

THE MANAGEMENT ACCOUNTANT

ISSN 0972-3528

January 2023 | VOL 58 | NO. 01 | Pages - 124 | ₹ 100

58th ANNIVERSARY SPECIAL

Special
Articles
on
CBDC

Emerging Trends
in

BANKING

Transforming Customer Experience

Journal of

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(Statutory Body under an Act of Parliament)

www.icmai.in

1

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





THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

www.icmai.in



AWARDS 2022 Call for Nominations

Last Date for submission of Nomination: 31st January 2023

Screening Committee

Chairman

CMA Suraj Prakash
Former Director (Finance)
BEML India Ltd.

Members

CMA Anjani Kumar Tiwari
Member, PNGRB

CMA Sunil Bhatia

Former Director (Finance)
Engineers India Ltd.

CMA (Gp Capt) RK Joshi (Retd.)

Sr. Vice President
Jio Platforms Ltd.

CMA Lalit Wadhwa

Chief Accounts Officer
Delhi Development Authority

CMA Saurabh Srivastava

Chief Finance Officer
HSCC India Ltd.

CMA Sham Gulati

Joint General Manager,
HUDCO

CMA L.M. Kaushal

Former Joint Secretary and
Advisor (Cost)
Ministry of Defence

CMA A.K. Dhingra

Former Joint Advisor, TRA

CMA Anshul Sharma

Practicing Cost Accountant

CMA Ajay Singh

Practicing Cost Accountant

Permanent Invitees

CMA Vijender Sharma
President

CMA Rakesh Bhalla

Vice President

CMA Biswarup Basu

Past President &
Chairman
PD Committee

Secretary

CMA Nisha Dewan
Secretary
PD Committee

Headquarters:

CMA Bhawan
12, Sudder Street
Kolkata - 700016
Ph: + 91 33-22521031-34-35

18th National Awards for Excellence in Cost Management 2022

Eligibility to Participate:

All companies (Listed or Unlisted) Including LLP

Award Categories are as follows:

(A) Manufacturing Sector

- A1) Private Sector - Mega
- A2) Private Sector - Large
- A3) Private Sector - Medium
- A4) Private Sector - Small
- A5) Private Sector - Micro
- A6) Public Sector - Mega
- A7) Public Sector - Large
- A8) Public Sector - Medium
- A9) Public Sector - Small
- A10) Start Up (as per DPIIT notification)

(B) Service Sector

- B1) Banking, Financial Services and Insurance (BFSI)
- B2) Transportation and Logistics
- B3) Power Distribution and Transmission
- B4) City Gas Distribution
- B5) Retail & E-commerce/Hospitality & Tourism/Healthcare
- B6) Infrastructure and Construction
- B7) Information Technology & Telecommunication
- B8) Consulting
- B9) Start Up (as per DPIIT notification)
- B10) Others

Evaluating Agency: **Care Ratings Ltd.**

Submission of Nomination through Online Mode only

For details please visit:

https://icmai.in/Awards/National_Awards/

For any query email at ecma@icmai.in

7th CMA Awards 2022

Eligibility to Participate:

CMAs in employment and not holding CoP for the last three years

Award Categories are as follows:

CMA CFO

- (i) Manufacturing Sector - Public
- (ii) Manufacturing Sector - Private
- (iii) Service Sector

CMA Achiever

- (iv) Manufacturing Sector - Public
- (v) Manufacturing Sector - Private
- (vi) Service Sector

CMA Young Achiever

- (vii) Manufacturing Sector - Public
- (viii) Manufacturing Sector - Private
- (ix) Service Sector

Submission of Nomination through Online Mode only

For details please visit:

https://icmai.in/Awards/CMA_Awards/index.php

For any query email at cmaawards@icmai.in

For any clarification please contact

CMA Nisha Dewan
Additional Director
011-24666103

CMA Tarun Kumar
Additional Director
011-24666127

CMA Vijay Lohan
Assistant Director
011-24666135



CMA Vijender Sharma
President



CMA Rakesh Bhalla
Vice President



CMA Biswarup Basu
Past President &
Chairman
PD Committee

Delhi Office:

CMA Bhawan
3 Institutional Area
Lodhi Road, New Delhi - 110003
Ph: +91 11 24622156-58

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



- 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.

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.”

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.”

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 Vijender Sharma
president@icmai.in

VICE PRESIDENT

CMA Rakesh Bhalla
vicepresident@icmai.in

COUNCIL MEMBERS

CMA (Dr.) Ashish Prakash Thatte, CMA Ashwinkumar Gordhanbhai Dalwadi, CMA (Dr.) Balwinder Singh, CMA Biswarup Basu, CMA Chittaranjan Chattopadhyay, CMA Debasish Mitra, CMA H. Padmanabhan, CMA (Dr.) K Ch A V S N Murthy, CMA Neeraj Dhananjay Joshi, CMA Niranjan Mishra, CMA P. Raju Iyer, CMA Papa Rao Sunkara, CMA (Dr.) V. Murali, Shri Inder Deep Singh Dhariwal, Shri Manmohan Juneja, CA Mukesh Singh Kushwah, CS Makarand Lele, Shri Jyoti Prakash Gadia

Secretary

CMA Kaushik Banerjee
secy@icmai.in

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

CMA (Dr.) Debaprosanna Nandy
studies.director@icmai.in, placement.director@icmai.in, advstudies.director@icmai.in

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

CMA Arup Sankar Bagchi
membership.director@icmai.in, bfsi.bod@icmai.in

Director (Examination)

Dr. Sushil Kumar Pareek
exam.director@icmai.in

Director (Finance)

CMA Arnab Chakraborty
finance.director@icmai.in

Additional Director (Public Relation, Delhi Office)

Dr. Girdhar Ketharaj
pr.bod@icmai.in

Additional Director (Tax Research)

CMA Rajat Kumar Basu
trd.bod@icmai.in

Additional Director (PD & CPD and PR Corporate)

CMA Nisha Dewan
pd.bod@icmai.in, prcorp.bod@icmai.in

Additional Director (Technical)

CMA Tarun Kumar
technical.addltdr1@icmai.in

Additional Director (Infrastructure)

CMA Kushal Sengupta
infrastructure.bod@icmai.in

Director (Discipline) & Additional Director

CMA Rajendra Bose
discipline.director@icmai.in

Additional Director (Journal & Publications)

CMA Sucharita Chakraborty
journal.bod@icmai.in

Additional Director (Internal Control)

CMA Dibbendu Roy
intcontrol.bod@icmai.in

Joint Director (Information Technology)

Mr. Ashish Tewari
it.bod@icmai.in

Joint Director (Admin & Human Resource)

Ms. Jayati Sinha
admin.bod.kolkata@icmai.in, hr.bod@icmai.in

Joint Director (Legal)

Ms. Vibhu Agarwal
legal.bod@icmai.in

Joint Director (CAT)

CMA R. K. Jain
cat.bod@icmai.in

Joint Director (International Affairs)

CMA Yogender Pal Singh
intlaffairs@icmai.in

Headquarters

CMA Bhawan, 12 Sudder Street
Kolkata - 700016

Institute Motto

असतोमा सदगमय
तमसोमा ज्योतिर्गमय
मृत्योर्मा मृतं गमय
ॐ शान्ति शान्ति शान्ति

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

Delhi Office

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

INSIDE

JANUARY 2023

INTERVIEW



Shri Soma Sankara Prasad

Managing Director and
Chief Executive Officer
UCO Bank
Kolkata

③④



JANUARY VOL 58 NO.1 ₹100

SPECIAL ARTICLES ON CBDC

NEW 'FINANCIAL LANDSCAPE' OF
THE INDIAN ECONOMY ---- 36

"SYNTHETIC CBDC" IS NOT A "CBDC"
CBDC AND ITS CORE FEATURES ---- 39

WHY CBDC (e₹)? ---- 43

CBDC- A NEW TOOL IN 'FINANCIAL INCLUSION' TOOL KIT ---- 47

CBDC-e₹ 'A VIRTUAL CURRENCY' ---- 51

"CBDC-CROSS BORDER PAYMENTS" ---- 55

COVER STORY

PRIVATIZATION OF PUBLIC SECTOR BANKS – A BOON OR BANE ---- 58

BANKING IN METAVERSE OPPORTUNITIES AND CHALLENGES ---- 63

EXPLORING THE POTENTIALS OF SMART DATA ANALYTICS
IN THE BANKING INDUSTRY ---- 68

METAMORPHOSIS TOWARDS METAVERSE BANKING ---- 70

DIGITAL TRANSFORMATION

DIGITAL TRANSFORMATION WITH CBDC -
GENESIS, NEED AND FUNDAMENTALS
FROM A COMMON MAN'S PERSPECTIVE (7) (4)

CLIMATE CHANGE

CLIMATE CHANGE SHOULD IT BE
THE CHOICE OF THE HUMANITY (8) (2)

COSTCO

COSTCO GARNERING COMPETITIVE
ADVANTAGE THROUGH MAXIMISING
CUSTOMER LIFE TIME VALUE (8) (8)

PERFORMANCE MANAGEMENT

SUSTAINABLE REPORTING INDEX OF
SELECT CEMENT MANUFACTURING
COMPANIES IN INDIA (9) (3)

MUTUAL FUND

ACTOR NETWORK THEORY, SOCIAL
NETWORKS, MARKETING OF
MUTUAL FUNDS (9) (8)

Editorial	06
President's Communique	10
Chairman's Communiqué (J & P Committee)	16
From the Desk of Chairman (BFSI Board)	17
Council Committees - 2022-2023	26
ICAI-CMA Snapshots	32
Down The Memory Lane	102
Digital Object Identifier (DOI) (November 2022)	104
News from the Institute	105
Statutory Updates	116
Flashback 2022	118

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.

Cover Image Source: <https://www.tip.net/emergent-tech/five-reasons-why-ai-is-the-future-of-banking/>
<https://www.istockphoto.com/>

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 Sesa Giri Rao

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



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

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

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

ENQUIRY

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

EDITORIAL OFFICE

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

The Management Accountant technical data

Periodicity : Monthly
Language : English

Overall Size: - 26.5 cm x 19.6 cm

Subscription

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

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

Contacts for Advertisement inquiries:

Mumbai

Narendra Rawat
narendra@sapprints.com
+91 98190 22331

Kiran Parte
kiran@sapprints.com
+91 9833 143118

Delhi

Sandeep Jetly
sandeep.jetly@sapprints.com
+91 99715 20022

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

The Management Accountant Journal is Indexed and Listed at:

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

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

New Year Greetings!!!

The banking sector has gone through some major changes in recent years, and it's going to evolve in the years to come. In 2023 and beyond, one of the main driving forces for change impacting the banking and financial industries will be the need to meet customer experience expectations. The introduction of chatbots and humanoid robots are likely to revolutionize the financial services sector in 2023. Banks are deploying this technology as the first step to taking customer interactions into a wholly automated space. This will facilitate instant transactions, being able to offer individualized products and services full-time, and to shift away from the street-level banking scenario completely.

Metaverse represents the fifth stage of the evolution in the banking and fintech industry, offering customers the experience of virtual banking. In a sense, one can say that the metaverse allows for the return of personalized banking with the help of virtual or augmented reality (VR/AR). By the end of this decade, it's widely expected that about 50% of banks globally will be using AR/VR as an alternative channel for customer transactions as well as for employee engagement. Moreover, just as in internet banking and digital payments platforms, there needs to be a secure payments system in the metaverse, which ideally should be customized for the metaverse. One way to prevent financial frauds in the metaverse is to conduct transactions only in cryptocurrency. However, that too has its limitations and in countries like India, there's a legal impediment to using cryptocurrency and crypto wallets for metaverse transactions. The introduction of 5G technology and web 3.0 is expected to decentralize the web and mitigate the risks of financial frauds in the metaverse.

Neobanks, the buzzing word of recent times, are bridging the gap by making banking services more accessible to people in remote areas. Neobanks in India

are fintech entities partnering with traditional banks to offer advanced banking and financial solutions to their customers. According to RBI, banking licenses are not issued to these online banking platforms or fintech players due to the compliance guidelines. These banks can provide banking solutions such as virtual accounts and issue cards by partnering with traditional banks. The Neobanking space is growing at an astronomical rate around the world. The concepts and practices in the industry are changing rapidly and it has given rise to various operating models.

The EASE Next program's EASE 5.0 'Common reforms agenda', developed for Public Sector Banks (PSBs), was launched by the Government of India on June 2022. PSBs need to invest in new-age capabilities and deepen ongoing reforms under EASE 5.0 to respond to evolving customer needs, changing competition, and the technological environment. EASE 5.0 will prioritise digital customer experience and integrated and inclusive banking, focusing on small businesses and agriculture.

Banking sector reforms are implemented to improve the condition of the banking system. Multiple banking sector reforms have been introduced in India in the context of economic liberalization and the growing trend toward globalization. The main objective is to improve operational efficiency and promote banks' health and financial reliability, so that Indian banks can meet internationally recognised standards of performance. The Cost and Management Accountants (CMAs) can play a significant role from different angles in the growth and sustainability of India Banking Sector.

CMA's specialized Professional & consulting and recommendations will enable the bank to strengthen the maintenance of subjectivity, impartiality and independence of auditing and prevent unqualified or biased audits. CMAs are eligible to conduct Stock Audit, Concurrent Audit, Forensic Audit, Systems



Audit and other professional services of various Public Sector and Private Sector Banks in India. The Cost and Management Accountants with their specialized techno-professional expertise can provide an in-depth service in Risk based Internal audit in Banks and the services like: Credit Risk, Operational and Market Risk Management; Bank Supervision; Credit Risk Management and Credit Portfolio Evaluation; Customer Due Diligence and Compliance with KYC Procedures; NPA Management Advisory Services; Business Valuations and Asset Valuations; Bank Staff Training; Preparation of Instruction Manuals for Credit, Audit and other bank functions; etc.

This 58th Anniversary special issue of The Management Accountant presents a good number of articles on the cover story **"Emerging Trends in Banking: Transforming Customer Experience"** written by distinguished experts and an exclusive interview of MD & CEO of UCO Bank. To make this issue more productive and stimulating, we have added **Special Articles** on **Central Bank Digital Currency (CBDC)**. The Reserve Bank of India (RBI) has announced the launch of the first pilot for the retail CBDC (e₹-R) on December 1, 2022. CBDC is aimed to complement, rather than replace, current forms of money and is envisaged to provide an additional payment avenue to users, not to replace the existing payment systems. Supported by state-of-the-art payment systems of India that are affordable, accessible, convenient, efficient, safe and secure, the Digital Rupee (e₹) system will further strengthen India's digital economy, make the monetary and payment systems more efficient and contribute to furthering financial inclusion.

Further, we look forward to constructive feedback from our readers on the articles and overall development of the Journal. Please send your emails at editor@icmai.in. We thank all the contributors to this important issue and hope our readers will enjoy the articles.

Wishing you all a truly remarkable and blissful year ahead! Happy new year to you and your family!!!

THE MANAGEMENT ACCOUNTANT

PAPERS INVITED

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

February 2023	Theme	Infrastructure Investment in Emerging Markets: Trends and Challenges	Subtopics	- Indian Infrastructure: Leveraging past experiences for Future Growth - Debt Sustainability of Infra Investment - Infrastructure Resilience Post Pandemic - Investing in Energy Infrastructure for the Climate Transition - Strengthening Infrastructure Governance - Integration of ESG - SDG factors for infrastructure Investment Decisions - Financing Quality Infrastructure Investment in the Asian Economies - Achieving Sustainability and Cost Competitiveness through apt Infra Investment - Framing Guidance for Implementing Quality Infrastructure Investment: Role of CMAs
March 2023	Theme	Corporate Governance: A pathway to Economic Sustainability	Subtopics	- Robust governance: a key factor in driving long-term, sustainable growth - Board Room Challenges in the Post-Pandemic era - Board's Role in strengthening Governance to accelerate Environmental, Social and Governance (ESG) - Integrating CSR into the Corporate Governance Framework - The Two Sides of the Governance Coin: Competition and Regulation - Regulation in Corporate Governance; in India and Elsewhere - Drivers – the impact of the credit crunch - Essential ingredients of good governance - Startup Governance: Crucial Building Block for Sustainable Success - Corporate Governance in the forthcoming years: what more to add on
April 2023	Theme	Evolving Health Care System: Challenges, Opportunities and Way Ahead	Subtopics	- Prominent changes in the healthcare sector particularly with consumer behaviour - Financial constraints hospitals facing: Ways to overcome those glitches - Lack of investment in organizational development–how to draw private investor's attention? - Health Care Pricing - Increasing patient satisfaction and gaining competitive edge - Value-based healthcare: aligning prices for services towards patients - Cost reduction programs and strategies: Resource mapping process - Essentiality of Healthcare Cost Management - Possible opportunities for Sustainable Health Care System in the new normal post Pandemic - Telemedicine and digital healthcare - Health financing & Health infrastructure - Medical Waste Management
May 2023	Theme	Cost Management in Agriculture Sector	Subtopics	- Budget 2023: What Does Indian Agro Sector Need? - Agricultural Innovations for Resilient Agri-Food Systems - Climate Smart Agriculture - Food Security: Challenges and Opportunities - Agri Banking and Agri Entrepreneurship - Crop Diversification and Input Cost Management - Agricultural Marketing Infrastructure & Development - Leveraging power of policies to achieve Doubling farmers' income - Agricultural Engineering & Innovations for Smart Farming - Efficient and balanced use of fertilizer for Soil Management - Supply Chain Management in Agriculture Sector - Biofuels as Renewable Energy: Agricultural Waste Management - Infrastructure and Value Chain Development for Agri Exports

The above subtopics are only suggestive and hence the articles may not be limited to them only.

Articles on the above topics are invited from readers and authors along with scanned copies of their recent passport size photograph and scanned copy of declaration stating that the articles are their own original and have not been considered for anywhere else. Please send your articles by e-mail to editor@icmai.in latest by the 1st week of the previous month.



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



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

www.icmai.in

Since 1944

1800 346 0092

1800 110 910

studies@icmai.in

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 Course Going Global

MENTORING FUTURE-READY PROFESSIONALS

ADMISSION OPEN 2023

5,00,000+ Students

90,000+ Alumni

4 Regional Councils

113 Chapters across India

61 CMA SC & 382 ROCC

11 Overseas Centers

Largest CMA body in Asia

2nd Largest CMA body in the Globe

Eligibility

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 CAT Level - I of The Institute of Cost Accountants of India
- Qualified Engineers

Course Fees

Foundation - Rs. 6,000/-

Intermediate - Rs. 23,100/-

Final - Rs. 25,000/-

Skills Training

*Installment facility available

**Merit based Scholarships available

World Class Employability and Techno **Skill Training** facility for **CMA Intermediate Students**

98040 51648
skilltraining@icmai.in



Prominent Recruiters in CMA Campus Placement Drive: 2021 - 2022



Highest CTC offered **INR 28 lakh p.a.** | Avg. CTC offered **INR 12 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

94323 82747

placement@icmai.in

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



PRESIDENT'S COMMUNIQUE



CMA Vijender Sharma

President

The Institute of Cost Accountants of India

"The concept of "Vasudhaiva Kutumbakam – the world is one family", is deeply imbibed in Indian philosophy. It will create an integrated world with no barriers for a Better Future."

- Hon'ble PM Shri Narendra Modi

My Dear Professional Colleagues,

At the outset, I convey my best wishes to you and your family for a happy, healthy and prosperous New Year 2023. As we welcome a new year, we can look back with pride and satisfaction on 2022. I am grateful to each one of you for your continued support for the development of the profession. For the year ahead, the Institute will continue to focus on promoting & developing the CMA profession and contribute to the economic growth of the country.

Formation of ICAI Social Auditors Organisation

I am happy to inform that the Institute has constituted a Section 8 company under the Companies Act, 2013 namely, "ICAI Social Auditors Organisation" for the empanelment, capacity building and regulating the functions of its Members who qualify and get registered as Social Auditors under the SEBI-notified framework for social stock exchanges.

1st Meeting of Social Stock Exchange Advisory Committee

I am pleased to inform that I along with CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board attended the first meeting of the Social Stock Exchange Advisory Committee

on 9th December, 2022 at SEBI Office, Mumbai wherein the discussions were held on development of regulatory framework for Social Stock Exchange, disclosure requirements and need to start awareness programs for Social Stock Exchange.

Inviting Nominations for 18th National Awards for Excellence in Cost Management 2022

We are eagerly looking forward to companies/organisations for their active participation in the 18th National Awards for Excellence in Cost Management 2022 to recognize the qualitative cost management practices adopted by the industry and encourage the corporate sector to get due national and global recognition for the success of Cost Management initiatives. For details visit the website of the Institute https://icmai.in/Awards/National_Awards/index.php.

Inviting Nominations for 7th CMA Awards 2022

We shall be glad to receive more and more nominations from the CMAs in employment to recognize their significant contributions in improving corporate and also recognise the outstanding contribution of CMAs for the profession, Institute and society. Nominations are invited for CMA CFO Awards, CMA Achiever Awards and CMA Young Achiever Awards. For details visit the website of the Institute https://icmai.in/Awards/CMA_Awards/index.php.

Representation to SEBI on Forensic Audit

On 9th December, 2022, I along with CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board had a meeting with Ms. Prachi Amit Nadkar, Deputy General Manager (CFID), Securities and Exchange Board of India at SEBI Office, Mumbai wherein certain information was requested SEBI from the Institute to further consider the inclusion of Cost Accountant/Cost Accountant firms in the eligibility criteria for empanelment to take up assignments relating to forensic audit of financial statements of listed companies. The said information has been submitted by the Institute to SEBI for its consideration.

Representation on Financial Audit of Companies including MSMEs

I wish to inform the members that the Institute is making regular follow-up with the Ministry on its representation submitted to the Hon'ble Union Minister for Finance and Corporate Affairs to allow Cost Accountants to do financial audit of companies under the Companies Act, 2013 including MSMEs.

Meeting of Insolvency Law Committee

I attended the meeting of Insolvency Law Committee held on 8th December, 2022 under the Chairmanship of Secretary, MCA. Discussions were held on strengthening of Insolvency and Bankruptcy Code, 2016.

SAFA Meeting & Events in Nepal

The Institute of Chartered Accountants of Nepal hosted the SAFA meeting and events in Nepal on 18th December, 2022. I along with CMA P. Raju Iyer, Immediate Past President and CMA Kaushik Banerjee, Secretary of the Institute attended the 76th SAFA Board Meeting at Kathmandu, Nepal. Further, the SAFA Conference and SAFA BPAR Awards Ceremony was attended by me, CMA P. Raju Iyer, Immediate Past President, my Council Colleagues CMA Niranjana Mishra, CMA (Dr.) K Ch A V S N Murthy and CMA Papa Rao Sunkara, and CMA Kaushik Banerjee, Secretary of the Institute.

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

BANKING, FINANCIAL SERVICES AND INSURANCE BOARD

The Banking, Financial Services & Insurance Board (BFSIB) of the Institute and the BFSI department continued to operate under the active leadership of CMA Chittaranjan Chattopadhyay, Chairman of the BFSI Board. A brief synopsis of the activities and initiatives taken is as follows:

A. Representations for inclusion and expanding scope of CMAs

The BFSIB continued with its efforts for further development of the profession in the BFSI sector with representations to authorities and employers for inclusion of CMAs in the sector. The concerted and diligent efforts have resulted in numerous opportunities for CMAs. I am pleased to inform that CMAs are now eligible to apply for the post of Manager (Credit Analyst), State Bank of India, Assistant Manager, Group A, General Stream of SIDBI, Chief Manager, Credit (Scale-IV) of Bank of Maharashtra and Deputy Managing Director of IDBI.

B. 2nd ICAI National Awards - Essay Contest 2022 for Bankers

The BFSI Board had organized the online ICAI National Awards -Essay Contest 2022 for Bankers on the contemporary topic of “Pivotal Role of Banks’s Lending/ Credit to achieve Atmanirbhar Bharat” in the month of December, 2022. It is of great pleasure to note that numerous bankers have participated and sent their essays for the Contest. A panel of distinguished Bankers has

been constituted with CMA Mohan Vasant Tanksale as the Chairman of this esteemed panel. The best essays will be printed in the next edition of the Chronicle to be released in the month of March, 2023.

C. Workshop on Due Diligence in Banks

The admission window for the workshop on “How to conduct the due diligence on Corporate Borrowers of Banks” for 3 days has been opened and the date of commencement of the workshop is expected to be announced soon.

D. Certificate Courses on Banking

Due to overwhelming expression of interest, the BFSI Board had re-opened the admission window for the three Certificate Courses on Banking, viz –

- ⊙ Certificate Course on Concurrent Audit of Banks (8th Batch)
- ⊙ Certificate Course on Credit Management of Banks (8th Batch)
- ⊙ Certificate Course on Treasury and International Banking (6th Batch)

The syllabus of all such courses is under review and updated study materials are under preparation. I call upon all members and students to take the opportunity for capacity building and knowledge enhancement by enrolling in such courses for which the link of admission is <https://eicmai.in/advsc/Home.aspx>

E. Aide Memoire on Infrastructure Financing

The publication of BFSIB, titled ‘Aide Memoire on Infrastructure Financing’, which has been well accepted by stakeholders has been reprinted with ISBN number to ensure wider reach across the unreached. The members, students and others can get their copies through online purchase via the link https://eicmai.in/booksale_bfsi/Home.aspx. Further, 2nd enlarged edition is also under consideration and preparatory work for the same has already begun.

F. Release of Handbook on Stock and Book Debts Audit (Revised and enlarged 2nd Edition)

I am happy to announce that the BFSI Board has released the revised and enlarged 2nd edition of the Handbook on Stock and Book Debts Audit on 23rd December, 2022 at Chennai. The publication is available and downloadable in soft copies in the BFSI portal. I am happy to inform you that the Board would be conducting a workshop to enhance the skill of our members on the subject for which an announcement is expected to be made soon. The hard copy of the publication will be available for sale soon.

G. Meetings with various dignitaries: -

- ⊙ CMA Chittaranjan Chattopadhyay, Chairman, BFSIB met Shri Vikas Nawal, AGM (Head, Business Credit-East), ICICI Bank and apprised him of the various efforts undertaken by the BFSIB in various domains of the Banking industry on 3rd December 2022.
- ⊙ At Chennai, CMA Chittaranjan Chattopadhyay, Chairman, BFSIB and CMA Rajesh Sai Iyer, Treasurer, SIRC of ICAI met Shri Rohit Rishi, GM of Indian Bank and Shri H S Ahluwalia, GM of Indian Bank on 6th December 2022. They also met Ms. S. Srimathy, Executive Director, Indian Overseas Bank, Shri K. Swaminathan, MD & CEO of REPCO Home Finance Ltd. and Dr. N. Kamakodi, Managing Director and CEO of City Union Bank on the same date.
- ⊙ CMA Chittaranjan Chattopadhyay, Chairman, BFSIB met CMA Gaurav Bhandari, CGM, India Export Import Bank of India on 8th December 2022.
- ⊙ CMA Chittaranjan Chattopadhyay, Chairman, BFSIB met Shri Sanjay Kapoor, General Manager (PPR) State Bank of India and presented him with various publications of BFSIB on 14th December 2022. The Chairman also met Shri Ranjan Gupta, Chief General Manager, Human Resources of State Bank of India and urged for more recruitment of Cost Accountants in various managerial roles in the Bank and the niche services provided by the professionals of our Institute.
- ⊙ CMA Chittaranjan Chattopadhyay, Chairman, BFSIB and CMA P. Narayan Murthy, Insurance Consultant and Advisor to the BFSI Chronicle met with Shri Raj Kumar, Managing Director of Life Insurance Corporation of India (LIC) and discussed various aspects of the role of CMAs in the Life Insurance industry. They also met Shri Sunil Agrawal, Chief Financial Officer of LIC of India and Shri Rajesh Dubey, Executive Director (Human Resources) of LIC of India and expounded the increasing importance of Cost Accountants in the Insurance sector. In a separate meeting CMA Chittaranjan Chattopadhyay, Chairman, BFSIB again met Shri Sunil Agrawal, Chief Financial Officer of LIC of India and apprised him about the training and placement activities of the Institute and requested him to take up the matter with the HR department of LIC for widening the scope of CMAs training and placement opportunities in LIC on a pan India scale.

H. Business Standard BFSI Insight Summit at Jio World Centre, Mumbai

The Institute participated as a partner in the BFSI Insight Summit organized by Business Standard on 21-22 December 2022 at Jio World Centre, BKC, Mumbai. CMA Debashish Mitra, Chairman, Advanced Studies, Members in Industry and Placement along with CMA Chittaranjan Chattopadhyay, Chairman, BFSIB attended the prestigious summit to increase the visibility of the Institute. Eminent personalities like Sh. Shaktikanta Das, Governor, RBI, Sh. M. Damodaran, Former Chairman, SEBI and Chairperson, Excellence Enablers, Sh. Dinesh Khara, Chairman, SBI and others participated in the event as panelists. The Institute has a prominent stall in the event which was visited by these eminent dignitaries. More than 1000 participants visited our stall and apprised about CMA Courses and CMA Profession.

I. Seminar on Banking-India@100 Growth Trajectory for Banks

The health of the Banking sector is a priority area as it plays a vital role in the financial intermediation in the economy. Keeping in mind the various macro-economic developments during the Amrit Kaal as envisioned by the Hon'ble Prime Minister of India, the BFSI Board under the Chairmanship of CMA Chittaranjan Chattopadhyay organized a seminar jointly with SIRC and IPA of ICAI on the topic of "Banking @100"-Growth Trajectory for Banks with Madras Management Association on 23rd December 2022 at MMA Management Center, Chennai. I along with CMA P Raju Iyer, Immediate Past President of the Institute and CMA Chittaranjan Chattopadhyay, Chairman BFSIB attended the seminar.

Along with me and my Council colleagues namely, CMA P Raju Iyer and CMA Chittaranjan Chattopadhyay, the inaugural session was attended by several distinguished bankers including CMA S.Krishnan, MD and CEO, Tamilnad Mercantile Bank as the Chief Guest; Shri B. Ramesh Babu, MD & CEO, Karur Vysya Bank and Shri D Lakshminarayanan, MD, Sundaram Home Finance. Group Captain R Vijaykumar (Retd), VSM, Executive Director – Madras Management Association also participated in the inaugural session.

I participated in the technical session which was also attended by several distinguished bankers including Shri Arun Bansal, Executive Director, IDBI Bank who gave a presentation on the topic of "Liquidity Management and Role of Treasury in Bank"; Shri R. Radhakrishnan, Chief General Manager, State Bank of India and CMA Murali Ramaswamy, Former Executive Director, Bank of Baroda and Independent Director, Karur Vysya Bank.

The valedictory session was attended by several distinguished bankers including Shri Mahesh Bajaj, Executive Director, Indian Bank; CA Nalini Padmanabhan,

Independent Director, Canara Bank and CMA Chittaranjan Chattopadhyay, Chairman, BFSIB.

The event was attended in large numbers members, students and bankers and was also live streamed by MMA and the Institute's YouTube channel.

J. Seminar on Social Stock Exchange- Role of Professionals

The BFSI Board organized the blended seminar on the Social Stock Exchange - Role of Professionals on 24th December, 2022 at the hallowed turf of Indian Chambers of Commerce at Kolkata. Shri Jeevan Sonaparte, CGM, SEBI was the Chief Guest and CMA Rambabu Pathak, Company Secretary, Eastern Coalfields Ltd. and Chairman, Asansol Chapter, ICAI was the speaker. I attended the event along with CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, CMA Amal Kumar Das, Past President and CMA Kaushik Banerjee, Secretary of the Institute. The event was participated by members in both online and offline mode.

CONTINUING EDUCATION PROGRAMME COMMITTEE

I am glad to share the successful completion of the 7th batch of Online Mandatory Capacity Building Training (e-MCBT) concluded on 16th December 2022. We received an overwhelming response from the participants appreciating the deliberations in the technical sessions and interactive sessions by the eminent speakers across the country and the efforts of the CEP Directorate for their support and overall coordination.

Further, I am pleased to inform you that the registration for the 8th batch of e-MCBT has been started. I urge the practitioners to enroll for 8th batch of e-MCBT to avail this opportunity to complete their MCBT for practicing members who have taken Certificate of Practice (COP) on and after 1st February, 2019 and have not undergone the MCBT and desirous of renewing their COP.

I appreciate the Chairman, Continuing Education Programme Committee for his effortless commitment towards the growth and development of the profession. The Committee organised programme on "Interactive Session on Practical Aspects of Audit" at Kolkata.

During the month, around Sixty webinars and programmes were organised by the different committees of the Institute, Regional Councils and Chapters of the Institute on the topics of professional relevance and importance like Social Stock Exchange "Role of Professionals", Global Taxation (US Taxation, Indian Taxation & Comparison, Role of CMAs in Risk Management, Seminar on "India@100-Growth Trajectory for Banks", PLI Scheme In Pharmaceuticals Sector, Cost Audit Compliances Handling of Notices, Reporting Critical transactions in GSTR 9 and 9C, TDS on transaction under IT Act 1961, Due Diligence of Corporate

Borrowers of Banks by CMAs, Environmental Cost Management, Manufacturing 4.0- The Enabler for Value Creation and so on. I am sure our members are immensely benefited from the deliberations in the sessions.

DIRECTORATE OF CAT

☉ New ROCC

A new CAT ROCC (E-139) was approved by the CAT Directorate in the month of November 2022 at Malda, West Bengal. A grand inaugural of the ROCC took place on 11th December, 2022 in Malda in the august presence of my Council colleagues CMA Biswarup Basu, Former President, CMA Chittaranjan Chattopadhyay, Council Member and officials of CAT Directorate. My best wishes to the new ROCC in its future endeavours towards CAT course in the eastern region.

☉ Implementation of CAT Course in other States and Universities

As you are aware that the CAT Directorate bagged a prestigious project to impart CAT course in the state of Uttar Pradesh under a Memorandum of Understanding (MoU) with the Uttar Pradesh Skill Development Mission (UPSDM) and running batches through the centres allotted by the UPSDM. I am glad to inform you that another batch has been started in Budaun from 29th December, 2022. I hope that more batches in other cities of UP as per the MoU will start soon. I congratulate my Council Colleague CMA H. Padmanabhan, Chairman of the Committee for Accounting Technicians and Team CAT for this achievement.

☉ CAT Course Part - I Examination – January 2023 term

My best wishes to the students who are going to appear in the CAT Course Part - I Examination– January 2023, scheduled to be held on 22nd January, 2023.

INTERNAL AUDITING AND ASSURANCE STANDARDS BOARD

The Internal Auditing and Assurance Standards Board (IAASB) in its endeavor to provide the right guidance to the members of the Institute to discharge their duties as Internal Auditors and to further improve their professional approach to providing an effective internal audit service has already released number of publications such as the Internal Audit and Assurance Standards, Guidance Notes on Internal Audit of various Industries. Members are requested to visit the following link on Institute's website to download various IAASB publications: <https://icmai.in/icmai/news/IAASB-GN.php>

MEMBERSHIP DEPARTMENT

During the month of December 2022, 109 new members were enrolled as Associate members and 23 Associate members were advanced to Fellowship. I take this opportunity in the New Year to warmly welcome and congratulate all members.

I call upon all final passed students who have a minimum of 3 years of relevant working experience and have not yet taken Associate membership to immediately apply for membership and enjoy all the benefits of membership. Applications for membership are available both by online and physical mode. For ready reference and use the link for online application of membership is - <https://eicmai.in/external/ChooseApplicationType.aspx>

I would like to gently remind the respected members in practice that their current Certificate of Practice (CoP) is valid for the current financial year till 31st March, 2023. To avoid last minute rush, CoP holders may renew their CoP well in advance, for which a separate advisory will be posted soon on the Institute's website and also published in the next issue of the Management Accountant for ready reference of members.

MEMBERS IN INDUSTRY & PLACEMENT COMMITTEE

I am pleased to share that after successful completion of 1st phase of Campus Placement drive for qualified CMAs of June 2022 term in November 2022, the Members in Industry & Placement Committee has been conducting the 2nd phase of placement drive successfully. Companies like Citco, OLA, Genpact, Bajaj Finserv, Jindal Stainless Hisar, ITC Hotels, VISA Industries, Shyam SEL & Power, Olam etc. have already started their process. I congratulate CMA Debasish Mitra, Chairman, Members in Industry & Placement Committee and his staff members for taking this initiative on a regular basis to place qualified CMAs in reputed organizations.

PROFESSIONAL DEVELOPMENT COMMITTEE

I am delighted to inform you that the Institute has introduced the Multipurpose Empanelment Scheme (MES) for the Practicing Cost Accountants / Cost Accounting Firms with the objective to support various stakeholders in providing rationally evaluated and categorized list of Practicing Professionals (Proprietor / Firm) to them. I am confident that this system will definitely be of assistance to the Practicing Members and will make available a level playing field to the practitioners whenever information is sought by the stakeholders. This being the first year for empanelment of practitioners, MES is effective from 1st January 2023. For Further details, please visit MES portal: <https://eicmai.in/mesportal/Default>

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 December 2022, where services of the Cost Accountants are required in Jute Corporation of India Limited, Central Cottage Industries Corporation of India Limited, Ramgarh Municipal Council, Institutional Strengthening of Gram Panchayats (ISGP) Program-II, Central Council for Research in Unani Medicine, West Bengal National University, Hindustan Copper Limited, West Bengal National University of Juridical Sciences, Rajasthan State Road Transport Corporation, Security Printing And Minting Corporation Of India Limited, South Eastern Coalfields Limited, National Health Mission, Uttar Pradesh, Madhya Pradesh Power Generating Company Limited, Mango Municipal Corporation, Jamshedpur, Jammu and Kashmir State Power Development Corporation (JKSPDCL), Krishna Bhagya Jala Nigam Limited, National Highways Authority of India, Hindustan Copper Limited, Bihar Education Project Council, Kapali Nagar Parishad, FISHFED Assam, Shri Saibaba Sansthan Trust, MP Khadi Tatha Gramodyog Board, Odisha Power Generation Corporation Limited, Ramgarh Municipal Council, Hindustan Copper Limited, Jharkhand, etc.,

Professional Development Committee in association with PHD Chamber of Commerce and Industry organised several programmes such as a webinar on "Get Ready to File GSTR 9 & GSTR 9C for FY 2021-22", conference on "M&A Transaction Strategies" and seminar & trade interaction on "Customs (IGCRS) Rules, 2022".

REGIONAL COUNCIL & CHAPTERS COORDINATION COMMITTEE

The Regional Council & Chapters Coordination Committee under the Chairmanship of CMA (Dr.) K Ch A V S N Murthy organized two WEBINTs on contemporary topics during the month of December, 2022, namely -

◎ **WEBINT on "Innovative Management Accounting Practices for Strategic Decision Making".**

CMA Rakesh Bhalla, Vice President and CMA P Raju Iyer, Immediate Past President addressed the participants along with my Council Colleague CMA (Dr.) K Ch A V S N Murthy as host of the WEBINT held on 15th December, 2022. The Guest speaker for the event was CMA Girish Kumar N J R V, Director of an Advisory Services Company, who shared his views and vast professional experience on the topic while highlighting the importance and role of CMAs in Innovative Management Accounting Practices for Strategic Decision Making. The programme was coordinated by CMA Vijay Kiran Agastya, Secretary, SIRC of the Institute.

◎ WEBINT on “Cost Excellence towards Economic Empowerment - CMA’s DNA”

I addressed the participants on this very important topic along with CMA Rakesh Bhalla, Vice President and CMA (Dr.) K Ch A V S N Murthy, Chairman, Regional Council & Chapters Coordination Committee during the WEBINT held on 27th December, 2022. The Guest speaker for the event was CMA Udand Rao Lakshmana Rao, Practicing Cost Accountant, who shared his vast professional experience and knowledge through a presentation stressing on the contributions of CMAs in nation building and Cost Excellence towards Economic Empowerment. This programme was coordinated by CMA Vijay Kiran Agastya, Secretary, SIRC of the Institute.

Both the WEBINT were attended in large numbers with active participation in the Q&A round.

TAX RESEARCH DEPARTMENT

The Tax Research Department organised a six hours Workshop on “GST Litigation and Departmental Audit” (Advanced Level) from 18th to 20th December, 2022. The workshop was enriching and its main highlight was detailed deliberations by Dr. B V Murli Krishna, Addl. CCT (e-Governance), Karnataka where he addressed many practical issues raised by the participants. CMA Vishwanath Bhat was the faculty for the sessions.

The department also conducted a webinar on “Direct Tax - Returns, Assessments and Appeals” on 19th December, 2022 with CMA Seshappa Venkanna as the faculty. The webinar was highly appreciated and there were more than 200 participants in the session. The webinar ended with the Q & A session.

Apart from the above, classes for GST Course for College and University Students were concluded for the students of Kashmir Bemina College and commenced at Umesh Chandra College, Kolkata on 6th December, 2022 with 51 candidates. The same GST course will be conducted for few other colleges PAN India for which the discussions and other formalities are in progress.

The following courses are also conducted and the admission for the upcoming batches has also been commenced. Interested candidates can apply at the link: <https://eicmai.in/advsc/Course-Selection.aspx>

- ◎ Certificate Course on GST
- ◎ Advanced Certificate Course on GST
- ◎ Certificate Course on TDS
- ◎ Certificate Course on Filing and Filling of Return
- ◎ Certificate Course on International Trade
- ◎ Advanced Course on Income Tax Assessment and Appeal
- ◎ Advanced Course on GST Audit and Assessment procedure

Preparation for conducting examinations of the above courses scheduled to be held on 12th February, 2023 has been started and the application link for appearing the examination has been uploaded on the website.

The 125th and 126th Bulletins were released containing articles on contemporary topics in taxation, recent notifications, circulars, tax calendars, Judgements and advance rulings.

ICMAI REGISTERED VALUERS ORGANISATION (RVO)

I am pleased to inform that ICAI RVO has successfully organized “50 Hrs training programs” of 28th and 29th Online Batch Securities or Financial Assets, 20th Online Batch Land and Building, 17th Online Batch Plant and Machinery and “Professional Development Programs” of Workshop Case Studies in Valuation, Professional Opportunities in Valuation, Mastering Shades of Valuation, Valuation Boot Camp, Post Graduate Certificate Program in Valuation, Learning Session Valuation of Performing and Non-Performing Loans, Master Class in Valuation, Advanced Valuation Workshop, ICAI RVO - RICS Webinar, Learning Session-Complex IBC Valuations-Practical Case Studies, Mastering Valuation Techniques.

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

Once again, I wish all of you a very Happy New Year!
With warm regards,



CMA Vijender Sharma

January 02, 2023



CHAIRMAN'S COMMUNIQUE

Journal & Publications Committee
The Institute of Cost Accountants of India

CMA (Dr.) K Ch A V S N Murthy

"The difference between what we do and what we are capable of doing would suffice to solve most of the world's problem."

- Mahatma Gandhi

At the outset, I wish you and your family a wonderful and prosperous New Year 2023. The New Year is not only an occasion to celebrate but also an occasion to come together to set up new goals for the development of our profession and work with renewed zeal. I am extremely grateful to all members and my council colleagues for reposing their trust and confidence in reassigning me the great opportunity to serve the Institute as Chairman of the Journal & Publications Committee (2022-2023).

Directorate of Journal and Publications of the Institute in January 2023 issue of the Management Accountant has dedicated pages to the theme **"Emerging Trends in Banking: Transforming Customer Experience"**.

Prime Minister Shri Narendra Modi addressed in the inauguration ceremony of **"Digital India Week 2022"** in Gandhinagar on July 5, 2022 and said the Trio of Jan Dhan, Mobile and Aadhaar, or JAM, have "provided maximum benefit to the poor and the middle class" and he says it helped save **₹2.25 lakh crore** from falling in wrong hands.

"Digital India means fast profit, full profit; Digital India means minimum government, maximum governance."

- Prime Minister Narendra Modi

"The transparency that has come due to Digital India has eliminated corruption at various levels adversely affecting the poor and the middle class. We have seen that period when it was difficult to get a service without paying a bribe. Digital India has saved money for the common man... ending the network of middle-men," said PM Modi while speaking on the seventh anniversary of launching the "Digital India" campaign, a flagship programme of the Central Government.

Later on, 1st November, 2022 and 1st December, 2022, the Reserve Bank of India introduced e₹ (**Wholesale and Retail**) in India.

The Government of India announced the launch of the Digital Rupee-A Central Bank Digital Currency (CBDC) from FY 2022-23 onwards in the Union Budget placed in the Parliament on February 01, 2022.

India has made impressive progress towards innovation in digital payments. A separate law for Payment and Settlement Systems has been enacted, which has enabled an orderly development of the payment eco-system in the country. The present state-of-the-art payment systems that are affordable, accessible, convenient, efficient, safe, secure and available 24x7x365 days a year are a matter of pride for the whole nation as, in many cases, India is far ahead of the most developed countries also in this area.

Having already introduced the first pilot in the Digital Rupee-Wholesale segment (**e₹-W**) on November 1, 2022, the Reserve Bank has launched of the second pilot for retail digital Rupee (**e₹-R**) on December 01, 2022.

This places India as one of the front runners as most of the major economies of the world have not introduced the Central Bank Digital Currency (CBDC) as yet.

Central Bank Digital Currency (CBDC) is a digital form of currency notes issued by a central bank. While most central banks across the globe are exploring the issuance of CBDC, the key motivations for its issuance are specific to each country's unique requirements. The e₹ will provide an additional option to the currently available forms of money. It is substantially not different from banknotes, but being digital it is likely to be easier, faster and cheaper. It also has all the transactional benefits of other forms of digital money.

CBDC is aimed to complement, rather than replace, current forms of money and is envisaged to provide an additional payment avenue to users, not to replace the existing payment systems.

Supported by state-of-the-art payment systems of India that are affordable, accessible, convenient, efficient, safe and secure, the **Digital Rupee (e₹) system** will further bolster India's digital economy, make the monetary and payment systems more efficient and contribute to furthering **financial inclusion**.

I wish to conclude my thoughts today by congratulating the office bearers of Journal & Publications department for all their commitments and achievements. Our mission is to publish international standard professional journal and quality publications to raise public awareness about policy issues in business, trade, society and economy and to facilitate solutions that will contribute to national development with special emphasis on cost and management accounting.

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

I wish you well during this challenging time. Hope everyone keeps safe!

Warm Regards & Best Wishes,

CMA (Dr.) K Ch A V S N Murthy

January 02, 2023



Let me wish my CMA families across the world a blessed new year ahead. May this New Year be filled with a plethora of opportunities embarking you on a journey filled with happiness, success, prosperity and growth.

The letter M between C and A is Magical. This M adds value to the Profession and also to the job profile. CMAs are Cost Accountants as well as Management Professionals. This is a wonderful combination of Audit as well as Managerial skills. Cost Management is the Cutting edge - Strategy for every organisation, Corporate, Bank to survive in today's world of intense competition.

BFSIB, has understood this concept and are clear that the future belongs to CMAs. They can manage and excel as CEOs, CFOs with their Costing and Audit skills coming to the fore. BFSIB is working round the clock, 24/7 to enhance the image of CMAs and to impress upon all the Institutions that CMAs are not mere accountants but are capable to handle managerial responsibilities with dedication and devotion. Our marketing efforts are expected to improve the RECALL value of our Institute, in Nation building and CMA as a Management Professional with auditing as core skill. BFSI's Chronicle is being used a GOODWILL AMBASSADOR to connect with Banks, FIs and enhance our rapport with them.

Our Institute has strived to do an "antibody" for our CMA families throughout the pandemic by conducting various webinars, symposiums, certificate courses, workshops, training programmes, career counselling taking up many issues with RBI, Banks and FIs. The greatest advantage, we derive out of these programmes is encashing the good will of all experts and their participating Institutions.

Atmanirbhar CMA is our aim. CMAs have to keep updating their knowledge every day and be tech savvy. From the days of IQ and EQ, we have now come to the age of DQ - Digital Quotient, the key to success. It's the digital readiness of individuals, teams and enterprises.

Keeping this in view, BFSIB have introduced online Certificate Courses in Investment Management, Concurrent Audit of Banks, Credit Management in Banks, Treasury Management to equip our CMAs to handle all these functions with confidence.

The achievements of BFSIB in the year 2022 are as follows:

FROM THE DESK OF CHAIRMAN

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

CMA Chittaranjan Chattopadhyay

- ⊙ Conduct of NISM Course on Investment Management
- ⊙ Conduct of BFSI Courses: Concurrent Audit, Treasury and International Banking and Credit Management of Banks
- ⊙ Representation for inclusion of CMAs in various regulators and BFSI Community
- ⊙ Inclusion of CMAs in various job vacancies in BFSI sector upon representation by the BFSI Board
- ⊙ Conduct of Pension Month in January
- ⊙ Publication of Aide Memoire on Infrastructure Financing in May
- ⊙ 30 hours Orientation programme for vacancies in Bank of India for CMA's in June
- ⊙ Conduct of Insurance Month in June
- ⊙ Conduct of Banking Month in July
- ⊙ Conduct of National Symposium of Bank Nationalization in July
- ⊙ Observance of World Investor Week in October
- ⊙ Conduct of Capital Market Symposium on Financial Freedom Through Stock Market Investing in October
- ⊙ Conduct of Workshop on Due Diligence on Corporate Borrowers of Banks by CMAs in November
- ⊙ Conduct of National Awards for Essay Competition for Bankers in December
- ⊙ Release of Handbook on Stock and Book Debts Audit in December
- ⊙ Conduct of programme on India@100: Growth Trajectory for Banks in December
- ⊙ Publication of quarterly issue of BFSI Chronicle in December
- ⊙ Implementation of QR Code in BFSI Certificates
- ⊙ Inclusion of CMAs in the technical guide on disclosure and reporting of KPI in Offer Documents disclosed by the Issuer Company.
- ⊙ Conduct of 19 webinars in 2022
- ⊙ Daily News Digest to Members and Students

I hope and trust that with your cooperation and support the Board will be able to continue its journey for accomplishment of the tasks. We hope to receive your suggestions at bfsi@icmai in so that we may contribute more in the growth of BFSI sector in the Country.

Wish you all achievement of professional excellence during the Year 2023.

CMA Chittaranjan Chattopadhyay
January 02, 2023



Seminar on **INDIA@100-GROWTH TRAJECTORY FOR BANKS**

Organized by:

The Banking, Financial Services and Insurance Board

in association with:

Southern India Regional Council

at Chennai on 23rd December 2022

The BFSIB of ICAI in association with SIRC of ICAI and The Madras Management Association organized a seminar on India @ 100 – Growth Trajectory for Banks on 23rd Dec’22.

CMA Vijender Sharma, President, ICAI, CMA S. Krishnan, MD & CEO, Tamilnad Mercantile Bank, CMA Raju Iyer, IPP, ICAI, Shri D. Lakshmi Narayan, MD., Sunadaram Home Finance, Shri S. Radhakrishnan, CGM, SBI, Shri Ramesh Babu MD & CEO of Karur Vaishya Bank, Shri Mahesh Bajaj ED, Indian Bank, Smt. Nalini Padmanabhan, part time, non-official Director, Canara Bank. Dr. N. Kamakodi, MD & CEO, City Union Bank, Shri Arun Bansal, ED & Head of Treasury, IDBI Bank, CMA Murali Ramaswamy, former ED and Member of BFSIB of ICAI were the eminent guest speakers on the dais.

Shri R. Vijay Kumar gave the welcome address to the august presence. He considered to be his proud privilege to deliver the formal welcome to all the viewers watching the program live on social media portals YouTube Facebook Twitter and also live on MMA radio. He informed the guests about the history of MMA establishment and its various programs.

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, ICAI, introduced the topic. He briefed the activities and the courses of the BFSIB of ICAI to the audience and how the BFSIB has been sensitizing about the importance of banking sector to the young talent pool of the country.

CMA P. Raju Iyer IPP, ICAI addressed the gathering and expressed his thrill for such a seminar. He also mentioned the various activities undertaken by the ICAI.

CMA Vijender Sharma, President, ICAI, welcomed the gathering. He discussed the role played by banks in the economy and also mentioned that the CMAs can play a pivotal role in supporting the banks. He also mentioned that ICAI is developing a technical reporting system mechanism for the banks which would give them an idea about the state of affairs of the company and its projected performance report along with information like performance of various products and their probable future performances. These reports will be highly beneficial to the bankers as it will help them to take informed decisions to grant loans.

Shri Ramesh Babu MD & CEO of Karur Vaishya Bank at the outset said that Institute of cost accountants of India is doing a tremendous work positioning cost and management accountancy function as a powerful tool of management control in all spheres of economic activities since 1959. What began as a mere exercise in estimating the cost later developed into a moment for efficiency and Optimum utilization of scarce resources in a world of unprecedented disruption and Market turbulence transformation today revolves around the need to generate new value to unlock new opportunities to Drive New Growth to deliver new efficiencies. He said once branded a third world country India is now the fifth largest economy

of the world and as per the prediction of Morgan Stanley we are slated to double our growth rate in the coming decade and would be the third largest economy by 2027 as India plans to be a U.S dollar fight trillion economy by 2025 over the years the Indian government has introduced many initiatives to strengthen the nation’s economy over recent decades India’s rapid economic growth has led to a substantial increase in the demand for exports India has risen to 46th position in the global Innovation index and has emerged as the third largest ecosystem for start-ups after the U.S and China with around 84 active start-ups in India attaining the status of unicorns between 2018 and 2022. also as a jewel in the crown India assumed presidency of G20. The last two decades of the banking the Indian banking industry witnessed the rollout of innovative banking models like payments and small Finance banks in addition to many Outreach programs for an inclusive growth major banking sector reforms like digital payments Neo banking Etc. and the rise of Indian nbfc and fintechs have significantly enhanced India’s Financial inclusion and help refuel the credit cycle in the country this also stresses the requirement of partnership between Banks and fintechs to improve their distribution Network the digital payment system in India has evolved the most among 25 countries India’s UPI has also revolutionized real-time payments and strive to increase its Global reach in recent years while API application programming interface has enabled access of seamless banking to the

customers. UPI and other enabled payment system has brought in a dramatic shift in consumer behaviour and usage as around 400 million people tap into these digital Technologies which was just zero ten years back. He also mentioned that the services offered by CMA Professionals in the areas of forensic audit concurrent audit due diligence audit stock audit credit audit Revenue Audit Performance Management and audit of project laws preparation of cost feasibility report are really beneficial to the BFS sector as both organizations are financial service providers they can work together to take our nation into the next level of individual and Industrial growth.

Shri D. Lakshmi Narayan, MD., Sunadaram Home Finance, briefed the 25 years' history of the banking industry and said that the biggest threat for banking as for any other industry currently is the emerging Global trend new challenges often from different Industries and from the kind of cross industry platforms such as Amazon Flipkart Google Etc. which have a vastly superior economic model and a funding capability banking is facing a future marked by fundamental restructuring but we can also assume the banks that will navigate through this will become better and more profitable and will grow faster in the next era. Credit rating Investment Banking loan recoveries and every other activity that Bankers are doing would be driven by block chain cloud computing and analytics with less human intervention to achieve better accuracy this would also to some extent protect the bankers from cyber-related attacks which are very critical at the moment. Secondly there would be very few brick and mortar Banks addition in the next decade.

CMA S. Krishnan, MD & CEO, Tamilnad Mercantile Bank deliberated on how the banks have

travelled in the past, what was its Journey, what were the challenges that the banks were facing particularly in India. He mentioned about ABCD where A is for artificial intelligence B is for block chain C for cloud and D for data, this is the order of the day and the banks are fully geared to take plenty of opportunities in the coming years.

The inaugural session ended after the speech followed by the inauguration of the handbook on stock audit by ICAI.

The technical session started with Shri. Arun Bansal the executive director and head of Treasury of IDBI Bank to address on the topic liquidity management and role of Treasury in Bank. He discussed the various treasury functions being – CR Ratio, Statutory Liquidity ratio, Liquidity Management, other non SLR Investments, Interest rate risk management, FX and Derivatives and Debt capital raising. Mr. Bansal mentioned banks' role as intermediary for liquidity and rate transmission. He ended up saying that the future of Indian Banking system handholding with the CMAs is definitely in a better shape.

Shri S. Radhakrishnan, CGM, SBI, shared his thoughts based upon the topic. He discussed about the technological advancements and how it has enriched the banking system. The fintechs, the internet technology from 2G to 5G has contributed immensely in the growth of the banking system. The eminent speaker identified digital mediation as a challenge but also said that then opportunities for the banks will multiply immensely while they have to be very competitive as the online platforms. He touched upon food crisis and global warming and how it is a challenge to the growth if not taken care of.

CMA Murali Ramaswamy, former ED and Member of BFSIB of ICAI

deliberated on 'stressed assets in banks – role of professionals'. He discussed about NPAs and their financial and non-financial reasons, types of restructured loans, written off assets and special mention account. CMA Murali threw light on the resolution of stress under IBC and duties of interim resolution professional.

CMA Vijender Sharma, President, ICAI summed up the technical session. Shri Mahesh Bajaj ED, Indian Bank, Smt. Nalini Padmanabhan, part time, non-official Director, Canara Bank were present for the valedictory session.

Shri Mahesh Bajaj touched upon how the banking industry and its functioning has changed due to technological advancement and digitization. While talking about he payment ecosystem the best which we have done in the last seven or eight years in the country is the UPI which is touching 7.3 billion volumes of transactions with amount is 12 trillion INR. He touched upon the impact of CBDC, Digital platforms, Fintechs and start-ups on the banking business and also warned about the threat of data privacy and how we are going to take care of it.

Smt. Nalini Padmanabhan introduced the new concept of digital currency. Madam explained how the CBDC is going to boost the economy and discussed about CBDC Retail and CBDC Wholesale and the denominations. The eminent speaker wrapped up after mentioning various FAQs for explaining the topic in details.

The seminar was wrapped up by the vote of thanks by CMA Rakesh Shankar, member of CASB.



CMA Chittaranjan Chattopadhyay, Chairman, BFSIB felicitating CMA Vijender Sharma, President, The Institute of Cost Accountants of India at the seminar 'India@100-Growth Trajectory for Banks' at Chennai on 23rd December 2022 (R to L). CMA P.Raju Iyer, Immediate Past President,ICAI (extreme right) and CMA S.Krishnan,MD and CEO,Tamilnad Mercantile Bank (extreme left) are also present in the frame.



CMA Vijender Sharma, President, The Institute of Cost Accountants of India addressing the audience during the inaugural session of the seminar '**India@100-Growth Trajectory for Banks**' at Chennai on 23rd December 2022.



CMA P.Raju Iyer, Immediate Past President of The Institute of Cost Accountants of India addressing the audience during the inaugural session at '**India@100-Growth Trajectory for Banks**' at Chennai on 23rd December 2022.



CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, The Institute of Cost Accountants of India giving the introduction of the theme '**India@100-Growth Trajectory for Banks**' at Chennai on 23rd December 2022.



CMA Chittaranjan Chattopadhyay, Chairman, BFSIB and CMA Vijender Sharma, President, The Institute of Cost Accountants of India felicitating Shri R. Radhakrishna, Chief General Manager, State Bank of India at Chennai on 23rd December 2022. (R to L)



(L to R) Gp Capt R Vijayakumar (Retd.), ED, MMA , Shri B Ramesh Babu, MD & CEO, Karur Vysya Bank, CMA S Krishnan, MD & CEO, Tamilnad Mercantile Bank, CMA Vijender Sharma, President, Institute of Cost Accountants of India, CMA P.Raju Iyer, Immediate Past President, Shri D.Lakshminarayanan, MD, Sundaram Home Finance and CMA Chittaranjan Chattopadhyay, Chairman, BFSIB displaying the latest publication of the BFSIB "HANDBOOK ON STOCK AND BOOK DEBTS AUDIT" (Revised and Enlarged 2nd Edition) which has been released in the Seminar



BFSI INSIGHT SUMMIT

Jio World Convention Centre, Mumbai
21 - 22 December 2022



Shri M Damodaran, Former Chairman of SEBI, Shri Shailesh Dobhal, Editor, Business Standard visiting Institute Stall along with CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & CMA Debasish Mitra, Chairman, BoASR at BFSI Insight Summit, Mumbai



CMA Debasish Mitra, Chairman, BoASR in conversation with CEO & COO of Business Standard, at BFSI Insight Summit, Mumbai



Shri Tamal Bandyopadhyay, Consulting Editor, Business Standard with CMA Chittaranjan Chattopadhyay, Chairman, BFSIB & CMA Debasish Mitra, Chairman, BoASR at Institute Stall, BFSI Insight Summit, Mumbai



Institute Stall at BFSI Insight Summit, Mumbai



Seminar on SOCIAL STOCK EXCHANGE- ROLE OF PROFESSIONALS

organized by

The Banking, Financial Services and Insurance Board

on 24.12.22 at the Indian Chamber of Commerce

The Banking, Financial Services and Insurance board of The Institute of Cost Accountants of India organized a hybrid seminar on Social Stock Exchange and Role of Professionals on 24.12.22 at the Indian Chamber of Commerce. The Chief Guest for the Seminar was Shri Jeevan Sonparote, Chief General Manager of Securities and Exchange Board of India. The Seminar had CMA Ram Babu Pathak, Company Secretary of Eastern Coalfields Limited as the Speaker of the day.

CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, ICAI, deliberated a brief on Social Stock Exchange and the Role of CMAs and expressed his delight and thankfulness for the presence of the esteemed Chief Guest and the Speaker for the Seminar.

CMA Amal Kumar Das, Former President, ICAI welcomed the guests and highlighted the role of CMAs in the various sectors.

CMA Vijender Sharma, President, ICAI expressed his gratitude to the Chief Guest for his constant support to the CMA fraternity

CMA Ram Babu Pathak, Company Secretary of Eastern Coalfields Limited and Chairman, Asansol Chapter, ICAI made a presentation on ESG and explained its importance for sustainability and CSR. He emphasized that Social Stock Exchange cannot be weighed, studied or cannot be understood in absence of CSR, social audit, ESG framework or in absence of impact investing or donation funding. He stated that social stock exchange is an electronic fundraising platform under the regulatory Ambit of SEBI for listing social Enterprises and voluntary organizations working for social welfare, while discussing about the need of Social Stock Exchange he said that SSE will aim at mitigating the economic damage caused by Covid 19. It will also help to improve visibility and knowledge among the stakeholders about the contributions of the social enterprise in the society. They would enable and establish procedures to standardize social finance and develop the social capital. The Social Stock Exchange act as a link between the social entrepreneurs in need of capital and investors prepared to put their money into them. CMA Pathak also explained the concept of Social Stock Exchange in other countries like, Canada, UK, Brazil. The concept of Social Stock Exchange in India was of a donation based funding platform with a feature of trading the donations by linking them with a security instrument. He said that the SSE will operate as a separate segment in the existing stock exchanges and the enterprises entitled to list in the SSE are social enterprises. He also stated the eligibility criteria of the social enterprise. While discussing about the modes of raising funds in the SSE the speaker explained ZCZP Bonds, social impact funds, development impact bonds, donations through mutual funds etc. and their related regulations. He said that the entire concept of social Stock Exchange revolves around

CSR, social audit, ESG and sustainable developments and the ultimate aim the social Stock Exchange that will develop India. CMAs will play a pivotal role in implementing this entire concept of social Stock Exchange.

Shri Jeevan Sonparote, Chief General Manager of Securities and Exchange Board of India, at the outset said that the association of ICAI and SEBI has been short but it is deep and he wished to continue the bonding and association. He said that CMAs are ace in numbers and SEBI is looking for social audits from ICAI. He urged that the council of ICAI and its members to contribute and design the social audit standards and to come out with an impact assessment report. Shri Sonparote also said that SEBI is planning to place those standards in the September 2023 and pitch it in the G20 summit. He said it is a unique experiment as this task of SSE has been placed on the security market regulators. He stressed that none of the countries the social Stock Exchange has been given to a Securities Market regulator so while that has been given to the Securities Market regulator in India it is SEBI's responsibility to ensure that the money that is attracted towards this is invested in a time-bound fashion and to the purpose that it is intended. He stated that since people are not clear that the money somebody is giving is being put to use that it has been intended for so that is the biggest challenge will be and that is where the Institute and the CMAs will have to play a crucial role and that is why in the design the Social Stock Exchange the SEBI had kept in mind. He stated that with that premise the Social Enterprises are raising money and the donors are assured that their money is going to be at the place that their heart is in it is not going to work and the social Auditors to set up is to put in place exactly to assure that donor that whatever money has been put in is now being certified and validated by a social auditor and done by these high-ranking professionals and that is whom you can trust. So the entire design of the social Stock Exchange is to bring some kind of accountability, credibility and transparency for any purpose of Charity so that we are all used to having transparency accountability where with respect to the finance. Social impact or social impact assessment is going to be the one of the key challenges that the social Stock Exchange is going to face. So it's all up to professionals like CMAs based on which SEBI will be able to decide whether the social Stock exchange would be a good or a successful experiment in India. He assured that Chairperson SEBI is looking into the matter as to whether CMAs can be included for forensic audit and he also mentioned of placing the technical guidance on KPIs by the Institute. He stressed on doing something on digital assurance and said we want to be in a technologically developed environment and that's where the digital assurance guide will help.

After an interesting question answer session, the seminar was wrapped up by a vote of thanks by CMA Kaushik Banerjee, Secretary, ICAI.



Lighting of the Lamp: CMA Rambabu Pathak, Speaker, Company Secretary, Eastern Coalfields Ltd. and Chairman, Asansol Chapter, The Institute of Cost Accountants of India, Shri Jeevan Sonparote, Chief General Manager, Securities and Exchange Board of India, CMA Amal Kumar Das, Past President, CMA Vijender Sharma, President, The Institute of Cost Accountants of India and CMA Chittaranjan Chattopadhyay, Chairman, BFSIB. (L to R)



CMA Vijender Sharma, President, The Institute of Cost Accountants of India deliberating the Presidential address to the audience for the seminar on **‘Social Stock Exchange – Role of Professionals’** at the Indian Chamber of Commerce, Kolkata on 24th December 2022.



CMA Vijender Sharma, President, The Institute of Cost Accountants of India (centre-Left) presenting to Shri Jeevan Sonparote, Chief Guest and Chief General Manager, Securities and Exchange Board of India (centre-right) with a plant. CMA Chittaranjan Chattopadhyay, Chairman, BFSIB (extreme left) and CMA Rambabu Pathak, Speaker, Company Secretary, Eastern Coalfields Ltd. and Chairman, Asansol Chapter, Institute of Cost Accountants of India (extreme-right) are also in the frame.



CMA Chittaranjan Chattopadhyay, Chairman, BFSIB addressing the audience and introducing the topic of the seminar ‘Social Stock Exchange – Role of Professionals’ at the Indian Chamber of Commerce, Kolkata on 24th December 2022.



CMA Rambabu Pathak, Speaker, Company Secretary, Eastern Coalfields Limited and Chairman, Asansol Chapter of The Institute of Cost Accountants of India deliberating upon the topic of “Social Stock Exchange-Role of Professionals” and the indispensable role of Cost and Management Accountants.



Shri Jeevan Sonparote, Chief Guest and Chief General Manager, Securities and Exchange Board of India deliberating the technical aspects of Social Stock Exchange and the role that SEBI and the Institute of Cost Accountants of India has to deliver for the benefit of the stakeholders on 24th December 2022 at the Indian Chamber of Commerce, Kolkata.



Program on “INTERACTIVE SESSION ON PRACTICAL ASPECTS OF COST AUDIT”

held on 16th December, 2022 at Hotel Hindustan International, Kolkata



MOU WITH SA COLLEGE OF ARTS AND SCIENCE, CHENNAI



SA College of Arts and Science, Chennai [Affiliated to University of Madras] entered into a MoU with the Institute of Cost Accountants of India on 23-12-2022 at the College Campus. The MOU was signed by CMA P Raju Iyer, Immediate Past President and Dr. Malathi Selvakumar, Principal of the College in the august presence of CMA Rakesh Shankar Ravisankar, Member - CASB and Faculty Members of the College Dr. Suresh [HOD - Commerce] and Dr. Srinivasan. The MoU is aimed at establishing CMA Support Centre for the students residing in the outskirts of Chennai city and also conduct Joint Programmes on GST, Income Tax, Faculty Development Programmes and Professional Development Programmes.



**Activities of
COMMITTEE FOR ACCOUNTING TECHNICIANS (CAT)
THE INSTITUTE OF COST ACCOUNTANTS OF INDIA**



Inauguration of CAT ROCC- BP Foundation (E-139) at Chanchal Dt Malda, West Bengal in the august presence of CMA Biswarup Basu, Former President ICAI, CMA Chittaranjan Chattopadhyay, Council Member & others on 11.12.2022



CAT Proposal submitted to Dr. Apoorva Palkar, Vice - Chancellor, Maharashtra State Skills University on 15.11.2022



Inauguration of first CAT batch under Uttar Pradesh State Skill Development Mission on 14.10.2022



Inauguration of CAT ROCC at Mallapuram, Kerala on 05.09.2022



CAT Course counselling and Awareness program at IIS University, Jaipur on 19.09.2022





THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(Statutory Body under an Act of Parliament)

(Standing & Other Committees for the year 2022-2023)

(Quorum indicated is as per regulation 81 (1) of the CWA Regulations, 1959)

STANDING COMMITTEES

1. Executive Committee (Quorum: 3)

Chairman

1. CMA Vijender Sharma, President

Members

2. CMA Rakesh Bhalla, Vice President
3. CMA Biswarup Basu
4. CMA P Raju Iyer
5. CMA Debasish Mitra
6. CMA H. Padmanabhan
7. CMA (Dr.) K Ch A V S N Murthy

Secretary

CMA Kaushik Banerjee, Secretary

2. Examination Committee (Quorum: 2)

Chairman

1. CMA Vijender Sharma, President

Members

2. CMA Rakesh Bhalla, Vice President
3. CMA (Dr.) Balwinder Singh
4. CMA P Raju Iyer
5. CMA Neeraj D. Joshi
6. CMA H. Padmanabhan
7. CMA Niranjana Mishra

Secretary

CMA Kaushik Banerjee, Secretary

3. Finance Committee (Quorum: 2)

Chairman

1. CMA Vijender Sharma, President

Members

2. CMA Rakesh Bhalla, Vice President
3. CMA (Dr.) Balwinder Singh
4. CMA Biswarup Basu
5. CMA Ashwin G. Dalwadi
6. CMA (Dr.) V. Murali
7. CMA Chittaranjan Chattopadhyay

Secretary

CMA Arnab Chakraborty, Director (Finance)

OTHER COMMITTEES

4. Board of Discipline u/s 21A(1)

Presiding Officer

1. CMA Kunal Banerjee

Member

2. CMA (Dr.) Balwinder Singh

Secretary

CMA Rajendra Bose, Director (Discipline)

5. Disciplinary Committee u/s 21B(1)

Presiding Officer

1. CMA Vijender Sharma

Members

2. CMA Biswarup Basu
3. CMA P Raju Iyer
4. CA Nalini Padmanabhan, Government Nominee
5. Shri G.V. Krishna, Government Nominee

Secretary

CMA Rajendra Bose, Director (Discipline)

6. Disciplinary Committee u/s 21D

Presiding Officer

1. CMA Vijender Sharma

Members

2. CMA Rakesh Bhalla, Vice President
3. Shri Jyoti Prakash Gadia, Government Nominee

Secretary

CMA Kaushik Banerjee, Secretary

7. Training & Education Facilities Committee (Quorum: 3)

Chairman

1. CMA (Dr.) Balwinder Singh

Members

2. CMA Biswarup Basu
3. CMA P Raju Iyer
4. CMA Debasish Mitra
5. CMA Papa Rao Sunkara
6. CMA (Dr.) V. Murali
7. CMA Chittaranjan Chattopadhyay
8. CMA (Dr.) Paritosh Basu (Co-opted)
9. CMA Dinabandhu Mukherjee (Co-opted)
10. CMA Manasi Arora (Co-opted)

Secretary

CMA (Dr.) Debaprosanna Nandy, Sr. Director

8. Journal & Publications Committee (Quorum:3)

Chairman

1. CMA (Dr.) K Ch A V S N Murthy

Members

2. CMA P Raju Iyer
3. CMA Debasish Mitra
4. CMA (Dr.) V. Murali
5. CMA Niranjana Mishra
6. CMA Chittaranjan Chattopadhyay
7. CMA Raja Ghosh (Co-opted)
8. CMA C Vajralingam (Co-opted)
9. CMA J S Anand (Co-opted)

COUNCIL COMMITTEES

Secretary

CMA Sucharita Chakraborty, Addl. Director

9. Professional Development Committee (Quorum: 3)

Chairman

1. CMA Biswarup Basu

Members

2. CMA (Dr.) Balwinder Singh
3. CMA P Raju Iyer
4. CMA Neeraj D. Joshi
5. CMA Debasish Mitra
6. CMA (Dr.) K Ch A V S N Murthy
7. CMA H Padmanabhan
8. CMA Niranjana Mishra
9. CMA Chittaranjan Chattopadhyay
10. CA Mukesh Singh Kushwah, Government Nominee
11. CMA Ashok B. Nawal (Co-opted)
12. CMA Amitabh Mitra (Co-opted)
13. CMA Mukesh Kumar Gupta (Co-opted)
14. CMA Subodh Gupta (Co-opted)
15. CMA Gr. Cpt. Rajendra Kumar Joshi (Co-opted)

Secretary

CMA Nisha Dewan, Addl. Director

10. Regional Council & Chapters Coordination Committee (Quorum: 3)

Chairman

1. CMA (Dr.) K Ch A V S N Murthy

Members

2. CMA Biswarup Basu
3. CMA Debasish Mitra
4. CMA (Dr.) Ashish P. Thatte
5. CMA H Padmanabhan
6. CMA Chittaranjan Chattopadhyay
7. CMA Amal Kumar Das (Co-opted)
8. CMA T.C.A. Srinivasa Prasad (Co-opted)
9. CMA Umar Farooque (Co-opted)

Secretary

CMA Arup Sankar Bagchi, Sr. Director

11. International Affairs Committee (Quorum:3)

Chairman

1. CMA H. Padmanabhan

Members

2. CMA (Dr.) Balwinder Singh
3. CMA Biswarup Basu
4. CMA P Raju Iyer
5. CMA Ashwin G. Dalwadi
6. CMA (Dr.) Ashish P. Thatte
7. CMA Papa Rao Sunkara
8. CMA Avijit Goswami (Co-opted)
9. CMA Subhash Agarwal (Co-opted)
10. CMA Vikas Gupta (Co-opted)

Secretary

CMA Yogender Pal Singh, Joint Director

12. Indirect Taxation Committee (Quorum: 3)

Chairman

1. CMA Chittaranjan Chattopadhyay

Members

2. CMA Rakesh Bhalla, Vice President
3. CMA Biswarup Basu
4. CMA P Raju Iyer
5. CMA Ashwin G. Dalwadi
6. CMA Debasish Mitra
7. CMA H. Padmanabhan
8. CMA Papa Rao Sunkara
9. CMA (Dr.) V. Murali
10. CMA (Dr.) K Ch A V S N Murthy
11. CA Mukesh Singh Kushwah, Government Nominee
12. Shri Jyoti Prakash Gadia, Government Nominee
13. CS Makarand Lele, Government Nominee
14. CMA Venkateswara Ramakrishnan (Co-opted)
15. CMA Ashok B. Nawal (Co-opted)
16. CMA V.S. Datey (Co-opted)
17. CMA Debasish Ghosh (Co-opted)
18. CMA Sanjay Singh (Co-opted)
19. CMA Mrityunjay Acharjee (Co-opted)
20. CMA T.K. Jagannathan (Co-opted)

Secretary

CMA Rajat Kumar Basu, Addl. Director

13. Direct Taxation Committee (Quorum: 3)

Chairman

1. CMA (Dr.) Ashish P. Thatte

Members

2. CMA Ashwin G. Dalwadi
3. CMA Neeraj D. Joshi
4. CMA Niranjana Mishra
5. CMA H. Padmanabhan
6. CMA Papa Rao Sunkara
7. CMA Chittaranjan Chattopadhyay
8. CMA Rakesh Sinha (Co-opted)
9. CMA Subhasish Chakraborty (Co-opted)
10. CMA Arundhati Basu (Co-opted)

Secretary

CMA Rajat Kumar Basu, Addl. Director

14. Committee for Accounting Technicians (Quorum: 3)

Chairman

1. CMA H. Padmanabhan

Members

2. CMA (Dr.) Balwinder Singh
3. CMA P Raju Iyer
4. CMA Ashwin G. Dalwadi
5. CMA (Dr.) K Ch A V S N Murthy
6. CMA Chittaranjan Chattopadhyay

Secretary

CMA Rajesh Kumar Jain, Joint Director

15. Members' Facilities Committee (Quorum: 3)

Chairman

1. CMA (Dr.) V. Murali

Members

2. CMA Neeraj D. Joshi
3. CMA Debasish Mitra
4. CMA Papa Rao Sunkara
5. CMA Niranjana Mishra
6. CA Mukesh Singh Kushwah, Government Nominee

COUNCIL COMMITTEES

7. CMA Radha Krishna Gupta (Co- opted)
8. CMA Nitish Kalra (Co-opted)
9. CMA Sunita Singh (Co-opted)

Secretary

CMA Arup Sankar Bagchi, Sr. Director

16. Infrastructure Committee (Quorum: 3)

Chairman

1. CMA Biswarup Basu

Members

2. CMA (Dr.) Balwinder Singh
3. CMA Debasish Mitra
4. CMA Papa Rao Sunkara
5. CMA (Dr.) K Ch A V S N Murthy
6. CMA H. Padmanabhan
7. CMA G N Venkataraman, Past President (Co-opted)
8. CMA Subodh Kumar (Co-opted)

Secretary

CMA Kushal Sengupta, Addl. Director

17. Corporate Laws Committee (Quorum: 3)

Chairman

1. CMA Niranjan Mishra

Members

2. CMA (Dr.) Ashish P. Thatte
3. CMA Papa Rao Sunkara
4. CMA (Dr.) K Ch A V S N Murthy
5. CMA Chittaranjan Chattopadhyay
6. CS Makarand Lele, Government Nominee
7. CMA Divya Abhishek (Co-opted)
8. CMA Shailendra Paliwal (Co-opted)
9. CMA Hemendra Soni (Co-opted)

Secretary

Ms. Vibhu Agrawal, Joint Director

18. Information Technology Committee (Quorum:3)

Chairman

1. CMA (Dr.) Balwinder Singh

Members

2. CMA Ashwin G. Dalwadi
3. CMA Debasish Mitra
4. CMA (Dr.) K Ch A V S N Murthy
5. CMA Chittaranjan Chattopadhyay
6. Shri Jyoti Prakash Gadia, Government Nominee
7. CMA Sankalp Wadhwa (Co-opted)
8. CMA Nilesh Kumar (Co-opted)
9. CMA Robin Singh (Co-opted)

Secretary

Shri Ashish Tewari, Joint Director

19. Members in Industry and Placement Committee (Quorum: 3)

Chairman

1. CMA Debasish Mitra

Members

2. CMA (Dr.) Balwinder Singh
3. CMA Biswarup Basu
4. CMA P Raju Iyer

5. CMA Ashwin G. Dalwadi
6. CMA H. Padmanabhan
7. CMA (Dr.) K Ch A V S N Murthy
8. CMA (Dr.) V Murali
9. CMA Papa Rao Sunkara
10. CMA Chittaranjan Chattopadhyay
11. CMA Rajendra Kumar Rath (Co- opted)
12. CMA Udayan Guha (Co-opted)
13. CMA L Prakash (Co-opted)
14. CMA Bhaskar Basu (Co-opted)
15. CMA Asim Kumar Mukhopadhyay (Co-opted)
16. CMA Tulsiyan (Co-opted)

Secretary

CMA (Dr.) Debaprosanna Nandy, Sr. Director

20. Public Relations Committee (Quorum: 3)

Chairman

1. CMA H. Padmanabhan

Members

2. CMA Biswarup Basu
3. CMA P Raju Iyer
4. CMA Neeraj D. Joshi
5. CMA (Dr.) Ashish P. Thatte
6. CMA Niranjan Mishra

Secretary

Dr. Giri Ketharaj, Addl. Director

21. Committee on Cost Management for Public and Government Services (Quorum: 3)

Chairman

1. CMA (Dr.) K Ch A V S N Murthy

Members

2. CMA Biswarup Basu
3. CMA Neeraj D. Joshi
4. CMA (Dr.) Ashish P. Thatte
5. CMA Papa Rao Sunkara
6. CMA Niranjan Mishra
7. CMA G V S Subramanyam (Co-opted)
8. CMA Sanjay R Bhargave (Co-opted)
9. CMA Lovinder Kashyap (Co-opted)

Secretary

CMA Kushal Sengupta, Addl. Director

22. Continuing Education Programme Committee (Quorum: 3)

Chairman

1. CMA Biswarup Basu

Members

2. CMA Debasish Mitra
3. CMA H Padmanabhan
4. CMA (Dr.) K Ch A V S N Murthy
5. CMA (Dr.) V. Murali
6. CMA Chittaranjan Chattopadhyay
7. CMA Harijiban Banerjee, Past President (Co-opted)
8. CMA Avijit Goswami (Co-opted)
9. CMA Arvind Kumar (Co-opted)

Secretary

CMA Nisha Dewan, Addl. Director

COUNCIL COMMITTEES

23. Management Accounting Committee (Quorum: 3)

Chairman

1. CMA Neeraj D. Joshi

Members

2. CMA Ashwin G. Dalwadi
3. CMA (Dr.) Ashish P. Thatte
4. CMA H. Padmanabhan
5. CMA (Dr.) K Ch A V S N Murthy
6. CMA Niranjan Mishra
7. CS Makarand Lele, Government Nominee
8. CMA D.C. Bajaj, Past President (Co-opted)
9. CMA Vijay Mahajan (Co-opted)
10. CMA Ajay Singh (Co-opted)

Secretary

Dr. Pradipta Gangopadhyay, Joint Director

24. Career Counselling Committee (Quorum: 3)

Chairman

1. CMA Papa Rao Sunkara

Members

2. CMA P Raju Iyer
3. CMA Neeraj D. Joshi
4. CMA (Dr.) Ashish P. Thatte
5. CMA H. Padmanabhan
6. CMA (Dr.) V. Murali
7. CMA Sudhanshu Kumar (Co-opted)
8. CMA Vikas Srivastava (Co-opted)
9. CMA Harmeet Bawa (Co-opted)

Secretary

CMA (Dr.) Sumita Chakraborty, Addl. Director

25. Public Sector Undertakings Co-ordination Board (Quorum: 5)

Chairman

1. CMA P. Raju Iyer

Members

2. CMA Biswarup Basu
3. CMA Debasish Mitra
4. CMA (Dr.) V. Murali
5. CMA Chittaranjan Chattopadhyay
6. CMA K Sreekant
7. CMA G. Ravisankar
8. CMA B.P. Nayak
9. CMA Rajendra Prasad Goyal
10. CMA Hira Nand
11. CMA Sanjay Jindal
12. CMA Parminder Chopra
13. CMA Rakesh Kumar Jain
14. CMA Jaikumar Srinivasan
15. CMA Anupam Agarwal
16. CMA Subhodh Gupta
17. CMA Amitabha Maitra
18. CMA C.B. Ananthakrishnan
19. CMA Pradeep Kumar Chand
20. CMA Lokesh Kumar Aggarwal
21. CMA Ajit Kumar Behura
22. CMA Anil Kumar Tulsiani
23. CMA Pomila Jaspal
24. CMA Anil Jerah
25. CMA Anjani Kumar Tiwari
26. CMA G. Srinivasan
27. CMA Ramesh Chandra Joshi

Secretary

CMA Nisha Dewan, Addl. Director

26. Cost Accounting Standards Board (Quorum: 8)

Chairman

1. CMA P Raju Iyer

Members

2. CMA (Dr.) Balwinder Singh
3. CMA Biswarup Basu
4. CMA Ashwin G. Dalwadi
5. CMA Neeraj D. Joshi
6. CMA Chittaranjan Chattopadhyay
7. CMA Chandra Wadwa, Past President
8. CMA Kunal Banerjee, Past President
9. CMA (Dr.) K. Narasimha Murthy, PCA
10. CMA M. Gopalakrishnan, Past President
11. CMA B.B. Goyal, Advisor, MARF
12. Shri Samiran Dutta, CMD, BCCL
13. CMA Asim Kumar Mukhopadhyay, CEO & MD, Tata Mobility Solutions Pvt. Ltd.
14. Shri Ratikanta Rout, GM, JK Paper Ltd.
15. Shri S Varadaraj, CFO & Head, System & Legal, Godrej Agrovet Limited
16. CMA Mrityunjay Acharjee, GM (Finance), Numaligarh Refinery Ltd
17. CMA Rakesh Shankar, PCA
18. CMA T. K. Jagannathan, PCA
19. Ms. Mithlesh, Advisor (Cost), Cost Audit Branch, MCA
20. CMA (Dr.) Ashish Bhattacharya, Academic Expert
21. CMA (Dr.) Shivani Inder, Academic Expert
22. Shri B Rajendran, Regional Director, Southern Region, SEBI
23. CMA Anjani Kumar Tiwari, Member, PNGRB
24. CS Nagender D. Rao, Past President, ICSI
25. CA Anuj Kumar Goyal, Council Member, ICAI
26. Nominee of MCA
27. Nominee of CBIC
28. Nominee of CBDT
29. Nominees of Global Accounting Bodies

Secretary

CMA Tarun Kumar, Addl. Director

27. Cost Auditing and Assurance Standards Board (Quorum: 5)

Chairman

1. CMA Ashwin G. Dalwadi

Members

2. CMA (Dr.) Balwinder Singh
3. CMA (Dr.) Ashish P. Thatte
4. CMA (Dr.) K Ch A V S N Murthy
5. CMA (Dr.) V. Murali
6. CMA Niranjan Mishra
7. Ms. Mithlesh, Advisor (Cost), Cost Audit Branch, MCA
8. Ms. Rina Akoijam, Principal Director of Audit (Infrastructure), CAG
9. Shri Amit Sharma, Advisor (F&EA), TRAI
10. Shri Manish Mohan Govil, Advisor (Law), CCI
11. CMA B.B. Goyal, Advisor, MARF
12. CMA M.K. Anand, Cost Accountant
13. CMA Diwan Chand Arya, Cost Accountant
14. CMA Sankalp Wadhwa, PCA
15. CMA Monika Kansal, PCA
16. CS Chetan Patel, Council Member, ICSI
17. Nominees of Industry Associations

Secretary

CMA Tarun Kumar, Addl. Director

28. Internal Auditing and Assurance Standards Board (Quorum: 6)**Chairman**

1. CMA Rakesh Bhalla, Vice President

Members

2. CMA P Raju Iyer
3. CMA Neeraj D. Joshi
4. CMA Debasish Mitra
5. CMA (Dr.) K Ch A V S N Murthy
6. CMA Chittaranjan Chattopadhyay
7. CMA B.M. Sharma, Past President
8. CMA Bharat Bhushan Gupta
9. CMA Anil Kumar Kaushik
10. CMA V V Ravi Kumar
11. CMA Sushil Yadav
12. CMA Neeraj Sachdeva
13. CMA Dipalok Dutta
14. CMA Vineet Gupta
15. CMA H.K. Sharma
16. CMA B.R. Prabhakar
17. CMA D.L.S. Sreshti
18. CMA Sunil Chacko
19. CMA Rajesh Verma
20. CMA D Surya Parkasham
21. CMA Sukrut Mehta
22. CMA Neeraj Sharma
23. CMA Honey Singh
24. CMA Shyam Sunder Sonthalia
25. CMA Prabhakar Mukhopadhyay
26. Nominee of Industry Associations
27. Nominee of Professional Institute
28. Nominee of CAG
29. Nominee of Bank
30. Nominee of Regulatory body

Secretary

CMA Yogender Pal Singh, Joint Director

29. Banking, Financial Services & Insurance Board (Quorum: 5)**Chairman**

1. CMA Chittaranjan Chattopadhyay

Members

2. CMA (Dr.) Balwinder Singh
3. CMA P Raju Iyer
4. CMA Biswarup Basu
5. CMA Ashwin G. Dalwadi
6. CMA Debasish Mitra
7. CMA (Dr.) Ashish P. Thatte
8. CMA H. Padmanabhan
9. CMA Papa Rao Sunkara
10. CMA (Dr.) K Ch A V S N Murthy
11. Shri Jyoti Prakash Gadia, Government Nominee
12. CMA S C Garg
13. CMA Murali Ramaswami
14. CMA Arunjay Singh
15. CMA Sreekant Kandikonda
16. CMA Tanmaya Pradhan
17. CMA Sunder Ram Korivi
18. CMA P N Murthy
19. CMA Mahender Singh
20. Nominee of IRDAI
21. Nominee of RBI
22. Nominee of SEBI
23. Nominee of DFS, Ministry of Finance

Secretary

CMA Arup Sankar Bagchi, Sr. Director

30. Board of Advanced Studies & Research (Quorum: 3)**Chairman**

1. CMA Debasish Mitra

Members

2. CMA (Dr.) Balwinder Singh
3. CMA (Dr.) V. Murali
4. CMA (Dr.) K Ch A V S N Murthy
5. CMA Papa Rao Sunkara
6. CMA Chittaranjan Chattopadhyay
7. CMA Rajneesh Jain
8. CMA Anirban Mukhopadhyay
9. CMA (Dr.) Paritosh Basu
10. CMA (Prof.) Jayanta Sil
11. Dr. Sandeep Ghosh
12. CMA Harneet Kaur
13. Dr. Alka Agarwal
14. CA Mohd. Salim
15. CA Bimal Jain

Secretary

CMA (Dr.) Debaprosanna Nandy, Sr. Director

31. Quality Review Board (Quorum: 3)**Chairperson**

1. CA Jyoti Chouhan, Government Nominee

Members

2. Shri Alok Samantarai, Government Nominee
3. Ms. Mausumi Ray Bhattacharya, Government Nominee
4. CMA Kunal Banerjee, Past President
5. CMA (Dr.) A.S. Durga Prasad, Past President

Secretary

CMA Arup Sankar Bagchi, Sr. Director

32. Technical Cell (Cost Audit & Statutory Compliances) (Quorum: 3)**Chairman**

1. CMA Chandra Wadhwa, Past President

Members

2. CMA (Dr.) Balwinder Singh
3. CMA Ashwin G. Dalwadi
4. CMA Kunal Banerjee, Past President
5. CMA M. Gopalakrishnan, Past President
6. CMA B.B. Goyal, Advisor, MARF
7. CMA Asim Kumar Mukhopadhyay
8. CMA Somnath Mukherjee
9. CMA (Dr.) Ashish Bhattacharya
10. CMA Parvathy Venkatesh
11. Advisor (Cost) or his nominated person

Secretary

CMA Tarun Kumar, Addl. Director

33. MSME & Start-up Promotion Board (Quorum: 4)**Chairman**

1. CMA Chittaranjan Chattopadhyay

Members

2. CMA Ashwin G. Dalwadi

COUNCIL COMMITTEES

3. CMA Debasish Mitra
4. CMA H Padmanabhan
5. CMA (Dr.) K Ch A V S N Murthy
6. CMA Niranjan Mishra
7. CMA P Uday Shankar
8. CMA R. Venkataramani
9. CMA Jyotsana Rajpal
10. CMA M Pandurangan
11. CMA B M Gupta
12. CMA S. Ramesh
13. Nominee from FOSMI
14. Nominee from MSME Chamber of Commerce
15. Nominee from National Institute for MSME

Secretary

CMA Shubhro Michael Gomes, Director

34. Agriculture Cost Management Board (Quorum: 4)

Chairman

1. CMA P Raju Iyer

Convenor

2. CMA (Dr.) Sreehari Chava

Members

3. CMA Biswarup Basu
4. CMA (Dr.) K Ch A V S N Murthy
5. CMA Neeraj D. Joshi
6. CMA (Dr.) Ashish P. Thatte
7. CMA Chittaranjan Chattopadhyay
8. CMA Santosh Sharma
9. CMA A Gopalakrishna
10. CMA Raveender Nath Kaushik
11. CMA Rakesh Sinha
12. Dr. Arup Kumar Mitra
13. CMA Nellai Kumar
14. CMA Jyotsna Rajpal
15. CMA R Sriram

Secretary

CMA (Dr.) Debaprosanna Nandy, Sr. Director

35. Task Force on Integrated Reporting (Quorum: 2)

Chairman

1. CMA P. Raju Iyer

Members

2. CMA (Dr.) Balwinder Singh
3. CMA A N Raman, Past President, SAFA
4. CMA Chandra Wadhwa, Past President
5. CMA M. Gopalakrishnan, Past President
6. CMA B.B. Goyal, Advisor, MARF

Secretary

CMA Yogender Pal Singh, Joint Director

36. Co-operative Development Board (Quorum: 4)

Chairman

1. CMA Chittaranjan Chattopadhyay

Members

2. CMA (Dr.) Balwinder Singh
3. CMA Biswarup Basu
4. CMA Ashwin G. Dalwadi
5. CMA Neeraj D. Joshi
6. CMA (Dr.) K Ch A V S N Murthy

7. CMA (Dr.) V. Murali
8. CMA Niranjan Mishra
9. CMA Harijiban Banerjee, Past President
10. CMA B.M. Sharma, Past President
11. CMA (Dr.) Sreehari Chava
12. CMA Ajay Deep Wadhwa
13. CMA Rupam Sharma
14. CMA Preet Mohinder Singh
15. CMA Bibhu Mahapatra
16. CMA Debarghya Das

Secretary

CMA (Dr.) Sumita Chakraborty, Addl. Director

37. Sustainability Standards Board (Quorum: 4)

Chairman

1. CMA (Dr.) K Ch A V S N Murthy

Members

2. CMA (Dr.) Balwinder Singh
3. CMA P Raju Iyer
4. CMA Debasish Mitra
5. CMA (Dr.) Ashish P. Thatte
6. CMA Chittaranjan Chattopadhyay
7. CMA A N Raman, Past President SAFA
8. CMA M. Gopalakrishnan, Past President
9. CMA (Dr.) Ashish Bhattacharya
10. CMA Rambabu Pathak
11. CMA Ranjith Krishnan
12. CMA A. Sekar
13. Nominee of SEBI
14. Nominee of Professional Institutes (ICAI, ICSI)
15. Nominee of Industry Association (ASSOCHAM)
16. Nominee of GRI India

Secretary

CMA Yogender Pal Singh, Joint Director

38. Task Force on Election Reforms (Quorum: 2)

Chairman

CMA Vijender Sharma, President

Members

1. CMA (Dr.) Balwinder Singh
2. CMA Biswarup Basu
3. CMA P Raju Iyer

Secretary

CMA Kaushik Banerjee, Secretary

-
President is Permanent Invitee to all the committees except Disciplinary Committees, Board of Discipline, Quality Review Board and committees represented by him as Chairman.

- *Vice President is Permanent Invitee to all the committees except Disciplinary Committees, Board of Discipline, Quality Review Board, Indirect Taxation Committee (where he is a member) and committees represented by him as Chairman.*



CMA Vijender Sharma, President and CMA Kaushik Banerjee, Secretary of the Institute attended the meeting of the Coordination Committee Chaired by Shri Manoj Govil, IAS, Secretary to the Government of India, Ministry of Corporate Affairs on 7th December, 2022



CMA Vijender Sharma, President of the Institute along with CMA B.B. Goyal, Former Addl Chief Advisor (Cost), MoF, GoI extending greetings to Shri Gyanesh Kumar, IAS, Secretary to the Government of India, Ministry of Cooperation on 6th December, 2022



CMA Vijender Sharma, President along with CMA Dr. S.K. Gupta, Managing Director, ICAI Registered Valuers Organisation (RVO) extending greetings to Shri Ravi Mital, IAS (Retd.), Chairperson, Insolvency and Bankruptcy Board of India (IBBI) on 5th December, 2022

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 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, 4th 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**



Shri Soma Sankara Prasad

Managing Director and Chief Executive Officer, UCO Bank, Kolkata

Shri Soma Sankara Prasad assumed the office of Managing Director & CEO of UCO Bank on 01.01.2022. Prior to this, he was holding the position of Deputy Managing Director and Group Compliance Officer at State Bank of India. Shri Prasad holds Master of Commerce degree and in his career spanning 35 years, he has held important assignments in various capacities in Treasury operations, Retail, Corporate Credit, Insurance and International Banking. Shri Prasad has had two stints abroad. He headed the Singapore Operations of State Bank of India, as Country Head from November 2014- April 2019. He was Manager (Credit and Operations) at Paris Branch of State Bank of India from September 2002 – November 2006. He has also worked as Regional Manager at SBI Hyderabad, as Chief Financial Officer at SBI General Insurance Co. Ltd. and as MD & CEO at SBI Pension Funds Pvt Ltd. Shri Prasad has also attended several training programs in various areas at reputed institutions, both in India and abroad.

Q1. What is Central Bank Digital Currency?

Ans. A CBDC can be defined as a form of money that is denominated in fiat currency (central bank money-RBI), in an electronic form, and which is a liability on the central bank's balance sheet similar to cash and central bank deposits. it could be considered as

“smart cash” with unique attributes enabled by its digital form.

The Bank for International Settlements (BIS) defines a CBDC as a purely digital banknote that could be used by individuals to pay businesses, shops or each other (called a “Retail CBDC”), or between financial institutions to settle trades in financial

markets (called a “Wholesale CBDC”).

Q2. What is the difference between a CBDC and Cash?

Ans. Cash has a physical presence, whereas a CBDC is available exclusively in digital format. The digital nature of a CBDC unlocks potential benefits related to usability for

consumers and merchants, safety and security, and traceability of transactions without infringing on privacy rights.

Q3. Why can't we just focus on mobile money, is it same as CBDC?

Ans. CBDC facilitates lower transaction fee, cross-border payments, and efficient monitoring tool that can help the central bank to improve their monetary policy (such as financial inclusion, reduce financial crimes, privacy issues).

Q4. Can CBDC be used offline?

Ans. Yes, some of the approaches used are by setting time limit or size limit. Devices used must also be included as consideration.

Example: UPI123Pay

To decrease cash-based transactions in India, the RBI introduced UPI. For a sizable percentage of the population who lacked smartphones, UPI was unavailable. The RBI introduced UPI123Pay to solve this issue. Customers will be able to use their feature phones for almost all transactions using UPI123Pay, with the exception of scan and pay.

How it UPI123Pay works: **Five Steps:**

1. Link his bank account with UPI123Pay.
2. Create a UPI pin using their debit/credit card.
3. Call the IVR number, and choose the service, such as money transfer, LPG bill, or electricity bill.
4. The user must first choose the service before adding the recipient's phone number in order to send money. The sum and PIN will then be combined.
5. The user has two options to pay a merchant. The first is to use the app, and the second is to pay via a missed phone call.

Q5. What countries are leading the CBDC race?

Ans. China and Sweden are in the pilot project stage. Singapore has completed the research stage.

Q6. Why the sudden interest this year?

Ans. The surge of private cryptocurrencies makes central banks feel the need to innovate to provide safer alternatives to ensure financial system stability.

Q7. What is the difference between a CBDC and Crypto Assets such as Bitcoin?

Ans. Crypto assets are privately issued (i.e., by a non-central bank) and have a decentralised and disintermediated value proposition (i.e., crypto assets offer a direct, peer-to-peer transactional capability that does not require a financial intermediary, such as a bank). Crypto assets are not a liability on any institution's balance sheet and unlike a CBDC, they are not backed by any government or centralised authority. Because they are not on any one's balance sheet as an obligation to the holder (i.e., the holder has no claim on the issuer as there is no central issuer), the user is potentially exposed to risk. Crypto assets such as Bitcoin are susceptible to large price fluctuations, generally making them less predictable and therefore less suitable as a stable medium of exchange.

In short, if a CBDC is guaranteed by the issuing central bank, it would be as safe as cash and would have minimal or no counterparty risk.

Q8. If most money exists in digital form, what is the difference between CBDC and money in your bank account?

Ans. When money is held in a commercial bank account in a digital form, it represents an amount owed to you by that bank; in other words, it is a claim that you have against the bank. It can typically be withdrawn in its physical form, but only if the bank is solvent. A CBDC, on the other hand, is backed by the central bank and is a liability on the central bank balance sheet, similar to cash. A CBDC with legal tender status would not be a commercial bank's liability, so you would not have to rely on a particular bank's solvency to be able to maintain your balance.

Q9. What are the key design principles of a CBDC?

Ans. The core principles applicable to the design features of a CBDC in India are as follows:

- ⊙ It must be a generally accepted medium of exchange/means of transacting, accepted and trusted by consumers and businesses as legal tender, and complementary to cash.
- ⊙ It must be available to and usable by everyone in Indian economy and the financial system.
- ⊙ Its value must be pegged at a one-to-one parity with the Indian ₹.
- ⊙ It will be a liability on RBI's balance sheet and will remain so throughout the distribution chain (similar to cash).
- ⊙ It should have the attributes of a generally accepted medium of exchange: it must be divisible, durable, fungible (exchangeable) and portable, and the supply should be limited.
- ⊙ Its value must be transferable immediately and irrevocably.

In addition to these core principles, the following attributes of a CBDC should be addressed in its design:

- ⊙ Its ability to be exchanged for cash from a commercial bank;
- ⊙ Its use alongside other means of payment in the financial ecosystem (e.g., debit cards or electronic fund transfers);
- ⊙ Its strong safety and security measures to protect against counterfeiting and fraud;
- ⊙ Its ability to allow for improved regulatory reporting and anti-money laundering/combating the financing of terrorism measures, while still protecting the privacy of the user; and
- ⊙ Its usability in the absence of connectivity to a network as a contingency measure, albeit with some limits on the value and/or number of transactions.

MA

NEW 'FINANCIAL LANDSCAPE' OF THE INDIAN ECONOMY

(Digital Currency: e₹-W and e₹-R)

Digital India means fast profit, full profit; Digital India means minimum government, maximum governance.

-Prime Minister Shri Narendra Modi

Reserve Bank of India defines CBDC (Digital Rupee (e₹)) as the legal tender issued by the Central Bank in a Digital Form. It is similar to 'Sovereign Paper Currency', but takes a changed form, exchangeable @ (at par) with the present paper currency and shall be accepted as a Medium of Payment, Legal Tender of the Country and a Safe & Store of Value.

CBDC is a Digital or Virtual Currency but it is **NOT Similar** to the private virtual currencies that have increased over the last decade. Private Virtual Currencies occupy at a significant odd to the olden concept of Money. They are **NOT Commodities or Claims** on Commodities as they have **NO** Basic Value of the Money.

Striking Shift in payment preferences has been due to the formation of strong round-the-clock electronic payment systems in India such as:

- ⊙ Real Time Gross Settlement (RTGS) and
- ⊙ National Electronic Funds Transfer (NEFT).

These has facilitated unified real-time or near real-time fund transfers from one account to another account.

In addition to the above, the launch of Immediate Payment Service (**IMPS**) and Unified Payments Interface (**UPI**) are the instant payment settlements, the introduction of Mobile-based Payment Systems like Bharat Bill Payment System (**BBPS**), and National Electronic Toll Collection (**NETC**) to facilitate electronic toll payments that have been defining moments and that has transformed the payments ecosystem of **the Country and also attracted International Recognition**.

The suitability of these remittance payment systems is guaranteed rapid acceptance as they provided consumers with a substitute to the use of cash and also paper (like Demand Drafts / Cheques) for making payments. The simplification of Non-bank **FinTech Companies / Firms** in the payment ecosystem as Prepaid Payment Instruments (PPI) issuers, Bharat Bill Payment Operating Units (BBPOUs) and also Third-party application providers in the UPI platform have further reinforced the adoption of **Digital Payments** in India.



CMA KVN Lavanya
Practicing Cost Accountant
Hyderabad
nagalavanya@gmail.com

The Concept of Money has practiced progress from **Commodity to Metallic Currency to Paper Currency to Digital Currency now.**

Moving features of Money are defining the New Financial System of the Economy. Further, with the advent of Leading-edge Technologies in India, the Digitalization of Money is the next milestone in Monetary History. Advancement in Technology in the Country has made it possible for further development of a New Form of Money, viz. **Central Bank Digital Currencies (CBDCs).**

Abbreviations:

BBPOUs = Bharat Bill Payment Operating Units.
CBDC = Central Bank Digital Currency.
IMPS = Immediate Payment Service.
NETC = National Electronic Toll Collection.

Types of Central Bank Digital Currencies (CBDC):

CBDC is Classified Broadly into Two Types, viz.

- ⊙ General Purpose or Retail (CBDC-R) Digital Currency and
- ⊙ Wholesale (CBDC-W) Digital Currency.

The Retail CBDC (e₹-R) would be purportedly available for use by all entities, viz., Private Sector entities, Non-financial Consumers and also Business Entities. While Wholesale CBDC (e₹-W) is intended for limited use or access to the selected Financial Institutions in the Financial System like Banks / Insurance Companies in India.

While Wholesale CBDC is proposed for the settlement

of Interbank Transactions like (Payments / Transfers) from One Bank to another Bank and related **Wholesale Transactions**, Retail CBDC is an Electronic Variety of Cash mostly for Retail Transactions i.e., by the Public.

e₹-W-Wholesale	e₹-R-Retail
1. Wholesale CBDC is planned for restricted access to select financial institutions.	1. Retail CBDC would be actually available for use by all viz., Private Sector, Non-financial Consumers and Business Entities.
2. Wholesale CBDC is planned for the clearing of interbank transfers and related wholesale transactions.	2. Retail CBDC is an electronic form of Cash Primarily meant for Retail Transactions of General Public.
3. Wholesale CBDC is capable to transform the settlement systems for financial transactions and make them more well-organized and protected.	3. Retail CBDC can provide access to safe money for payment and clearing as it is a direct liability of the Central Bank.

Various Forms of Central Bank Digital Currency:

CBDC can be Classified into as:

- ⊙ ‘Token-based’ or
- ⊙ ‘Account-based’.

A Token-based CBDC is a bearer-instrument and it is similar to Bank Notes, meaning whosoever holds the tokens at a given point in time would be supposed to own them.

The difference, an Account-based system would require upkeep of record of Balances and Transactions of all Holders of the Central Bank Digital Currency and designate the ownership of the Monetary Balances / Value.

In view of the above features offered by these both Forms of CBDCs, a Token-based CBDC is regarded as a favoured means for **CBDC-R** as it would be Nearer to the Physical Cash, while an Account-based CBDC may be measured for **CBDC-W**.

Features of Central Bank Digital Currency:

- ⊙ The Sovereign Currency Issued by Central Bank of the Country i.e., RBI.
- ⊙ It shown as Liability Side in the Central Bank’s Balance Sheet.
- ⊙ It is Recognized as a **Medium of Payment** or the Legal Tender of the Country.
- ⊙ It is Freely Convertible into Cash whenever required.

- ⊙ The Holders need not have a “Bank Account” to use the Central Bank Digital Currency.
- ⊙ It Lowers the Cost of Issuance and Managing of the Money and Transactions in the Country.

CBDC-The Global Scenario:

All over the World, more than 60 Central Banks have stated interest in introducing the CBDC in their Country, with a few enactments already been made under Pilot across both the **Retail (R)** and **Wholesale (W)** Categories and several others are doing Research, Testing, and/or launch their own CBDC as their Agenda.

As of July 2022, there are **105 Countries** in the process of Discovering the CBDC, and the number that Covers 95% of the Global Gross Domestic Product (GDP) and **10 Countries** have already implemented a CBDC, and the first of which were:

- ⊙ The **Bahamian Sand Dollar in 2020**, and
- ⊙ The **latest was Jamaica’s JAM-DEX**.

Currently, **17 other Countries in the World**, together with the Major Economies like China and South Korea, are in the Pilot Stage and formulating for probable launches. **China was the first Large Economy to Pilot Launch of Central Bank Digital Currency way back in April 2020** and their intentions for extensive domestic use of the **e-CNY by 2023 by the People of the Country**. Gradually, the CBDCs are being seen as a gifted invention and as the Next Step in the Evolutionary Development of Sovereign Currency in the World.

Different Authorities in the World have justified the adoption of CBDC for **different reasons**. Some of them are mentioned below:

- ⊙ The Central Banks of Various Countries, challenged with **decreasing usage of paper currency**, and seek to popularise a more acceptable, safe Legal Tender in Electronic Form of Currency (Example: **Sweden**);
- ⊙ The Various Authorities in the World with Significant Physical Cash usage in search of to make issuance more well-organized (Example: **Denmark, Germany, Japan** or even the **US Economy**);
- ⊙ The Countries with Geographical Barriers of limiting the Physical movement of Cash had the inspiration to go for CBDC at the earliest as an important strategy to provide Currency to all the population of the country without any exception (Example: **The Bahamas and the Caribbean** with Small and Large Numbers of Islands Spread Out);
- ⊙ Central Banks in the World have pursued to meet the public’s requirement for Digital Currencies, established in the increasing usage of private virtual currencies, and thereby sidestep the more harmful

costs of such private currencies to the people of the Country.

Pilot / Trail Run-Central Bank Digital Currency:

The **first experimental in the Digital Rupee**-Wholesale segment (e₹-W) commenced on November 1, 2022 in India which was the Historic Event of the Country. The used case for this pilot is the clearing of the Secondary Market transactions in government securities etc.

The use of e₹-W is expected to make the interbank payments market and it is a more competent. Settlement in central bank money would reduce the transaction costs by anticipating the need for settlement guarantee set-up or for collateral to alleviate settlement risk. Going forward, other wholesale transactions and cross-border payments (Country to Country) will be the focus of upcoming pilots, based on the learnings from this pilot run.

RBI has recognized Nine Banks for Trail Run for partaking in the Digital Rupee's Wholesale Pilot Project, and the following Banks were identified by the Reserve Bank of India:

- ⊙ State Bank of India.
- ⊙ Bank of Baroda.
- ⊙ Union Bank of India.
- ⊙ HDFC Bank.
- ⊙ ICICI Bank.
- ⊙ Kotak Mahindra Bank.
- ⊙ Yes Bank.
- ⊙ IDFC First Bank.
- ⊙ HSB.

The Reserve Bank has launched the first pilot for Retail Digital Rupee (e₹-R) on December 01, 2022.

The Experimental would cover select locations in the Country in a Closed User Group (CUG) covering active customers and merchants of the various Banks. The e₹-R would be in the form of a digital token that denotes the legal tender. It would be

issued in the same values that paper currency and coins are currently issued in India.

It would be distributed through intermediaries, i.e., through Commercial Banks. Users will be able to perform with e₹-R through a digital wallet offered by the active banks and stored on mobile phones/ devices. The Transactions can be both in:

- ⊙ Person to Person (P2P) and
- ⊙ Person to Merchant (P2M).

The Payments to Merchants can be made using QR Codes shown at various merchant establishments. The e₹-R would offer structures of physical cash similar available in the Country i.e.,

- ⊙ The Trust.
- ⊙ The Safety and
- ⊙ The Settlement Finality.

As in the case of Cash, it **will not earn any interest** at present and can be changed to other forms of money, like Deposits with Commercial Banks, loan repayments etc.

The Eight Commercial Banks that have been identified for phase-wise participation in this **pilot stage of CBDC are:**

The First Stage will begin with **Four Banks**, viz.,

- ⊙ State Bank of India.
- ⊙ ICICI Bank.
- ⊙ Yes Bank and
- ⊙ IDFC First Bank in four major Cities across the Country.

Adding Four more Commercial Banks in due course, viz.,

- ⊙ Bank of Baroda.
- ⊙ Union Bank of India.
- ⊙ HDFC Bank and
- ⊙ Kotak Mahindra Bank join this pilot afterwards.

The Pilot would **firstly cover** Four Major Cities in India, viz.,

- ⊙ Mumbai.
- ⊙ New Delhi
- ⊙ Bengaluru and
- ⊙ Bhubaneswar.

Later on, extending to the other Centres like:

- ⊙ Ahmedabad.
- ⊙ Gangtok.
- ⊙ Guwahati.
- ⊙ Hyderabad.
- ⊙ Indore.
- ⊙ Kochi.
- ⊙ Lucknow.
- ⊙ Patna and
- ⊙ Shimla.

Conclusion:

Central Bank Digital Currency (CBDC) is proposed to match, rather than to replace, the current forms of money and it is predicted to provide an additional payment system to users of the Country, and not to substitute the existing payment systems of the Country. And it is Supported by up-to-date payment systems of India that are:

- ⊙ Inexpensive.
- ⊙ Reachable
- ⊙ Suitable.
- ⊙ Well-organized.
- ⊙ Safe and
- ⊙ Secure

The Digital Rupee (e₹) system will further strengthen India's Digital Economy, and make the Monetary and Payment Systems more Efficient and Subsidize for broadening Financial Inclusion in India. **MA**

References:

1. Reserve Bank of India
Concept Note on CBDC.
2. Ministry of Finance
information on CBDC.

"SYNTHETIC CBDC" IS NOT A "CBDC"

CBDC AND ITS CORE FEATURES

(₹-Whole Sale and ₹-Retail)

Abstract

*For a Nation's Economy to function successfully, its citizens must have **confidence in its money** and **payment services**. The Reserve Bank of India, as the Nation's Central Bank, works to maintain the public's confidence by development:*

- ⊙ *Monetary Stability.*
- ⊙ *Financial Stability, and also*
- ⊙ *A Safe and Efficient Payment System.*

*A CBDC can be defined as a 'Form of Money' and it is denominated in **Fiat Currency** (Central Bank Money), in an Electronic Form (Virtual), and which is a liability on the Central Bank's Balance Sheet similar to Cash and Central Bank Deposits showing in the Balance Sheet of Reserve Bank of India.*

*It could be considered as "**Smart Cash**" with unique characteristics and enabled by a Digital Form.*

*The Bank for International Settlements (BIS) defines "A CBDC as a purely **Digital Bank Note** that could be used by Individuals to Pay to the Businesses, Shops or each other (Called a "Retail CBDC"), or between the Financial Institutions to settle their trades in Financial Markets (Called a "Wholesale CBDC").*

Abbreviations:

CBDC=Central Bank Digital Currency.

KYC=Know Your Customer.

AML=Anti-Money Laundering.

CTF=Counter-Terrorist Financing.

PPI=Prepaid Payment Instruments.



Er. Sunil Dasari
Senior Manager
Bank of Maharashtra
Head Office, Pune
sunildasari755@gmail.com

Central Banks have been providing "**Trusted Money**" to the people of the country for hundreds of years as part of their public policy objectives enumerated in the regulator policy guidelines. Trusted Money is a public good and it offers a common unit of account, store of value and medium of exchange for the Sale of Goods and services in the Markets and also settlement of financial transactions in the Country.

For public providing cash is an Important **tool** for Central Banks of the Countries.

The World is Changing, even before Covid-19, Cash Use in payments was declining in some Advanced and Emerging Economies. Commercially provided, fast and convenient

Digital Payments have grown enormously in volume and also diversity. Central Banks are researching very actively in order to evolve and pursue their public policy objectives in a digital world, and researching the advantages and disadvantages of offering a Digital Currency to the People of the Country.

There is a mandate for both financial stability and monetary policy for the Central Banks in their explicitly or implicitly and jurisdictions, and in order to promote broad access to the efficient and safe payments of the Country. Central Banks are to carry a Core Instrument out their Public Policy objectives which helps in providing the safest form of Money to Banks, Public-Central Bank Money, Businesses Entities and people in general.

Central Bank Digital Currency is defined as “A Digital Form of Central Bank Money which is dissimilar from balances in Settlement Accounts or Traditional Reserve”. This is a new form of money and is gaining interest and Central Banks across the Globe keep on researching and experimenting with the underlying Advanced **Technology** which is involved.

A CBDC is a Digital Payment instrument, denominated in the “National Unit of Account”, that is a “**Direct Liability of the Central Banks**”. The availability for general purpose CBDCs (i.e., that can be used by the Public), for their Day-to-Day Payments rather than CBDCs restricted to Wholesale, Financial Market payments in the Country.

“Synthetic CBDC” is not a CBDC:

A potential substitute framework under which Central Banks could engage with the increase of digital currencies would be for the private sector payment service providers and to issue liabilities matched by funds held at the central bank. Such an approach has been suggested by some stable coin proposals and described in some papers as “**Synthetic CBDC**”.

These payment service providers will act as intermediaries between the Central Bank and the end users of the Country. The Liabilities will always be completely matched by funds at the Central Bank, if the regulatory framework can guarantee that these providers’ and these liabilities could share some of the characteristics of a CBDC issued by the central bank. However, these liabilities **will not be a CBDC**, as the End User would not hold a claim on the Central Bank. They are, essentially, a form of “Narrow-Bank” Money.

The Core Features of Central Bank Digital Currency:

The principles that Central Bank Digital Currency are:

- i. By issuing a CBDC a Central Bank should **not compromise** the financial or monetary stability.
- ii. A CBDC would need to co-exist with and complement **existing forms** of money in the

Economy; and

- iii. A CBDC should **promote efficiency** and innovation in the Economy.

One of the negative impacts of a Central Bank Digital Currency on bank’s financial and funding intermediation, including the potential for destabilising runs into Central Bank Money, which has been a concern of the Central Banks. To launch any decision, the Central Bank Digital Currency will depend on an informed judgment where these risks can be managed, likely by some combination of safeguards which are integrated in the design of a Central Bank Digital Currency and the financial system policies are more generally. Understanding the potential market structure and its effects of CBDC, their implications for financial stability, and any potential mitigants are to be addressed by the Central Banks of the Pilot Run Countries.

Instrument Features:

- a. **It is Convertible:** To maintain the singleness of the Currency a CBDC should exchange **at par** with Cash and Private Money in the Country.
- b. **It is more Convenient:** CBDC Payments should be as **Easy as using Cash**, tapping with a Various Cards or Scanning a Mobile Phone (QR Code) to encourage adoption and accessibility in all Money related Transactions.
- c. **Well Accepted and Available in the Country:** A CBDC **should be usable** in many of the same types of transactions as Cash, including Point-of-Sale in merchant establishments and person-to-person etc. This comprises some ability in order to make off-line transactions (possibly for Limited Periods and up to Pre-determined thresholds) to the people of the Country.
- d. **Low Cost of Operations:** The CBDC payments should be at **Very Low** or **No Cost** to end users, who should also face minimal requirements for Technological Investment by the end users.

System Features:

- a. **Fully Secured:** Both the Infrastructure and the Participants of a CBDC System should be extremely **resistant to Cyber-attacks** and other Threats while using the same. This should also comprise safeguarding effective protection from Counterfeiting.
- b. **Instant Transactions:** Instant or Near-instant and Final settlement should be available to end users of the System in CBDC.
- c. **Extremely Resilient:** A CBDC System should be extremely **resilient to the operational failure** and disruptions, natural disasters, electrical outages and

other issues. There should be some ability for the end users in order to perform the off-line payments if the Network Connections are not available due to communication snags.

- d. **Round the Clock Available:** End Users of the System should be able to make payments 24/7/365 – **Round the Clock**.
- e. **High Throughput:** The System should be able to process a very **High number of Transactions** due to latest high process systems are used.
- f. **More Scalable:** To accommodate the **Potential for Large Future Volumes of Transactions**, a Central Bank Digital Currency System should be able to expand as when it required.
- g. **The Interoperable:** The System needs to offer **sufficient interaction mechanisms** with Private Sector Digital Payment systems and the arrangements to allow easy flow of funds between systems.
- h. **Highly Flexible and Adaptable:** A Central Bank Digital Currency system should be **more flexible and adaptable** to changing conditions and Policy Imperatives of the Central Banks.

Institutional features:

- a. **The Robust Legal Framework:** A Central Bank should have the **Clear Authority** to underpinning its issuance of a Central Bank Digital Currency.
- b. **High Standards:** A Central Bank Digital Currency System (Infrastructure and Participating Entities) will need to conform to the appropriate regulatory standards of the Central Banks (e.g., Entities offering Transfer, Storage or Custody of Central Bank Digital Currency should be held to prudential standards and as well as equivalent regulatory as firms offering same services for cash or existing Digital Money).

The Reserve Bank of India Policy Makers continuously study the Central Bank Digital Currency, and guided by an understanding that any CBDC should, among other things:

- ⊙ It Provide more **advantages** to Businesses, Households, and Complete Economy which overdo any Costs and Risks;
- ⊙ It yields some additional benefits which are more effectively **than alternative methods**;
- ⊙ **Complement**, it additional rather than replace, the current forms of methods and also money for providing the financial services;
- ⊙ **It Protects** the Consumer Privacy;
- ⊙ **It Protects** against Criminal Activity; and
- ⊙ **It Support** to / from the Key Stakeholders.

Vital Areas to be Addressed by the Central Banks:

Balancing the motivations behind issuing a Central Bank Digital Currency and with the practical challenges and risks require by a Central Bank to consider the several Open Questions. This is not a complete list but provides an overview of the areas still under debate where more Evidence and also Experimentation may be valuable for Central Banks in the World.

- ⊙ How, effective are potential controls against risks to financial stability (e.g., various caps, use of interest rates) and what consequences might they have for the functioning of the Central Bank Digital Currency system?
- ⊙ How can these features that enable convenient use of a Central Bank Digital Currency (e.g., the open access, off-line usage of the remittances, broad and diverse support from payment system providers) be balanced with security considerations?
- ⊙ What Central Bank Digital Currency design can best enable for cross-border efficiencies while preventing unintended international spill overs?
- ⊙ How can high standards (e.g., for High Security) be balanced with low costs for the end users and also payment service providers?
- ⊙ Within the various requirements of the Law, what Data should be collected by the participants in the Central Bank Digital Currency system, including the Central Bank?
- ⊙ What are the best/correct approaches/practices to the System Design that meets the policy goals, enables all key features and supports the desired business model?
- ⊙ How should a Central Bank Digital Currency System be designed to remain adaptable over decades in a changing environment?
- ⊙ How should the Systems be secured against the most Sophisticated Attackers, including organised crime and nation states?
- ⊙ Are the Current Approaches to the Cyber Security up to the task of securing Central Bank Digital Currency?
- ⊙ What are the Routes to Safeguarding Future-proofing of a Central Bank Digital Currency (e.g., the quantum-proof encryption)?
- ⊙ What is the balance between operational design and also applying technology in order to achieve the security?
- ⊙ What if a holder of Central Bank Digital Currency has it loses or stolen whatever keys protect it?
- ⊙ What lessons that can be drawn from other domains such as safety-critical and also fault-tolerant systems that create high resilience?

- ⊙ How can the future demand be forecast (e.g., from the Internet of Things-IOT)?
- ⊙ Is there an upper bound to scalability where the incremental cost per transaction is not acceptable?
- ⊙ Off-line Transactions can offer to enhanced the resilience and universal access. Can tamper-resistant devices survive unbreached for long periods of non-connectivity?
- ⊙ Can users truly settle device-to-device or only clear the transaction locally and settle when reconnected to the network?
- ⊙ What is the balance between device costs against the risk and severity of breach?
- ⊙ How should central banks design the prototype studies to help clarify ideas around usability and universal access of such devices?
- ⊙ Which emerging Cryptographic Techniques can be usefully applied to privacy?
- ⊙ Is it feasible to provide enough capacity for a national population with these techniques?
- ⊙ What institutional arrangements will be required along with technology?
- ⊙ Digital identity is an emerging field in many jurisdictions. In the absence of digital identity infrastructure, what are the efficient approaches to KYC/AML/CTF?
- ⊙ Are there commonalities across approaches to digital identity in different jurisdictions?
- ⊙ What are the relative strengths and weaknesses of the use of proprietary technology Vs. open source?

Conclusion:

India has made an impressive progress towards innovation in Digital Payment Systems. India has approved a separate law for the Settlement and Payment Systems which has allowed an orderly development of the payment eco-system of the country. The present modern payment systems which are Safe, Affordable, Convenient, Accessible, Efficient, secure and available for **24x7x365 Days a Year** which is pride for the Nation.

This outstanding shift in the payment preference is because of creation of Robust **round the clock of electronic payment systems** like RTGS (Real Time Gross Settlement) and NEFT (National Electronic Funds Transfer) that has

facilitated seamless real time or near real time fund transfers in the Country.

In addition, the launch of Immediate Payment Service (IMPS) and Unified Payments Interface (UPI) for instant payment settlement to public, the introduction of mobile based payment systems like National Electronic Toll Collection (NETC) and Bharat Bill Payment System (BBPS), to enable electronic toll payments have been the defining moments that has transformed the payments ecosystem of our country and it attracted international recognition.

The simplification of Non-bank **FinTech** Bank / Firms in the payment ecosystem as Pre-Paid Instruments (PPI) issuers, the Bharat Bill Payment Operating Units (BBPOUs) and also Third-party application providers in the Unified Payments Interface (UPI) platform have furthered the adoption of digital payments in India.

All over this journey, the Reserve Bank has played a Vital Role and also a Catalyst towards achieving its Public Policy objective of developing and promoting a:

- ⊙ Safe.
- ⊙ Secure.
- ⊙ Sound.
- ⊙ Efficient and
- ⊙ Interoperable Payment System.

Economic Developments and the evolution of the New Payments System, the function and form of Money has been changed over time, and this will prolong to influence the future course of currency. The Money concept has experienced its evolution from the **Commodity to Metallic Currency to Paper Currency to Digital Currency**.

The Changing Topographies of Money are defining new financial landscape of the economy.

Moreover, with the arrival of innovative Technologies, Digitalization of Money is the next breakthrough in the Monetary History.

Technology Advancement has made it possible for the development of New Form of Money through **Central Bank Digital Currencies (CBDCs) in the World.** **MA**

References:

1. *Bank for International Settlements Guidelines.*
2. *Reserve Bank of India Guidelines.*

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 for smooth and uninterrupted delivery of the same.

WHY CBDC (₹)?

Abstract

Improving the payment-system performance is referred as the most important motivation for the Central Banks in the World to issue Central Bank Digital Currency.

Central Banks of the Advanced and the Emerging Market (like India) Economies, has surveyed for International Settlements, and ranked the payments safety and also domestic payments efficacy as the first motivating factors for the potentially viable for issuing a Wholesale or Retail Central Bank Digital Currency.

In addition to this, the Central Banks in the Emerging Markets and the Developing Economies expressed that they have considered Central Bank Digital Currency as a Potential Instrument to Promote the 'Financial Inclusion' in the Economy.

The survey also seems to indicate that the Motivations to the Work on Retail Central Bank Digital Currency, which can act as a 'Substitute or a Complement to the Physical Cash', are generally the stronger in the Emerging Markets and also in the Developing Economies than in Central Banks of the Advanced Economies.

Abbreviations:

CBDC=Central Bank Digital Currency.

DLT=Distributed Ledger Technology.

NPS=National Payment System.

PSP=Payment Service Provider.

API=Application Programming Interfaces.

The potential of the Central Bank Digital Currency is to enable wider and round-the-clock access to real-time transfers of money and could also have a positive effect on the efficiency of the Cross-border payments, but issues might arise, such as delays due to **Compliance Checks** etc.

The Central Banks are generally attributed low importance to the efficiency of the Cross-border Payments, the **G20 Road Map** for the enhancing Cross-border Payments and acknowledges a Potential Role for the Central Bank Digital Currency in addressing some of the conflicts affecting the Cross-border Payments.

The Central Banks in the World have conducted various proofs of the Concept of CBDC and its Pilots. Clearly, for the Central Bank Digital Currency to be used for the Cross Border Payments, the existing compliance processes related to the Anti-Money-Laundering and also Countering the Financing of Terrorism (AML/CFT) and the Capital-Flow



CMA (Dr.) P. Siva Rama Prasad

Former Assistant General Manager
State Bank of India
Hyderabad

cma.psrprasad@gmail.com

Management will still **need to be observed**, and the foreign counterparts will need to access either **Directly or Indirectly** to the Central Bank Digital Currency set-up.

Further, this will require a considerable attention to Issues of the Currency Conversion and Convertibility of the Currency.

From the Payment's perspective, the decision to introduce the Central Bank Digital Currency should start from ascertaining its **Potential Advantages** with respect to the existing systems and also instruments and conducting a holistic examination of the **Expected Costs and Benefits** and the Market Structures.

Difference between ₹ Wholesale and ₹ Retail:

The Wholesale Central Bank Digital Currency stands for Financial Institutions carrying 'Reserve Deposits' with Central Bank of the Country. It helps in facilitating the improvements in Payments and Securities settlement efficiency of the Financial Market. Moreover, these Wholesale CBDCs help towards reducing the Risks associated with Counterparty Credit and Liquidity. According to Experts, the Wholesale Central Bank Digital Currency is something like what the Reserve Bank of India gives to the Commercial Banks of the Country.

On the other hand, the Retail Central Bank Digital Currency can be summarised as the Currency which has been issued to the General Public (Retail Customers). And it is based on Distributed Ledger Technology (DLT) and has the secrecy and traceability as its features. Moreover, these Retail Central Bank Digital Currencies are available Round the Clock and all over the Year.

The potential advantages of Wholesale Central Bank Digital Currency that could include increased operational resilience, the **Delinking of the Central Bank Money** from the General Ledger Systems, and, most importantly, its peer-to-peer circulation. The Wholesale Central Bank Digital Currency would provide a valid solution for settling the transactions in tokenized digital securities, which are emerging sure on the **market for its payment services**.

The potential benefits of Central Bank Digital Currency could be **broadly grouped under**

- ⊙ **Efficiency.**
- ⊙ **Promoting Innovation and**
- ⊙ **Strengthening the Role of the Central Banks.**

These benefits, however, can be achieved through the other means. Their importance and relative weight, and the relative advantages of the Central Bank Digital Currency Vs. other options, would all depend on the specific features of each Country situation.

Advantages of '₹' to Individuals and Business

Entities of the Country:

- ⊙ **A Higher Speed Settlement:** Given that access to the information is instant today, the demand has been growing from the consumers and the businesses entities for the payment mechanisms that allow instant access to the funds on the payee's side on a continuous basis. The Retail Central Bank Digital Currency, when it accompanied with appropriate interoperability arrangements, its potentiality countrywide adoption and acceptance, and its inclusiveness capacity, could provide a universal Real-time payment service in the Country. The Fast payment services seek to achieve the same results.
- ⊙ **Lower Operational Cost:** The introduction of Central Bank Digital Currency would exercise pressure on the efficiency of other payment instruments and it support innovation in payments of the Country. As Retail Central Bank Digital Currency might be offered in principle at little or zero cost to the payers and payees-much as for cash today-it could improve the overall efficiency of the retail segment people of the National Payment System (NPS) by pressing the private-sector providers to attain the higher levels of efficiency on the instruments that they issue and to supply to the customers with higher-quality and an expanded range of services.
- ⊙ **Efficient for the Cross-border Transactions:** If Central Bank Digital Currency used for cross border transfers and payments, Central Bank Digital Currency can greatly contribute to increased Transparency, Speed, and Cost Efficiency but would need for implementation of various other reforms of the Country. Central Bank Digital Currency could serve as a Cost-effective good and also faster means for executing International Remittances.
- ⊙ **It Enables to Broader Shifts Towards Digital Assets and also the Digital Economy:** There is an increasing interest in converting the traditional financial securities and also other physical assets into digital assets that can be bought, sold, and exchanged using new-generation trading and in the financial-market infrastructures developed using blockchain Technology and also Distributed Ledger Technology (DLT) more broadly. The Central Bank Digital Currency would provide a digital variant of the Central Money for use as a settlement asset and mitigate principal risk by allowing the Delivery-Versus-Payment and also Payment-Versus-Payment.
- ⊙ **Main Functionality for the Digitalized Financial Assets:** Further, as the Internet of Things (IOT) becomes an integral part of everyday reality of the public in the Country (In Households, Office Work Environments, Different Industries, Organizations

etc.) and the users become the Payers and Payees, Central Bank Digital Currency would provide a Universal means of Payment System of the Economy.

- ⊙ **It Increased Competition:** The Universal availability of Central Bank Digital Currency would establish a floor in terms of the service quality for the payment services and also put pressure on other Payment Service Providers to enhance their value proposition. Additionally, the Central Bank Digital Currency could simplify market entry for the new Payment Service Providers (PSPs) by freeing them from transferring access to specific payment infrastructures and Banking Services of the Economy.

Benefits of '₹' to Central Bank of Countries:

- ⊙ **It Reduces the Production and the Distribution Costs:** The "Production" of Central Bank Digital Currency would not incur the costs associated with the printing, handling, storage, and the transportation of physical cash to the end users. Thus, in principle, the cost of Central Bank Digital Currency issuance would be the lower than the cost of cash, and this would increase seigniorage (all else being equal). However, it needs to be noted that its dependence on the design of Central Bank Digital Currency, the Central Bank might need to Operate Payment Systems that handle Central Bank Digital Currencies.
- ⊙ **A Unique Role of the Central Bank:** The Central Banks have gone beyond their traditional role of issuing the currency and, in many cases, also serve

as Retail Payment System Operators, thus dealing directly with market participants and, also in some cases, the end users as well. These positions them exclusively to undertake Central Bank Digital Currency Projects with Universal Scope, which require a Degree of the Leadership, Co-operation, and Interaction with many different stakeholders that no other player in the economy that could imitate. The Central Bank Digital Currency could even provide an opportunity for the Central Banks in very small and delicate states to issue money where Banknotes are not issued due to High Expenses or need to be replaced because of vast number of frauds in the Country.

- ⊙ **Recovered Role of State-issued the Money:** As Digital Payments (Enabled by Privately issued Payment Instruments etc.) may eventually constitute the vast majority of Domestic Retail Payments; the Private Sector will become the "only" and relevant supplier of money. By implementing Central Bank Digital Currency, Central Banks can strategically preserve the role of the state in the provision of money and it helps to address the various risks of new forms of the private money and also the consequences of a decline in the use of Cash by the people of the Country. The Central Bank Digital Currency could improve the effectiveness of the **Monetary Policy** of the Central Bank and play a vital role in distributing fiscal resources to the **unbanked and other recipients of the Country**.

Benefits of '₹' to the

Governments:

- ⊙ **Improved Government Payments System:** The Central Bank Digital Currency could provide a very effective mechanism to facilitate the payments to all government agencies across a single platform and it enables the government to reach every agent everywhere in the economy and at any time, for both the regular or the adhoc transfers and payments.

This feature would be especially valuable during certain types of disasters. While existing payment mechanisms can be leveraged for the government payments, the significant up-front preparation and also coordination are required for executing government relief payments. The universal access to Central Bank Digital Currency could simplify the processes and it enables faster response times.

- ⊙ **It Improves the Transparency and also Tax Collection:** Many Authorities believe that the Central Bank Digital Currency can significantly **reduce the tax avoidance and also tax evasion**, as well as money laundering activities and the other illegal activities in the Country that are made easier with paper currency (Especially Large-denomination dealings /Bills).

CBDC '₹' and its Technology Considerations:

It is more Convenient: For the users tap-to-pay with relatively modern Smartphones, Storage of Value Cards and Custom Devices fitted with NFC (Near Field Communications) is been well understood and straightforward. There should be various user-friendly payment alternatives which may be

needed in order to support the various use cases. For example: e-commerce or person-to-person payments.

It is a Secured and Resilient: To protect the end user data, there are a variety of mature Cryptographic Techniques flexible enough to be used across the Centralised or Distributed Ledgers. Typically, in a Centralised Platform, it is the System Administrator who enforces the privacy policy, while distributed or device-based environments with less straight forward governance arrangements that can face complications from the software-based privacy enforcement.

As Critical Infrastructure, the resilience of Central Bank Digital Currency will likely need to be similar to the Current Payment Systems and Operate for 24/7/365 service.

It is Fast and Scalable: The Central Bank Digital Currency system will need to be able to meet the volume and also throughput (transactions per second) requirements at a justifiable cost. Preferably, the volumes can drive with marginal costs to tremendously at low levels. The Present large centralised systems like Card Networks demonstrate which are having very high transaction

capacity for the large populations may also possible with the conventional technologies.

Interoperable: Technologies in order to support the platform of various business models, permitting third parties in order to build the services on top of a Central Bank Digital Currency System, are well recognized. Challenges in interoperating with the existing payment arrangements will be based on their designs but most of it have mechanisms which are standardised to make inter-account transactions.

The Common Data Standards: Most notably ISO 20022, will likely play a part in enabling the interoperability with other payment systems. With intermediaries, in a Central Bank Digital Currency System, its design will support payments (Be it Online or Offline) between the Customers of one Intermediary and another and support portability, in order to avoid users which are being locked in to a single intermediary.

It is Flexible and Adaptable: Several Factors to determine how it is adaptable a Central Bank Digital Currency system and is-how accurately the fundamental concepts

of the Money and Payments are enacted; a careful, layered design with a clear separation of the concerns; designing with foresight into how the environment may evolve (e.g., Micro Transactions, Changes in Cryptography) and so on.

To conclude, The Central Bank Digital Currency could affect the Financial Stability. If Central Bank Digital Currency proved very attractive and were to be highly preferred to the Bank Deposits, the Banks **would face the Competition** from the Central Bank and they would have to raise their Deposit Rates to remain Competitive in the market. This would reduce their Profits and/or the Demand for their Loans and Advances. In turn, they might take on more risk. The Banks could also increase their reliance on Wholesale funding, but this might raise their Cost of Funding, with the similar implications. Bank funding could also become more Volatile, causing Banks to hold more 'Liquid Assets' and/or to cut back on Lending Business. MA

References:

1. *World Bank Reports.*
2. *Concept Note of Reserve Bank of India.*



AT THE HELM

Our heartiest congratulations to CMA Sunil S Bagi, Member of the Institute for being elevated to the post of Director (Finance), Goa Shipyard Limited with effect from 28.09.2022.

Shri Bagi started his career at GSL in 1992 as Accounts Officer. He is a seasoned finance professional

with over 30 years of diverse experience at different levels. At GSL, while heading the Finance functions as Chief General Manager (Finance), CMA Sunil Bagi has significantly contributed in developing financial strategies and policies for budgeting, pricing, cost control and profit planning for achieving the overall goals of the company. He has played pivotal role in exploring and evaluating new business opportunities and business development of the Company. CMA Bagi is instrumental in Capability Augmentation cum Modernization Program of GSL, being executed at GSL. He was the past Chairman of Goa Chapter.

We wish CMA Sunil S Bagi, the very best for all his future endeavours.

CBDC- A NEW TOOL IN 'FINANCIAL INCLUSION' TOOL KIT

(International Experience)

Abstract

The Central Bank Digital Currencies (CBDC), if appropriately designed, can help to improve the 'Financial Inclusion' in the Country.

The Effective implementation needs a balanced, risk-based approach and the support to the complementary policies. The Central Banks in the World are actively considering, how the Retail Central Bank Digital Currencies (CBDCs) may fit with the Policy Goals around 'Total Financial Inclusion' in the Country. They are:

- ⊙ Central Bank of The Bahamas.
- ⊙ Bank of Canada.
- ⊙ People's Bank of China.
- ⊙ Eastern Caribbean Central Bank.
- ⊙ Bank of Ghana.
- ⊙ Central Bank of Malaysia.
- ⊙ Bangko Sentral ng Pilipinas.
- ⊙ National Bank of Ukraine and
- ⊙ Central Bank of Uruguay.

While a Central Bank Digital Currency, like other forms of the Money, has different functions (e.g., Means of Payment, Store of Value, Unit of Account, Settlement Assets), its link to 'Financial Inclusion' in the Country in context of its payment properties.

Abbreviations:

CBDC= Central Bank Digital Currency.
e-KYC= Electronic Know Your Customer.
EMDEs=Emerging Markets and Developing Economies.
AEs=Advanced Economies.
PSPs=Payment Service Providers.
ACHs=Automated Clearing Houses.



Dr. Sai Sudha. P

Independent Researcher
Hyderabad

sudha.biotech88@gmail.com

While CBDC is not a solution, and it can represent a **further tool** to promote the 'Financial Inclusion' if designed with this objectives of the following:

- i. Existing Barriers to the 'Financial Inclusion' that could be addressed with the introduction of a Central Bank Digital Currency;
- ii. The Central Bank Digital Currency Design features that many institutions view as critical to addressing existing barriers; and
- iii. Challenges that are predicted, along with '**Legal and Regulatory**' Changes needed for Central Bank Digital Currency in implementation.

The Barriers to 'Financial Inclusion' differ from **Country to Country**, the following are some common elements in achieving the Financial Inclusion:

- ⊙ **First** is the Geographic Barriers related to **Vast Territories and Remote Locations of the Country**.
- ⊙ **Second** one is the Institutional and Regulatory Factors, such as a lack of public goods like **Identity Credentials**, as well as informality and a lack of consumer protection in the Country.
- ⊙ **Third** one is Economic and Market structure issues, like Limited Competition, inefficiency in the 'Financial Sector' and a lack of Profitability of Serving **Excluded Groups**.
- ⊙ **Fourth** one is Characteristics of **Vulnerability**, such as Barriers by Age, Gender, Income or Disability of the people of the Country.

- ⊙ ‘Lack of Education’ and ‘**Financial Literacy**’ of the Country is **Fifth** and
- ⊙ **Sixth** is Low Trust by the people in existing ‘**Financial Services**’ offered in the Country.

Some Central Banks consider the Central Bank Digital Currencies as main to their mandate as a **Catalyst for Innovation and Economic Development of the Country**. Though access to various payment services has been grown in recent years, it is still far from the universal. But people who are living in remote areas / locations and the low-income population still continue to be the challenge barriers to digital payment systems of the Country. The Domestic retail payment services can be expensive, and also payments across borders-particularly for low-value transfers like remittances-face even larger challenges for implementation. The Central Bank Digital Currencies can secure the continuous provision of the Public Money to the General Public of the Country.

Several Central Banks of Various Countries consider that the Central Bank Digital Currency more as a potential complement to the existing financial inclusion initiatives of the Country. Many authorities are tackling the Financial Inclusion barriers today with dedicated Strategies and to improve the provisions of various transaction accounts and other payment products etc.

The Central Banks see the greater potential for the Central Bank Digital Currency in order to improve the Financial Inclusion noted in **Various Specific Design Features**. These specific design features are target in **4 Broad Objectives** which, in turn, address the specific Financial Inclusion Barriers of the Economy.

- ⊙ Promoting the innovation in the two-tiered payment system. This can also be achieved through the architectures that are involved in the **Private**

Sector Retail Services (as in the existing systems), including **New (Non-bank) Players**, and by revisiting the rules on authorised access, etc.

- ⊙ CBDCs could support the Technological Solutions with the **Off-line Functionality** (i.e., When Mobile Connectivity not available or even the Electricity is unavailable in a particular place).
- ⊙ To Facilitate the **Enrolment and Education** on Central Bank Digital Currency. This involves the application of simplified ‘Due Diligence Processes’ to enrol the Individuals and also Micro-enterprises, Remote Registration or the Electronic Know Your Customer (e-KYC), and to integration with National Digital ID Systems, the Merchant Acceptance of Central Bank Digital Currency, and enabling the access to Special Groups with Limitations and also giving Users Control of their Data to support the building of a Financial Record. These should be accompanied by the Targeted **Digital and Financial Literacy Campaigns to increase the awareness programme**.
- ⊙ Promotion of Interoperability among the Multiple Dimensions. This entails the **Integrating of the Central Bank Digital Currency with Existing Payment Instruments** Systems like Credit Transfers, Payment Cards and the Mobile Money etc., It requires the interoperability with other Cross-border Central Bank Digital Currency Systems and with the Government Payment and Collection Streams etc.

The more the individuals,

merchants and also the financial intermediaries that can be onboarded and the sustainably participate in the system, the more attractive the use of the Central Bank Digital Currency will be to further users. This will involve the choices on a number of important issues, which includes the pricing of Central Bank Digital Currency Services.

Moreover, the complementary initiatives that may need to address the obstacles such as **Limited Financial and Digital Literacy etc.** Similarly, the safeguarding of Data Privacy and preventing the misuse of Consumer Data will be an essential to ensure the same level of **Public Trust** in the Central Bank Digital Currency that other forms of Central Bank Money, such as Physical Cash etc.

Central Bank Digital Currency issuance may require New **Laws and Regulations** to be enacted by the Country, or the existing laws to be revised accordingly. These include **Central Bank Laws** to deliver suitable powers in order to issue the Central Bank Digital Currency and oversee the Central Bank Digital Currency ecosystem. Likewise, the issuance may involve introducing the New, or Revising the Existing Laws for effective omission of relevant Central Bank Digital Currency participants, whether Current or Novel the players are undertaking similar or New Roles under the Central Bank Digital Currency System.

Policies to be Addressed:

Financial Inclusion is a clear component of the Central Bank’s mandate in all most all countries. Various Countries have Clear Financial Inclusion Strategies, and some the Central Banks have dedicated units supporting the Financial Inclusion efforts in their Economies.

Access to the Transaction Accounts, i.e., Bank and e-money Accounts, is a foundational aspect of Financial Inclusion, giving individuals the

means to Pay and also Save in the formal Financial System. Such access has been improving over a period time, although it has not always translated into more use of the Digital Payment instruments and services that come with such accounts. Mobile Phone ownership has risen rapidly in recent years in all most all countries and is often higher than transaction account ownership. Mobile Phones (Both Smartphones and the basic “Featurephones”) can help the users to access the payment services without visiting a **Physical Bank Branch of the Commercial Banks**, and Mobile Money has been an important driver of the progress on the **transaction account access**.

Barriers to Financial Inclusion through CBDC:

- ⊙ **The Geographic Barriers:** Many of the countries have vast territories (e.g., Canada or China) or a large number of Islands (e.g., the Bahamas, Eastern Caribbean Currency Union or the Philippines). Especially for households and businesses in remote, Rural Areas and on Islands, there may be severe challenges around the Data Connectivity (fixed broadband or mobile data access), Physical Branches of Financial Institutions and even **Reliable Access to Electricity**. For people in these areas, cash is often a much more convenient means of payment than Bank Money or Digital Applications that require a computer or mobile phone. This is reflected in lower access to and use of Digital Payment Systems. In many cases, the telecommunications services are in remote geographic areas are inadequate for even feature phone-based Mobile Money Services.
- ⊙ **The Institutional Factors:** In many establishments, the basic Public Goods

like Identification (ID) are absent or not widespread. In some Individuals lack an Identification document or Credentials to meet the basic Know-Your-Customer (KYC) requirements to open a Transaction Account. In many cases, the large informal economy does not require formal Identification credentials to transact, and households and also firms often have concerns about the compliance costs associated with the formalising of such activities.

- ⊙ **The Economic and Market Structure Barriers:** In many Emerging Markets and also Developing Economies (EMDEs) and some Advanced Economies (AEs), there is limited competition in the Financial Sector. This results in high markups (margins) by the banks and other financial institutions, visible in a high cost of executing payments and a large wedge between lending and also the deposit rates for households and businesses. In many cases, low efficiency may mean that it is not profitable to serve to the low-income users, and a lack of competition among incumbent financial institutions can mean high prices and poor services.
- ⊙ **The Characteristics of Vulnerability:** Many of the Central Bank counterparts emphasised gaps in the inclusion by Age (with older users and youth often excluded or underserved), Gender (with women often excluded or underserved) or Region (with Rural Users underserved relative to those in Urban Areas). The Individuals with Lower Incomes universally have lower access to the transaction accounts, though the gap is larger for EMDEs than AEs. Women are less

likely to have used the internet to buy something in the past year. Some Central Banks, the challenges in accessing Financial Services for those with disabilities persons like visual and hearing impairments, or a lack of formal education.

- ⊙ **The Limited Financial Literacy:** Central Banks are emphasised a low level of **Financial and Digital Literacy in most of the Countries**, for instance around how to save and borrow, how to understand and compare with financial offers or how to prepare for unexpected life events. Several referred to a “**Cash Mindset**” among households, who see cash as easy to use and helpful for budgeting or controlling spending.
- ⊙ **The Limited Trust in Financial Institutions:** Some Central Banks referred to low trust in existing financial services / Systems and the institutions as a barrier to **Account Access**. Where users have experienced the bank failures, frauds, hidden fees or the discriminatory treatment, they may be particularly cautious of using these institutions’ services.

Role of the Public and Private Stakeholders:

- ⊙ **The Legal and Regulatory Framework:** In many Countries, the focus has been on the facilitation of basic transaction accounts, with simplified Know Your Customer, the low-cost maintenance and no balance requirements (e.g., Basic Deposit Accounts in the Philippines). Consumer protection has also received attention in many countries. For instance, in 2020 the

National Bank of Ukraine (NBU) established a special department responsible for the consumer protection issues, covering both banks and non-bank payment service providers (PSPs) etc.

- ⊙ **The Financial and ICT Infrastructures:** The Authorities in countries like China and the Philippines have implemented a new generation payment system (i.e., the retail fast payment systems) in order to create an open payments ecosystem that would address the needs of the financially excluded public. Meanwhile, the closed-loop retail payment models like AliPay and WeChat Pay in China have driven a dramatic improvement in the transaction account access, but such private infrastructures often lack interoperability between one another. (This is a key consideration for creating an open and interoperable CBDC system).
- ⊙ **The Transaction Account and also the Payment Product Design:** Various market initiatives have been put forward to foster easier access to the transaction

accounts. Some examples include facilitating remote Know Your Customer for account opening, extensive use of e-money and the use of near-field communication (NFC) mobile wallets etc.

- ⊙ **Readily Available to Access Points:** Agent-based service points (Particularly in the Rural Areas) have been used in countries including China, Ghana and the Philippines to address the problem of last-mile Financial Inclusion. Moreover, the deployment of “**Light**” Digital Payment Infrastructure at the Point-of-Sale, such as Quick Response Codes like QRPH in the Philippines.
- ⊙ **Awareness Programmes and the Financial Literacy:** The Public Campaigns to enhance the Financial Literacy are a common practice followed by almost all the Countries. Central Banks and other authorities target these campaigns to the needs of their control, for example by paying special attention to the payment needs of people with disabilities.
- ⊙ **Leveraging High-Volume and also Recurrent Payment**

Streams: Some Central Banks noted that the importance of channelling government payments, such as the public sector salaries, the pensions and also the social protection grants, to transaction accounts to increase access and ultimately use of the formal payment services.

Conclusion: A Central Bank Digital Currency and the other policies have to grapple with the key reasons for the financial exclusion. Central Bank Digital Currencies have a design feature that can be tailored to the specific barriers, but they should be supported by further policies. The development of an acceptance ecosystem will be required, which will allow seamless exchange between Digital and Physical forms of the currency. Significant and wide-reaching **Financial and Digital Literacy** activities are also required if a Central Bank Digital Currency is to be afforded; the same levels of trust are currently enjoyed by other forms of Central Bank Money. **MA**

References:

1. *Concept Paper on Central Bank Digital Currency-RBI.*
2. *Other Countries Central Bank Web-sites.*



CONGRATULATIONS

Our heartiest congratulations to CMA B. B. Gupta, Chief Controller of Finance, HSVP (Haryana Shehri Vikas Pradhikaran, Haryana State Govt. Corporation) and his team on being conferred Rank-1 at the State Level for Prudent Financial Management and has been honoured and awarded ***ATAL BIHARI VAJPAYEE SUSHASAN PURUSKAR*** by Hon'ble Chief Minister, Haryana in the State level function held on 25th December, 2022.

CMA B. B. Gupta is also member of Internal Auditing Standards Board of the Institute since 2019.

We wish CMA B. B. Gupta and his team, the very best for all their future endeavours.

CBDC-e₹ 'A VIRTUAL CURRENCY'



CMA Manmohan Sahu

Financial Advisor
Hyderabad

sahu_manmohan@yahoo.co.in

Central banks across the World, are considering issuing their own Digital Currencies. The Central Bank Digital Currency (CBDC) is a Central Bank Liability that is Digitally Created and Recorded on Centralized or Decentralized ledgers, they denominated in an existing unit of account, and it is convertible in physical cash, the Commercial Bank Money and other forms of Money on Demand by the holder at authorized entities. As Physical Cash, Central Bank Digital Currency would be Legal Tender.

While some of the Central Banks already provide the Digital Money to Select Entities (Typically Commercial Banks and other Authorized Financial Intermediaries in their Countries) in the form of Reserve Balances that are used for settling Large-value (Wholesale) obligations, Central Bank Digital Currency would be a **True Innovation** and if it was made available to **General Purpose Users**, that is, for Retail Transactions among Individuals and Businesses. “**Retail**” Central Bank Digital Currency would truly represent a Digital Extension of State-issued Cash that would be a Universal and used and accepted by all in the Economy / Country.

Four Key Properties of the Money are:

- i. **Type of Issuer of Currency:** Central Bank vs. Other Entities.
- ii. **Form of Currency:** Digital vs. Physical.
- iii. **Accessibility of Currency:** Restricted vs. Widely, that is, Money that is available only to certain Agents and in certain jurisdictions vs. Money that is available to everyone everywhere.

Abstract

Money performs mainly Three Functions:

- ⊙ *It is a Medium of Exchange (Facilitates Exchange between Two Parties).*
- ⊙ *It is having Store of Value (Stores Value from One Period to another), and*
- ⊙ *The Unit of Account (Acts as Numeraire of Value).*

There are different Types of Money that performs the functions like:

- ⊙ *Cash in Circulation.*
- ⊙ *Deposits at Commercial Banks.*
- ⊙ *Commercial Bank Reserves at Central Bank.*
- ⊙ *Privately Issued Assets, etc.*

*Not all of them are equivalent, some of them are Riskier than others in certain functions, and almost all of them are in **Digital Form**. Cash is an obvious exception; however, it features unique properties such as Anonymity, Universal Acceptance (within the given jurisdiction), and Instantaneous Exchangeability without the need of a Third-party Intervention.*

In recent years, due to Innovations in the Technology, the concept of Digital Currency has emerged out of the desire of some private entities to replicate specific properties of Cash in the Digital Space. Digital Currencies have been issued in various Electronic Formats and Value Propositions, and in an Uncountable Number of Platforms, which allow for Real-Time, Peer-to-Peer and Not-in-Person Transactions.

Abbreviations:

BIS=Bank for International Settlements.

CBDC=Central Bank Digital Currency.

FPS=Fast Payment System.

NPS=National Payments System.

PSP=Payment Service Provider.

- iv. **Technology of Currency:** Token-based vs. Account-based-Account based monies are held on the accounts of authorized entities, while Token-based monies are representations of value captured in (Physical or Digital) records, and their Transfer from one agent to another and does not require reconciliation of the two databases.

Five Design Features of Central Bank Digital Currency can be Identified:

- i. **The Anonymity:** Physical Cash is unnamed.
- ii. **The Availability:** Limited to Central Bank Operating Hours vs. An Ongoing and Uninterrupted (i.e., 24 hour/7 day) basis. Currently, the access to digital Central Bank Money (Reserves) is limited to the issuing Central Bank's Operating Hours, while Cash is available on a 24/7/365 basis.
- iii. **The Zero vs. Non-zero Interest Bearing:** At present, Cash does not bear interest while CBDC could carry a Non-zero Interest Rate.
- iv. **The Transfer Mechanism:** Person-to-Person (P2P) vs. via an Intermediary Indirect. Currently, Cash is Transferred P2P, while Central Bank Digital Currency be Transferred Payment Service Providers (PSP) or Via an Intermediary depending on the Design.
- v. **The Limits or the Caps:** These can be used to deter the undesirable uses. The Limits are typically set on the Cash Transactions due to the Financial Integrity Considerations.

The areas of impact of Central Bank Digital Currency on

- ⊙ Use of the Physical Cash.
- ⊙ Access to Central Bank Money.
- ⊙ Retail Payment Services Provision.
- ⊙ Government Payments.
- ⊙ Retail Payments Market.
- ⊙ Monetary Policy etc. are as follows:

Central Bank Digital Currency and Cash:

The introduction of Central Bank Digital Currency as a way to counter **the Decline in the use of Physical Cash** when the economy is evolving toward a “**Less Cash**” Society. By designing Central Bank Digital Currency so as to imitate the properties of the physical cash, it would act as a substitute for it and also to prevent the money in the economy from being entirely originated by the private sector.

The issuance of the Central Bank Digital Currency might introduce a significant change in the usage of the physical cash. As Central Bank Digital Currency were made available to all the **Individuals and to the Entities** in the economy, this might prompt a significant change,

especially if the Central Bank promoted its use and the availability across the whole national authority.

In providing the **New Form of Cash for the Digital World** of today and tomorrow, the Central Bank Digital Currency could assist the countries in their constant search for the socially optimal combination of payment instruments. It would support the country efforts to move towards a **Cashless Society** or it would complement the physical cash in those countries that want to continue its use.

Central Bank Digital Currency and Access to Central Bank Money:

Central Bank Digital Currency can reinforce the Central Role of the Central Bank Money in Today's Digital World. The history of the retail payment services, since from the origin of Modern Banking, can be understood as the attempt from the payments industry and also the society at large to economize on the use of the physical cash through various instruments (e.g., Mobilizing Bank Deposits through Cheques and other means, and Lately the Electronic Transfer facilities and e-monies) that have eventually become Cash Substitutes for the public using them. This constant attempt has been motivated by the **High Cost of Handling and Storing the Cash**, and the impossibility of using it for non-in-person transactions.

Money Instruments issued by the Private Sector (either in various forms like Commercial Bank Deposits, Electronic Monies or other Digital Currencies) are by their very nature Risky, due to the possibility of failures occurring along the supply process. The Risks involved in the Potential Illiquidity and **Insolvency of the Issuers** of the Instruments or of the holders of the funds received against their issuance. In this regard, one reason for issuing the **Central Bank Digital Currency is to provide to the Money Holders with a Safe Alternative.**

Central Bank Digital Currency and Retail Payment Services:

Improving the payment systems performance is a most important motivation for the Central Banks to issue the Central Bank Digital Currency. The Central Banks of the advanced and emerging market economies, surveyed by the Bank for International Settlements, have ranked payments safety and the domestic payments efficiency as the first motivating factors for potentially issuing a (either **Wholesale or a Retail**) Central Bank Digital Currency. The Central Banks in emerging market economies, in addition, have expressed high recognition for Central Bank Digital Currency as an instrument to promote the Financial Inclusion in the Country. In fact, they have generally stronger motivations than the Central Banks in advanced economies to work on retail Central Bank Digital Currencies, which can act as a substitute or a Complement to Cash.

The Central Bank Digital Currency would lead to fast, secure and efficient payments System, and would facilitate the transactions that would otherwise be foregone. A Central Bank Digital Currency system linking all Agents in the Economy would make real-time payment and also for settlement services accessible everywhere, always and to/from anybody, and on a 24 hour/7-day basis throughout the year.

Central Bank Digital Currency and Government Payments:

Central Bank Digital Currency could support the payments **To and From** the Government. It would provide a very effective mechanism to facilitate the payments from all residents to all government agencies across a single platform as well as to enable the government to reach every agent everywhere in the economy and at any time, for both regular or for adhoc transfers and the payments. This feature would be especially valuable during certain types of emergencies.

In cases of National Emergencies, as Governments need to Transfer Money to People and facilitate their payments activity, Central Bank Digital Currency may play a special role. However, as an experience under the Covid-19 Pandemic has shown worldwide, Public Authorities may encounter significant challenges in getting funds to those in need and enabling access to Money. The use of Central Bank Digital Currency could be of Great Assistance. The Central Bank could agree to Act as Government Agent and also to execute Central Bank Digital Currency fund Transfers on the Government's behalf to the Individuals and to the Businesses that Government Identifies to be in need of Financial Support. Through Central Bank Digital Currency, the Government could send Direct Payments much more rapidly than through checks or Tax Refunds and could provide geographically and temporally targeted relief.

Central Bank Digital Currency and Retail Payments Market:

CBDC could put a competitive pressure on a stagnant payments market, in particular on the Retail side. Where the market is characterized by the dominance of relatively inefficient payment services provided by less than innovative players, the introduction of Central Bank Digital Currency could exert the pressure on the efficiency of other payment instruments and also support a positive disruption in the market. For example, as **Retail Central Bank Digital Currency** might be offered in Principle at little or Zero Cost to the payers and also payees-much as for Cash Today-it could improve the overall efficiency of the Retail Segment of the National Payments System (NPS), by pressing the private sector providers to attain the higher level of efficiency on the instruments they issue and also to supply the customers with higher quality and an expanded range of services.

Central Bank Digital Currency and Monetary Policy:

Central Bank Digital Currency may change the implementation of the Monetary Policy depending on the Central Bank Digital Currency design. Specific considerations in this respect would include the accessibility of Central Bank Digital Currency and whether it is Interest Bearing. Simply put, wider access to the Central Bank Money and Interest Bearing Central Bank Digital Currency (which would make it an attractive Asset to hold) together could make Monetary Policy outcomes more pronounced because of substitution effects.

For example, Central Bank Digital Currency may be a substitute for various Money Market Instruments, as a Liquid risk-free asset for the final settlement. If Central Bank Digital Currency can be used by the Non-residents, and it may become a substitute for internationally used banknotes. If the Central Bank Digital Currency is designed to be more attractive, the effects on the Monetary Policy transmission would be more prominent. At the same time, it is an important to note that the emerging economies do not have effective Monetary Policy Transmission due to the Vulnerabilities in the Domestic Financial System and also the presence of a large informal sector. Hence, the issuance of Central Bank Digital Currency may not necessarily make the Monetary Policy Transmission more effective.

Central Bank Digital Currency may lead to **Better Control of the Monetary Policy** in Two Ways:

- i. **To Use of Negative (Nominal) Interest Rates:** If Central Bank Digital Currency is interest-bearing in this case, people would pay the Central Bank to Store their Currency. This would be to discourage the holding Money and also to Stimulate Spending. Compared to the Central Bank Digital Currency, the Cash does not pay Interest and hence applying Negative Interest Rates on Cash is not feasible. The lower bound to the interest rate is thus zero, and the stimulus has a limit.
- ii. **The Use of "Helicopter Drops":** Account-based Central Bank Digital Currency would enable the Central Banks to make Transfers of Funds directly into the Account of the Individual Agents. This would allow Central Banks to execute the Monetary Policy Operations in a more Precise (Targeted) and the rapid way than is possible with Conventional or Unconventional (e.g., Quantitative easing) types of the Monetary Instruments. The Helicopter drops can be done universally, on all Accounts, or on a Selective Basis, depending on the situation.

To Conclude:

Several waves of innovations and accompanying reforms have, over time, regularly changed the landscape of the National Payments System (NPS) in Virtually Every Country in the World. A topic now grabbing

widespread attention is Crypto-Assets, Investments in Digital Currencies, and the related concept of Stable Coins, which are Digital Currencies whose value are pegged to an underlying National Currency issued by a Central Bank.

These innovations were driving to revisit the very definition of “Currency and Money” as an “Exchange of Value”, “Terms” we had for years taken for established.

The Central Banks are seeing or beginning the process of Delivering a “Central Bank Digital Currency (CBDC)”. From the Design to Implementation Stage, the Researchers are looking at Implications for the Financial System, including for Policy, Regulation, and Oversight, plus effects on the Economy more broadly.

Thus, a Central Bank that intends to exploit the Advantages of Central Bank Digital Currency must carefully evaluate in Co-ordination with the relevant Public Authorities all its implications and adopt a plan that can prevent and Mitigate its Risks. **MA**

References:

1. Literature published by Government of India (GoI), Reserve Bank of India (RBI).
2. Literature on Practices followed by Central Banks of other Countries.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(Statutory Body under an Act of Parliament)

www.icmai.in

Research Bulletin, Vol. 48 Nos. IV January 2023 (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 publishing 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:

- ⊙ Applications and adoption of Cryptocurrency in India and abroad
- ⊙ Foreign Exchange Risk Management
- ⊙ Green Finance: Progress and Challenges
- ⊙ Role of Microfinance in Women Empowerment in India.
- ⊙ Mutual Funds in India
- ⊙ Sustainability Accounting and Reporting
- ⊙ Corporate Governance: Policies and Practices.
- ⊙ Accounting Information System (AIS) in Decision Making: A Review
- ⊙ Mortgage-Based Securities in India.
- ⊙ Environmental, Social and Governance (ESG)
- ⊙ Neobanks: the next Evolution of Banking
- ⊙ Cybersecurity: Crucial for achieving Digital goals
- ⊙ The way forward for FinTech Industry
- ⊙ Emerging Technological Trends and Implications on Insurance Business
- ⊙ Clean energy Startups

Papers must be received within 15th February, 2023 in the following email id:
research.bulletin@icmai.in

"CBDC-CROSS BORDER PAYMENTS"



CMA Debaraja Sahu

Practicing Cost Accountant
Hyderabad

sahudebaraja@yahoo.co.in

The G20 has made to improve Cross-border Payments on a **Priority**. The Committee on Payments and Market Infrastructures-CPMI (2020), identifies CBDC as one area of **interest** for making the Cross-border Payments by using Central Bank Money which more Competent.

Although many of Today's CBDC Projects and running Pilots have a Primarily **Domestic Focus**, and various Bilateral Trials have demonstrated the Feasibility of using CBDCs for Cross-Border Payments.

Interoperability:

In various ways Central Bank Digital Currency could be used for Cross-border Payments. A Domestic Central Bank Digital Currency can be used for the Payments From, To and may be **Even within another Currency Area**. This could facilitate the Effectiveness, but may also Create Risks **for the Foreign Authorities**. Additionally, Central Bank Digital Currency Systems could be Designed to Interoperate to facilitate Cross-border and Cross-Currency Payments. Interoperability is a broadly understood the Terms and Potentially covers a crowd of different ways 'Payment Systems' or arrangements can interact with one another.

At the Basic Technical Level, this can involve in reducing the barriers to the Membership of Both Systems, e.g., through Common Messaging Standards and Overlapping Operating Times. Moving beyond this, Co-ordination between the **Systems** can extend to Common Business Arrangements, e.g., a Chosen Settlement Agent between the Systems for Certain Payments. Another means is Integration of the Systems through an Interoperable Link where the Infrastructures Combine their Functions (e.g., Arrangements where there are Multiple Central Bank Digital Currencies).

Challenges with Interoperability:

Various Challenge with Interoperability might be the **Number and Variety of Payment Systems** Domestically and Internationally. Central Bank Digital Currency systems will

Abstract

The present state-of-the-art Payment Systems of India are:

- ⊙ *Affordable.*
- ⊙ *Accessible.*
- ⊙ *Convenient.*
- ⊙ *Efficient.*
- ⊙ *Safe and*
- ⊙ *Secure and are a matter of Pride for the Nation.*

However, 'Cross Border Payments' is an Area particularly suitable for Change and could benefit from New Technologies available in the Country.

*As per the World Bank, **India** is the World's Largest Receiver of Remittances as it received \$87 Billion in 2021 with 'United States' being Biggest Source, Accounting for over 20 percent of these funds. The Cost of sending Remittances to India, assumes critical significance, especially in view of the Large Indian Migration Spread Across the World and from the point of view of the Potential (mis) use of Informal / Illegal Channels.*

Abbreviations:

BIS=Bank for International Settlements.

CBDC=Central Bank Digital Currency.

CPMI=Committee on Payments and Market Infrastructures.

G20=The Group of Twenty (G20) Comprises 19 Countries (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Republic of Korea, Mexico, Russia, Saudi Arabia, South Africa, Türkiye, United Kingdom and United States) and the European Union.

enter into a Jam-packed field of Domestic Payment Systems and Interoperability can enable them **Complementarity** and Co-existence. For Cross-border payments, the Closed-loop Systems (e.g., Global Stable Coins) can potentially offer some more Efficiencies but only if they interoperate with the others. Common International Standards like ISO 20022 can also able to help. For Central Bank Digital Currency Systems, their additional functionalities and the Future Designs may require these Standards to be enhanced and for Central Banks to Work Collaboratively in their development. Similarly, if Central Bank Digital Currency Systems are linked with Supplementary Systems and Data Services (e.g., Digital Identity Repositories), then Corresponding International Standards may be required for the seamless Cross-border Payments.

Interoperability-Easy Access for ‘Tourists and Foreign Travellers’:

New Systems based on Different Technologies like “Token-based” may also **Present Challenges**. Interoperability between Domestic Central Bank Digital Currencies is, however, not just a question of ‘Technical Design’ and **Work on “Common Standards and Interfaces”**.

CPMI,2020 describes on **Five “Focus Areas”** to improve the Cross-border Payments, of which only one involves exploring ‘New Payment Infrastructure’. Different ‘Legal and Regulatory Frameworks’ present a Important Hindrance to Cross-border Payments. Harmonising these Agendas would be a difficult one.

‘Financial Stability’ and ‘Monetary Policy’ implications which are linked to Cross-border Central Bank Digital Currency arrangements requires detailed Analysis. Designing a Central Bank Digital Currency which is a Convenient for the Cross-border Payments may be helpful for adoption.

Unwanted Volatility in the Foreign Exchange Rates, the “Digital Dollarisation” for other Countries and, if Laws and Regulations are **Not Equivalent, Easing of Tax Avoidance** and Loss of Oversight by Domestic Authorities. Permitting Easy Access for **Tourists and Foreign Travellers** could **Incentivise Merchant Acceptance**.

a. ‘Monetary Policy’ Motivations and its Risks:

“Interest-bearing” as one of the **Five Key Design features** of a Central Bank Digital Currency and provided a thorough overview of the academic debates around theoretical possibilities. Theoretically, a rewarded Central Bank Digital Currency could pass on ‘Policy Rate Changes’ immediately to Central Bank Digital Currency Holders (which might also incentivise the Banks to Pass on Rates Faster Too).

Though, beyond the Theory, there are some more risks and challenges. To be effective in communicating policy rates, a rewarded Central Bank Digital Currency would need to pay Competitive Rates and allow the public to hold significant amounts. This could deteriorate the ‘Financial Stability Risks’ linked with disintermediating the Banks and making fund flows more volatile.

Bearing Interest beyond, there is also public discussion regarding the Central Bank Digital Currency use in order

to Stimulate Aggregate Demand by Direct Transfers to the Public which is called “**Helicopter Drops**”, possibly united with “Programmable Monetary Policy” (e.g., Transfers with an “Expiry Date” or the Conditional on being Spent on Certain Goods). Though, a main challenge for these kinds of transfers is ‘**Identifying Recipients**’ and their related accounts. A Central Bank Digital Currency is not a pre-condition or necessarily useful, while also potentially distorting the separation between Monetary Policy and Fiscal Policy in ways which should be better understood and mitigated. Although a Central Bank Digital Currency (Depending on its Design) provides a Range of the Monetary Policy possibilities, further consideration would need to be given to the practicalities. **‘Monetary Policy’ will not be the Primary Drive for Issuing Central Bank Digital Currency.**

b. Various Financial Stability Risks:

Potential Disintermediation of Banks: Depending on the design and adoption of a Central Bank Digital Currency, there may be “Broad Market Structure” effects. There is a risk of disintermediating Banks or Enabling to destabilising runs into Central Bank Money, thereby Decline the Financial Stability.

Today, the Public can (and have in the past) run into Central Bank Money by holding more Cash, but such runs are very rare, given the existence of “Deposit Insurance and Bank Resolution” frameworks that protect Retail Depositors. There is, however, a concern that an extensively available Central Bank Digital Currency could make such events more frequent and severe, by enabling “**Digital Runs**” towards the Central Bank with an extraordinary speed and Scale. More generally, if the Banks begin to lose their Deposits to Central Bank Digital Currency over time they may come to rely more on “Wholesale Funding”, and possibly restrict Credit Supply in the Economy with the potential impacts on “Economic Growth”.

c. Protecting the Monetary Sovereignty:

Important adoption of the Money not denominated in the ‘**Sovereign Currency**’ might limit the influence of ‘Monetary Policy’ or the Capability to support the Financial Stability. A Risk of stablecoins, so-called “Cryptocurrencies” and Foreign Central Bank Digital Currencies is that Domestic users adopt them in Significant Numbers and use of the Domestic Sovereign Currency decreases. In extremis, such a “**Digital Dollarisation**” could see a “**National Currency**” substituted by another with the ‘Domestic Central Bank’ gradually losing the control over the **Monetary Matters**.

By offering an efficient and convenient Central Bank Digital Currency itself, a Central Bank **may reduce** the Risk of the Alternative Units of Account Controlling. Additionally, Central Bank may also work with the Domestic Private Payment providers in order to safeguard that the Domestic Payment System is as well-organized and fit for the purpose as possible. Current efforts to Modernise the existing Wholesale and Retail Payments Infrastructure (e.g., the ‘Introduction of Faster Payment Systems’) can offer the public better services and also to **discourage** them from using alternative payment means.

The principle of improving the Existing Payment Systems are applies Internationally. The Existing Cross-border

Payment's infrastructure needs to be improved (CPMI (2020)).

d. The Balancing Motivations and Risks:

A changing in the payments scenery and Technological Developments can, in extremis, challenge the ability of the Central Banks to deliver on their 'Public Policy' responsibilities. They also present 'New Opportunities' to make the enhancements and also to address long-running issues.

A Central Bank's decision to board on issuing a Central Bank Digital Currency will require measuring the value of opportunities to further pursue its objectives, balanced against any risks. The most valuable opportunities that inspire the issuance will be where a Central Bank Digital Currency can support a Central Bank's Public Policy objectives.

Other opportunities abound e.g.,

- ⊙ Reducing Illegal Activities.
- ⊙ Facilitating Fiscal Transfers or
- ⊙ Enabling the "Programmable Money".

Finally, Central Banks serve authorities with enormously differing the Financial Systems, Economies, Societies and Legal Structures etc. The Enthusiasms and Risks balanced by different Central Banks will vary significantly. Though, given that Central Banks have shared objectives, mutual requirements and principles for a Central Bank Digital Currency are possible.

Conclusion: G20 Countries have also made enhancing Cross-border payments on a priority and to recognize an inclusive programme to address the key challenges to Cross Border payment, namely:

- ⊙ High Costs.
- ⊙ Low Speed.
- ⊙ Limited Access and
- ⊙ Insufficient Transparency & Confrontations that contributed to the challenges.

Faster, Cheaper, more Transparent, and more Inclusive Cross-border payment services would deliver the extensive benefits for Citizens and also Economies worldwide, supporting:

- ⊙ The Economic Growth.
- ⊙ International Trade.
- ⊙ Global Development and

- ⊙ Financial Inclusion etc.

Bank for International Settlements has published the results from a Survey of the Central Banks in June, 2021, which notes that Central Bank Digital Currencies could ease the 'Current Resistances' in the Cross-border Payments and in particularly so if Central Banks factor an International Dimension into Central Bank Digital Currency Design from the outset.

As noted by Bank for International Settlements, the Potential Benefits will be difficult to achieve **unless** the Central Banks incorporate Cross-border thoughts in their Central Bank Digital Currency Design from the Start and Co-ordinate Worldwide. Many Central Banks are currently examining the risks, benefits and various designs of Central Bank Digital Currency, mainly with a strong attention on Domestic Needs. Consequences of Central Bank Digital Currencies, even if only intended for the domestic use, are expected to go beyond borders, and making it crucial to co-ordinate Work and find Common ground among Central Bank Digital Currencies of Various Authorities / Jurisdictions.

If synchronized is successfully, the 'Clean Slate' presented by Central Bank Digital Currencies may be leveraged to enhance the Cross-border Payments. According to Bank for International Settlements Survey among Central Banks in late 2020, Cross-border Payment's efficiency is an important incentive for Central Bank Digital Currency issuance, especially with regards to Wholesale Central Bank Digital Currency Projects. Central Bank Digital Currencies can enhancement revolution in Cross-border Payments, making these transactions immediate and help overcome the key challenges relating to Time Zone, Exchange Rate differences as well as Legal and Regulatory requirements across the Authorities. Additionally, the Interoperability of Central Bank Digital Currencies presents the means to Lessen Cross-border and Cross-currency Risks and resistances while strengthening the role of Central Bank Money as a newscaster for the payment system. Therefore, the potential use of Central Bank Digital Currency in easing challenges in Cross-border Payment is one of the major enthusiasms for exploring the issuance of Central Bank Digital Currency. **MA**

References:

1. Bank for International Settlements.
2. Reserve Bank of India Concept Note on CBDC.

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

PRIVATIZATION OF PUBLIC SECTOR BANKS – A BOON OR BANE

Abstract

Banking Industry India has undergone massive changes over time from the Pre-independence era to today's environment to technological and socioeconomic changes, Government has taken various steps over time to achieve its monetary policy and another goal. In the current scenario Indian government is also mulling of privatization of PSBs. Accordingly, it provides a snapshot of a different era of the banking sector and analysis of government decision.



CMA Kundan Kumar Sinha

Chief Manager (A&F)
Balmer Lawrie & Co Ltd.
New Delhi

kundansinha2001@yahoo.com

Privatization of Public Sector Banks (PSBs) is highly criticised / debated and objected at different forums, especially at employee union of banks. However, the Government seems firm in achieving its objective keeping in mind the long term vision and economic reforms. To understand the subject and arrive at the pros and cons of privatization, it is necessary to understand the development of modern Indian banking system and the reason for the nationalisation of banking system in India.

The modern Indian banking system has broadly passed three phases and these are discussed hereunder in greater details.

PRE-INDEPENDENCE ERA

In India, there were around 600 banks before it became independent. The first bank was founded in Calcutta in 1770 and was called the Bank of Hindustan. The Oudh Commercial

Bank (Awadh Commercial Bank) was the nation's first commercial bank when it came to the establishment of Indian banking. Several other banks from the 19th century are still in operation, like PNB (Est. 1894), which has withstood the test of time. The Bank of Bengal, the Bank of Madras, and the Bank of Bombay were among the early to mid-1800s banks that merged to become the Imperial Bank, which later became the State Bank of India (SBI).

POST-INDEPENDENCE

The Indian banking system continued to develop after independence. In accordance with the Banking Regulation Act of 1949. The Indian Government chose to nationalise fourteen banks in 1969.

The Indian Government acknowledged the financial exclusion of various communities in 1975. In keeping with the development of financial services in India, it

established banking institutions with specialised roles between 1982 and 1990. [NABARD (1982), EXIM (1982), National Housing Board, SIDBI]

LPG ERA (FROM 1991 TILL DATE)

The Indian economy underwent a major transformation starting in 1991. The Government extended an invitation to private investment. The RBI gave its approval to ten private banks. From this liberalisation, certain well-known banks are still around like HDFC Bank, Axis Bank, ICICI Bank, DCB, and IndusInd Bank.

Two further banks, Kotak Mahindra Bank (2001) and Yes Bank (2004), were granted licences in the early to mid-2000s. In 2013–14, licences for IDFC and Bandhan banks were granted.

Other developments during this period were: -

- a. Nationalisation process came

to a halt.

- b. Foreign banks set up branches in India.
- c. RBI treated PSB & PVB equally.
- d. Small finance banks were permitted.
- e. Payments banks came into existence.
- f. To increase the efficiency banks began to digitalise transactions and various other related banking operations.

Recently the Government has also come with the concept of Digital Currency to further enhance the role of digital payment and making the economy tax compliant. Although payment thorough digital currency does not require any mandate to open a bank account and the transaction can be done with the help of any feature phone, banks had to play a very crucial role to educate the people and make banking adoptable to masses.

TYPES OF BANK IN TODAY'S ERA

1. Public Sector Banks

Those banks where the Government is the majority shareholders, are called public sector banks.

2. Private Sector Banks

Private sector banks are owned by private entities. They came into existence in the 1990s. These banks give stiff competition to the public sector banks.

3. Foreign Banks

Many of the foreign banks like HSBC, SCB work in India as branches or associates of foreign banks incorporated outside India.

4. Payment Banks in India

The RBI has developed a new concept called payment banks. These banks are permitted to take limited deposits but are not permitted to issue credit cards or loans. They provide both checking and savings accounts and they can also issue debit or ATM cards.

5. Small Finance Bank

These were developed with the intention of promoting financial inclusion by extending fundamental banking services to underserved and unserved groups, such as unorganised businesses, small and marginal farmers, small business units, and micro and small industries.

7. Rural Bank

Regional Rural Banks (RRBs) are scheduled commercial banks in India that are controlled by the Government and do business in various regions of the country. Financial inclusion is their main goal.

INDIAN BANKING SYSTEM DRIVES THE ECONOMY

Indian banks have over the years altered the Nation's depressing financial environment to support its expanding economy. There is no doubt that the banking sector continues to support the Nation's economy.

The 2016 demonetization of currency notes is a good illustration. Almost overnight, currency notes of rupees five hundred and two thousand denominations were demonetised, causing havoc throughout the country. By enabling citizens all over the country to exchange the defunct banknotes, banks assisted the economy's recovery from the shock. As India's banking sector develops, so does its capacity to support a country that is constantly in need of

financial development. The Supreme Court had just few days back by a four to one judgement has upheld the demonetisation programme of the Government.

REASONS WHY BANKS WERE NATIONALISED IN INDIA-

Let's examine the factors that led to the Government's decision to nationalise banks in order to better understand how it would affect the banking sector and the populace.

Bank Failure: Between 1947 and 1955, 361 banks failed, (around 40 banks per year), which is a rapid rate of bank failure. Customers' deposits were gone and there was no way of getting them back.

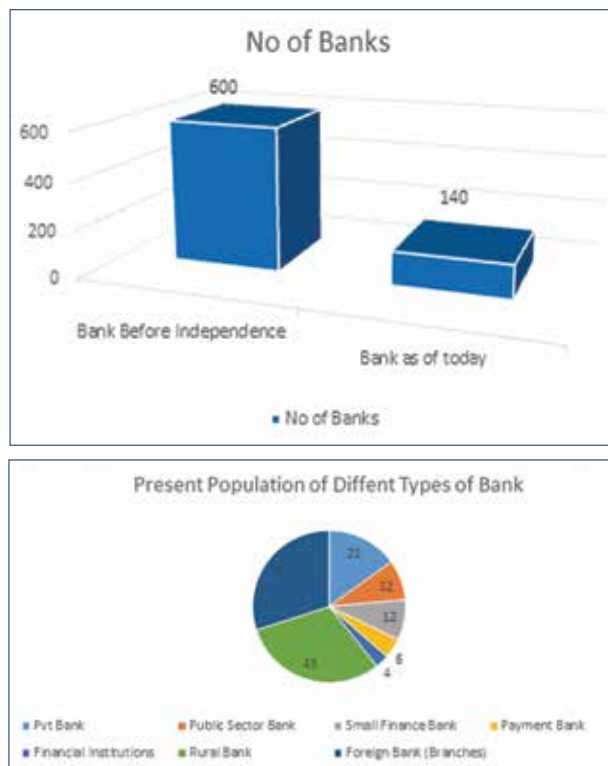
Banks overlooked the agricultural sector: While favouring large corporations and businesses the agricultural sector was made to suffer. The promise to support the agriculture sector came along with nationalisation of the banks.

Expansion of Branches: Nationalization made it easier to establish new branches, ensuring that banks are well represented throughout the nation.

Mobilization of Savings: Nationalizing the banks would increase public access to banks, stimulate saving and infuse more money into the economy.

Economic and Political Factors: The two wars in 1962 and 1965 had caused a tremendous burden on the economy. The nationalisation of Indian banks was expected to give the economy a boost through increased deposits.

FIG.1 CHANGE IN BANKING SECTOR
DUE TO NATIONALISATION & EFFECT
OF LIBERALISATION PRIVATISATION
GLOBALISATION



Source: RBI

POSITIVE EFFECTS OF NATIONALISATION

One of the most important developments in the history of Indian banks was their nationalisation. The economy profited from nationalisation in the following ways:

Increased Savings: The opening of new branches resulted in a significant increase in savings. Gross domestic savings nearly doubled in the 1970s as the national income increased.

Increased Responsibility: Banks' efficiency increased as a result of the increased accountability. Additionally, it improved public trust.

Empowering SSIs: As a result of the boost given to SSIs, the economy as a whole improved proportionately.

Financial Inclusion: The Indian economy and the banking sector's overall statistics showed a noticeable improvement in financial inclusion.

Greater coverage: Branches were established, in the

most remote areas of the nation.

An unprecedented rise in public deposits: Small businesses, agriculture and the export sector all grew as a result of banks' expanded networks. Public deposits also rose proportionately along with this rise.

The Green Revolution was given a boost in the economy, making it one of the top priorities on the Government's agenda. This was made possible by the assistance that the newly nationalised banks gave to the agricultural sector.

THE FLIP SIDE OF NATIONALISATION

Socio-economic Challenges:

Banks were unable to provide the necessary assistance to end poverty or to finance the foundational layers of society. It was especially so in rural India.

Competition with Private Banks

Public sector banks were never able to outperform private banks in terms of performance, despite Government support and additional impetus brought on by a rise in deposits.

Failure to Achieve Financial Inclusion

Financial inclusion was unsuccessful despite being the main goal of nationalising the banks. It was not sufficiently supported.

Need of Privatization in Current Scenario:

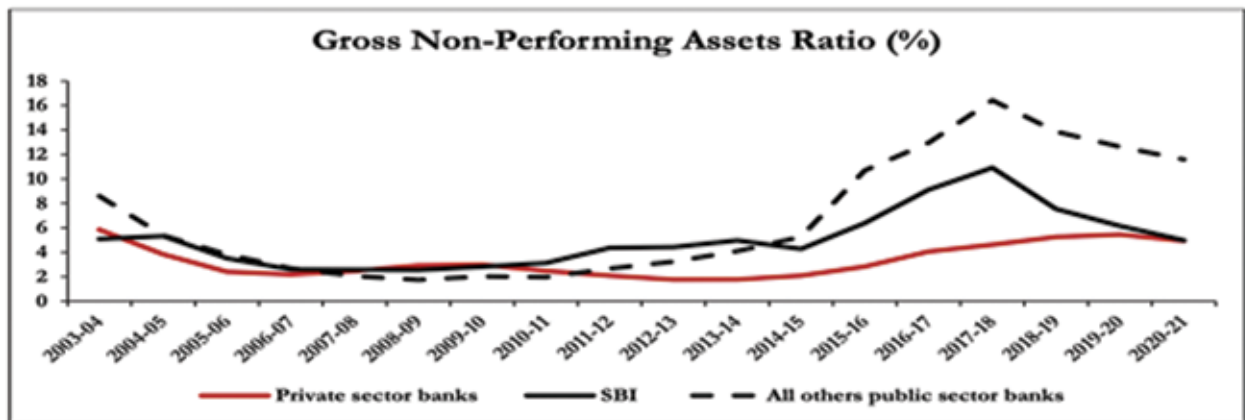
From above study we can significantly establish the fact that Nationalization of Bank has more or less achieved its objective of safety of public money, improving deposit etc. however over passage of time the PSBs has developed some perennial issues, which has lead the govt. to modify its strategy and march towards privatization of PSBs.

MAIN PROBLEMS WITH PUBLIC SECTOR BANKS

Non-Performing Assets (NPA)

Non-performing assets (NPAs) are loans that the borrower fails to repay to the bank and high levels of NPAs lower a bank's profitability. Furthermore, most PSBs are unable to maintain the stipulated capital adequacy ratio. Numerous PSBs had to be placed under Prompt Corrective Action (PCA) by which the RBI had to impose limits on the banks. Such PSBs were also required to raise their financial performance requirements before being allowed to resume normal banking activities.

Gross NPAs as a Proportion of Gross Advances: 2003-04 to 2020-21

**Rural Branches bleeding**

Because of high administrative costs and the ineffectiveness of financial inclusion, majority of rural branches are operating at a loss.

Bureaucratisation

The ability of banks to function effectively has been hindered by bureaucracy, protracted delays and lack of initiative.

Financial Burden to Government

The Government is struggling financially as a result of operational

inefficiency. Consequently, they seek to lessen the financial burden by selling PSBs to the private sector in order to make them more efficient and profitable under private control.

PERFORMANCE OF PRIVATE SECTOR BANKS**Efficient**

Private sector banks (PVBs) are far more productive

Lesser Amount of NPA

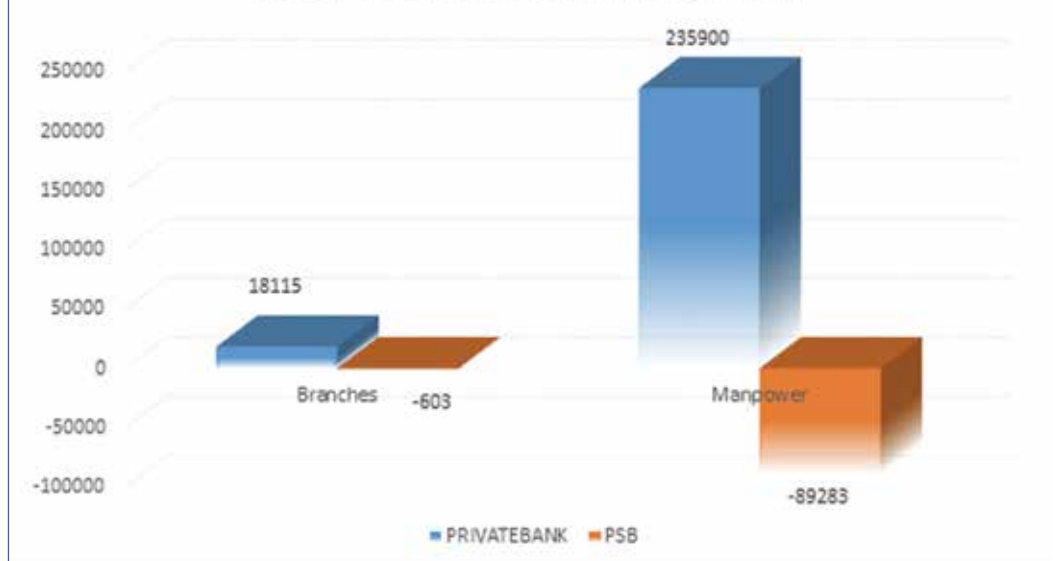
PVBs are less burdened with gross NPAs.

Enhanced Banking Facilities

PVBs provide significant contribution towards deposits from savings

Increase in Branches leads to Jobs creation

While the public sector banks experienced reduction on both categories, the private banks added more branches and jobs.

BRANCHES & EMPLOYEE ADDED DURING LAST FIVE YEAR TILL 2021-22

Because of high administrative costs and the ineffectiveness of financial inclusion, majority of rural branches are operating at a loss

Higher Market Capitalisation

In 2020, the Economic Survey examined the nationalisation of banks and discovered that each rupee invested by the taxpayer in PSBs only generates a market value of 71 paisa. This is known as market to book ratio. In contrast, each rupee invested in new private sector bank is worth Rs 3.70 in the open market. To put it in another way, private banks offer five times more value as compared to PSBs.

WHO IS MORE EFFICIENT Financial Inclusion

In order to give every household access to at least one basic banking account and all banking services, the Pradhan Mantri Jan Dhan Yojana (PMJDY) initiative was conceived. Public sector banks provide services to 36.2 crore beneficiaries in total as compared to just 1.3 crore beneficiaries of PVBs.

Operating Efficiency

The efficiency of PVBs has consistently been better than that of public sector banks when profit maximisation is the only consideration. However, PSBs outperform PVBs when the goal function is modified to include financial inclusion, such as agricultural advances, total branches and PSL advances

Relevance in Economy

Understanding the importance of banking requires being aware of whether banks lend when borrowers need the money the most. Therefore, the vast majority of loans for infrastructure financing are by PSBs.

CONCLUSION & WAY FORWARD

In the light of the foregoing, we can draw the conclusion that it is time to revamp our PSBs' operations, but it should not be done at the expense of economic reforms. Privatisation cannot be presumed as a cure-all for all ills.

The sudden approach of privatising public sector banks may be more detrimental than beneficial because the fallout could result in the vulnerable population losing access to financial inclusion and other associated services.

Govt. may look for curated approach of privatization, where it

may have two to three large public sector banks. Govt. should also regulate private sector banks through RBI or any other statutory body, so that history of pre-independence era does not repeat. Both private sector banks and public sector banks should work in such a cohesive approach that it leads to betterment of the economy in terms of development, social inclusiveness and value creation. Thus, privatisation of PSBs is a strategy which is neither a boon nor bane. Like any other strategy it is the need of the hour, depending upon the current state of the economy and status of PSBs. However, caution must be exercised while implementing the strategy, to avoid the ill effects of private banks. **MA**

References:

1. <https://community.jupiter.money/t/the-evolution-of-banking-in-india-jupiter/3180>
2. <https://www.tutorialspoint.com/banking-and-its-types>
3. <https://www.drishtiias.com/daily-updates/daily-news-analysis/privatisation-of-public-sector-banks-1>
4. <https://www.rbi.org.in/>

CONGRATULATIONS



Our heartiest congratulations to CMA (Dr.) Niranjana Mahendranath Shastri, on being honored with Teaching Excellence – Influential Lecturer 2022 (Global Champion) by AICPA & CIMA.

CMA Niranjana Mahendranath Shastri won the top class Global Championship as Most Influential Lecturer in Teaching Excellence Category competing with over 650 applications across the world.

He believes that innovative pedagogy, digital learning interventions, outstanding assessment techniques, peer appreciation, alumni applaud, industry connections, management's views and his own commitment towards lifelong learning has contributed a lot in award winning.

We wish CMA Niranjana Mahendranath Shastri, the very best for all his future endeavours.

BANKING IN METAVERSE OPPORTUNITIES AND CHALLENGES

Abstract

Digital revolution over the last two decades transformed the banking industry on many fronts. While it provided banks with a better system to offer its services over the internet in a seamless cost-effective mode, it also resulted in an emotional disconnect between banks and the customers. This, at times, can be quite costly for banks attempting to retain their customers. Banking in metaverse can provide an effective solution to this problem. In addition, it may further bring limitless opportunities that can improve banks' bottom-line significantly. The present article attempts to explore those opportunities of banking in metaverse. It also prescribes strategies for banks to succeed in metaverse along with highlighting the challenges they need to overcome.

1. INTRODUCTION

Technology has always been the greatest enabler for the banking and financial services industry to grow in depth and breadth. Digitization and digitalization have completely transformed the banking industry in terms of efficiency and effectiveness. However, in the context of waning of Web 2.0 and the advent of Web 3.0, the banking industry is at the verge of yet another transformation in form, banking in metaverse, which promises to offer limitless opportunities for the banks.

2. METAVERSE – MEANING

Metaverse is “a network of shared, immersive virtual worlds where people can connect with friends, create and play games, work and shop” (Hal Koss, 2022). It is “a simulated digital environment that uses augmented reality (AR), virtual reality (VR), and blockchain, along with concepts from social media, to create spaces for rich user interaction mimicking the real world” (XR Today, 2022). It is a “seamless convergence of our physical and digital lives, creating a unified, virtual community where we can work, play, relax, transact and socialize” (J.P. Morgan, n.d.). In short, it is a technology-driven cyberspace where one can interact with others and explore various resources and services by means of his user-controlled digital self, known as “avatar”.

3. ORIGIN OF THE TERM ‘METAVERSE’

The origin of the term “metaverse”, a portmanteau of ‘meta’



CMA (Dr.) Swapan Sarkar

Associate Professor

Department of Commerce

University of Calcutta, Kolkata

swapansarkar22@gmail.com

and ‘universe’, can be traced back to 1992 when the famous science-fiction writer, Neal Stephenson first coined the term in his sci-fi novel, Snow Crash. In the novel, “metaverse” was described as a virtual reality-based world where people might use their “avatars” to roam around and explore the digital world free from dystopian reality. It was envisioned by the author as the successor of internet.

4. THE TECHNOLOGY BEHIND METAVERSE

To convert Stephenson’s concept of “metaverse” into a reality, technology played the biggest role. Following are the key technologies that have contributed immensely in creating and shaping the metaverse.

- a. **Blockchain:** Blockchain, as a technology, plays the pivotal role in the metaverse. This is because, applications or services in the metaverse run on the blockchain. This brings the highest degree of transparency and data privacy. Blockchain technology integrates several functions in the metaverse including digital ownership authentication, transactions in assets, “accessibility and interoperability” (Ayushi Abrol, 2022).
- b. **Cryptocurrency:** It is the primary medium of exchange in the metaverse. Users need to convert physical currencies into cryptocurrencies in order to purchase NFTs (Non-Fungible Tokens), and digital real estates as well as to perform in-game purchases.
- c. **Augmented Reality and Virtual Reality:** The VR technology helps users to watch 3D simulations. On the other hand, AR technology enables users to experience things by creating physical simulations. It helps users to hear, feel and interact with the metaverse.
- d. **Artificial Intelligence:** This technology helps to bring in the immersive experience in the metaverse. It makes possible faster computing, decision making and enabling smoother user experience. It is also used for non-player characters in various games and services

in the metaverse.

- e. **3D Reconstruction:** This technology uses special 3D cameras and other reconstruction technologies to create life-like models.
- f. **Internet of Things (IoT):** This technology connects elements from real world with internet through devices and sensors and helps collect user information. The information collected through devices may be used by AI and machine learning to better optimize the metaverse environment and thus ensure better user experience.
- g. **Edge Computing and 5G:** Edge computing “facilitates faster data transfer with fewer delays” (Ayushi Abrol, 2022). Thus, computers are able to handle intense simulations with efficiency. This reduces lag and an immersive experience is guaranteed in the metaverse. 5G technology has the potential to make use of the metaverse more cost effective.

5. POPULAR METAVERSE PLATFORMS

Following is a list of popular metaverse platforms.

- a. Decentraland (MANA)
- b. The Sandbox (SAND)
- c. GALA
- d. AXIE Infinity (AXS)
- e. Metahero (HERO)
- f. Celebrity Atlas (ATLAS)
- g. Enjin Coin (ENJ)
- h. Cryptovoxels (CVPA)
- i. High Street (HIGH)
- j. Bloktopia

6. HOW CAN ONE ACCESS METAVERSE?

The system requirements for accessing metaverse significantly varies from platform to platform. One can access a gaming metaverse as a guest user with a simple computer or smartphone. However, in order to truly participate in gaming, the user requires a computer optimized for serious gaming and also a crypto wallet to support in-game purchases. For example, Decentraland requires participants (not guests) to link their crypt wallet. Sandbox requires a MetaMask crypto wallet. Platforms such as Meta’s Horizon series further requires a VR headset to experience the 3D video simulations. Metaverse

resources are accessed through a user-controlled “avatar”.

7. METAVERSE IN WEB 3.0

In Web 3.0, the metaverse is likely to mature further by offering a more innovative and organized approach in its activities. Following are some relevant features in this respect.

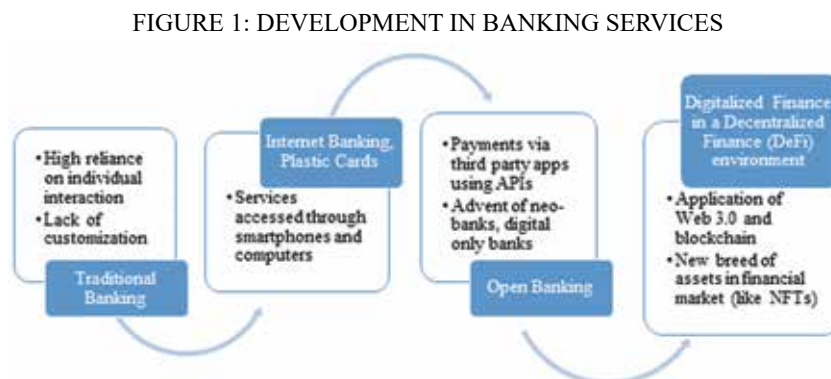
TABLE 1: CHARACTERISTICS OF METAVERSE IN WEB 3.0

Issues	Metaverse Characteristics
Structure of Organizations	- Organizations will be governed by community, say, through an Autonomous Decentralized Organization. - Participation in governance will require subscribing native tokens of the firm.
Storage of data	Decentralized
Technology to access	Personal Computers, AR, VR devices, smartphones
Payment and Settlements	Cryptocurrency wallets (native or shared)
Ownership of digital assets	Ownership through Non-Fungible Tokens (NFTs)
Portability of digital assets	Assets will be transferable
Content creation	By user community and developers
Services to be offered	Pay to earn games, socialisation, accessing financial services, experience.
Participation identity	Self-sovereign and interoperable identity (avatar)
Payment medium	Cryptocurrencies
Revenue	P2P sale of contents, games, royalties on secondary sale of NFTs

(Source: Author’s Compilation)

8. BANKING IN METAVERSE: THE OPPORTUNITIES

During the last two decades, banking services have been revolutionized due to the adoption of information technology. The transformation was achieved in a number of phases as follows:



Technology led digital revolution has made delivery of banking services cost effective while making it affordable for the users as well. Faster pace of internet penetration and increasing usage of smartphones have ensured ease of use. Today, a customer of a bank can perform a simple transaction like utility bill payment to a much-complicated process of issuing a bank draft or apply for a loan just by a few clicks of the mouse. They don't even need to visit the physical branch once for loan processing. Everything is being taken care of digitally. Unfortunately, this entire digital process is also devoid of an important element – the human touch. Today, banks are more emotionally detached from their customers. Now, how can banking in the metaverse be of any help in this regard?

- a. Metaverse can revolutionize the banking experience for customers. In the metaverse, banks can open their virtual branches where a customer can visit in form of his digital self-i.e., avatar and avail services. He can conveniently discuss his investment plans with an avatar investment advisor or attend a virtual investor meet organized by the bank. He can simply visit the nearest virtual ATM and transfer money to his virtual wallet and go to a virtual mall to buy some virtual assets. Banks can further ensure inclusion and diversity by assigning every customer a virtual assistant who shares his cultural and ethnic background. All these increase the sense of emotional connection, improve the relationship and ultimately help in customer retention with improved bottom line. Metaverse has the potential that can enable banks “to rebuild community and reignite conversation with clients”(Avanade, n.d.). It may create a new way of “engagement and identities that necessitate banks establishing very different forms of client

interaction and supporting processes” (Avanade, n.d.) which may ultimately end up “delivering the level of personalized service and deep emotional engagement that characterized branch banking in the pre-digital era”(Avanade, n.d.).

- b. In addition to the above, banking in the metaverse may offer a host of new opportunities in the revamped cyberspace. Banks can innovate in products like digital payments for transactions in digital assets like NFT and cryptocurrencies and digital twin (i.e., a virtual model designed to mirror real-world existence). This will definitely open new sources of revenue for the banks.
- c. Metaverse may create new pathways for wealth creation by means of selling digital contents/assets in form of NFTs. Banks can not only facilitate such a process but may also provide security and custodian services for digital assets and thereby earn revenue.
- d. Banks can also use the metaverse to train their employees. VR simulations of various customer interactions may help a lot in this regard. Such training programs will be more effective and economical as well.
- e. Another important factor for banks to explore the metaverse is the need for branding. The tech-savvy Gen Z is becoming increasingly attached to the metaverse. Thus, it is necessary for the banks also to remain accessible to them in the metaverse. The metaverse is going to be the next logical place where banks can find new customers.

The above opportunities are certainly not exhaustive. There is lot more potential of metaverse for innovative uses which may benefit banks in future.

9. ADOPTION OF METAVERSE BANKING BY INDUSTRY PEERS

Realizing the unlimited potential of banking in the metaverse, industry peers have already shown interest in adopting metaverse banking in many countries worldwide. Following are some use cases in this regard.

Enhancing customer experience:

In South Korea, the Kookmin Bank has launched its virtual bank where interaction is possible between the customer's avatar and the bank representative's avatar. Citi has built a virtual workstation that allows traders to view data as 3D images by using MS HoloLens holographic headset. BNP Paribas has developed a VR based app that lets its customers do banking transactions and see records in the virtual reality mode. The digital only bank, imagin, backed by CaixaBank has built imaginLand, its own metaverse.

Trading in digital real estate:

HSBC has acquired a plot of virtual real estate in Sandbox metaverse which will be developed to interact with e-sports and gaming fans. Standard Chartered has acquired a plot of land in Sandbox's Mega City district. JP Morgan Bank has opened a virtual lounge, named Onyx Lounge, in Decentraland. Siam Commercial Bank has built its headquarters in Sandbox metaverse.

Digital Asset Protection:

Mercobank, a leading digital bank from Sweden has announced its plan to enter the NFT market. The bank is also piloting a digital asset custody service. Commerzbank from Germany has filed an application to Bafin for a local crypto license for the safekeeping of crypto assets.

Employee Training Simulation:

Bank of America has launched a virtual reality training program for its 4300 financial centers. The immersive technology allows its 50000 employees to train themselves in a risk-free environment through simulated customer service scenarios.

In India, Union Bank of India has launched its virtual lounge called Uni-Verse. In this virtual lounge, the

In the metaverse, banks can open their virtual branches where a customer can visit in form of his digital self

customers can choose their *avatar* and enter the lounge to explore bank's products and schemes. The service can be accessed from a PC or Laptop only. India's Kia.ai has developed its metaverse, Kiyaverse, meant for metaverse banking only.

10. STRATEGY TO SUCCEED IN METAVERSE BANKING

To succeed in this new frontier, banks need to carefully craft their strategies to ensure affordability of services, enhanced emotional connectivity and agility to adapt change with capabilities to innovate further. The following six strategies may help banks in this direction.

- a. **Ensure creative customer engagement:** Banks must ensure that the metaverse experience is something unique for the customers which will bridge the gap between a physical visit in the branch and various modes of internet banking. Ensuring interactive experience should be given utmost priority.
- b. **Develop New Products:** Banks must try to develop new products that will facilitate activities in metaverse. For example, loading money in crypto wallet, loan against crypto assets, creating digital twin for an asset, VR recreation of home in a real estate purchase etc.
- c. **Be ready to adopt technology changes:** The metaverse will require adoption of new technology continuously to improve the user experience. Banks must also be agile

enough to adopt the changes.

- d. **Identify low-cost low-risk avenues:** To remain cost effective, banks must look for the low-cost alternatives without sacrificing on the quality front. They must also ensure a safe banking experience for the customers.
- e. **Attract talents to suit the innovations:** Banking in metaverse will require banks to attract create a pool of employees who will assume new roles "including 3D artists, game designers, platform experts, cryptocurrency specialists and professionals with expertise in multiple blockchains"(Avanade, n.d.).
- f. **Marketing and branding:** Banks must also conduct "personalized and experiential campaign for metaverse placement"(Avanade, n.d.).

11. THE CHALLENGES BEFORE BANKING IN THE METAVERSE

Though banking in the metaverse offers immense opportunities, there are some challenges that banks need to work on.

- a. **Security Issues:** Users may face various security issues while using banking services in the metaverse. They are:
 - i. **Identity theft:** Criminals may use their avatars to represent someone else to utilize their credit. They may pose as another to defame him/her. They may even blackmail the original user after hacking his/her identity.
 - ii. **Theft of biometric and other data:** Banks may collect the biometric data to authenticate someone in the metaverse. Such recorded biometric data may also be misused by hackers to steal someone's identity in the real world.

The possibility of theft of other user data cannot also be ruled out completely.

- iii. **Secure payment system:** There must be a secure payment system to carry out transactions and the same should be further customized for metaverse to prevent financial frauds. One option available is to conduct transactions in crypto currencies. Unfortunately, there are legal restrictions on using crypto currencies in many countries like India. An alternative may be an internationally acceptable CBDC (Central Bank Digital Currency).
- b. **Interoperability Issues:** There must be interoperability among all the virtual realms (metaverses) to ensure effectiveness in financial services in the metaverse. This also includes "accessibility issues for entering into the metaverse through various portals and devices, from browsers, mobile applications, computers, laptops, and tablets"(M. Raffi Hasta Anggara et al., 2022).
- c. **Lack of awareness:** Though metaverse has been welcomed by Gen Z, the level of awareness and desire to adopt the same is still at a nascent stage among other users.
- d. **Digital divide:** Banking in the metaverse is truly a technology driven process. Internet and smartphones, use of AR/VR headsets, premium 5G devices are pre-conditions to access metaverse banking. Unfortunately, digital divide is still a reality in many countries. This poses a stiff challenge in widespread adoption of this new concept.
- e. **Regulations:** A lot more changes are required in the regulatory front before the

banking in the metaverse can run in full swing. Many countries around the world have taken a cautious approach towards the adoption of cryptocurrency. Legal provisions relating to ownership of digital assets and transferability of the same by means of trading in NFTs also need to be sorted out.

12. THE FUTURE OUTLOOK

In spite of the unsolved legal and security issues, banking in the metaverse is something that cannot be ruled out altogether. With the development of technology, the metaverse will evolve further into a persistent 3D environment. The next generation digital technology in a Web 3.0 framework will ensure decentralization of web and development of a “data framework that generates veracity and trust” (Avanade, n.d.). According to Goldman Sachs and Morgan Stanley, the metaverse economy will offer “\$8 trillion opportunity on the

revenue and monetization side” (Kevin Helms, 2022). Citi predicts it to be worth of \$8 to \$13 trillion with 5 billion users by 2030. Given the size of opportunities, metaverse is going to be the next frontier for banks and financial institutions. The only thing required from the banks is to adopt an innovative and cautious approach towards the same. **MA**

BIBLIOGRAPHY

1. *Avanade. (n.d.). Working in the metaverse: How banks can create value.*
2. *Ayushi Abrol. (2022, September 15). 7 Key Technologies That Are Powering The Metaverse. <https://www.blockchain-council.org/metaverse/technologies-powering-metaverse/#:~:text=AR%20%26%20VR,dimensional%20environments%20for%20the%20metaverse>.*
3. *Hal Koss. (2022, October 6). What is the Metaverse,*

Really? Builtin.

4. *J.P. Morgan. (n.d.). Opportunities in the metaverse.*
5. *Kevin Helms. (2022, January 24). Goldman Sachs Sees the Metaverse as \$8 Trillion Opportunity. Metaverse.*
6. *M. Raffi Hasta Anggara, M. Reihan Davie, Mahanani Margani, Made Ayu Aristyana D, & Mahdiah Aulia. (2022). The Presence Of Commercial Banks In Metaverse's Financial Ecosystem: Opportunities And Risks. Journal of Central Banking Law and Institutions, 1(3), 405–430.*
7. *XR Today. (2022, January 10). Metaverse Meaning – What is this New World Everyone's Talking About? XR Today*



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

- *8th Batch of Certificate Course on Credit Management of Banks &
- *8th Batch of Certificate Course on Concurrent Audit of Banks and
- *6th Batch of Certificate Course on Treasury and International Banking

*Enrolment for expression of interest for the BFSI Courses: https://icmai.in/Banking_Insurance/Courses.php
Admission Link: <https://eicmai.in/advsc/Home.aspx>

Please login to the BFSI portal for further details.
The Link is stated as follows: https://icmai.in/Banking_Insurance/

For details please call the department:

CMA Dibbendu Roy
Additional Director
96434 43047 / 83686 93781

Shri Bhavesh Kumar Sinha
Deputy Director
9874405052

Please email to bfsi@icmai.in for any queries

EXPLORING THE POTENTIALS OF SMART DATA ANALYTICS IN THE BANKING INDUSTRY

Abstract

The Indian banking industry is undergoing significant changes due to advancements in technology and increasing adoption of smart data analytics. One of the key trends driving the industry's future is the increasing digitization of banking services, facilitated by the growth of digital payments and mobile banking. The use of digital payments has resulted in the collection of large volume of data on customer behavior and preferences, which is being used by banks to assess their credit worthiness and manage the risk. The Government has introduced initiatives to encourage digital payments and the Covid-19 pandemic has further accelerated the adoption of digital banking services and data explosion.

GROWTH OF DIGITAL BANKING AND DATA EXPLOSION

The Indian banking industry is currently undergoing significant changes, driven by advancements in technology and increasing adoption of smart data analytics. One of the key trends driving the future of the Indian banking industry is the increasing digitization of banking services.

The JAM trinity refers to the Jan Dhan, Aadhaar, and Mobile initiatives in India, which have facilitated the growth of digital payments in the country which has led to big data collection. There are over 131 crore Aadhaar card holders and the direct benefit transfer (DBT) system has been used to facilitate digital payments through the Aadhaar payment bridge system (APBS). This has also led to significant growth in the use of the business correspondent model for facilitating digital payments using micro-ATMs. Additionally, the increase in mobile phone usage in the country, with over 114 crore mobile users and 84 crore smartphone users, has facilitated the use of technology-driven platforms for mobile banking, mobile wallets, and USSD and UPI-based payments (TRAI, 2022). With the rise of mobile banking and online payment platforms, more and more customers are choosing to conduct their banking transactions digitally. The Government has also taken many initiatives to encourage digital payments, including cashback schemes, discounts, and rewards. Additionally, the Government has launched the UPI 2.0 platform to facilitate faster and more secure digital payments. According to a report published by the Reserve Bank of India (RBI) in 2020, the number of mobile banking transactions in India increased from 63.5 million in March 2018 to 227.4 million in March 2020. This represents a growth of 259 per cent in just two years. The



Dr. Meraj Inamdar

Assistant Professor

NISM, Mumbai

meraj.inamdar@nism.ac.in

report also showed that the total value of mobile banking transactions increased from INR 3.7 trillion in March 2018 to INR 16.9 trillion in March 2020, a growth of 354 per cent. Additionally, the number of registered mobile banking users in India increased from 38.9 million in March 2018 to 105.3 million in March 2020, a growth of 170% (RBI, 2020). Demonization and Covid-19 further accelerated the adoption of banking services. This shift towards digital banking has significant implications for the industry, as it enables banks to collect and analyze large volume of data on customer behavior and preferences. Digital payments in India have seen significant growth in recent years. In March 2022, total digital payments increased by 216 per cent in volume and 10 per cent in value when compared to March 2019. During the same period, the use of paper instruments declined significantly, with their share in total retail payments falling from 3.83 per cent to 0.88 per cent in terms of volume and from 19.62 per cent to 11.47 per cent in terms of value. Among digital payments, UPI, IMPS, and PPI (prepaid payment instrument) transactions registered a compounded annual growth rate (CAGR) of 104, 39, and 13 per cent, respectively, during this period. However, debit card transactions at point-of-sale terminals decreased by a CAGR of 3.7 per cent, largely due to lockdown restrictions imposed during the pandemic.

CREDIT SCORES AND ADVANCE ANALYTICS

Data and credit ratings are important factors in the banking industry, particularly when it comes to managing the risks associated with lending. Banks use various types of data, including financial data, payment history, length of credit history, type of credit, repayment duration, number of defaults and customer behaviour data, to assess the credit worthiness of potential borrowers and determine the appropriate level of credit to extend. This helps banks minimize the risk of non-performing assets (NPAs), or loans that are not repaid on time. Credit rating agencies use various methodologies to assess the credit worthiness of borrowers and assign credit ratings. These methodologies typically take into account a range of financial and non-financial factors, including a borrower's financial health, business model, industry trends, and management

team. In recent years, there have been a number of developments in credit rating methodology, as agencies have sought to improve the accuracy and reliability of their ratings. These developments include the use of advanced analytics and machine learning techniques to better understand and predict credit risk. *The K nearest neighbor (KNN) algorithm is a popular machine learning technique used in credit scoring. The KNN algorithm works by finding the “k” closest data points to a given data point, and using those data points to make a prediction about the given data point. In the context of credit scoring, the KNN algorithm might be used to predict the likelihood that a potential borrower will repay their loan on time.* By analysing the credit history and financial data of similar borrowers, the KNN algorithm can provide a more accurate and personalized assessment of a borrower's credit worthiness. In addition, some agencies have begun to incorporate environmental, social, and governance (ESG) factors into their ratings, in order to take into account a borrower's impact on society and the environment.

MAPPING CREDIT WORTHINESS

In banking industry, credit card transactions and GPS locations which can be map through online or mobile transactions are considered to be more meaningful than tweets or Facebook status updates for a couple of reasons.

First, credit card transactions provide information about a person's spending habits and financial behaviour. This information is valuable for assessing a person's credit worthiness and determining their ability to repay loans or credit card debts. GPS locations, on the other hand, can provide information about a person's physical location and movements. This can be useful for tracking fraud or verifying a person's identity.

Second, *credit card transactions and GPS locations are more reliable and accurate sources of information than tweets or Facebook status updates. This is because tweets and Facebook posts are often unverified and can be easily manipulated or falsified. In contrast, credit card transactions and GPS locations are typically backed by*

concrete, verifiable data that can be used to accurately assess a person's financial behavior or credit worthiness.

RECENT TRENDS IN DATA ANALYSIS METHODOLOGY

Smart data analytics is emerging as a key tool for banks to make sense of this data and gain valuable insights. By using advanced algorithms and machine learning techniques, banks can gain a deeper understanding of their customers' needs and preferences and develop more personalized and effective products and services.

Following are the trends in data analysis methodology in banking data :

Data Mining: Banks use data mining techniques to analyse customer data and identify patterns and trends in customer behaviour. This helps banks better understand the customer needs and preferences.

Predictive Analytics: Banks use predictive analytics to forecast customer behaviour and understand how different scenarios may impact the bank's performance.

Machine Learning: Banks use machine learning algorithms to automate processes and make better decisions. This helps banks increase efficiency and reduce costs. Machine learning is being used in a variety of applications, including fraud detection, credit risk assessment, customer segmentation and marketing campaigns. Some common machine learning tools and techniques used in the banking industry include natural language processing (NLP) to better understand customer queries and provide more efficient customer service. This helps banks improve customer satisfaction. NLP can be used to automatically classify and analyze customer feedback and complaints.

CHALLENGES WITH BANKING DATA

There are several challenges associated with banking data analysis. These are outlined hereunder.

Data quality: Ensuring the quality and accuracy of the data is a crucial challenge in banking data analysis. Poor quality data can lead to incorrect insights and decision-making, which can have significant negative impacts

on the bank.

Data privacy and security: Banking data often contains sensitive personal and financial information, which must be protected from unauthorized access and misuse. Ensuring the security of this data is a major challenge in banking data analysis.

Data integration: Banks often have multiple systems and sources of data, which can be difficult to integrate and analyse. This can make it challenging to gain a comprehensive and accurate view of the data.

Data complexity: The large volume of data generated by the banking industry can be complex and difficult to analyse. This can make it challenging to extract valuable insights and develop effective data-driven strategies.

Data governance: Effective data governance is essential for successful banking data analysis. This involves establishing clear policies, procedures, and processes for managing and using the data, as well as ensuring compliance with relevant laws and regulations.

Overall, these challenges highlight the need for effective data management and analysis capabilities in the banking industry. By addressing these challenges, banks can better leverage the value of their data to support decision-making and drive business growth.

CONCLUSION

The future of the Indian banking industry is likely to be characterized by increasing digitization and adoption of smart data analytics. This will enable banks to gain a deeper understanding of their customers and develop more personalized and sustainable products and services. Smart data analytics will play a crucial role in driving the evolution of the Indian banking industry and ensuring its continued success. **MA**

References:

1. RBI (2020). *Trends and Progress of Banking in India 2019-20*. Reserve Bank of India. https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/TPBI20200628_1.pdf
2. Telecom Regulatory Authority of India (TRAI, 2022). "Press Release: Telecom Subscription Data as on 31st March, 2022" Retrieved from https://traigov.in/sites/default/files/PR_No.72of2022_0.pdf

METAMORPHOSIS TOWARDS METAVERSE BANKING

Abstract

Global digitization precipitously booming all over and at such instant, theme of catalyzing new India's Techade is no less than an avowal for new digital transformation. With the existing pace, 21st century may discernibly comply for digital revolution in its initial rung. Sectors that strive to tide with technological innovations, especially auxiliaries, are prophesying vast transition. Traditional yesteryears banking in the midst of its transformation into online banking have already proclaimed for its metamorphosis into Metaverse.

Coined in 1992, Metaverse is still experimental, crawling ploddingly. Traditional banking has paved a long way to serve on online mode, metaverse would have to be really proven challenging. In fact, it has become a social natter soon after Facebook named itself Meta. Consequently, many national and global giants are after it in order to adopt and be pioneer in this new technology.

Indian banks like Union Bank of India, HSBC, JP Morgan and others have already marched in their process to serve new virtual avtaars to their customers. Switching from two-dimensional to three or rather four-dimensional mode require entire switchover of infrastructure, team proficiency, regulated legislations, security policies etc.

This article endeavours to appraise present exertions and future prospects in the context, where the use of technology is still uncommon for the common world. It provides a conceptual framework of metaverse banking and eventually emphasises on financial assessment and proper cost-benefit analysis of next-gen banking.



CMA (Dr.) Kailash Kalyani

Admin & Accounts Section

Directorate General of Mines Safety

Nagpur

kailashkalyani81@gmail.com

humans to virtual world of extended reality. Metaverse implies an immersive three dimensional virtual realm platform which utilizes extended reality to interact through digital *avtaars*. It provides a virtual environment which resembles real world by way of advanced technology. Using AI, this Web3.0 technology trades on digital currencies and relies on cloud computing. It proposes XR platform enabling users to enter into a cybernetic environment like Decentraland, Sandbox, Bloktopia etc. When it comes to banking, it facilitates customize *avtaars* to offer a variety of financial services. Metaverse banking provides virtual bank environment to customers and employees to interact through digital *avtaars*. Customers would get real feel of visiting a physical bank and availing banking services by virtue of extended reality. It utilizes holographic and immersive gadgets and steps much ahead of online banking to enable customers to enter into a virtual world of reality.

Computer simulated milieu enable swapping between virtual and realities for users and may supplant cloud with edge. It may tie virtual and augmented reality through artificial intelligence to build a virtual bank where the users can enter through HCI devices.

Gaming experiences at many stages has endowed enough conviction to use this technology offering financial services. In banking, it may perhaps be done through bedrock of blockchain technology, where NFT may be the blockchain asset class. NFT on crypto currency like Nexus (NXS) uses a blockchain ledger to handle security threats. Digital currency would expectedly be most influenced in this probabilistic moniker. Under such circumstances, setting up of geographical barriers would also become challenging. Metaverse opens new areas of services like dealing in crypto. It may add-on the existing range of banking services also. It may diversify its segment market to enter the banking concerns into multiplex financial institutions. Companies may tend to include non-financial services to bind the customers under its roof.

At present, several banks are already on shoreline to sense the customers' learning experiences. Playoff seems to have been started perhaps through series of testing modules before

CONCEPTUAL FRAMEWORK

While coining the term 'Metaverse' in 1992, Neal Stephenson would never have thought that one day it would have become a futuristic immersive technology to take

the buzzword becomes ultimate practice. Customers need to be accustomed to utilize the services through Metaverse and existing essential requisites would be to provide comfort ambiance. Metaverse banking WIP is thus initiating in a phase wise manner.

Associated Terms

Artificial Intelligence	Simulation of human intelligence in machines with cognitive skills
Augmented reality	Use of sounds and graphics onto real environment
Avtaar	An electronic digital image represents person
Bitcoin	Decentralized digital crypto currency
Blockchain	Digitally distributed decentralized immutable ledger across network
Crypto currency	Digital currency using cryptography used as medium of exchange through computers
Crypto wallet	Wallet to store crypto currencies
Cyber space	Digital space navigable in virtual world
Digital twin	Virtual object appears real in metaverse
Extended reality	Interacts VR, AR & MR to experience real & virtual environment
Non Fungible Token (NFT)	Cryptographic unique digital identifier or asset on blockchain that cannot be copied, substituted or subdivided
Satoshi	Smallest unit of Bitcoin
Token	Digital denomination of crypto currency
Virtual reality	360° view in virtual world
Virtual world	Simulation of real world through technology
Web3	Decentralized next generation of internet

EXISTING ENDEAVOURS

Metaverse has been an emerging opportunity for the global market giants. Companies have been striving through years to develop each block of this technology, progressively tasting their own performances in gaming and entertainment. It has been advanced to utilize it in social effects and shopping segments.

Meta, Microsoft, Google, Nvidia are few of the technogiants who have already intuited huge future. When one talks of metaverse today, it is very hard to ignore Decentraland and Sandbox playing the pioneer roles. Decentraland offers virtual platform for games, concerts and other activities through MANA tokens while Sandbox acts as paradigm for gamers, designers through SAND

tokens. Further, CRNO tokens by Chronoly.io provide to get luxury watch apart from usual transactions.

Leading Segments	Leading Metaverse Platforms
Games	The Sandbox (SAND)
Banking	Decentraland (MANA)
Marketing	GALA (GALA)
Social Media	Metahero (HERO)
E Commerce	Cryptovoxels (CVPA)
Real Estate	Celebrity Atlas (ATLAS)
App development	Somnium Space
Virtual office	
Healthcare	
Fashion world	
Education	
Marketing	
Advertisement	

Substantial endeavours are perceived in copious domains. Focused tech giants like Amakuni, The Mars, Niantic, Nvidia, Roblox, Epic, Microsoft have shown remarkable efforts in gaming and entertainment. Axie Infinity, League of Legends, Minecraft, Fortnite, Brookhaven, Pokeman & many games are quite popular. Loka, OneRare, Raji show Indian exertions towards successful vie. 3D engine of Unity covers a major pie of gaming market.

It acts more than a virtual gaming platform. It allows users to work and shop, where NFTs are igniting high. It shows prominence prospect in investment, acquisition, construction, architecture and other real estate businesses. Blockchain-based companies offer virtual lands with NFTs. The development process of virtual and real lands is quite similar. Virtual currencies can anytime be encashed into real.

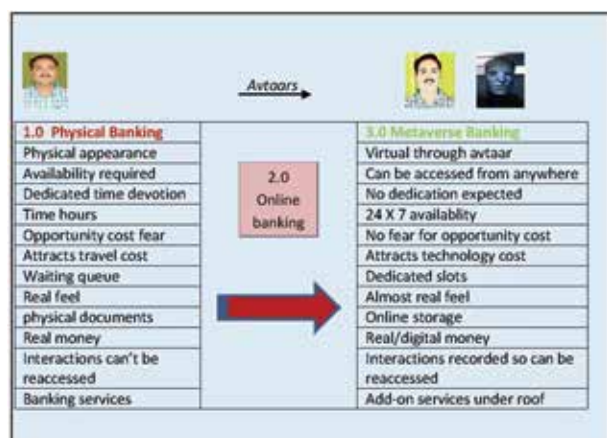
Metaverse lets one to feel almost the reality. Meta Dubai offers virtual appearance of Dubai. Acura of Decentraland acts as first automaker to provide virtual car showroom. Indian tech companies like Infosys, Capgemini, Accenture, Tech Mahindra, Fingent, Deloitte, TCS seem quite eventful in metaverse development. Abbreviating Universe, 'verse' in 'Metaverse' has become popularized monikers for many prospective companies.

Metaverse	Companies	Metaverse	Companies
Uni-Verse	UBI	HoloLens	Microsoft
Flipverse	Flipkart	Zepeto	Zara
Omniverse	Nvidia	Cryptovoxel	Ethereum
Magicverse	Magic Leap	Second Life	Linden Lab
Snoopverse	Sandbox	Pokeman Go	Niantic

ZionVerse	Zion	Nikeland	Nike
Kiyaverse	Kiya.ai	Amazonmetaworld	Amazon
Rivaaverse	Tanishq		

Cogni and *Quontic* digital banks assure us to steer towards Metaverse banking. Marching into NFT market, Mercobank asserts Metaverse. Caixa, a bank in Spain offers virtual café. Virtual lounges of *Uni-Verse* (UBI) and *Onyx* (JP Morgan) let user-avatars to sense the new technology. BNB Paribas has begun with development of VR app. Banking companies like HSBC, Siam, Standard Chartered have acquired lands in The Sandbox. Kiyaverse acts a contribution by Kiya.ai. Zelf is quite ambitious to be real neo-bank. Tintra firmly publicizes for the first fully functional Web3 metaverse bank.

The present state could be considered as the first phase of development. It involves dealing in virtual space through NFTs. The customers need more insights to rely on metaverse lands and crypto currencies. Apparently, near future anticipates having 360° digital approach to bank customers and employees to interact in avtaars.



METaverse: THE FUTURE

By 2030, metaverse is expected to address market in trillions. At present, global market assesses its value at more than USD 60 billion. Market expects to escalate swiftly with 40 per cent CAGR. Researches and surveys predict the next frontier will come in multiple forms and would act as game changer for the global economy.

India is perceptive to capture the market with hastening drift; however global acceleration may stride at elevated pace. Recent upgradation in Global Innovation Index (GII) ranking by WIPO to 40th this year against 81st in 2015 has elevated expectations from Digital India to groom in metaverse technology. It is estimated that the country will potentially influence the overall GDP in next decade. Companies take it as the beginning of the countdown to explore novel world. With widespread potential, virtual world concept may influence in fashion, shopping, business,

banking, advertisement, marketing, learning and training, concerts, entertainment, marketing, real estate, gaming and socialization etc.

No questions, metaverse will breathe the next technology future. It lets one invest in metaverse tokens and earn money. It enables hosting virtual events, feel luxuries products and let enjoy complex journeys virtually. It also comprises flipping digital assets. Many virtual games popularize as play and earn games. Shopping centres, lounges, meeting rooms at virtual platforms have not yet public in many countries. Banks, still experimental, may like to go parallel with virtual technology for certain period before both the end parties rely on alternate system. Present metaverse is luxury for bank customers and not all can afford it. It is far away from the common hands. At this, full version launch may either be luxuries or may have wide spectrum to capture the universe. Tech giant companies have so far been striving to let sense the customers to be affable with the new technology. Learning curve experiences are pivotal for banks to get yields from metaverse technology.

Learning or commercial mode, financial implications should never be over-sighted. It obligates technology to move on to reach in the hands at affordable cost. Cost of offering services at virtual platform will surely matter. Metaverse necessitates experts from varied streams. The cost of engaging experts, manpower cost, hardware cost, infrastructure cost, data cost, phase-wise development cost, application development cost, maintenance and other costs involved tend to defeat yields. Past journey helps to estimate the cost associated with an entire metaverse bank. Even a petite development platform requires an initial investment of millions. Real estate, social media and online gaming metaverse platforms invest in crores, but feel it profitable venture. It provides ample scope towards saleability of reality devices (like VR, AR, MR) along with growth in its software requirements for building metaverse, technical and financial platforms. Software professionals will be required for new assignments on application development, software maintenance etc. At such instant, banking companies worldwide see no qualms in utilizing such technology in the business. However, banks have to go far in their business to get returns.

The new technology will surely raise the cost of development and upkeep. Companies have to go strategically to reduce the cost of offering usual banking services as for low and mid-level transactions, the involved cost would apparently matter. Therefore unless the services are not extended for high level transactions with add-ons, metaverse would prove to be a costly affair. However,

superfluous cost can surely be compensated. The enhanced use of metaverse will consequently reduce the cost of procurement, lease out or renting out physical branches, bank offices, ATM and call centres to the maximum extent. Manpower requirements will also get reassessed. The cost of safeguarding the paper money will also have to come down. Metaverse intends performance of hasty transactions through NFTs, crypto currencies and other digital assets. It involves frequent transfers of real and digital currencies which need to handle safeguard issues with cost monitoring.

Statute has to be pioneer in framing intra and international legislations, somewhat like Metalaw to ensure protection from various threats. It may entail amendments in existing laws relating to contract, copyright, intellectual property, tort, defamation, data protection policies etc. The country covets to frame rules and regulations for metaverse, block chain technology, NFTs etc. NFTs have been included in Finance Bill, 2022 under Virtual Digital Asset. Replacing the IT Act, 2000, the upcoming Digital India Act expects to regulate OTT platforms, social media and metaverse technology.

CONCLUSION

The 21st Century technologies are eager to take us in pristine realms and metamorphosis into metaverse would allure us soon. It could be sensed as cost-effective for the areas involving intricate physical participation. Banking business involves a range of services for varied income segments. As the cost involved is to be borne by the ultimate customers, banking should crave circumspect levy of charges for the services. The same expects reduction in technology costs *prima-facie*. Segmentation strategies enable to capture luxury groups, but numbers in customers can be enhanced by market mix strategies to offer basic banking services at minimum possible cost. In fact, banking strategies have to go innovative to build new pathways for business and systemized approach to embrace almost all financial services.

Cost benefit analysis of sumptuous shell of new-fangled banking is quite essential right from its initial stage. Fear to go dearer for the masses may restrain its global applicability; obviously tech giants are endeavouring firmly towards cost reduction.

Believing on what Steve Jobs quoted that *innovation is the ability to see change as an opportunity, not a threat*, metaverse is being reckoned as cultivating opportunity in the next gen banking business by most of the banking companies. So far metamorphosis towards metaverse banking may be considered quite challenging, but must-happen budge in the near future. **MA**

REFERENCES

1. <https://www.wikipedia.org>
2. <https://www.unionbankofindia.co.in/english/uni-verse>.

aspx

3. <https://www.squareyards.com/blog/banking-metaverse>
4. <https://www.techrepublic.com/article/metaverse-what-is-it>
5. <https://zebpay.com/in/blog/banking-in-the-metaverse>
6. <https://bankingblog.accenture.com/ultimate-guide-to-banking-in-the-metaverse>
7. <https://www.legalserviceindia.com/legal/article-8439-metaverse-and-the-law.html>
8. <https://economictimes.indiatimes.com/markets/cryptocurrency/decoded-metaverse-and-the-future-of-banking/articleshow>
9. <https://profinch.com/banking-in-the-metaverse/>
10. <https://www.fortunebusinessinsights.com/metaverse-market-106574>
11. <https://appinventiv.com>
12. <https://www.aba.com/-/media/documents/industry-insights/welcome-to-the-metaverse-digital-future-of-banking.pdf>
13. <https://www.forbes.com/sites/seansteinsmith/2021/11/08/crypto-is-the-key-to-the-metaverse/>
14. <https://www.kiya.ai/metaverse/>
15. <https://www.businessworld.in/article/Closely-Knowing-Metaverse-Banking-Vs-Online-Banking/10-08-2022-441492/>
16. <https://www.dtnext.in/business/2022/10/23/banking-in-a-metaverse-era>
17. <https://www.queppelin.com/metaverse-statistics/>
18. <https://www.globaldata.com/store/report/metaverse-market-analysis/>
19. <https://www.strategicmarketresearch.com/blogs/metaverse-statistics/>
20. <https://www.drishtiiias.com/daily-updates/daily-news-analysis/global-innovation-index-2022>
21. <https://www.luisazhou.com/blog/metaverse-statistics/>
22. <https://www.banklesstimes.com/metaverse-statistics/>
23. <https://influencermarketinghub.com/metaverse-stats/>
24. <https://www.orfonline.org/research/exploring-the-metaverse/>
25. <https://www.livemint.com/technology/tech-news/india-ranks-third-in-terms-of-interest-in-metaverse-projects-11637847044719.htm>
26. <https://nexval.com/how-will-the-metaverse-affect-the-banking-industry/>
27. <https://www.matthewball.vc/all/metaversepayments>
28. <https://thepaypers.com/expert-opinion/payments-in-a-metaverse-1253104>
29. <https://www.lokaworld.app/>
30. <https://www.onerare.io/>
31. <https://rajithethegame.com/>



DIGITAL TRANSFORMATION WITH CBDC - GENESIS, NEED AND FUNDAMENTALS FROM A COMMON MAN'S PERSPECTIVE



CMA (Dr.) Paritosh Basu

Senior Director (Services)
Stragility Consulting Pvt. Ltd.
Mumbai

paritosh13286@outlook.com

Introduction

Central Bank Digital Currency (CBDC) is gradually becoming a subject matter of discussion amongst professionals across functional domains and slowly making inroads into minds of common people also. One of the major reasons could be the smart phone-based Apps. Those influence a common man's way of living life by dependency-based habituation and creating positive impacts on several counts. In India people are also enjoying benefits of digitisation and digitalisation of several macro level operating ecosystem like those for

healthcare, provident fund, railways, etc.

A roadside vegetable or street food vendor displaying a QR code and getting a voice message in few words towards confirmation for receipt of payments from a small device might have not escaped eyes and ears of readers even in C class towns of India. This indicates her/his acceptance of payments through digital mode for direct credit to bank account instead of paper fiat currency. Therefore, a common man with just the primary level of digital literacy and aptitude for using a smart phone is convinced about all that are happening in digital space are making her/his life easy and hassle free. Even large merchants are also adopting QR Codes to avoid higher commission payment to credit card operators. People are thus getting accustomed with the convenience and benefits being provided by digital technologies.

All these are yielding financial benefits at national level due to speed, operating cost optimisation, lesser circulation of paper fiat currency, widening of tax bracket by reduction in unrecorded transactions, and so on. Such benefits would continue to multiply as disparities in digital literacy and wireless connectivity between Bharat and India keep reducing. The latent demand from common people is perhaps more in terms of new additions and upgradation of existing ones to ensure more transparency, safety, privacy,

Image Source: <https://me.mashable.com/tech/17220/omans-central-bank-head-hints-that-the-country-is-working-on-its-own-digital-currency>

and security.

Objective

This article has been written keeping in view the need of professionals across functional domains and common man to know more about central bank digital currency. It is also essential to remove the smoke and haze of scepticism and misgivings spread on legitimate digital currencies by evils and abusing of private cryptocurrencies. The subject has assumed enhanced importance because the Reserve Bank of India has initiated pilot run of the first retail digital rupee or central bank digital rupee (e₹-R or CBDC-R) on December 1, 2022. Eight Indian banks from both public and private sectors have been identified to participate in the pilot run in four major cities to start with. Later the pilot run will be extended to nine other cities. RBI had earlier launched pilot run for India's wholesale CBDC on October 31, 2022 and is reported to be running successfully.

Keeping the above developments in view, it is an imperative for professionals to proactively achieve a state of readiness with knowledge so that they can plan and design future initiatives for digital transformation of their entity keeping CBDC as an option, if not imperative. Moreover, they would also be personally benefitted by learning more about retail digital rupee.

The Set Stage for CBDC

Continuing with the discussion of the above introduction section, one can start extrapolating and think more from a common man's perspective what more benefits can be provided if further advanced technologies are offered to ensure more immutability, transparency, security, safety, privacy, and regulatory and legal compliances. It is needless to mention that common people generally prefer to remain under the comfort of a regulatory and secured environment, more so

on matters of money and banking.

Readers might have guessed what is being indicated here is a blockchain technology driven platform at the back end and a simple App at users' frontend. Such a solution, when offered, would not take much time to be effective and popular because the stage has already been set by the hard work for BHIM (Bharat Interface for Money), PhonePe, GPay, Paytm etc. the converging platform for which is United Payment Interface (UPI) of India. Incidentally several countries, viz., Singapore, UK, Netherlands, South Korea, Vietnam, Indonesia, Hongkong, Malaysia, etc. are interested to adopt the UPI model crafted by India to enable seamless cross border transactions. One of the beneficiary groups would be tourists. Till recently even for majority of intelligentsia, not to speak of common people, Blockchain was synonymous to cryptocurrencies, or cryptos as is popularly called, because of two major reasons. Blockchain platform-based digital Apps have so far not been offered for use by common people. Secondly, people have heard about blockchain being used only for private cryptocurrencies. But since 2009, the year of Bitcoin's birth, blockchain has successfully been used for multiple use cases business and governmental functions which have still not reached a common man's handheld phone. The technology itself has advanced through the course of evolution including for integration with many other digital technologies. Information for all such uses cases is not available to common man.

On the other hand, having experienced proliferation of private cryptocurrencies and other use cases of blockchain technology, central banks of sovereign nations and global multilateral agencies started researching and exploring from around 2015. Their objective was to find answer to the question why the central bank of a sovereign nation cannot issue digital currency

using a blockchain platform if a private cryptocurrency can be issued. Their research also included comparative study on various aspects of cryptocurrencies vs. CBDC. Since then, many initiatives around world have brightened the future of CBDC coming to a reality in foreseeable future. However, general awareness about the benefits of blockchain technology would have to be created more because the platform for offering and administering CBDC would be Blockchain.

Cryptocurrencies' Wading History and Birth of CBDC

The author has in one of the chapters of his Book¹ (2022) on Central Bank Digital Currency (CBDC) has briefly captured the evolutionary history of media of exchange for transaction settlement from 'cowrie shells' to stone coins to metal coins to paper currency notes to cryptographed digital currency. According to his findings the first ideation of a digital or virtual currency could be traced in a published paper of Wei Dai, an IT engineer of the USA, in 1998. He ideated a digital currency called 'B-Money' and developed a platform which can enable a group of imperceptible 'Digital Pseudonyms' to transfer and receive values within a people-to-people network. Nick Szabo, a lawyer turned professional cryptographer of the USA, revealed his idea for a digital currency in the same year. He named it as 'Bit Gold'. Historians of digital technologies also regard him as one of the pioneers of blockchain technology.

However, unfortunately both the ideated platform and digital currencies of Wei Dai and Nick Szabo were not implemented for general use and conducting actual transactions. The next story is of Satoshi Nakamoto¹, "The world witnessed birth of the first cryptocurrency 'Bitcoin' in 2009 through the widely read article "Bitcoin: A Peer-to-Peer Electronic Cash System", published by Satoshi

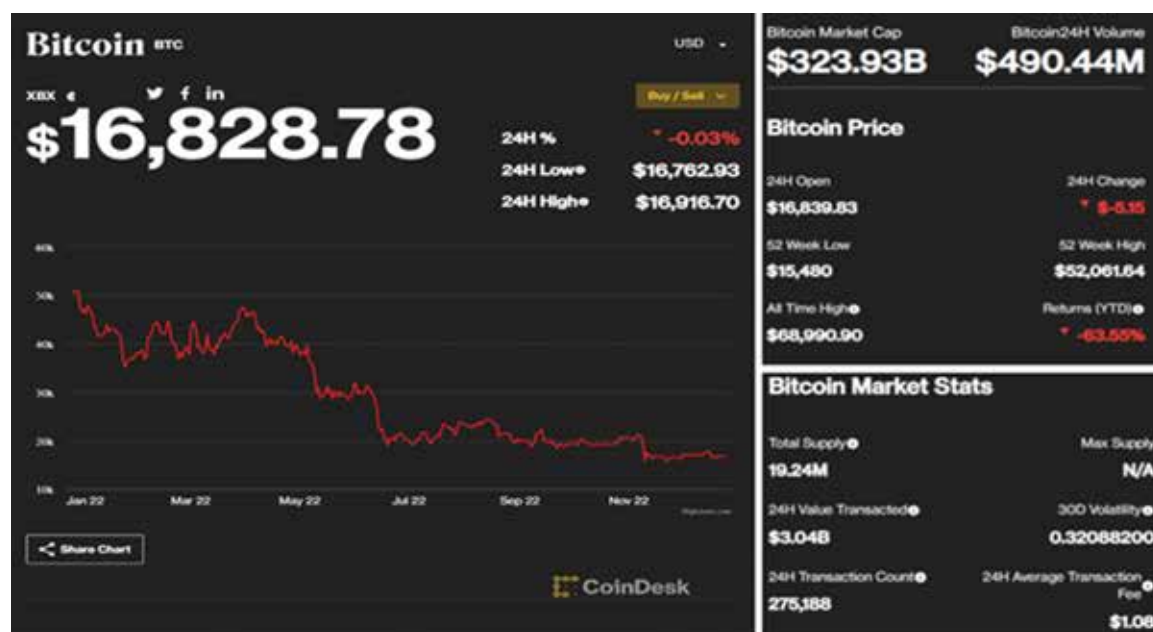
Nakamoto³. Predominant objectives of Bitcoin was to liberate liquid assets of common people from the clutch of central bank of a country, so that people can control their own destiny.” And the rest is history.

Debates are continuing since 2009 to find the right answer to the question whether Wei Dai, Nick Szabo and Satoshi Nakamoto are the same person. World also debated whether Satoshi Nakamoto is the name of a team of IT technocrats from whose collaborated efforts emerged the first ever private cryptocurrency,

i. e. Bitcoin or BTC. Leaving the debate at its own place, the first ever cryptocurrency, i. e., Bitcoin is still alive and has been followed by issuance of thousands of private cryptocurrencies.

As per a report in Exploding Topics² by Josh Howarth on November 25, 2022, the world has seen issuance of about 21,800 plus private cryptos out of which as of now about 9,300 plus exist with about 300 million plus users. 18,000 entities are accepting payment in cryptocurrencies. However, active cryptos are around

only 200. The rest have died their natural death including certain stable coins which were stated to be issued with USD as the linked currency. Albeit market capitalisation of any cryptocurrency, including Bitcoin the flag bearer, is subject to extreme volatility, one may know more about market capitalisation status of 200 major cryptos at the site of CoinMarketCap.³ For interested readers the following is a graphical presentation of fluctuations of Bitcoin through the ominous path as reported by Coindesk on December 24 around IST 15.19 hours.



Source: <https://www.coindesk.com/price/bitcoin/>

Bitcoin's price history is chequered by both astronomical hikes and stiff cliff-hanger falls. Readers would observe that the afore-shown BTC price of USD 16,828.78 as on the date of this study is about 75.6% lower than its highest ever price of USD 68,990.90 reached some time in November 2021. However, this price is about 8.7% higher than its last 52 weeks' lowest price of USD 15,480 in November 2020. Readers may be aware that total supply of Bitcoins is finally fixed at 21 million. However, there are debates whether that number would ever be reached⁴.

Emergence of Cryptocurrency from the Phoenix of CBDC

A detailed study of rest of the private cryptocurrencies would reveal the same features of volatility due to sympathetic linkages with Bitcoin of varying degrees. History of a few Stablecoins, issued in recent past, does not also provide any sense of comfort. These brief narratives provide characteristic features and fearful price volatilities of private cryptos. Readers would appreciate and be convinced that if the CBDC of any country is to be used as a valid tender for settlement of transactions and store of value in a digital account

called wallet, the above private cryptocurrency like features would never be acceptable to any citizen/netizen.

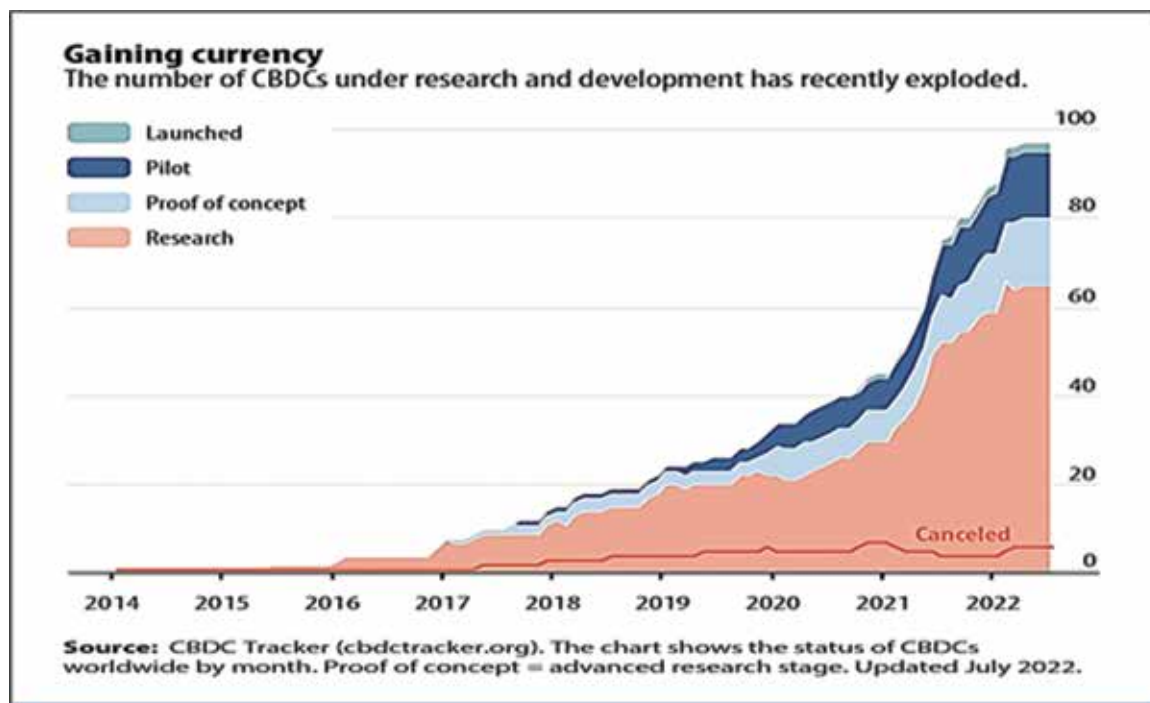
Sarika Murty et. al. concluded in their research paper⁵ (July 2022) with data collected from November 2017 to November 2021 that, “.... given the supply of Bitcoin is fixed, low returns realisation is equivalent to excess supply over demand wherein investors are selling off Bitcoin during bad times. ... overall analysis shows that Bitcoin was not considered a safe hedge and an investment option by Indian investors during the study period.” The

present author is of strong personal view that no private cryptocurrency should ever be permitted to be used as a legal tender for any transaction settlement. Those should be left as a separate asset class for those investors who loves to play with fire driven by greed and gluttony. However, in present Industry 4.0 era every country must have a digital fiat currency of its own as an alternative to Central Bank Paper Currency (CBPC) or hard cash. Therefore, CBDC is the only option for making an end to end digitally

administered monetary system available to countrymen. And for that a blockchain based platform, i. e, with distributed ledger technology is the only option.

It is obvious that central banks of sovereign nations across the world and global multilateral agencies like IMF, World Bank and BIS would be excited and enticed by the benefits provided by a digital currency and blockchain technology. They would also be encouraged by savings in expenses and other risks of CBPC

that would be averted if digital fiat currencies can be popularised inter alia as an effective alternative for paper currencies. And indeed, this is happening! CBDCs are now proliferating globally driven mainly by the multifaceted benefits of Blockchain and other digital technologies. The author urges readers to visit the webpage of Global CBDC Tracker at <https://cbdctracker.org/> for regular updates on what all are happening around the world.



Source: <https://www.imf.org/en/Publications/fandd/issues/2022/09/Picture-this-The-ascent-of-CBDCs>

The above graphic used in a report by the International Monetary Fund⁶ reveals that by July 2022 central banks of around 100 countries were at varying stages of working with CBDC, viz., research, proof of concept, pilot run and launch for public use. By July 2022 two countries have issued CBDC, viz., Nigeria had issued eNaira in October 2021 and Bahama had issued 'Bahamian Sand Dollar' in October 2020. India is now in pilot run stage of eRupee ₹ or Central Bank Digital Rupee (CBDR). It has recently been confirmed by Governor of the Reserve

Bank of India that eRupee would be issued and administered through a Blockchain platform.

Fundamentals of CBDC

The history of CBDC as a concept can be traced back to 1993 when Finland initiated the 'Avant Smart Card' which was an electronic form of cash. It did not survive for long and was discontinued in 2006. The present form of CBDC, as are being worked upon by various countries, are predominantly to be in the form of virtual or digital currency to be administered through Blockchain

platforms. Options are there for using some other ICT and/or digital technologies.

The foundational argument of Satoshi Nakamoto for launching Bitcoin was to liberate the fate of millions of users of money from the clutch and control of any designated regulatory agency called the central bank. This argument sounded to be logical to many thinkers in the backdrop of devastating impacts of Subprime financial crisis of 2008 that left no country unaffected. However, any proposition that aspires to be

autonomous and defy the need for regulation and control, even while dealing with the financial fate of billions of people, bound to fail. That is bound to be abused and exploited by people being driven by human greed and gluttony for selfish benefits. And that is what has exactly happened. The latest episode was that of FTX which has been termed as the greatest financial fraud in the history of USA. Readers need not be reminded that exchanges for cryptocurrencies are the safe harbours of drug peddlers, terrorists, illegal arm seller and operators of dark webs.

Two diagonally opposite characteristics of a CBDC,

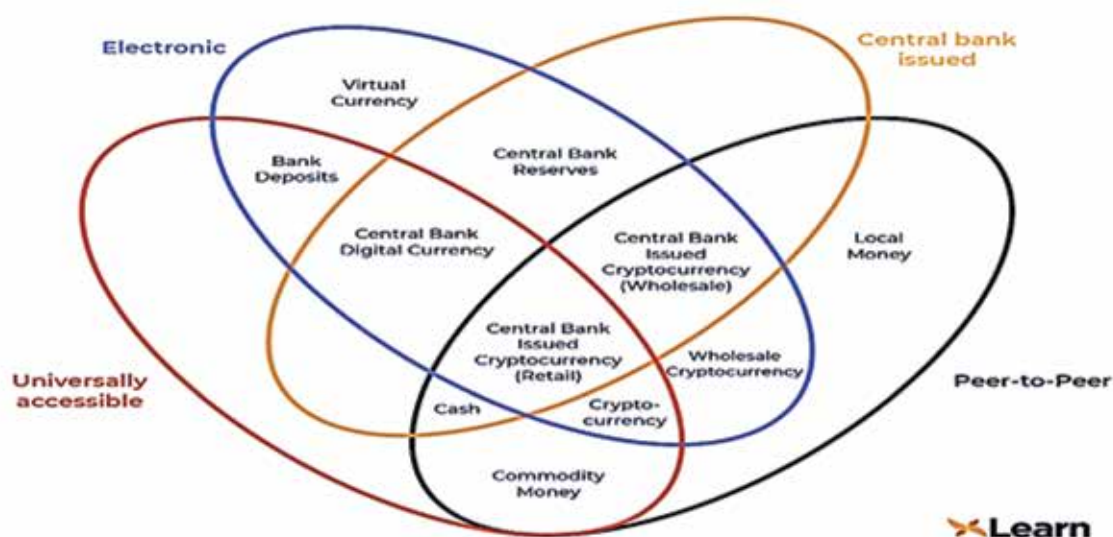
as compared to any private cryptocurrency, are the back up guarantee of issuing central bank of the concerned sovereign nation with the backup of its reserve and thus making it secured like paper fiat currency. It is also designed to remain under the centralised control of that bank for many aspects including quantum of circulation. These two does not defy logic, because if the comfort of backup security is being sought after having burnt billions of dollars equivalent money in cryptos, the control of the guaranteeing authority must have to be accepted.

Deloitte Global⁷ has defined CBDC as “a digital payment instrument

denominated in the national unit of account that is a direct liability of the Central Bank (BIS 2020, 3). It is the legal tender issued by the Central Bank in a digital form as a medium of exchange, store of value and unit of account. It is a fiat currency issued in a digital form and has the same value as the fiat currency”

Therefore, a CBDC in common parlance is the virtual or digital version of fiat currency of the issuing country’s central bank. It can be regarded as safe and secured as that of the fiat paper currency. The following graphically illustrated Taxonomy of a CBDC will make the definition further clear.

The Money Flower : a taxonomy of money



Source: <https://dcxlearn.com/cryptocurrency/cbdc-central-backed-digital-currencies-explained/>

A careful study of the above ‘Money Flower’ reveals that each flower-petal shaped space encircled by different coloured lines represent one feature each of an eCurrency. The space encircled by different combinations of intersections of those petals can help construct the following short definitions:

⊙ **CBDC:** The digital form of a country’s fiat currency issued and administered by its central bank through an electronic platform via internet. Such a

digital currency is a liability of the central bank and is backed by its Reserve. Thus, it derives the characteristic of a valid legal tender for settlement of monetary transactions.

⊙ **Retail CBDC:** A nation’s fiat currency which is issued and administered by its central bank through an electronic platform, universally acceptable and backed by the Reserve of its central bank.

⊙ **Wholesale CBDC:** A nation’s

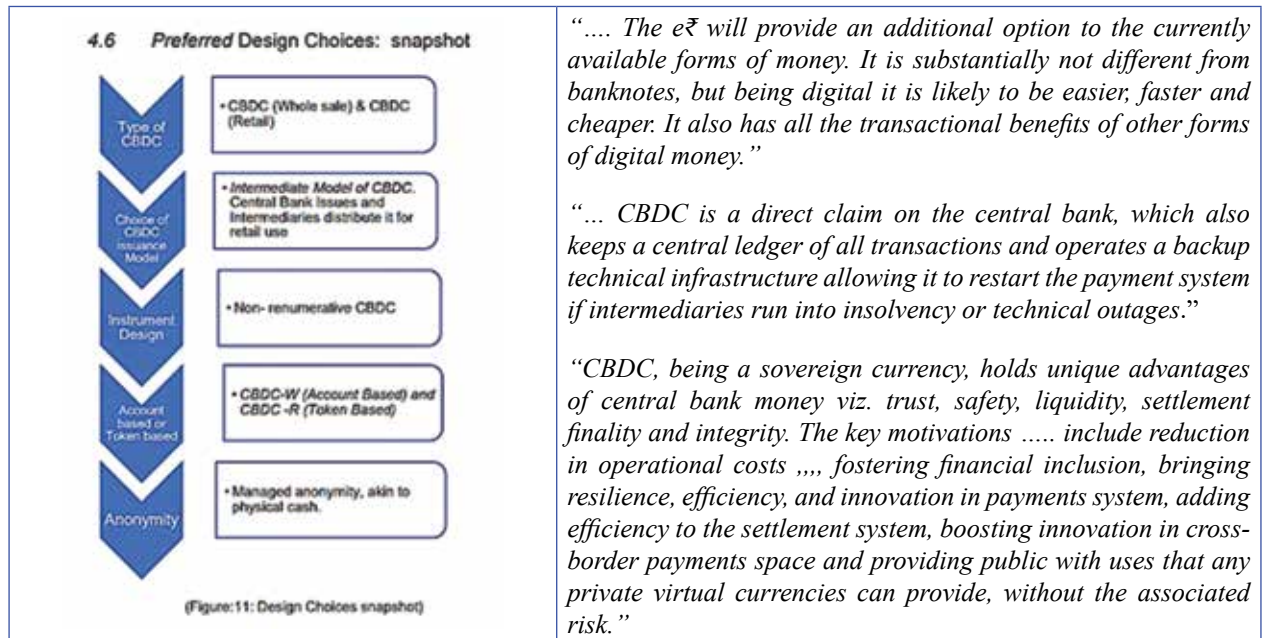
fiat currency which is issued and administered by its central bank through an electronic platform in a peer-to-peer network, i. e., amongst banks and is backed by the Reserve of its central bank.

Reserve Bank of India has defined a CBDC “.... as the legal tender issued by a central bank in a digital form. It is akin to sovereign paper currency but takes a different form, exchangeable at par with the existing currency and shall be accepted as a medium of payment, legal tender

and a safe store of value. CBDCs would appear as liability on a central bank's balance sheet.” It would be worthwhile to further quote here

the following three excerpts and the graphic from the ‘Concept Note on Central Bank Digital Currency’⁸ issued in October 2022 by FinTech

Department of the Reserve Bank of India:



Source: RBI's Concept Note on CBDC, October 2022

<https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/CONCEPTNOTEACB531172E0B4DFC9A6E506C2C24FFB6.PDF>

The above narratives confirm that a CBDC does not represent a claim on any commodity or asset unlike any digital token or virtual asset which represent the fractional value of tangible or intangible asset. It is essentially the digital incarnation of CBPC. Therefore, CBDC is a fungible legal tender issued in compliance with monetary policy of the concerned country. Readers will recall that the fundamental objective behind the first crypto, i. e.oin and subsequently of all other cryptos, issued by autonomous communities, is to abolish the role of any intermediary and any central agency. The following is a summarised comparative analysis of CBDC, CBPC and Private Cryptocurrencies prepared by Deloitte:

Comparative Analysis of CBDC with Paper Currency and Private Cryptocurrency

Aspect	CBDCs	Cash	Alternate private currency
Issuing Authority	Issued and backed by a central monetary authority	Issued and backed by a central monetary authority	Privately owned, governed by algorithms
Form	Electronic/Digital	Paper/Physical	Electronic/Digital
Guarantee	Issued by the Central Bank as their liability	Issued by the Central Bank as their liability	Privately issued
Payment acceptance	Legal Tender	Legal Tender	Limited acceptance
Know Your Customer (KYC)	Required in most cases	Transfer doesn't require KYC	May not be required Anonymity is high
Structure	Centralized or permissioned decentralization	Centralized issue	Decentralized
Risk	Very low market, counterparty, liquidity risk	Very low market, counterparty, liquidity risk	Relatively medium to very high market, counterparty, liquidity risk

Source: <https://www.deloitte.com/content/dam/assets-shared/legacy/docs/perspectives/2022/gx-fsi-central-bank-digital-currencies.pdf>

Analysis of the above definitions reveals that the essential differentiating feature of CBDC versus CBPC or Cash is the mode of issuance and that the digital form as against paper form. This would also lead to people being accustomed to a different App on their hand-held device because the backend would not be the legacy net-banking or mail-banking platform of a commercial bank. CBDC would also obviate layering in the transaction process and thus would help minimising third party risks. However, centralised authority to monitor and control would continue to remain with the central bank of the country

CBDC - A Common Man's Perspective

The above narratives on the fundamentals of CBDC, particularly the quoted excerpts from RBI's Concept Note provides lots of comfort by removing several doubts and reaffirming certain features of CBDC which are exactly in line with those of CBPC. The following is a summary of features of India's CBDC or digital Rupee from a common man's perspective, which would almost be the same as those of CBDCs of other countries:

1. Retail CBDC, i. e., CBDC-R of the RBI, is a Digital Token in lieu of CBPC for retail transactions, whereas CBDC-W will be used for wholesale transactions by and between banks and RBI.
2. CBDC-R will take the form of digital tokens in denominations for which paper currencies and metal coins are presently available in India.
3. The depository ledger unit for every individual's CBDC-R will be called a 'Digital Wallet' to be opened in the name of each user and linked to the RBI's ledger maintained using Blockchain platform or engine. This engine would be separate from the one for CBDC-W.

4. Individuals can perform transaction with another individual or a bank from handshaking distance as are being done now using paper currency as well as while remaining geographically separated through internet. However, the physical currency will be replaced by an App on smart phone. The hassles of counting physical currency notes will be over.
5. Tokens for CBDC-R will be distributed by RBI's 'Token Service Providers' (TSPs) which would be the new roles of banks in the context of digitalised Rupee.
6. Users would be able to exchange CBDC-R with paper currency and vice versa with the help of TSPs.
7. CBDC-R would be accounted by both TSPs, and RBI as positive balances of each wallet would be a direct claim on RBI and thus its liability.
8. Users of CBDC-R would get the same anonymity as is presently available while using CBPC.
9. As per the declaration of the central government of India's CBDC that eRupee will be administered through blockchain platforms and hence will provide all benefits ensured by Blockchain technology.
10. Under RBI's CBDC-R regimentation any user would be able to withdraw eRupee tokens against cash and vice versa as well use for payments and remittances through internet.
11. In the existing non-digital fiat currency system, there is no distinction between uses for retail operations vis-à-vis individuals and wholesale operations between banks. However, the settlement between banks and between RBI and any bank is done on a bulk basis. While designing Blockchain platforms

or engines for CBDC it would be beneficial if two engines are maintained for such retail and wholesale operations keeping options for interoperability between the two for transferring gross amounts and inter-bank liabilities. Essentially money value of each digital token would remain as the same under any circumstances.

12. Both CBDC-R and CBDC-W can provide all operating features, efficiencies, and effectiveness which any private cryptocurrency can offer for creating multi-faceted blockchain based operating solutions for industry, trade, and commerce as well as governmental agencies and NGOs. Thus, CBDC in no way would hinder the process of moving ahead with digital transformation in every segment of any country's economy.

The later part of paragraph 4.3.4 iii of the aforesaid Concept Note of RBI provides: "CBDC also supports innovation with an ability to include programmable feature that supports efficiency such as standardisation of compliance rules, fraud detection, Further, token-based CBDC-R can be used to accomplish financial inclusion goals." Hence CBDC would bring inclusive happiness and inclusive smile.

Interest Payment on CBDC – The Issue to be resolved

Payment of interest on positive balance of CBDC-R in an individual's digital wallet would have had positive impacts and helped popularising it. Common people would have felt the urge to adopt the country's digital currency driven by benefits from earnings. However, this is already a widely debated issue and resolution is not being seen in the horizon soon.

Paragraph 4.5 of the aforesaid Concept Note of RBI's contains a table on the design features of CBDCs which are either operational or

under consideration in six countries/ geographical territory, viz., Bahama, Canada, China, ECCU, Sweden and Uruguay. The second column of this table titled 'Carry Interest or Not' states either 'No' for four countries and 'Not Decided' for two. It is therefore evident that none of the countries have concluded on the issue whether CBDC wallets will be considered as equivalent of an interest-bearing savings and/or fixed deposit accounts.

The first and foremost argument behind non-payment of interest is that no individual earns any interest for keeping paper currency notes in her/his personal possession. Neither a corporate entity gets interest for holding cash. The second argument is from the macro-economic perspective. Payment of interest on CBDC wallets is by itself a challenge for central banks of any country. Because decorating a CBDC wallet with all the attributes of a deposit account, instead of allowing it to remain only as chronicle of an individual's transactions and balance held, would potentially give rise to a situation of disintermediation in the banking and financial ecosystem of any country. This may cause flight of deposits from commercial banks to the central bank. This would also churn out the following further consequences:

- ⊙ Commercial banks may lose a sizeable portion of funds from relatively cheaper sources like savings and fixed deposits form public going in favour of the central bank because going forward there would be no difference between existing fiat currency and CBDC in different forms,
- ⊙ Shrinkage in supply of funds to commercial banks may lead to lower availability of money with them for lending which in turn would be detrimental to overall economic development.
- ⊙ Banks would have to either increase interest rates on deposit accounts from public or borrow from expensive sources exposing them to operating with lower margin and larger financial risks of borrowing from external lenders.
- ⊙ Banks also may have to hold larger volume of paper currency at branches to exchange against CBDC-R.
- ⊙ One possible option to reduce larger concentration of CBDC-R in the wallet maintained by the central bank is to impose cap on holding digital currency by an individual. However, such a measure would be detrimental to popularising digital currency.

The author is of the view that such an important issue can be addressed after the pilot run is successfully over and both CBDC-R and CBDC-W are launched for all citizens and all financial institutions across the board. There is a need to study the experience of initial appreciation, approach, and financial behaviour of people in general on matters of CBDC-R, and how does that change once primary scepticisms are over. Going forward there would also be a need to study the extent of their adopting digital currency and emerging allocation between legacy fiat currency bank accounts and CBDC-R wallets. It would be relatively easy thereafter to take a decision with informed judgement regarding payment of interest on CBDC-R. Going forward, however, the target should be to convert the entire macro-financial and monetary ecosystem to CBDC-R and CBDC-W.

Conclusion

Readers might be thinking that this article has suddenly stopped like a short story. But for shortage of space this article would have continued. However, the author will feel happy if readers get from this piece a primary sketch of central bank digital currency. His efforts would continue to write more on the subject in coming months. MA

Bibliography and Weblibliography

All these websites have been accessed during December 2022.

1. Paritosh Basu, *Emergence of Central Bank Digital Currency from the Phoenix of Cryptocurrency, Digital Transformation - A Prismatic View, 1st Edition, April 2022, pp 144 - 156*
2. <https://explodingtopics.com/blog/number-of-cryptocurrencies>
3. <https://coinmarketcap.com/all/views/all/>
4. <https://www.investopedia.com/tech/what-happens-bitcoin-after-21-million-mined/>
5. Sarika Murty, Vijay Victor and Maria Fekete-Farkas, *Is Bitcoin a Safe Haven for Investors – A GACRH Volatility Analysis, Journal of Risk and Financial Management, July 2022. https://www.mdpi.com/1911-8074/15/7/317/hm#:~:text=Bitcoin%20rose%20to%2010%2C000%20USD,2021%2C%20setting%20a%20new%20record*
6. <https://www.imf.org/en/Publications/fandd/issues/2022/09/Picture-this-The-ascent-of-CBDCs>
7. <https://www.deloitte.com/content/dam/assets-shared/legacy/docs/perspectives/2022/gx-fsi-central-bank-digital-currencies.pdf>
8. <https://rbidocs.rbi.org.in/rdocs/PublicationReport/Pdfs/ONCEPTNOTEACB531172E0B4DFC9A6E506C2C24FFB6.PDF>

CLIMATE CHANGE

SHOULD IT BE THE CHOICE OF THE HUMANITY



CMA (Dr.) Bhabatosh Banerjee

Former Dean of Commerce & Management

University of Calcutta

Kolkata

bhabatosh.commerce@gmail.com

Abstract

The paper deals with various aspects of climate change – its meaning, adverse impact, measures taken and proposed to be taken by the UNO, some of the early developments including 1992 Earth Summit, Paris Agreement and finally COP27 held very recently. It reminds the responsibility of the parties to the various treaties and agreements to contribute positively to the quality of life. The UNO can play a great role in mediating, persuading and supporting the bigger cause of reducing greenhouse gas emissions keeping in view the target of achieving the global warming at 1.5° C (34.7° F) by 2050.

Introduction

In ordinary parlance, the phrase “climate change” means natural shift of weather from one season to the other. Generally, changes take place in four seasons¹ of the year – summer, autumn, winter and spring.

But for the last two centuries, it has wider connotation embracing all nations and all areas of the world. According to United Nations (1992), “climate change refers to long-term shifts in temperatures and weather patterns. These shifts may be natural but since 1860s human activities have been the main drivers of climate change primarily due to burning of fossil fuels like coal, oil and gas which

produces heat trapping gases”. It has now become a matter of great concern to the living beings – people, animals and others. The United Nations has been organising conferences of the nations of the world from time to time to discuss about negative impact of the climate change and suggesting measures, which if implemented by its member nations, will mitigate the impact of adverse impact of climate change.

What are the adverse or negative impacts of possible climate change? What are the measures taken by the United Nations through its member countries² to mitigate the negative impact of climate change? The present paper deals with these two aspects of the matter in section two and section three respectively. The last section gives concluding observations. The secondary objective of the paper is to

promote awareness of all concerned because collectively we have to face the problem as otherwise, as the Secretary General of the United Nations puts it very realistically during the Opening Convention of COP27, “either co-operate or perish.” The article is based on the available literature including some important reports and agreements.

Impact of Climate Change

The problem is created because of use of fossil fuels which increase global warming. It does not require to stress that the adverse impact of climate change is multi-dimensional. They include:

- ⊙ Devastating cyclones, floods, earthquakes and draughts
- ⊙ A fair proportion of global land being affected due to draught
- ⊙ Heat-linked deaths particularly among 65+ age-group people
- ⊙ Loss of labour hours due to

¹ In Bengali, there are six seasons: *Grisha, Barsa, Sarat, Hemanta, Shit and Basanta* each comprise a duration of two months. Because of change of climate, there is however wide variation of weather among these seasons even though they work in a cycle of four or six, as the case may be

² Nations and countries are used interchangeably.

heat exposure

- ⊙ Rise in diseases like malaria, dengue, etc.

The 2022 Global Report of the Lancet Countdown³ states in its opening paragraph that people around the world are increasingly feeling the negative impact of climate change on their health and wellbeing and these compounding crises are amplifying those harms. Yet governments and companies in both high and low income countries continue to prioritise fossil fuel interests. According to the Report:

- ⊙ “Only 27% of urban centres are classified as moderately green or above
- ⊙ People rely on air conditioning for cooling, which in 2020 was responsible for 900 billion tonnes of carbon dioxide emissions, and for 24,000 deaths from PM_{2.5}⁴ exposure
- ⊙ Human exposure to days of very-high or extremely high fire danger increased in 61% of countries from 2001-2004 to 2018-2021
- ⊙ Heat exposure led to 470 billion potential labour hours lost globally in 2021 with income losses equivalent to substantial proportion of countries GDP
- ⊙ Influence of the climate on the risk of dengue transmission rose by 12% globally in 2012-2021, compared to 1951-1960. Recently many people have been affected by dengue in Asian countries like Bangladesh, India and Malaysia. Similarly, length of time suitable for malaria transmission rose by 32.1% in highland areas of the Americas, and 14.9% in Africa in the same period.
- ⊙ Heat-related deaths increased by 68% between 2017 and 2021, compared to 2000-2004.
- ⊙ On an average, 29% or more of the global land area was affected by extreme draught annually, from 2012-2021, than from 1951-1960.
- ⊙ Children under one-year-old experienced collectively 600 million more days of heat
- ⊙ waves (44 more days per child) in 2012-2021, compared to 1986-2005”.

In another International Study on Climate Change in India⁵ the damage caused to ecologically crucial but fragile Sunderbans, spread across West Bengal (India) and Bangladesh, has been given. The Sunderbans is home of 7.2 million of some of the world’s most vulnerable population. It says:

- ⊙ Temperature increased 1^o C in past century and may increase by up to 3.7^o C by 2100.

³ <https://lancetcountdown.org:2022report>

⁴ PM_{2.5} is tiny particles in the air that reduce visibility and cause the air to appear hazy when levels are elevated (<https://health.ny.gov>).

⁵ www.google.com

- ⊙ From 2000 to 2020, 110 sq. K.Ms of mangroves disappeared. The loss of mangroves has made embankments weaker.

According to an analysis by an International Climate Research Agency⁶, Sunderbans have suffered losses of more than 2 lakh crore (\$25 billion in current exchange rate) in life, property and livelihood in the last four decades because of climate change.

A staggering 1.6 lakh crore (\$20 billion) of the damage occurred in the last three years alone, from four major cyclones. The loss and damage is dominated by damage to the eco-system (Rs.32, 549 crore) and loss in agricultural production, caused by salinity of land and water. It caused extensive loss of land. This has caused 62% of the zone’s workforce to lose their original livelihood in the last 25 years and forced 1.5 million of them to move to safer places.

Researchers from International Climate Research Agency, Zero Carbon Analytics⁷, “estimated a loss of Rs.27,000 crore in “eco-system services” of the Sunderbans Biosphere Reserve in the last 30 years, over 80% of which is mangroves.



Source: <https://mumbaigloss.in/trip-to-sunderbans-from-kolkata-for-bengal-tiger/>

In the last 23 years, the area has witnessed 13 super-cyclones. In the Bay of Bengal along the Sunderbans, the occurrence of cyclones increased by 26% between 1881 and 2001. Additionally, research has shown that there has been a significant rise in the frequency of very severe cyclones in the post-monsoon season from 2000 to 2018. Scientists project an increase of about 50% in the frequency of post-monsoon cyclones in the period between 2041 and 2060. Interestingly, the Sunderbans bear little responsibility for global emissions. The entire State of Bengal and the whole of Bangladesh together account for only 0.56% of global emissions”.

There are many other broader range of changes due

⁶ International Panel on Climate Change (IPCC) is a body of the United Nations entrusted to assess the science related to climate change.

⁷ Zero Carbon Analytics research and analysis is a valuable resource for writing and reporting on climate change action and impacts, for journalists (www.google.com).

to Climate Change that are happening to our planet viz.:

- ⊙ Rising sea levels
- ⊙ Shrinking mountain glaciers
- ⊙ Accelerating ice-melt in Greenland, Antarctica and the Arctic Sea, and
- ⊙ Shifts in flower/plant blooming times.

As per Third and Fourth National Climate Assessment Reports, future effects of global climate change in the U.S. will be as follows:

- ⊙ “Sea level will rise by 1-8 feet by 2100”
- ⊙ Hurricanes will become stronger and intense
- ⊙ More draughts and heat waves
- ⊙ Longer wildfire season
- ⊙ Changes in precipitation (rain and snow) patterns
- ⊙ “Frost-free season (and growing season) will lengthen” affecting eco-system and agriculture
- ⊙ Arctic is very likely to become ice-free.

The Reports say that, “taken as a whole, the range of public evidence indicates that the net damage costs of climate change are likely to be significant and to increase over time.”

The above statistics and estimates should cause sleepless nights to a rational citizen of the world. Naturally, therefore, we have to examine what actions have been taken and/or proposed to be taken by the leaders and organisations around the globe. The next sections delve on these crucial issues and examine some early developments (section 3) and some current developments (section 4).

Some of the Early Developments

The UN Framework Convention on Climate Change (UNFCCC) adopted at the Earth Summit (1992) is one of the first international treaties on Climate Change. The **thrust** of the Earth Summit, held in Rio de Janeiro (Brazil), was to (Banerjee, 2009):

- ⊙ “provide an understanding of development that would support socio-economic development;
- ⊙ prevent continued deterioration of environment, and
- ⊙ build a foundation for a global partnership between the developing and more industrialised countries for serving mutual needs and interests towards a healthy future for the planet.”

Representative of 108 member-countries attended the Summit. One of the important achievements was to replace the traditional goal of economic development by

sustainable development⁸ comprising three components, namely, economic, environmental and social developments.

The Kyoto (Japan) Protocol, adopted in 1997, “regulated **Greenhouse gas**⁹ reductions for a limited set of countries from 2008 to 2012. The Protocol was extended up to 2020 with the Doha (Qatar) Amendment in 2012. The UN decided not to ratify the Protocol mainly because of its legally binding nature”. At the Conference of COP21 (the 21st meeting of the Conference of Parties) on 12th December 2015 the final wording of the Agreement was adopted in Paris (France) by “consensus of the 195 participating member-countries and the European Union”. In that “Agreement the members promised to reduce their carbon output ‘as soon as possible’ and to do their best to keep the global warming “to well below 2° C (35.6° F)”. We now look in some details of The Paris Convention and the Egypt Convention in the following paragraphs.

The Paris Agreement (COP26)

It is a legally binding treaty on Climate Change and is also known as Paris Climate Accords (2016). It was adopted by 196 member-countries of UNO on 12th December, 2015. At a ceremony of the UNO at its headquarters at New York the Agreement was signed on 22nd April, 2016. The Agreement came into force on 4th November, 2016 (Google.com).

The United Nations Framework Convention on Climate Change (UNFCCC) is a long-term agreement, the goal of which is to limit global temperature to well below 2° C (35.6° F), above pre-industrial (1860) levels. To achieve this long-term temperature goal, countries aim to reduce global peaking of greenhouse gas emissions as soon as possible to achieve a climate neutral world by 2050.

The Paris Agreement is a landmark in the multilateral climate change process as, for the first time, a binding agreement brings all countries into a common cause to undertake very ambitious efforts to combat climate change and adapt to its effects.

⁸ The Rio Declaration on Environment and Sustainable Development supports Agenda 21 by defining the rights and obligations of States regarding these issues. For details of the principles see Krishnamoorthy (2022, p. 31).

⁹ “A Greenhouse Gas is a gas that absorbs and emits radiant energy within the thermal infrared range, causing the greenhouse effect. The primary greenhouses in earth’s atmosphere are water vapor, carbon dioxide, methane, nitrous oxide and ozone” (www.google.wikipedia). Carbon dioxide (CO₂) is referred to as greenhouse gas because like the glass of a greenhouse, it lets visible light from the Sun with form of heat which is circulated in the atmosphere and does not allow heat to eventually lost to space. Consequently, it keeps the atmosphere warm.

Modus Operandi

It definitely “requires economic and social transformation” on the part of the participating countries. The transformation can be achieved “based on the best available science. It works on a five-year-cycle of increasingly ambitious climate action carried out by the participating countries”. Countries have to submit their climate action plans known as nationally determined contributions (NDCs). In their plans, they will be required to communicate “actions taken to reduce their Greenhouse Gas Emissions”. This will facilitate in reaching the goals of the Paris Agreement. Secondly, countries will also have to communicate in the NDCs actions taken by them “to build resilient to adapt to the impact of rising temperatures”. Future low greenhouse gas emissions development strategies are to be adopted by them. This will provide vision and direction for future development. The submission of long-term horizon to the NDCs is however voluntary which, according to some, may dilute the rigour of the Agreement.

The Agreement also requires undertaking a few other steps for implementation particularly keeping in view the interest of the countries who need support. These are:

- ⊙ technology development and transfer,
- ⊙ capacity building to meet the challenges of climate change, and
- ⊙ financial support, popularly called climate finance.

These may be called the three important arms of the Agreement. A brief outline of each of them is given below:

(i) Technology development and transfer

Technology development is absolutely essential to combat the negative impact of climate change. Once such technology is developed, it can be shared with countries who need them badly to reduce greenhouse gas emissions. Therefore, a well-functioning “Technology Mechanism” should be developed by developed countries and that should be shared with or transferred to developing countries to help them achieve the overall objective of the Agreement.

(ii) Capacity Building

The challenges of climate change are many. There must be sufficient climate-related capacities to deal with them. A large number of the developing countries do not have that kind of capacity. The Agreement, therefore, places great emphasis on climate-related capacity building for developing countries and urges upon the developed countries to increase support for capacity building actions in developing countries.

(iii) Finance

Finance is the building block particularly to the developing countries. Without adequate financial support, the implementation of the Agreement will be a far cry because it is required both for technology development and capacity building to reduce the negative impact of climate. For example, huge investments are required to install green technology to reduce emissions. So, finance is required both for adaptation and mitigation. Developed countries should contribute *voluntarily* for achieving the goals of the Agreement for those countries who need it badly. So, the “Agreement reaffirms that developed countries should take the lead in providing financial assistance to countries that are ‘less-endowed and more vulnerable’.”

Tracking the Progress

Countries have to establish an “Enhanced Transparency Framework (ETF)” with effect from 2024. The *modus operandi* will be as follows:

- ⊙ “Countries will **report transparently** on actions taken and progress in climate change mitigation, adaptation measures and support provided and received.
- ⊙ It also provides for international procedures for the **review** of the submitted reports.
- ⊙ The information gathered through ETF will feed into **Global Stocktake** which will assess the collective progress towards the long-term climate goals.”

Based on the above, recommendations will be made for less-active countries **to revise their plans in the next round.**

Are there any achievements till now?

There is no doubt that there are some achievements till now. It is satisfying to note that, since the inception of the initiatives taken to achieve the goal of the Agreement, some achievements are noticeable. They are:

- ⊙ “Low carbon solutions and new markets;
- ⊙ More and more countries, cities, regions and also companies are establishing carbon neutrality targets;
- ⊙ Zero carbon solutions are becoming competitive across economic sectors representing 25% of emissions. This trend is most noticeable in power and transport sectors;
- ⊙ Many business opportunities have been created for early movers;
- ⊙ It is estimated that by 2030, zero-carbon solutions could be competitive in sectors representing over

70% of global emissions”.

The Climate Summit held in 2022 (known as COP27)

The climate talks among 195 countries and the EU concluded on Sunday, the 20th November 2022 at Sharm El-Sheik, Egypt. Originally it was planned for a two-day Summit but for consensus on certain key issues, it was extended by one day. At the opening plenary session of the Climate Implementation Summit at COP¹⁰27, Mr. Antonio Guterres, the Secretary-General of the UNO, “called for a historic pact between developed and developing countries to combine capacities, and pivot the world towards reducing carbon emissions, transforming energy systems and avoiding climate catastrophe”. He emphasised: “Humanity has a choice: co-operate or perish. It is either a Climate Solidarity Pact or a Collective Suicide Pact.”

Some of the key decisions are:

- ⊙ Countries agree to set up a “loss and damage” fund mainly from contributions of developed countries (the U.S., the EU, Japan, etc.). The purpose is to support developing countries that are vulnerable to extreme weather and are worsened by cumulative emissions of developed nations. The issue of “loss and damage” found place in the Agenda for the first time. The task of setting up a new fund looked difficult but the rich nations (including the US and the EU) showed flexibility to make it happen.
- ⊙ Institutional arrangements are put in place “for averting, minimising and addressing ‘loss and damage’.” The Agreement calls for “multinational development banks (MDBs) and international financial institutions (IFIs) to reform practices” and provisions to ensure simplified access to climate finance. Some of the Asian countries like Bangladesh, India, Indonesia, Nepal and Pakistan are likely to be benefitted out of this “loss and damage” clause.
- ⊙ Countries to further integrate water into adaptation efforts to increase in protecting, conserving and restoring food security, agriculture and water-related eco-systems including river basins aquifers and lakes.
- ⊙ There has been an inclusion of “sustainable life style” in the final COP27 document. As the maintenance of “quality of life” is an important argument for mitigating the negative impact of sustainable environment management, this clause will help giving more attention to the maintenance of sustainable life style.

- ⊙ Paris Agreement will remain intact, that is, commitments have been reaffirmed.

However, certain key aspects were not included in the final decision. They are:

- ⊙ The countries could not agree to “phase down” all fossil fuels to keep the 1.5° C goal alive to limit global warming. This was one of the very important clauses of Paris Agreement. Both India and the EU nations wanted it to be included in COP27 decision but there was no consensus on this key issue.
- ⊙ There was no pledge from the participating countries, particularly the developed ones, for new emission reduction targets. This is one of the important measures to keep the global warming within 1.5° C by 2050.
- ⊙ “There was little additional money that was put on the table. Global climate finance (2019-20) was estimated to be only 32% of annual investment required” (ToI, Kolkata, p.1).

Looking Ahead

It is imperative to reiterate that while “overreliance on fossil fuels could lock in a fatally warmer future with exacerbated health impacts, a health-centred, low carbon response offers renewed opportunity to deliver a future in which world population cannot only survive, but thrive.”

Talking climate change is very crucial and has to be understood and acted upon in its proper perspective. It is an important strategic requirement that business must address at all costs as a collective responsibility. The Governments in respective countries have an important role to play in the matter. It should adopt a holistic approach to pollution and climate change problems facing the world.

The conflict between haves (developed countries) and have-nots (developing countries) will always exist. Here the United Nations can play a great role in mediating, persuading and supporting the bigger cause of achieving the goal of reducing greenhouse gas emissions keeping in view the target of keeping the global warming at 1.5° C (34.7° F) by 2050.

“Parties” or countries have obligations as a contracting party or signatory to numerous agreements and treaties that relate to regional and/or global environment issues. Of course, specific obligations vary with each agreement or treaty. However, the degree of implementation depends on a number of factors, such as, availability of resources, the effectiveness of the environmental management mechanism, trade and diplomatic pressure, the reforms introduced in environmental regulations and laws and their enforcement, public support and participation, political

¹⁰ COP stands for Conference of Parties.

The Reports say that, “taken as a whole, the range of public evidence indicates that the net damage costs of climate change are likely to be significant and to increase over time.”

will of the country, to mention a few. For example, the Policy Statement of Government of India, 1992¹¹, in this regard, “expects and encourages more and more public co-operation and participation in future.”

India is now one of the emerging countries and a member of SAARC, ASEAN, BRICK and G-20. The President-ship of G-20 countries is now with India for 2022. A recent estimate of Government of India states “that India is now the fastest growing economy in the world” with 6.8% growth in GDP. The Prime Minister can, therefore, utilize this forum of G-20 to propagate and urge upon them for taking all necessary measures for protection of environment to promote “quality of life style” globally. **MA**

¹¹ An extract of the Policy Statement is given in Ramamoorthy, *ibid.*, p. 54.

References

1. Banerjee, Bhabatosh, *Corporate Environmental Management – A Study with Reference to India*, PHI, 2009.
2. Krisnamoorthy, Bala, *Environmental Management: Text and Cases*, PHI, 2022.
3. *Global Report of the Lancet Countdown*, 2022.
4. *Times of India*, Kolkata, November, dated 17 and 21, 2022.

Web References

1. United Nations Organisation, 1992, during Rio Summit.
2. <https://lancetcountdown.org:2022report>
3. *PM_{2.5} is tiny particles in the air that reduce visibility and cause the air to appear hazy when levels are elevated* (<https://health.ny.gov>)
4. www.google.com
5. *International Panel on Climate Change (IPCC) is a body of the United Nations entrusted to assess the science related to climate change.*
6. <https://mumbaigloss.in/trip-to-sunderbans-from-kolkata-for-bengal-tiger/>
7. www.google.com
8. www.google.wikipedia



**THE INSTITUTE
OF COST ACCOUNTANTS OF INDIA**

(Statutory Body under an Act of Parliament)

www.icmai.in



**Banking, Financial Services & Insurance Board (BFSIB) of
The Institute of Cost Accountants of India (ICAI)**

Organised

ICAI NATIONAL AWARDS - ESSAY CONTEST 2022 FOR BANKERS

TOPIC :-

**PIVOTAL ROLE OF
BANK'S LENDING/ CREDIT TO ACHIEVE
ATMANIRBHAR BHARAT**

Declaration of Winners of ICAI National Awards :Essay Contest 2022 for Bankers

1st

Ms. Sumitra Raghavan
Chief Manager & Faculty
Baroda Apex Academy

2nd

Shri Omprakash Sinha
Regional Credit Head
Jana Small Finance Bank Limited

3rd

Shri Ajay Kumar
Assistant General Manager
State Bank of India

Behind every successful business decision, there is always a CMA

COSTCO GARNERING COMPETITIVE ADVANTAGE THROUGH MAXIMISING CUSTOMER LIFE TIME VALUE



CMA (Dr.) Sreehari Chava
Practising Cost Accountant
Nagpur
sreeharichava@yahoo.co.in

COSTCO

Costco Wholesale Corporation (Costco) is a membership warehouse club envisioned to bring

Costco at a Glance	
Core Merchandise	Foods & Sundries; Non Foods; Fresh Foods
Locations	847 (of which 583 in USA)
E-Commerce Websites	8
Countries	14
Employees	314,000
Number of Members	118.9 Millions
Annual Revenue (Fiscal Year 2021-22)	US\$ 222.7 Billion
Market Capitalisation	US\$ 215 Billion

to its members merchandise of assured quality and reputed brands at best possible prices. As of December 2022, Costco operates 847 locations and eight e-commerce websites spread across fourteen countries. It engages about 314,000 employees in the aggregate. The market capitalisation of the company is reported to be US\$ 215 Billion as per NASDAQ.

Going by the annual reports of the company, the latest being for the fiscal year ended on August 28, 2022, the merchandise and services offered by Costco may be categorised as ⁽ⁿ¹⁾:

Abstract

Costco Wholesale Corporation (Costco) is a membership warehouse club envisioned to bring to its members merchandise of assured quality and reputed brands at best possible prices. The market capitalisation of the company is reported to be US\$ 215 Billion as per NASDAQ. The business model of Costco is unique and exclusive. The key components of its business model are twofold, viz.

- (i) *Membership based shopping and*
- (ii) *Warehouse based wholesale prices.*

A diligent perception puts it that 'Customer lifetime value' refers to the total worth of a customer to a business spanning the period of their relationship. The unique business model of Costco has been able to deliver the 'differentiated value' through membership based shopping; and 'low prices' by the medium of warehouse based wholesale prices; both together leading to a distinct competitive advantage. Thus, springs up the vital observation that Costco is garnering competitive advantage through maximising customer life time value.

"1. Core Merchandise

- a. Foods and sundries (includes sundries, dry grocery, candy, cooler, freezer, deli, liquor, and tobacco)
 - b. Non-foods (includes major appliances, electronics, health and beauty aids, hardware, garden and patio, sporting goods, tires, toys and seasonal, office supplies, automotive care, postage, tickets, apparel, small appliances, furniture, domestics, housewares, special order kiosk, and jewellery)
 - c. Fresh foods (includes meat, produce, service deli, and bakery)
2. Warehouse ancillary (includes gasoline, pharmacy, optical, food court, hearing aids, and tire installation)
 3. Other businesses (includes e-commerce, business centers, travel, and other."

As can be perceived from the very name itself, Costco has, over the years, carefully carved out a niche for its ultra-low prices on bulk items.

THE UNIQUE BUSINESS MODEL

The business model of Costco is unique and exclusive. The key components of its business model are twofold, viz.

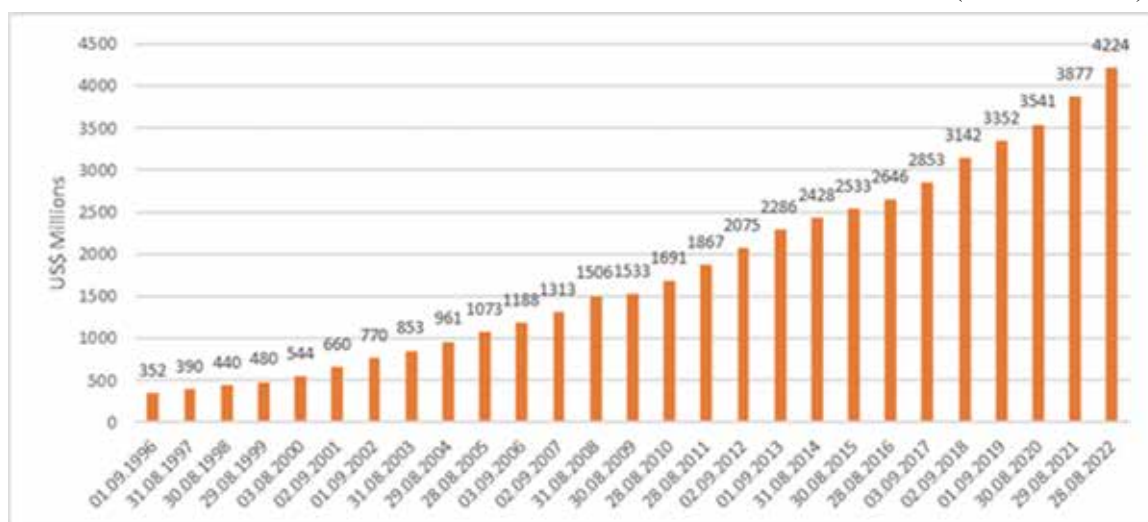
- Membership based shopping, and
- Warehouse based whole sale prices.

Membership Based Shopping

The primary component of the model is 'Membership-based shopping'. It simply means that Costco-Stores are exclusive to its members and non-members are not allowed either to enter or to shop. Reportedly⁽ⁿ²⁾, "the annual fee for the membership is \$60 in the U.S. and varies in other countries". As of December 2022, Costco has been able to acquire, a mind boggling, 118.9 million members. Graph 1 shows the 'Trend of revenue of Costco through its membership fee in US\$ Million for the 52/53-week period ending on 01.09.1996 to 28.08.2022.



GRAPH 1: TREND OF REVENUE OF COSTCO THROUGH MEMBERSHIP FEES (US \$ MILLION)



The graph reveals that the earnings of Costco through its membership fee have shored up from US\$ 352 million in 1996 to US\$ 4224 million in 2022, i.e. by twelve times, which is commendable by all means. The trend, thus, reflects consistent and incessant long term growth in membership revenue of Costco over the last twenty-seven years. The significant revelation is that membership fees is a source of no-cost- revenue and accounts for about two per cent of Costco's annual revenue as per the analytical computations of the author.

A vital observation is that, on an average, membership fees works out to seventy percent of Costco's operating income. Costco keeps on pursuing for continuous growth in its membership base and high renewal rates. The annual report reveals that ⁽ⁿ³⁾ "The member renewal rate was 93 per cent in the U.S. and Canada and 90 per cent worldwide at the end of 2022".

The enshrined inference is that differentiated customers do create differentiated revenue. Evidently, Costco strives

to create 'differentiated value' by means of membership based shopping.

Warehouse Based Whole Sale Prices

The second premise of the model is that, being conceived as a warehouse club, Costco sells its products in bulk from the warehouse itself at whole sale prices. The basic fundamental is that 'Selling from Warehouse-Base chaps down the distribution chain to a fairly shorter size and drives down the costs substantially'.

As stated in its annual reports ⁽ⁿ⁴⁾, "Costco buys most of its merchandise directly from manufacturers and routes it to cross-docking consolidation points (depots) or directly to warehouses. The process generates higher freight volumes (with resultant scale-economies) and handling efficiencies, thereby reducing the costs associated with traditional multiple-step distribution channels."

The annual report also highlights the practices that ⁽ⁿ⁵⁾

“Costco’s average warehouse space is approximately 146,000 square feet, with newer units being slightly larger. Floor plans are designed for economy and efficiency in the use of selling space, handling of merchandise and the control of inventory. Merchandise is generally stored on racks above the sales floor and displayed on pallets containing large quantities, reducing labour required. Handling of merchandise (with no frills) is minimum; and the warehouse facilities are on self-service mode”.

The entity, thus, achieves substantial cost savings in relation to storage, selling, general and administration expenses. This, in turn, enables Costco to offer its merchandise comparatively at much lower prices than its competitors. The explicit inference is that from a strategic

perspective Costco’s endeavour is founded, certainly, on an inventive ‘cost leadership’.

COST PLUS MINIMUM MARKUP

There are several business practices that have been invented and implemented by Costco whereby it attracts the customers and then bonds them perpetually. The most important business innovation that Costco practises is pricing based on ‘cost plus minimum markup’. Towards this end, Costco prices its products with minimum markup over the merchandise cost. Graph 2 depicts the ‘Trend of markup by Costco over its merchandise cost’ for the last 27 years.

GRAPH 2: MARKUP BY COSTCO AS A PER CENT ON MERCHANDISE COST



It may be observed from the graph that the minimum markup was 10.78 per cent during the year 1996 and the maximum markup was 12.80 per cent in 2016. Apparently, Costco has been able to price its products around 12 per cent markup, on a consistent basis, in comparison to over 20 per cent markup by its competitors. Considering the fact that selling and general administration expenses of Costco ranges to about 11 per cent of the merchandise cost, the net mark-up works out to, hardly, one per cent. That means, Costco has been able to offer the merchandise to its members at near-to-cost basis. This feature, alone, makes Costco more attractive than conventional grocery stores and supermarkets.

In addition, Costco vouches for risk-free 100 per cent satisfaction of its merchandise. Costco guarantees customer satisfaction on every product it sells, and assures full refund of the purchase price (but for some exceptions). **If not satisfied with the goods customers** are given the option of returning the goods and claiming full refund.

Such an innovative policy acts as a major selling point apart from contributing to higher customer confidence in the brand. The noteworthy inference is that customers of Costco tend to remain loyal to the brand because of the ever attractive prices and risk free satisfaction.

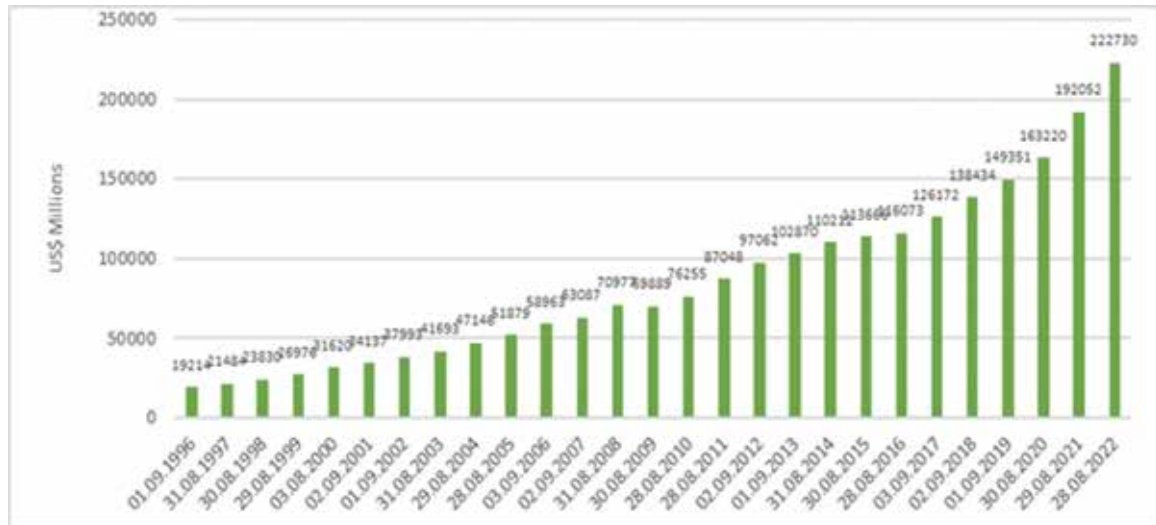
OPERATING FINANCIALS

Costco observes a 52/53-week fiscal year, consisting of thirteen four-week periods and ending on the Sunday nearest the end of August. The long term performance of Costco may be analysed by gauging the trend of its operating financials comprising of (a) Net sales; (b) Operating income; and (c) Annual growth rates of key elements.

Net Sales

The most important driver of profitability for any business is net sales. The trend of net sales achieved by Costco during last twenty-seven years is presented as Graph 3.

GRAPH 3: TREND OF NET SALES OF COSTCO



As may be seen from the graph, the trend of net sales of Costco over the years reflects a continuous and commendable growth. The annual net sales have gone up from US\$ 19,214 million in 1996 to US\$ 222,730 million by 2022 – a 11.6-fold increase over the years. Certainly, an astonishing achievement!

Its annual reports pinpoint that ⁽ⁿ⁶⁾, “Costco, strategically, endeavours to achieve net sales through increasing shopping frequency from new and existing members and the amount they spend on each visit (average ticket). Costco believes that generating net sales is, first and foremost, primarily,

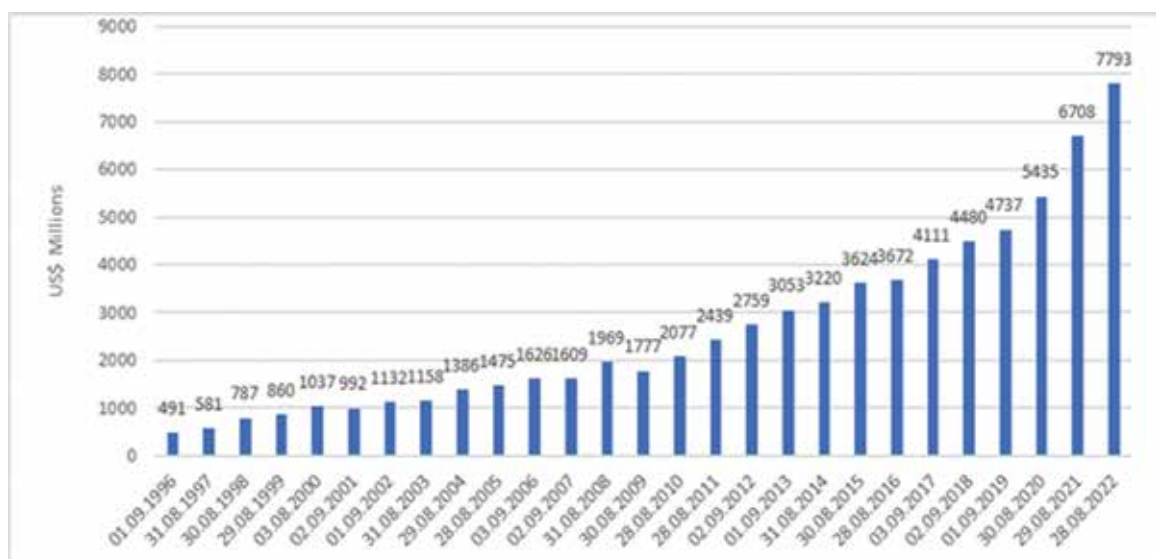
a question of making available to members the right merchandise at the right prices; a skill that it has acquired and demonstrated repeatedly over the long-term. Costco also achieves net sales growth by means of expansion, i.e. opening new warehouses”.

The trend of growth in net sales manifests the fact that Costco has been successful historically in adapting its business to the market changes as also to competition by means of innovative pricing, prudent merchandise mix, increasing the penetration of private-label items and through online offerings.

Operating Income

The operating income constitutes the primary bottom-line for every entity. Graph 4 presents the trend of Operating Income achieved by Costco during last twenty-seven years.

GRAPH 4: TREND OF OPERATING INCOME OF COSTCO



As may be gauged from the graph, the trend of operating income of Costco portrays a scenario of persistent and appealing growth. The operating income has shot up from a mere US\$ 491 million in 1996 to a huge US\$

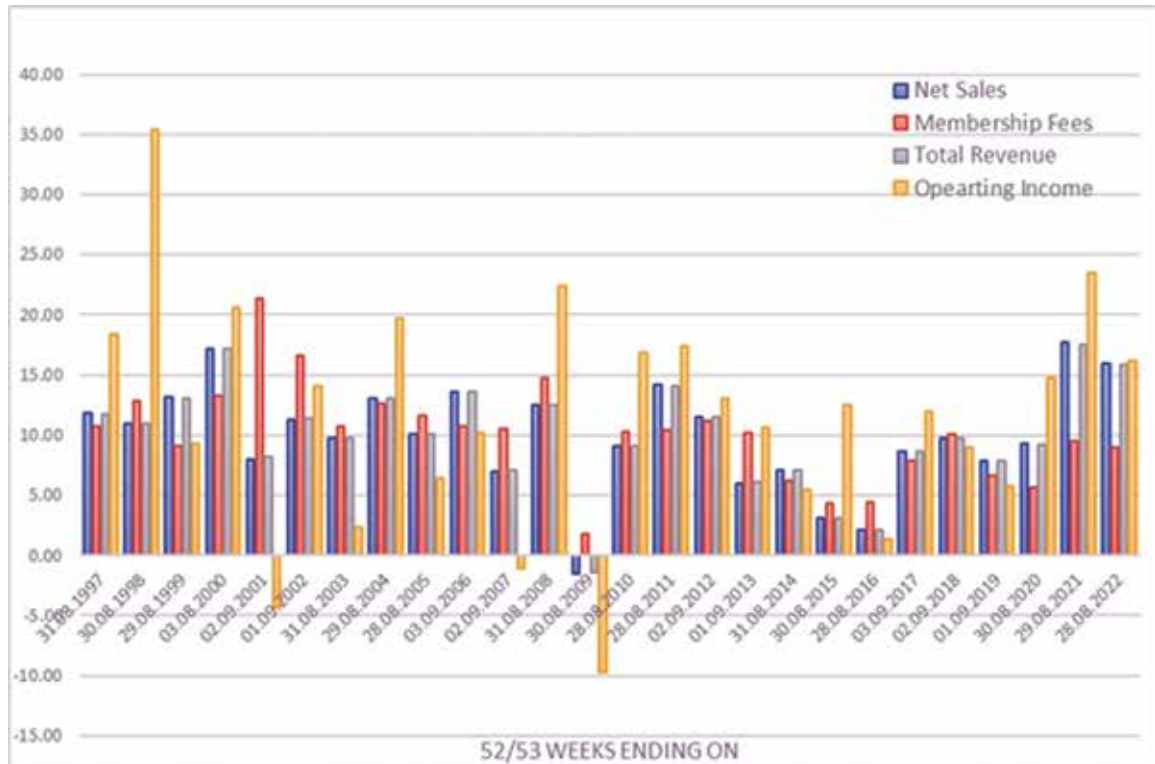
7793 million by 2022, thus revealing a performance par excellence.

The envisioned readings are that the warehouse based business model of Costco affords it variable cost minimization by means of higher degree of operating efficiencies; thus making it highly viable, effective, and efficient thereby ensuring a steady and growing stream of operating income for the brand.

ANNUAL GROWTH RATES OF KEY ELEMENTS

In relation to Costco, the key elements that impact the long term sustainability include net sales, membership fees, total revenue and operating Income. The comparative annual growth rates (i.e. growth for the current year over the previous year) of these elements of Costco for the last twenty-six years are presented as Graph 5.

GRAPH 5: ANNUAL GROWTH RATES (%) OF COSTCO



The trends depicted by the graph are self-explanatory. The rate of growth in membership fees is positive for all the years. Except for the recession year of 2009, the rates of growth with respect to net sales and total revenue are positive for all the years. The growth in operating income slipped below zero in 2001, 2007 and 2009. It is positive for all the other years. The market price of Costco's share is quoted in the range of US\$ 490 as of December 2022.

The clear inference is that the twenty-six-year trend of the financials of Costco pin points a fair and consistent growth. Impliedly, Costco has been able to sustain its business model successfully over the long run.

ADVANTAGE COSTCO

As is well established, a 'competitive advantage' is what sets a company apart from its competitors, in the eyes of its consumers. A diligent perception puts it that 'Customer lifetime value' refers to the total worth of a customer to a business spanning the period of their relationship. The intrinsic principle is that the 'value creation' is mutual

between the business and its customer which in turn leads to binding and branding. Increasing the value of existing customers is, always, a great way to drive growth. Seen in this perspective, Costco's business strategy has been structured on the fundamental of Customer Life Time Value.

The unique business model of Costco has been able to deliver the 'differentiated value' through membership based shopping and 'low prices' by the medium of warehouse based whole sale prices; both together leading to a distinct competitive advantage. Thus, springs up the vital observation that *Costco is garnering competitive advantage through maximising customer life time value!* **MA**

Resources

1. Annual Reports of Costco
2. Analytical Computations by the author
3. Personal Visits to Costco Stores located in and around Los Angeles
4. The narratives and figures marked as ⁽ⁿ¹⁾ to ⁽ⁿ⁶⁾ are derived from the general and membership information contained under the head "Information Relating to Forward Looking Statements" of Costco's Annual Report for 2022.

SUSTAINABLE REPORTING INDEX OF SELECT CEMENT MANUFACTURING COMPANIES IN INDIA

Abstract

Sustainability reporting is a tool used by the companies to convey their performance beyond the bottom line to its stakeholders. In India sustainability reporting will be compulsory for some specific companies from the year 2022-23. This study aims at the comparison of sustainability pillars to know the sustainability disclosure practices by three selected cement manufacturing companies in India. This study also aims at calculating the sustainability reporting index of these three selected cement manufacturing companies. Scores are derived using information gathered from secondary sources and content analysis of the annual reports and sustainability reports of the selected companies. The sustainability pillars and sustainability reporting index of the three chosen organisations were found to differ.



CMA Harshad Deshpande

Practicing Cost Accountants &
Insolvency Professional and Registered Valuer
Pune
harshad_de@hotmail.com



CMA Shameem Memon

Assistant Professor
V. M. Salgaocar Institute of
International Hospitality Education, Goa
shameemmemon23@gmail.com

INTRODUCTION

Green accounting, environmental accounting, sustainability reporting are the emerging concepts in the corporate sector because of the increasing awareness about the environment protection and social belongingness. Government is also making rules and regulations in this context in order to have transparency in the operations of the corporate sector by having better disclosure practices. Companies have started preparing and publishing the sustainability reports disclosing qualitative and

quantitative information about the impacts and initiatives taken with regards to different facets like environment, employees, economic and society etc. Considering different facets environment is the most critical facet because the impact on the environment is long lasting and many times irreversible. Taking into account the effects of different sectors on the environment, cement sector has a huge impact on the environment because of its manufacturing process. As per the Mineral Survey conducted in the year 2022 by The United States Geological Survey, India ranked second in the world for manufacturing cement. “As per Cement Information

System there are 169 cement companies in India making it the second largest polluter from cement manufacturing in the year 2019.” [1] Central Pollution Control Board in India has listed cement Industry as one of the most polluting industries. This has put more responsibilities on the cement industry to take initiatives for environmental protection and sustainability and also have proper disclosure practices relating to sustainability.

SUSTAINABLE REPORTING

Sustainability reporting is a tool which is used by companies to convey

the performance beyond the bottom line. It is used to have more transparency about the environmental, social and economic impact and risks the companies face. It also discloses the initiatives taken by the companies to reduce such risks and impacts. There are different standards for assessing and comparing sustainable reporting. Global Reporting Initiative (GRI) is the widely accepted one. It is introduced to include triple bottom line approach in reporting unlike traditional reporting where only bottom-line approach is followed. “A new reporting format termed as Business Responsibility and Sustainability Report (BRSR) would be required starting from 2022–2023 for the top 1000 listed companies in India by market capitalization, according to the Securities and Exchange Board of India”. [2,3] The sustainability reporting was voluntary till the year 2021-22.

LITERATURE REVIEW

Many researches are carried out in the field sustainable reporting of different companies in the world. Papoutsis A, Sodhi MS in 2020 conducted a survey of 331 American, Canadian and European companies of different revenue size and from different sectors to compute the sustainability reporting index. Chouhan, Sharma, & Goswami conducted a research on the sustainable reporting procedures of a few Indian cement businesses in 2021 in the form of a case study. where they found that there is no uniformity in the sustainable reporting practices followed by the five selected companies in India. Very few studies have been conducted to calculate the sustainability reporting index of companies. Some selected researches include Priyanka Garg, 2017 created the Sustainability Reporting Index (SRI) by taking into account various reporting standards such as Global Reporting Initiatives (GRI), Sustainability Reporting Guidelines for Management Guide, Dow Jones Sustainability Index, etc. She developed 60 disclosure requirements under economic, environment and social clusters having maximum score of 300 points. After conducting factor analysis, she concluded that her index can be applied for calculating the sustainable reporting index of companies in India. As an application of her own developed index, she computed sustainability reporting index of 17 companies from food and agro based industry listed on BSE, she found that ITC has the highest sustainability reporting index.

RESEARCH GAP

According to a review of related literature, no study has been conducted to determine the sustainable reporting index of cement manufacturing companies in India. Through this research paper an attempt is made to fill this research gap.

RESEARCH OBJECTIVES

1. To compare various environmental sustainability

reporting disclosures made by cement manufacturing companies in India.

2. To compute an environmental sustainable reporting index for cement manufacturing companies in India.

HYPOTHESIS

H0: The sustainable reporting index of select cement manufacturing Indian companies shows no difference.

H1: The sustainable reporting index of select cement manufacturing Indian companies differs.

RESEARCH METHODOLOGY

The secondary data collected from the websites of the sample cement companies listed on the Bombay Stock Exchange was used in this research study. Companies’ annual reports and sustainability reports from 2020 to 2021 are used to collect data on sustainable reporting. Secondary data is also collected from journals, websites of various organisations. Three companies, UltraTech Cement Ltd, Ambuja Cement Ltd, and ACC Ltd., were picked for the present study from a list of ten leading cement manufacturing companies according to market share and listed on the Bombay Stock Exchange. The data is analysed through content analysis of the companies’ annual reports and sustainability report. The scoring methodology is based on the Sustainability Reporting Index (SRI) developed by Priyanka Garg in 2017.

TABLE 1: SELECTED CEMENT MANUFACTURING COMPANIES WITH MARKET SHARE, MARKET CAPITALISATION AND ENVIRONMENTAL EXPENSES

Name of the Company	Market Share	Market Capitalisation (Rs. Cr)	Environmental Expenses in 2020-2021 (Rs. in Cr.)
Ultra Tech Cement Ltd	21.4%	107,207	228.00
Ambuja Cement Ltd.	6.20%	39,187	154.00
ACC Ltd	6.00%	27,886	148.44

Source: Self Compilation

SUSTAINABILITY PILLARS

While doing content analysis of sustainability reports of three companies it was found that in respect ACC Ltd. four pillars are reported namely Climate and Energy, Circular Economy, Environment and People and Community. The data for these four pillars was not readily reported in table form for UltraTech Ltd. and Ambuja Cement Ltd. Hence it was collected and compiled in the following single table for comparison purpose.

TABLE 2: SUSTAINABILITY PILLARS

Sustainability Pillars	CLIMATE AND ENERGY		CIRCULAR ECONOMY		ENVIRONMENT		PEOPLE AND COMMUNITY	
Lead Metrics	CO2 emitted (kg/t cementitious material)		Waste re-used (Million tonnes)		Water Positivity Index (No. of times)		No. of beneficiaries (in Million)	
Company/ Year	2020	2021	2020	2021	2020	2021	2020	2021
Ultra Tech Cement Ltd.	632.76	615.82	16.06	20.79	2.81	3.96	1.6	2.1
Ambuja Cement Ltd.	531	528.80	8.2	8.6	8.00	8.00	2.7	2.8
ACC Ltd.	493	488	9.3	11.36	1.1	1.35	0.4	0.50

From Table 2 it can be seen that CO2 emission (kg/t cementitious material) is higher in respect of UltraTech Cement Ltd for both the years. For reusing the waste material Ultra Tech has done better than the other two companies. Water positivity index of Ambuja Cement Ltd is much higher as compared to Ultra Tech Cement Ltd. and ACC Ltd. Ambuja Cement Ltd. has served more beneficiaries than UltraTech Cement Ltd. and ACC Ltd. during both years.

SUSTAINABILITY REPORTING INDEX

“The sustainability reporting index has three core clusters namely Economic Reporting, Environmental Reporting and Social Reporting. There were 13 parameters under Economic Reporting, 25 parameters under Environmental Reporting, 22 parameters under Social Reporting.” [4] The disclosure score methodology developed by Priyanka Garg in 2017 was used in this study, as shown in Table 3 below.

TABLE 3: SUSTAINABILITY REPORTING DISCLOSURE SCORES [4,5]

Sustainability Reporting Disclosure	Points
There is no information about the parameter.	zero
1-2 lines/no qualitative or numerical information about the parameter, but something general about it.	One
There has only been qualitative information .	Two
In addition to qualitative data, quantitative data has been provided.	Three
The facts and figures, as well as the rationale and results, are provided but are not GRI- checked.	Four
The facts and figures, as well as the rationale and results, are provided and are GRI- checked.	Five

Source: Priyanka Garg (2017) created a sustainability reporting index (SRI) with a focus on Indian companies. [4]

As per Table 3 the maximum score that a company can get for any parameter is 05. For the present study out of three core clusters only one is selected namely environmental reporting. There are 25 parameters in environmental reporting and the maximum score that environmental reporting can get is 125 that is 25 parameters multiplied by 05.

SUSTAINABILITY REPORTING SCORE OF SELECTED COMPANIES

The scores in the following table are calculated by conducting a content analysis of sustainability reports of Ultra Tech Cement, Ambuja Cement Ltd and ACC Ltd for the year 2020-2021. Criteria as given in table 1 are used for allocating the scores ranging from 0 to 05.

TABLE 4: SUSTAINABILITY REPORT CARD OF SELECTED COMPANIES

Sr. No.	Parameters	Score		
		Ultra Tech Cement Ltd	Ambuja Cement Ltd	ACC Ltd.
01	Corporate environmental commitment is demonstrated by the use of ISO 14001 for environmental management systems and other company certifications.	02	02	03
02	Reporting on environmental and energy conservation research and development	02	02	02

03	As a financial statement, disclose ongoing and anticipated environmental expenditures.	02	02	02
04	Firm's use of non-renewable natural resources disclosed	03	03	03
05	Natural resource management innovations implemented by the firm.	03	02	04
06	Recycling policies and practises for materials used and generated by the company.	04	04	04
07	Conservation and efficiency enhancement techniques save energy.	04	04	04
08	Efforts to provide products and services based on renewable energy	04	04	04
09	The firm's withdrawal of water has an impact on water sources.	03	04	05
10	The amount of water that the company recycles and reuses.	04	04	05
11	Significant effects of the firm's activities, products, and services on natural areas such as forests/wildlife, etc.	01	01	02
12	Initiatives/efforts/rehabilitation based on agriculture.	01	04	04
13	Sustainable raw material sourcing, including the buying of forest products and palm oil.	05	01	01
14	Strategies, present practices, and plans for the future for controlling ecological impact	02	04	01
15	Minimizing greenhouse gas emissions efforts.	04	04	04
16	Greenhouse gas emissions declined as a result of the initiatives.	04	04	04
17	Information about the quantity of hazardous waste that has been processed and disposal options.	05	05	04
18	Count of papers utilised is disclosed	00	00	00
19	Information on the compounds that cause air and water pollution.	05	00	02
20	Lowering carbon dioxide emissions to support green operations	05	04	04
21	An account of the intensity of the vibrations or noise.	00	00	00
22	Efforts to minimize the effects of goods and services on the environment.	04	04	04
23	Impact on the environment of the firm's transportation of products and goods	01	00	00
24	Accounting for the environment in terms of outputs and instruments.	04	04	04
25	Awards for the company's energy, safety, and environmental performance	04	04	04
Total Score Obtained		76	70	74
Maximum Score		125	125	125
Score in Percentage		60.80%	56.00%	59.20%

Source: Priyanka Garg (2017) created a sustainability reporting index (SRI) with focus on Indian Companies. [4,5]

Table 4 shows the parameter wise scores under environmental reporting. At the end, total scores and scores in percentage is calculated to compare the scores of three selected companies. Scores are converted to percent by dividing the sum by the maximum points and multiplying by 100. The score in percentage of UltraTech Ltd is higher than Ambuja Cement Ltd and ACC Ltd.

DISCUSSION

The present study is based on the sustainability reporting Index developed by Priyanka Garg (2017). In her study

while calculating the average score of sustainability reporting index of 17 selected companies, the researcher has not considered the maximum score that a company can procure; instead the researcher has considered the total parameters under each cluster. On the other hand, for the present study to calculate the average score of sustainability reporting with regard to environment, the maximum score is considered to calculate the score in percentage. In this way this study is different from n other studies.

This study can be helpful to companies to calculate the sustainability reporting index and figure out where they

lack and need improvement in sustainability reporting. Researchers and academicians can utilise this study to determine the sustainability reporting index for many clusters, including economic, environmental, and social. [4]

CONCLUSION

This study has selected environmental disclosures in the sustainability reporting to analyse the same and calculate the sustainability reporting index of Ultra Tech Cement Ltd. Ambuja Cement Ltd. and ACC Ltd. The sustainability pillars of these three chosen cement manufacturing firms have been compared in the study. The study covered how the sustainability reporting index is determined. From the study it can be concluded that as there is no standard format of sustainability reporting, companies are reporting in different formats that makes it really difficult for stakeholders to compare the sustainability standing of companies.

The study revealed that the CO₂ emission is more in case of UltraTech Cement Ltd as compared to Ambuja Cement Ltd and ACC Ltd during the years 2020 and 2021. UltraTech Cement Ltd has reused more waste as compared to Ambuja Cement Ltd and ACC Ltd during the years 2020 and 2021. Water positivity index of Ambuja Cement Ltd is higher as compared to Ultra Tech Cement Ltd and ACC Ltd and also it has served more beneficiaries as compared to Ultra Tech Cement Ltd and ACC Ltd in both the years under study namely 2020 and 2021. This shows that Ultra Tech Ltd. and ACC Ltd. have to take more measures to improve their waste recycle mechanism.

The sustainability reporting index of all three the companies is not the same and it is not very promising too. This makes us to reject our null hypothesis and retain the alternate hypothesis that 'There is a difference in the sustainable reporting index of select cement manufacturing companies in India' The sustainability reporting index of UltraTech Cement Ltd is higher as compared as other companies for the year 2021. This suggests that there is a need to improve the sustainable disclosure practices on the part of all three companies especially with regards to use of paper, pollution by transportation of own goods and material, disclosure about noise and vibration, significant impact on protected areas. The sustainability reporting index calculation methodology developed in this paper can be utilised by researchers to calculate the scores of other companies in India.

LIMITATIONS AND FURTHER RESEARCH

The present study has considered only three companies from cement industries for calculation of the sustainability reporting index of environment. A further study can be undertaken to cover more number of cement companies for calculating the overall sustainability reporting index instead of restricting it to only environment. **MA**

Sustainability reporting is a tool which is used by companies to convey the performance beyond the bottom line

References

1. <https://www.statista.com>
2. www.baseindia.com
3. www.schroders.com
4. Priyanka Garg, 2017. "Development of sustainability reporting index (SRI) with special reference to companies in India," *DECISION: Official Journal of the Indian Institute of Management Calcutta*, Springer; Indian Institute of Management Calcutta, vol. 44(4), pages 259-273, December
5. <https://link.springer.com/>
6. www.m.growingscience.com
7. Papoutsi A, Sodhi MS. A Sustainability Disclosure Index Using Corporate Sustainability Reports. *J Sustain Res.* 2020;2(2): e200020. <https://doi.org/10.20900/jsr20200020>
8. Chouhan, V., Sharma, R., & Goswami, S. (2021). Sustainable reporting practices of selected cement companies in India: A case study. *Accounting*, 7(1), 151-160.
9. Oza, M. K., & Jokhi, M. (2021). Sustainability reporting practices with special reference to cement industry in India. *Gap gyan-a global journal of social sciences*, 4(2), 18-29.
10. Bhatia, A., & Tuli, S. (2017). Corporate attributes affecting sustainability reporting: an Indian perspective. *International Journal of Law and Management*.
11. Burhan, A. H. N., & Rahmanti, W. (2012). The impact of sustainability reporting on company performance. *Journal of Economics, Business, & Accountancy Ventura*, 15(2), 257-272.
12. Khan, S., Chouhan, V., Chandra, B & Goswami, S. (2014). Sustainable accounting reporting practices of Indian cement industry: An exploratory study *Uncertain Supply Chain Management*, 2(2), 61-72.
13. <https://www.usgs.gov/centers/national-minerals-information-center/cement-statistics-and-information>
14. <https://eaindstry.nic.in/cement/report1.asp>

ACTOR NETWORK THEORY, SOCIAL NETWORKS, MARKETING OF MUTUAL FUNDS



Dr. Poornima A S

Assistant Professor

Sri Ramachandra Faculty of Management Sciences

SRIHER (DU)

Chennai

s.poornima@sriramachandra.edu.in

Abstract

Mutual funds have been preferred investment vehicles of small investors who wish to earn better risk adjusted returns. Though the mutual fund industry is making a significant progress especially during and after the pandemic, there is still a huge untapped market potential. Banks such as, Axis, Kotak, Bank of Baroda and Union Bank, among others, own mutual funds or have majority stakes in the asset management companies floated by them. This article probes as to how banks and asset management companies can use social networks to market mutual funds effectively, through the lens of Actor network theory.

INTRODUCTION

As social beings, we humans are influenced by our peers in almost every activity, including investment in financial securities floated by mutual funds. Mutual funds garner household savings of people and invest the funds in stocks, bonds and other securities. They float different schemes to attract different market segments based on their risk taking capability. A small investor usually deposits his savings by buying mutual fund units. These units can be purchased or redeemed as needed at the fund's current net asset value (NAV). The advantage that the small investor gets is professional expertise of fund managers to take care of their investments. At the macro level, mutual funds play an important role to transfer funds from surplus units to deficit units thereby ensuring economic growth.

The mutual fund industry AUM crossed Rs 40.37 lakh crore and has grown for the 10th consecutive year. (November, 2022) and the growth is attributed to investment by young millennials. Young millennials and Generation Z are digital natives and spend a lot of time on social media. Therefore, social media especially Facebook provides a robust platform for mutual funds to engage their customers meaningfully. Facebook brand pages enable Mutual funds to build online brand communities. These communities can satisfy the socially oriented needs identified by Hoffman (2007). Therefore, there is an ever-increasing need for updating the understanding of social media and further develop knowledge which suits the imperatives of marketing mutual funds in social media environments.

Research emphasises the fact that a considerably huge number

of financial decisions are a result of social interaction. Consumers are susceptible to interpersonal influences in making investment decisions, join investment clubs and discuss their investment decisions and performance with other stock market participants.

(Hoffman et al. 2007) Many authors in the recent years have investigated the impact of social media on stock market returns and the influence, the social media exercises on mutual fund investment. (Polisetty, A., & Manda, V. K., 2020). The most notable among the studies researching the impact of social media was the social media platform Reddit in the events around the GameStop (GME) share rally in 2021. (Long et al., 2022) They found that conversations around the Reddit platform indeed influenced the Gamestop's prices.

All the studies listed above suggest that the investment

decision by individuals reflects the collective knowledge, perceptions and prejudices of the communities they look up to. Among all social theories, it was found that the actor-network theory (ANT) would have the capability to effectively formulate the model.

ACTOR-NETWORK THEORY

The fundamental notion of actor-network theory (ANT), is to say that the action of an individual (called an actor) is attributable to the influences of the social network that the individual belongs. The actor can be human or non-human objects. Success, depends on the relationship between the elements in the network consisting of both

human and non-human actors. If the definition of the success of social media marketing communications on the Facebook page is the creation of investment intention, this success cannot be attributed to the company alone or the investor alone but to all actors in the network. Actors include non-humans such as social media marketing communications, social network site, the numerous investors and information generated by the users and the data generated by the company.

ANT postulates that social media influence (non-human actor) on investment is as equal to the investor himself. Thus, the investor (actor) reflects the awareness, expectations, perceptions, attitudes, intentions,

beliefs, and behaviours towards the financial security and collective intelligence of his network. These days, mutual fund companies are increasingly using Facebook to form online brand communities. Hence it is established that the technology (social networking sites such as Facebook) emerged from social interests (such as relationship building) and that it thus has the potential to shape social interactions. Therefore, from actor-network theory, it can be concluded that social media interactions on Facebook pages can foster relationships among all actors in the network (investor to investor, investor to mutual fund company and investor to product (financial security).

Table 1 indicates how the key notions of ANT have contributed to this study.

TABLE 1 CONTRIBUTIONS OF ANT TO THE PRESENT STUDY

Key notion	Valuable Contribution of that notion	Implications to our study	How our study would look like if ANT approach were not used
The active role of objects	How objects can actively transform established practices by influencing the way human actors are associated	Social media is viewed as actively transforming the way investment decisions are made by investors rather than being a relatively passive instrument	Social media would have been viewed as a passive medium which would lead to underestimating its influence
Fluidity of reality	Changing power relationships in Communication	Social media is viewed as a technology which has shifted the power of communication from the mutual fund company to the investor.	Networks would have been viewed as static and not dynamic. The influence of investor to investor communication through social media would have been undermined.
Acknowledging multiplicities	Helps to understand that relationship fostered by social media is multinodal and not diadic.	Social media marketing communications on mutual fund Facebook pages can influence multiple relationships such as 1. Investor to investor, 2. Investor to the mutual fund 3. Investor to mutual fund scheme. Thus the scales of all the relationship marketing variables have been adjusted to measure the relationships mentioned above	Only the relationship between the mutual fund company and the investor would have been measured

BUILDING BLOCK FOR MARKETING MUTUAL FUNDS- RELATIONSHIP WITH CUSTOMERS.

Morgan and Hunt (1994) defined relationship marketing for the first time as “all marketing activities directed

toward establishing, developing, and maintaining successful relationships” They explored the nature of RM and suggested how it should be conceptualised. They theorised that commitment and trust are vital variables that mediate successful

relationships. The most cited variables in relationship marketing literature are Trust, Commitment, Bonding, and Responsibility. This study assumes that they are the building blocks of relationship creation in a social media context.

FORMULATION OF A HYPOTHESIS

The actor-network theory posits that the outcome or successful action by any individual should be attributed to the network which consists of actors both human and non-human. Hence *in mutual fund investment scenario, successful action can be thought of as purchase of the mutual fund schemes floated by the mutual fund*. Though social media sites are sites which foster relationships, it may impact investment intention of financial securities floated by mutual funds.

From the actor-network theory, the main hypothesis is formulated thus:

H1: Relationship marketing variables Trust, Commitment, Bonding and Responsibility serially mediate the relationship between social media marketing communications and investment intention in the mutual fund segment (Reliance Mutual Fund Facebook brand pages).

The following sub hypothesis is derived from the existing literature to enable statistical testing.

Many researchers suggest that online communities in Facebook can be built by company Facebook pages and members perceive the information within online brand communities as objective and trustworthy (and were derived from opinion leaders. (Kim and Ko ,2012, Xu et al. (2015) The components of trust are identified are twofold namely (i) Information based trust and (ii) Identification based trust. In the context of the Facebook brand page of a mutual fund, this information is passed on by the mutual fund company to its investors. Therefore, in the actor-network theory parlance, the information based trust can be thought of as the trust between the two actors the company (non-human actor) and the investor (human actor). The first component of trust induced by the mutual fund Facebook page is as *investor to mutual fund trust*. Customer's trust in other members of the community created by Facebook brand pages may be based on their identification with others. The trustworthiness (e.g., honesty, integrity, benevolence) of other users can be transferred to the community, and therefore help customers build

stronger confidence in the Facebook brand page or other social commerce pages. The study of Valenzuela et al. (2009) also confirms that when users have a high level of trust in other members, they are more likely to trust Facebook page and use it frequently. Therefore, from actor network theory parlance, the second component of trust is investor (*human actor*) to investor (*human actor*).

Pitta, Franzak, and Fowler, (2006) define brand trust as a consumer's secure belief that a brand will perform as expected upon consumption. While investing in a mutual fund scheme, brand trust is the trust that the mutual fund scheme will perform as expected. Again using the actor-network theory, this is the belief the investor holds that the mutual fund scheme floated by the company is reliable and will perform as expected if not better upon Investment. Hence the third Component of trust identified in this study is *investor (human actor) to mutual fund scheme (non-human actor)*. Hence the hypothesis is formulated thus:

H1.1: Social media marketing communications on mutual fund Facebook page induces trust (investor to investor, investor to mutual fund page and investor to mutual fund scheme)

The commitment trust theory identifies that the direct outcome of trust is the affective commitment. Commitment is the desire to have a long term relationship with the brand. (Morgan & Hunt, 1994). Many authors claim that trust is among the major determinants of relationship commitment context. From actor-network theory, a web of relationships is conceptualized as existing between different actors (investors, mutual fund company, mutual fund scheme) in the network.

Hence the next hypothesis is formulated as under:

H1.2: Trust (investor to the investor, investor to mutual fund and investor to mutual fund scheme) will lead to commitment (investor to investor, investor to mutual fund and investor to mutual fund scheme) in the viewers of mutual fund Facebook page.

Many authors suggest that the natural consequence of commitment, that is desire to maintain long-term relationship, is a sense of belonging that leads to formation of social bonds, (Devito 1993; Gustafsson et al., 2005). Hsu et al (2010), suggests that relationship marketing through microblogging such as Twitter influences behavioural intentions through the mediators, trust, commitment and sense of connectedness (bonding) to community. Also from actor-network theory, a web of relationships is conceptualized as existing between different actors (investors, mutual fund company, mutual fund scheme) in the network. Hence the next hypothesis is formulated thus:

H 1.3: Commitment (investor to investor, investor to mutual fund and investor to mutual fund scheme) will lead to bonding (investor to the investor, investor to mutual fund and investor to mutual fund scheme) in the viewers of mutual fund Facebook page.

Yim et al., (2008) found that stronger personal bonds among buyers and sellers lead to a greater feeling in buyers that the sellers are responsible. From actor-network theory, a web of relationships is conceptualized as existing between different actors (investors, mutual fund company, mutual fund scheme) in the network.

Therefore, the next hypothesis is formulated as

H 1.4: Bonding (investor to investor, investor to mutual fund and investor to mutual fund scheme) will lead to perceived responsibility (investor to investor, investor to mutual fund and investor to mutual fund scheme) in the viewers of mutual fund Facebook page.

Stronger personal bonds among buyers and sellers lead to a greater feeling in buyers that the sellers are responsible which in turn will lead to purchase intention. (Yim et al. 2008). However, the role of perceived responsibility variable, though important is not extensively researched. From actor-network theory, a web of relationships is conceptualized as existing between

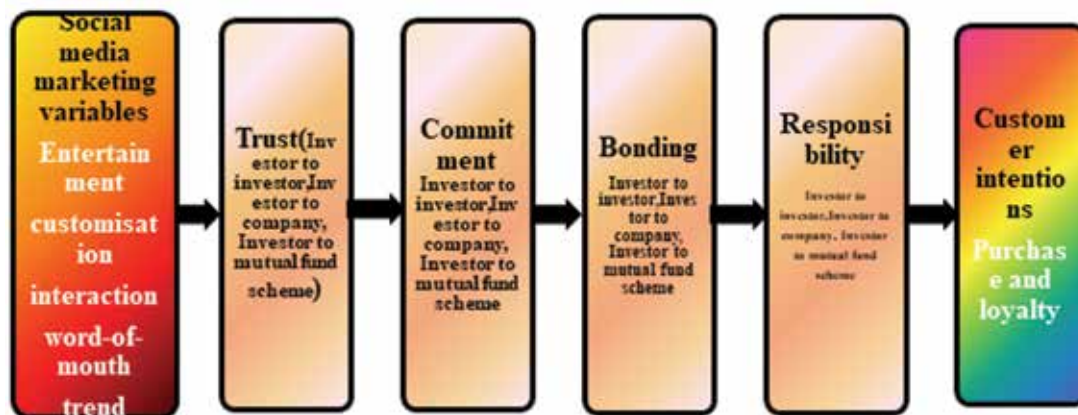
different actors (investors, mutual fund company, mutual fund scheme) in the network. The next hypothesis is formulated as-

H 1.5: Perceived responsibility

(investor to investor, investor to mutual fund and investor to mutual fund scheme) will lead to investment intention (purchase intention of financial securities) in the viewers of

Reliance Mutual Fund Facebook page. From the discussion, a model is proposed for creating investment intention through social media which is shown diagrammatically hereunder:

FIG 1 THE PROPOSED MODEL



The action of an individual (called an actor) is attributable to the influences of the social network that the individual belongs

EXPECTED CONTRIBUTION TO MANAGERIAL PRACTICE

Examining the role of social media marketing communications through actor-network theory is expected to give a lot of impressive contributions to practicing managers in banks and asset management companies. The literature suggests that marketers, especially in financial services, may be expected to, make a fundamental shift in their approach and sell to the network of individuals rather than one person. They may try to find the influencers in each segment and employ influencer marketing tactics. With word-of-mouth being a key factor among investors in choosing new funds, having a presence on social networks helps mutual funds to stay in their consideration set. Facebook pages provide a robust

platform where mutual funds can have a meaningful two-way dialogue with their investors both current and potential. Banks and mutual fund companies should float brand communities facilitated by Facebook pages and use it as tools to provide social and emotional support to the investors. **MA**

REFERENCES

1. Gustafsson, A., Johnson, M.D., & Roos, I. (2005). The effects of customer satisfaction, relationship commitment dimensions, and triggers on customer retention. *Journal of Marketing*, 69(4), 210-218
2. Hoffmann, A. O. I. (2007). Investors' needs and the investment professional: Lessons from marketing. *The Journal of Investment Consulting*, 8, 80-91
3. Kim and Ko (2012) "Do social media marketing activities enhance customer equity? An empirical study of luxury fashion brand" *Journal of Business Research* 65 (2012) 1480-1486
4. Long, S., Lucey, B., Xie, Y., & Yarovaya, L. (2022). "I Just Like the Stock": The Role of Reddit Sentiment in the GameStop Share Rally. *Financial Review*.
5. Morgan, R.M., & Hunt, S.D. (1994). The commitment-trust
- theory of relationship marketing. *Journal of Marketing* 58(3), 20-38
6. Pitta, D., Franzak, F., & Fowler, D. (2006). A strategic approach to building online customer loyalty: integrating customer profitability tiers. *The Journal of Consumer Marketing*, 23 (7), 421-431
7. Polisetty, A., & Manda, V. K. Application of Marketing 4.0 Principles By the Indian Mutual Fund Industry.
8. Valenzuela, S., Park, N., & Kee, K. F. (2009). Is there social capital in a social network site?: Facebook use and college students' life satisfaction, trust, and participation. *Journal of computer-mediated communication*, 14(4), 875-901.
9. Xu, Q., Su, Z., Zhang, K., Ren, P., & Shen, X. S. (2015). Epidemic information dissemination in mobile social networks with opportunistic links. *IEEE Transactions on Emerging Topics in Computing*, 3(3), 399-409.
10. Yim, C. K., Tse, D. K., & Chan, K. W. (2008). Strengthening customer loyalty through intimacy and passion: Roles of customer-firm affection and customer-staff relationships in services. *Journal of marketing research*, 45(6), 741-756.

Down The Memory Lane

January, 2013



Signing of MOU on 10 January, 2013 at GIFT Project (Gujarat International Finance Tec-City Co. Ltd.), Gandhinagar in presence of Hon'ble Chief Minister of Gujarat Shri Narendra Modi. Photo inset CMA Kaushik Banerjee, Additional Secretary of the Institute and Shri Ramakant Jha, Director, GIFT Project.



The President, Vice President and dignitaries lighting the lamp at 54th National Cost Convention-2013 held in Ahmedabad during 18-19 January, 2013

January, 2003



Delegation of Cost Accountants meet K. Vijayarama Rao, Minister for Commercial Taxes, Andhra Pradesh. Others seen from left B.V. Ramana Murthy, President ICWAI; K. Ch. A.V. S.N. Murthy, Chairman, SIRC and D. L. S. Sreshti, Chairman, Hyderabad Chapter



Inaugural function of the programme on Management Accounting for ONGC Executives. Seen from left S.N. Ghosh, former Secretary, ICWAI; Rabin Deb, MLA, WB Assembly, Bibhananda Majumder, CCM; MS Biswas, Deputy General Manager (Finance), ONGC; B.K. Bhar, a Senior Member of the Institute.

January, 1993



Shri K.G. Goyal presenting a flower bouquet to Shri A.K. Agarwal, Addl. Secretary, Ministry of Surface Transport on the occasion of talk delivered by Shri A.K. Agarwal.

Down The Memory Lane

January, 1983



Hon'ble Dr. V.R. Nedunchezhiyan, Minister for Finance, Govt. of Tamilnadu delivering Address at Silver Jubilee National Cost Conference and First South East Asian Cost and Management Accountants' Convention



Hon'ble Shri Jagannath Kaushal, Minister for Law, Justice and Company Affairs, Govt. of India addressing the audience. On the dais (L to R): Shri J K Puri; M.R.S. Iyengar; S. Sankaranarayana; G. K. Abhayankar; K K Dutta and M.P. Pandit

January, 1973



Shri N.G. R. Rao, Coaching Committee Chairman, Bangalore- garlanding the Hon'ble Minister for Industries for Industries, Mysore Govt. Shri S. Sankaran, Director of the Course is also seen.

Source: Extracted from the various issues of *The Management Accountant Journal*

Name of The Article	Name of Author/s	Volume	Issue	Issue No.	Page No.	DOI Numbers
ADVANCING DEVELOPMENTS IN THE TELECOM INDUSTRY	CMA Swamy Nunna	57	Nov-22	11	23-25	10.33516/maj.v57i11.23-25p
EMERGING TRENDS IN INDIAN TELECOM INDUSTRY:A STUDY	CMA Tapan Bhattacharyya Subha Bhattacharyya	57	Nov-22	11	26-28	10.33516/maj.v57i11.26-28p
INFRASTRUCTURE DEVELOPMENTS IN INDIAN TELECOM INDUSTRY: CHANGING THE COURSE OF INDIA'S FUTURE	Dr. Biswajit Paul Dr. Ashish Kumar Sana	57	Nov-22	11	29-33	10.33516/maj.v57i11.29-33p
IMPACT OF INFRASTRUCTURE, MARKETING,AND PRICING STRATEGIES ON CUSTOMER SATISFACTION OF TELECOM USERS A SECTORAL STUDY	Dr. Amit Kumar Nag Dr. Neelakshi Arora Dr. Rahul Joshi	57	Nov-22	11	34-40	10.33516/maj.v57i11.34-40p
INDIAN TELECOM TOWER INDUSTRY - KEYASPECTS AND CHALLENGES	CMA Arnab Chatterjee	57	Nov-22	11	41-43	10.33516/maj.v57i11.41-43p
SWOC ANALYSIS OF THE INDIAN TELECOM SECTOR: A FINANCIAL VIEWPOINT	Dr. Asha E. Thomas Dr. Bino Joy	57	Nov-22	11	45-48	10.33516/maj.v57i11.45-48p
BLOCKCHAIN'S IMPACT ON TELECOM IN INDIA	CS Puja Shree Agarwal	57	Nov-22	11	49-52	10.33516/maj.v57i11.49-52p
INDIAN TELECOMMUNICATION SECTOR -2G TO 5G REVOLUTION	Dr. Ranpreet Kaur Dr. Sonali Prasad Dharmadhikari	57	Nov-22	11	53-56	10.33516/maj.v57i11.53-56p
DIGITAL INITIATIVES OF THE GOVERNMENT OF INDIA FOR BRIDGING DIGITAL DIVIDE IN HIGHER EDUCATION	Amit Kumar Dutta	57	Nov-22	11	57-59	10.33516/maj.v57i11.57-59p
TELE DENSITYAND BROADBAND DENSITY IN INDIA: A STUDY OF INTERSTATE AND INTERNATIONAL COMPARISONS	Dr. Pradeep Kumar B	57	Nov-22	11	60-64	10.33516/maj.v57i11.60-64p
PRESENT STATE OF INTEGRATED REPORTING DISCLOSURE PRACTICES IN INDIAN TELECOM INDUSTRY	Shivam Agnihotri Dr. D.R. Saklani Dr. Shikha Gupta	57	Nov-22	11	65-69	10.33516/maj.v57i11.65-69p
DIGITAL TRANSFORMATION WITH INTELLIGENT ROBOTIC PROCESS AUTOMATION (RPA)	CMA (Dr.) Paritosh Basu	57	Nov-22	11	71-76	10.33516/maj.v57i11.71-76p
IDENTITY CHECKS & CORRECTNESS OF BANK ACCOUNT USING PENNY DROP PROCEDURE	CMA DM Balachander	57	Nov-22	11	77-78	10.33516/maj.v57i11.77-78p
MIMETIC ISOMORPHISM: A TOOL FOR ORGANIZATIONAL LEGITIMACY	Gurwinder Kaur Dua CMA (Dr.) Shivani Inder	57	Nov-22	11	79-82	10.33516/maj.v57i11.79-82p
TIME TO INSTITUTIONALISE ARBITRATION PROFESSION	CMA Kazi M Riyazuddin	57	Nov-22	11	83-85	10.33516/maj.v57i11.83-85p
BEHAVIOUR OF DIVIDENDS OF SELECT CEMENT COMPANIES IN INDIA: A STUDY	Sutapa Banerjee	57	Nov-22	11	86-88	10.33516/maj.v57i11.86-88p
ASSESSMENT OF TQM DIMENSIONS IN INDIAN ORGANIZATIONS: A SYSTEMATIC LITERATURE REVIEW	Sanjay Bharti Dr. Asif Akhtar Dr. Mukesh Chaturvedi	57	Nov-22	11	89-95	10.33516/maj.v57i11.89-95p
TRUST, ETHICS AND GOVERNANCE: A CORPORATE PERSPECTIVE	Dr. Ramroop K. Sharma Dr. Parag S. Shukla	57	Nov-22	11	96-100	10.33516/maj.v57i11.96-100p

NEWS FROM THE INSTITUTE



EASTERN INDIA REGIONAL COUNCIL

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
BHUBANESWAR CHAPTER



Symposium of Ind - AS

The Chapter successfully organized a two day workshop on “Symposium of Ind - AS” on 26th – 27th November, 2022 at CMA Bhawan, Nayapalli, Bhubaneswar. CMA Niranjana Mishra, Council Member and the then Chairman, Committee of Cost Management for Public and Government Services, ICAI inaugurated the workshop as Chief Guest in the presence of CMA B K Dash, GGM (F) & ED (F) I/C, NALCO Ltd., CMA Ramsankar Mishra, Sr. Manager (Finance), MRPL, CMA Santanu Kumar Rout, Chairman of the Chapter, CMA Saktidhar Singh, Past Chairman & Chairman, PD Committee of the Chapter and CMA Surya Narayan Tripathy, Secretary of the Chapter. CMA B K Dash, GGM (F) & ED (F) I/C, NALCO Ltd. delivered a detailed talk on Ind - AS 02: Inventory, Ind - AS 16: Property Plant & Equipment and Ind - AS 37: Contingent Liabilities. CMA Ramsankar Mishra, Sr. Manager (Finance), MRPL spoke on Indian Accounting Standard (Ind - AS) and convergence with IFRS, Ind - AS 01: Presentation of Financial Statement, Ind - AS 24: Related Party Transaction) and Ind - AS 34: Interim Financial Report. About 70 participants consisting of practicing CMAs, finance personnel from various corporates and young CMAs actively participated in the workshop.



Constitution day pledge

Members of the Managing Committee, staff and stakeholders of the Bhubaneswar Chapter took a pledge

on 26.11.2022 at CMA Bhawan to commemorate the Constitution day before the inaugural session of the two day workshop held on the theme “Symposium of IndAS” in the presence of CMA Niranjana Mishra, Council Member & the then Chairman, CCMPGS, ICAI, CMA Santanu Kumar Rout, Chairman, ICAI-Bhubaneswar Chapter, CMA Surya Narayan Tripathy, Secretary, ICAI-Bhubaneswar Chapter, CMA Saktidhar Singh, Past Chairman & Chairman, PD Committee, ICAI-Bhubaneswar Chapter, CMA B K Dash, GGM (F) and ED (F) I/C, NALCO Ltd., CMA Ramsankar Mishra, Sr. Manager (F), MRPL and other participants.



Career Awareness Programme

A career awareness programme was organized by the Chapter at Ramadevi Womens' Higher Secondary School, Bhubaneswar on 03.12.2022. CMA Santanu Kumar Rout, Chairman of the Chapter highlighted the career prospects of CMA course, course curriculum and clarified the queries from students pursuing +2 and +3 Commerce. Shri H K Biswal, AAO of the Chapter also clarified few queries of the aspirants. More than 200 students actively participated. Shri Mayadhar Barik, Asst. Professor in Commerce, RD Womens' Higher Secondary School also addressed the students.



Seminar on RERA

The Chapter in association with the Odisha Real Estate Regulatory Authority (ORERA) organized a seminar on the theme “An Insight to RERA- Provisions and Implications” on 18th December, 2022 at CMA Bhawan, Nayapalli, Bhubaneswar. Shri Siddhanta Das, IFS (Retd.), Chairperson, Odisha RERA inaugurated the seminar as Chief Guest. Shri

Pradeep Kumar Biswal, IAS (Retd.), Member (Admin.), Odisha RERA, Shri Ramanath Panda, OSJS (SB)- Retd., Member (Judicial), Odisha RERA and CMA Shiba Prasad Padhi, Past Chairman, ICAI-EIRC addressed as special guests in the inaugural session. CMA Santanu Kumar Rout, Chairman of the Chapter delivered the welcome address while CMA Saktidhar Singh, Past Chairman and Chairman PD Committee of the Chapter facilitated the entire programme. Smt. Sravani Patnaik, OAS (SAG), Additional Secretary, Odisha RERA extended a formal vote of thanks. To commemorate the Seminar, a SOUVENIR was released by the chief guest in the presence of other dignitaries. In the technical session, Shri Bijay Kumar Prusty, OAS (SS), Secretary, Odisha RERA addressed as special guest. Shri Debasis Singh, OAS (SAG), Additional Secretary, H&UD Department, Govt. of Odisha, Advocate Bibhu Prasad Tripathy, Additional Government Advocate (AGA), Odisha High Court and Joint General Secretary, Bar Association of India and Shri Rabi Narayan Padhi, OSD (Land Matters), Odisha RERA spoke on various aspects and interacted with the participants specifically on the Real Estate (Regulation and Development) Act, 2016 and Odisha Real Estate (Regulation and Development) Amendment Rule, 2022 as resource person. CMA Surya Narayan Tripathy, Secretary of the Chapter extended a formal vote of thanks at the conclusion of the technical session. More than 150 participants consisting of CMAs, executives of Odisha RERA, and representatives from CREDAI, Odisha & Bhubaneswar, representatives from apartment associations, builders, Advocates and other stakeholders actively participated in the seminar.



Campus interview

A campus interview was organized by the Chapter on 23.12.2022 & 24.12.2022 at CMA Bhawan for internship as Qualified Intermediate Accounts Trainees (QIAT) at NALCO Ltd. Around 80 Intermediate qualified CMA Students attended the Interview, out of which NALCO selected 19 candidates in various categories for engagement as trainees for a period of two years. CMA Mukesh Chaubey, Past Chairman and Chairman, Training, Placement & Branding Committee of the Chapter and CMA Santanu Kumar Rout, Chairman of the Chapter

coordinated the event. On behalf the NALCO Ltd., CMA Chandra Sekhar Gummadi, Senior Manager (Finance), Shri Purna Chandra Panigrahi, Manager (HR) and CMA Niranjana Sahoo, Former CGM (Finance) Odisha Power Transmission Corporation Ltd., Bhubaneswar and Past Chairman of the Chapter conducted said interview.

NORTHERN INDIA REGIONAL COUNCIL

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA JAIPUR CHAPTER

Career Counselling programme

The Chapter organised Career Counselling programme at Parishkar College of Global Excellence, Mansarovar on 16th November 2022. CMA Harendra Kumar Pareek, Vice-Chairman and CMA Purnima Goyal, Treasurer of the Chapter gave detailed information relating to CMA course and about its future prospects.

Seminar on 'Investment tips and wealth planning & Succession planning

The Chapter organised a seminar on 26th November 2022 on the Topics "Investment tips & wealth planning" and "Succession Planning in personal life and Business". At the beginning of the program, Past Chairman of the Chapter, CMA Swapnil Bhandari welcomed speakers and participants. In the first technical session, key speaker CA Pawan Sharma, leading investment consultant gave certain investment tips and also explained in detail wealth planning. In the second technical session, key speaker CMA Tanuj Agrawal, leading tax practitioner explained in detail the topic "Succession Planning in Personal life and Business". The program was conducted by Treasurer of the Chapter, CMA Purnima Goyal. At the end of the program, CMA Swapnil Bhandari, Past Chairman of the Chapter thanked the speakers and participants.

Blood Donation and health Check-up camp

The Chapter organised a blood donation and health check-up camp on 4th December 2022 in association with Evaa Super Speciality Hospital and Swastik Blood Centre. Chairman of the Chapter CMA Sudarshan Nahar welcomed the Doctors & medical Team of EVAA Super speciality Hospital as well as the donors and participants. Initially Dr. Mahidhar, explained the topic "Coronary Artery Disease". Dr. Abhimanyu Singh, explained about Cancer Awareness. The program was conducted by Secretary of the Chapter Dr. Deepak Kumar Khandelwal. At the end of the programme, Vice-Chairman of the Chapter CMA Harendra Kumar Pareek thanked all the participants.

Seminar on GSTR 9 & 9C

The Chapter organised a Seminar on 17th December

2022 on the Topic “GSTR9 & 9C” and “How to Increase Revenue in our profession”. At the outset Chairman of the Chapter CMA Sudarshan Nahar welcomed the key speakers and the participants. In the first technical session, key speaker CMA Aayush Gupta, leading tax practitioner explained in detail GSTR9 & 9C. In the second technical session, key speaker CA Vijay Agrawal, leading tax practitioner explained in detail how to increase revenue in our profession. The program was conducted by CMA Dr. Deepak Kumar Khandelwal, Secretary of the Chapter. At the conclusion CMA Swapnil Bhandari, Past Chairman of the Chapter thanked the speakers and participants.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA LUCKNOW CHAPTER



“CMA Practitioner Meet “and “CMA Family Get Together” was organised by Lucknow Chapter of Institute. The Programme was inaugurated by the Chief Guest Hon’ble CMA Rakesh Bhalla, Vice President, The Institute of Cost Accountants of India.



SOUTHERN INDIA REGIONAL COUNCIL

PD Programme on Related Party Transactions

SIRC organized a Professional Development Program on the topic: “Related Party Transactions – Critical Analysis” on 17.12.2022 at its premises. The Guest Speaker was CMA N Palaniappan, Company Secretary & GM - Finance, Blue Dart Aviation Limited, Chennai.

Welcome to President

The Regional Council accorded a warm welcome to CMA Vijender Sharma, President of the Institute for the year (2022 – 2023) on his visit to the SIRC Premises, Chennai on 23.12.2022.

India@100- Growth Trajectory for banks

SIRC organized a Joint seminar on ‘India@100- Growth Trajectory for banks’ with BFSI Board & IPA of ICAI, SIRC, ICAI and Madras Management Association, on 23.12.2022, at Madras Management Association Hall, Mount Road, Chennai. Technical session speakers were eminent persons from leading banks.





**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
BENGALURU CHAPTER**

Professional development programmes

The Chapter organized professional development programmes on December 3, and 17, 2022. Sri. Ramanathan Subramanian, MBA, CISA, CRISC, CPP, CMP, CCS, ISO, RPA, CMA Satish R, Chairman BCCA, CMA Jayaram A V, Vice Chairman BCCA, CMA Pranabandhu Dwibedy, Treasurer BCCA, CMA Vijayalakshmi K R, Coaching Chairperson, CMA Sreepada H R, PD Chairman BCCA, CMA Vishwanath Bhat, Vice Chairman, SIRC were the speakers at the programme. CMA G Jaganatha Gopalakrishnan - Managing Director, AARMS Value Chain Pvt Ltd, CMA Satish R, Chairman BCCA, CMA Jayaram A V, Vice Chairman BCCA, CMA Manjula B.S, Chairperson PF, CMA Vijayalakshmi K R, Coaching Chairperson, CMA Venakataraman G N, Former President ICAI were the speakers.

Student's Programme

The Chapter organized Student's Programmes on November 26 and 27, 2022.

CMA Venkanna, Former Chairman BCCA, CMA Sriram A N, Faculty BCCA, CMA Vijay Kumar C S, Faculty BCCA, CMA Praveen Kumar G, Faculty BCCA, Mrs. Bindu Menon, IDFC Bank Zonal Head – Institutional Sales (South) were the speakers at the programme on 26 November 2022.

Mrs.Keerthana, Soft Skill Trainer, Mission Catalyst, CMA Satish R, Chairman BCCA, CMA Vijayalakshmi K R, Chairperson Coaching BCCA, CMA Jayarama A V, Vice Chairman BCCA, CMA Raghavendra B K, Secretary BCCA, CMA Pranabandhu Dwibedy, Treasurer BCCA, CMA Sreepada H R, Chairman PD, CMA Vishwanath Bhat, Vice Chairman SIRC, CMA Pranabandhu Dwibedy Treasurer BCCA were the speakers at the programme on 27 November.

Career counselling programmes

The Chapter organized career counselling programmes

at various colleges of Bangalore during November and December 2022.

Faculty Meeting

The Chapter organized a Faculty Meeting at its premises on December 3, 2022. CMA Sreepada H. R, PD Chairman BCCA, CMA Satish R. Chairman BCCA, CMA Vijayalakshmi K R, Coaching Chairperson, CMA Jayarama A V, Vice Chairman BCCA, CMA Pranabandhu Dwibedy, Treasurer BCCA were the speakers.

Kannada Rajayasthova Celebration

The Chapter conducted Kannada Rajayasthova Celebration at its premises on November 26, 2022. CMA Venakataraman G N, Former President ICAI, Dr.Hulikal Nataraj, State President - Karnataka State Scientific Research Council, CMA Satish R, Chairman BCCA, CMA Raghavendra B K, Secretary BCCA, CMA Vijayalakshmi K R, Coaching Chairperson, CMA Jayarma A V, Vice Chairman BCCA, CMA Pranabandhu Dwibedy, Treasurer BCCA, CMA Sreepada H R, PD Chairman BCCA were the speakers on the occasion.

Constitution day observance

CMA Raghavendra B K, Secretary BCCA, CMA Vijayalakshmi K R, Coaching Chairperson, CMA Jayarama A V Vice Chairman BCCA, CMA Pranabandhu Dwibedy, Treasurer BCCA were the speakers on the occasion.

The Chapter organized a programme to commemorate the Constitution Day- at its premises.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
COCHIN CHAPTER

Career Guidance programmes

The Chapter conducted various Career Guidance programmes between 25th October and 14 December 2022 at various colleges in Cochin. CMA K M Babu, Faculty Member was the moderator of the programme.

Inauguration of 98th batch of oral tuition classes

The Chapter conducted its 98th Oral Coaching session was inaugurated on 3rd December, 2022 at the Center for Excellence, CMA Bhavan, Chalikkavattom, Vyttila. CMA Sankar P Panicker, Chairman, SIRC Inaugurated the function. CMA Thomas T V, Vice Chairman of the Chapter & Chairman, Coaching Committee, welcomed the gathering. CMA Meena George, Secretary of the Chapter proposed the vote of thanks. The inauguration ceremony was followed by a function to felicitate those who cleared the final examination held in June 2022.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
VIJAYAWADA CHAPTER



Felicitations to President

The Chapter organized a programme to felicitate CMA P Raju Iyer, Past President of the Institute on 23rd November 2022. Besides Shri P Raju Iyer, CMA S Papa Rao, Central Council Member, CMA K Pandu Ranga Rao Regional

Council member of the Chapter, Secretary CMA P Vinay Ranjan, CMA B V S Suresh Vice Chairman of the Chapter, CMA K Ramachandra Rao Committee Member, CMA Rakesh Sankar were the other dignitaries to grace the function. Members and students of ICAI in large numbers attended the programme.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
HYDERABAD CHAPTER

Meeting with valuation professionals

The Chapter organised a meeting with valuation professionals at its premises as per their request on 17.11.2022. Sri RM Bhawe and other valuation professionals participated in this programme.

Talk on Income Tax Notices and Appeals etc

On 26.11.2022, the Chapter organized a programme on "Income Tax Notices and Appeals, GST Notices and Appeals & FEMA -Special Emphasis on ECB".

Constitution Day

The Chapter conducted a professional development programme on the occasion of 'Constitution Day' on 26th November, 2022. CMA (Dr.) K.Ch.A.V.S.N. Murthy Central Council Member, CMA Vijay Kiran Agstya, Secretary of SIRC, were the guests at the programme. CA Abhishek Murali made a detailed and informative presentation on "Income tax Proceedings & appeals before CIT and ITAT." CA Vinay Chordia explained about Notice under GST, reasons for GST notices, types of notices under GST law, valid modes of sending GST notes, reply to GST notices and effect of not replying etc. CMA CA Koushik Mukhesh R discussed the most interesting topic namely External Commercial Borrowings under FEMA.

Study circle meeting

The Chapter organised a Study circle meet on the request of practising members regarding MCA Notices on November 26, 2022. CMA (Dr.) K.Ch.A.V.S.N. Murthy, Central Council Member and CMA K. Narasimha Murthy, Cost and Management Consultant answered various queries

raised by the members. CMA B.B. Goyal who participated virtually as per the request of members. CMA B.B. Goyal emphasized that it is not an intention to find any system only with the auditors. It is also in the companies that how do they make an improvement in the system and on that.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA COIMBATORE CHAPTER



Orientation Programme about CMA course

On 09th November, 2022, an Orientation Programme about CMA course was conducted by the Chapter Secretary, CMA Surya Prakash U at Sri Nehru Maha Vidhyalaya

College of Arts & Science. He made a detailed presentation about the Institute, course syllabus and activities of the Chapter.

PDP on Related Party Transactions

A PDP on “Related Party Transactions: Case Studies” was held on 08th December, 2022 at the Chapter premises. Dr. K.Gurusame, Past Chairman of the Chapter spoke on the topic. The meeting was attended by a large number of members.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA TRIVANDRUM CHAPTER

Career Counselling Programmes

The Chapter conducted a career counselling programme for the students of Mother Theresa College, Trivandrum on 21.11.2022. CMA Pramode Chandran P G, Treasurer of the Chapter and CMA Manoharan Nair G S, Faculty of the Chapter conducted the career counselling session for the First Year B. Com. Students.

A similar programme was conducted at Christian College, Trivandrum on 24.11.2022 for the B.Com. first year students. CMA Pramode Chandran P G, Treasurer of the Chapter and CMA Manoharan Nair G S, Faculty of the Chapter were the resource persons.

Yet another career counselling program was conducted at Christ Nagar College, Trivandrum on 08.12.2022 for the B.Com. first year students. CMA Pramode Chandran P G, Treasurer of the Chapter and CMA Manoharan Nair G S, Faculty of the Chapter were the resource persons.

The fourth such programme was held at NSS College, Trivandrum on 21.12.2022 for the B.Com. first year students. CMA Pramode Chandran P G, Treasurer of the Chapter and CMA Manoharan Nair G S, Faculty of the Chapter were the resource persons.

All these sessions were well attended by students and faculty members of the colleges and were well appreciated.



WESTERN INDIA REGIONAL COUNCIL



SME Manufacturers & Exporters Summit

WIRC in association with the SME Chamber of India organized the SME Manufacturers & Exporters Summit on 19th November, 2022 at Enrise by Sayaji, Nashik. The inaugural session was chaired by E. Mr. Kong Xianhua, Consul General - People's Republic of China. The key speakers at this session were Shri Chandrakant Salunkhe, Founder and President - SME Chamber of India and Maharashtra Industry Development Association; Mrs. Mary Sagaya, General Manager State Bank of India and CMA Shriram Mahankaliwar, Chairman WIRC of ICAI, CMA Shriram Mahnakliwar, made a power point presentation to make aware the MSME entrepreneurs about the various services being provided by The National Small Industries Corporation Ltd, Under the Ministry of MSME, for the benefit of MSME Sector with regard to Single Point Registration, MSME Global Mart, Consortia & Tender Marketing etc. The first technical session was on "Supporting SMEs and Manufacturers for better Business Growth". Mr. Jigar Desai, Area Channel Manager Maharashtra & Goa, SBI General Insurance, Mr. Nitesh Jain, Business Head Commercial, Direct to Consumer Business - TransUnion CIBIL Limited, Mr. Ajit Kumar, Head Machinery and Equipment U GRO Capital Ltd and Mr. Tapan Kashyap, AVP FX Retail, Clearing Corporation of India Ltd. were the speakers. The second technical session was on "Transforming SMEs for better business growth Strategies and Initiatives". Mr. Abhishek Ambekar, Area Head, Nashik, Aditya Birla Sun Life Insurance; Mr. Satish Gadale, SMB Sales Manager-RoMH + GoA, AWS, Mr. Rajiv Manalal Gupta, MD & Founder Worxpertise group & Mr. Kaushiik Chandra, Business Coach, AtKonnecTRedefiningg Businesses were the speakers. The third technical session was on "Emerging Business and Export Opportunities". Mr. Michael Brown, Deputy Consul General, Australian Consulate, Mumbai, CMA Pradnya Chandorkar, Practicing Cost Accountant, Committee Member of National Advisory Board of Women Entrepreneurs Development Council, CMA Dipak N. Joshi, Practicing Cost Accountant, Mr. Ajit Shah, Director, Universal Connections were the speakers. CMA Vinayak

Kulkarni, Vice Chairman WIRC & CMA Ashish Bhavsar, Hon. Secretary, WIRC were also present on the occasion. Large number of MSME entrepreneurs and CMA members from Nashik Chapter attended the summit.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA NASHIK CHAPTER



Round Table conference

A Round Table Conference was held at Divya Marathi on 26th Nov. 2022. Senior CMA members along with committee members attended the conference. CMA Bhushan U Pagere, Chairman of Nashik Chapter briefed about the setting up of the Institute, its expansion, scope, educational as well as social activities, structure etc. The Chapter is conducting coaching classes, imparting various training to students as well as members, conferences etc. On behalf of Nashik Chapter, CMA members shared their views and experience. CMA Vittaldas Shenoy, Head and AVP (Finance) Graphite India Limited (Nashik Division), CMA Rammohan Bhawe, Faculty and consultant in IFRS Valuation startups, CMA Amit Jadhav, Supply Chain Manager, Borosil Glass, CMA Ashish Talikot, Manager Finance Anand Group, CMA Prashant Yeole, Practicing Cost Accountant, CMA R.K. Deodhar, Practicing Cost Accountant, CMA Dipak Joshi, Practicing Cost Accountant, CMA Dhananjay Jadhav, GM, Manufacturing Finance, Sula Vineyards Ltd, CMA Rajendra Shirsat, Finance Controller (Retd.), Everest Industries Ltd., CMA Devendra Deore, GM Finance (Retd.), Kirloskar Oil Engines Private Ltd.

(Currently Practicing Cost Accountant and Insolvency Professional, Virtual CFO), CMA Nilesh Ghuge, Manager Controlling, TDK India Private Limited were among those who attended the conference. CMA Nikhil Pawar proposed a vote of thanks.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
NAVI MUMBAI CHAPTER



Counselling Session Webinar

The Chapter conducted a career counselling webinar on 1st December 2022 via Zoom Meet app at Pillai College, Panvel. The speaker for the event was CMA Vaidyanathan Iyer, Chairman of the Chapter who articulated the salient features of the CMA Course and explained that CMA Course is going Global and is very important in the changing economic and business environment. HOD Ms Bhavana Parab and the Co-ordinator Ms Prajakta Bapat provided excellent support and co-operation for conducting career counselling for the college students.

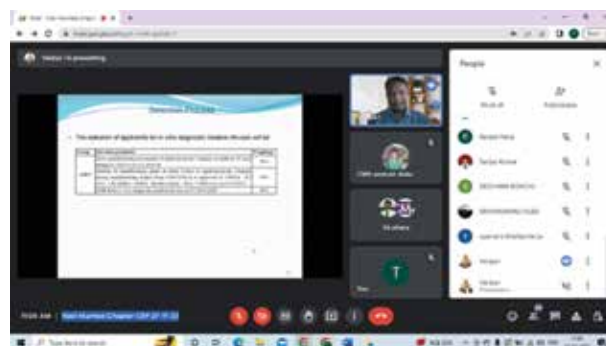
Offline Workshop for Students

The Chapter conducted an offline workshop on 26th November 2022 for students at KB Patil College, Vashi, Navi Mumbai on Managing Anxiety and Stress by using Karmayoga concept of Bhagavad Gita. The speaker for this unique workshop was Ms. Ramya Kannan, CMA, CA, CS and currently a Ph.D. research scholar of Chinmaya Vishwa Vidyapeeth. CMA Vaidyanathan Iyer, Chairman

of the Chapter introduced the speaker and welcomed the students to the workshop. The speaker mentioned that in this fast paced technological age, everyone at some point of time is subject to high anxiety or stress due to many reasons and ancient research mentions that Bhagavad Gita has contemporary relevance that can be used to address many issues. CMA Sushant Ghadge, Secretary, CMA Remesh Babu, Treasurer and CMA Ajay Mohan, Managing Committee Member of the Chapter participated in the event. The splendid workshop came to an end with the vote of thanks proposed by CMA Sushant Ghadge, Secretary of the Chapter.

Webinar CEP programme

The Chapter conducted a Webinar CEP programme on "PLI Scheme in Pharma Sector" on 27th November 2022. The speaker was CMA Vaidyanathan Iyer, Chairman of the Chapter. CMA Vivek Bhalerao, PD Committee Chairman of the Chapter welcomed the audience and introduced the speaker and emphasized on delving deep into the intricacies of the PLI Schemes available in the Pharma sector to reap maximum benefits. The lucid presentation and the interactive workshop came to an end with a vote of thanks proposed by CMA Ajay Mohan, Managing Committee Member of the Chapter.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
AHMEDABAD CHAPTER

Industry Orientation Program

The Chapter organized an Industry Orientation Program for final students from 23rd to 29th Nov'22. CMA Malhar Dalwadi, Chairman of the chapter inaugurated the programme. Eminent faculties delivered lectures on various topics. There were PowerPoint presentation sessions.

CEP on "Data Analysis

The Chapter organized a CEP on "Data Analysis & Dashboard Reporting through MS Excel" on 15th December '22. CMA Malhar Dalwadi, Chairman of the Chapter welcomed and introduced the speaker Mr. Bhavin Goklani. CCM CMA Ashwin Dalwadi felicitated the speaker by offering a memento. Mr. Bhavin Goklani, gave a detailed presentation and explained the subject in

detail. The presentation was very useful to the participants. CMA Malhar Dalwadi proposed a vote of thanks.

Students felicitation

The Chapter organized a felicitation function for December 2021 passed Foundation students and Foundation, Inter and Final pass students of June'2022 examination on 19/12/2022. CMA Sushil Handa, Director, Flourish Food Products Pvt. Ltd. was the Chief Guest. CMA Ashish Bhavsar, RCM, Secretary, WIRC shared the dais with the Chief Guest. CMA Mitesh Prajapati, Secretary and Oral Coaching Committee Chairman welcomed the guests and the gathering and gave a brief introduction of the dignitaries on the dais and details of the new Syllabus 2022. The Chief Guest was felicitated by CMA Ashish Bhavsar, RCM, Secretary, WIRC. CMA Malhar Dalwadi, Chairman of the Chapter felicitated the RCM, Secretary of WIRC CMA Ashish Bhavsar. CMA Malhar Dalwadi, Chairman of the Chapter congratulated all the pass-out students and briefed them about the various activities carried out by Ahmedabad Chapter and thanked CMA Marzun Jokhi, Dean of GLS University for providing their premises to organise the felicitation function. RCM and Secretary of WIRC, CMA Ashish Bhavsar gave a brief talk about the activities carried out by Institute. He also shared his views on the prospects of CMA course and congratulated the students for their success in the examinations. Chief Guest CMA Shushil Handa also congratulated the pass-out students and shared his views on the need for hard work to succeed in professional examinations. The students were felicitated by the dignitaries on the dais, members, and faculties. The function concluded with a vote of thanks by CMA Dakshesh Chokshi, Vice Chairman of the Chapter and playing of National Anthem.

CEP webinar

The Chapter organized a CEP webinar on "Making Cost Audits relevant for the Audit Committee Meetings" on 20th December'2022. CMA Malhar Dalwadi, Chairman of the Chapter welcomed and introduced the speaker CMA Sankalp Wadhwa who in his address gave a detailed presentation and explained on the subject of webinar. Large number of participants attended the webinar. CMA Mihir Vyas, Vice Chairman of the Baroda Chapter proposed a vote of thanks.



Revision session for students

The Chapter commenced the revision batch of Inter and Final course for Dec'22 exams from 19th Dec'2022. Major topics of the syllabus were covered to refresh the students by various faculties. A large number of students took advantage of the revision batch.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA PUNE CHAPTER



CEP "Decoding CASH for Business Excellence"

The Chapter conducted a CEP on the subject "Decoding CASH for Business Excellence" on 25th November 2022 at its premises. CMA Jayadev Mishra, CFO, ASAL was the speaker. CMA Nilesh Kekan, Treasurer, Pune Chapter welcomed and introduced the speaker to the participants. CMA Abhay Deodhar, Managing Committee Member, ICAI-Pune Chapter felicitated the speaker CMA Jayadev Mishra guided the participants on the subject *Decoding CASH for Business Excellence*. The Lecture was very lucid and informative. CMA Nilesh Kekan, Treasurer, Pune Chapter proposed vote of thanks.

Full Day seminar

The WIRC jointly with Pune Chapter organised a full day seminar on "Manufacturing 4.0- The Enabler for Value Creation" on 17th December 2022 at Pune. CMA Chaitanya Mohrir, Treasurer WIRC and CMA Vinayak Kulkarni, Vice Chairman, WIRC were the representatives from WIRC at the programme. Mr. Deepak Karandikar was the Chief Guest. Speakers at the programme were Mr. Pravin Deshpande-Co Founder and Director TCP, Mr. Gopinath Jayraj, CIO-TATA Motors for the first technical session on Technology and Digitation. Mr. Priyadarshan Kshirsagar, Consultant, TCS and Mr. Amit Ghaisas, Managing Director, Yash Prabha Group were the speakers at the second technical session on "Core Manufacturing". CMA Rajesh Shukla, Head-Indirect Taxation, TATA Motors and CMA Milind Date, Learning & Development Consultant were the speakers at the third technical session on "Finance & ESG". Earlier CMA Meena Vaidya welcomed the participants and introduced the speakers. CMA Vinayak Kulkarni, Vice Chairman, WIRC felicitated the Chief Guest Mr. Deepak Karandikar.

CMA Milind Date, Chairman of the first technical session felicitated the speakers Mr. Pravin Deshpande and CMA Gopinath Jayraj. CMA Rajiv Shukla, Chairman of the second



technical session felicitated the speakers Mr. Priyadarshan Kshirsagar and Mr. Amit Ghaisas.

CMA Prasad Joshi, Chairman of the third technical session felicitated the Speakers CMA Rajiv Shukla and CMA Milind Date.

The seminar was specifically designed for the Engineering and Automobile Industry and it helped the participants to understand the impact of Manufacturing 4.0 on value creation, how to evaluate your manufacturing value chain and digital transformation.

Webinar

The Chapter organised a webinar on the subject “Reporting Critical transactions in GSTR 9 and 9C” on the evening of 21st December 2022 through Google Meet video conferencing tool. CMA Rahul Chincholkar was the speaker. CMA Nagesh Bhagane, Secretary of the Chapter welcomed and introduced the speaker. The Lecture was very lucid and knowledge sharing. CMA Shrikant Ippalpalli, Chairman, P D Committee of the Chapter proposed a vote of thanks.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA PIMPRI CHINCHWAD AKURDI CHAPTER

Webinars

The Chapter conducted a webinar on ‘Global Taxation – US Taxation, Indian Taxation and Comparison’ on 17th December 2022 through Google Digital platform. CMA Pradeep Deshpande, Vice-Chairman of the Chapter welcomed the speaker Mr. Krishan Sharma and the audience. CMA Pradeep Sahasrabudhe introduced the speaker Mr. Krishan Sharma extensively spoke on with Global Taxation. The session ended with a vote of thanks.

A second webinar on ‘PLI Scheme in Pharmaceuticals Sector’ was organised on the evening of 24th December 2022 through Google Digital platform. CMA Dhananjay Kumar Vatsyayan, Chairman welcomed the audience and speaker CMA Vaidyanathan Iyer, Practicing Cost Accountant

and Chairman of Navi Mumbai Chapter. CMA Pradeep Deshpande, Vice-Chairman of the Chapter introduced the speaker. CMA Vaidyanathan Iyer in his speech dealt with the key definitions key starting material (KSM) and active pharmaceutical ingredient (API). He said that pharmaceutical formulations are the medicines as found in retail. The programme concluded with a lively question-answer session. The webinar was very interactive and there was overwhelming response from practicing members, members from industry, professionals and students.

Career Counselling Programmes

The Chapter conducted a Career Counselling Programme on 29th November 2022 at Valvan College of Arts, Science & Commerce Lonavla. Prof. Mrs. Vanita Padhye, Head of Commerce Department welcomed the speaker CMA Pratap Bhagwani and the Chapter team. She also introduced the faculty CMA Lalitha Deepak.

On 30th November 2022 a similar programme was conducted at Pratibha College of Arts, Science & Commerce at Pimpri-Chinchwad. Prof. (Dr.) Kshitija Gandhi, Principal addressed the gathering and felicitated the speaker CMA Lalitha Deepak, Practicing Cost Accountant and faculty of PCA Chapter. Prof. Shruti Ganpule, HOD, Commerce introduced of the speaker.

On 9th December 2022 a career counselling programme was conducted at SNBP Junior College of Commerce at Chikhali. Prof. (Dr.) Kavita Joshi, Principal addressed the gathering. Prof. CMA Saddam Hussain introduced the speaker CMA Lalitha Deepak, Practicing Cost Accountant and faculty member.

On 9 December 2022 CMA Pratap Bhagwani, Practicing Cost Accountant gave a lecture on the subject ‘Industrial Costing’ to the students of third year B.Com. All the students solved their queries during the training session. There was a huge response from the students. Faculty members of the Commerce Department also attended the programme. There was overwhelming response from the students.



Direct & Indirect Tax Updates - December 2022

DIRECT TAXES

- **Notification dated 12th December 2022:** Reference is invited to Notification No. 03/2022 dated 16th July 2022 issued by Directorate of Income Tax (Systems) New Delhi in exercise of powers conferred under Rule 131(1)/(2) of the Income-tax Rules mandating, inter alia, furnishing of Form 10F electronically.

On consideration of the practical challenge being faced by non-resident (NR) taxpayers not having PAN in making compliance as per the above notification, and with a view to mitigate genuine hardship to such taxpayers, it has been decided by the Competent Authority that such category of Non resident taxpayers who are not having PAN and not required to have PAN as per relevant provisions of the Income-tax Act, 1961 read with Income-tax Rules, 1962, are exempted from mandatory electronic filing of Form 10F till 31st March 2023. For the sake of clarity, it is reiterated that such category of taxpayers may make statutory compliance of filing Form 10F till 31st March 2023 in manual form as was being done prior to issuance of the DGIT(Systems) Notification No. 3 of 2022.

- **Notification No. 127 dated 26th December 2022:** In exercise of the powers conferred by sub-section (1) of section 280A of the Income-tax Act, 1961 (43 of 1961) read with 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 Orissa, hereby designates the Courts in the State of Odisha, as mentioned in the Table, as Special Courts for the areas mentioned in column (3) of the said Table, 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. 128 dated 28th December 2022:** In exercise of the 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, 1000242244 Ontario Inc. (PAN: AACCCZ0457B), (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.
- **Circular No. 24/2022 dated 7th December 2022:** Income-tax deduction from salaries during the Financial Year 2022-23 under section 192 of the Income-tax Act, 1961.
- **Circular No. 25/2022 dated 30th December 2022:** Section 269ST inter-alia prohibits receipt of an amount of two lakh rupees or more (hereinafter referred to as 'the

prescribed limit ') by a person, in the circumstances specified therein, through modes other than by way of an account payee cheque or an account payee bank draft or use of electronic clearing system through a bank account or through such other electronic mode as may be prescribed. It is clarified that in respect of Co-operative Societies, a dealership/ distributorship contract by itself may not constitute an event or occasion for the purposes of clause (c) of Section 269ST. Receipt related to such a dealership/distributorship contract by the Co-operative Society on any day in a previous year, which is within 'the prescribed limit' and complies with clause (a) as well as clause (b) of Section 269ST, may not be aggregated across multiple days for purposes of clause (c) of Section 269ST for that previous year.

INDIRECT TAXES

GST

- **Notification No. 25/2022-Central Tax dated 13th December 2022:** In exercise of the powers conferred by the proviso to sub-section (1) of section 37 read with section 168 of the Central Goods and Services Tax Act, 2017 (12 of 2017), the Commissioner, on the recommendations of the Council, hereby makes the further amendment in the notification of the Government of India in the Ministry of Finance Department of Revenue), No. 83/2020 –Central Tax, dated the 10th November, 2020.

In the said notification, after the second proviso, the following proviso shall be inserted, namely:

Provided also that the time limit for furnishing the details of outward supplies in FORM GSTR-1 of the said rules for the tax period November, 2022, for the registered persons required to furnish return under sub-section (1) of section 39 of the said Act whose principal place of business is in the districts of Chennai, Tiruvallur, Chengalpattu, Kancheepuram, Tiruvannamalai, Rani-pet, Vellore, Villupuram, Cuddalore, Thiruvavur, Nagapattinam, Mayiladuthurai and Thanjavur in the State of Tamil Nadu, shall be extended till the thirteenth day of the month succeeding the said tax period.

- **Notification No. 26/2022-Central Tax dated 26th December 2022:** In exercise of the powers conferred by section 164 of the Central Goods and Services Tax Act, 2017 (12 of 2017), the Central Government, on the recommendations of the Council, hereby makes the following rules further to amend the Central Goods and Services Tax Rules, 2017. These rules may be called the Central Goods and Services Tax (Fifth Amendment) Rules, 2022.
- **Notification No. 27/2022-Central Tax dated 26th December 2022:** In pursuance of the powers conferred by sub-rule (4B) of rule 8 of the Central Goods and Services Tax Rules, 2017, the Central Government, on the recommendations of the Council, hereby specifies that the provisions of sub-rule (4A) of rule 8 of the said rules shall not apply in all the States and Union territories

except the State of Gujarat.

- **Circular No. 183/15/2022-GST dated 27th December 2022:** Clarification to deal with difference in Input Tax Credit (ITC) availed in FORM GSTR-3B as compared to that detailed in FORM GSTR-2A for FY 2017-18 and 2018-19.
- **Circular No. 184/15/2022-GST dated 27th December 2022:** Clarification on the entitlement of input tax credit where the place of supply is determined in terms of the proviso to sub-section (8) of section 12 of the Integrated Goods and Services Tax Act, 2017.
- **Circular No. 185/15/2022-GST dated 27th December 2022:** Clarification with regard to applicability of provisions of section 75(2) of Central Goods and Services Tax Act, 2017 and its effect on limitation.
- **Circular No. 186/15/2022-GST dated 27th December 2022:** Representations have been received from the field formations seeking clarification on certain issues with respect to:
 - a) Taxability of No Claim Bonus offered by Insurance companies
 - b) applicability of e-invoicing w.r.t an entity

The Board hereby clarified the issue to ensure uniformity in the implementation of the provisions of law across the field formations, the Board, in exercise of its powers conferred by section 168 (1) of the Central Goods and Services Tax Act, 2017 (hereinafter referred to as "CGST Act").

- **Circular No. 187/15/2022-GST dated 27th December 2022:** Clarification regarding the treatment of statutory dues under GST law in respect of the taxpayers for whom the proceedings have been finalised under Insolvency and Bankruptcy Code, 2016.
- **Circular No. 188/15/2022-GST dated 27th December 2022:** Prescribing manner of filing an application for refund by unregistered persons.

CUSTOMS

- **Notification No. 62/2022-Customs dated 26th December 2022:** Seeks to give effect to the first tranche of tariff concessions under India Australia ECTA.
- **Notification No. 63/2022-Customs dated 27th December 2022:** Seeks to give effect to the fourteenth and final tranche of tariff concessions under India ASEAN Trade in Goods Agreement.
- **Notification No. 64/2022-Customs dated 29th December 2022:** Seeks to give effect to the second tranche of tariff concessions under India Australia ECTA.
- **Notification No. 65/2022-Customs dated 29th December 2022:** Seeks to amend notification Nos. 48/2021 and 49/2021 - Customs, both dated 13.10.2021, in order to extend the existing concessional import duties on specified edible oils and lentils up to and inclusive of the 31st March, 2024.
- **Circular No. 25/2022-Customs dated 9th December**

2022: Postal Export (Electronic Declaration and Processing) Regulations, 2022 and implementation of PBE Automated System.

CENTRAL EXCISE

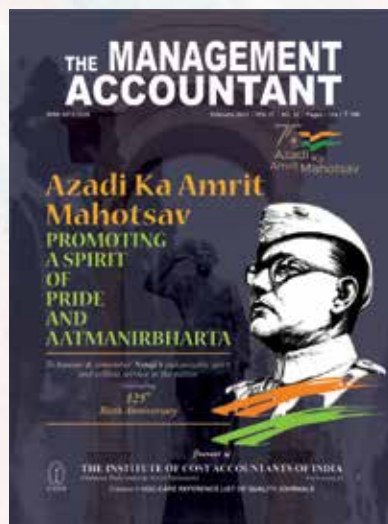
- **Notification No. 40/2022-Central Excise dated 1st December 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944) read with section 147 of the Finance Act, 2002 (20 of 2002), the Central Government, on being satisfied that it is necessary in the public 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. 18/2022-Central Excise, dated the 19th July, 2022. In the said notification, in the Table (i) against S. No. 1, for the entry in column (4), the entry "Rs. 4,900 per tonne" shall be substituted.
- **Notification No. 41/2022-Central Excise dated 1st December 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944) read with section 147 of Finance Act, 2002 (20 of 2002), the Central Government, on 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. 04/2022-Central Excise, dated the 30th June, 2022. In the said notification, in the Table, (i) against S. No. 2, for the entry in column (4), the entry "Rs. 6.50 per litre" shall be substituted.
- **Notification No. 42/2022-Central Excise dated 15th December 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944) read with section 147 of the Finance Act, 2002 (20 of 2002), the Central Government, on 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. 18/2022-Central Excise, dated the 19th July, 2022. In the said notification, in the Table, (i) against S. No. 1, for the entry in column (4), the entry "Rs. 1,700 per tonne" shall be substituted (ii) against S. No. 2, for the entry in column (4), the entry "Rs. 1.50 per litre" shall be substituted.
- **Notification No. 43/2022-Central Excise dated 15th December 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944) read with section 147 of Finance Act, 2002 (20 of 2002), the Central government, on 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. 04/2022-Central Excise, dated the 30th June, 2022. In the said notification, in the Table, (i) against S. No. 2, for the entry in column (4), the entry "Rs. 3.5 per litre" shall be substituted.

Sources: incometax.gov.in, cbic.in



January- Future of Banking in India

Leveraging technology to its fullest potential will not only stimulate growth but will enable Indian Banks to emerge as global leaders that will be among the strongest, resilient and most dynamic in the world. At this outset, in November, 2021, RBI announced the launch of its first global hackathon ‘HARBINGER 2021 – Innovation for Transformation’ with the theme ‘Smarter Digital Payments’. In July 2021, Google Pay for Business enabled small merchants to access credit through tie-up with the digital lending platform for MSMEs— Flexi-Loans. In 2021, RBI also launched the ‘RBI Retail Direct Scheme’; new auto debit rules with a mandatory Additional Factor of Authentication (AFA) to improve the safety and security of card transactions and e-RUPI, a person and purpose-specific digital payment solution. It’s true that 2021 generated significant digital innovation in banks and a new approach to their customer experience strategies – but 2022 has the potential to truly harness the power of this innovation and allow banks to lead from the front.



February- Azaadi ka Amrit Mahotsav: Promoting a Spirit of Pride and Aatmanirbhara

Azadi Ka Amrit Mahotsav, is an initiative of the Government of India to celebrate and commemorate 75 years of progressive India and the glorious history of its people, culture and achievements. This Mahotsav is dedicated to the people of India who have not only been instrumental in bringing India this far in its evolutionary journey but also hold within them the power and potential to enable Prime Minister of India’s vision of activating India 2.0, fuelled by the spirit of Atmanirbhar Bharat. Aatma Nirbhar Bharat is the strategy and futuristic effort initiated to make our Nation self-sustained by breaking all the turbulence and constraints caused by the Covid-19 pandemic and its after effects. The scope of Aatma Nirbhar Bharat is not only to meet the Indian market demand but also is marching towards “Make for the World” and making the Indian entrepreneurs more competitive. To present the February issue of the Journal in a more fruitful and exciting way, Special Articles on Netaji Subhas Chandra Bose were added, whose patriotism towards India has left a mark in the hearts of Indians. Hon’ble Prime Minister of India once quoted in his address, “From the Line of Actual Control (LAC)

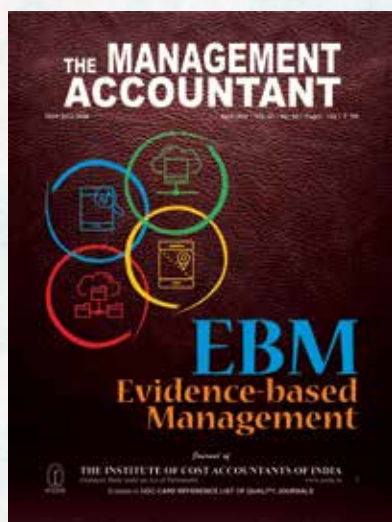
to Line of Control (LoC), the world is witnessing the powerful avatar of India that was once envisioned by Netaji”. The Prime Minister said that Netaji is the biggest source of inspiration behind ‘Atmanirbhar Bharat’



March- Environmental, Social & Governance (ESG)

Environmental, Social and Governance (ESG) are three key factors used to measure a company’s sustainability and social responsibility performance. In 2021, SEBI issued a circular containing details of new sustainability related reporting requirements called the Business Responsibility and Sustainability Report (BRSR), which brings India’s sustainability reporting to global reporting standards. The new Environment, Social, and Governance (ESG) reporting format outlines mandatory ESG policies and requirements for the top 1000 listed companies by market capitalization. The format is based on the nine principles stipulated in the “National Guidelines on Responsible Business Conduct” (RBC Guidelines). The RBC Guidelines addresses key sustainability matters, such as business ethics and transparency, human rights, environmental safety, and fair labour practices. The reporting format is mandatory from FY 2022- 23 but is voluntary

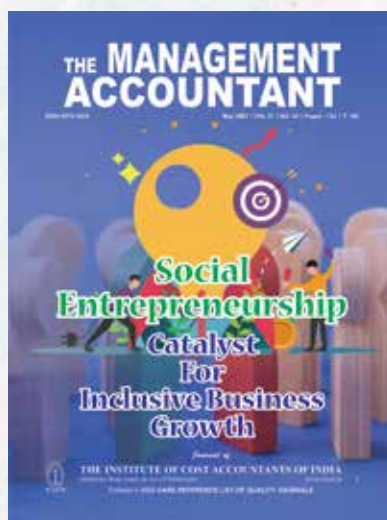
for FY 2021- 22. This is to provide companies with sufficient time to adapt to the new reporting compliance. The BRSR is aimed at securing transparent and standardized disclosures by companies on their ESG parameters and sustainability-related risks. This approach is expected to help companies better demonstrate their sustainability objectives, position, and performance to the market, resulting in long-term value creation and increasing the ability of investors to make informed ESG-related decisions.



April- Evidence-based Management (EBM)

Evidence lies at the heart of all good decision-making, and Evidence-based Management (EBM) can be an important tool for businesses looking to get the most from their business strategy. Evidence-based practice is about making better decisions, informing action that has the desired impact. An evidence-based approach to decision-making is based on a combination of using critical thinking and the best available evidence. It makes decision makers less reliant on anecdotes, received wisdom and personal experience – sources that are not always trustworthy on their own. EBM reminds us that, although measurement as a business activity is essential – its true value can only be unlocked when we measure the right things, and not too many things. Once we have that measurement in place, we must analyse it to identify where there are performance gaps – and then further interrogate underpinning measures,

objectives, tasks and initiatives to see where the root of the problem may exist.



May- Social Entrepreneurship: Catalyst for Inclusive Business Growth

Nowadays, the concept of social entrepreneurship has been widely used and that too in different forms. The establishment of Grameen Bank by Muhammad Yunus, Ashoka: The Innovators for the Public by Bill Drayton, Youth United by Jyotindra Nath, Rand De by Ramakrishna and Smita Ram, SKS Microfinance by Vikram Akula and Roozi.com by Nick Reder, Brent Freeman and Norma La Rosa has popularized the term. In fact, all big brands and companies are adopting the concept of social entrepreneurship and trying to address the issues in our society by opening schools in far flung areas, educating women for family planning, making it possible for farmers and poor individuals to access low interest credits, establishing plants for waste treatment, planting trees and going green. The concept of Social Entrepreneurship has also been included as a separate branch of management courses. Even youth is also looking forward to volunteering their services and brilliant ideas to bring a social change through social entrepreneurship. As a growing economy, India today needs many social entrepreneurs. We need a revolution from people of different walks of life in creating and implementing effective, innovative and sustainable solutions to battle social and environmental challenges. India needs

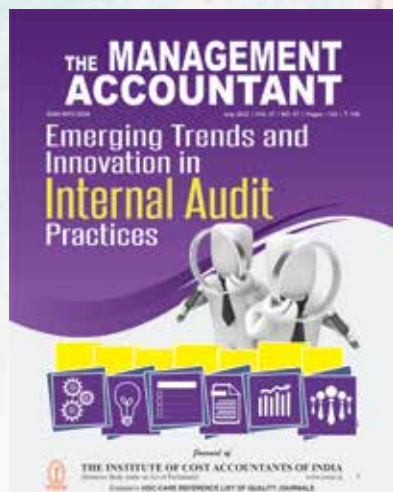
numerous social entrepreneurs with innovative solutions to the society's most pressing social problems in the areas of sanitation, education, water conservation, gender bias, primary health, female foeticide, carbon emissions and other environmental problems.



June- Revolutionizing Agriculture for Enhancing Food Security

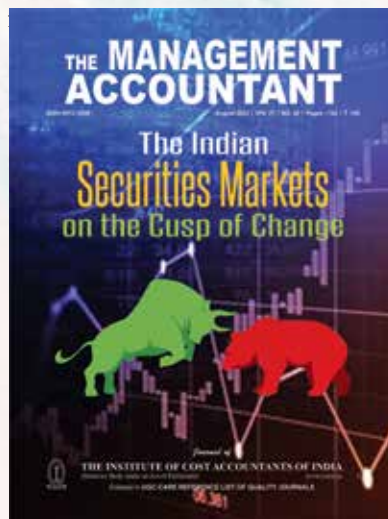
India's agriculture sector was among the few segments that posted a noticeable growth despite the pandemic concerns. It has been estimated that the agricultural growth rate of India to be near to 3.9 per cent in FY 2022-23, surpassing the 2021-22 growth rate of 3.6 percent approximately. The government's priority shall continue on doubling farmers' income by 2022-23 and becoming a USD 5 trillion economy by 2024- 25. A noticeable jump has been noted in exports of agricultural and processed food products during the first five months of the current financial year. The government is likely to incentivize value addition in agriculture, in order to enhance income of the farmers, as it aims to develop the sector even after the withdrawal of farm laws late last year. The Government intends to launch a scheme in the PPP (public-private partnership) model to deliver digital and hi-tech services to farmers, which will bring together public sector research and extension institutions, private agritech players, and stakeholders in the agri-value chain. The government seems interested in providing incentives over and above the Rs. 10,900 crore production-linked incentives (PLI)

scheme for food processing in order to promote the creation of relevant storage and logistics infrastructure. India is expected to achieve the ambitious goal of doubling farm income by 2022. India's agritech start-ups have been growing at 25% YoY. The agritech startup helps farmers by offering advice from experts on how to manage crops and boost yield. It leverages data and technology to solve farmers' concerns about accessing high quality agri-inputs and bridges the information gap.



July- Emerging Trends and Innovation in Internal Audit Practices

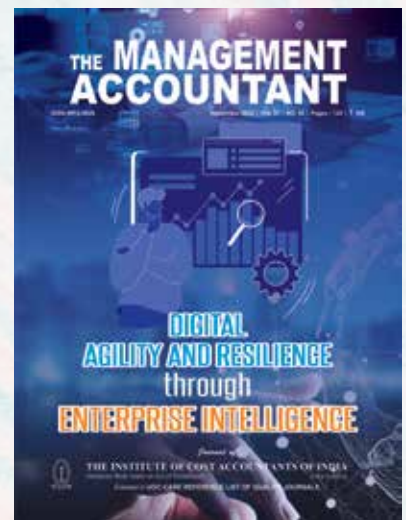
Globally, various Internal Audit (IA) departments have already begun their journeys into the world of automation by expanding their use of traditional analytics to include predictive models, RPA and cognitive intelligence (CI). Technology in IA should be carefully driven to reap benefits encapsulating finer advantages like process streamlining, enhancing audit strategy, reduce cost of IAs, efficient cyber security, time efficient IA, minimize / zeroize errors / duplications / frauds, finer project management functionality, paperless IA activities, design tighter risk and control management framework and real time reporting mechanism. These benefits will enable in delivering scalable solutions to address changing needs of the organisation through boasting modern and intuitive experience by users and more interfacing as well as increased ability towards data visualization and analytics for drawing



August- The Indian Securities Markets - on the Cusp of Change

The Indian stock market has witnessed a colossal transformation ever since trading first started with the formation of the Bombay Stock Exchange (BSE) 147 years ago. The stature of BSE & NSE has elevated the position of the Indian stock market in the world map. The securities and exchange board of India called SEBI is the regulatory authority established under the SEBI act 1992 and is a regulator for stock exchanges in India. SEBI has major and primary functions include protecting the investor interests, promoting and regulating the Indian securities markets. Recently, SEBI has notified a framework for the Social Stock Exchange (SSE) to provide social enterprises with an additional avenue to raise funds. The SSE is a novel concept in India and is meant to serve the private and non-profit sectors by channeling greater capital to them. For the past couple of years, there are two emerging trends visible in the Indian capital market-first, the sharp increase in the number of retail investors and the second is the increasing demand for sustainable finance. In line with these trends, there is an evolving market of rating companies that assess Environmental, Social, and Governance (ESG) risks and opportunities of investments, not only in India but also globally. Aligned with this global trend, SEBI has come up with suggestions to regulate ESG Rating Providers (ERPs). A KPMG report says that globally 85%

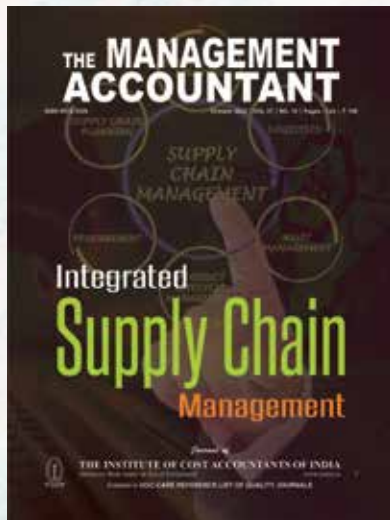
of institutional investors are driving interest in ESG. There is a prediction that by 2025 one-third of the total global assets will consider ESG for direction. At least, 17 mutual funds based on ESG are already existing in the Indian market.



September- Digital Agility and Resilience through Enterprise Intelligence

Taking care of data cleansing and applying the right data sets to drive actionable insights and developing the capacity to enable large-scale data processing are essential skills to develop organizational agility and resilience. Thus, an enterprises' digital agility quotient is directly proportional to its ability to leverage data in its decision-making process. Once organizations develop their capacity to base their decisions on data and ensure that they have created a data-driven culture, digital agility is bound to increase as does organizational resilience. Further, irrespective of the industry, an MSME business can improve the customer experience using technologies like predictive intelligence. Automated insights generated using a Business Intelligence (BI) platform can help improve customer experience and satisfaction scores. A robust BI platform can help businesses decode competitor strategies and improve product intelligence. It helps keep a tab on the industry trends and actions of the competition. An MSME business can reduce the time, effort, and resources involved in operations with the right business intelligence platform.

Innovative MSMEs use business intelligence to gain maximum traction and win more significant market share in a competitive landscape.



October- Integrated Supply Chain Management

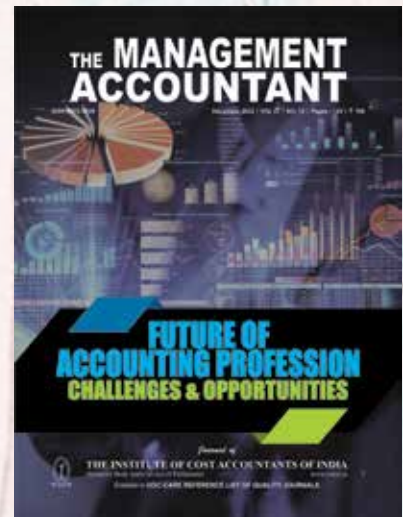
Effective supply chain management offers numerous benefits for companies, so overcoming challenges to keep things running smoothly is a top priority for supply chain professionals. The pandemic has disrupted distribution on a global scale. Increased border controls and customs regulations result in longer wait times, and lack of capacity for long-haul and last-mile fulfilment create extreme challenges. As a result, organizations are accelerating their digital transformations with logistics businesses starting to introduce capabilities like real-time order monitoring, end-to-end inventory visibility, and super reverse logistics experiences. But businesses can also use this opportunity to reset their operations with digital capabilities and renew logistics operating models to increase operational efficiency and effectiveness. Doing so will enable them to emerge stronger and with supply chains that are more resilient to future disruptions.



November- Emerging trends in Telecom Industry in India

Telecom companies are at an inflection point witnessing a broad landscape of significant changes. There has been a business and customer model disruption, with technologies like AI, big data and the internet of things redefining service-delivery and value-capture models, while start-ups/OTT setting new standards for seamless customer experience. With the spectrum auctions taking place now, India can expect by the end of the year to join the ranks of countries with 5G telecom networks. It will also bring a radical change to the telecom sector in India. Prime Minister of India's Gati Shakti Master Plan is a major boost to developing a robust telecom infrastructure in our country, and it is imperative to develop 'state-of-art' network architecture just like other infrastructure facilities such as railway, roads and transportation, and so on, as telecommunication services have become an integral and essential necessity of our daily lives. The advent of Gati Shakti Sanchar Portal has proven to be a game changer in terms of getting long-awaited Right of Way (RoW) applications approved quickly and efficiently. This is actually a one step forward towards 'Ease of Doing Business', bringing transparency, accountability and responsiveness to all telecom stakeholders while processing the application. Also providing a strong mechanism to achieve the National Digital Communication Policy-2018 goal of 'Broadband to All. Further, Prime Minister of India's vision Atmanirbhar Bharat is taking concrete steps in Telecom equipment manufacturing. Production Linked Incentive scheme in telecom sector was launched in 2021. A total of 31 companies are existing beneficiaries for manufacturing of various telecom

equipment under the PLI scheme. To promote the entire value chain in telecom manufacturing, Design-led PLI was launched in June 2022. It provided additional incentives of 1% over and above the existing incentives for products that are designed in India.



December- Future of Accounting Profession: Challenges and Opportunities

Change is an undeniable fact of life. With every passing year, new and innovative improvements are made in software, which helps in enhancing the user experience. Accounting trends and developments are reactions to changing landscapes, technology disruption and other market forces that shape the accounting profession as we know it today. The change is rapid and driven largely by lightning-fast advances in technology. In many ways, the pandemic has hastened that adoption. Like, wider adoption of cloud-based accounting software, as well as a move towards automation and artificial intelligence. In 2022, companies are going to continue to migrate their accounting software, platforms and other applications to the cloud, for a number of reasons. There is an incredible increase in mobility with cloud computing, allowing for access from any device. Cloud computing deploys top-notch security, process automation, an increased ease of recovery and improved collaboration and scalability to take into consideration. Artificial Intelligence (AI) has made a significant impact in the world of finance and accounting. In fact, AI-enabled accounting information systems are the way for enterprises to stay strong contenders in an increasingly competitive market because they save time and provide deep insights.

HANDBOOK ON STOCK AND BOOK DEBTS AUDIT

(Revised and enlarged 2nd Edition)



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(Statutory Body under an Act of Parliament)

www.icmai.in

Headquarters: CMA Bhawan, 12, Sudder Street, Kolkata - 700 016

Delhi Office: CMA Bhawan, 3, Institutional Area, Lodhi Road, New Delhi - 110 003

Behind every successful business decision, there is always a CMA

It has already been published on BFSI portal

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
- ⊙ Thalassemia
- ⊙ 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#>

RNI NO. 12032/1966

Comprehensive Print Solutions Company offering...

Financial Printing

Leaders in printing of Annual Reports, Half Yearly and Quarterly Reports, IPO Stationary, M&A's, Rights Issues, Private Placement Documents, Notice, Merger/Acquisition documents.



Commercial Printing

Magazines, Journals, Wall & Desk Calendars, Diaries with personalization, Books, Product Catalogue, Leaflets, Brochures, Posters, Dangers, Tent Cards, Presentation Booklets & many more.



Publishing Solutions

Printing of Educational Books, Trade books, Hard bound and Board books for domestic & International Publishers.



Digital Printing Solutions

Complete Digital Print and Bind set-up to deliver One book to 250 books in 48 hours within MMRDA region.



Design Studio

Team of professionals comprising of Visualizers, Illustrators, DTP typesetters, Copy-editors and Proof-readers to add value to your print material.



Corrugated Boxes

Standard Corrugated boxes delivery in 48 hours within MMRDA region.



**SAP PRINT
SOLUTIONS PVT. LTD.**

28, Lakshmi Industrial Estate, S. N. Path,
Lower Parel (W), Mumbai - 400 013, India
Tel.: +91 22 40741000 Fax: +91 22 40741020.
Email: info@sapprints.com | Website: www.sapprints.com