S.Nageswara Rao – Practising Cost Accountant, Khaja Jalal Uddin – Practising Cost Accountant cum Managing Committee member and other cost accountants actively participated in this interactive session. GST: Insight to Constitutional Changes and Compensation to States on July 4, 2021. Sri N. Madhusudan Reddy - Deputy Commissioner, Head Qtrs, GST –Central Tax, Hyd was chief guest for this programme. CA Vamshi Krishna Javvaji, speaker of this programme made a very informative presentation on -Authority to levy taxes, formation of GST council, dual GST model- revenue bifurcation, compensation to states etc. The Chapter organized online session on “Cost Audit Reports and Records in the Era of GST” on July 7, 2021. Sri Kasi Visweswara Rao – Addl. Commissioner, Commercial Taxes, Govt of Telangana, CMA Dr. K. Ch. A.V.S.N. Murthy – Central Council Member, CMA Chittaranjan Chattopadhyay – Central Council Member were honorary guests. CMA B. Mallikarjuna Gupta, Sr. Vice President -Taxation Practices, ArBhar Consulting Pvt. Ltd as moderator. MA Shiba Prasad Padhi, Practising Cost Accountant, CMA U. Lakshmana Rao – Practising Cost Accountant were also invited as panelists. The Chapter organized career counselling programmes at Govt City College on July 12, 2021. CMA Rajanala Chandra Sekhar counselled the students. MA P. Chandra Sekhara Reddy – Chairman, CMA M. Venkateshwarlu – Immediate Past Chairman participated in this programme. On 13.07.2021, the Chapter conducted a career awareness programme at Tapasya College of Commerce & Management. CMA P. Chandra Sekhara Reddy – Chairman, CMA M. On 14.07.2021 the chapter organized session on “Key Changes in ITR Forms and Critical Developments in

E-Filing in New Income Tax Portal”. Professional stalwarts CMA S. Paparao - Chairman, SIRC & Central Council Member, CMA Dr. K.Ch.A.V.S.N. Murthy – Central Council Member, CMA Dr. V. Murali – Central Council Member as honorary guests for this programme. CA Dr. Abhishek Murali, Regional Council Member, SIRC of ICAI gave eloquent presentation on “Key Changes in ITR Forms and Critical Developments in E-Filing in New Income Tax Portal”. The participants actively participated and appreciated the programme. On 23.07.2021 the chapter organized session on Tax Deducted at Source – Practical Issues & Latest Dev.– TDS on Purchase of Goods (194Q) and Compliance Check u/s 206AB & 206CCA Smt D. Komali Krishna, IRS - Commissioner of Income Tax (Appeals) – 10, Hyd, CMA Dr. K.Ch. A.V.S.N. Murthy, Central Council Member, CMA S. Papa Rao, Chairman – SIRC & Central Council Member graced this programme. CA Abhishek Murali clearly explained with practical illustrations for clear and easy understanding of the new provision of TDS on purchase of goods, contained in section 194Q. Finance Act 2021 introduced new a section 206AB and 206CCA in the Income-tax Act 1961 w.e.f. 01st July, 2021. CA Abhishek Murali explained about new developments and tried to familiarize the participants and for inculcating skills required for the compliance. On 24.07.2021 the chapter organized a session on “How to conduct Cost Audit – Creating Right environment and Framework”. The Chapter conducted the programme on the occasion of auspicious day of Guru Purnima. Prof. A. Ramulu, Secretary- Surabharathi – Osmania University, CMA Dr. P.V.S. Jagan Mohan Rao -Past President – SAFA & Past President -ICSI, CMA Dr.K.Ch. A.V.S.N. Murthy, Central Council Member, CMA P. Chandra Sekhara Reddy, Chairman – HCCA, CMA K. Someswara Babu, Secretary - HCCA have addressed the august gathering. CMA Chandrashekhar Adawadkar, Speaker elaborated on his agenda topics- Hypothesis, Problem Statement, Clinical Approach, One Hour Challenge – Diagnostic Test, Diagnose the problem, Possible solutions, Roadmap for becoming value creator etc.



### THE INSTITUTE OF COST ACCOUNTANTS OF INDIA TRIVANDRUM CHAPTER

The 75th Independence Day was celebrated by the Chapter by hoisting National Flag at Chapter premises followed by distribution of sweets observing strict Covid protocol. The National Flag was hoisted by CMA Pramode Chandran P G, Chairman at 9 am and gave a brief speech about the importance of remembering the Heroes who have sacrificed their life for attaining the freedom. CMA Pranav Jayan and a few students and members attended the programme.





## THE INSTITUTE OF COST ACCOUNTANTS OF INDIA MYSURU CHAPTER

On the occasion of 75 years of Independence flag hoisting was done by the Chapter on 15.08.2021.



## THE INSTITUTE OF COST ACCOUNTANTS OF INDIA TIRUCHIRAPALLI CHAPTER

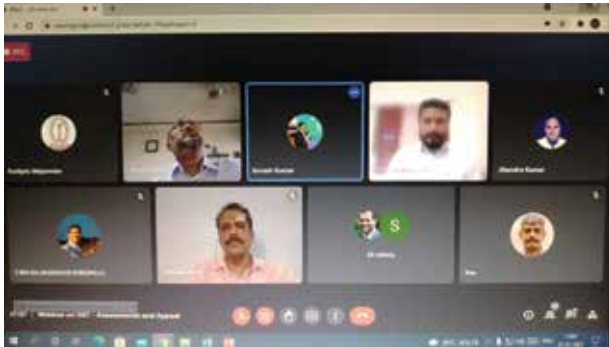
The Chapter celebrated 75th Independence Day on 15-08-2021. Flag Hoisting was done by CMA P. Manoharan, Chairman of the Chapter.



## THE INSTITUTE OF COST ACCOUNTANTS OF INDIA COCHIN CHAPTER

The Chapter conducted its 95th Session Inauguration of Oral Coaching on 14th July 2021 at Center for Excellence, Chalikkavattom, Vyttila through Google Meet. CMA Renjini R, MC Member, Cochin Chapter delivered welcome speech. CMA Sureshkumar K P, Chairman, Cochin Chapter, inaugurated the function and CMA Sankar P Panicker, Member SIRC felicitated on the occasion. Mr. Biju K Elias, Superintendent, Cochin Chapter delivered vote of thanks. A webinar was conducted on Business Revival in Disruptive Scenario on 18th July 2021 in connection with 8th N P Gopalakrishnan Memorial Lecture Series. Shri Kumar K. R., Director Finance, Kochi Metro Rail Limited was the speaker. CMA Renjini R, MC member welcomed the Chief Guest and other participants and CMA Meena George, Chairman, PD Committee deliver vote of thanks. The programme well attended by members. The Chapter conducted a career Guidance at St. Joseph's College, Irinjalakuda on 28th July 2021, through online mode. CMA Sankar P Panicker, Member, SIRC was the resource person. The Chapter conducted a webinar on Business Revival in Disruptive Scenario on 31st July 2021 through Google Meet Platform. CMA Amit Sarker, Senior Director- Indirect Taxation, Deloitte Haskins & Sell, LLP was the speaker. CMA Padmakumar V A, Chairman, Cochin Chapter welcomed the Chief Guest as well as the participants. CMA Renjini R, Chairman, PD Committee, Cochin Chapter introduced the Speaker and CMA Thomas T V, Secretary, Cochin Chapter deliver vote of thanks. The programme was well attended by members.





**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA  
VISAKHAPATNAM CHAPTER**

The Chapter organized inauguration of new session on 14th Aug 2021 and celebrated Independence day.



**WESTERN INDIA REGIONAL COUNCIL**

**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA  
AHMEDABAD CHAPTER**

The Chapter vigorously started promotion activities for CMA course. As part of Career counselling activity, CMA Mitesh Prajapati, Secretary and Oral Coaching Committee Chairman along with admin person met principals of different universities and colleges and owner of Private classes.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA  
PIMPRI CHINCHWAD AKURDI CHAPTER**

The Chapter conducted webinar on 'Dairy Industry: Session 4 – Strategic Cost Management' on 31st July 2021 through Google Digital platform. CMA Pradeep Deshpande, Vice Chairman welcomed the speaker & audience and CMA Sagar Malpure - Chairman - P D Committee Introduction the speaker CMA M R Naidu, Practicing Cost Accountant. CMA Naidu in his speech focused on Cost Management Efforts in which he explained in detail on the topic Value Chain – Dairy Industry, Milk Procurement Challenges, Milk Processing Challenges etc. CMA Swapnil ended the session with vote of thanks. The Chapter conducted inaugural function of 21st Batch of Online Coaching classes on 1st August 2021 through Google Digital Platform. CMA Dhananjay Kumar Vatsyayan, Chairman of the Chapter welcomed and introduced the Chief Guest CMA Chandrakant Modak, Past Chairman of Navi Mumbai Chapter and CFO – Renews India Pvt. Ltd.,



Mumbai. CMA Dhananjay Kumar Vastyayan in his speech focused on the activities of the Chapter. CMA Chandrakant Modak in his speech congratulated all the students for choosing CMA option and guided them about future career. The Chapter conducted webinar on ‘Dairy Industry Session 5: Strategic Cost Management’ on 7th August 2021 through Google Digital platform. CMA Dhananjay Kumar Vatsyayan, Chairman of the Chapter welcomed the participants and CMA Swapnil Maid - Member - P D Committee introduced the speaker CMA Anand Karpe, Manager (Costing), Gokul Milk, Kolhapur Zilla Dudh Utpadak Sangh Ltd., Kolhapur. CMA Anand Karpe in his speech focused on special features/aspects on Dairy Business. Lack of Professional Management. The session was well interactive. There was overwhelming response for the webinar by the Members in practice, Professionals, Members from industries and Students. CMA M R Naidu ended the session with vote of thanks. The Chapter conducted a webinar on ‘Atma Dipo Bhavah: Manage Your Self’ on 14th August 2021 through Google Digital platform. CMA Ashish Deshmukh, Past Chairman of PCA Chapter welcomed and introduced the speaker Dhananjay Kumar Vatsyayan Chairman of PCA Chapter. The program ended with vote of thanks. The Chapter celebrated Flag Hoisting Ceremony on the occasion of the 75th Independence Day of India on 15th August 2021 at CMA Bhawan by keeping social distancing. The Chapter organized Covishield Vaccination for Members and Students from 16th August 2021 onwards at CMA Bhawan. The event was started with the help of Hon’ble Shri. Tushar Hinge, Vice-Mayer, Pimpri Chinchwad Municipal Corporation. The Chapter conducted a webinar on ‘Integrated Reporting: Beyond Financial Numbers’ on 21st August 2021 through Google Digital platform. CMA Sagar Malpure - Chairman - P D Committee welcomed and introduced the speaker CMA Dr. S K Gupta, Managing Director, Registered Valuers Organisation – The Institute of Cost Accountants of India. CMA Dr. Gupta in his speech said, corporate reporting is an essential means by which companies communicate with investors as part of their accountability and stewardship obligations. CMA Hanif Shaikh ended the session with vote of thanks

**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA  
PUNE CHAPTER**

The Chapter arranged CEP Webinar jointly with Solapur Chapter on the subject “Interplay of TDS and TCS on Sale of Goods and Challenges on 31st July 2021 through

GOOGLEMEET video conferencing tool. Welcome address was delivered by CMA Murali Iyengar, Chairman of ICAI-Solapur Chapter. Speaker CA, CMA Sunil G Ingale (Secretary-ICMAI Solapur Chapter) explained concept of TDS and TCS on Sale of Goods and Challenges The session was very informative. CMA Amol Kshirsagar Member of ICAI-Solapur Chapter welcomed & introduced the Speaker CA, CMA Sunil G Ingale to the participants. He also delivered vote of thanks. The session was very interactive. ICAI Pune Chapter arranged CEP Webinar on the subject “Ayurveda In Post Covid complications” on 13th August 2021 through GOOGLEMEET video conferencing tool. Speaker was Dr.Shweta Labde. CMA Nilesh Kekan Member of ICAI-Pune Chapter welcomed & introduced the Speaker Dr.Shweta Labde. She explain about the hurdles like fatigue, mental confusions, bodyache, coagulaopathies, mucormycosis and many more conditions which make daily living a struggle in the journey of COVID recovery. CMA Nilesh Kekan delivered vote of thanks. ICAI-Pune Chapter celebrated 75th Independence Day by Flag hoisting ceremony on Sunday, 15th August 2021 at ICAI Pune Chapter, CMA Bhawan premises. CMA Neeraj Joshi, CCM, ICAI unfurled the flag. This was followed by recital of National Anthem. CMA Chaitanya Mohrir, RCM WIRC, CMA Nilesh Kekan, Treasurer ICAI-Pune Chapter, CMA Abhay Deodhar, Committee Member, ICAI-Pune Chapter, CMA N.K.Nimkar ,CMA Pramod Dube Past Chairman ,CMA Meena Vaidya ,Past Chairperson, ICAI- Pune Chapter, CMA Chitnis, Member & Staff were present for the ceremony. ICAI Pune Chapter arranged CEP Webinar on the subject “Discussion on draft Multi-Disciplinary Partnership (MDP)” on 20th August 2021 through GOOGLEMEET video conferencing tool. CMA Neeraj Joshi, CCM, ICAI was Speaker for the Webinar. He highlighted and explained the points given on draft Multi-Disciplinary Partnership. CMA Nilesh Kekan, Treasurer, ICAI-Pune Chapter welcomed & introduced the Speaker to the participants. ICAI Pune Chapter arranged CEP Webinar on the subject “Industry 4.0 and Finance” on 21st August 2021 through GOOGLEMEET video conferencing tool. Dr.Bhooshan Kelkar was Speaker for the Webinar. CMA Rahul Chincholkar, Member of ICAI-Pune Chapter welcomed & introduced the Speaker to the participants. The session was very educative. CMA Shrikant Ippalpalli, Member of ICAI-Pune Chapter delivered vote of thanks.



**DIRECT TAXES**

- ⊙ **Notification No. 84/2021 dated 3<sup>rd</sup> August 2021:** In exercise of powers conferred by sub-clause (iv) of clause (c) 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 pension fund, namely, the 2726247 Ontario Inc., (hereinafter referred to as "the assessee") as the specified person for the purposes of the said clause in respect of the eligible 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 investment") subject to the fulfillment of certain conditions.
- ⊙ **Notification No. 85 /2021 dated 4<sup>th</sup> August 2021:** In exercise of the powers conferred by clause (46) of section 10 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies for the purposes of the said clause, 'National Council of Science Museums', Kolkata (PAN AAAAN2541C), an autonomous body established under the Ministry of Culture, Government of India, in respect of the following specified income arising to the Council, namely:
  - (a) amount received in the form of grants-in-aid and subsidies from Government of India;
  - (b) fees or subscription by sale of tickets;
  - (c) charges for maintenance recovered for use of auditorium and other public facilities for scientific and educational purposes; and
  - (d) Income arising or derived by way of interest received from investment.

This notification shall be effective subject to the conditions that National Council of Science Museums, Kolkata:

  - (a) shall not engage in any commercial activity;
  - (b) activities and the nature of the specified income shall remain unchanged throughout the financial years; and
  - (c) shall file return of income in accordance with the provision of clause (g) of sub-section (4C) of section 139 of the Income-tax Act, 1961.
  - (d) shall file the Audit report along with the Return, duly verified by the accountant as provided in explanation to section 288(2) of the Income-tax Act, 1961 along with a certificate from the chartered accountant that the above conditions are satisfied.

This notification shall apply with respect to the financial years 2021-2022, 2022-2023, 2023-2024, 2024- 2025 and 2025-2026.
- ⊙ **Notification No. 86 /2021 dated 4<sup>th</sup> August 2021:** In exercise of the powers conferred by clause (46) of section 10 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies for the purposes of the said clause, 'Real Estate Regulatory Authority' as specified in the schedule to this notification, constituted by Government in exercise of powers conferred under sub-section (1) of section 20 of the Real Estate (Regulation and Development) Act, 2016 (16 of 2016) as a 'class of Authority' in respect of the following specified income arising to that Authority:
  - (a) Amount received as Grants-in-aid or loan/advance from

Government;

(b) Fee/penalty received from builders/developers, agents or any other stakeholders as per the provisions of the Real Estate (Regulation and Development) Act, 2016; and

(c) Interest earned on (a) and (b) above.

This notification shall be effective subject to the conditions that Real Estate Regulatory Authority, Himachal Pradesh, Shimla:

(a) shall not engage in any commercial activity;

(b) activities and the nature of the specified income shall remain unchanged throughout the financial years;

(c) shall file return of income in accordance with the provision of clause (g) of sub-section (4C) of section 139 of the Income-tax Act, 1961; and

(d) shall file the Audit report along with the Return, duly verified by the accountant as provided in explanation to section 288(2) of the Income-tax Act, 1961 along with a certificate from the chartered accountant that the above conditions are satisfied.

- ⊙ **Notification No. 87 /2021 dated 4<sup>th</sup> August 2021:** 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 Gujarat, hereby designates few Court as the Special Court for the purposes of section 84 of the Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015.
- ⊙ **Notification No. 88 /2021 dated 4<sup>th</sup> August 2021:** 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 Meghalaya, hereby designates the court of the senior most Judicial Magistrate First Class of East Khasi Hills District, Shillong as the Special Court for the State of Meghalaya for the purposes of sub-section (1) 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. 89 /2021 dated 4<sup>th</sup> August 2021:** 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 for the State of Telangana, hereby designates the Court of the Special Judge for Economic Offences-cum-VIII Additional Metropolitan Sessions Judge-cum-XXII Additional Chief Judge, City Civil Court, Hyderabad as the Special Court for the State of Telangana for the purposes of sub-section (1) 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. 90 /2021 dated 9<sup>th</sup> August 2021:** In exercise of the powers conferred by clause (4D) of section 10 and sub-section (1A) of section 115AD, 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. In the Income-tax Rules, 1962 (hereinafter referred to as the principal rules), after rule 21AH, the following rules shall be inserted, namely:

‘21AI. Computation of exempt income of specified fund for the purposes of clause (4D) of section 10.- (1). For the purpose of clause (4D) of section 10, income attributable to units held by non-resident (not being the permanent establishment of a non-resident in India) in a specified fund shall be computed in accordance with the following formula, Income exempt under clause (4D) of section 10=  $A * C1 + B * C2 + D * F1 + E * F2$ , where

A = any income accrued or arisen to, or received by a specified fund as a result of transfer of capital asset referred to in clause (viiab) of section 47, on a recognised stock exchange located in any International Financial Services Centre and where the consideration for such transaction is paid or payable in convertible foreign exchange;

B = any income accrued or arisen to, or received by a specified fund as a result of transfer of securities (other than shares in a company resident in India);

C1 = ratio of the aggregate of daily ‘assets under management’ of the specified fund held by non-resident unit holders (not being the permanent establishment of a non-resident in India) to the aggregate of daily total ‘assets under management’ of the specified fund, from the date of acquisition of the capital asset referred to in clause (viiab) of section 47 to the date of transfer of such capital asset.

C2 = ratio of the aggregate of daily ‘assets under management’ of the specified fund held by non-resident unit holders (not being the permanent establishment of a non-resident in India) to the aggregate of daily total ‘assets under management’ of the specified fund, from the date of acquisition of the security (other than shares in a company resident in India) to the date of transfer of such security.

D = any income accrued or arisen to, or received by a specified fund from securities issued by a non-resident (not being a permanent establishment of a non-resident in India) and where such income otherwise does not accrue or arise in India;

E = any income accrued or arisen to, or received by a specified fund from a securitisation trust which is chargeable under the head “profits and gains of business or profession”; and

F1 = ratio of the ‘assets under management’ in the specified fund held by non-resident unit holders (not being the permanent establishment of a non-resident in India) to the total ‘asset under management’ of the specified fund, as on the date of receipt of such income from securities issued by a non-resident (not being a permanent establishment of a non-resident in India) and where such income otherwise does not accrue or arise in India

F2 = ratio of the ‘assets under management’ in the specified fund held by non-resident unit holders (not being the permanent establishment of a non-resident in India) to the total ‘asset under management’ of the specified fund, as on the date of receipt of such income from a securitisation trust which is chargeable under the head “profits and gains of business or profession”

© **Notification No. 91 /2021 dated 10<sup>th</sup> August 2021:** In

pursuance of the powers conferred by sub-section (1) of section 245AA of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby establishes the Interim Boards for Settlement, having its headquarters at the place mentioned in the Schedule.

© **Notification No. 92 /2021 dated 10<sup>th</sup> August 2021:** In exercise of the powers conferred by sub-section (2D) of section 115JB 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.

In the Income-tax Rules, 1962, (hereinafter referred to as principal rules) after rule 10RA, the following rule shall be inserted, namely: “10RB. Relief in tax payable under sub-section (1) of section 115JB due to operation of subsection (2D) of section 115JB.- (1) For the purposes of sub-section (2D) of section 115JB, the tax payable by the assessee company under sub-section (1) of section 115JB, for the previous year referred to in that section, shall be reduced by the following amount

(A-B) – (D-C), where

A = tax payable by the assessee company under sub-section (1) of section 115JB on the book profit of the previous year including the past income;

B = tax payable by the assessee company under sub-section (1) of section 115JB on the book profit of the previous year after reducing the book profit with the past income;

C = Aggregate of tax payable by the assessee company under sub-section (1) of section 115JB on the book profit of those past year or years to which the past income belongs;

D = Aggregate of tax payable by the assessee company under sub-section (1) of section 115JB on the book profit of past year or years, referred to in item C, after increasing the book profit with the relevant past income of such year or years:

Provided that if the value of (A-B)-(D-C) in the formula is negative, its value shall be deemed to be zero.

© **Notification No. 93 /2021 dated 18<sup>th</sup> August 2021:** In the Income-tax Rules, 1962 (hereinafter referred to as principal rules), after rule 12A, the following rule shall be inserted, namely:

“12AA. Prescribed person for the purposes of clause (c) and clause (cd) of section 140.- For the purpose of clause (c) or clause (cd), as the case may be, of section 140, any other person shall be the person, appointed by the Adjudicating Authority for discharging the duties and functions of an interim resolution professional, a resolution professional, or a liquidator, as the case may be, under the Insolvency and Bankruptcy Code, 2016 (31 of 2016) and the rules and regulations made thereunder.

In the principal rules, after rule 51A, the following rule shall be inserted, namely:

“51B. Appearance by Authorised Representative in certain cases: For the purposes of clause (viii) of sub-section (2) of section 288, any other person, in respect of a company or a limited liability partnership, as the case may be, shall be the person appointed by the Adjudicating Authority for discharging the duties and functions of an interim resolution professional, a resolution professional, or a liquidator, as the case may be, under the Insolvency and Bankruptcy Code, 2016 (31 of 2016) and the rules and regulations made thereunder.

**INDIRECT TAXES**

**GST**

- ⊙ **Notification No. 32/2021 – Central Tax dated 29<sup>th</sup> August 2021:** In the Central Goods and Services Tax Rules, 2017,

  - (i) in sub-rule (1) of rule 26,
  - (a) in the fourth proviso, for the figures, letters and words “31st day of August, 2021”, the figures, letters and words “31st day of October, 2021” shall be substituted;
  - (b) with effect from the 1 st day of November, 2021, all the provisos shall be omitted;
  - (ii) with effect from the 1st day of May, 2021, in rule 138E, after the fourth proviso, the following proviso shall be inserted, namely:
 

“Provided also that the said restriction shall not apply during the period from the 1 st day of May, 2021 till the 18th day of August, 2021, in case where the return in FORM GSTR-3B or the statement of outward supplies in FORM GSTR-1 or the statement in FORM GST CMP-08, as the case may be, has not been furnished for the period March, 2021 to May, 2021.”
  - (iii) in FORM GST ASMT-14,
  - (a) after the words, “with effect from -----”, the words, “vide Order Reference No. -----, dated -----” shall be inserted;
  - (b) the words, “for conducting business without registration despite being liable for registration” shall be omitted;
  - (c) at the end after “Designation”, the word “Address” shall be inserted.
- ⊙ **Notification No. 33/2021 – Central Tax dated 29<sup>th</sup> August 2021:** In exercise of the powers conferred by section 128 of the Central Goods and Services Tax Act, 2017 (12 of 2017), the Government, on the recommendations of the Council, hereby makes the following further amendments in the notification of the Government of India in the Ministry of Finance (Department of Revenue), No. 76/2018– Central Tax, dated the 31st December, 2018:

In the said notification, in the ninth and tenth provisos, for the figures, letters and words “31st day of August, 2021”, where ever they occur, the figures, letters and words “30th day of November, 2021” shall be substituted.
- ⊙ **Notification No. 34/2021 – Central Tax dated 29<sup>th</sup> August 2021:** In partial modification of the notifications of the Government of India in the Ministry of Finance (Department of Revenue), No. 35/2020-Central Tax, dated the 3<sup>rd</sup> April, 2020, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), vide number G.S.R. 235(E), dated the 3<sup>rd</sup> April, 2020 and No. 14/2021-Central Tax, dated the 1<sup>st</sup> May, 2021, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), vide number G.S.R. 310(E), dated the 1<sup>st</sup> May, 2021, in exercise of the powers conferred by section 168A of the Central Goods and Services Tax Act, 2017 (12 of 2017) (hereafter in this notification referred to as the said Act), read with section 20 of the Integrated Goods and Services Tax Act, 2017 (13 of 2017), and section 21 of the Union Territory Goods and Services Tax Act, 2017 (14 of 2017), the Government, on the recommendations of the Council, hereby notifies that where a registration has been cancelled under clause (b) or (c) of sub-section (2) of section 29 of the said Act and the time limit for making an application of

revocation of cancellation of registration under sub-section (1) of section 30 of the said Act falls during the period from the 1<sup>st</sup> day of March, 2020 to 31st day of August, 2021, the time limit for making such application shall be extended upto the 30th day of September, 2021.

**CUSTOMS**

- ⊙ **Notification No. 39/2021 – Custom dated 19<sup>th</sup> August 2021:** In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962), the Central Government, being satisfied that it is necessary in the public interest so to do, hereby makes the following further amendments in the notification of the Government of India in the Ministry of Finance (Department of Revenue) No. 57/2000-Customs, dated the 8th May, 2000. In the said notification, after the third proviso, the following proviso shall be inserted, namely:

“Provided also that for the cases where the last date of exports falls between the 1st February, 2021 and the 30th June, 2021, the last date of exports stands extended by six months”
- ⊙ **Notification No. 40/2021-Customs dated 19<sup>th</sup> August 2021:** In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962), the Central Government, on being satisfied that it is necessary in the public interest so to do, hereby makes the following amendments in the notification of the Government of India, in the Ministry of Finance (Department of Revenue), No. 34/2021-Customs, dated the 29th June, 2021.

In the said notification, in the Table, after S.No.2 and the entries relating thereto, the following S.No. and entries shall be inserted, with effect from 20th August, 2021, namely:

(1)	(2)	(3)	(4)
3	1507 10 00	All Goods	7.5%
4	1507 90 10	All Goods	37.5%
5	1512 11 10	All Goods	7.5%
6	1512 19 10	All Goods	37.5%

- ⊙ **Notification No. 41/2021-Customs dated 30<sup>th</sup> August 2021:** In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962), read with section 141 of Finance Act, 2020 (12 of 2020), the Central Government, on being satisfied that it is necessary in the public interest so to do, hereby makes the following further amendment in the notification of the Government of India, in the Ministry of Finance (Department of Revenue), No. 28/2021-Customs, dated the 24th April, 2021.

In the said notification, in paragraph 2, for the figures, letters and word “31st August, 2021”, the figures, letters and word “30th September, 2021” shall be substituted.
- ⊙ **Circular No. 19/2021-Customs dated 16<sup>th</sup> August 2021:** Amendment in Circular No.38/2016-Customs with the insertion of a new entry 5(d) to enable Pr.Commissioners/ Commissioners of Customs to decide the amount of security required in certain cases of provisional assessments.
- ⊙ **Circular No. 20/2021-Customs dated 16<sup>th</sup> August 2021:** De-notification of Inland Container Depots/Container Freight Stations/Air Freight Stations.

**Sources:** incometax.gov.in, cbic.gov.in

Name of The Article	Name of Author/s	Volume	Issue	Issue No.	Page No.	DOI Numbers
INDIAN RAILWAYS - YESTERDAY, TODAY AND TOMORROW	CMA Abhisek Bhowmik	56	Aug-21	8	25-26	10.33516/maj.v56i8.25-26p
MAKE IN INDIA MOVEMENT & INDIAN RAILWAYS	Sudhanshu Mani M L Kabir	56	Aug-21	8	29-32	10.33516/maj.v56i8.29-32p
INDIAN RAILWAYS VISION 2024: PURPOSE APPRAISAL THROUGH AN EMPIRICAL EXPLORATION OF THE KEY DRIVING FORCES	CMA Avik Ghosh	56	Aug-21	8	34-37	10.33516/maj.v56i8.34-37p
SAFETY INITIATIVES IN INDIAN RAILWAYS	CMA Arnab Chatterjee	56	Aug-21	8	39-41	10.33516/maj.v56i8.39-41p
PERFORMANCE COSTING SYSTEM OF INDIAN RAILWAYS: ROLE OF CMAs	CMA Shweta Shah	56	Aug-21	8	42-44	10.33516/maj.v56i8.42-44p
SPREAD OF IT IN INDIAN RAILWAYS	CMA Swamy Nunna	56	Aug-21	8	46-48	10.33516/maj.v56i8.46-48p
ACCRUAL BASIS OF ACCOUNTING - THE FUTURE ACCOUNTING PROSPECTUS FOR INDIAN RAILWAY	CMA (CA) T V Ranjit Kumar	56	Aug-21	8	51-53	10.33516/maj.v56i8.51-53p
A STUDY ON ROLE OF INDIAN RAILWAYS TO COMBAT COVID -19 PANDEMIC	Rajendra Nath Datta Priyanka Banik	56	Aug-21	8	54-57	10.33516/maj.v56i8.54-57p
UNDERSTANDING OF DIGITALIZATION AND GREEN MEASURES OF INDIAN RAILWAYS IN THE MODERN ERA	Biswajit Dey Shounak Das	56	Aug-21	8	58-61	10.33516/maj.v56i8.58-61p
DEDICATED FREIGHT CORRIDORS OF INDIAN RAILWAYS: A STEP TOWARDS BETTER TOMORROW	Subhajit Roy Samadrita Ghosh	56	Aug-21	8	62-65	10.33516/maj.v56i8.62-65p
INDIAN RAILWAYS: PAST, PRESENT AND FUTURE A JOURNEY TOWARDS 'MAKE IN INDIA'	Dr. Tarun Mandal	56	Aug-21	8	66-70	10.33516/maj.v56i8.66-70p
INDIAN RAILWAYS AND FREIGHT TRAFFIC OPERATIONS: AN OVERVIEW OF PERFORMANCE AND PROSPECTS	Tulilekha Sil Akash Balmiki	56	Aug-21	8	71-74	10.33516/maj.v56i8.71-74p
IMPACT OF DIGITIZATION ON INDIAN RAILWAYS: A MASSIVE TRANSFORMATION TOWARDS MODERNIZATION	Sudipta Majumdar Urmi Chatterjee	56	Aug-21	8	75-78	10.33516/maj.v56i8.75-78p
DIGITAL TRANSFORMATION WITH BLOCKCHAIN TECHNOLOGY – ACCOUNTING AND AUDITING	CMA (Dr.) Paritosh Basu	56	Aug-21	8	79-85	10.33516/maj.v56i8.79-85p
NEW CHALLENGES FOR CMA PROFESSIONALS IN THE DIGITISED WORLD	CMA (Dr.) Subhash Chandra Das	56	Aug-21	8	86-88	10.33516/maj.v56i8.86-88p
DID THE INDIAN STOCK MARKETS SIGNAL THE ONCOMING CRISIS? A STUDY IN PERSPECTIVE OF COVID 19	CMA Purnendu Basu Aditya Banerjee	56	Aug-21	8	89-93	10.33516/maj.v56i8.89-93p
A STUDY ON EFFECTIVENESS OF RECOVERY CHANNELS FOR NPA MANAGEMENT	Dr. Srinivas K.T. Shrihari Karanth	56	Aug-21	8	94-97	10.33516/maj.v56i8.94-97p
ZERO BASE BUDGETING	CMA Mukund Vasant Rao Dashputre	56	Aug-21	8	98-100	10.33516/maj.v56i8.98-100p



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA**  
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)

**RE-SCHEDULED TIME TABLE & PROGRAMME- JUNE 2021**

**FOUNDATION COURSE EXAMINATION**

(Multiple Choice Questions – Online mode of Examination from home)

Day & Date	Foundation Course Examination Syllabus-2016	
	Time 10.00 A.M. to 12.00 Noon. Paper – 1 & 2 (200 Marks)	Time 2.00 P.M. to 4.00 P.M. Paper – 3 & 4 (200 Marks)
Sunday, 5 <sup>th</sup> September, 2021	<b>Paper – 1</b> : Fundamentals of Economics & Management (100 Marks 50 Multiple Choice Questions) <b>Paper – 2</b> : Fundamentals of Accounting (100 Marks 50 Multiple Choice Questions)	<b>Paper – 3</b> : Fundamentals of Laws & Ethics (100 Marks 50 Multiple Choice Questions) <b>Paper – 4</b> : Fundamentals of Business Mathematics & Statistics (100 Marks 50 Multiple Choice Questions)

The Institute has decided to conduct June 2021 Foundation Examination through online mode using mobile / laptop / desktop /tab from their home only.

1. The Foundation Examination will be conducted in M.C.Q Mode through online from home.
2. Each paper will carry 100 marks 50 Multiple Choice Questions (Each Question will carry 2 Marks). Each session will have a total of 100 Multiple Choice Questions of 200 marks.
3. All Candidates/students are encouraged to appear in the Foundation examination through online mode using mobile/laptop/desktop/tab from their home.
4. Candidates/students are requested to appear the Foundation Examination from their home only by logging within the time span given. Login credentials and URL link will be given in due time.
5. It may be noted that if any candidate/student gets disconnected while taking the examination, they may login again in the same device to finish the rest of the examination.
6. A candidate/student who is completing all conditions for appearing in the examination as per Regulations will only be allowed to appear for the examination.
7. Probable date of publication of result: To be announced in due course.

\* The Candidates/students are advised to keep regularly in touch with the website of the Institute for further notifications and announcements relating to Foundation Examination of June 2021 and in case of any query or clarification can e-mail us at- [exam.helpdesk@icmai.in](mailto:exam.helpdesk@icmai.in)

CMA Kaushik Banerjee  
Secretary






**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA  
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)**

**RE-SCHEDULED INTERMEDIATE AND FINAL EXAMINATION TIME TABLE & PROGRAMME – JUNE 2021**

PROGRAMME FOR SYLLABUS 2016	
<b>ATTENTION: INTERMEDIATE &amp; FINAL EXAMINATION WILL BE HELD ON ALTERNATE DATES FOR EACH GROUP.</b>	
Day & Date	<b>INTERMEDIATE</b> (Time: 10.00 A.M. to 1.00 P.M.)
	<b>FINAL</b> (Time: 2.00 P.M. to 5.00 P.M.)
Thursday, 21 <sup>st</sup> October, 2021	(Group – I) Financial Accounting (P-05)
Friday, 22 <sup>nd</sup> October, 2021	(Group – II) Operations Management & Strategic Management (P-09)
Saturday, 23 <sup>rd</sup> October, 2021	(Group – III) Corporate Laws & Compliance (P-13)
Sunday, 24 <sup>th</sup> October, 2021	(Group – IV) Corporate Financial Reporting (P-17)
Monday, 25 <sup>th</sup> October, 2021	(Group – I) Laws & Ethics (P-06)
Tuesday, 26 <sup>th</sup> October, 2021	(Group – II) Cost & Management Accounting and Financial Management (P-10)
Wednesday, 27 <sup>th</sup> October, 2021	(Group – III) Strategic Cost Management – Decision Making (P-15)
Thursday, 28 <sup>th</sup> October, 2021	(Group – IV) Indirect Taxation (P-11)
	(Group – I) Company Accounts & Audit (P-12)
	(Group – II) Direct Tax Laws and International Taxation (P-16)
	(Group – III) Strategic Performance Management and Business Valuation (P-20)

- The mode of examination will be online-centre based.
- The provisions of Direct Tax Laws and Indirect Tax Laws, as amended by the Finance Act, 2020, including notifications and circulars issued up to 30<sup>th</sup> November, 2020, are applicable for June, 2021 term of examination for the Subjects Direct Taxation, Indirect Taxation (Intermediate), Direct Tax laws and International Taxation and Indirect Tax Laws & Practice (Final) under Syllabus 2016. The relevant Assessment Year is 2021-22. For statutory updates and amendments please refer to: <https://icmai.in/studentswebsite/Syl-2016.nbt>
- Companies (Cost Records and Audit) Rules, 2014 as amended till 30<sup>th</sup> November, 2020 is applicable for June, 2021 examination for Paper 12- Company Accounts and Audit (Intermediate) and Paper 19 - Cost and Management Audit (Final) under Syllabus 2016. For updates and amendments please refer to the link: <https://icmai.in/upload/Students/Circulars/Clarification-June-2021.pdf>
- The provisions of the Companies Act 2013 are applicable for Paper 6 - Laws and Ethics (Intermediate) and Paper 13 - Corporate Laws and Compliance (Final) under Syllabus 2016 to the extent notified by the Government up to 30<sup>th</sup> November, 2020 are applicable for June, 2021 term of examination. Additionally, for applicability of ICDR, 2018 for Paper-13 - Corporate Laws & Compliance (Final) under Syllabus 2016 refer to relevant circular in website for June, 2021 term examination by following link: <https://icmai.in/studentswebsite/Syl-2016.nbt>
- For Applicability of ICDR AS and AS for Paper 5 - Financial Accounting, Paper 12 - Company Accounts and Audit (Intermediate) and Paper 17 - Corporate Financial Reporting (Final) refer to relevant clarification and circular in website for June, 2021 term examination in the given links: <https://icmai.in/upload/Students/Circulars/Clarification-June-2021.pdf>
- Pension Fund Regulatory and Development Authority Act, 2013 is being included in Paper 6-Laws and Ethics (Intermediate) and Insolvency and Bankruptcy Code 2016 is being included in Paper 13 - Corporate Laws and Compliance (Final) under Syllabus 2016 for June, 2021 term of examination. Please refer to the link: <https://icmai.in/studentswebsite/Syl-2016.nbt>
- Examination Centres: Adipur-Kacheth (Gujarat), Agrata, Agra, Ahmedabad, Akurdi, Allahabad, Anasol, Aurangabad, Bangalore, Baroda, Berhampur (Gaujam), Bellal, Bhillwara, Bhopal, Bewar City(Rajasthan), Bhubaneswar, Bhisapur, Bikaner (Rajasthan), Bolars, Calicut, Chandigarh, Chennai, Coimbatore, Coorack, Dehradun, Delhi, Dhanbad, Dullajjan (Assam), Durgapur, Ernakulam, Erode, Faridabad, Ghaziabad, Guntur, Gurgaon, Gawahati, Haridwar, Hazaribagh, Howrah, Hyderabad, Indore, Jaipur, Jabalpur, Jalandhar, Jamnui, Jamshedpur, Jodhpur, Kalyan, Kannur, Kanpur, Kolhapur, Kolkata, Kollam, Kota, Kottakkal (Malappuram), Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Nalhati, Nashik, Nellore, Noida, Palakkad, Panaji (Goa), Patna, Pondicherry, Port Blair, Pune, Raipur, Rajahmundry, Ranchi, Rourkela, Salem, Sambalpur, Shillong, Shimla, Siliguri, Solapur, Srinagar, Surat, Thrissur, Tiruchirappalli, Tirunelveli, Tirupathi, Tiruvandrum, Udaipur, Vapi, Vasbi, Vellore, Vijayawada, Vindhyannagar, Waltair(Vishakhapatnam) and Overseas Centres at Bahrain, Dubai and Muscat.
- A candidate who is fulfilling all conditions specified for appearing in examination will only be allowed to appear for examination.
- Probable date of publication of result: To be announced in due course.

\* The Candidates/students are advised to keep regularly in touch with the website of the Institute for further notifications and announcements relating to Examination of June 2021 and in case of any query or clarification can e-mail us only at- [exam.helpdesk@icmai.in](mailto:exam.helpdesk@icmai.in)

  
 CMA Kausik Banerjee  
 Secretary

# Benevolent Fund

## FOR THE MEMBERS OF THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

CMA Bhawan, 12 Sudder Street, Kolkata - 700016

### OBJECTIVE

The Fund has been created to provide outright grant of prescribed amount to the member in the event of critical illness of a member / beneficiary of the Fund. It is also for outright grant of prescribed amount to the beneficiary in the event of death of a member of the Fund.

### LIFE MEMBERSHIP FEE

Onetime payment of ₹7500/-

### BENEFITS

- ⊙ **Income Tax Benefit under section 80G**
- ⊙ **Outright grant not exceeding ₹3,00,000.00/- in each case to the beneficiary in the event of death of the member.**
- ⊙ **Outright grant not exceeding ₹1,50,000.00/- in each case to the member and beneficiary for critical illness duly certified by the doctor under whom the treatment is continuing.**

#### Coverage of Critical Illness, leading to hospitalization, may cover the following -

- ⊙ Cancer / Malignancy
- ⊙ Coronary Artery Bypass Graft Surgery
- ⊙ Stroke / Cerebral Attack / Paralysis
- ⊙ Heart Valve Replacement Surgery
- ⊙ Myocardial Infarction (heart attack) / Heart Failure / Pace Maker Surgery / Kidney Dialysis(CKD)/ Renal Failure
- ⊙ Major Organ Transplant
- ⊙ Hemophilia
- ⊙ Thalassaemia
- ⊙ Neurological Diseases
- ⊙ Flue Blown acquired Immune Deficiency Syndrome
- ⊙ Multiple sclerosis
- ⊙ Tuberculosis / Bronchopneumonia/ Pleurisy
- ⊙ Permanent disablement
- ⊙ Any other disease that may be considered by the Board of Trustees to be critical in nature.

To apply for life membership or for further details please visit

<https://eicmai.in/External/Home.aspx#>

# MARWAR INDIA **now online!**



[www.marwar.com](http://www.marwar.com)

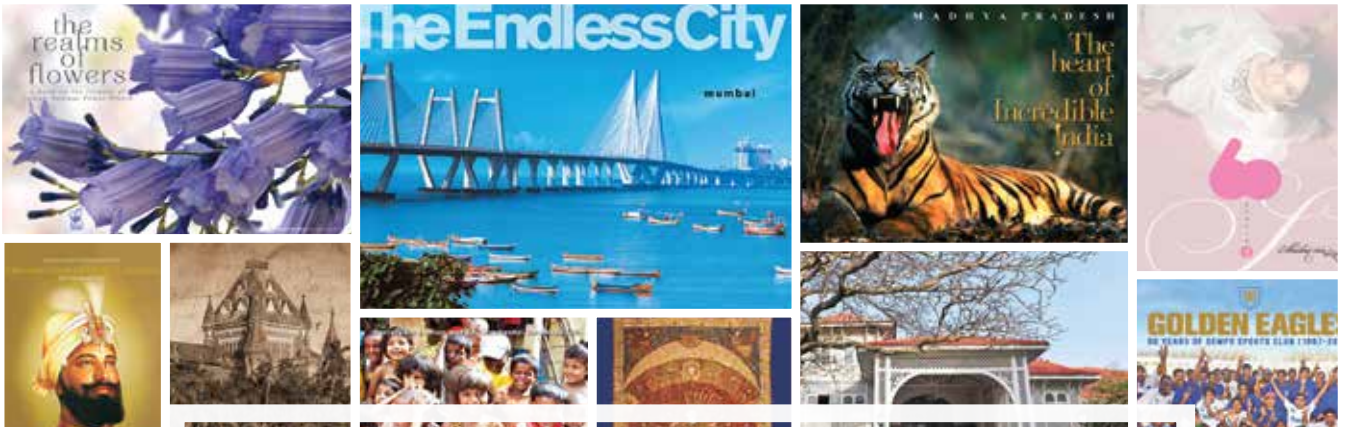
FOLLOW US

  
marwar.magazine

  
Marwarmagindia

  
marwar\_india

RNI NO. 12032/1966



## SHARE YOUR STORIES WITH THE WORLD

With over 100 titles in print, including Indian and international language translations, Spenta Multimedia's expertise to create bespoke coffee table books is unparalleled.

We pride ourselves on our ability to turn your vision, thoughts and ideas into luxury coffee table books, both in print and digital formats that preserve the story and artistry of your brand, your work, and your passion.

Our turnkey creative platform of talented editors and designers collaborate closely with you to ensure that your history and successes become masterpieces that live on, printed in our inhouse state-of-the-art printing facility.

Our wide collection of engaging, masterfully designed and impeccable quality coffee table books includes brand journeys, architecture, law, cities, cinema, tourism, life stories, jewellery and crafts, flora, culture, cuisine and more.



[www.spentamultimedia.com](http://www.spentamultimedia.com)

To know more, write to or call Mr. Vinod Chittal  
vinod@spentamultimedia.com / +91 98192 36413

