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- THE INSTITUTE OF COST ACCOUNTANTS OF INDIA (erstwhile The Institute of Cost and Works Accountants of India) was established in 1944 as a registered company under the Companies Act with the objects of promoting, regulating and developing the profession of Cost Accountancy.
- On 28 May 1959, the Institute was established by a special Act of Parliament, namely, the Cost and Works Accountants Act 1959 as a statutory professional body for the regulation of the profession of cost and management accountancy.
- It has since been continuously contributing to the growth of the industrial and economic climate of the country.
- The Institute of Cost Accountants of India is the only recognised statutory professional organisation and licensing body in India specialising exclusively in Cost and Management Accountancy.

MISSION STATEMENT

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

VISION STATEMENT

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

IDEALS THE INSTITUTE STANDS FOR

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

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Institute Motto

असतोमा सदगमय
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मृत्योर्मा मृतं गमय
ॐ शान्ति शान्ति शान्तिः

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

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EDITORIAL

The pandemic has proven that moments of acute disruption can force organizations to formulate plans and reconsider the ways through which they respond to enduring instabilities. The pandemic has caused an urgent need to accelerate digital customer solutions and workforce productivity tools. This global crisis made companies realize which areas of business are the most important to focus on. It has also highlighted the value of innovation, strategic direction, and digital transformation. The crisis has also emphasized the need for future-proofing businesses, enhancing security, and enabling financial performance by creating more resilient operations and infrastructure which will pave a path to a high-performance culture. Digital tools help to virtualize and better manage processes and infrastructure, as well as empower sales teams to better understand their customers, integrate remote and in-person networks, and boost competitive advantage.

Digital transformation has the potential to streamline and integrate business processes to increase business performance and transform the customer experience. It increases agility and innovation capacities, streamlines operations, and reduces compliance effort. Digital transformation, simply put, adds to our digital agility. But digital agility only increases when organizations become more proactive and certain of their decisions. This certainty can only be achieved when the organization becomes a data-driven organization.

The role of data becomes ever more important with rising competition and a market that is becoming ever so complex. With digital transformation, organizations want to build their capabilities that add competitiveness and accelerated abilities to deliver innovative products and services. It is only

when an organization becomes data-driven and develops the capacity to use data to enable everyday decision-making that it experiences the true agility that digital technologies bring. By employing data and enabling employees to use and base decisions on data helps in proactive management of challenges and opportunities. 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. Entrepreneurs can use business intelligence to ascertain the best possible roadmap to building a profitable company without wasting resources on guesswork.

Business intelligence helps a business to discover the spend



optimization and allocation. With a clear picture of department-wise spending, a business can find the areas where it can save on costs. In other words, a company can spend the available resources effectively in the early stage of the business using business intelligence. As most MSMEs are running against time in the early stage of the business, a business intelligence platform allows for a better analysis of the time spent on each activity. These derived insights help increase revenue and meet deadlines. With the right insights, an MSME can streamline business operations and discover sources to increase the revenue and profitability of the business.

Cloud accounting is becoming an increasingly important business operating tool for SMEs. By adopting cloud-based accounting, SMEs can become more efficient, financially organized, and flexible. Artificial intelligence has a significant impact on the world of accounting and Finance. By saving time and money and providing information, AI-enabled accounting and Finance systems help professionals like CMAs to stay competitive. Adding artificial intelligence to accounting and cost management operations will enhance quality and reduction of errors.

Management Accountants and other financial professionals must identify how they can use and analyze data. This does not mean that they need to adopt complex analyses. Rather, they need to develop a strategy that fits their company's size and resources when integrating business analytics into its corporate information management strategy. Techno solutions are not one-size-fits-all; they need to be tailored according to the company's requirements.

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

THE MANAGEMENT ACCOUNTANT

PAPERS INVITED

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

October 2022	Theme Integrated Supply Chain Management	Subtopics <ul style="list-style-type: none"> Supply Chain Risk, Resilience and Re-balancing Lessons from Pandemic: Re-imagining Supply Chain Challenges and Priorities in Supply Chain Management Alternates & Innovative Strategies to Make Supply Chain more Agile & Flexible Supply Chain Resilience at the apt cost and effort through visibility Role of Logistics and Integrated Supply Chain towards Firm Competitiveness Identifying logistics and Supply Challenges and Trade-offs associated with Global Operations Resilient Supply Chain Management in a Disruptive World Vocal for Local: To boost domestic Supply Chain Climate-smart Supply Chain Planning
November 2022	Theme Emerging trends in Telecom Industry in India	Subtopics <ul style="list-style-type: none"> Evolution of Indian telecom infrastructure over the years Overview on industry readiness of India for 5G 'Broadband for all': Bridging the Digital Divide The advent of 'Gati Shakti': Powering telecom infrastructure Network Expansion and Investments Aatmanirbhara in Telecom Manufacturing Cost economics of active infrastructure sharing Delivering densification – Streamlining the rollout of 5G networks in urban areas Challenges plaguing the Indian telecom tower and infrastructure industry
December 2022	Theme Future of Accounting Profession: Challenges & Opportunities	Subtopics <ul style="list-style-type: none"> International Financial Reporting Standards (IFRS) and Corporate Governance Green Accounting – A tool to quantify Environmental Sustainability Accounting Information System (AIS): An Overview Demystify the ESG landscape: Best Practices for ESG reporting, and the critical role for Finance Professionals Changing role of New Gen Accountants in Rebuilding the global economy post Pandemic Sustainability Accounting and Reporting Digital Financial Reporting: The Way Forward Rebooting of accounting skillsets to stay competitive in the digital age Accounting for Cryptocurrencies
January 2023	Theme Emerging Trends in Banking: Transforming Customer Experience	Subtopics <ul style="list-style-type: none"> Privatization of Public Sector Banks (PSBs): A Boon or Bane Evolution of Smart Data, RPA & AI in Indian Banking Sector Metaverse: the next frontier for the Digital Banking Neo-banking: Shaping the future of India's direct-to-consumer (D2C) ecosystem Linkage of Core Banking System and India Post: A welcoming approach Credit outreach drive by PSBs as a part of Azadi Ka Amrit Mahotsav Enhanced Access and Service Excellence (EASE) 5.0, a 'Common reforms agenda' for PSBs 3-yr roadmap strategy to support SMEs and farming under EASE reforms Retail Banking in India: Re-inventing and repositioning to attain Financial Wellness Setting New Standards to achieve Governance, Transparency and Excellence-Role of CMAs

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.



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CMA P. Raju Iyer

President

The Institute of Cost Accountants of India

“No one who does good work will ever come to a bad end, either here or in the world to come.”

- Bhagavad Gita

My Dear Professional Colleagues,

On the 76th Independence Day, the Institute celebrated 75 years of freedom at the Headquarters, Delhi office, Regional Councils and Chapters of the Institute. On this auspicious occasion, I hosted the National Flag at Headquarters of the Institute at Kolkata in the presence of Council members, Former Presidents, Regional Council Members of EIRC and employees of the Institute.

I am happy to inform that the Regional Councils and Chapters of the Institute actively participated in the ‘Har Ghar Tiranga’ campaign by hoisting the National Flag at their respective offices, and the members & students hoisted National Flag at their homes during the Independence week from 13th to 15th August, 2022.

SAFA Meetings and events in New Delhi

I am happy to inform that the Institute has successfully hosted the 73rd SAFA Board & various SAFA Committee meetings on 21st August, 2022 and SAFA Foundation Day Conference on the theme “ESG and Sustainable Finance” on 22nd August, 2022 in New Delhi. SAFA Foundation Day Celebrations started with the welcome address by CMA H Padmanabhan, Chairman International Affairs Committee. CA. (Dr.) T.S. Vishwanath, Former President

PRESIDENT'S COMMUNIQUE

SAFA inaugurated the Conference as its Chief Guest. I along with Mr. H M Hennayake Bandara, President SAFA, CA. Nihar Jambusaria, Vice President SAFA, Mr. A.K.M. Delwer Hussain FCMA, Advisor, SAFA, and CMA Biswarup Basu, Immediate Past President of the Institute addressed the participants during the inaugural session and the vote of thanks was delivered by CMA Vijender Sharma, Vice President of the Institute.

CMA Neeraj D. Joshi, Council Member of the Institute, CA (Dr.) Sanjeev Kumar Singhal, Chairman, Sustainability Reporting Standards Board of the Institute of Chartered Accountants of India and CMA B.B. Goyal, Former Addl. Chief Advisor (Cost), MoF, GoI deliberated on “Business Responsibility and Sustainability Reporting – Role of Professional Accountants” during the Technical Session-I and CMA (Dr.) Balwinder Singh, Former President & Council Member of the Institute, Mr. D. Suresh Kumar, Alumnus of IIT Madras & IIM Ahmedabad and Mrs. Parveen Mahmud FCA, Past President, ICAB were the distinguished speakers for the Technical Session-II on “Climate Change: Steps to Mitigate it”. CMA Ashwin G. Dalwadi and CMA Chittaranjan Chattopadhyay Council Members of the Institute also participated in the Technical Sessions. Further, the Panel Discussion on “How Professional Accountancy Organisations (PAOs) can lead ESG initiatives” witnessed the participation by Md. Mamunur Rashid FCMA, President, ICMA, Md. Shahadat Hossain FCA, President ICAB, CA. Bhaskar Singh Lala, President, ICAN, Mr. Hassan Mohamed, Vice-President, CA Maldives and Mr. Ruchira Perera, Council Member, CMA Sri Lanka.

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 of the Institute and the BFSI department under the Chairmanship and active leadership of CMA Chittaranjan Chattopadhyay marched ahead with the following activities and initiatives during the month of August 2022:

a. Meeting with dignitaries

- CMA Chittaranjan Chattopadhyay, Chairman, BFSIB met Shri Jayant Kumar Dash, Executive Director, Reserve Bank of India and CMA P. Vasudevan, Chief General Manager, Reserve Bank of India at

RBI Headquarters Office on 23rd August, 2022 at Mumbai. The Chairman, BFSIB was accompanied by CMA Vijender Sharma, Vice-President and CMA Debasish Mitra, Council Member and multifaceted discussions about the relevance of CMAs in the banking sector was discussed.

- ⊙ The Chairman, BFSIB and Vice-President also met Shri P. Sivakumar, CGM, RBI to apprise on the various initiatives undertaken by the Institute for dissemination of knowledge and skills amongst the members of the Institute and Bank Officials.
- ⊙ CMA Chittaranjan Chattopadhyay, Chairman, BFSIB along with CMA Vijender Sharma, Vice-President met CMA Basant Maheshwari at his office to discuss various activities in Capital Markets where the BFSIB intends to play an active role to support the sector.
- ⊙ On 24th August, 2022, CMA Chittaranjan Chattopadhyay, Chairman, BFSIB along with CMA Vijender Sharma, Vice-President met Shri S Srinivasa Rao at his Office. He was briefed on various activities and publications by the BFSI Board on contemporary issues of Banking. The Chairman and Vice-President discussed on the effectiveness of Bank in utilising the services of CMAs both in the risk management of banks particularly in pre-sanction, post-sanction and problem of loan management.

b. Discussion Paper on Charges in Payment Systems issued by the RBI for public comments

BFSI Board has requested members to provide their comments on the discussion paper on charges in Payment Systems issued by the Reserved Bank of India. The last date of receipt of application is 27th September, 2022. Thereafter, it would be compiled and sent to RBI. I call upon all members to send us their valuable comments at the earliest.

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

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

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

development and knowledge enhancement.

d. Banking Courses

The 7th batch of Certificate Course on Credit Management of Banks started on 4th September, 2022. Ms. Sumitra Raghavan, Chief Manager & Faculty, Baroda Apex Academy, Gandhinagar was the Chief Guest at the inaugural class. The course had enrolments from various Banks, CMAs in practice and service and also has representation from students.

I urge all interested to take the admission for all the three courses being offered and get benefitted by knowledge enhancement.

e. Certificate Course on Investment Management in association with NISM

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

f. Representation letters for inclusion of CMAs

As a continuous effort for further development of the profession in the BFSI sector, BFSIB has represented to various authorities and employers for inclusion of CMAs in the sector. I am happy to announce that CMAs are now included as a desirable qualification for the post of Chief Credit Officer for Punjab National Bank.

g. Sale of Aide Memoire on Infrastructure Financing

The handbook released by BFSIB, titled 'Aide Memoire on Infrastructure Financing' for benefit of all stakeholders has been very well accepted by all. The members, students and others can grab their copies through online purchase via the link https://eicmai.in/booksale_bfsi/Home.aspx.

I am happy to state that for this initiative of BFSIB has been acknowledged and appreciated by various czars of industries namely, Shri Satyajit Tripathy, Chairman cum Managing Director, United India Insurance Co. Ltd., Shri S.Paramasivan, Chief Executive Officer, AFCONS Ltd. Shri Umesh Choudhury, Vice-Chairman and Managing Director, Titagarh Group, Shri A.B.Desai, Chief Executive Officer, Gammon India, Shri Mahesh Kumar Sharma, MD and CEO, SBI Life Insurance Co. Ltd., Shri Pradeep Multani, President, PHD Chamber of Commerce, Mrs. Apekshita Thipsay, Managing Director, The Cosmos Cooperative Private Ltd., CA Madhav (Abhay) Mate, Chairman, Janata Sahakari Bank Ltd., CMA Suresh Khatanhar, Deputy Managing Director, IDBI, Shri M.Karthikeyan, Executive Director, Bank of India, Shri Prashant Kumar, Managing Director & CEO, Yes Bank, Shri Jayant Kumar Dash, Executive Director, Reserve Bank of India and many others. I keenly wait for further additions to the Aide Memoire

series.

h. Webinar on the topic of “Certification of Government Commission of Banks by CMAs:

The BFSI Board organized the webinar on the pertinent topic on 30th August, 2022. CMA (Dr.) P. Siva Rama Prasad, Former AGM, SBI was the Speaker. The topic provided food for thought for CMAs with new vistas of a professional opportunity. I urge members to tap the benefit of such opportunities.

CONTINUING EDUCATION PROGRAMME COMMITTEE

I am delighted to inform you that after successful completion of six batches of online mandatory capacity building training (e-MCBT), the CEP Department has started registrations for the 7th batch of e-MCBT.

I urge the practitioners to enroll for 7th 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 for the year 2022-23.

Continuing Education Programme Committee organised programme on “Insolvency and Bankruptcy Code- A Game Changer” held at Kolkata.

During the month, around Thirty Five 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 Risk Based Internal Audit, Role of CMAs in BFSI Sector and Taxation, GST Appeals and Raids Management A Way Forward by CMAs, Latest Amendments of SEBI (LODR) Regulations and New Provisions of TDS under Income Tax Act, Certification of Government Commission of Banks by CMAs, SAFA Foundation Day Conference on ESG and Sustainable Finance, Enablers for CMA Profession - Rebound in the New Normal, Recent Changes in GST (Rates, Applicability, & RCM) and so on. I am sure our members are immensely benefited from the deliberations in the sessions.

DIRECTORATE OF CAT

○ CAT Course Part-II Assessment Tests for CAT Students

I informed you in one of my previous communiques that the e- learning classes for the students pursuing CAT Course Part II were conducted by the CAT Directorate for the first time in line with revised syllabus of CAT Course syllabus 2021. Now, the assessment tests for the students who have attended those classes have been scheduled in the month of September, 2022. I congratulate CAT Directorate for its endeavours under the leadership of Chairman-CAT

CMA H Padmanabhan towards updating the quality of CAT course, which will surely help the CAT students in coping up with the competition.

○ MOU with Maharashtra State Skill Development Society (MSSDS)

I am happy to note the hard work of CAT Directorate towards delivery process as per the MoU between the Institute and MSSDS for providing CAT Course to the youth of Maharashtra. The CAT Directorate is soon going to implement the CAT course in association with the Maharashtra based Chapters and ROCCs. The CAT Directorate officials regularly met with MSSDS officials in Mumbai on 6th May and 16th June, 2022. I am hopeful to share more good news about it in my coming communiques.

CAT course as Capacity Building Training Program for SC/ST candidates under National SC-ST Hub Scheme (NSSH) of Ministry of MSME, Government of India during FY 2021-22

I did inform you in one of previous communiques about a prestigious project bagged by the Institute to deliver CAT course as Capacity Building Training Program for SC/ST candidates under National SC-ST Hub Scheme (NSSH) of Ministry of MSME, Government of India. I am glad to share with you that as a result of several round of meetings and regular communication with the NSSH, the batches are going to start soon.

○ Agreement with Uttar Pradesh Skill Development Mission (UPSDM)

I am pleased to note the efforts of the CAT Directorate towards getting the CAT course implemented in the vast state of Uttar Pradesh as per the Agreement between the State of Uttar Pradesh Skill Development Department (UPSDM) and the Institute signed earlier this year. The Directorate has been regularly complying with the requirements as the agreement. I am hopeful that the batches in the centres/cities earmarked for the purpose would commence soon.

In all, I am grateful to my Council colleague CMA H. Padmanabhan, Chairman-Committee for Accounting Technicians(CAT), under whose guidance and leadership the CAT course has been gaining popularity and from a mere Certificate course it has been foraying into the skill development programmes of the Government of India and state governments.

○ CAT Course for Defence Personnel

In my previous communique, I shared with you about the Institute’s endeavour to have CAT course rolled out for the Agniveers & retiring defence personnel of Indian Army, Navy, and Air Force. In this regard, I am glad to share with you that the Ministry of Defence(MoD) has been very keen

to have CAT course for its personnel. Whenever we have had a Meeting with MoD, the representatives of all the wings of the services viz. Indian Army, Indian Air Force and Indian Navy were present. I am highly optimistic for a fruitful association with MoD as the CAT Directorate is working tirelessly under the leadership of CMA H. Padmanabhan, Chairman-CAT.

INTERNAL AUDITING AND ASSURANCE STANDARDS BOARD (IAASB)

⊙ Release of Technical Guide on Performance Audit

I am delighted to inform you that the IAASB has published the Technical Guide on Performance Audit and it was released at the hands of Shri Nitin Gadkari, Hon'ble Union Minister of Road Transport and Highways during 'CMA-FPO Symposium' organized by the Institute on 14th August, 2022 at Nagpur. Link to download various IAASB publications: <https://icmai.in/icmai/news/IAASB-GN.php>

⊙ Seminar at Chandigarh

I am pleased to inform you that the Internal Auditing and Assurance Standards Board (IAASB) jointly with Task Force on MSME & Start-up of the Institute in association with Chandigarh-Panchkula-Mohali Chapter of the Institute has successfully organized a Seminar on "Professional Opportunities for CMAs in MSME Sector including discussion on Delayed Payments to MSME Vendors" and "Regulatory Tariff Fixation - Airport & Power Sector" on 2nd September, 2022 at Chandigarh. I addressed the participants on the activities and initiatives taken by the Institute to support the MSME Sector.

Eminent speakers, CMA R.K. Das, Chief Financial Officer, Chandigarh International Airport Ltd., CA K M Padmanabhan, PCA, CMA Bharat Bhushan Gupta and CMA Rakesh Shankar, Member of IAASB deliberated on the Professional Opportunities for CMAs in MSME Sector including discussion on Delayed Payments to MSME Vendors" and "Regulatory Tariff Fixation - Airport & Power Sector" during the technical sessions.

CMA Biswarup Basu, Immediate Past President, CMA (Dr.) Balwinder Singh, Former President, CMA Chittaranjan Chattopadhyay, Chairman, Task Force on MSME & Start-up, CMA Rakesh Bhalla, Council Member and CMA Ashwin G. Dalwadi, Council Member of the Institute addressed the participants and shared their views on the topic.

CMA Shailendra Kumar Paliwal, Chairman, NIRC, CMA Manasi Arora, Chairperson, CHD-PKL-MHL Chapter, CMA Bhawna Sharma, Secretary, CHD-PKL-MHL Chapter and CMA Mukesh Kumar Gupta, Member IAASB also participated in the Seminar. The Seminar was attended by the Members & students of the Institute, representatives of the MSMEs, trade & industry in large number.

MEMBERSHIP DEPARTMENT

I congratulate and extend a warm and hearty welcome to all the 147 new Associate members who were granted membership and all the 44 Associate members who were upgraded to Fellowship during the month of August 2022.

A communication has been sent by the Secretary of the Institute during the month of August 2022 to all members of the Institute updating them on their status of dues for membership fees along with a format which may be utilized for intimation of change in members' professional address.

As a ready reference, the following login link may be referred to for any information / online payment, related to membership – <https://eicmai.in/MMS/Login.aspx?mode=EU>

PROFESSIONAL DEVELOPMENT COMMITTEE

I am glad to inform you that the Institute is organising the National CMA Practitioners convention during 7th & 8th October at Pune, Maharashtra. I urge the practitioners to register for the same to the make event a grand success with larger participation.

I am pleased to inform you that on the Institute's representation, Jammu & Kashmir Minerals Limited considered Cost Accountants Firms for providing Accounting, Taxation, attesting and related services. PD Directorate submitted representations to various organizations for inclusion of cost accountants for providing professional services.

Please visit the PD Portal for Tenders/EOIs issued during the month of August 2022, where services of the Cost Accountants are required in Mahanadi Coalfields Limited (MCL), Konkan LNG Limited, Rajasthan State Road Transport Corporation, Nagar Panchayat Bundu, District Health & Family Welfare Society Panchkula, Jharkhand Urja Sancharan Nigam Limited, Airport Authority of India, District Health & Family Welfare Society, Kurukshetra, Institutional Strengthening of Gram Panchayats (ISGP) Program-II, Krishna Bhagya Jala Nigam Ltd, Commercial Taxes Department, Government of Puducherry, Eastern Coalfields Limited (ECL), District Health & Family Welfare Society, Jind, HLL Lifecare Ltd, Chhattisgarh State Power Generation Company Limited, IRCON International Limited, Assam State Transport Corporation, Municipal Corporation, Giridih, National Health Mission Ernakulam, Himachal Pradesh Power Corporation Limited, Madhya Pradesh Poorv Kshetra Vidyut Vitran Co. Ltd. Jabalpur, On Institute's representation, Jammu & Kashmir Minerals Limited, Haryana Agro Industries Corporation, U.P. Power Corporation Limited etc.

Professional Development Committee in association with PHD Chamber of Commerce and Industry organised webinar on "You must know latest GST changes".

TASK FORCE ON AGRI COST MANAGEMENT

I am elated to share that the Task Force on Agri Cost Management of the Institute jointly organized with Nagpur Chapter and Vasantrao Naik State Agriculture Extension Management Training Institute (VANAMATI) of Nagpur a whole day “CMA – FPO Symposium” on 14th August 2022 at Nagpur on the theme “Cost Optimisation and Returns Maximisation throughout the Agricultural Value Chains”.

I shared the dais with Shri Nitin Gadkari, Hon'ble Union Minister for Road Transport and Highways, the Chief Guest at the Plenary Session. The participants were also addressed by Vice President CMA Vijender Sharma, Director VANAMATI Shri Ravindra Thakare, Chairman of the Task Force CMA (Dr.) K Ch A V S N Murthy, Former President CMA (Dr.) Balwinder Singh, CMA P.V. Bhattad, Convener of the Task Force CMA (Dr.) Sreehari Chava, my Council Colleagues CMA Chittaranjan Chattopadhyay, CMA Debashish Mitra, CMA (Dr.) Ashish P. Thatte and CMA Anil Verma, Chairman, Nagpur Chapter of Cost Accountants, CMA Shriram Mahankaliwar, Chairman, WIRC, Shri G S Rawat, CGM, NABARD, Pune, Dr. Praveen Jain, Director, School of Agriculture, IGNOU, New Delhi, CMA R K Sinha, Member Task Force, CMA Balaji Kollipara, ITC and a galaxy of eminent personalities.

The valedictory session was also marked by signing of an MOU between the Institute and VANAMATHI, the first of the joint ventures being FPO Cost Clinic. FPO Cost Clinic is a CMA invention conceived with the objective of guiding the FPOs in evolving, adopting and implementing the tools and techniques of Revenue and Cost Management. In order to commemorate ‘Azadi Ka Amrut Mahotsav’ NCCA-VANAMATI FPO Cost Clinic which is the first ever FPO Cost Clinic being formed in the country was made operative during the valedictory session. More than 450 participants attended the event.

TAX RESEARCH DEPARTMENT

The Tax Research Department successfully organised a seminar on 5th August 2022 at Kolkata on the theme ‘GST in India – Poised to deliver Sustainable Growth’. Shri Ashish Chandan – Principal Commissioner, CGST & Central Excise of Kolkata South graced the occasion as Chief Guest. CMA Ramesh Kumar Dash, Director Finance – Garden Reach Ship Builders and Engineers Ltd, was the Guest of Honour. Shri Ashish Chandan in his speech appreciated the Institute for organizing such seminar for the benefit of the stakeholders. He deliberated on the issues faced by the small businesses and practitioners in the compliance of GST. He appreciated the Institute for conducting courses, seminars and workshops for increasing GST awareness among the grass root level starting from the students of the colleges and universities. Dr. Madhumanjari Mondal - Principal of Scottish Church College, Dr. Mousumi Singh Sengupta - Principal of THK Jain College and Mr. Tridib

Sengupta, HoD-BBA from Bhowanipur Education Society were among the special Invitees.

The technical session was very interactive where the officials from the CGST Commissionerate along with Practicing Cost Accountants answered various queries raised by the audience at the auditorium as well as audience from all over India present via online mode. Mr. Tirthankar Pine, Senior Superintendent (CGST) and Mr. Alam, Senior Superintendent (Preventive Officer) attended the technical session as speaker along with CMA Manmohan Daga - Practicing Cost Accountant and CMA Natraj Radhakrishnan - Practicing Cost Accountant as Moderator. Other Practicing Cost Accountants like CMA B.M Gupta, CMA Viswanath Bhat, CMA T.K Jagannathan, CMA Ajith Sivadasa and CMA Mrityunjay Acharjee, GM Finance – Numaligarh Refinery Ltd. also joined the seminar virtually and shared their thoughts. Around 200 participants including practicing Cost Accountants, Members from industries, CMA Students, people from various industries, SMEs and students from various colleges from Kolkata attended the Seminar.

GST Course for Colleges and Universities is being conducted for the second time in ASC Degree College Bengaluru with 112 students. All the seven Taxation courses are being conducted and admissions to the upcoming batches are also taking place. I request the members, students and other stakeholders to take admission in these courses and enrich knowledge on Taxation.

The TRD has released the 117th and 118th edition of the Tax Bulletin and the weekly quiz activity has gained momentum with increasing trend in participations. A webinar has also been conducted on 19th August on the topic, ‘Treatment of Share Transactions in Income Tax Return’.

ICMAI REGISTERED VALUERS ORGANISATION (RVO)

I am pleased to inform that ICAI RVO has successfully organized “50 Hrs training programs” of 25th Online Batch Securities or Financial Assets, 18th Online Mandatory COP Program, and “Professional Development Programs” of Workshop on Valuation, Learning Program on Valuation, Skill Development Program for RVs, Master Class Achieving excellence in Valuation, Experiential Learning Session on Live Case Studies on Valuation.

🕒 Publications of ICAI RVO

In its endeavour to promote profession, knowledge sharing and sensitization 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 - 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.

INSOLVENCY PROFESSIONAL AGENCY (IPA) OF THE INSTITUTE

Insolvency Professional Agency of Institute of Cost Accountants of India, in its endeavour to promote professional development and sharpen the skills of the professionals have constantly been conducting various professional & orientation programs across country and publishing various publications and books for the benefit of stakeholders at large. Towards that, IPA ICAI has undertaken several initiatives, as enumerated below, during the month of August 2022.

IPA ICAI, IIPPI and ICSIP jointly conducted Pre-Registration training of Insolvency Professional from 22nd August – 28th August 2022.

A three days Master Class on Personal Guarantors to Corporate Debtors was conducted by our eminent faculties on 5th – 7th August 2022, wherein the provisions relating to personal guarantors are provided under Part III of the Insolvency and Bankruptcy Code, 2016 were discussed with professional member participants at length. The program brought out a number of take away for the benefit of participants.

A Workshop on Compliances to be made by Insolvency Professionals under IBC, 2016 was conducted on 10th August 2022, which revealed various nuances and sensitized IPs about the reporting compliances and timelines under IBC, 2016.

A two days Online Learning Session on Avoidance Transactions was organised on 20th -21st August 2022, wherein Professional members illuminated about their roles in Avoidance Transactions.

In our perseverance to sensitize the IPs about EPF and MP Act., one day webinar on EPF and MP Act, 1952 was conducted on 25th August 2022, wherein the details about the act were discussed with professional member participants at length. The interactive session and exchange of views on the subject, during the webinar, was the highlight of the program.

A one-day workshop was conducted on 27th August 2022 on Role of IPs during CIRP and Liquidation to sensitize the Insolvency Professionals about their role, duties and responsibilities during CIRP and Liquidation. This program also received an overwhelming response appreciation of

over 100 participants.

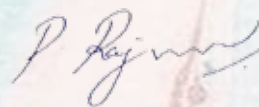
A seminar on Insolvency and Bankruptcy Code: A Game Changer was jointly organized by Institute of Cost Accountants of India and IPA of ICAI on 31st August 2022. The program was graced by the presence of CMA Vijender Sharma Vice President and CMA Biswarup Basu, Former President of the Institute. The seminar brought out various important aspects of IBC, 2016 and the career avenues in this evolving field. The young professionals who participated were highly benefitted and got motivated to pursue their career in IBC.

In its endeavour to promote profession, knowledge sharing and sensitisation of the environment, IPA ICAI published Au-Courant (Daily Newsletter), weekly IBC Dossier and monthly e- Journal which are hosted on its website.

I wish prosperity and happiness to members, students and their families on the occasion of Onam, Navratri & Durga Puja and pray for the success in all of their endeavours.

Stay safe and healthy!

With warm regards,



CMA P. Raju Iyer

September 4, 2022

CMA Course Structure

FOUNDATION COURSE

[TOTAL MARKS: 400]

- PAPER 1: FUNDAMENTALS OF BUSINESS LAWS AND BUSINESS COMMUNICATION (FBLC)**
PAPER 2: FUNDAMENTALS OF FINANCIAL AND COST ACCOUNTING (FFCA)
PAPER 3: FUNDAMENTALS OF BUSINESS MATHEMATICS AND STATISTICS (FBMS)
PAPER 4: FUNDAMENTALS OF BUSINESS ECONOMICS AND MANAGEMENT (FBEM)

INTERMEDIATE COURSE

[TOTAL MARKS: 800]

GROUP-I

- PAPER 5: BUSINESS LAWS AND ETHICS (BLE)**
PAPER 6: FINANCIAL ACCOUNTING (FA)
PAPER 7: DIRECT AND INDIRECT TAXATION (DITX)
PAPER 8: COST ACCOUNTING (CA)

GROUP-II

- PAPER 9: OPERATIONS MANAGEMENT AND STRATEGIC MANAGEMENT (OMSM)**
PAPER 10: CORPORATE ACCOUNTING AND AUDITING (CAA)
PAPER 11: FINANCIAL MANAGEMENT AND BUSINESS DATA ANALYTICS (FMDA)
PAPER 12: MANAGEMENT ACCOUNTING (MA)

FINAL COURSE

[TOTAL MARKS: 800]

GROUP-III

- PAPER 13: CORPORATE AND ECONOMIC LAWS (CEL)**
PAPER 14: STRATEGIC FINANCIAL MANAGEMENT (SFM)
PAPER 15: DIRECT TAX LAWS AND INTERNATIONAL TAXATION (DIT)
PAPER 16: STRATEGIC COST MANAGEMENT (SCM)

GROUP-IV

- PAPER 17: COST AND MANAGEMENT AUDIT (CMAD)**
PAPER 18: CORPORATE FINANCIAL REPORTING (CFR)
PAPER 19: INDIRECT TAX LAWS AND PRACTICE (ITLP)

ELECTIVES

- PAPER 20A: STRATEGIC PERFORMANCE MANAGEMENT AND BUSINESS VALUATION (SPMBV)**
PAPER 20B: RISK MANAGEMENT IN BANKING AND INSURANCE (RMBI)
PAPER 20C: ENTREPRENEURSHIP AND START UP (ENTS)

Note: Students will be required to select any one of three Elective Papers (20A/20B/20C) at the time of enrolment for the Final Course

- ⊙ CMA Syllabus - 2022 shall be effective from June 2023 term of examinations and onwards
- ⊙ Students taking enrollments in the Final Course have to give one time option about choice of "Elective Paper"
- ⊙ Syllabus 2016 shall be continued till December 2023 Exam term
- ⊙ Old students seeking conversion into Syllabus 2022 shall be given one time option to be exercised at least 6 months prior to the examination for necessary verification and approval
- ⊙ Once their request for conversion is accepted, old students have to purchase necessary Study Materials under Syllabus 2022 at prescribed prices

INDEPENDENCE DAY CELEBRATION

AT INSTITUTE OFFICE -
KOLKATA, DELHI & NOIDA





CMA-FPO Symposium

on

“Cost Optimisation and Returns Maximisation throughout the Agricultural Value Chains”



About the Symposium

In line with its objective of supporting the farmers by several means, which include evolving cost and revenue management systems, the Task Force on Agri Cost Management - in association with the Nagpur Chapter of Cost Accountants and Vasantao Naik State Agriculture Extension Management Training Institute (VANAMATI) of Nagpur - has organised a whole-day “CMA – FPO Symposium” in Nagpur on 14th August, 2022. The theme of the symposium was, “Cost Optimisation and Returns Maximisation throughout the Agricultural Value Chains”. The symposium comprised of one plenary session, three technical sessions, and one valedictory session. CMAs, FPO Office Bearers, Agriculture Officers, Agri Research Scholars, Farmers and Other Agri Stakeholders, totalling four hundred and seventy-five people participated in the event.



‘Converting Knowledge into Wealth is the Future’ observes the Hon’ble Minister

Shri Nitin Jairam Gadkari, Hon’ble Minister for Road Transport and Highways, Government of India, was the Chief Guest of Plenary Session. At the very outset, he emphasised the significance of Performance Audit and gave a clarion call

to the CMA fraternity to be Performance Accountants instead of, just, being Cost Accountants. He said that every segment needs performance, and the country as a whole necessitates better performance for better growth and prosperity.



The Minister highlighted the fact that the poor viability of agriculture is the main reason for the migrations from the agriculture sector to non-agriculture sectors. Further, the Minister said that the manufacturing sector contributes 25%, the service sector 55% and the agriculture sector contributes only 12 – 15% of the national GDP. For balanced national growth, the contribution from the agriculture sector needs to be geared up to 25% of the GDP. Drawing reference to 120 districts of the country, which are socially, economically and educationally backward but quite rich in water, forest, land and animal resources; he said that with the extension of science and technology, these regions have potential to flourish and grow. With the integration of proven technology, economic viability, effective marketing and the availability of raw materials positive results are bound to occur even in backward areas.

The Minister called upon the farmers to become Urjadata (energy growers) in place of being only Annadata (food growers). India is importing petroleum crude to the extent



of Rupees 16 lakh crores every year. If the farmers become energy growers, then this money can directly go into the hands of farmers instead of going abroad. He insisted to be cost conscious and minimise agricultural waste. He dwelled upon the mantra “waste to wealth”. He used the example of making ethanol from food waste and parali, an agro waste from northern part of the country. He reiterated that with appropriate technology and vision of leadership, waste can be converted into wealth.

The Minister lauded the initiatives of the CMA fraternity to reach out to farmers and emphasized the importance of Prabodhan, Prashikshan, Research & Development. He observed that Innovation, Entrepreneurship, Science & Technology, Research skills and Successful Practices are together called knowledge and ‘Converting Knowledge into Wealth is the Future’.

Before the address of the Hon’ble Minister, the President of The Institute of Cost Accountants of India CMA P. Raju Iyer spoke about initiatives of the Institute in relation to Agriculture sector such as the Diploma in Agricultural Cost Management in association with IGNOU, Research on Compatible MSP together with the Indian Statistical Institute, and so on. A ‘Guidance Note on Performance Audit’ was released at the hands of the Minister. A couple of publications of the Institute were presented to the Hon’ble Minister by Central Council Members of the Institute - CMA Chittaranjan Chattopadhyay and CMA Debashish Mitra.



The participants were also addressed by CMA Vijender Sharma, Vice President of the Institute and Director of VANAMATI Shri Ravindra Thakare. ‘The Purpose for the Day’ was given out by the Chairman of the Task Force, CMA (Dr.) K Ch A V S N Murthy. The Minister was introduced by the Convener of the Task Force CMA (Dr.) Sreehari Chava. CMA Anil Verma, Chairman, Nagpur Chapter of Cost Accountants, delivered the welcome address. CMA Shriram Mahankaliwar, Chairman, Western India Regional Council, was also seated on the dais. Past President CMA P V Bhattad, Past President CMA (Dr.) Balwinder Singh and a galaxy of Central Council Members were present amongst the dignitaries. A Vote of thanks for the plenary was proposed by Shri Milind Tare, Master Trainer, VANAMATI.

Innovative Sahyadri FPC: “Of the Farmer, By the Farmer and For the Farmer”

After the ceremonial protocol, the plenary session took

off with an emulative presentation on the success story of Sahyadri Farmer Producer Company, Nashik, Maharashtra, by Mr. Pritesh Kare. The basic ideology being pursued by the Company is “Of the Farmer, By the Farmer and For the Farmer”.



A profit-making FPC with over ten years of track record of consistent growth and expansion, Sahyadri FPC is the largest grape-exporter to Europe since 2015. 17000+ farmers are associated with the Company and this number is expected to grow upto 25000 by March 2023. The Company’s product line includes: Fresh fruits & Vegetables, IQF – Fruits & Vegetables, Frozen fruit pulp, Drying and polishing of dry fruits, Manufacturing of fruit drinks, jams, ketchup, puree and soup, etc. It has established a tomato processing plant with capacity of 1000 TPD.

Sahyadri has 13 National & International licenses for manufacturing and marketing of food products, 123 Trademarks and 7 Copy rights. It has collaborated with Tata Strive Skill Development Center to impart training of related skills since 2018. The Company uses innovative technologies to extend benefits to farmers. It has digitalized farms to provide traceability of the product to its end customers.

Towards forward integration, the Company has opened ‘Experience Stores’ in Mumbai, Pune and Nashik. They also organize “Exposure visits” to their farms and units. During grape season 10 -15 containers are despatched on a daily basis.

The stimulating presentation drew overwhelming appreciation and a response from the audience. Extending the commendations of the Institute to the wonderful performance of Sahyadri, President CMA P. Raju Iyer felicitated Mr. Pritish and his representative team.



Technical Sessions

The first technical session was on 'Cost Optimisation throughout the Agricultural Value Chains'. The theme considered for the second technical session was 'Returns Maximisation throughout the Agricultural Value Chains'. The first technical session was chaired by Past President CMA (Dr.) Balwinder Singh and the second by CCM CMA Debashish Mitra. The proceedings of the first technical session were summed up by CCM CMA Chittaranjan Chattopadhyay and the proceedings of the second by CCM CMA (Dr.) Ashish Prakash Thatte. The maiden issue of the MSME & Start Up Bulletin was released during the first technical session. A Vote of thanks was proposed by CMA Rajat Naidu, Secretary, NCCA.



FPO Model towards Augmentation of Farmers' Income

The first technical session was marked by key note address on "Augmentation of Farmers' Income" by Shri G S Rawat, CGM, NABARD, Pune. He recalled that today we are food surplus due to Green Revolution during 1960s and onwards. He provided extensive insights into concept of FPOs and their sustenance.

Evaluation of the cooperative movement gave birth to the concept of the Farmer Producer Company. Considering non corporate culture and low business orientation as major reasons for the crippling of cooperative movement, it was decided to remould this concept into a corporate form with complete professional attributes. In India, 86% farmers are marginal, and the availability of quality inputs on time and at reasonable prices is the major concern of these small and marginal farmers. The concept of FPO was evolved to give the benefits of collectivisation of efforts and economies of scale to the farmers, which was the soul of the cooperative movement as well.

In the FPO form of business, access to easy finance has also been considered as a major component. As a result, financing of FPOs is being categorised as Priority Sector Lending. The Government is also providing equity participation through the Matching Grant scheme. In the initial years, management support is also being funded by the government as a hand holding period. Some private sector corporates are also giving their CSR funds to promote FPOs. 45 – 50% FPOs are performing very well. Youngsters, who were not interested to join farming, have also started to join this form of business. More and more educated and experienced people are also

joining and making the FPO model a great success.

At the end, Mr. Rawat emphasised that Good governance; Efforts for self-sustenance; Judicious use of resources like seeds, water, fertilisers, pesticides, etc.; Risk mitigation through crop insurance and alternate cropping and ancillary income; and Financial awareness and literacy of farmers could be the Key Success Factors that would ensure the FPO model is a fruitful proposition.



Exemplary work by Satpura Women Silk Producer Company Limited

Another highlight of the first technical session is a presentation by Mr. Dinesh Mende, on the exemplary work being carried out by Satpura Women Silk Producer Company Limited (SWSPCL), Padhar, Betul, Madhya Pradesh. SWSPCL is the first ever farmer-based mulberry silk producer company in Madhya Pradesh. It has operations in 60 villages spread over four blocks of the Betul district. Its membership consists of 750 tribal and dalit women mulberry farmers. The FPC is governed and controlled, exclusively, by women farmers only. SWSPCL works hard towards its cherished goal of strengthening the financial and social wellbeing of women and creating a business model through land base livelihood activity.

SWSPCL has established 11 units of chawky (nursery of silk worm) rearing centers with an aggregate capacity of 1,00,000 Disease Free Layings (DFLs) at a time. These Chawky rearing centers provide good quality worms to cocoon producers for late-age silk worm rearing. They are able to reap four crops per year with low expenditure and a lower risk of crop failure. The FPC buys back the produced goods from share-holders at a 30% higher rates than the rates of the Madhya Pradesh Silk Federation.



In recognition of its amazing performance in rural areas through land-based activity,

SWSPCL has received an award in 2019 from the International Business development Association (IBDA). Expressing the appreciation of the Institute for the exemplary work of SWSPCL, President CMA P. Raju Iyer felicitated Mr. Dinesh and his team.

Eminent Speakers Kindle Up



During the second technical session CMA Balaji Kollipara, from ITC, made an enlightening presentation on “Improving Farm Economics through Collectivisation and Leveraging Digital Technology”. He observed that there is a very interesting phenomenon that ‘Farmer is the only person in the economy, who buys at retail and sells in wholesale’. This is the root cause of non-sustainable agricultural businesses. Solutions to this problem are: (a) Collectivisation through Farmer Producer Organisations and (b) Digitalization of agriculture at various levels.



Dr. Praveen Jain, Director, School of Agriculture, IGNOU, New Delhi, deliberated about “Farm Value Management”. He drove home the point that Farm Value Management has five stages, viz. Pre-production, Production, Post-Harvest Management, Processing and Supply Chain (Marketing). Farm Value management decisions may be for enhancing the returns by increasing the yield, improving the quality, reducing the supply chain cost or increase in farmers share in the price to end customer. In addition to revenue augmentation, cost reduction techniques also need to be practiced. Overall cost of production and cost of distribution and marketing needs to

be monitored and controlled. Ultimately consumer satisfaction should also be evaluated.



CMA R K Sinha, Member Task Force, presented a Proforma “Farm Cost Sheet”. He said that India had a 32% share in world GDP centuries ago, which slipped to 2% at the time India got independence. Now it has started to improve. He put forward that the five key factors that can accelerate the speed and change the scenario are Farmer, Scientist, Agri Financial Institutions like NABARD, the Government and the CMAs.

The Way Forward & The First Ever FPO Cost Clinic

The session on “The Way Forward” was chaired by the Past President of the Institute of Cost Accountants of India, CMA P V Bhattad. Impressions and action plans for the future were laid out by Mr. Anandrao Raut, Vice President, Agriculture, Manas Agro Industries and Infrastructure Limited; Mr. H. M. B. Murthy, Secretary, Nageshwara Charitable Trust; and Mr. Pravin Chivane, Bajaj Foundation. They all lauded and welcomed the initiatives of the CMA fraternity in making inroads into the Agriculture Sector and extending support to the farmers.



The valedictory session also marked the signing of an MoU between ICAI and VANAMATI, the first of the joint ventures being FPO Cost Clinic. The FPO Cost Clinic is a CMA invention conceived with the objective of guiding the FPOs in evolving, adopting and implementing the tools and techniques of Revenue and Cost Management. In order to commemorate ‘Azadi Ka Amrit Mahotsav’ NCCA-VANAMATI FPO Cost

Clinic which is the first ever FPO Cost Clinic formed in the country, was made operative during the valedictory session. The clinic would remain open from 04.00 pm to 06.00 pm on every working Friday.

The proceedings were summed up by CMA (Dr.) K Ch A V S N Murthy, Chairman, Task Force and a vote of thanks was proposed by CMA (Dr) D.P. Nandy, Secretary, Task Force. The proceedings, for the entire day, were compared by CMA Jyotsna Rajpal, Coordinator, Agri Cell, Nagpur Chapter. Apart from the Team Task Force, CMA P.V. Bhattad, Past President, ICAI; CMA Anil Verma, Chairman, Nagpur Chapter of Cost Accountants; CMA Anan Sahasrabudhe, Vice Chairman;

CMA Rajat Naidu, Secretary; CMA Sameer Joshi, Treasurer; CMA Renu Kulkarni; CMA Manik Kulkarni; CMA (Dr.) Pushparaj Kulkarni; CMA Vijay Kumar Murthy; CMA Nitin Als; several other office bearers, members and students of NCCA; Dr. Archana Kadu, Additional Director, VANAMATI; Mr.Subodh Moharil, Deputy Director; Mr. Millind Tare, Master Trainer, and other Executives have strived hard for ensuring the symposium a great success.



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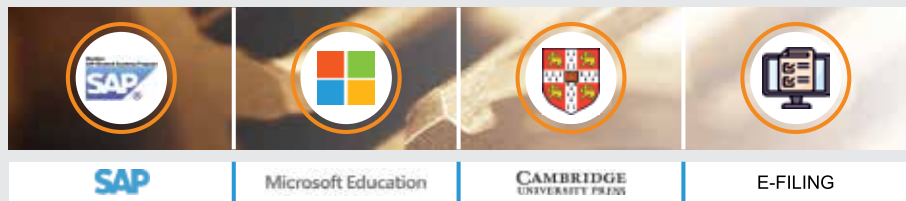
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Webinar on “Certification of Government Commission of Banks by CMAs”

On 30th August, 2022 from 4 pm to 6 pm
organized by the Banking, Financial Services and Insurance Board Of
The Institute of Cost Accountants of India

The Reserve Bank of India carries out the general banking business of the Central and State Governments through its own offices and through the offices of the agency banks appointed under Section 45 of the RBI Act, 1934. RBI pays agency commission to the agency banks for the government business handled by them. The Reserve Bank of India has permitted the Cost and Management Accountants to certify the Government Commission of both the public and private Scheduled Commercial Banks which is a good opportunity for practising Cost and Management Accountants to increase the scope of practice.

The RBI had issued a **Master Circular on Conduct of Government Business by Agency Banks - Payment of Agency Commission RBI/2022-23/08 CO.DG.BA.GBD.No.S-1/31.12.010/2022-23** dated April 1, 2022, where it is stated that agency banks are required to submit their claims for agency commission in the prescribed format to CAS Nagpur in respect of Central Government transactions and the respective Regional Office of Reserve Bank of India for State government transactions. The formats for claiming agency commission for all agency banks and separate and distinctive set of certificates have to be signed by the branch officials and **Cost Accountants have been permitted to conduct the certification services with respect to claiming agency commission.**

Keeping the importance of the above circular in mind and to promulgate the ramifications of the above circular to the practising as well as the members in industry, the Banking, Financial Services and Insurance Board ((BFSIB) under the Chairmanship of CMA Chittaranjan Chattopadhyay, decided to conduct a webinar on “Certification of Government Commission of Banks

by CMAs”. The Speaker was CMA Dr.P Siva Rama Prasad, Former AGM of State Bank of India and eminent faculty of various certification courses of BFSIB.

The erudite Speaker presented the webinar with a lucid and illustrative Power point presentation. He started the webinar with a set of coherent guidelines outlining the objectives of the webinar in brief. The Speaker established the role of the Reserve Bank of India acting as the Banker for both the Central and State Government as per Section 20 of the RBI Act 1934. It provides them the Short-term Loans whenever necessary.



**CMA (Dr.) P Siva Rama Prasad
Former AGM, State Bank of India**

On behalf of the Government, the Bank collects the Receipts of the funds and makes the Payments. Agency Commission’ is the remuneration received from the Reserve Bank of India (RBI), based on the ‘Count/ Amount’ of eligible transactions, by the ‘Agency Banks (Public and Private Sector Banks)’, for transacting Central Government/State Government ‘Receipts/Payments. The claim of the Central Government /State Government Commission is submitted to RBI after the requisite transactions get validated within the stipulated timelines.

The Speaker pointed out that for State Govt. Agency Commission Claim, that Settlement Units get their Data

from Core Banking System, Internet Banking, Cash Management Product. The Speaker presented a slide showing the year-on- year growth of the Agency Commission paid by RBI to both Public and Private Sector Banks.

The Speaker touched further upon the discussion by explaining the time period allowed to furnish a claim on Agency Commission. He pointed out the settlement data for ‘Agency Commission’ is reported through e-Kuber to RBI. He further explained in detail about computation of agency commission, as per the prescribed methodology. He shared an illustrative chart demarcating the type of transaction and the rate of commission for the above-mentioned computation and elucidated the items which are ineligible for Central Government commission. To give a holistic view of the subject, the Speaker expounded the deduction of TDS on Agency Commission and the procedure of verification of the same. He explained the accounting procedure of the branch to enumerate the commission. The Speaker discussed the compliance and review procedure and shared the Certification proforma with the members.

The webinar ended with the Speaker addressing a number of technical queries from the Members which included how and where to apply for this particular professional assignment, how to gain professional assignments and the modalities of conducting the assignment. The webinar was a huge success and the members of the Institute acknowledged the role of the BFSIB for conducting the webinar to illuminate the professional opportunities available to Cost and Management Accountants.



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Glimpses of the
SAFA Foundation Day Conference 2022
hosted by the Institute
on 22 August, 2022 at New Delhi





Shri S Srinivasa, Dy. Managing Director, Chief Risk Officer, SBI (2nd from right) is being felicitated by CMA Vijender Sharma, Vice President ,ICAI (2nd from left) along with CMA Chittaranjan Chattopadhyay, Chairman,BFSIB (extreme left) at SBI HQ, Mumbai on 24th August, 2022



CMA P. Vasudevan,CGM RBI (2nd from left) along with CMA Chittaranjan Chattopadhyay, Chairman,BFSIB (extreme right), CMA Vijender Sharma, Vice President, ICAI (2nd from right) along with CMA Debashis Mitra,Chairman, Advanced Studies and Placement had a meeting at RBI HQ on 23rd August, 2022



(R to L) Shri Jayant Kumar Dash, Executive Director, Reserve Bank of India is being presented with the Institute's publication by CMA Chittaranjan Chattopadhyay, Chairman, BFSIB, CMA Debasish Mitra, Chairman, Advanced Studies and Placement along with CMA Vijender Sharma, Vice President, ICAI



(L to R) CMA Basant Maheswari, Renowned Wealth Adviser is being felicitated by CMA Vijender Sharma, Vice- President,ICAI along with CMA Chittaranjan Chattopadhyay, Chairman, BFSIB.



Shri Partha Pratim Sengupta, Managing Director & Chief Executive Officer, Indian Overseas Bank greeted by CMA Chittaranjan Chattopadhyay, Chairman BFSIB



CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board of the Institute extending greetings to Shri Soma Sankara Prasad, MD & CEO of UCO Bank

DIGITAL TRANSFORMATION IN AUDIT FUNCTION



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Practicing Cost Accountant
Thane
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Abstract

Digital Audit will create an environment of zero-paper trail and go completely paperless and faceless. This article emphasises how the digital platforms support real-time monitoring of the client's data based on Enterprise Resource Planning (ERP) and statutory authorities' portals like MCA, GST, TRACES etc and of course use of internet/e-mail/ cloud computing for transferring/obtaining electronic data required for audit purposes. An Auditor can easily complete about 70 per cent of the Audit work digitally without visiting the client's premises provided the client is equally equipped with all modern electronic facilities.

DIGITAL VERIFICATION OF BOOKS OF ACCOUNTS

A. BALANCE SHEET ITEMS

I. Online Check from MCA site

Audit Requirement	Online verification from MCA site
1. Change in share capital	1. Form-SH-7 (Increase in authorised share capital)
2. Board Resolution	2. PAS-3 (Increase in paid up capital)
3. ROC Compliances	3. Form AOC -4 (Filing statement of accounts)
4. MSME Compliances if any	4. Form MGT-7 (Filing Annual Reports)
	5. Form MGT-14 (Filing of resolution and agreement to ROC)
	6. Form CRA-4 (Filing Cost Audit Report, wherever applicable)
	7. INC-22 (Director KYC)
	8. ADT-1 (Appointment of Auditor)
	9. MSME Compliance Forms

II. Goods & Services Tax (GST)

Digital Checking of GST related compliances for Audit purpose:

GST related statutory audit compliances require GST records, return Forms like GSTR 1/1A, GSTR 2/2A, GSTR 3/3A/3B, GSTR 9 etc. and other documents like purchase register and sales register (invoice

wise) including debit and credit note raised with reasons, input tax credit (ITC) register etc. Reviewing and reconciliation of e-way bills in relation to invoices issued, wherever required and verify whether the nature of tax levied is as per destination of goods. Verification and cross verification can be done digitally with accuracy based on HSN / SCN

wise sales and purchases, taxes paid, refunds claimed and ITC claimed, as well as other GST Act related compliances. All GSTR data are available in GST portal, Purchase, Sales registers and all the GST related entries are available in Finance-Controlling (FI-CO module) module of ERP of the client online.

Bestow special attention on:

- a. Stock transfer in case of multiple branches including outside State transfer in digital mode.
- b. Reconcile monthly balance in E-ledger (GST portal) with books in ERP (FI-CO)

III. Tax deducted at Source (TDS)

Digital checking of TDS related compliances for Audit purpose:

- a. Get the soft copy of TDS challans from client to calculate the TDS liability including for the previous year.
- b. Obtain softcopies of TDS return Forms 24Q, 26Q, 27Q and 27EQ for all the quarters and consolidated file from TRACES (TDS Reconciliation Analysis and Correction Enabling System).
- c. Calculation of TDS liability from data available in ERP-FI-CO and its payment by 7th of every month (from e-bank statement).
- d. Reconciliation of TDS and service income and interest as per Form 26AS vis-à-vis TDS related ledgers.

IV. PF/ESI/ Retirement benefits/ Bonus/ Gratuity compliances as per respective Acts.

Digital checking of compliances for above mentioned items for Audit purpose:

- a. Online checking of applicability and calculation of PF contribution of employer and employee. Data available from HR module of ERP.
- b. Obtain softcopy of actuarial valuation for gratuity / leave encashment related workings and verify proper investments done through electronic documents.
- c. Obtain softcopy of all returns/

In case of huge stock of raw materials like coal, sulphur etc. drone can compute the volume of the stock

challans, computation and reconciliation, provisions and their accounting entries in ERP.

V. Accounts Payable

Obtain e-copy of the following documents:

- Copy of agreement with suppliers.
- Obtain balance confirmations as on March 31st from suppliers through e-mail.

Online data available in ERP required for audit purpose:

1. List of creditors having debit balance as on March 31st.
2. Obtain reason for debit balances through e-mail.
3. Provision entries for expenses due as on March 31st.

VI. Fixed Assets (Property, Plant & Equipment)(PPE)

Though it is a vast area it is possible to verify almost everything digitally as required for audit purpose if the client's ERP has a powerful Asset Management (AM) Module. The additions in fixed assets can be traced from purchase order to payment process in ERP in Accounts Payable (AP) module, where softcopy of the invoices is also attached as repository along with the FI-entries. Purchase order is prepared in Material Management (MM) module of ERP and subsequently invoice verification and payment is done through FI-CO module of ERP.

Rate of depreciation is calculated by depreciation key (created considering

useful life/ rate of depreciation and residual value- as per Schedule-II of Companies Act, 2013) attached with each asset ID in AM module. By checking depreciation keys in AM module, it can be assured of the monthly depreciation amount posted in the respective ledgers. Variance analysis can be made on monthly posting of depreciation and reason for variation can be arrived. Checking of all master data against each asset ID like manufacturers serial no, equipment serial no., date of capitalisation, depreciation start date, location code, cost centre etc. is available in AM module. AM Module also gives the basic data required for preparation of PPE Schedule, which is tallied with respective ledgers. (AS-10 / IndAS-16)

Digitally physical (Phigital) verification of fixed assets will be discussed along with the verification of stocks which is a part of CARO compliance.

VII. Accounts Receivable

ERP (FI-CO module) is capable of handling audit requirements for accounts receivable very effectively, like:

1. Customer records and purchase orders/ sales order are accessible from ERP.
2. Invoices are generated online in pdf format that can be e-mailed directly to the customer.
3. Capturing of payment by customer using a variety of online payment processors against invoices.
4. Invoice errors rectification through debit/ credit notes are available.
5. Ageing report, customers with significant outstanding report etc are easily generated from ERP.

VIII. Inventory

MM module along with Production Planning (PP) module of ERP can provide all audit requirements digitally:

- Day wise movement of all inventories (stores, finished/ semi-finished goods, raw materials).
- Valuation of inventory (AS-2/ IndAS-2).
- Details of quantity of production and sales on daily basis, input and output ratio of the raw material.
- Reports like, ageing analysis, non-moving, obsolete stocks, last purchase price are easily generated from ERP-MM module.

IX. Others

Digital reconciliation of Bank statement is a very old practice and therefore has not been discussed here.

Required documents for audit of other Balance sheet items like: (i) Investments, (ii) Loans and advances are digitally available e.g., D-Mat account, related party transaction statement, loan/ security agreement copies, advance tax paid challans, balance confirmation from employees.

B. PROFIT & LOSS ACCOUNT ITEMS

I. Revenue from Operation

From Sales and Distribution (SD) module of ERP obtain the following documents digitally required for audit purpose:

- Sales order against the customer's purchase order.
- Invoice wise sales register with GST and delivery confirmation form customers-in respect of cut off sale transaction- (AS-9/ IndAS-18))

- Copy of agreement with customers to review and to reconcile with milestone invoicing for the year.
- Computation of unbilled income along with debit/ credit notes.

II. Purchases

From MM module of ERP, the following documents available digitally are required for audit purposes:

- Purchase order (P.O) wise agreement with vendors.
- Enquiry details for the purchase from more than one vendor other than blanket purchase order.
- Goods received notes (GRN) against P.O and its entries in MM module giving corresponding effect in respective ledgers of FI-CO module.

III. Employee Expenses

Details of employee related expenses are available digitally in HR module of ERP for audit purpose:

- Obtain salary statement with break ups of salary components and its reconciliation with ledgers in FI-CO.
- Obtain statements for PF/ ESIC/ professional tax/ income tax and other statutory compliances.
- Obtain the amount of salary for capitalisation and its logic.
- Obtain the basis for provision made for gratuity/leave encashment/ other employees' benefits. (AS-15/IndAS-19)
- Obtain the list of employees who joined during the year and resigned during the year.
- Obtain full & final settlement details (payable or recoverable).

- Review of database provided to Actuary regarding number of employees, their salaries, increment assumption – and other actuarial assumptions.

IV. Other Expenses

All expenses including repairs & maintenance expenses are booked either via MM module (for issue of stores) / service entries for rendering service contracts, or direct entries in FI-CO module.

- Capital expenditure / operating expenditure bifurcation should be done at the time of purchase requisition creation in MM module.
- Review the expense booking entries with respect to P.O. / service order (S.O) in FI-CO module. The softcopy of the invoices to be attached with expense booking entries as repository.
- Review if proper GST/ TDS entries are passed as per respective compliance requirements in FI-CO module and verify the same with the softcopy of the invoices.

V. Finance Cost

Digital documents required for verification of finance cost:

- Soft copy of Loan Amortisation Schedule through e-mail for apportionment of principal & interest amount.
- In case of foreign currency loan applicable gain/ loss in dollar conversion and its valuation in ERP.
- Adequacy of computation of capitalisation of borrowing cost (AS-16/ IndAS-23) in ERP.
- Treasury Module in ERP is of good help in finding digitally the effectiveness of cash management.

ERP has a support system to the audit trails functionality as under:

- ⊙ Recording audit trail of each and every transaction with user ID, date and time.
- ⊙ Creating audit logs of each change (edit) made in the books of account.
- ⊙ Capturing of date and details when such changes (edits) are made.
- ⊙ Ensure that the audit trail cannot be disabled.

(Application of audit trail functionality is mandatory for all business which are using accounting software for maintaining books of accounts from 1st April, 2022 (deferred from 1st April 2021), vide Notification No. GSR 205 (E) dated 24th March, 2021.)

Digital Verification of Inventories, Property Plant and Equipment

Physical verification can be done from drone where all the materials/equipment (plant & machinery) are tagged either with QR code or

RFID. In case of huge stock of raw materials like coal, sulphur etc. drone can compute the volume of the stock (conical/ rectangular prism etc.) and hence the quantity of stock can be determined.

Potential Impact of Blockchain on the Financial Statement for Audit

Blockchain's functions of data integrity protection, instant information sharing, and programmable and automatic controls of processes via smart contracts like purchase/ sales agreements, could facilitate the development of a new accounting ecosystem.

Execution of RPA-based Audit Tests

It involves programming the ERP-software to automatically execute the audit tests as per requirements. The Audit firm will deploy audit RPA (bots) in the ERP of the client which is based on Blockchain technology. This audit software is backed by Artificial Intelligence (AI), data analytics which

sense the real time information of any significant variations from the trends. When any suspicious activity happens in the system or any alteration of controls takes place, the software will give the report accordingly. The Auditor will only discuss the exceptional reports with management on real time basis. All control testing is done by the Audit software except entity level controls.

Digital mode is intrinsically better than humans in performing tedious and rule-based tasks. The Auditor need not spend time on repetitive tasks and can concentrate on assessment of risk of material misstatements. The significant aspect of the digital transformation is to substitute the way we think. **MA**

References

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BUSINESS INTELLIGENCE FOR MSMEs: ROLE OF MANAGEMENT ACCOUNTANTS

Abstract

The aim of this article is to bring out the role of the Management Accountants in facilitating Micro, Small and Medium Enterprises (MSMEs) in embracing Business Intelligence (BI) as a tool for decision making. The article is exploratory in nature and draws the data from both primary and secondary sources. A sample survey of MSMEs was conducted to collate the relevant primary data. Post pandemic and owing to the digital transformation, the ecosystem of BI has undergone a radical shift. MSMEs are grappling with the technology disruption and the advent of big data. Management Accountants are handy in marshalling and decoding the big data for MSMEs. The findings of this study reveal two important things namely (1) Digital transformation is the key for deploying BI for MSMEs in the post pandemic era and (2) Management Accountants play a strategic role in hand holding the MSMEs to have a robust BI platform for achieving operational performance.



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INTRODUCTION

The term 'business intelligence' (BI) was coined by Richard Millar Devens in 1865. BI was popularised in 1989 by Howard Dresner of the Gartner Group. The role of BI is heightened and more pertinent particularly in the wake of industry 4.0, digital disruption and the pandemic. BI is the application of technology for uncovering the business insights. It leverages on the technology for transforming raw data into an insightful data for making informed business decisions.

OBJECTIVES OF THE STUDY

1. To present the ecosystem of BI in terms of profile, tools, applications and challenges
2. To depict the role of the management accountant as a domain expert for BI practice
3. To provide summary discussion and conclusion

ECOSYSTEM OF BI AT MSMEs

The ecosystem of BI at MSMEs is captured through the collection of primary data and with the help of secondary

data through the literature review.

PROFILE OF SAMPLE FIRMS

The primary data was collected by administering the questionnaire among 104 MSMEs through the Google form. MSMEs from across the sectors participated in the survey. The profile of the respondents is presented in Table 1.

Classification [Note 1.1]	Manufacturing [Note 1.2]	Services [Note 1.3]	Total
Micro	28	51	79
Small	7	5	12
Medium	6	7	13
Total	41	63	104

Source: Survey Data

Note 1.1: The classification of firms into micro, small and medium is based on the definition provided by the Ministry of MSMEs, Government of India. Accordingly, firms with investment in plant and machinery or equipment of not more than Rs.1 crore and annual turnover of not more than Rs. 5 crore are classified as micro enterprises. Small enterprises will have threshold figures of Rs. 10 crore for investment and Rs. 50 crore for turnover. Medium enterprises will have threshold figures of Rs. 50 crore for investment and Rs. 250 crore for turnover.

Note 1.2: Sample firms in the manufacturing sector represent industries like Agri products processing, Food processing, Khadi, Pottery, Agarbatti and Toiletries, Solar and Tooling.

Note 1.3: Sample firms in the service space represent verticals like Electrical and Electronic Service, Farm Aggregators, Auto CAD, e.commerce etc.

Note 1.4: All the micro and small sample firms are proprietary concerns. Out of 13 medium sample firms, 5 are proprietary concerns and 8 are partnership firms.

BI TOOLS

The technology tool suite comprises Tally ERP, Excel, Tableau, Power BI, Zoho analytics, SAS, SAP and the list goes on. Factors like the business model, size of the business in terms of the number of customers, number of business partners, compliance and regulations to be adhered to, market segmentation, business platform, budget, skilled man power and such other metrics would determine the choice of the BI tool for the MSMEs. The survey results in terms of BI tools used in MSMEs are presented in Table 2.

Particulars	Micro	Small	Medium	Total
No specific tool and relies on intuitive knowledge [Note 2.1]	53	1	0	54
Excel	14	5	2	21
Tally	12	4	7	23
Others [Note 2.2]	0	1	4	5
Total	79	12	13	104

Source: Survey Data

Note 2.1: One of the findings of C. Siemen, N. Clever, B. Barann and J. Becker (2018) include 'SMEs value implicit knowledge more than data-driven analyses'. This is in line with the survey result.

Note 2.2: Others include Seed software, Tableau, Power

BI and Internally developed tools

APPLICATIONS OF BI

Business intelligence is essentially a suite of data power house. It provides the business analytics for running the businesses. The applications would largely depend on the market condition, state of the economy, supply and demand dynamics, regulations and so on. The survey results pertaining to the applications of BI by the MSMEs are presented in Table 3.

A	ERP: Day to day operations	82%
B	Market Research	79%
C	Marketing and Promotions	72%
D	Competitors' Analysis	51%
E	Distribution and Supply chain	45%
F	Finance and Control	41%
G	Others [Note 3.2]	59%

Source: Survey Data

Note 3.1: Operations, market research and marketing are the core areas of applications of BI

Note 3.2: Other applications include bidding, tendering, pricing, sales mix and compliance

BI: CHALLENGES FOR MSMEs

Unlike the big corporate houses, MSMEs have a unique set of challenges due to several reasons. As per the Annual Report of MSMEs, 2020-21, two-third of MSMEs are not registered and hence not forming part of formal economy. They are deprived of the privileges enjoyed being a part of the formal economy.

The survey documents the challenges of MSMEs in Table 4.

A	Lack of technical expertise to handle BI	91%
B	Inability to understand market dynamics	90%
C	Data Collection	78%
D	Affordability	69%
E	Manpower coordination	58%
F	Hard to justify ROI	54%

Source: Survey Data

The secondary data had been collated to corroborate with the primary data. The summary of the literature review from the published articles is presented in Table 5.

<i>Article (Source)</i>	<i>Findings</i>
Gavin Ashley CHAPMAN. (2021)	Covid-19 prompted SMEs to embrace immediately disruptive technologies like Big Data, IoT and AI
Allas, T., Birshan, M., Impey, A., Mayfield, C., Mischke, J., & Woetzel, J. (2021)	Post pandemic, more than 60 per cent of SMEs plan for an increase in product and business model innovation and MSMEs can think of SaaS and Cloud computing to solve budget constraint
Stjepić, A.-M., Bach, M. P., & Vukšić, V. B. (2021)	Insufficient human, technical, and financial resources are key risks in implementing BI in SMEs

Azevedo, A., & Almeida, A. H. (2021)	Orienting the decision-makers in SME with a training course helps them to embrace the digitisation
Milla Ratia, Jussi Myllärniemi, & Nina Helander. (2019)	Predictive and prescriptive analytics should be the scope of BI and should leverage big data
C. Siemen, N. Clever, B. Barann and J. Becker (2018)	BI is used for market analysis, study of purchasing patterns, product recommendations, optimizations
Kalan, R. S., & Ünalir, M. O. (2016)	Traditional BI tools are not capable for SMEs decision making because of volume, velocity and variety if data
Savitz, E., & Vogels, W. (2012)	Must integrate data collection and analytics from the start
Source: Compiled from the research articles	

ROLE OF MANAGEMENT ACCOUNTANTS

On the one hand, the policy measures taken up by the Ministry of MSMEs must be made known to the MSMEs. The policy push by the Government of India will go a long way for MSMEs to address the challenges. The principal policy measures are outlined in Table 6.

<i>SL No.</i>	<i>Schemes</i>	<i>Benefit of the Schemes</i>
1	Second loan for up-gradation of the existing PMEGP/MUDRA units	Assisting in new technology/ automation with subsidy support
2	Credit Guarantee Scheme for Micro & Small Enterprises	Assist in fund raising for first generation entrepreneurs without collateral and third-party guarantee
3	Micro & Small Enterprises Cluster Development Programme	Common facility centre for reaping the benefits across the value chain of business
4	Scheme of Fund for Regeneration of Traditional Industries	Value addition to make products competitive
5	Entrepreneurship Skill Development Programme Scheme	Capacity building, up skilling of existing MSMEs and inculcating entrepreneurial culture
6	Assistance to Training Institutions Scheme	Support for infrastructure and capacity building of training institutions
7	Coir Vikas Yojana and Khadi Gram Udyog Vikas Yojana	Enabling artisans in coir and Khadi products value chain
8	Procurement and Marketing Support (PMS) scheme	New market access, organizing Trade Fairs, MSME Expo
9	MSME Champions Scheme	Holistic approach with a single purpose of creating digital MSMEs
10	National Manufacturing Competitiveness Programme	Promotion of ICT, mini tool room and design clinics for SMEs
Source: Schemes for MSMEs, 2022-23		

On the digital transformation, suitable tool of data analytics must not only be suggested but the MSMEs ought to be made to adapt. The economy and the big data must be decoded so that the decision maker at the helm of affairs of the MSMEs is oriented for the adoption of technology (Milla Ratia, Jussi Myllärniemi, & Nina Helander, 2019).

SUMMARY DISCUSSION AND CONCLUSION

For the successful implementation of BI the MSMEs must be enabled, empowered, nurtured and mentored in the present day context of digital and competitive market place. To address the inherent disadvantage of MSMEs, the macro policy framework as provided by the Ministry of MSMEs, Government of India, must be leveraged. MSMEs should go for Udyam registration (<https://udyamregistration.gov.in>). It comes with many benefits like GeM (Government e-Market place), SAMADHAAN, TReDS Platform, eligibility for priority sector lending from Banks etc. To gain the upside potential of technology disruption, MSMEs should go digital and hug the data analytics tool. **MA**

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FROM PUSH TO PULL - DIGITAL TRANSFORMATION GLOBALLY DURING AND AFTER COVID 19: AN EMPIRICAL ANALYSIS

Abstract

The Covid -19 pandemic has changed a lot of myths about digital transformation. Though even before the pandemic, digital technology started to be an important part of the workforce globally, the lockdowns and restricted face-to-face human interaction forced by the covid -19 pandemic transformed the digital technology landscape completely at the global level. This paper aims at finding out how Covid -19 pandemic has drastically impacted digital transformation globally, and how the digital transformation now is considered an inevitable business strategy.



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BACKGROUND

The COVID-19 has turned out to be one of the most dreadful catastrophes affecting mankind. It has drastically affected and impacted the way organizations and society function. Overnight Governmental orders restricting the gathering of people restricted in-person business operations and working from home became the norm. Thanks to the internet - from school to business-operations could be performed remotely without hampering efficiency. Online platforms like Google Meet, ZOOM, Microsoft Teams, and others proved that

digitalization can enable remote working without compromising on quality. It not only ensured safety but also efficacy. It is dreadful to imagine without digitalization how operations over the world would have halted.

Even before the pandemic, digital technology started to be an important part of the workforce globally. Prior to the pandemic digital technology was looked upon by businesses as a means to save money and reduce unnecessary spending; allow some flexibility to the workforce and fasten up some processes. However, the lockdowns and restricted face-to-face human interaction forced by the Covid -19 pandemic transformed

the digital technology landscape completely. Now, digital technology is looked upon by companies as enablers offering creative solutions beyond the above benefits. The push towards digital transformation as imposed by Covid-19 has proved that digitalization can enable companies to gain competitive advantage, better employee engagement, and better customer experience. Even after returning to normal postCovid-19, many organizations are using digital technology at its optimum to unleash the benefits offered by it.

MIT Management Report on “Digital transformation after the pandemic” (2021) has thrown light

on pre Covid -19 myths about digital transformation and how the reality has turned out and it is found that the Covid -19 pandemic has changed a lot of myths about digital transformation. For instance, previously it was believed that regulations inhibit digital transformation but contrary to that during the pandemic even the highly regulated industries shifted to digital modes like telehealth visits and regulatory authorities supported the same. Similarly, it was believed that IT can't keep pace with the digital transformation of efforts, however, tech organizations across every industry stepped up to buttress the industry among all the sectors to support the continuation of their operations and revenue generation. It was also believed that people will not pay full price for digital-only; however the pandemic proved that consumers paid for digital products and services and will continue to do so post-Covid. In the pre Covid era it was believed that it was prudent to be a fast follower in adopting digital transformation. However, the pandemic has proved that companies have to be leading in digital transformation as otherwise they would lag behind competitors and miss opportunities risking their business. The report concludes that digital transformation would continue post Covid era as companies are realizing their potential in achieving better customer experience, better employee experience, better operations management, and better business model transformation.

According to OECD Going Digital Integrated Policy Framework,2020, the digital transformation would continue post-Covid-19 and would be oriented around seven building blocks – access, use, innovation, trust, jobs, society, and market openness and hence the Governments across the countries must play a proactive role in supporting the digital transformation to shape a common digital future that improves lives and boosts economic growth and well-being.

WHY WAS DIGITALIZATION NOT FULLY IMPLEMENTED BEFORE COVID-19

Before Covid- 19, digitalization was considered as an option and not a strategy, The following is the chart that

depicts the reasons for not implementing digitalization in full gusto:

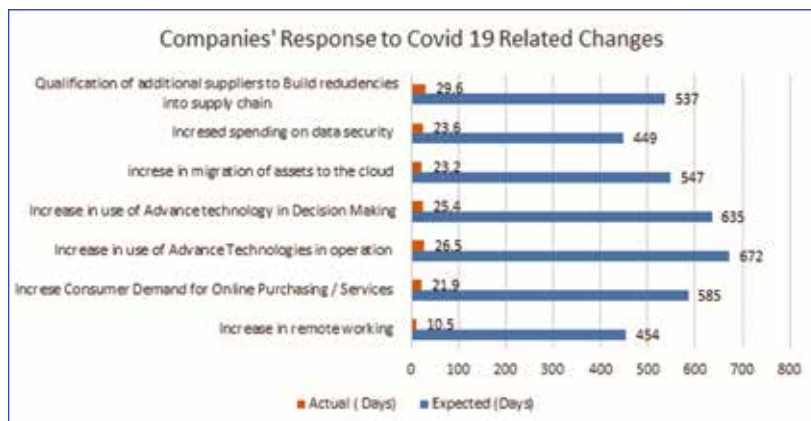


(Source: McKinsey & Company Survey,2020)

As can be deciphered from the above chart, most organizations had not considered implementing digitalization as a top business priority nor did the leadership encourage the same. Similarly, organizations had been quite apprehensive as to how the customer would react to digitalization and feared resistance of the same. Apart from that lack of required IT setup, an established way of working – not in congruence with a digital way of working and organizational silos also worked as bottlenecks inhibiting the digital environment in the organization.

COVID-19 -THE BLACK SWAN PUSHING DIGITAL TRANSFORMATION

There is no doubt that the pandemic has been a major factor for organizations to pay more devotion to their digital transformations. In fact, it has forced many companies globally to reinvent themselves and accelerate their transformation. A survey by McKinsey & Company (2020) found that responses to COVID-19 have advanced the adoption of digital technologies by several years and that many of these changes could be here for the long run. The graph below explains how companies responded to various Covid 19-related changes much faster than they thought possible before the crisis.



Source: McKinsey & Company Survey,2020)

The above graph explains how companies responded to various Covid -19 related changes. To understand how companies responded to Covid- 19 related changes, respondents were asked how long it took to execute them and how long that would have taken before the crisis. The graph explains the details of pre Covid -19 expected days required to implement changes and also how many days it actually took to implement the changes as imposed by Covid – 19. For many of the variables, respondents stated their companies acted 20 to 25 times faster than expected.

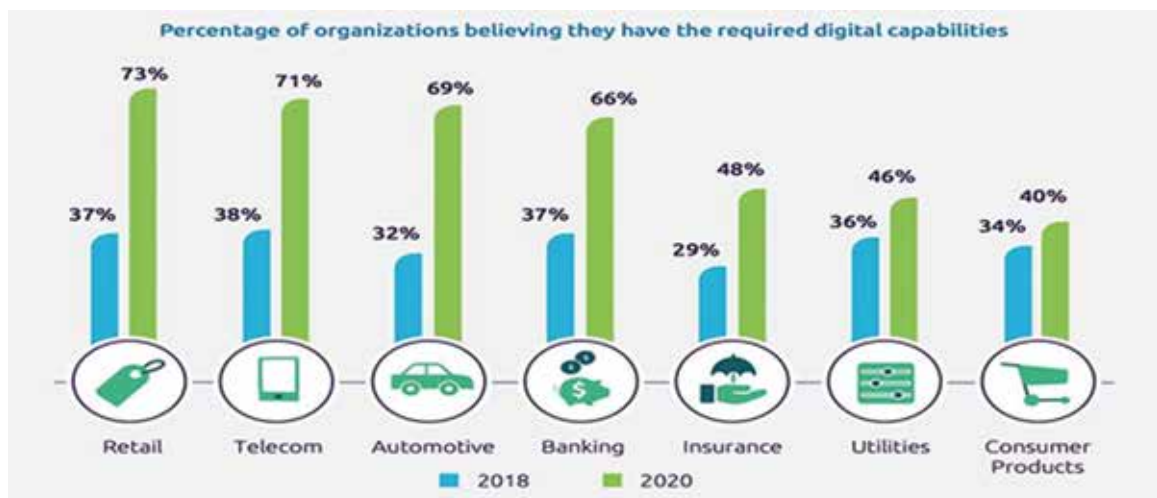
Respondents stated it would have taken almost 454 days to implement the remote working solutions by the companies but in actuality, within 11 days companies were able to implement the remote working solution. Further, respondents stated that in the case of remote working their companies acted 40 per cent faster than expected.

Online purchasing by the consumer increased 27 times due to Covid 19. In the case of use of advanced technologies

COVID-19 have advanced the adoption of digital technologies by several years and that many of these changes could be here for the long run

in decision-making, the respondents stated before Covid -19 it would take almost 2 years to use of advance technology in decision making but due to Covid 19 within 25.4 days companies prefer to use advanced technologies in decision making which is almost 25 times faster than expected.

Similarly, the survey conducted by Consultancy.eu (2021) finds that nearly 70 per cent of organizations admitted that Covid-19 boosted their transformation journey.



(Source: Consultancy. Eu Survey 2021)

As can be seen from the above graph, compared to the pre-pandemic, the industry is found to be much better equipped with digital technology in the post-pandemic era. The digital drive has spread through all sectors. The retail and telecom sectors lead the way, with over 70 per cent of organizations reporting digital readiness. Automotive and banking sectors are not far behind almost reported 66 to 69 per cent readiness. Insurance, utilities, and consumer products have all seen a spike in readiness, but not nearly as significant as other industries.

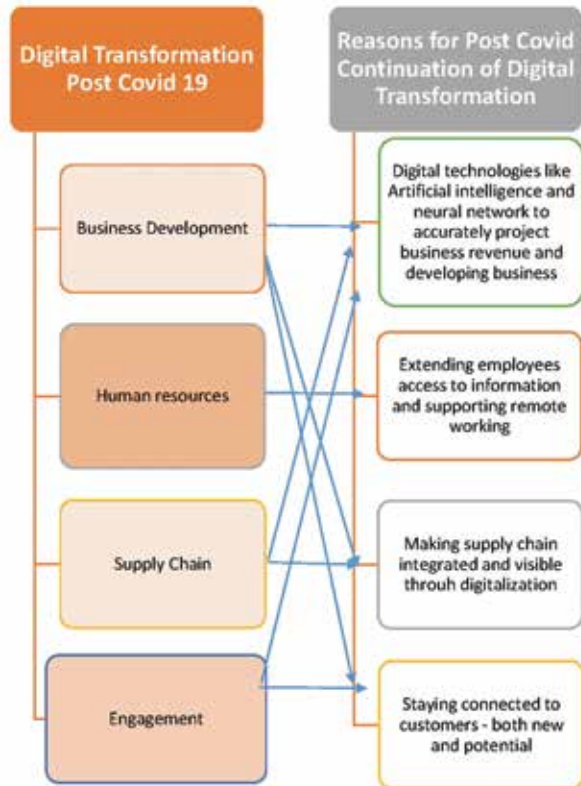
POST COVID PERPETUATION OF DIGITAL TRANSFORMATION

During the pandemic, companies have realized the value digitalization can bring to their businesses; further it has been found digitalization to be cost-effective and gives a competitive advantage to organizations. Companies across industries have invested substantially in Cloud and

data security. Companies are using advanced technology in decisions for which digitalization is a pre-requisite. Apart from this digitalization is found to cater to changing customer needs and expectations, facilitating remote working and creating a steadfast and non-redundant supply chain.

The survey carried out by IBM Institute of Business Value, 2020 finds that during pre covid era many firms used to have skepticism about digitalization capabilities and the expertise of their workforce in implementing digitalization. However, the outburst of the crisis has proved the fears to be unjustified and now executives have become more confident in the capabilities of technology and are moving forward with digital transformation. They are found to be planning to invest in technologies like Artificial Intelligence, Internet of Things, Blockchain, and Cloud to leverage the benefits the technology brings, and not only that they are planning for training their work force to embrace them in the journey

of digital transformation. From the preceding discussions it can logically be concluded that digitalization is now no longer a choice but a compulsion and the digital transformation would continue post-Covid-19.



(Source: Created by Researchers based on Information from Report on digital transformation post covid by Wipro)

As can be seen from the above chart, the Covid-19 pandemic has impacted almost all the spheres of businesses, especially with respect to their practices in business development, human resources, engagement with their customers, and supply chain management. Post-Covid the digital transformation will continue as it enables organizations in making all the required information accessible to employees even those working at remote places, in connecting with customers and acquiring new client base; in creating a robust supply chain by making it integrated and visible and implementation of digital technologies like Artificial intelligence and neural network to accurately project business revenue and developing business.

CONCLUSION:

Covid -19 pandemic has dispelled many of the myths about digital transformation. Though digital technology started even prior to the pandemic as an important part of the workforce globally, it was looked upon by businesses as a means to save money and reduce unnecessary spending;

allow some flexibility to the workforce and fasten up some processes. However, the lockdowns and restricted face-to-face human interaction forced by the Covid -19 pandemic transformed the digital technology landscape completely at global level. Besides, contrary to the belief of being a fast follower in adopting digital transformation in the pre Covid era, now the companies are found to be believing in leading in digital transformation. In the pre Covid era many firms used to have skepticism about digitalization capabilities and the expertise of their workforce in implementing digitalization. However, the outburst of the crisis has proved the fears unjustified and now employees have become more confident in the capabilities of technology and are moving forward with the digital transformation. Companies are planning to invest in technologies like Artificial Intelligence, Internet of Things, Blockchain, and Cloud to leverage the benefits the technology brings. Not only that, they are planning for training their works force to embrace them in the journey of digital transformation. It can thus be rightly concluded that Covid -19 pandemic has drastically impacted digital transformation globally and from push to pull - digital transformation is now considered as an integrated and inevitable part of business strategy. MA

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DIGITAL DIVIDE FOR AN INCLUSIVE DIGITAL ECONOMY



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Abstract

India is moving towards accomplishing a \$1 trillion economy by the end of 2025. Apart from existing major contributing services (mainly IT & telecom) and manufacturing sectors, e-governance, supply-chain, agri-business, pharma, health-care, etc. are expected to equip with technological advances. A remarkable growth will be seen in terms of data centres, cloud usage, and digital usage. India is expected to arise as a 'Global Hub' with support from data centres and digital infrastructures. The Indian market is moving towards cashless transactions and encouraging innovations in support of developing business models. The digital economy is certainly improving the existing global value chain and helping in the establishment of innovative business models and skilled job opportunities. It is a must-needed diversification in the existing economy particularly for developing and underdeveloped countries.

INTRODUCTION

Since the 1990s many researchers and economic experts have repeatedly concluded that the digital economy has a huge potential. The same fact is claimed by various business giants and innovators across the globe. A wide range of economic activities has been used in the digital economy by digitalizing these activities along with useful information and processes. This results in the driving force behind productivity enhancement. The digital economy is a key driving force behind social practices, modern information networks, and various economic opportunities worldwide. In Asia, the digital economy looks like a concentrated activity in certain

geographical locations including cities in South-East Asia. The development here in South Asia and East Asia is similar to the global digital economy growth. The forces behind this include per capita GDP and HDI (Human Development Index: reflection of a long and healthy life, a decent standard of living, knowledge)

The reasons as to why any country should adopt a digital economy include:

- ⊙ Reinforcement in nation's economic growth
- ⊙ Prevention in recession
- ⊙ Enhancement in the global value chain
- ⊙ Diversification of the existing economy

- ⊙ Improvement in the standard of living
- ⊙ Transformation in agriculture
- ⊙ Creation of new job opportunities
- ⊙ Drive innovation and industrialization

To achieve these improvements, the concerned government, the nation's industrial sector, and the policymakers must be aware that there is a need to have a concrete understanding and knowledge regarding the "successful working of the digital economy".

DIGITAL ECONOMY: WIDE TO NARROW SCOPE

The core digital or IT sector comprises hardware, system, software, consulting, and telecom

The digital economy is a key driving force behind social practices, modern information networks

activities related to business. At a narrower scope digital economy consists of digital services and a platform economy. Thinking about a wider scope, a digitalized economy will consist of Industry 4.0, algorithm economy, e-business, e-commerce and precision agriculture.

All the above-discussed activities are not a dedicated part of the digital economy but they form a basis to the advanced backbone for building an overall digital economy.

DIGITAL ECONOMY: MONOPOLY & INNOVATIONS

If any country wants to follow the footsteps of developed countries, then they need to improve their existing business models and make modifications in infrastructures. In the digital era, innovation is the key and critical success factor. Here innovation is not merely technological but related to business models, administrations and processes. Development in the digital economy needs support from IT services, IT infrastructures, and internet platforms. The industrial sector will welcome government interventions in terms of helpful support in creating a newer technology ecosystem which will lead to rapid licensing and enable required fundraising activities.

There are a few universal issues because of the digital economy which need to be spoken about; these include monopoly and dominance of selected digital platforms as a result of technological barriers and embryonic control over customers' data. There can be challenges such as restriction of some of the important innovations just because of policies related to data restrictions as few innovations may seek enormous use of such data. Still few business giants may dominate the market and market share with price discrimination or profound knowledge of consumers' expectations and requirements. These organizations may be successful in keeping their profit margins by price surges and limited production volumes.

DIGITAL ECONOMY: FINTECH & BLOCKCHAIN

Considering Fintech innovations following are the three key areas for discussion:



Consumers' trading and financial activities are witnessing a paradigm shift from 'offline to online' and 'real world to

the digital world'. Thus there is a need to introduce smart contracts and the creation of digital currencies which can be safely used. There can be possibilities of online fraud and loss to the consumers' transaction value if exchange and financial online trade are without safety measures. So secured processes supported by hi-tech innovations are mandatory. Transparency in digital transactions can be achieved by enabling a blockchain mechanism.

In order to support digital transactions and international trades and exchanges following can be beneficial:



Blockchain can effectively substitute distributed 'transaction making' with routinized 'counter party' relationships. But here the role of blockchain is not just as a support system to Fintech, but it has a much wider scope for applications. Still, blockchain technological innovations can be a key player in the process of development of smaller economies. The user can have the following benefits:

- i. Goods movement inefficiencies reduction across countries
- ii. Streamline the custom clearance process
- iii. Enhancement in trade logistics
- iv. Improvements in supply chain traceability

DIGITAL ECONOMY: INDUSTRY 4.0



If Industry 4.0 is at centre stage, then it must be supported by digitalization of vertical and horizontal value chains. The manufacturing and service sector must offer digitalization in the goods and services they provide. Corporates must think of digital business models with consumer participation. The above are a few of the digital technologies contributing to the digital economy. Though the emergence of the digital economy is initiated by economic and political forces, strong technological innovation has shaped as a side force for it. Current economic processes witness disruption in various sectors and business models. This in turn will reshape various business aspects including innovations, consumer purchasing behaviours, preferences, etc. Digital economy and new business models are based on the following concepts:

Datafication	Data expansion for all fields
Virtualization	Dis-embedding of key processes
Digitalization	Transferring 'value chain' information to digital
Generativity	Usage of information & IT using reprogramming techniques



DIGITAL MARKETS: INDIAN SCENARIO

Indian digital market was dominated by electronics and media followed by personal care and online food delivery markets.

TABLE: PERCENTAGE SHARE OF DIGITAL MARKETS IN INDIA FOR THE YEAR 2021

Digital Markets	Percentage Share
Electronics & Media (E-Commerce)	20.8%
Personal Care & Food (E-Commerce)	18.4%
Online Delivery (Food)	18.1 %

Fashion (E-Commerce)	16.6 %
Toys-Hobbies & Do it yourself	08.1 %
Digital Video Games	07.4 %
Furniture & Home Appliances	03.9 %
Event Tickets	01.8 %
e-publishing	01.0 %

(Source: Statista)

DIGITAL ECONOMY: PATH AHEAD

Any nation must understand the nature of a futuristic digital economy that can transform a nation’s industrial settings.

- i. Developing manufacturing and service sector supported by the digital economy.
- ii. Measuring the economic performances after regular intervals and evaluating them.
- iii. Identifying and applying realistic upgrades after digital economy implementation.
- iv. Leveraging the best suitable technology to accomplish the desired industrial policy.
- v. Governing national value-added distributing network frameworks the pace with global value chain **MA**

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DIGITAL INCLUSION FOR FINANCIAL INCLUSION – A STUDY WITH SPECIAL REFERENCE TO THE ROLE OF DIGITALISATION IN FINANCIAL INCLUSION THROUGH MICRO FINANCE

Abstract

Digital divide is detrimental to development of our country. Digital financial inclusion through digitalization of micro finance can play an important role in helping the poor people enjoy the benefits of financial inclusion. The present article is an attempt to understand the role of digitalization of micro finance in digital financial inclusion



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INTRODUCTION

There are many challenges before humanity in achieving sustainable development. One of the daunting challenges before Governments and policy makers across the Globe is amelioration of global poverty. The illusion of development which many Governments of the world think is possible through market oriented neo-liberal economic policies has unfortunately widened the gulf between the rich and the poor. Access to credit without any hindrances can play an important role in addressing global poverty. Technology, especially information and communication technology is playing an important role in accessing credit to the poor in many parts of the world. Unfortunately, a sizeable population of our country even today remain outside the trajectory of information and communication

technology and this digital divide is a hindrance in ameliorating poverty on a sustainable basis.

DIGITAL DIVIDE

The credit for the idea of “digital divide” goes to Larry Irving, Jr, former US Assistant Secretary of Commerce for Telecommunication and Communication in the middle of 1990s.¹ The concept of digital divide is based on inequality in access and use of information and communication technology and internet. According to OECD, digital divide can be defined as “the gap between individuals, households, businesses and geographic areas at different socio – economic levels with regard both to their opportunities to access information and communication technologies (ICT) and to their use of the internet for a wide variety of activities.”² The reasons responsible for digital divide are myriad such as age, gender, education, rural

– urban divide, level of technological development, connectivity and penetration of internet, geography, government policy, level of economic development, etc.

We live in the age of information and communication technology that has become an integral part of our daily life. There is no aspect of our life that is untouched by information and communication technology. The ramifications of digital divide on the Indian society in the present century is severe as it has resulted in the division of the society between those who have access to the various tools of information and communication technology and those who do not. India, being a developing country, lags behind the developed countries in proliferation and penetration of information and communication technology among majority of the population. The tools of information and communication technology find application in various sectors such

as Education, Health, Agriculture, Defence, Media and other vital sectors of the economy. Information and communication technology has become a vital tool for development and it plays an important role in solving many problems of a nation. The various tools of information and communication technology have found widespread application in the world of banking and finance. Information and communication technology (ICT) has become a preferred medium for the Government to channelize many of the poverty related schemes directly to the beneficiaries in an efficient and cost effective manner. Therefore, information and communication technology holds paramount importance in addressing poverty effectively in our country as various Government schemes bear testimony to it.

Digital divide can be severely detrimental to sustainable development of the nation and is a serious roadblock to all initiatives and schemes to address poverty on a sustainable basis. Lack of awareness about the various tools and technologies among the poor and the rural population can thwart all the benefits of the development schemes launched by the Government from time to time. India has made tremendous developments in the field of information and communication technology and the various tools of ICT are playing a pivotal role in the nation's development. However, sustainable development of the nation is not possible if the fruits of development do not reach the rural masses. Poverty, illiteracy, ignorance about the various tools and technology relating to information and communication that is prevalent among the rural population can seriously impede all developmental schemes that the Government of India has put into action for the benefit of the poor and the backward, especially those who live in villages and rural areas of our country. Therefore, digital divide is a serious concern for the greater common good of every

The concept of digital divide is based on inequality in access and use of information and communication technology and internet

citizen of this nation.

Digital inclusion is the answer to digital divide. Digital inclusion means all the activities that ensure inclusive participation of all sections of society to equitable access and use of information and communication technology to various aspects of social and economic life. Digital inclusion is the need of the hour in our country if we want to bridge the gap created by digital divide between the rural and urban population. The Government of India, since 2014 has taken various measures to strengthen digital inclusion and that the fruits of these policies and measures are going to benefit vast sections of the Indian population including the rural masses in the years to come. Today, information and communication technology is widely used in many of the social service schemes aimed at improving the conditions of the rural poor masses.

Access to credit on a sustainable basis can be promoted through financial inclusion and in this context digital inclusion can provide the necessary support in the effective financial Inclusion. Digital inclusion can provide digital financial inclusion.

DIGITALIZATION OF MICRO FINANCE

Micro finance or the provision of micro credit and a plethora of financial services made available to poor, unbanked sections of society have emerged globally as an effective strategy to lift vast sections of the society from poverty. Digitalization of micro finance has promoted digital financial inclusion which has

manifold increased the outreach and effectiveness of micro finance.

Various technologies used by micro finance institutions to promote digital financial inclusion are as follows³ –

- a. *Mobile Device* – Mobile device is an important technological medium used by micro finance institutions to leverage digital financial inclusion by tracking transactions on real time basis and improving the efficiency and scalability.
- b. *Biometrics* – Bio metric ATMs integrated with biometric functions are helpful in proliferating the utility of micro finance. The bio metric “Aadhaar Enabled Payment System” launched by UIDAI in 2012 is helpful to Aadhaar beneficiaries to enjoy doorstep banking with core banking services.
- c. *Personal Digital Assistant (PDAs)* – The PDAs can help in collecting information and in lending by reducing the time in loan scrutinization and disbursement of fund.
- d. *Management Information System (MIS)* – Management Information System has added to the operational efficiency of micro finance institutions by providing valuable information to the loan officers to track information about the client's repayment schedules and balances and helps in achieving operational objective targets in an efficient manner.

Digitalization of micro finance has indeed improved the efficacy and effectiveness of the micro finance institutions and has succeeded in improving the penetration and outreach of the micro finance sector among the clients. Today, the micro finance sector is facing several challenges due to lack of transparency and mission drift and therefore, digital financial inclusion through digitalisation can help to improve

the efficacy of micro finance.

CHALLENGES TO DIGITAL FINANCIAL INCLUSION

There are many challenges to digital financial inclusion. In order to ensure effective digitalisation of micro finance, it is imperative to develop infrastructure in the rural areas that are far from being satisfactory in many rural parts of our country. Moreover, people in the villages are not completely comfortable with the various tools and technologies of information and communication technology. The high level of illiteracy prevalent among the people living in the villages of our country is also a serious impediment in the digital financial inclusion as many of them would not understand the effective application of ICT. Another serious challenge before digital financial inclusion is the possibility of non – acceptance by new self-help groups who may find application of information and

communication technology costly⁴.

CONCLUSION

Despite various challenges to digital inclusion, micro finance through digital financial inclusion can play an important role in addressing the problem of poverty on a sustainable basis. Microfinance play an important role in financial inclusion and it's role can get very effective by digitalization. Digital divide is a veritable hindrance to digitalization of micro finance for which the poor has to suffer enormously. The Government of India has taken many policy measures for bridging the digital divide. Digitalization of micro finance is fraught with many challenges such as feasibility of investment, lack of IT knowledge of the poor, etc. However, all the stakeholders associated with micro finance institutions should come forward in taking more affirmative action in providing digital financial inclusion to the poor through

digitalization of micro finance. MA

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Inviting Research Articles/Case Studies for CMA Agri Bulletin - November 2022 Issue

The Institute of Cost Accountants of India has constituted an Agriculture Task Force viz. ‘Task Force on Agri Cost Management’ for the purpose of evolving ways and means of augmenting the farmer’s income. The Institute looks forward in extending support to the Government initiatives by way of preparing concept papers and research monographs on Agricultural Costing & Pricing, conducting awareness programmes, courses and discussion sessions on pan India basis to come out with an advisory on the steps to be taken in order to achieve the objectives set by the Government in this regard and extending support to the farmers. Publication of ‘CMA Agri Bulletin’ in a regular interval is an initiative of this Task Force to encourage the researchers to write research based articles and case studies on various areas of Agriculture Cost Management with a view to ‘Educating, Empowering, Enhancing and Enriching’ the farmers.

CMA Agri Bulletin: November 2022 Issue, Vol. 2, No. 2

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A TREND ANALYSIS OF THE IMPACT OF DIGITAL PAYMENTS IN FOSTERING E-COMMERCE: AN EMPIRICAL STUDY BASED IN INDIA

Abstract

The gradual upsurge of the e-commerce sector of any country is characterized by a significant addendum of online transactions to the existing physical mode of carrying on business. Online payments lie at the core of this uprise in e-commerce transactions and the Indian subcontinent with its diverse resources has been moderately adaptive towards the same. However with the advent of Covid -19 there has been an inevitable change in online payments due to restrictions of social distancing in carrying on physical mode of business and the phenomenon is conclusively bound to affect Indian e-commerce sector along with the whole world.

In this context this research paper tries to determine the impact of volume and value of digital payments (like NEFT, UPI, RTGS etc.) on the volume and value of e-commerce transactions in India during the last ten years. It also tries to make a comparative study of the trends in the growth of digital payments and e-commerce transactions. The purpose is also to point out the rationale behind the growth pattern of digital payments in e-commerce transactions in India.



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INTRODUCTION

Electronic commerce (e-commerce) is a method of doing business whereby transactions take place over the internet (Karamjeet Kaur, 2020). It represents electronic business application including

significant functional areas of business such as corporate purchasing, value chain integration, supply chain management, e-marketing, online transaction processing electronic fund transfer, etc. (Statista Inc., 2022). E-commerce makes new opportunities for earning profits through online

activities. It helps to promote cooperation between different groups of business participants and to develop good customer relations, more personalisation and better customer services, build new products or services, etc. The trading mechanism of e-commerce

demands online payment mechanism which must be secure, confidential and user friendly. The Indian subcontinent has shown a gradual rise in e-commerce transactions particularly with the onset of Covid (Worldline, 2021). However the mechanism of online payments that is an inevitable part of e-commerce has had a fair amount of glitches and disruptions over the years (B.Angamuthu, 2020).

In this background the current research paper tries to determine the impact of volume and value of digital payments (like NEFT, UPI, RTGS etc.) on the volume and value of e-commerce transactions in India during the last ten years. It also tries to make a comparative study of the trends in the growth of digital payments and e-commerce transactions. The purpose is also to point out the rationale behind the growth pattern of digital payments in e-commerce transactions in India.

LITERATURE REVIEW

A host of researches have taken place on the various aspects of digital payments as well as on e-commerce. Some selected researches include the one by Dr. Dhawale which shows the impact of digital business on the Indian economy (Dhawale, 2020). Mention can be made of the phenomenal work of B.Angamuthu which shows the entire digital payment scenario in India starting from 2015 (B.Angamuthu, 2020). The RBI Annual Reports very vividly explain the reasons of change in digital payments over the research period (Reserve Bank of India, 2022). The work of Dr. Kaur provides an insight into the prevalent e-payment systems in India (Karamjeet Kaur, 2020). The Digital Payments Report of Worldline provides an insight of the growth of digital payment transactions in India (Worldline, 2021).

RESEARCH OBJECTIVE

- i. To determine the impact of the volume of digital payments on the volume of e-commerce transactions in India since 2012.
- ii. To assess the impact of the value of digital payments on the volume of e-commerce transactions in India since 2012.
- iii. To have a comparative study of the trends in the growth of digital payments and e-commerce transactions in India since 2012.
- iv. To find out the rationale behind the trend shown by digital payments in e-commerce transactions in India since 2012.

RESEARCH METHODOLOGY

The research proceeds with secondary data collected from the RBI Website pertaining to online transactions related to RTGS, NEFT, UPI, Net Banking, Debit Card and Credit

The mechanism of online payments that is an inevitable part of e-commerce has had a fair amount of glitches and disruptions over the years

Card for the period 2012-2013 to 2021-2022. The Annual Reports of the Reserve Bank of India from 2012-2013 to 2021-2022 were studied and the data pertaining to digital transactions both in terms of volume and value were used as a measure of digital payments. This data is compared with the data pertaining to volume of e-commerce transactions and sales revenue from e-commerce transactions (collected from Statista and Worldline) and a comparative trend analysis has been done to determine the impact of digital payments on e-commerce over the years. The trend in the growth rate of both digital payments (in terms of volume and value) and e-commerce transactions (in terms of volume and value) have been compared to determine the trend of the impact of digital payments on E-commerce. At the end correlation analysis between the growth pattern of e-commerce and digital payments to what extent e-commerce transactions are related to digital payments has been found out.

ANALYSIS AND FINDINGS

For the convenience of the research the entire data pertaining to digital payments and e-commerce have been analysed for three broad attributes over the time span of 2012-2013 to 2021-2022. These three broad attributes are volume, value and growth. Comparative analysis has been done using descriptive statistics and the results are reflected in both tabular and graphical forms. The inner factors that contribute to the broad attributes are tabulated below along with their abbreviations:

Attributes for Analysis	Digital Payments	E-Commerce
Volume	Volume of Digital Payments (Lakhs)	Volume of E-commerce transactions (lakhs)
	Percentage of e-commerce transactions as a part of total digital payments	
Value	Value of online transactions (Crores)	Sales revenue from e-commerce (Billion dollars)
Growth	Growth in volume of digital payments	Growth in volume of e-commerce transactions
	Growth in value of digital payments	Growth in value of e-commerce transactions

The quantitative data pertaining to the respective attributes across the study period of 2012-2013 to 2021-2022 has been tabulated below:

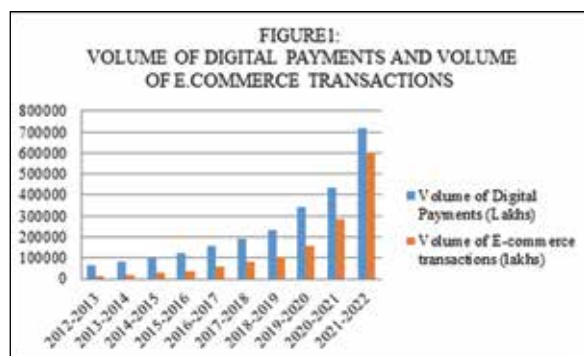
Comparative Analysis in Terms of Volume

TABLE 1:

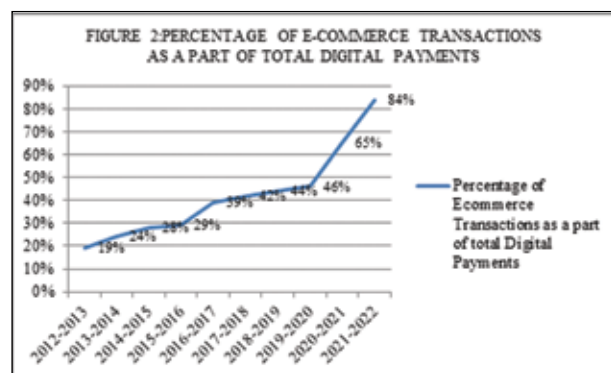
CHANGE IN VOLUME OF DIGITAL PAYMENTS AND E-COMMERCE TRANSACTIONS FOR THE PERIOD OF 2012-2013 TO 2021-2022

Year	Volume of Digital Payments (Lakhs)	Volume of e-commerce transactions (Lakhs)	Percentage of e-commerce transactions as part of total digital payments
2012-2013	65812	12504.3	19
2013-2014	80353	19284.7	24
2014-2015	98695	27634.6	28
2015-2016	120593	34972	29%
2016-2017	157412	61390.7	39
2017-2018	190858	80160.4	42
2018-2019	232602	102345	44
2019-2020	340026	156412	46
2020-2021	437445	284339	65
2021-2022	719531	604406	84

(Source: R.B.I, Statista ,2022)



(Source: R.B.I, Statista, 2022)



(Source: R.B.I, Statista, 2022)

INFERENCE FROM TABLE 1, FIGURES 1 AND 2

A comparative analysis shows that when it comes to the volume of digital payments and e-commerce transactions, both have shown an increasing trend starting from the year 2012-2013 . Figure 2 reveals that the percentages of number of e-commerce transactions among the number of digital transactions have also shown an increasing trend. However, this increasing trend of ecommerce transactions out of the total number of Digital transactions increases at an increasing rate from 2012-2013 to 2015-2016 and thereafter increases at a decreasing rate till 2019-2020 and then again increases at an increasing rate from 2020-2021. The rate of increase in share of ecommerce transactions is highest in2021-2022.

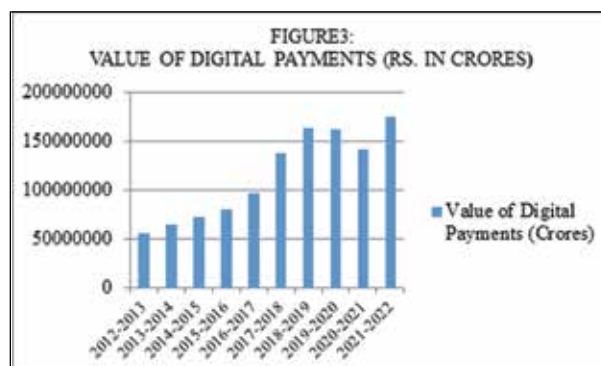
Comparative Analysis in terms of Value

TABLE 2:

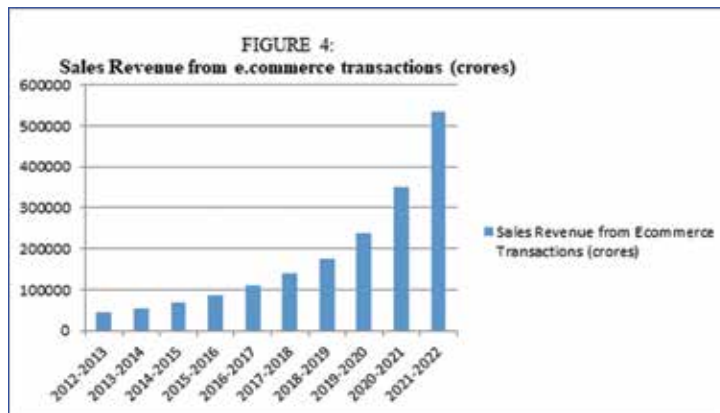
CHANGE IN VALUE OF DIGITAL PAYMENTS AND E-COMMERCE TRANSACTIONS FOR THE PERIOD OF 2012-2013 TO 2021-2022

Year	Value of digital payments (Lakhs)	Sales revenue from e-commerce transactions (Crores)
2012-2013	55351198	44973.15
2013-2014	64061822	54227.1
2014-2015	72400501	68007.6
2015-2016	80226850	85733.4
2016-2017	95912592	109006.3
2017-2018	136986734	140250.1
2018-2019	163713425	175552.7
2019-2020	162089413	238229.2
2020-2021	141485173	350479
2021-2022	174414000	535129

(Source: R.B.I, Statista, 2022)



(Source: R.B.I, Statista, 2022)



(Source: R.B.I, Worldline)

INFERENCE FROM TABLE 2, FIGURES 3 AND 4

An analysis of Table 2 shows that value of digital payments has more or less increased from 2012-2013, the only exception being in 2019-2020 (162089413 lakhs) and 2020-2021(141485173 lakhs) and the reason can be attributed to the Covid pandemic when the financial liquidation of the corporate sector was hindered. However,

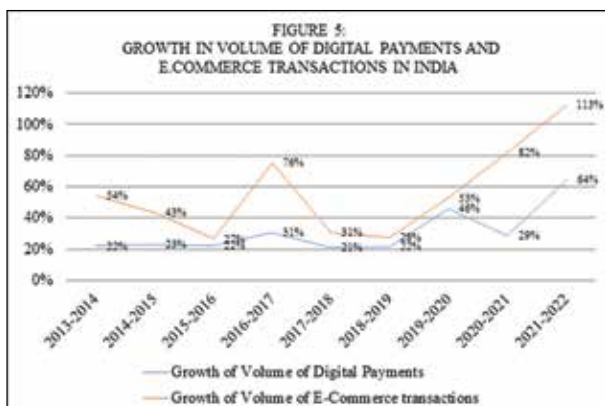
with online transactions again gaining momentum from the end of 2020 the value of digital payments soared. It is worth noting that alongside the increase in value of online payments the sales revenue earned from e-commerce has also shown a steady increase all through the period, the highest being in the post pandemic period of 2021-2022 to the extent of 67 billion US Dollars.

Comparative Analysis in terms of Growth

TABLE 3

CHANGE IN GROWTH OF VOLUME AND VALUE OF DIGITAL PAYMENTS AND ECOMMERCE TRANSACTIONS

Year	Growth in Volume of Digital Payments	Growth in Volume of e-Commerce transactions	Growth in Value of Digital transactions	Growth in Sales Revenue from e. commerce
2013-2014	22%	54%	16%	9%
2014-2015	23%	43%	13%	24%
2015-2016	22%	27%	11%	19%
2016-2017	31%	76%	20%	25%
2017-2018	21%	31%	43%	24%
2018-2019	22%	28%	20%	25%
2019-2020	46%	53%	(-1%)	25%
2020-2021	29%	82%	(-13%)	51%
2021-2022	64%	113%	23%	43%



INFERENCE FROM TABLE 3, FIGURES 5 AND 6

The most significant aspect of all the analysis can be seen in this part where we find that the volume of digital payments as well as e-commerce transactions have only increased since 2012-2013 and have never decreased. It is also worth noting that the growth rate of the volume of e-commerce transactions have always been greater than the growth rate of digital payments. An important fact seen

from Figure 5 is that in the year 2016-2017 there was a sharp spike in the number of digital payments as well as e-commerce transactions. The value of digital payments has been growing ever since 2012-2013 but it witnessed a negative growth in the years 2019-2020 and 2020-2021 mainly due to lesser RTGS transactions by corporates due to financial crunch. However, contrary to this fact the value of e-commerce transactions has never shown a downfall.

Correlation Analysis Between Growth Pattern Of E.Commerce and Digital Payments

TABLE : 4

CORRELATION BETWEEN GROWTH PATTERN OF ECOMMERCE AND DIGITAL PAYMENTS

	<i>Growth in Volume of Digital Payments (%)</i>	<i>Growth in Volume of E-Commerce transactions (%)</i>	<i>Growth in Value of Digital transactions (%)</i>	<i>Growth in Sales Revenue from E-Commerce (%)</i>
Growth in volume of digital payments (%)	1			
Growth in volume of e-commerce transactions (%)	0.781751905	1		
Growth in value of digital transactions (%)	-0.109735517	-0.226281303	1	
Growth in sales revenue from e-commerce (%)	0.785902757	0.792556898	-0.323219029	1

INFERENCE FROM TABLE 4

From the available data, an attempt has been made to understand the correlation among the factors in the above Table. After applying statistical formula for correlation, it has been found that growth in volume of e-commerce transactions is strongly correlated with the volume of digital payments (.781) and with the growth in sales revenue from e-commerce (.792). It establishes the fact with the increase in the volume of digital payments there will be significant rise in the volume of e-commerce transactions. This automatically states that the sales revenue from e-commerce will also grow in similar manner.

CONCLUSION

From the above analysis of the trends of the digital payments and e-commerce transactions, it can be concluded that all other factors remaining constant the Indian e-commerce scenario has shown a steady .growth in both volume and value with an increase in digital payments. The volume of digital transactions has always shown a steady growth particularly in the year 2016-2017 where number of transactions in the online mode increased due to liquid cash crunch owing to demonetization. (Reserve Bank of India,2022) The Report of R.B.I says that during the period of 2016-2017 with existing currency becoming obsolete, people quickly deposited money in their bank and increased their day to day transactions online. This also gave a steep rise in the e-commerce transactions in terms of volume. This evidences the fact that the rise in

digital payments has a positive impact on the number of e-commerce transactions. The fact of consistent growth in the percentage of e-commerce transactions out of the total digital payments proves the gradual dominance of online payments in carrying out e-commerce transactions and hence a chance of a positive correlation between the two (Itai Agur, 2020). It must also be noted that even though the value of digital payments showed an increase in growth at a decreasing rate from 2018-2019 the growth in the value of e-commerce has shown a consistent increase. This phenomenon can be attributed to the introduction of UPI in the Indian economic scenario and its subsequent popularity as a means of online transaction in the coming years. The contradictory fall in digital payments in the beginning of the financial year 2020-2021 was mainly owing to decrease in RTGS by corporates because of the financial crunch arising from COVID -19 pandemic, but very soon it recovered and digital payments showed a step up rise from the later part of 2021(Dhawale, 2020). However owing to job loss and financial crunch though the number of e-commerce transactions increased the value was relatively less as seen at Figure 6. The correlation analysis between the growth pattern of e-commerce transactions and digital payments prove that growth in volume of e-commerce transactions is strongly correlated with the volume of digital payments (.781) and with the growth in sales revenue from e-commerce (.792). It proves with evidence that with the rise in the volume of digital payments there will be significant rise in the volume of

e-commerce transactions. This conclusively proves that the sales revenue from e-commerce will also grow in similar manner. **IMA**

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UNIFIED PAYMENT INTERFACE: LIVING ON THE EDGE OF DIGITAL ECOSYSTEM



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Abstract

UPI is a system of real time money transfer in which a user can link his or her bank account to the app installed in the smartphone. Owing to the ease of payment, UPI has now become the most preferred digital payment platform. But incidents of fraud and compromised data privacy loom large over the digital ecosystem. This article delves into the meteoric rise in the volume of UPI transactions and the setbacks incidental to it.

INTRODUCTION

Time changes, so do people's perceptions. There was a time when people had inhibitions about using plastic money. Net banking too could not penetrate the Indian mass beyond a certain limit.

Procedural complexity and lack of access to computers were prohibitive to a section of people. None of the modes could transfer money in real time; there was always a time lag. To bridge these convenience gaps came Unified Payment Interface (UPI) system of money transfer in 2016 with Bharat Interface of Money (BHIM) developed by the National Payments Corporation of India (NPCI) and regulated by RBI. Shortly thereafter, many such platforms emerged. It is undoubtedly a big leap towards making a cashless economy.

UPI: AN OVERVIEW

UPI is a system of real time money transfer by which a user can link his or her bank account to the relevant mobile app. Just by using a virtual payment address (VPA) one can transfer money to any destination account instantly. The greatest advantage of the UPI is that it is hassle free and requires no disclosure of bank details on either side. The name and the mobile number of the recipient is enough for carrying out the transaction, else, scanning the QR code of the merchant payee, one can complete the payment. Owing to the ease of payment, UPI is gradually becoming the most preferred digital payment platform. The main players in the UPI field are PhonePe, Paytm, BHIM, MobiKwik and Google Pay, Amazon Pay etc. Uber, Chillr, iMobile and SBI Pay are relatively less happening names. NPCI handles as many as Rs 8000 crore worth transactions daily. UPI 2.0 has been

introduced recently to make the system more user friendly, safe, secure and error free. In addition to the current and savings accounts, customers can link their overdraft accounts too in UPI 2.0.

GROWTH TRAJECTORY

Lockdown acted as a catalyst behind the proliferation of UPI culture. The volume of UPI transactions has increased four-fold from 1 billion per month in the pre-pandemic era to about 4 billion now. Monetary value of the transactions too has quadrupled over the same period (Waghmare, 2021). However, the average value per transaction has remained stagnant across pre and post-pandemic period.

UPI TRANSACTIONS

Month/ Year	No. of Banks live on UPI	Volume (in Mn)	Value (in Rs. Cr)
June 2016	21	0	0
June 2017	52	10.35	3098.36
June 2018	110	246.37	40834.03
June 2019	142	754.54	146566.35
June 2020	155	1234.50	218391.60
June 2021	229	2807.51	547373.17
June 2022	330	5862.75	1014384.31

Source: Compiled from NPCI Statistics (2016-2022)

The above table substantiates the galloping growth of UPI transactions over the last seven years. UPI was popular even during the pre-pandemic period. Pandemic propelled it further. India recorded 14.55 billion UPI transactions in volume and Rs 26.19 trillion in value in the first quarter of 2022, signifying a whopping increase of 99 and 90 per cent in volume and value

respectively over the figures of the first quarter of 2021. The Indian Payments Handbook 2021-26 reported that the Indian digital payments market recorded a steady growth at a CAGR of 23 per cent (volume wise), and is expected to reach 217 billion transactions in 2026 from 59 billion in 2022 (The Economic Times, April 17, 2022).

TOP 10 UPI REMITTER BANKS' PERFORMANCE

January-June, 2022

(Volume in Mn)

Remitter Bank	January	February	March	April	May	June
State Bank of India	1291.88	1242.45	1482.61	1540.38	1644.91	1625.00
HDFC Bank Ltd.	406.61	400.52	476.94	496.36	532.02	529.76
Bank of Baroda	299.12	294.86	349.91	360.74	387.88	383.61
Union Bank of India	287.21	280.49	325.86	346.76	370.84	368.31
ICICI Bank	274.00	263.34	313.91	325.45	342.09	343.52
Axis Bank Ltd.	262.28	259.62	306.56	316.18	323.77	309.01
Paytm Payments Bank	243.68	248.03	293.88	303.67	316.26	307.30
Punjab National Bank	213.48	207.63	248.39	261.09	277.91	274.44
Canara Bank	206.30	204.75	148.09	255.29	266.56	267.83
Kotak Mahindra Bank	186.34	187.06	224.76	232.63	247.84	251.49

Source: Compiled from the NPCI Statistics, 2022.

Except in February and June, all the remitter banks have shown an increasing trend of performance. The remitter banks have grown by 25-35 per cent in volume of operations during the first half of 2022.

PERSON TO MERCHANT (P2M) MODES OF TRANSACTIONS

(First quarter of 2022)

Mode of transfer	Volume %	Value %
Debit Card	10	18
Credit Card	7	26
UPI	64	50
Other	19	6

Source: India's Digital Payment Report Q1, 2022, Worldline

Credit cards still seem to be a preferred mode of transaction for high-value purchases. Debit card contributes 18 per cent of value and 10 per cent of volume while UPI alone accounts for 64 per cent of the transactions involving half of the amounts transacted digitally during the said period.

VALUE-WISE UPI TRANSACTIONS (P2P & P2M)

In the month of June 2022

Transaction Value Range (Rs)	Peer to Peer (P2P)		Person to Merchant (P2M)	
	Volume %	Value %	Volume %	Value %

0 -500	79.60	13.09	60.32	3.53
500-2000	13.99	17.05	19.09	9.56
Above 2000	6.41	69.86	20.59	86.91

Source: Compiled from NPCI Statistics

It is evident that the largest chunk of the UPI transactions consists of low-value transfers. 79.6 per cent of 'Peer to Peer' or 'Person to Person' transfers and 60.32 per cent of 'Person to Merchant' transactions are in below Rs 500 range. High-valued transactions involving an amount more than Rs 2000, account for merely 6.41 per cent and 20.59 per cent respectively. The average ticket size of UPI P2P transactions is Rs 2455 and Rs 860 for P2M in the first quarter of 2022 (India Digital Payments Report, March 2022). Therefore, it is clear that UPI transactions have penetrated the small retail business in a big way. The QR codes stuck on the frame of the roadside food stalls, tea shops, and even in the hand carts of the *fuchkawalas* and *Dubwalas* portray the reality evidenced by the above statistics.

UPI PROFITABILITY

UPI	2020-21 (Rs. In Mn)
Google Pay	328.6
Amazon Pay	(151.6)
Paytm	(239.6)
PhonePe	(172.8)

Source: Compiled from relevant Annual Reports.

Google Pay has recorded an increase in profit in 2022 by about 62 per cent over 2020-21 although its profit from operations have declined by 2 per cent. Amazon Pay, Paytm and PhonePe, the major contenders of Google Pay, are yet to record any profit, in spite of a steady growth in their revenue from operations. The switching and remittance related fees and the cost of processing the transactions and continuous system development costs outweigh the limited revenue they generate.

BUSINESS MODEL

Except some P2M transactions, the UPI transfers are apparently cost-free for the users. The digital platforms usually make money by charging the merchants for bill payments such as electricity, loan repayment, DTH recharge, mobile recharge etc. But 'peer to peer' transfers are cost free. Moreover, the users often get cash back and other incentives for transfers. So, the obvious question is what incentive drives them to mediate billions of fund transfers everyday absolutely free! Are they following the "Freemium" model? [Free followed by Premium] (Kumar, 2014). One of the most powerful techniques for customer acquisition is giving away free products and services. Probably, UPIs are using the power of 'free' to pull the customers now only to charge them premium for every transaction later. Quite similar to the free-internet model with which Jio penetrated the Indian network market. The rest is history.

Another probable reason and the more worrisome one, is, the UPIs get access to the sensitive data of the sender and the receiver which may help them work on their products. There is no denying that everyone on earth is a potential consumer. The apps may track the consuming behaviour of the users thanks to the all-pervasive application of artificial intelligence. There is no guarantee that the personal data that the apps get access to are not shared with any third party.

SAFETY ISSUES

The traditional digital payment modes have two-factor authentication system to secure a transaction. But security and convenience of payment have an inverse relation. UPI emerged as a faster alternative. It also has its inbuilt security mechanism which authenticates the users' information through UPI PIN. As an additional security protocol, most UPIs require the location access from the users, so that, for any forged transaction, the miscreants can be traced to that location. UPI transactions are claimed to be safe as very high encryption format is used which is hard to be cracked.

Despite having all the security measures, frauds occur. One may recall, immediately after the launch BHIM app in 2017, as many as 40 fake BHIM apps flooded the Google Play Store (Financial Express, 2017). Baffled by the unsuspecting android apps, many users downloaded the fake apps and burnt their fingers. Manish Agrawal, Head-Credit Intelligence and Control, HDFC Bank, says "The frauds happen due to the vulnerability in the minds of users, which fraudsters take advantage of." Most of the frauds occur during the business hours and about 60 per cent of the fraud victims are salaried persons. However, the average amount of UPI fraud is less than Rs 10000. Only 2 per cent cases UPI frauds involve Rs 1 lac or more (Roy, 2022).

Lockdown acted as a catalyst behind the proliferation of UPI culture

In the month of May, 2022, the cybercrime portals of the Government received as many as 61,100 complaints of financial frauds involving digital payments. More than half of it (33712) were over UPI, averaging at about 1100 reported frauds daily, let alone unreported ones (Bharadwaj, 2022). Digital deceivers are becoming cleverer and are befooling the lay users by adopting unprecedented means such as sending harmful QR codes, malicious apps, impersonation and the like.

CONCLUSION

We are living in a technology-driven environment. The ubiquity of technology-intensive operations apparently makes our lives simple. But intrinsically it tends to expose us to a greater risk of fraud. Thanks to the all-pervasive snooping of artificial intelligence (AI), nothing under the sky seems to be secret. Data security has become the biggest threat of our time. The cyberspace is crowded with unscrupulous operators committing rampant crimes like identity theft, phishing and cyber extortion and so on. The victims and the perpetrators are often continents apart! Most of the financial frauds committed by the cyber criminals go untraced. Even if tracked, the money is hard to retrieve. Our porous legal system fails to provide protection to the lay dwellers of digital ecosystem. Even with limited digital literacy of the nation, UPI has become a household instrument. The lure of free payment-interface turns out to be costly if one's bank data and other credentials are breached. It is high time that stringent data security norms are enforced by the Government so that security and convenience walk hand in hand along the digital terrain. **MA**

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MUDDLING THROUGH DIGITAL PAYMENT INTERFACES: THE CASE OF VISUALLY IMPAIRED AND ELDERLY POPULATION

Abstract

New business models and public utility services that use digital payment interfaces are undoubtedly providing scalable convenience, but they pose a significant burden on the visually impaired and elderly population. Although small, this demography is ostracised from the mainstream negotiations for want of cognitive ability to navigate over the digital payment interfaces. Visual impairment and old age are closely related, and the crux of the paper is that the latter receives a solution if the former is addressed with conviction, as many of their cognition-related concerns are the same. One must read the lapses in digital interfaces in ensuring equity in access for the exceptional and their rights to live with reasonable dignity along with the social construct of digital disability. The present paper illustrates the real-time glitches for the exceptions in using the interface and thus highlights the need for a human-centric user interface to make it sustainable and inclusive.



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INTRODUCTION

The last couple of decades witnessed unprecedented development in the field of information technology, leading to the emergence of e-business. In India, with the upsurge in digital payment interfaces, e-business has grown by embracing the digital edge to an impeccable size of 188 billion USD (ibef, 2022). The digital payment interfaces include all digital platforms such as apps,

devices, and web portals used for making e-payments. The increasing use of digital payment interfaces raises the concerns of the elderly population who find it hard to adapt to digital skills. The global elderly population is currently 9 per cent and is expected to touch 16 per cent by 2050 (UN, 2019). Further, visual impairment hinders people's cognitive capacity to appreciate the pop-up messages appearing on the interface and its rigorous counter verification bids. Thus, the world's

2.2 billion visually challenged people suffer from another form of disability and people with no access to devices make the fray even noisier (www.who.org). Various arguments on digital disability make a robust premise for an academic debate on the social construct of twin disability with digital interfaces requiring practical intelligence in drawing the meanings of pop-up messages. Given the context, this article illustrates the real-time glitches for the marginalized in using digital payment interfaces

and thus highlights the need for a human-centric user interface to make it sustainable and inclusive.

DIGITAL PAYMENT INTERFACES-THE CHANGE AGENT

In digitally literate demography, the digital payment interfaces promulgate a range of economic utilities that could only fantasise earlier. The digital payment interfaces and digital device penetration have brought a sea change in customer payment patterns and universal trading systems. The recent pandemic had changed the systems' default settings, and people at large enjoyed the changed peripherals, at least for convenience in operations. Although digital payment interfaces provide good logistical support for new business and governance models, they pose several challenges to traditional models and their digitally weaker interacting society. The intelligible use of digital payment interfaces has re-drawn all codes of business models and re-calibrated the commercial operations either reluctantly or for ease of doing.

In addition to the financial inclusion initiatives, the digital imperative also makes the soil fertile for digital payment interface penetration. Public utilities have also flown high on the wings of digital mode, bypassing the lag in formalities and procedural bottlenecks that could have prompted the policy change. However, a segment of society, including the visually impaired, elderly, and people without digital awareness, is struggling and perplexed in negotiating the new order of life. The helplessness that lingers on the faces of aged people because of exacerbating feelings of being cut off raises critical questions for utility administration. So is the case with the visually challenged, they are literally stumbling upon the debacle of clicks and swipes.

THE EXCEPTIONAL-ELDERLY AND VISUALLY CHALLENGED

Equity and access for the marginalised have been increasingly regarded as indicators of good governance globally. Ideally, in an egalitarian society, the State should ensure equity in access to services; however, serious lapses and lacuna could be seen in the existing system in protecting the interests of the exceptional or marginalised. Digital services are assumed to be designed for complete human models, who are blessed with all the faculties and physical impairment by age or for other reasons can subside such faculties. Even, public utilities, including transportation, education, and health care, largely address the needs of the unexceptional. There are few voices to bring these issues to the forefront of public consciousness or appeal to policymakers. Studies conducted in developed nations prove that existing digital support helps elderly people improve their quality of life, who are otherwise left aloof in the dusk of their lives. However, it is also evident that they are far behind in using digital services and raises several questions about equitable access. Even in an age when information is available at the fingertips, the elderly population remains muddled about how to use technology to gather information. The Indian family system helped this fumbling lot by teaching them how to use the devices that are now indispensable for social life. Parents (28 percent) get their tips on digital device usage from sons and (18 percent) from daughters. Many parents (46 percent) are self-learned, and a few others learn from their grandchildren (7.4 percent). Though it is meager, daughters-in-law (6 percent) and sons-in-law (3.4 percent) also form the pie (Help Age India Survey, 2021). The family institution pays a good dividend of care to the Indian elderly population, which they learn from the value system, though it

is fading. As an extension of adaptive behaviour theory (Brockley, 1999), any disabled group will evolve unique adaptive skills in using new systems through trial-and-error over time, but such changes should not result in any monetary loss or jeopardise the user's track record. However, in reality, aged people are at greater risk of making payments using digital interfaces. Hence, the state needs to redefine the logistics and the related peripherals of digital payment interfaces to address their needs, which are otherwise left crippled.

The US National Telecommunication and Information Administration coined the term "digital divide" for the first time in the 1990s. In the conceptual context of exclusion, it has had a very conditioned usage in the last decade to denote inequity. However, this idea does not convey the exact state of affairs of the visually impaired. For them, it must be read in conjunction with the information inequity paradigm. (Chaudhry & Shipp, 2005). The digital systems assume the users to be all digitally agile and can fit into cognition by default in any decision-making process. Castells (1996) calls it a phenomenon of informationalisation and equates it with any tangible product of industrialisation and uses the analogy of computing as an information factory. With the innovative governance models using the digital interface, the State also assumes its subjects are digitally literate and encourages the public to engage in digital practices in availing utilities. When drawing generalisations from lopsided viewpoints without reckoning the people at the far end of the spectrum, the needs of people with access issues are taken for granted. Visually impaired people, no matter by whatever name they are addressed, become the most aggrieved parties to such an informationalisation process in less developed nations, including India. Informationalisation, in particular,

works as a force of marginalisation that exacerbates inequalities and barriers to the visually disabled, described as Digital Disability (Goggin & Newell, 2003). Up to 98 per cent of digital infrastructure, including website domains, has access barriers (McGrane, 2000). Apart from being hampered by mainstream infrastructure design, this small section of the Animalia kingdom, unlike other deprived strata, has no say in governance through collective bargaining. Therefore, the issue seeks political empathy, with which the abyss gets the attention of the public consciousness. The social consciousness must contemplate how the social systems are audacious in integrating customised settings into interactions.

Digital user interfaces can overcome a few issues by extending the time for filling out the fields or using tailor made options. Often, the agencies in charge of such online terminals are paid not on a utilitarian basis or the quality in serving those outliers. Frequent changes in the interacting screen window also make accessing the information difficult for slow users. Although it is done under the pretext of security, every time the user is tested for their vision and puzzles for survival, it reminds them that independent life is a far cry. Visual impairment and old age are closely related, and the crux of the paper is that the latter receives a solution if the former is addressed with conviction, as many of their cognition-related concerns are the same.

RE-DRAWING THE FRONTIERS OF THE DIVIDE

The foregone discussion on the exceptional reveal that dividing the demography with a digital barrier into two is not just enough to incorporate the large spectrum of people with varying digital exposure. The spectrum is so dilapidated that on one end, it has a physically fit human model with all the agile sense faculties

The Indian situation is certainly buoyant with the inception of the National Payment Corporation India (NPCI) in 2008 as a joint effort of RBI and the Indian Banks' Association (IBA) to create digital payment interfaces, the largest in the world

and human models with challenging dispositions on the other end. The width of this spectrum is entangled with several such unique samples that are relatively non-measurable with standard scaling. The question is how the digital infrastructure could be capable of providing inclusive growth to this complicated and diversified population. Three to four per cent of any given population is visibly disabled (*differently not abled*), and these figures may be even higher. In this category, digital exposure and digital literacy are subjected to state policies on inclusive skill development and the availability of assistive technology. Reports suggest that people with disabilities use computers and the internet at a rate below the national average (Kretchmer & Carveth, 2003). For instance, around 34 million people in the US are deprived of digital access. It has led to addressing this issue of digital disability from a multi-dimensional perspective.

INITIATIVES FOR DIGITAL INCLUSION

In order to set the premises ready and to administer a new model globally, an international framework has to be created. The UNESCO

guidelines for digital inclusion of low-skilled and low-literate people spell out how programmes to be chalked out to engage them with the increasingly online world. To provide better understanding and design solutions for people with special needs, it directs us to create more engaging content and a usable interface. It further upholds the need for a technological environment to support inclusive usage and the constant monitoring of such an interface. These efforts are seen at least as a step towards building an egalitarian society from a global agency. Likewise, the central banks are concerned with ensuring security and the timely issue of guidelines, but it seems they have not yet spotted the people at the far end of the spectrum. The Indian situation is certainly buoyant with the inception of the National Payment Corporation India (NPCI) in 2008 as a joint effort of RBI and the Indian Banks' Association (IBA) to create digital payment interfaces, the largest in the world.

It is critical to investigate international web design and interface protocols to understand how sensitive web designers are in providing an inclusive digital space to people with special needs. The Web Content Accessibility Guidelines (WCAG) international standard ISO/IEC 40500 instructs designers and developers to approach accessibility as a checklist. The focus is only on the technical aspects of access. As a result, the human interaction element is left unattended. Combining access and usability with human experience can only solve the issue objectively. Further, the developers should take the disability factor into account and should work out a design with some empathically cross-cultural inputs. It is evident that efforts to standardise are on, but the interface should be capable of customising to the requirements of people with special needs.

CONCLUSION

The marginalised disabled group on the societal fringe has been side-lined from the realm of information technology and thereby ostracised from the development process. The inability of the exceptional to use digital payment interfaces reflects that our understanding of the social construct 'digital divide' is raw without considering its physical, economic, cultural, and technological dimensions. States' obligation towards people with special needs in ensuring customised digital interface platforms is paramount as it could minimise the navigational hitches. Digital interfaces can also improve the quality of interactions by explaining the screen contents to people with special requirements through assistive technology. It may involve additional cost, but the State should oversee it in terms of the utility involved, which is denied otherwise. Outsourcing of digital services should consistently acknowledge the presence of the marginalised by administering a policy code based on inclusion. The major stakeholders in providing digital payment services, including the central bank, NPCI, IT Ministry, and associating agencies, must collectively develop a policy document in tandem with international protocols. Further, the navigational issues of the payment interfaces can be minimised with the support of top-notch technical institutes in the country. Efforts to build a human-centric and user-friendly online interface should be the need of the hour. **MA**

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COVID-19 AND DIGITAL TRANSFORMATION OF EDUCATION IN INDIA

Abstract

Accept it or not, Covid-19 pandemic has left a major impact on how the world, and our country, is performing today. Though a very common scenario today, there are many changes which have taken place in the post Covid era which may have been unheard of and even unimaginable just a few years back. Concepts like online lectures, online banking and transactions, online consultations by doctors, lawyers and other professionals, increased use of e-commerce platforms, working from home etc. have become the 'new normal' in today's times, even in a developing country like India. The pandemic has made digitalisation an integral part of our life .

INTRODUCTION

It was on 24th March 2020 that the Prime Minister of India announced that there would be a nationwide complete lockdown. Consequently each and every citizen of India was confined to one's house and it was a diabolical situation for all. How would one get groceries? How would one go to his workplace to get his daily earnings? What would one do if a sudden medical emergency would arise? How would companies procure and produce goods and services? How would anyone complete his or her current academic year? These and many other questions came up. What followed was history, an occurrence that would remain sketched in everybody's minds forever.

Today, two years later, this seems to be a very long time ago. To think that we had to start everything all over again right from scratch is overwhelming. Yet, here we are today, doing everything that we did before the pandemic. But is it true that everything has remained the same? Are we doing things exactly the same way we did before the pandemic?

The answer is BIG NO. Accept it or not, Covid-19 pandemic has left a major impact on how the world, and our country, is performing today. Though a very common scenario today, there are many changes which have taken place in the post Covid era which may have been unheard of and even unimaginable just a few years back. Concepts like online lectures, online banking and transactions, online consultations by doctors, lawyers and other professionals, increased use of e-commerce platforms, working from home, etc. have become the 'new normal' in today's times, even in a developing country like India.

The impact of Covid-19 is visible in almost all economic and social aspects of life. Interestingly, this radical change, which has occurred all over the world, seems to be permanent one. In fact, the advent of the pandemic has facilitated



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technological advancements in just a few months' time, which otherwise would have taken place over decades. Every organization has incorporated necessary transformation in order to sustain itself during these changing times. Acting as a catalyst, the pandemic was the driving force that led to an accelerated restructuring of organisations. While all the sectors have been affected by some or the other way, education sector was one of the sectors that had a major influence of the pandemic. Moreover, it can be said that education had taken a major hit during the onset of the pandemic with around 1.6 billion children being affected worldwide. In India, there has always been an issue with the delivery of education due to lack of accessibility. This problem has only worsened, during the pandemic, with the inclusion of technology in education. However, with many institutions coming up with online mode of education and an abundance of online resources, there is a way for the online/virtual mode of education to compensate for the deficiencies of the traditional setting. This forces one

to look for differences between the pre-pandemic and post-pandemic education system. [<https://www.google.com/amp/s/www.thehindu.com/education/education-in-a-post-pandemic-world/article34496849.ece/amp/>]

Going back to the pre-pandemic stage, the number of the students getting enrolled at the primary level as compared to the annual population growth between 2013-2018 suggests that there has been a constant decline in overall enrolment. [<https://idronline.org/state-of-school-education-india-pre-covid/?amp>]

Moreover, teachers used to create a rapport with the students and hence were able to observe the body language of the students in the class and their interaction with the students. There used to be more engagement between teachers and students, which helped students to understand their curriculum in a better way and would be able to help any student who lags behind in their studies.

There was also little to no impact on the physical and mental health of the students due to off-line lectures before the pandemic. Since the lectures used to be conducted through in-person mode, the adverse effects of increased screen time were absent among students.

Coming to the initial stages of pandemic, the first major problem that students came across was accessibility to smartphones and Internet. Since their birth, children of today's world have been surrounded by digital technology. They have been having a hands-on experience with technology for almost two decades now. Ironically, there is a digital gap that still affects the readiness of today's generation, i.e., generation Y, to fully accept and adapt to this digitalized world. A complete restructuring of educational institutions is required to enable the students to gradually meet their needs with respect their digitalised future.

DIGITAL DIVIDE

Considering a developing country

The advent of the pandemic has facilitated technological advancements in just a few months' time, which otherwise would have taken place over decades

like India, the digital divide in India is larger owing to the larger population below poverty line. People belonging to this category had little to no access to smart phones and therefore it became difficult for students in such families to cope up with the digitalised education.

Additionally, teachers also had to upgrade their technical knowledge with regard to the use of video lectures, online examinations, online evaluations., providing extra learning materials, etc. Conducting online lectures without affecting the efficacy of teaching was a daunting task. To be able to understand whether whatever is being taught is being understood by the students was proving to be difficult in the initial stages of the pandemic. Additionally, the pandemic also compelled us to think that imparting bookish knowledge to the students, which limits the students only to their curriculum, is not the fundamental aim of our education system but our prime aim should be to instill skills necessary in life and career of students of our country. [<https://timesofindia.indiatimes.com/city/patna/changes-in-education-system-after-covid-19-pandemic/articleshow/90825692.cms>]

However, students, who were in their last years of their graduation, also were faced with a major question: how would their future look like? With their exams being cancelled or delayed, students were bemused as to how would they graduate from their current academic year at the same time how would they get employment owing to the downsizing of the working class.

Online lectures have also led to increased use of computers and smartphones which has led to increased screen time of the students. Additionally, the long hours of virtual learning also takes a toll not only on the students but also on parents as it becomes difficult for even the parents to cope up with digital learning during the extended lockdown at the same time also handle their domestic chores and office work. [<https://www.isas.nus.edu.sg/papers/education-during-the-covid-19-pandemic-in-india/>]

Conducting the examinations was also proving to be a difficult task, owing to the drawbacks in the assessment and evaluation patterns of our education system. The pandemic made it possible to make the education system more flexible incorporating concepts like inclusion of aptitude-based assessments, open book exams, etc.

Notably, the online mode system of education may have failed in comparison with the offline mode of education, but there are a few modifications that have become a base for modernised education. The pandemic has affected the education system in such a way that now technology plays a very critical role. Inclusion of technology in education system has made quality content available to students anytime, anywhere in abundance with just a click of a button.

While schooling has always an essential part of a child's life, strictly adhering to curriculum is not sufficient anymore. In order to increase a child's intelligence, emotional and mental quotient, use of technology can prove as an exceptional way of doing so. Virtual teaching clubbed with in person teaching can not only impart holistic knowledge but can also improve various life skills as it involves quality education and improving the learning outcomes. Virtual education through the use of Internet and smartphones can transform the pattern of delivery of education and can help make it more cost-effective, customised, and

accessible. Online or hybrid mode of learning not only provides for a different teaching pattern but also provides vast opportunities for self-learning for students. [<https://www.google.com/amp/s/www.thehindu.com/education/education-in-a-post-pandemic-world/article34496849.ece/amp/>]

But all this is possible only when the resources are used optimally and is available to all, at all point of times. The Covid – 19 pandemic has caused a radical shift from the traditional ways of learning in a physical setting. This poses a major challenge for the children living in poverty nation-wide and globally, who often are dependent on the physical setting and resources from educational institutions. While renewing the education system, it is essential to take human well-being and human interactions into consideration. Attempts should be made to facilitate the under-privileged children to be included in the world of virtual education [https://www.google.com/url?sa=i&source=web&cd=&ved=0CAQQw7AJahcKEwjQrLuKodz5AhUAAAAAHQAAAAAQAg&url=https%3A%2F%2Fen.unesco.org%2Fsites%2Fdefault%2Ffiles%2Feducation_in_a_post_covid_worldnine_ideas_for_public_action.pdf&psig=AOvVaw1n2KIhypHneB9aMTf0cgwt&ust=1661318975106225] Efforts should be made by the Government to make policies that would make technology like computers and smartphones available to each student, in addition to free and cheap internet to enable them to access this world of digitized education. Then and only then can we lay the stone of foundation for the environmental, economic, social and most importantly, national development.

RANDOM SURVEY AND ITS REVELATIONS

Considering all the above mentioned aspects we made random survey of 50 respondents and found the following interpretations:

1. It was found that 66 per cent of the respondents were of the opinion that pandemic has had an impact to a great extent in the enrolment of students as compared to the pre pandemic period. The rest 34 per cent of the respondents felt that there was no major impact of the pandemic on students' enrolment
2. When the respondents were asked about the apps that were mostly used to conduct online lectures, it was found that the most used apps were Zoom and Google meet.
3. Upon being asked a question as to the percentage of known teachers who had previous experience of virtual teaching, majority of respondents were of the opinion that less than 25 per cent of teachers had prior experience of teaching online.
4. The next question posed before the respondents was whether they agreed with the fact that online platforms are still being used for assessments and assignments, and whether it has had a positive impact

on technology. Maximum number of respondents (84 per cent) agreed with this fact.

5. When asked about the conduct of examination in their respective institutions during the pandemic, 42 (82 per cent) respondents replied in the affirmative, while 8 respondents (18 per cent) replied in the negative.
6. Further, the respondents were asked whether the pandemic had resulted in an increased student drop out as compared to the academic years prior to Covid-19. To this, 41 respondents (82 per cent) were of the opinion that the pandemic had definitely impacted in the form of an increased student drop out as compared to the pre-pandemic levels, whereas 9 respondents (18 per cent), felt that there was no impact whatsoever, of the pandemic on the student drop out rates.
7. The respondents were then asked whether a barrier was created on account of the conduct of examinations through virtual media in the present academic year. In reply to this question, 78 per cent of the respondents felt that a barrier has definitely been created on account of the pandemic.
8. During the course of the research a question as to whether technological changes in the education during the post pandemic era had been conducive for research activities was posed before the respondents, to which 52 per cent of the respondents, (26 persons) felt that definitely the technological advancements in the field of education in the post pandemic era had facilitated research activities to a great extent, whereas the rest of them had felt that the impact was not of much significance.
9. Upon being asked a question about the effect of the pandemic on student-teacher relationship, 20 respondents felt that it had no substantial effect on their relationship with their teachers. On the contrary, 18 respondents 36 per cent felt that it had led to improved relationships while 16 respondents, (32 per cent), were of the opinion that it had a negative impact on their relationship with teachers. The reaction is mixed bag of good and bad.
10. Finally, on the question regarding the presence of Government schemes providing emergency/special funding for higher education in the context of the pandemic 56 per cent of the respondents' felts that there was no such scheme while 44 per cent of the respondents felt that there was such a Government scheme.

The pandemic has taught us digitalisation and it has become an integral part of our life. It definitely seems to be towards betterment. It is a tool which has left us with NO option but to use it to the fullest extent. **MA**

ROLE OF ICT DIFFUSION IN BRIDGING THE DIGITAL DIVIDE IN INDIA

Abstract

“Information and Communication Technology” (ICT) is a key driver of growth in almost all sectors. But due to uneven presence of digital infrastructure, an imbalance is witnessed in digital access in the country in terms of teledensity, internet penetration, electrification, education and poverty level. In this backdrop, the current article seeks to assess the determinants of digital divide, analyse the role of ICT diffusion in bridging digital divide and also describe a few Government initiatives in bridging digital divide in India.



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INTRODUCTION

“Information and Communication Technology” (ICT) is a game changer in modern Indian society that can be witnessed through the growth of sectors like education, healthcare, BPO, financial services and so on. ICT has two main classifications, namely Information Technology (computer software and hardware) and Communication Technology (telecommunication devices). ICT diffusion refers to IT enabled environment that leads to increasing productivity, competitiveness, knowledge capital, economic growth, human resource, etc. from the use of ICT application. “The effective use

“Information and Communication Technology” (ICT) is a game changer in modern Indian society

of ICT is significant for economic development, social well-being and effective governance” (Jamil, 2021). On the other hand, digital divide means “the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard to both their opportunities to access ICTs and to their use of the internet for a wide variety of activities” (OECD, 2001). Therefore, this

is the imbalance in accessing the technology through internet and other ICT enabled devices due to difference in geography, race, economic background, and other factors concerned. In India, 43 per cent of the total population was found to use internet¹ of which 58 per cent was male and 42 per cent female in 2020². As per National Family Health Survey 2019-21, 72.5 per cent males and 51.8 per cent of females in urban India use internet while it is 48.7 per cent and 24.6 per cent in rural area respectively. This is an indicator of gap in digital divide position in India. Going through the data of various indicators, it is seen that the rural

¹ ITU's World Telecommunication Database

² [statista.com](https://www.statista.com)

segment of the country is more deprived than its urban counterpart and therefore contributing more to the overall digital divide of the country. In this backdrop, the current article seeks to assess the “determinants of digital divide in India”. Secondly it seeks to analyse the role of ICT diffusion in “bridging digital divide in India” and finally, to describe a few “Government initiatives in bridging digital divide in India”.

DETERMINANTS OF DIGITAL DIVIDE IN INDIA

Teledensity

This is number of telephone connectivity per 100 people

living within an area. Although there is a consistent gap between urban and rural telecom subscribers and teledensity caused by the gap in telecommunication infrastructure, rural India leaves a footprint in Indian telecommunication industry in terms of monthly growth rate in wireless phone usage that exceeds its urban counterpart. This paves the way towards narrowing down the gap between urban and rural subscriber base. Broadband subscribers also show an increasing trend over the years.

TABLE 1: TELECOM SUBSCRIPTION AND TELEDENSITY STATUS IN INDIA

(Figures in Million, Monthly Growth Rate in parentheses)

Particulars	March-2022			March-2021			March-2020		
	Wireless	Wireline	Total	Wireless	Wireline	Total	Wireless	Wireline	Total
Total Telephone Subscribers	1142.09 (0.05%)	24.84 (1.31%)	1166.93 (0.08%)	1180.96 (1.13%)	20.24 (0.26%)	1201.20 (1.12%)	1157.75 (-0.24%)	20.22 (-0.20%)	1177.97 (-0.24%)
Urban Telephone Subscribers	624.23 (-0.15%)	22.88 (1.37%)	647.11 (-0.10%)	645.20 (0.93%)	18.57 (0.53%)	663.77 (0.92%)	638.48 (-0.74%)	17.97 (-0.05%)	656.46 (-0.72%)
Rural Telephone Subscribers	517.86 (0.29%)	1.96 (0.58%)	519.82 (0.30%)	535.75 (1.38%)	1.67 (-2.60%)	537.42 (1.37%)	519.27 (0.37%)	2.24 (-1.46%)	521.51 (0.36%)
Overall Tele-density (%)	83.07%	1.81%	84.88%	86.68%	1.49%	88.17%	85.87%	1.50%	87.37%
Urban Tele-density (%)	130.17%	4.77%	134.94%	137.08%	3.95%	141.03%	138.41%	3.90%	142.31%
Rural Tele-density (%)	57.85%	0.22%	58.07%	60.08%	0.19%	60.27%	58.54%	0.25%	58.79%
Share of Urban Subscribers	54.66%	92.12%	55.45%	54.63%	91.76%	55.26%	55.15%	88.91%	55.73%
Share of Rural Subscribers	45.34%	7.88%	44.55%	45.37%	8.24%	44.74%	44.85%	11.09%	44.27%
Broadband Subscribers	761.05	27.25	788.30	755.35	22.75	778.09	668.26	19.18	687.44

Source: TRAI

Internet Penetration

Internet penetration in India has travelled a long way from its very slow percentage in the past. In 2021, the penetration was 47 per cent along with 845.68 million users from penetration of 0.1 per cent (1.4 million users) in 1999. This indicates a greater penetration and increasing user base of internet in India. Internet connections are found to be greater in urban areas but since 2019 the growth rate in internet connections in rural areas are substantially higher than that in urban areas. This is a sign of narrowing down digital divide leading to lowering the gap between urban and rural internet usage in India.

TABLE 2: INTERNET PENETRATION STATUS IN INDIA

Year	Users (in Millions)	Penetration (%)	FY	Rural Internet Connections (in millions)	Rural Growth Rate (%)	Urban Internet Connections (in millions)	Urban Growth Rate (%)
2015	302.36	27	2015	107.56		194.77	
2016	342.65	34.8	2016	111.95	4.08	230.71	18.45

2017	422.20	34.4	2017	136.52	21.95	285.68	23.83
2018	493.96	38.02	2018	145.83	6.82	348.13	21.86
2019	636.73	50	2019	227.01	55.67	409.72	17.69
2020	749.07	45	2020	285.98	25.98	457.24	11.60
2021	845.68	47	2021	322.77	12.86	502.53	9.91

Source: *statista.com* (2022)

FY = Financial Year

Poverty

Rural India is basically characterized by poverty, landlessness, lower income, self-employed households and so on. Although people in rural area use mobile phones, but the ever-increasing cost of recharge subscription may create a bar towards continuing the service connections. According to *Niti Aayog*, India's Multidimensional Poverty Index (MPI) in November 2021 was 0.118. It is 0.08 in urban and 0.155 in rural areas. Kerala has turned out to be the State with lowest poverty rate (0.71 per cent), while Bihar (51.91 per cent), Jharkhand (42.16 per cent) and UP (37.79 per cent) are the 'poorest States' in India³.

Education

Strong education leads to the use of internet, technology adaptation and innovation. Higher education is significant for bridging digital divide (Kaur and Singh, 2016). According to the National Survey of India, the overall literacy rate in India in 2022 is 77.7 per cent while it is 87.7 per cent in urban areas and 73.5 per cent in rural areas. Kerala has registered highest literacy rate of 96.2 per cent and Andhra Pradesh is the lowest literate State (67.35 per cent)³.

Electrification

This is the essential requirement for using ICT and digital inclusion. Lower cost and higher level of electrification are conducive for bridging the digital divide position in a country. Since 2018, more than 90 per cent of the rural people have the access to electricity lowering down the gap of electricity access between urban and rural India leading to bridging the digital divide in a better way.

TABLE 3: ELECTRICITY ACCESS STATUS IN INDIA			
Year	Access to Electricity, Urban (% of Urban Population)	Access to Electricity, Rural (% of Rural Population)	Access to Electricity, All India (% of Indian Population)
2015	97.5	83.4	88
2016	98.2	84.8	89.2
2017	98.8	88.8	92.1
2018	99.1	93.9	95.7
2019	99.7	96	97.3
2020	100	98.5	99

Source: *World Bank* (2022)

ICT DIFFUSION IN BRIDGING DIGITAL DIVIDE IN INDIA

In this article ICT diffusion has been measured through three distinct indicators like (a) Teledensity, (b) Number of wireless phone and (c) Portion of rural phone usage to overall phones and presented in Table 4. According to TRAI on November 2021, the overall teledensity in India was around 87 per cent and share of mobile phones in rural India was around 45 per cent. Among the States, Delhi, Himachal Pradesh, Punjab, Kerala, Tamil Nadu and Karnataka are the leading players who achieved very high percentage of teledensity in India. On the other hand, Uttar Pradesh, Maharashtra and Bihar witnessed large number of people using wireless phones. Assam, Jammu & Kashmir and Himachal Pradesh

³ *theglobalstatistics.com*

are lagging as per this indicator. One of the probable reasons might be the lower population in these States. According to the third indicator, Uttar Pradesh, Himachal Pradesh and Bihar registered comparatively greater percentage of mobile phone users in rural areas to overall phones in the respective States. In terms of the above indicators, States like Uttar Pradesh, Himachal Pradesh and Bihar are said to have better positions in narrowing down the digital divide. Refer Tables 1 and 2. It can also be said that telecommunication diffusion (88.17 per cent) is more as compared to the diffusion of internet (47%) and ICT enabled devices like computer in 2021, thereby suggesting that people use more mobile phones as compared to the internet and ICT enabled devices. Therefore, investment is required to increase the usage of computers and ICT enabled devices, specially in rural India, for accessing advanced technology and gaining better outcome. This is not possible without higher education that is pre-requisite for greater ICT diffusion leading to narrowing down the digital divide in better way.

TABLE 4: STATE-WISE ICT DIFFUSION INDICATORS (FIGURES AS ON NOVEMBER, 2021)

States	Teledensity (%) (Rank)	No. of Wireless Phones (Rank)	% of Rural Phones to Overall Phones (Rank)
Andhra Pradesh	97.00 (8)	86233103 (4)	49.18 (8)
Assam	69.62 (16)	24386765 (16)	62.40 (5)
Bihar	53.54 (18)	87041746 (3)	66.01 (3)
Gujarat	97.39 (7)	68690269 (7)	39.36 (14)
Haryana	94.70 (10)	27860123 (15)	43.79 (13)
Himachal Pradesh	142.49 (2)	10461197 (18)	66.77 (2)
Jammu & Kashmir	87.19 (11)	11752683 (17)	46.47 (9)
Karnataka	102.89 (6)	66611282 (8)	38.73 (15)
Kerala	127.98 (3)	44341325 (12)	44.77 (12)
Madhya Pradesh	69.85 (15)	79415899 (6)	44.99 (11)
Maharashtra	95.34 (9)	94330535 (2)	45.81 (10)
Orissa	76.42 (13)	33427104 (14)	65.02 (4)
Punjab	122.97 (4)	38188112 (13)	33.60 (16)
Rajasthan	81.99 (12)	64889528 (9)	54.47 (7)
Tamil Nadu	107.08 (5)	81437095 (5)	29.16 (17)
Uttar Pradesh	68.73 (17)	166727820 ¹ (1)	54.58 ⁴ (1)
West Bengal	70.13 (14)	57534536 (10)	60.73 (6)
Delhi	269.57 (1)	52484010 (11)	3.12 (18)
All India	86.89	1167493166	44.57

Source: Annual Report, Dept. of Telecommunication, Ministry of Communications, GOI (2021-22)

GOVERNMENT INITIATIVES IN BRIDGING DIGITAL DIVIDE IN INDIA

In order to narrow down the digital divide in India, both Central and State Governments have taken various initiatives. Few of those are briefly summarised in Table 5.

TABLE 5: GOVERNMENT INITIATIVES IN BRIDGING DIGITAL DIVIDE IN INDIA

Initiatives	Government	Brief Descriptions
Digital India Program	India	<ul style="list-style-type: none"> • Mobile connectivity and service with each citizen. • Nationwide Internet Infrastructure (NII) for high-speed connectivity in various departments of Government. • e-Governance, UIDAI, Payment Gateway, Mobile seva platform. • MyGov.in for direct communication with Government. • Training Rural workforces on telecom services and setting up BPOs. • WiFi facilities in all universities, e-book, e-mail and biometric attendance system.

⁴ Combined figures of East and West Uttar Pradesh

Kisan Call Centre	India	<ul style="list-style-type: none"> Agriculture related queries of farmers are being addressed in local language.
Bhoomi Project	Karnataka	<ul style="list-style-type: none"> Any land record can be accessed through screen-touch at kiosks and acts as databank for various projects and reduce the delay in state revenue department.
Gyandoot Project	Madhya Pradesh	<ul style="list-style-type: none"> Easy log in and complain or request information about crops, forests, fields, water, etc. in any Soochnyas (computer centre) of the district.
FRIENDS Project	Kerala	<ul style="list-style-type: none"> The Fast, Reliable, Instant, Efficient Network for Disbursement of Services (FRIENDS) to mitigate the hardships of citizens paying tax by elimination of middlemen and long queues.
Lokamitra Project	Himachal Pradesh	<ul style="list-style-type: none"> Lokamitra Information Centres run by unemployed youth to provide easy access to Government information and door step e-governance facility to the rural people.
CARD Project	Andhra Pradesh	<ul style="list-style-type: none"> The Computer Aided Administration of Registration Department (CARD) Project to provide online registration formalities without hassle.
Sourkaryan and E-Seva	Andhra Pradesh	<ul style="list-style-type: none"> Sourkaryan for online payment of property tax and view detailed plans and projects of the government. E-Seva Kendra to eliminate personal contact between citizen and the bureaucracy.

Source: *Compiled by the Authors*

CONCLUSION

Inequality in accessing digital infrastructure still exists based on urban-rural segment, internet penetration, gender, education, electrification rate, poverty level and so on. Although urban areas are better than rural areas in terms of internet access, with regard to ownership of mobile phones, rural India is not so far away. Rural India has also witnessed greater penetration in terms of internet usage, electrification, etc. thereby reducing the digital divide in rural as well as in the nation. Apart from the above stated Government initiatives, “Pradhan Mantri Gramin Digital Saksharta Abhiyan” and “National Digital Literacy Mission” have far reaching impact in narrowing

down the imbalance. Digital infrastructure should be improved to ensure physical participation in ICT by the underprivileged section of the society for the betterment and upliftment of their daily lives with digital knowledge and skills. **MA**

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BOOK REVIEW

Book Name : **Detecting Audit Risks**

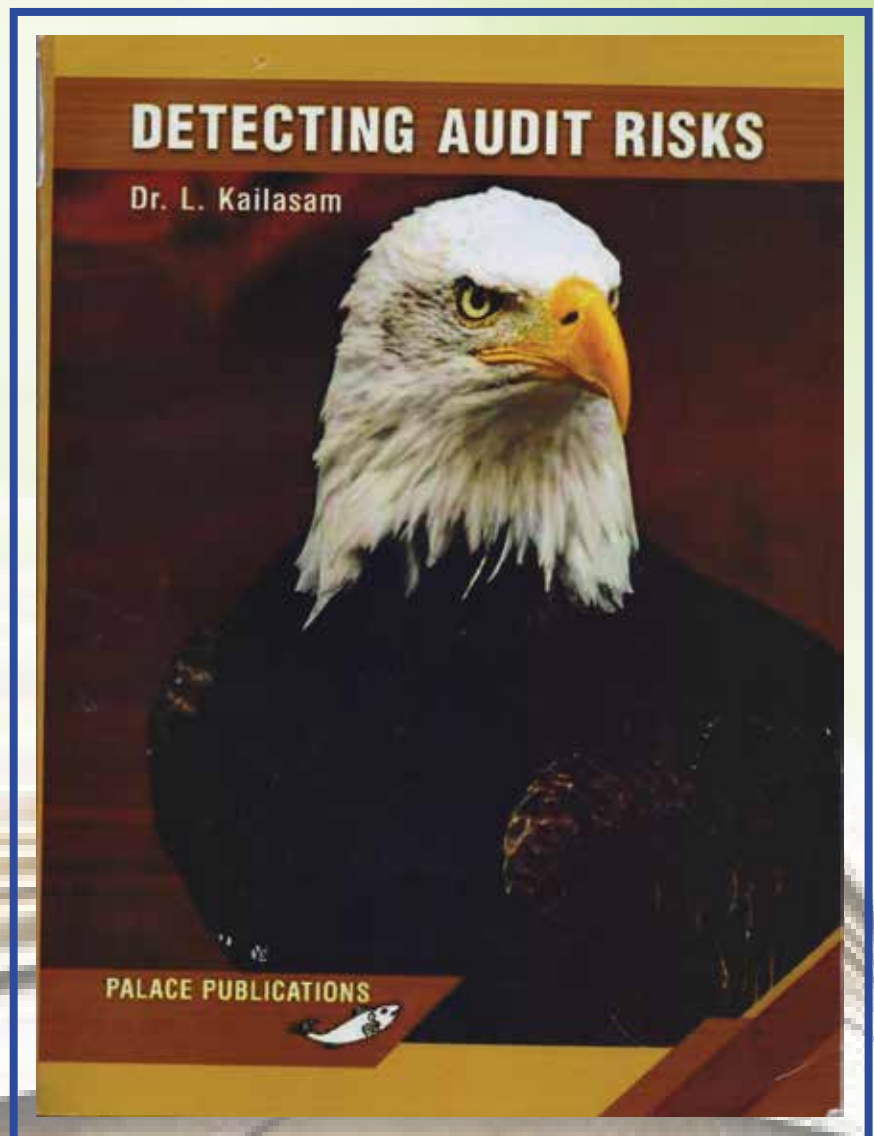
Author	:	Dr. L. Kailasam
Publisher	:	Palace Publications
Pages	:	318
Price	:	Rs. 795/- (with 10% discount for Accounting Professionals, Government Departments and Training Institutions Price)

The primary aim of the guide is to assist the auditing community in identifying the risky areas to minimize the risks to a maximum extent and suggesting the ways to the management to improve their profitability. This Professional 's Practical guide consists of five parts.

The first Part i.e., Detection and Estimation. Techniques' discuss the overview of the risks in taking the assignment of audit in the present legal environment. A detail analysis of the consequences of improper auditing were explained in Chapter 1. The important and vital risk identifying techniques and methods such as Pareto Analysis, Estimation Techniques were explained in Chapter 2 and 3. The practical applications of these techniques in taking decisions by preparing Differential Balance Sheet and Novel method of Management of Assets were explained in Chapter 4 & 5.

The second part i.e., Identification of abnormal transactions primarily discuss the various methods for identifying the unusual and typical financial transactions scientifically.

The methods to identify such transactions include identification of Outlier transactions, Abnormal Clusters and to confirm data set's integrity by using Benford analysis to flag abnormal and anomalous transactions are explained in Chapter 6, 7 and 8.



The third part of the Guide i.e., 'Deriving Book Balance' discuss the method for the selection of sample transactions (Chapter 9) scientifically to estimate the accounting balance. An innovative statistical technique, when to stop audit with agreed precision level is also explained in Chapter 11 & 12. A detail analysis of 'Audit Confidence Model' are explained in Chapter 13. Conventional and Special Techniques including Variance Analysis were explained in Chapter 10 and 14.

In the fourth part of the guide i.e. 'Documentation' discusses the necessity of creating and possessing the Audit evidence by appropriately documenting at each stage, starting from the appointment order of auditor, recording of third-party certification, Management assurance, methodology for the selection of for conducting audit, and the scientific results to derive audit conclusions till audit reporting are explained in detail in Chapter 16 & 17. A detail scientific method of managing the audit with greater efficiency and economically was explained in Chapter 15.

The last part of the book i.e., 'Special Reports to the Management' explains in detail for the preparation of the reports to management such as sustainability of the business (Chapter 18) for getting rapid Profitability (Chapter 19) and Dynamic approach to Marginal Costing (Chapter 20). This chapter facilitates the auditors to prepare the special reports scientifically, if such task assigned to them.

There is no doubt that 'Detecting Audit Risks' is an exceptional and excellent book, detailing the application of the various scientific tools and techniques in auditing. This is the first book to demonstrate the application of scientific techniques in Examining the accounts. No doubt the novel attempt to apply various techniques and tools in auditing to safeguard the auditors was not done so far.

The book contains the application of Detection Techniques, Estimation Techniques, Statistical Techniques, Mathematical Techniques, Networking techniques and Documentation techniques.

Detection techniques" include Pareto Analysis, Benford analysis, Outlier analysis and Cluster analysis. Estimation Techniques' includes Mean-per-unit estimator, Ratio estimator, Regression estimator, PPS estimator and BLU estimator. Techniques of audit sampling, t-test, testing of hypothesis as well Normal distribution application were also applied wherever required. Differential calculus, OLS, Regression and Correlation PERT techniques, were also applied. Various steps involved in calculation of were explained with numerical examples and exercises so as the reader could effectively the techniques in their applications.

The book is useful and indispensable tool for the entire Audit communities i.e., Cost Accountants, Company Secretaries, Chartered Accountants Government Auditors, Cooperative Auditors, Internal Auditors, as well as Government Departments, Banks, Insurance Companies, Investigation Agencies too.

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DIGITAL TRANSFORMATION A PRISMATIC VIEW

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About the Book

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

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

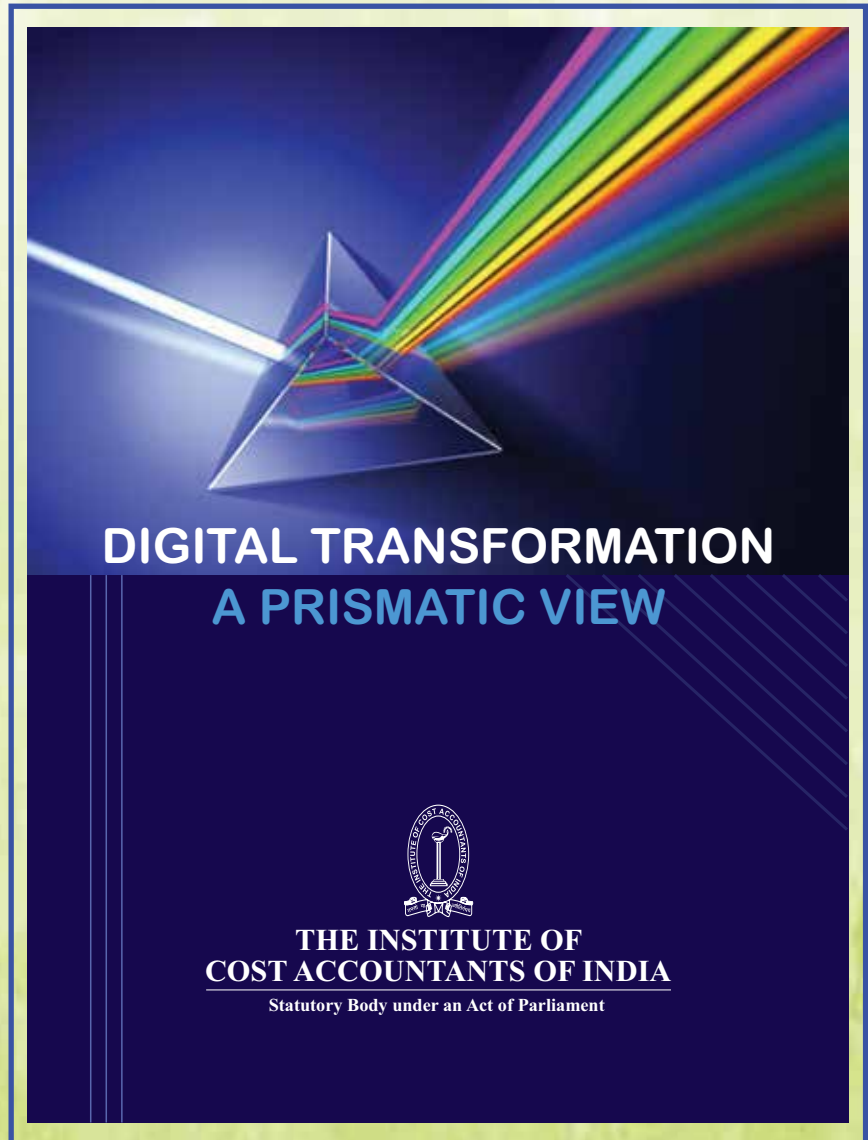
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DIGITAL TRANSFORMATION AND SOLUTION DESIGNING WITH QUADRENNIUM OF THINKING



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Introduction

Drones are flying, aircrafts are carrying passengers and rockets are racing up to space because someone asked a simple question and continued to think till the answer was found. Readers by now might have guessed both the question and the person who asked it. The byword goes like this, *'Millions saw the apple falling, someone asked why'*. That event, of an apple falling on ground and not going up or moving laterally, ignited a young man's mind with certain intriguing questions. That someone was Sir Isaac Newton, one of the most cerebral mathematicians, physicists, and dominant inventors in known human history.

He asked the question which none could answer. What he thought through was the crucible for some of the greatest discoveries in history of mankind.

Quadrennium of Thinking

One can debate on a point whether Sir Newton was driven only by his own inquisitive mind. Did he use the process of critical thinking, radical thinking, design thinking and/or combinations of those three? Did he also resort to strategic thinking to find applications of the answers to some other activities for generation of values in tangible terms? Borrowed fundamentals from etymology prompts the author to postulate that these four types of thinking and reasoning can collectively be rechristened as the 'Quadrennium of Thinking' or four bedrocks of thinking and reasoning.

Irrespective of the nature and process of thinking Sir Newton did undergo readers would agree that he was an agile observer, too sharp-witted and choosy in picking up issues which deserve enquiries. Probably he was encouraged by a thought that if the reasons behind the apple falling on ground and not moving in any other direction is understood, many problems of humanity could be solved irrespective of value to be generated in economic terms. That keenness to serve humanity, powered by empathy and emotional intelligence, could be what made him to think more. If that is termed as strategic purpose, let that be the most significant example for all scientists for all times in any field.

Image Source: <https://bookboon.com/blog/2012/02/logical-thinking-how-to-use-your-brain-to-your-advantage/>



Sir Isaac Newton (1643-1727)

Source: <https://www.eatmy.news/2021/03/biography-sir-isaac-newton.html>

Sir Newton endured with thinking and relentlessly experimented till he proved and recorded the laws of gravity. Finally in 1686 he presented the ‘Three Laws of Motion’ in his book “Principia Mathematica”. His theories helped scientists to understand how birds fly and come down to perch which ultimately led to the physics of an aircraft’s operations and hundreds of more such usages.

He did not stop with only laws of gravitation. He continued with his ‘innovative’ mind in quest of many more discoveries. The result was two more major creations, viz., a reflecting telescope coupled with the theory of colour that “*a prism separates white light into the colours of the visible spectrum.*”. So much was accomplished by this son of a rancher who lost father when he was a baby of three months and brought up by grandmother as his mother remarried.

Objective

The author has spoken at many fora and written about humane and ethical dimensions of digital transformation during last about eight years. However, did not formally enquire and study about the processes of thinking which drives a scientist or an inventor, albeit having some personal experience. Readers may know about one invention of the present author, supported by his colleagues, which was circulated by patent registration authority of the USA¹. The primary driver for this invention was to find a solution for certain critical problems that were being faced by this author and the organisation he used to serve in corporate life. Unknowingly the author has undergone several processes of thinking during many sleepless nights.

Objective of this article, therefore, is to write about the said four types of thinking, which creators of history like Sir Newton might have undergone. Thinking is not by itself equal to innovation and or creation. But thinking is at the core of ideating and doing anything. It provides the womb in which the embryo of innovation is created. Again, the old axiom also teaches that thinking time reduces doing time. The fundamental objective of this article is, therefore, to put together and develop understanding about various types, processes and purposes of thinking and reasoning which can help digital scientists, solution designers, hackathoners,

startupians, aspiring entrepreneurs, etc. in innovating and developing products with application and integration of digital technologies. Objective of this paper is also to remind all concerned that while doing so one must consciously apply emotional intelligence, morality, and ethics which are essential for ultimately serving the causes humanity.

Newton and Startupians - The Common Points

Perhaps there is no digital scientist, solution designer and product creation in present Industry 4.0 era who is not inspired by Sir Newton. Stories of most of the founders and product developers of successful startups and unicorns are similar on several counts. They have also gone through processes for enquiry and exploration particularly when the matters relate to keenly watching the problems being faced by business entities, society and humanity in general that needs solution. They have also detected, observed, and analysed issues, gaps, lack of versatilities, suboptimalities, operating inefficiencies, ineffectiveness, avoidable costs etc., of existing products and services that needs resolution.

Having understood what society needs, solution designers withstand the labour pain of ideating and crafting solutions, try that out, and then scale up for mass delivery at costs which the target users can afford and be satisfied with value for money. In present era of ever emerging digital technologies and their evolutions in a short span of time, solution designers’ challenges are further complex. They must beat the legacy products which may not even be two/three years in use and offer solutions and products with enhanced power, smartness, and operating efficiencies at an affordable cost for all.

Questions can, therefore, arise in people’s mind as to how thinking can be of four types. Even if there be so, whether such startupians undergo the same quadrennium, viz., critical thinking, radical thinking, design thinking, strategic thinking and/or combinations of those. They might have not even appreciated whether such types of thinking are essential for innovation. However, one point can be concluded without much of debates that startupians, who also are entrepreneurs, must undergo the process of strategic thinking but for which their objective of commercialising the resultant product and/or services would not be possible. The other side of the argument is equally forceful if one says that when the product and/or the service is of such order that would be accepted by users without much of marketing efforts, an aspiring entrepreneur need not spend much time for crafting business strategies. For this the quadrennium of thinking is a must.

Digital Transformation - Revisited

The author in his book on digital transformation² has explained the multidimensional aspects of digital transformation (DT) in details. However, it would be useful in the context of this article to revisit the fundamental tasks of digital transformation. Readers may refer those chapters for detailed inputs. In common parlance DT involves the following simple steps:

- ① **Innovation:** Exploration and cerebral ideation of new and improved processes for crafting new/better products and generating tangible values by conducting activities in an improved way; finding new business

models and revenue models by meeting latent demands of society, and serving hitherto unserved customers across income levels and geographies.

- ⊙ **Digitisation:** Convert relevant analogue information and physical processes into digital format and platform for meaningful use across the value chain and safe storage thereof for subsequent analyses and interpretation with reduced human intervention.
- ⊙ **Digitalisation:** Use digital technologies for end-to-end ethical and empathetic reorientation of digitised systems, policies, and processes with the objectives to add tangible value and generate new business opportunities by expansion, and diversification of business activities.
- ⊙ **Digital Transformation:** Manage strategically planned multidimensional changes of business activities by leveraging digital technologies to stay ahead of competition in relevance with contemporary business and technological ecosystem for sustainable growth and prosperity.

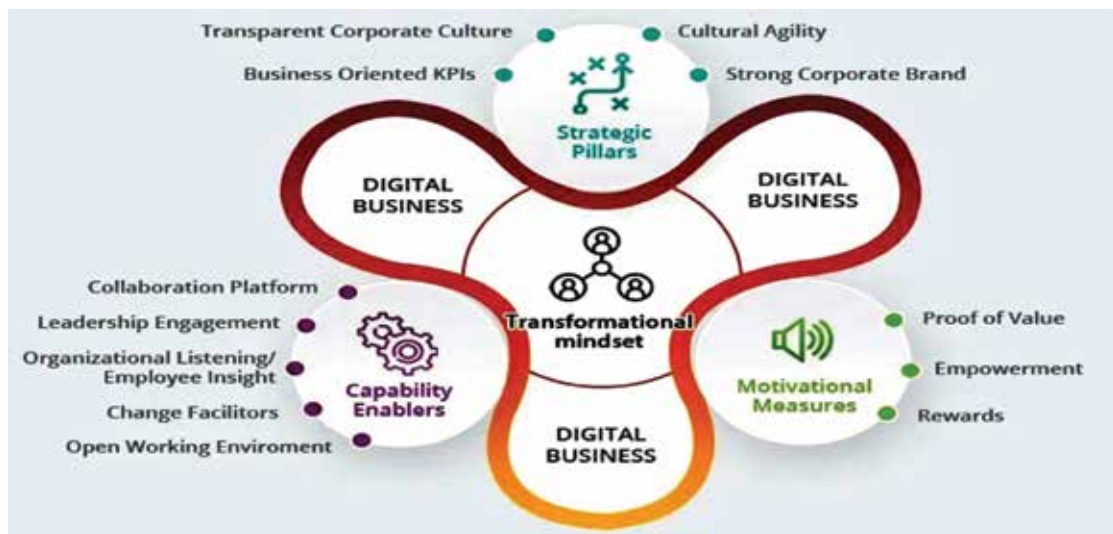
Digital transformation is not a one-time activity like lipstick syndrome of decorating the business. It is neither a destination. It is a never-ending journey with ever evolving technology as the driver. This process of transformation can be elucidated with the help of a bank's operating activities for lending. When a bank introduces a portal or platform for customers to submit loan applications and upload required documents, one should not feel that it is a case of digital transformation. It is just a case of digitisation, i. e., converting an analogue or physical process into a digital one.

The next task is digitalisation. The bank applies digital technologies to get rid of the traditional movement of physical files to processing and approving officers. Instead, they are provided task-specific access to the portal containing those

data and documents, submitted by the borrower, for further processing, sanctioning and disbursement subject controls configured in the ICT system. Now the bank and customers are seamlessly connected through one single interface of a digitalized lending platform through intranet and internet. This platform can be made more versatile to track and monitor charging of interest on loan and recovery of equated monthly instalments. Blockchain could be the ideal technology for this purpose.

In the third step of digital transformation the bank must find ways and means to use such a newly created digital platform to expand business by attracting new customers without resorting to traditional marketing activities. It should also change business model(s) befitting the change in other allied businesses and technology ecosystems. It must change customers' value proposition' by innovative and unique means and processes for working. For this it can safely integrate its own platform with that of other business entities.

One of the examples could be like this - When a buyer checks out from an eCommerce site after booking/buying a consumer durable, say car or an expensive phone, a message can pop up on her/his computer/phone screen asking whether she/he would prefer to take collateralised loan against EMI. This auto prompt is generated by integrating the banking platform with the operating platform of the eCommerce player. If the customer opts for loan, the system would auto-shift her/him to the banking platform for further processing. The loan is sanctioned using robotic process automation (RPA) with minimum or without any human intervention. At this step it would be possible to digitally execute a soft hypothecation deed. This step can be considered as innovation for introducing new business model and revenue model. Digital transformation. therefore, is equal to business transformation with better process, improved efficiency, and effectiveness for higher ROI.



Source: <https://twitter.com/antgrasso/status/1565640698275176449/photo/1>

Digital Transformation, therefore, needs a transformation of mindset which is stimulated by thinking and reasoning. As is evident from the above graphics, transformational mindset can create digital business when there are:

- ⊙ **Capability Enablers:** Environment for innovation supported by technologies and trained human resources, business insights, collaboration change facilitator, leadership, etc.
- ⊙ **Strategic Pillars:** Strong corporate brand image, transparent corporate environment, cultural agility, appropriate controlling, and monitoring mechanisms with KPIs and KRAs, etc.
- ⊙ **Motivational Measures:** Empowerment and free atmosphere to innovate and even make mistakes without fear of penalty, proof of concepts, realised ROI, incentivisation of contributors for success and so on.

There seems to be no scope of doubt that an entity can continue with successful digital transformation only if there is an ever-evolving process for observing the stakeholders' ecosystem, thinking and exploring for generating new enquiries, appreciating and analysing existing problems in search of finding better solutions. Readers may know more about digital transformation of banking institutions from the research-based publication in Chapter 11 jointly written by this author with another and published in the book titled Indian Banking and Finance Report, 2021.³

Digital Transformation & Quadrennium of Thinking

The author admits that, even being a habitual user of dictionary, there is a deep sense of perplexity for him to decide the meaning or meanings of the word 'Think'. That meaning must be appropriate for doing justice to the word itself in the context of this article on digital transformation. He picked up from Oxford Dictionary the following four meanings which may be considered appropriate for prefixing to the words 'Critical', 'Design', 'Radical' and 'Strategic'. It is for readers to stretch their imagination and decide whether the meaning of the resultant four twins of words, viz., 'Critical Thinking', 'Design Thinking', 'Radical Thinking' and 'Strategic Thinking' are in order. The author is taking liberty to pick up the following meanings for the word 'Think' from the said dictionary:

- ⊙ "Direct one's mind towards someone or something,
- ⊙ Use one's mind actively to form connected ideas,
- ⊙ Have a particular mental attitude or approach, and
- ⊙ Imagine or expect an actual or possible situation,"



Source: Assembled by author using icons freely available from internet

The axiom says that "A problem is a frame of mind. Getting to the solution begins with how you think about the problem". In the context of what Sir Newton had undergone and presently the startupians/scientists are now going through for digital solution designing, the meanings of the four twins of words, of which the word thinking is common, may have to be blended into one collective sense of understanding. Let these further be analysed in the following paragraphs and linked to the process of digital transformation in general.



Critical Thinking (CT)

In a report to the World Economic Forum way back in 2016 on human capital CT was reported to be one of the most important skills to be employable in the emerging business ecosystem. Oxford dictionary has defined CT as "The objective analysis and evaluation of an issue in order to form a judgement." Richard Paul has said "Critical thinking is thinking about your thinking, while you are thinking, in order to make thinking better."⁴

According to a blog published in Bright Concept,

- ⊙ "Critical Thinking is a cognitive competence, resulting from the combination of cognitive skills and dispositions.
- ⊙ It is defined by the ability to analyse and evaluate existing information on a given subject, trying to clarify the veracity of the information and arrive at a justified idea about it, ignoring possible external biases.
- ⊙ It implies having the ability to make complex choices and solve problems in innovative ways, integrating existing thinking with new knowledge and applying it in different contexts."⁴

It may be observed that the three kinds of abilities that have been summarised in the above narrative about CT are important for an innovator. Any business entity engaged with digital technologies must have human capital bestowed with the power of critical thinking to achieve success in digital transformation.



Radical Thinking (RD)

Lexicon connects the word radical with root. That is why perhaps its iconic expression is implied by the square root sign of mathematics. It indicates that process of thinking in which the task of thinking digs into the root, or historical origin of the problem/issue being thought through and/or reasoned out. RD also searches for the basic principles and foundation of the subject/issue from which the problem has germinated. This in turn reveals the secret for change. For enabling innovative thinking and crafting of unique design of solutions radical thinking:

- ⊙ Considers that change is fundamental,
- ⊙ Includes purposes and plans for the innovation,

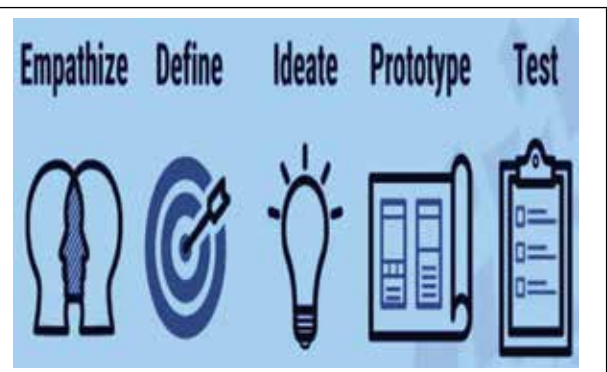
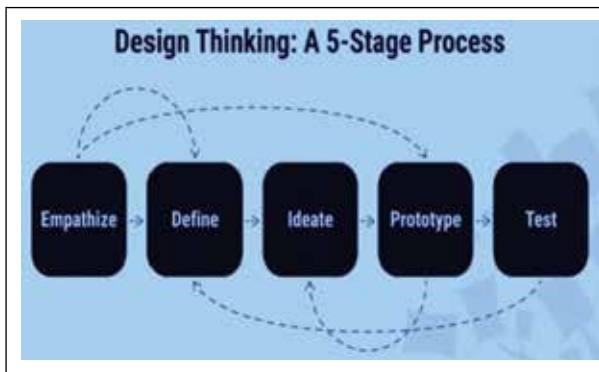
- Is not only a drawing to show how something looks,
- Argues out that old and legacy things are not only shinier,
- Is the deliberate process for purposefully creating the new, and
- Is a comprehensive retune of customers' experience for a new business model.

The aforesaid brief narrative perhaps could convince the reader that RD is essential for ideating and designing the most effective, empathetic, and ethical solution for the problem being solved. And that should be the overarching objective of digital transformation.



Design Thinking (DT)

The Hasso Plattner Institute of Design, Stanford, USA has described DT as a process consisting of five stages. The process of thinking may not follow any specific order, may run simultaneously and/or can repeat out of turn and sequence if so required to arrive at the answer or solution being searched for. The objective of DT is to identify strategic options and probable resolutions which were not prima facie evident at the initial phase of thinking. Each phase of DT has a specific purpose to serve for finally selecting the most appropriate solution. The following are those five stages collectively called as EDIPT:



Source: <https://canvas.unl.edu/courses/73802/pages/5-stages-of-design-thinking#:~:text=Design%20thinking%20is%20a%20non,are%20ill%2Ddefined%20or%20unknown.>

- **Empathise:** To conduct research of the associated issues for empathetically appreciating and understanding the problem taken up for resolution. Empathy brings humane centrality to DT that drives the process of thinking and reasoning towards the needs of target users instead of being misdirected by personal egos of designer(s) and organisational policy bias. This also helps adopting the appropriate digital technologies to be applied and/or integrated.
- **Define:** At this stage all the information and observations gathered during the first phase of empathetic research would be analysed, critically thought through for articulating the exact definition of the problem(s) of target users to be solved. This is also called crafting the 'Problem Statement' for which humane centric solution is to be built.
- **Ideate:** This is the stage for thinking *hatke*, i. e., out of the box or in a non-traditional manner getting out of the trap of legacies. Brainstorming is a useful process when a team of innovators is collectively trying to solve the problem. This is the stage for '*Innovation*' which is a combination of three tasks viz., innovation, invention, and creation. Cost-benefit analysis with an eye on value for money to the users is an important consideration for this stage.
- **Prototype:** This is the stage for debating with results for experimentations done and giving shape to a scaled down version of the final solution decided to be adopted for solving the identified problem with empathetic and humane approach.
- **Test:** Generally, a separate set of human resources, other than the team which has worked for the above four tasks, for testing the prototype assessing its veracity before clearing for commercial implementation. Even external experts may be invited to reinforce the team at this stage. The predominant objective is to take a dispassionate and impartial view while assessing efficiency, effectiveness, desirability, and estimated ROI from the solution.

Design thinking, therefore, is one of the most important tasks for digital transformation. Contributions from this group of tasks assumes higher significance and priority particularly keeping in view that the organisation must have to reorient its policies, systems, and procedures as well as organisational culture simultaneously with adoption and applications of digital technologies which were hitherto not practised. Moreover, the organisation would also have to add newly crafted business models and revenue models to complete the third task after digitisation and digitalisation which is finally digital transformation of the way business is conducted.



Strategic Thinking (ST)

Strategic thinking is the process for approaching the fundamental drivers for creating values for an organisation's stakeholders by challenging the conventional ways of dealing with the problems being faced and anticipated in foreseeable future. It focuses on finding and developing unique opportunities to generate monetary gains. At this stage it would be useful to understand what a strategy is. Drawing themes from various literature of Harvard Business School strategy can be defined as *"An integrated set of choices for actions which positions a firm in an industry so as to generate superior financial returns over the long run."* It is, therefore, is an intentional and rational process of thinking that focuses on analyses of critical factors and variables which influence long-term success of a business.

ST includes the task of proactive, careful, and deliberate anticipation of threats and vulnerabilities for framing and implementing mitigation measures against risks. The objective is to uninterruptedly pursue the opportunities for realisation of financial returns. It involves hardcore analyses internal organisational realities before articulating a clear set of goals and plans required to survive in a competitive and ever-changing business ecosystem driven by powerful technologies.

ST also involves alignment of the newly defined set of goals with the vision and mission of the organisation. However, there will be a challenge to manage cultural changes that are warranted for migrating from the legacies of traditional management to a digitally transformed organisation. Accordingly, formulation of strategies for digital transformation will also involve redefining balance score card of each functional group and realignment of goals of individual employees with that of the organisation, coupled with a discreetly crafted scheme of incentivization.

ST must take into consideration economic realities, market forces, and availability of resources. It also involves requires research, analytical thinking, innovation, problem-solving skills, and communication. Again, success of ST depends upon decisive leadership for dealing with the vulnerabilities, uncertainties, complexities, ambiguities, fear of unknown and unprecedentedness (VUCAFU) of emerging business environment. All these essential elements and features of ST as the last bedrock of the quadrennium are essential for an organisation embarking on a journey of digital transformation to march ahead with sustainable goals towards prosperity.

Role of Right Brain for Thinking Quadrennium

It would be useful to borrow some knowledge from medical science about the role of brain for thinking to further appreciate the importance of quadrennium of thinking. Human brain is divided into two segments, viz., right and the left brain. One would appreciate from the respective functions of left brain and right brain, as quoted in the graphic given below, that left brain makes a person to think in a structured, logical manner and perhaps in a bit mechanical way. Whereas functions of right brain relate to the soft humane qualities, viz., creativity,

empathy, ethics, morality, emotional intelligence, etc.

Thinking Quadrennium Needs More Application of Right Brain



Source of brain graphic: Unknown

Let the author not get into the task of writing analytical narratives on each function of two sides of human brain. It is not difficult to conclude without much of debate that the role of right brain would be more in designing solutions with applications and integration of technologies. Therefore, while training employees before embarking on the journey for digital transformation it will be advisable for every organisation to make them consciously aware of the above functions of brain. They must be put into a workshop and given real life case studies for analysis and interpretation. The objective should be to make them realise what kind of suboptimal results can come out if the right brain is not used while functioning with the help of quadrennium of thinking.

Conclusion

This article has been written with the objective of bringing out the importance of thinking as a task and habit for digital transformation. Four types of thinking covered in this article has their individual importance. Business managers, in the rush of their day-to-day activities at times loose sight of the thinking processes they should follow. The author would consider his efforts in writing this article useful if professionals and leadership team members of any organisation find learning points from this paper useful in their journey with digital transformation/ **MA**

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MANAGING MANUFACTURING INNOVATION STRATEGICALLY THROUGH DESIGN THINKING

Abstract

This article is a case study on a company in the manufacturing sector, named Cosmos Automotive Engineering Pvt Ltd, involved in the manufacturing of automotive spare parts on a large scale. The study will enable one to understand deeply the concept behind design thinking and how its implementation can ensure economic revival. The different stages involved in design thinking are explained and pragmatically applied in real time giving a quantum leap in revival of Cosmos as a company.



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INTRODUCTION

The management of the company under study has primarily used Design Thinking as an overall solution to the economic crisis faced by it. The company had adopted some

of the state-of-the-art technologies like automating its manufacturing, assembly, testing, packing and dispatch lines. The top management wanted to adopt Industry 4.0 and so had started adopting Artificial Intelligence and Machine Learning in various business aspects. Moreover, it was located in a sub-urban area near Pune, Maharashtra and this proved to be of strategic advantage to the company because it was able to procure raw material and bought-out-finished parts at a relatively low cost from nearby industrial zones. Though the company had the above-mentioned advantages, the company saw itself in a perilous situation wherein any wrong decision could put the company in the face of an uncontrolled tornado. This compelled the senior executives to look for tactics and strategies that they hadn't tried before to successfully pull the company out from the deadlock situation.

WHAT IS DESIGN THINKING AND HOW DID COSMOS IMPLEMENT IT?

Design Thinking is a human-centric, possibility driven, options-focused and iterative keyword which is used to portray a group of strategic, cognitive, and pragmatic practices from which concepts of design are formulated. Earlier known as ‘creative engineering’, it is now renowned as the art of manufacturing innovation because it teaches one to mechanically devise an innovative solution to a problem. The supremacy of this approach is the likelihood to test rapidly if a knowledge, result, or augmentation can bring actual results to Cosmos’s clients. Mixing various tools, practices, and methods approaching from diverse fields, the main determination of Design Thinking is to put the customer on the focal point of the difficulty that has to be solved. The objective of the Design Thinking concept is to discover the customer and outline its needs and by discovering those requirements, generate an answer that can be beneficial to the organization. To meet this objective, there are four questions that one needs to answer to apply Design Thinking effectively. They are What is? What if? What wows? And What works? (Fig 1)

FIG 1: APPLICATION OF OBJECTIVE OF DESIGN THINKING



Fig 1: Application of Objective of Design Thinking

The first question allowed the Cosmos to explore the current reality. *What is* the present scenario? It taught the management to attend the present needs instead of thinking about the future problems. These needs were answered diligently; it also gave them a deep insight into what the stakeholders and customers needed. In technical terms, this step is called as customer empathy, wherein the management put themselves in the customer’s shoes and virtually experienced their problems. Here, the customer’s problems were put ahead of the company’s solutions. This allowed the management to better understand the problems and come out with effective solutions. This step was executed by conducting customer interviews and meetings. Sometimes it happened that the customer knew their problem but were not able to properly convey it to the management. Here observation played a vital role. Product journey mapping was also incorporated in the step. This enabled the company to track the journey of the product once it reached the customer and the management could identify the place where the customer was facing problem with the product.

The second question directed their minds to focus on different possibilities and find out the implicit assumptions in the problems.

What if this idea works? This was the most powerful question the management could ever ask as answers to this question brought out the creative geniuses in Cosmos. In technical terms, this step is known as Analysis. This was carried out by using 5-why (multi-why) approach. Each “why” took Cosmos one level deeper towards the root of the problems. In this way, the company made assumptions at each level which strengthened their reasoning of the problem. This was represented by both graphical and statistical ways combined.

The penultimate question helped the CEO to filter the solution set to get to that particular solution, which was customer centric, executable, and economical.

What WOW’s Cosmos’ customers? (Fig 2) In the figure below, the center part corresponds to the WOW spot of the solution set.

FIG 2: WHAT WOW’S CUSTOMERS?



In this step, the management had to treat each of the business concepts and strategies as hypothesis. After placing small bets quickly on these hypotheses, they could get their WOW spot.

The ultimate step was to implement the WOW solution on a larger scale and get valuable feedbacks from customers and make important policy changes as and when required.

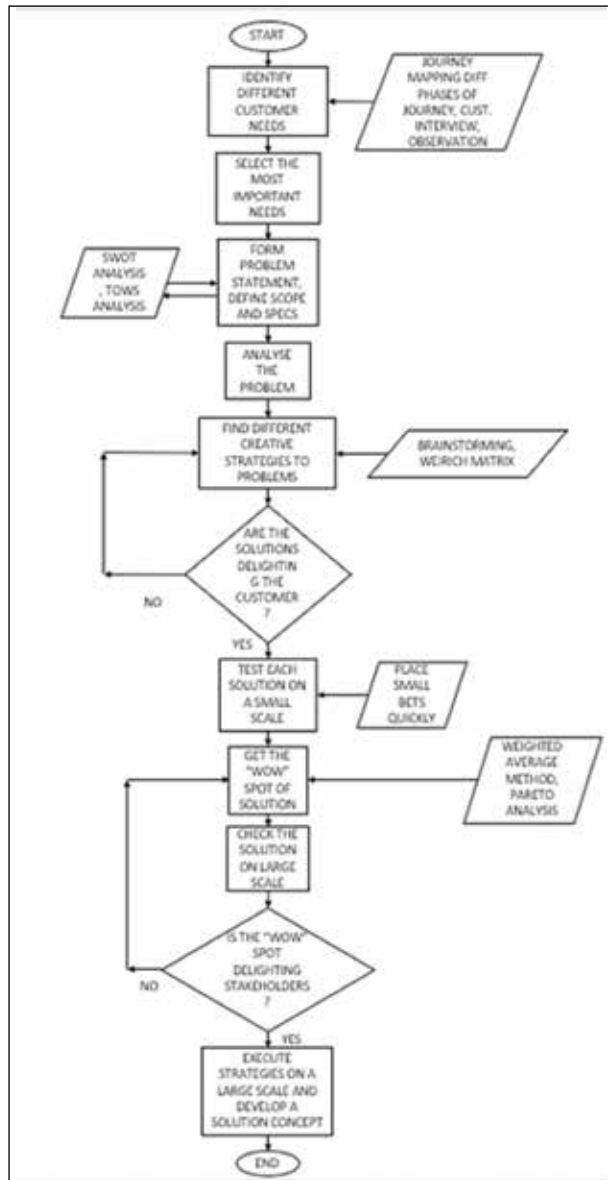
What Worked for Cosmos’ customers and shareholders? This step was the testing phase of the solution. As the solution passed the testing phase, i.e., as the solution delighted the customers and stakeholders, a solution concept was formulated and implemented on a larger platform.

It should be noted that the Design Thinking method cannot be applied to any random problem. It was applied only

1. When there was deep understanding of actual people/users involved,
2. When it was needed to explore and come to an agreement,
3. Where there were many unknowns and past data was unlikely to help.

Before moving to the process of Design Thinking, the CEO and his chief advisor chalked out a detailed flowchart incorporating Design Thinking principles so as to ensure smooth implementation of strategies. The flowchart (Fig 3) made by them is as follows:

FIG 3: FLOW CHART OF DESIGN THINKING



STAGE 1: CUSTOMER EMPATHY

To understand the reason for such an economic crisis, it was imperative for the senior officials to understand the difficulties and problems faced by their customers. Hence the CEO appointed a task force of senior officials and an advisory panel of the concerned stakeholders to carry out customer empathy.

The team surveyed and shortlisted a target-audience consisting of five of the major customers. They then carried

out frequent customer interviews and used the method of product journey mapping to find out exactly where and what the problems were. During the interviews, the team used *the 5-Why's Technique* which helped them in understanding the problem deeper. Also, these interviews were recorded, in case they were needed in future for further analysis. The following (Table 1) reflects the data collected by the team from clients.

TABLE 1: CUSTOMER COMPLAINTS MATRIX FY 2022-23

SNO	CUSTOMER COMPLAINTS	Customer 1	Customer 2	Customer 3	Customer 4	Customer 5
1	Service Delay	13	11	8	8	12
2	Poor product quality and Wrong product delivery	10	7	9	12	18
3	Repetition of complaints	5	4	8	4	9
4	Out of Stock Product	3	5	2	4	6
5	No first call resolution	5	9	10	8	8
6	Lack of Follow up	6	8	12	4	7
7	Poor Marketing	18	13	11	7	10
8	Poor communication	13	11	9	9	12
9	Poor after-sales service	17	10	9	15	12
10	Frequent maintenance	6	8	4	7	11

STAGE 2: DEFINE AND ANALYZE

After analyzing the collected data, it was noted that the customers were unhappy about the following as they accounted for the most complaints.

1. Service delay
2. Poor product quality
3. Poor communication (internal and external)
4. Poor after-sales service
5. Poor marketing

Considering the above-mentioned customer problems as the company’s weaknesses, the CEO along with his senior executives and chief advisor performed SWOT and TOWS analysis.

Following is the SWOT Analysis (Fig 4) performed for Cosmos.

FIG 4: SWOT ANALYSIS

STRENGTHS: 1. STATE-OF-THE-ART TECHNOLOGY AND EXECUTION 2. STRATEGIC LOCATION 3. WE CAN CHANGE DIRECTION QUICKLY IF WE FIND OUT THAT OUR STRATEGIES ARE NOT WORKING 4. OUR LEAD ADVISOR HAS A STRONG REPUTATION IN MARKET	WEAKNESSES: 1. SERVICE DELAY 2. POOR PRODUCT QUALITY AND WRONG PRODUCT DELIVERY 3. POOR COMMUNICATION (INTERNAL AND EXTERNAL) 4. POOR AFTER-SALES SERVICE 5. POOR MARKETING
OPPORTUNITIES: 1. TAPPING UP LOCAL SALES AND EXPORTS 2. POSSIBLE PRICE TRENDS 3. FORGING STRONG PARTNERSHIPS AND ALLIANCES 4. EXPLORING NEW MARKETS 5. INNOVATION AND TECHNOLOGY DEVELOPMENT	THREATS: 1. INCREASED COMPETITION 2. ECONOMIC RECESSION 3. POLITICAL INFLUENCE 4. POLICY BACKLASHING 5. RAPIDLY CHANGING TECHNOLOGIES

The relation between Strengths, Weakness, Opportunities and Threats is graphically illustrated in the TOWS Matrices (Tables 2 to 5).

Here the “+” sign in the TOWS Matrices indicates that there is a relation between the corresponding internal and external factors and a strategy can be formulated for the relevant SWOTs being compared. The “-” sign implies that there is no relation between the internal and external factors and no strategy needs be formulated.

Note:-TOWS Analysis is the reverse of SWOT Analysis and is also called as Weirich Matrix.

TOWS ANALYSIS/WEIRICH MATRICES

FIG 5: STRENGTHS VERSUS OPPORTUNITIES MATRIX

STRENGTHS OPPORTUNITIES	1	2	3	4
1	+	+	-	+
2	+	-	-	-
3	+	+	-	-
4	+	+	+	+
5	+	-	+	-

FIG 9: ADVANCED SWOT ANALYSIS

INTERNAL EXTERNAL	STRENGTHS S1. STATE-OF-THE-ART TECHNOLOGY AND EXECUTION S2. STRATEGIC LOCATION S3. WE CAN CHANGE DIRECTION QUICKLY IF WE FIND OUT THAT OUR STRATEGIES ARE NOT WORKING S4. OUR LEAD ADVISOR HAS A STRONG REPUTATION IN MARKET	WEAKNESSES W1. SERVICE DELAY W2. POOR PRODUCT QUALITY AND WRONG PRODUCT DELIVERY W3. POOR COMMUNICATION (INTERNAL AND EXTERNAL) W4. POOR AFTER-SALES SERVICE W5. POOR MARKETING
	OPPORTUNITIES O1. TAPPING UP LOCAL SALES AND EXPORTS O2. POSSIBLE PRICE TRENDS O3. FORGING STRONG PARTNERSHIPS AND ALLIANCES O4. EXPLORING NEW MARKETS O5. INNOVATION AND TECHNOLOGY DEVELOPMENT	POSSIBLE STRATEGIES S1O1 S3O5 S1O2 S4O1/S4O4 S1O3 S1O4 S1O5 S2O5 S2O3 S2O4 S3O4
THREATS T1. INCREASED COMPETITION T2. ECONOMIC RECESSION T3. POLITICAL INFLUENCE T4. POLICY BACKLASHING T5. RAPIDLY CHANGING TECHNOLOGIES	POSSIBLE STRATEGIES S1T1 S1T2 S1T3 S1T4 S1T5 S2T4 S4T1	POSSIBLE STRATEGIES W1T2/W4T1 W2T1 W3T1 W3T4

FIG 6: STRENGTHS VERSUS THREATS MATRIX

STRENGTHS THREATS	1	2	3	4
1	+	-	-	+
2	+	-	+	-
3	-	-	-	-
4	-	-	+	-
5	+	-	-	-

FIG 7: WEAKNESS VERSUS OPPORTUNITY MATRIX

WEAKNESSES OPPORTUNITIES	1	2	3	4	5
1	-	-	+	+	+
2	+	+	+	-	-
3	-	-	-	-	-
4	-	-	-	-	+
5	+	+	-	-	-

FIG 8: WEAKNESS VERSUS THREATS MATRIX

WEAKNESSES THREATS	1	2	3	4	5
1	+	+	+	+	-
2	-	-	-	-	-
3	-	-	-	+	-
4	-	-	+	-	-
5	-	-	-	-	-

Following is the SWOT Analysis (Fig 5) along with the possible strategies derived based on the above TOWS analysis.

Following are the strategies that the CEO and his strategic management team formulated based on the above SWOT Analysis. (Fig 6)

FIG 10: FORMULATED STRATEGIES

S101	Leverage on technology strengths using AI and ML to capture export and other businesses.
S102	Ensure technology policy issues are resolved and take advantage of changing policy for exponential growth of business.
S103	Focussing on technology strengths develops strong relationships with partners.
S104	Capture newer markets using technology basis.
S105	Focus on Manufacturing Innovation Management using technology skill sets.
S201	good connectivity and transportation can ensure on-time product delivery and can boost sales.
S203/S3T1	with central location, we can provide free delivery to nearby customers and create strong partnerships with them
S204	with strategic location newer markets can be explored.
S304	change in strategic direction flexibly to capture newer markets.
S305	implant flexibility, agility, and dextrous change management to capture the growing I&T mood.
S401/S404	take advantage of lead advisory team to expand export and domestic sales.
W102	eshtablish a proper priority list to ensure timely dispatch of orders. Make sure the priority is followed
W105	Use trackers to keep track of transportation vehicles once dispatched
W202	eshtablish a robust QA system at each product stage and make stringent quality rules
W205	incorporate 6-sigma and advanced quality check techniques
W302	policy that encourages daily updates to seniors must be put into effect- first call resolution
W501	use all possible digital and non-digital marketing tools to promote the products effectively
W504	carry out extensive market research to bring out new line of products.
S1T1	use business analytic techniques to do a SWOT analysis of emerging/existing companies to revise our strategies
S1T2	Using AI for market analysis, we can predict slowdowns in future and act accordingly
S1T5	regularly update and upgrade technology to remain with technology bandwagon by R&D.
S3T2	always build backup strategies for turbulent times.
S3T4	take care of risk mitigation.
S4T1	ask lead advisory team to conduct and implement competitor analysis to win over competition.
W1T1/W4T1	provide 24x7 and 365 days online and offline after sales support to delight customers
W2T1	implement company wide quality improvement programs to parry competitors threat.
W3T1	improve internal and external communication by implementing advanced communication programs to successfully apply DT thus retaining customers
W3T4	make sure to hold meetings with every tier of employee and make clear the vision and mission of the policy/strategy to avoid back-firing

STAGE 3: SOLVE

From Design Thinking point of view, Cosmos created solutions and ideas by conducting meetings like Prototyping, Brainstorming, Brainwriting, Sketching, Worst Possible Idea, and a number of other innovative techniques.

Considering the financial aspects, it was not possible to execute all the strategies at once in real time. Moreover, the task of monitoring so many derived strategies dynamically would be a humungous task. Also, some of the strategies would require months of preparation to be executed and the CEO could no longer afford any time loss. The team

had to act quickly and smartly. Hence a Pareto Analysis was carried out and thus the team converged their focus on execution of only those 20 per cent strategies which were sure to solve 80 per cent of the company’s problems.

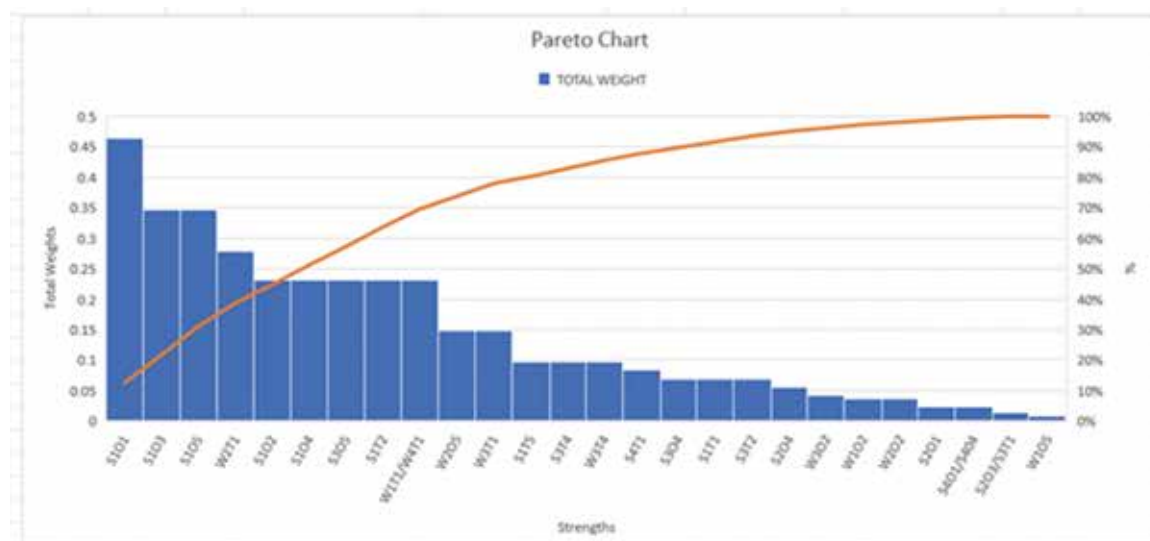
The chart which was the groundwork for performing a Pareto Analysis in the form of deriving weighted averages of the formulated strategies was first prepared.

Here the analysis was carried out on the 26 strategies enumerated above. This Pareto Analysis shows how we arrived at the top eleven strategies to be implemented at the firm.

FIG 11: WEIGHTED-AVERAGE METHOD

SNO	STRATEGIES	WEIGHTS		HIGHLY UNATTRACTIVE	MILDLY UNATTRACTIVE	NEUTRAL	MILDLY ATTRACTIVE	HIGHLY ATTRACTIVE		SCORE	TOTAL WEIGHT	%
1	S101	0.11574	LOW						HIGH	4	0.462962963	12.4688
2	S102	0.0463	LOW						HIGH	5	0.231481481	6.23441
3	S103	0.06944	LOW						HIGH	5	0.347222222	9.35162
4	S104	0.0463	LOW						HIGH	5	0.231481481	6.23441
5	S105	0.06944	LOW						HIGH	5	0.347222222	9.35162
6	S201	0.02315	LOW						HIGH	1	0.023148148	0.62344
7	S203/S3T1	0.01389	LOW						HIGH	1	0.013888889	0.37406
8	S204	0.01389	LOW						HIGH	4	0.055555556	1.49626
9	S304	0.02315	LOW						HIGH	3	0.069444444	1.87032
10	S305	0.0463	LOW						HIGH	5	0.231481481	6.23441
11	S401/S404	0.02315	LOW						HIGH	1	0.023148148	0.62344
12	W102	0.03704	LOW						HIGH	1	0.037037037	0.99751
13	W105	0.00926	LOW						HIGH	1	0.009259259	0.24938
14	W202	0.01852	LOW						HIGH	2	0.037037037	0.99751
15	W205	0.03704	LOW						HIGH	4	0.148148148	3.99002
16	W302	0.01389	LOW						HIGH	3	0.041666667	1.12219
17	S1T1	0.02315	LOW						HIGH	3	0.069444444	1.87032
18	S1T2	0.0463	LOW						HIGH	5	0.231481481	6.23441
19	S1T5	0.03241	LOW						HIGH	3	0.097222222	2.61845
20	S3T2	0.02315	LOW						HIGH	3	0.069444444	1.87032
21	S3T4	0.03241	LOW						HIGH	3	0.097222222	2.61845
22	S4T1	0.02778	LOW						HIGH	3	0.083333333	2.24439
23	W1T1/W4T1	0.0463	LOW						HIGH	5	0.231481481	6.23441
24	W2T1	0.06944	LOW						HIGH	4	0.277777778	7.4813
25	W3T1	0.03704	LOW						HIGH	4	0.148148148	3.99002
26	W3T4	0.03241	LOW						HIGH	3	0.097222222	2.61845

FIG 12: PARETO ANALYSIS



The addressal of prioritized strategies derived from the Pareto Chart gives the WOW spot of the solution set as they were customer centric, executable, and economical.

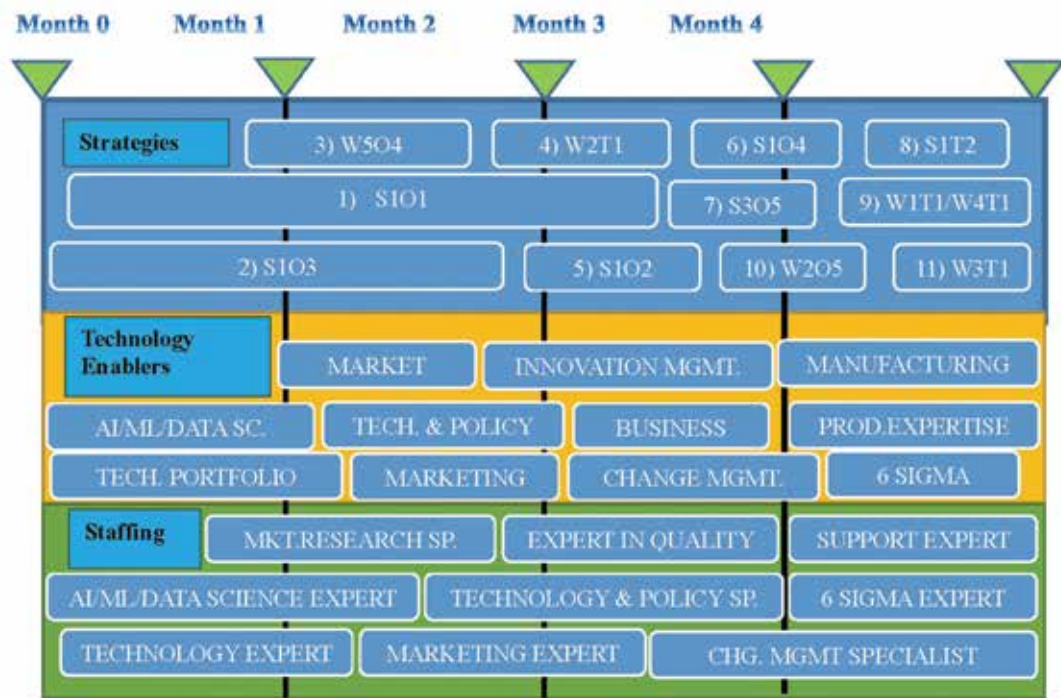
STAGE 4: TEST AND EXECUTE

The strategic team then created a roadmap depicting different stages of strategy execution. This helped in smooth and timely execution of the strategies.

TABLE 2: DERIVED STRATEGIES

PRIORITY	Rep. Strategies	Derived Strategies
1	S1O1	Using AI for market analysis, we can predict slowdowns in future and act accordingly
2	S1O3	Focusing on technology strengths develop strong relationships with partners.
3	W5O4	Carry out extensive market research to bring out new line of market research
4	W2T1	Implement company-wide quality improvement programs to ward off competitors' threat
5	S1O2	Ensure technology policy issues are resolved and take advantage of changing policy for exponential growth of business
6	S1O4	Capture newer markets using technology basis.
7	S3O5	Impart flexibility, agility, and dexterous change management to capture the growing Innovation & Technology mood
8	S1T2	Using AI for market analysis, we can predict slowdowns in future and act accordingly
9	S1T1/W4T1	Use business analytic techniques to do a SWOT analysis of emerging/existing companies to revise our strategies
10	W2O5	Incorporate Six sigma and advanced lean management techniques
11	W3T1	Improve internal and external communication by implementing advanced communication programs to successfully apply DT thus retaining customers

FIG 13: SUCCESS ROADMAP



It can be inferred from the above discussion that the focal point of the company was on the issues like technology, quality, responsiveness, cost, and innovation. These were the agile and aggressive factors which pulled this company out of the economic crisis. Its customer retention index had improved and it had become a go-to organization for their specialization.

Using the conclusions drawn from the above analysis, the CEO devised a new vision and mission for the company to take it to the next level.

Vision

To become a 'go-to conglomerate' for delivering state-of-the-art automotive spare parts in the increasingly competitive market.

Mission

1. Attaining and maintaining profitability
2. Offering great customer value and reducing customer churns
3. Increasing operational reliability and compliance

CONCLUSION AND FUTURE RESEARCH

The study depicts how Design

Thinking helped in building a strong business model for automotive component manufacturing company Cosmos. By adopting the concept of Design Thinking, the top management was able to understand the limitations in its earlier strategies. Careful scripting of roadmap aligned their derived strategies with company's vision and mission. Tactful execution of strategies thus helped Cosmos to adopt the manufacturing innovation techniques and steer itself back on-track to become a key player for supply of automotive spare parts. The company was able to capture a large market share, had improved profitability, enhanced customer satisfaction, and was now able to retain its customers. Though this structure has been developed with automotive sector, we endorse potential usage in complementary industries to both retrospectively describe a collaboration that has taken place or is occurring, and to produce new partnerships with industry. **MA**

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CUSTOMER SATISFACTION IN ONLINE SHOPPING DURING THE COVID-19 PANDEMIC: AN EMPIRICAL STUDY ON COLLEGE-GOING STUDENTS

Abstract

The present study will explore the online shopping factors and their respective effects on customer satisfaction in online shopping during the COVID-19 pandemic. For this, 207 responses from college-going students are analyzed using the multiple regression method. The findings show that “product assortment”, “website security”, “customer trust”, and “website design” affect customer satisfaction in online shopping. Product assortment significantly impacts customer satisfaction in online shopping [due to the highest beta coefficient ($\beta = 0.405$)]. Next, “website security”, “customer trust” and “website design” affect customer satisfaction [according to their respective beta coefficients ($\beta = 0.256$, $\beta = 0.152$, and $\beta = 0.113$)] in online purchases.

The study’s findings will help online sellers to strategically design the online shopping dimension that creates customer satisfaction.



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INTRODUCTION

Time-saving, convenient mode of payment, doorstep delivery, a wide range of product assortment and a hassle-free return policy make online shopping popular. Online vendors maximize one of their business objectives i.e. bottom line, by selling their goods and services across the country.

Satisfying the customers in online shopping is demanding as

they cannot smell, touch, and feel the goods and services until they receive and use them. Hence, there is a need to explore the determinants of online shopping and their effects on customer satisfaction with online shopping.

REVIEWS OF LITERATURE AND DEVELOPMENT OF HYPOTHESIS

A satisfied customer should have more purchase intention than an

unsatisfied customer. Findings of the past research, such as Ahn et al. (2004), advocated product variety as an essential factor influencing e-satisfaction. Elliot & Fowell (2000) pointed out that customers’ perception of security is vital in purchasing products online. Yoon (2002) stated that the customers’ trust influences customers’ intention to buy online on a particular website. Alam et al. (2008) noted that the website design impacts online shopping. Hence, it is

evident from past research that online shopping factors such as product assortment, website security, website design, and customer trust influences customer satisfaction in online shopping. Therefore, the study hypothesizes the following:

H₁: Products assortments positively influence customer satisfaction.

H₂: Web security positively influences customer satisfaction.

H₃: Customer trust positively influences customer satisfaction

H₄: Web design positively influences customer satisfaction

MEASUREMENT AND DEVELOPMENT OF QUESTIONNAIRE

Customer satisfaction is measured with the help of five items adapted from Oliver (1981).

Product assortment and customer trust are measured using four items adapted from Liu et al. (2008) and McKnight et al. (2002), respectively.

Three items were adopted from Wolfinger and Gilly (2003) to measure website security.

Three items proposed by Muyllea et al. (2004) are adopted to access the website design.

Hence, nineteen questions are adopted and partially modified to assess customer satisfaction in online shopping during the COVID-19 pandemic.

COLLECTION OF DATA

Primary data is collected from online buyers, especially college-going students, with the help of a structured questionnaire. The research’s geographical area is confined to only one metropolitan city namely Siliguri,

located in West Bengal, India. The data was collected (using the snowball sampling method) from January 2022 to April 2022. The study analyses 207 responses to examine customer satisfaction in online shopping during the COVID-19 pandemic.

TESTING OF RELIABILITY OF DATA

The scale reliability (i.e. internal consistency) is checked with the help of Cronbach alpha (α). According to Taber (2018), Cronbach’s alpha value of 0.70 is acceptable. Table 1 indicates the online shopping parameters and their respective Cronbach alpha (α).

TABLE 1 CRONBACH ALPHA VALUE

Online shopping dimension	Nos. of Items	Cronbach Alpha value (α)
Product Assortments	4	0.834
Web Security	3	0.835
Customer Satisfaction	5	0.835
Customers’ Trust	4	0.796
Website Design	3	0.917

Source: Calculated on primary data with Statistical Package for Social Sciences (SPSS).

The calculated value of Cronbach alpha (α) is lying in between 0.796 to 0.917 (see Table 1), which is within the prescribed acceptable threshold range. Hence, the scale reliability of all online parameters is established.

TESTING OF DATA NORMALITY

The study estimates the normality of the dependent variable customer satisfaction with the help of descriptive statistics such as Mean, Standard deviation, Skewness and Kurtosis.

TABLE 2 DESCRIPTIVE STATISTICS

Items	N	Mean	Overall Mean	Std. Deviation	Overall Std. Deviation	Skewness	Overall Skewness	Kurtosis	Overall Kurtosis
CSAT1	207	3.46	3.4473	1.299	.99351	-.430	-.812	-.848	-.884
CSAT2		3.50		1.242		-.581		-.557	
CSAT3		3.50		1.307		-.427		-.952	
CSAT4		3.37		1.274		-.386		-.700	
CSAT5		3.40		1.280		-.341		-.850	

Source: Calculated on primary data by SPSS

For the normal distribution of data, the standard value of mean and standard deviation are zero (0) and one (1), respectively. The mean and standard deviation of the dependent variable customers’ satisfaction are between 3.37 and 3.50 and 1.242 and 1.307, respectively. The calculated values of the overall mean and standard deviation are also very close (see Table 2) to the standard benchmark value of normality of data. Kline (2011) pointed out that the problem of normality occurs if the absolute value of Skewness is greater than three and the Kurtosis value greater than ten exceeds. The calculated value of Skewness and Kurtosis are within the standard limits of normality; hence, the normality of data of the dependent variable customer satisfaction is established.

TESTING OF MULTICOLLINEARITY IN DATA

The multicollinearity of the independent variables is checked with the help of two primary methods, i.e. Tolerance test and the Variance Inflation Factor (VIF).

TABLE 3 MULTICOLLINEARITY

Variables	Collinearity Statistics	
	Tolerance	VIF
Product Assortments	.502	1.993
Web Security	.508	1.968
Customer Trust	.547	1.829
Website Design	.571	1.752

Source: Calculated on primary data by SPSS

O'Brien (2007) stated that a multicollinearity problem occurs when the tolerance value is less than 0.20 or 0.10 and/or a VIF of 5 or 10 and above. The calculated value of Tolerance and VIF (see Table 3) are within the prescribed

TABLE 4 MULTIPLE REGRESSION ANALYSIS OUTCOMES

Hypothesis	Regression weights	Beta coefficient	R ²	F	t-value	p-value	Remarks
H ₁	PA → CSAT	.405	0.705	120.503	7.895	0.000***	Supported
H ₂	SEC → CSAT	.256			5.229	0.000***	Supported
H ₃	TRT → CSAT	.152			2.961	0.003 **	Supported
H ₄	WD → CSAT	.113			2.761	0.006 **	Supported

Source: Calculated on primary data by SPSS.

Note: * p < .05; **p < .01; ***p < .001.

Based on table 4, the regression equation can be drawn as follow:

$$Y = \beta_0 + \beta_1 * X_1 + \beta_2 * X_2 + \beta_3 * X_3 + \beta_4 * X_4$$

Or,

$$Y = \beta_0 + 0.405*(PA) + 0.256*(SEC) + 0.152*(TRT) + 0.113*(WD)$$

Where,

Y= Customers satisfaction (CSAT).

And,

$\beta_0, \beta_1, \beta_2, \beta_3,$ and β_4 are the beta coefficient in multiple regression analysis.

Results of multiple regression analysis revealed the following aspects:

- a. Products assortments (PA) significantly predicts customer satisfaction (CSAT), $F(4, 202) = 120.503, p < 0.001$, which indicates that the products assortments play a significant role in shaping customer satisfaction ($\beta = 0.405, p < 0.001$) (see Table 4)
- b. Web security (SEC) significantly predicted customer satisfaction (CSAT), $F(4, 202) = 120.503, p <$

range. Therefore, independent variables do not have the problem of multicollinearity.

TESTING OF AUTOCORRELATION IN DATA

The study uses the Durbin Watson statistic test to check the autocorrelation in the residuals from regression analysis. The values of the Durbin Watson statistic test lie between 0 and 4, where a value closer to 0 or 4 indicates greater positive or negative autocorrelation in the residual. Values close to 2 are referred to as the less autocorrelation. The calculated value of the Durbin Watson statistic test is 2.085, which is between the acceptable ranges. It means that the research data is free from the problem of autocorrelation.

TESTING OF HYPOTHESIS

The study takes the help of multiple regression analysis to evaluate the extent of the impact of products assortments, web security, customer trust, and website design on customer satisfaction (see Table 4).

0.001, which indicates that the web security plays a significant role in shaping customer satisfaction ($\beta = 0.256, p < 0.001$) (see Table 4)

- c. Customers' trust (TRT) significantly predicted customer satisfaction (CSAT), $F(4, 202) = 120.503, p < 0.01$, which indicates that the customer trust plays a significant role in shaping customer satisfaction ($\beta = 0.152, p < 0.01$) (see Table 4)
- d. Website design (WD) significantly predicted customer satisfaction (CSAT), $F(4, 202) = 120.503, p < 0.01$, which indicates that the website design plays a significant role in shaping customer satisfaction ($\beta = 0.113, p < 0.01$) (see Table 4).

Moreover, the proposed model for predicting customer satisfaction in online shopping produces the R² value of 0.705. The model explains 70.50 per cent of the variance in customer satisfaction during the COVID-19 pandemic.

MAJOR RESEARCH FINDINGS

The study's significant findings are as follows:

- ⊙ Customers' satisfaction in online shopping is influenced by several online dimensions such as product assortments, web security, customer trust, and website design.

A convenient web design not only attracts customers but also ensures customers' subsequent purchases from online shopping

- ⊙ As per the research findings, product assortment emerged as the most influencing online shopping factor (due to the highest regression beta coefficient) in customer satisfaction. It means web vendors must provide a wide range of product categories.
- ⊙ Research findings show that web security, customers' trust and website design influence (according to their respective regression beta coefficient) the customer satisfaction.
- ⊙ The study suggests that online vendors get their website security certified from third parties. It will help in enhancing customer satisfaction.
- ⊙ A convenient web design not only attracts customers but also ensures customers' subsequent purchases from online shopping. Online vendors must design their websites to be attractive, entertaining, and appealing.
- ⊙ By meeting the customers' expectations, the online vendor can build customer trust, ultimately leading to customer satisfaction.

LIMITATIONS OF RESEARCH

The study has the following limitations:

- ⊙ The respondents of the study are only college-going students. Thus, there is research scope to obtain e responses from other categories of online shoppers (such as housewives and professionals) and interpret the customer satisfaction in online shopping.
- ⊙ The geographical area of research is confined to only one metropolitan city, namely Siliguri, West Bengal, India. Hence, it is expected that upcoming research will integrate other cities and generalize the customer satisfaction in online shopping.

CONCLUSION

Online shopping cannot flourish until customers get satisfied with it. Online sellers should design their websites customer-friendly. Customer satisfaction can be ensured by accrediting online shopping website security from the third party. A wide range of product categories tends buyers to buy goods and services online compared to traditional shopping. Online sellers can achieve customers' trust by minimizing the gap between customer expectations and actual. Online sellers are expected to endorse these online shopping parameters to ensure customer satisfaction in

online shopping. **MA**

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WHISTLE BLOWER REPORTING PRACTICES: AN INTENSIVE ANALYSIS OF SELECT INDIAN IT SECTOR COMPANIES

Abstract

This Study aims at examining and comparing the whistle blower mechanism adopted by the Indian IT Sector BSE SENSEX companies during the years 2018-19 to 2020-21 by collecting data from secondary sources. The study makes an inter-company and intra-company comparison using Kruskal Wallis H –Test and the results revealed that there is no significant difference among the scores for various attributes of whistle blower mechanism. The findings show that Wipro Ltd. managed highest scores than Infosys and Tata during the entire study period and it has been recommended to implement efficacious whistle blower mechanism to make it a blessing in managing and exposing the non-compliance and governance matters for enhancing company's fairness, transparency and accountability.



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WHISTLE BLOWER MECHANISM

In today's Global scenario corporate reporting is that puzzle whose pieces need to be assembled to form a clear picture of the company to its end users. The expectations from corporate reporting have resulted in the introduction of mandatory and voluntary disclosure requirements including both financial and non-financial by the listed companies in their annual reports backed by legal provisions of the Companies Act, 2013 and SEBI Listing Obligations and Disclosure Requirements, 2015. Companies have adopted measures to meet the investors and stakeholders demand by publishing Corporate Governance Report and the Corporate Social Responsibility Report. These disclosures have become essential for

stakeholders to frame an accurate picture of company's culture, risk profile, financial health and long-term outlook. Whistle blower mechanism is a prominent element, which holds paramount importance in section 177 of the Companies Act, 2013 and SEBI Regulation 18. Whistle blowers demonstrate exemplary courage by risking their life and reputation by unearthing serious wrong matters within the organization and communities. Whistle blowers often face retaliation and harassment by the accused unless a system or mechanism is in place, which ensures confidentiality and protection of the informant. Companies must adopt positive approach in favor of whistle blowers by formulating efficient policy.

This study attempts to explore the conceptual framework of whistle blower mechanism and highlights the legal provisions implemented by IT sector companies covered under BSE SENSEX Companies.

REVIEW OF LITERATURE

The introduction of new laws might encourage and protect whistle blowers. However, only culture and taxonomy are not enough to encourage and protect the whistleblowers (Rachgan and Kuppasamy, 2012). The model and framework of whistle blowing mechanism in India has been ensuring better corporate governance

(Nagpal, 2013). Disclosure of whistle blower policies influence promoter shareholding, proportion of independent directors and specific positions like chief ethical officer (Agnihotri and Bhattacharya, 2015). To combat corruption through corporate governance whistle blower mechanism plays a vital role. Protection to whistle blower is the most significant attribute. Moreover, best protection to whistle blowers is practiced by USA while South Africa, India, China and Indonesia are lagging behind in having a sound whistle blower mechanism (Sharma et al., 2018). Whistle blower mechanism is a socially acceptable fraud detection mechanism and gained significance over the years (Stolowy et al., 2019). Therefore, whistle blowing mechanism is a kind of accountability tool and high risk is associated with it due to lack of awareness (Okafor et al., 2020).

RESEARCH GAP

Literature on the subject demonstrates that after the Companies Act, 2013 came into effect, which made whistle blower mechanism mandatory in nature a number of studies have been noticed on the same. With the implementation of the Act, it was felt essential; to undertake a detailed analysis and this study has been carried - out with that purpose in mind.

RESEARCH METHODOLOGY

This study embarks on determining the level of whistle blower mechanism adopted by different IT sector companies. IT sector has been preferred and companies such as Infosys Ltd., Tata Consultancy Services Ltd. and Wipro Ltd were chosen as these are the well-functioning IT giants. The main objective of the study was to examine intra and inter firm comparison of whistle blower reporting mechanism. The following hypotheses have been formulated :

H_{01} : There is no significant difference in the reporting practices of individual companies.

H_{02} : There is no significant difference in the reporting practices of sampled IT sector companies.

The mechanism adopted by the sample companies and their data have been analyzed and observations presented through tables. Overall, 15 attributes have been identified for effective whistle blower mechanism. All these attributes have been initially measured as '✓' for 'Given' or '✗' for 'Not Given' based on their presence in the company policy. These disclosures have been then coded as 0 for '✗' and 1 for '✓'. Being categorical data, non-parametric tests were used. In order to find out significant difference both intra-firm and inter-firm, Kruskal-Wallis H Test (substitute of ANOVA) has been applied.

ANALYSIS AND INTERPRETATION OF DATA

Inter-Firm Comparison

TABLE 1: STATUS OF VARIOUS ATTRIBUTES OF WHISTLE BLOWER MECHANISM IN IT SECTOR COMPANIES IN 2018-19, 2019-20 AND 2020-21.

	Attributes	INFOSYS			TATA			WIPRO		
		2018-19	2019-20	2020-21	2018-19	2019-20	2020-21	2018-19	2019-20	2020-21
1.	Narration to policy	✗	✓	✓	✗	✓	✓	✓	✓	✓
2.	Introduction and aim of the policy	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.	Applicability and definition of whistleblower	✗	✗	✗	✓	✓	✓	✓	✓	✓
4.	Effective date of adoption of mechanism	✓	✓	✓	✗	✗	✗	✓	✓	✓

5.	Protection against retaliation or harassment and maintenance of confidentiality along with anonymity	✓	✓	✓	✓	✓	✓	✓	✓	✓
6.	Nature of violations to be reported	✗	✓	✓	✗	✓	✓	✓	✓	✓
7.	Time limitation to raise a concern	✗	✗	✗	✗	✗	✗	✓	✓	✓
8.	Reporting guidelines and procedure	✓	✓	✓	✓	✓	✓	✓	✓	✓
9.	Investigating authority and procedure for handling the concerns raised	✓	✓	✓	✓	✓	✓	✓	✓	✓
10.	Appealing authority ,in case person complained is not satisfied with action being taken	✗	✗	✗	✗	✗	✗	✓	✓	✓
11.	Documents retention	✓	✓	✓	✓	✓	✓	✓	✓	✓
12.	Incentive /Reward	✗	✗	✗	✗	✗	✗	✗	✗	✗
13.	Action against false allegations	✗	✗	✗	✗	✓	✓	✓	✓	✓
14.	Penalty under the policy	✗	✗	✓	✗	✗	✗	✓	✓	✓
15.	Amendments history	✓	✓	✓	✗	✓	✓	✓	✓	✓
	Total	7/15	9/15	10/15	6/15	10/15	10/15	14/15	14/15	14/15
	Percent Score	46.67%	60%	66.67%	40%	66.67%	66.67%	93.33%	93.33%	93.33%

Table 1 shows that in 2018-19, Wipro made the highest score, whereas the least was by Tata. In 2019-20, again, Wipro obtained the highest score and Infosys made the least one. Wipro scored highest of all again in 2020-21 and Infosys and Tata managed to achieve the same score. In the entire study period, Wipro scored the highest which depicts it has implemented all significant parameters. Fluctuation in the scores of Tata and Infosys has been observed during the study period.

TABLE 2: RESULTS OF KRUSKAL - WALLIS H TEST FOR INTER FIRM COMPARISON (2018-19)

Company	N	Mean Rank			Kruskal - Wallis H Statistic			P Value		
		2018-19	2019-20	2020-21	2018-19	2019-20	2020-21	2018-19	2019-20	2020-21
Infosys	15	20.00	20.00	20.00	10.321	4.667	3.765	0.006	0.097	0.152
Tata	15	18.50	21.50	21.00						
Wipro	15	30.50	27.50	27.00						
Total	45									

Table 2 reveals that in the years 2018-19, 2019-20 and 2020-21, the highest mean rank has been obtained by Wipro and the least by Tata in 2018-19 whereas Infosys got least in 2019-20 and 2020-21. The calculated Kruskal -Wallis H Test is 10.321 with a **p value** of 0.006. Thus, the null hypothesis is rejected at 5 per cent level of significance for the year 2018-19. For the year 2019-20 and 2020-21, the **p value** is greater than 0.05. Thus, the null hypothesis is of no significance and the difference among the scores for various attributes is accepted at 5 per cent level of significance.

INTRA-FIRM COMPARISON

The scores are than tested for intra-firm comparison, i.e. whether these scores have improved over the years for a company.

TABLE 3: SCORES FOR THE YEAR 2018-19 TO 2020-21 ATTAINED BY IT SECTOR COMPANIES

S.No.	Years	Name of the Companies		
		Infosys	Tata	Wipro
1.	2018-19	46.67%	40%	93.33%

2.	2019-20	60%	66.67%	93.33%
3.	2020-21	66.67%	66.67%	93.33%

TABLE 4: RESULTS OF KRUSKAL-WALLIS H TEST FOR INTRA-FIRM COMPARISON FOR INFOSYS AND TATA

Year	N	Mean Rank		Kruskal -Wallis H Statistic		P- Value	
		Infosys	Tata	Infosys	Tata	Infosys	Tata
2018-19	15	20.00	19.00	1.247	2.850	0.536	0.240
2019-20	15	23.50	25.00				
2020-21	15	25.00	25.00				
Total	45						

As per Table 3 and Table 4, Infosys obtained the highest mean rank in 2020-21 and lowest in 2018-19. The calculated Kruskal - Wallis H test is 1.247 with a **p value** of 0.536. Thus the null hypothesis is accepted at 5 per cent level of significance. However, Infosys could not manage to improve the scores over the years. In case of Tata, the mean rank has been found to be the highest and remained the same during 2019-20 and 2020-21 and lowest in 2018-19. The calculated Kruskal – Wallis H test is 2.850 with a **p value** of 0.240. Thus, null hypothesis is accepted at 5 per cent level of significance. Wipro scored 93.33 per cent during all three years and due to no change in scores, hypothesis has not been tested for intra-firm comparison.

FINDINGS AND SUGGESTIONS

All the three companies covered by the study had in place a whistle blower mechanism in terms of the statutory requirements. However, their presentation differs in various aspects. Wipro listed majority of the attributes but none of the companies reported all the fifteen attributes in their reports. On the basis of the mechanism adopted, Wipro set a standard for the remaining two companies by developing well – structured policy along with covering most of key areas with enough details like for instance, narration to policy, nature of violations to be reported , time limitation to raise concern, action against false allegation and penalty.. However, Tata and Infosys tried to incorporate mandatory provisions but failed to match the standards set by Wipro. Some attributes such as introduction and aim of the policy, protection against retaliation or harassment, reporting authority and procedure, investigating authority and procedure for handling the concerns raised and documents retention were reported by all the sample companies. Significant areas such as nature of violations, time limitation to raise a concern, action against false allegations and penalty under the policy were not found in Tata and Infosys. Furthermore, there is no provision to encourage whistleblowers with monetary incentives or compensations as token of appreciation. Companies apart from establishing a set of code and defining reporting procedure, must cover areas, which are in the benefit of society as well. For building trust and ensuring transparency, companies should provide incentives and reward the whistle blowers.

Whistle-blower mechanism, the glittering element of corporate governance assists in reporting all unethical acts

An illustrative list for issues should be incorporated providing clear understanding of the policy. Whistle blower mechanism must inculcate all those guidelines and provisions, and build a strong corporate governance system.

CONCLUSION

Whistle-blower mechanism, the glittering element of corporate governance assists in reporting all unethical acts, which used to remain unreported before such reporting became mandatory. It provides guidelines and procedures to report any issues against the company or institution in default. In India, protection to whistle blowers is a matter of concern due to past incidences. However, many reputed companies had incorporated this mechanism, as a part of their system to eradicate corrupt practices. Further, it is a precautionary measure, which is highly recommended to balance internal and external environment with utmost care, and all the relevant areas associated with the mechanism must be stated clearly and diligently as companies would attract penalty for non conformance , which would cause reputational and other risks for the companies. **MA**

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IMPLEMENTING SERVICITISATION - AN EVIDENCE BASED APPROACH

Abstract

The purpose of this article is to provide an evidence based approach, as to how an organisation should validate the decision for going for servitisation so as to increase the chance of business success. The study found that conceptually it is possible to apply the theory of evidence-based management in taking decision for servitization. It has the potential to address the issues of failure of servitisation and increase the chance of its success. The approach developed in this research study may be applied by the practitioners to rationalise their decision for implementing servitisation in their business with the validation of their assumptions behind the decision taken.



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INTRODUCTION

The term “servitisation” first coined by Vandermerwe and Rada (1988), is a process of offering services along with the product as an additional value proposition by the machines / product manufacturers. The driving factor of this additional service was to get continued stream of revenue from the same customer who purchased the product. With market stagnation and commoditisation, the demand, mainly in EU, for the products got reduced and the profit margin was getting quizzed. Servitisation was initiated with the objective to get competitive advantage, retain the customers, profitability and growth in a stagnant market. With the advent of IoT, Industry 4.0 and artificial intelligence many machine manufacturing organisations are shifting towards offering services to improve the product performance and productivity of their customers as these technologies help to capture the machine performance data remotely and help diagnose and predict the product failure in advance. And the manufacturers can extend the predictive maintenance and other machine performance

improvement services.

Rolls- Royce introduced pay per hour of engine in flight. More than 50 per cent of its revenue is generated from maintenance of its engine products. Rolls-Royce started its service journey from supplying spare parts followed by maintenance services and finally evolved into the pay per use model. Thus it provides total care package and owns the risk. Caterpillar, Alstom, MAN Truck improve the performance of their machines through remote capturing of data and taking just-in-time intervention. Xerox, a manufacturing company, has started offering advance services. SKF introduced services and they see servitisation as a route to sustainability. SKF India generated 594 million INR in 2019-2020 and the total revenue was 27660 million INR. Though income from pure service is only 2 per cent of total revenue but because of service the brand value goes up, which helps to increase sales of products, which is difficult to quantify. There are several companies, which have adopted offering product-service mix. IBM, which was mainly a hardware manufacturing organisation transformed itself as a software service and solution provider. In 2019, IBM’s revenue from technology services segment was 27 billion US dollars whereas its total revenue for the same period was 77 billion US dollars (IBM’s global revenue 2010-2019, by business segment).

Not everything is bright with servitization. If not done with great caution, servitisation may reduce a firm’s profit and performance. Servitization may even increase the likelihood of declaring bankruptcy (Visnjic I, et al., 2012).

The extant literature attributes failure of implementation of servitisation on two major causes. Firstly, cultural and cognitive underpinnings of the manufacturing firms, which inhibits the firms to appreciate the service values. Secondly manufacturing firms face resource and capability gaps while attempting service business development (Visnjic et

al., 2012). Visnjic and Looy suggest that in order to achieve success in service the manufacturing firm should have three operational capabilities-(i) relation building capabilities, (ii) capability to understand the need of the client and design appropriate service solution, and (iii) capability to efficiently deliver services in a sustainable way (ibid). To design a meaningful value addition, the manufacturer needs to understand the role of the solution in the customer's value-creation processes. Further the solution provider may fail to appreciate the importance of customer knowledge for the value of the solution, resulting in failure in implementing the solution or creating expected value. Alternatively, the suggested solution may rely too closely on customer knowledge. This renders the solution less valuable for the customer, if it only makes marginal improvements over an existing configuration. As a result, the customer may reject the solution as it is insufficiently valuable. To avoid this, the manufacturers have to understand how the proposed solution will further the value creation process of their customers. They should also examine whether the problem the customer is facing is due to the knowledge gap or for some other reasons. If the problems at the customers' end are not due to the knowledge gap of the customers or too close to their knowledge the proposed solution will be creating only a marginal improvement over the existing; then also the customer will not be interested as the customers will not find much value in the proposed solutions (ibid).

An evidence-based approach in taking a decision on servitisation will increase the firm's chance of success in this endeavour. As such an approach will help an organisation to undertake the necessary due diligence before launching the business of servitisation. Hence the objective of this article is not to close any gaps in

Servitisation was initiated with the objective to get competitive advantage, retain the customers, profitability and growth in a stagnant market

the theory of servitization but *to close the knowledge and practice gap of the service providers, as discussed earlier (Baines,2020)*. Servitisation has huge scope, to touch every aspect in one paper is a challenge. In this article the basic core of servitisation, which is identification of the problem and design of solution, will be examined from evidence - based management approach.

The research question examined in this study is "How the evidence-based management approach may be adopted in taking decision for going for servitization?"

THEORETICAL FRAMEWORK

The development and implementation of servitisation by the manufacturing firms has been studied from several theoretical premises like, Resource-based theory, Game theory, Transaction cost theory, Contingency theory, Resource dependence, Social practice theory, Linear programming, Organizational behaviour, Agency theory, Scientific management, Industrial organization, and Ecological theory. Of all these theories the dominant theories for explaining the rationale for servitization are Resource based, Game theory, Transaction cost, and Contingency theory (Martin and Garido,2021).

SUCCESS FACTORS AND CHALLENGES

Servitisation can broadly be

categorized into three:(i) base (goods and spare parts, services during warranty period), (ii) intermediate (training to customers, maintenance, overhauls and help desk) and (iii) advanced services (providing solutions, pay per use and output-oriented contract) (Baines et al., 2017). It may be mentioned that most manufacturers will be at the basic level of servitisation so to sell their products. Five contextual factors for successful transition from basic level to advanced level servitization have been identified by Baines et al. (2020). These are "(i) the extent of customer pull, (ii) the strength of technology push, (iii) the structure of the value network positioning, (iv) organisational readiness, and (v) organisational commitment" (Baines et al., p.29).

There are several internal factors such as (i) organisational structure, (ii) corporate culture, (iii) power and leadership, (iv) internal political characteristics, (v) strategic directions, (vi) level of trust and stage of the board development. The contextual and internal factors mentioned are constructs that constitute many micro level sub-factors, which needs to be mentioned as evidence exists at the granular level. Appropriate pricing of the services being offered is another great challenge (Baines, T.S et al., 2007). The capability to understand the business value obtained by the customer from the services is a vital one as for the advanced services this is an important determinant for fixing the price. Traditional cost-based pricing is not effective in pricing the services. Tether (2011) has found that "Most of services related to products are offered ultimately for free", which is a great risk of servitization.

EVIDENCE BASED MANAGEMENT

The term 'Evidence- based' was originally introduced by Gordon Henry Guyatt in the field of medicine in the 1990s. And most recently the

principle of evidence-based approach has been extended to management. The core of EBM (Evidence-based management) is critical thinking and looking for best available evidence starting from identification of the problem and formulating the solution (Stauffer et al., 2019). Evidence is 'information, facts or data supporting (or contradicting) a claim, assumption or hypothesis.' Evidence may come from scientific literature, organisational data, professional experience and stakeholders' views [ibid].

Here a logic model is presented both for the problem/opportunity and servitisation as a potential solution. This logic model will help to validate the existence of the conditions demanded by the theoretical perspectives behind servitisation as mentioned earlier.

When we identify an issue as a problem or opportunity there are several assumptions. These assumptions must be identified and validated through evidence. An issue is a problem or an opportunity only if it has an effect on the organisation's outcome. An issue is linked to the outcome through a chain of assumptions or processes. When the linkage of assumptions or the processes to the organisational consequences or outcome are depicted, it is known as logic model. Till we can form a sound logic model, the problem is not clear. Same is the case with proposed solutions. Evidence-based management starts with answerable questions to get the support for the logic model. This is followed by gathering evidence from four sources: scientific literature, experts' opinion, organisations' data and stake holders' views. The evidence so gathered from four sources establish the relevance and validity of the logic model and in the process the problem is sufficiently described. The same step is followed while critically examining the potential solutions. Not all the

steps are essential in all situations (Briner et.al, 2017; Rousseau et al., 2011). This will help practitioners to understand the steps involved in the process of examining the viability or business sense of the final decision to go for introducing servitization (Baines et al., 2020).

HYPOTHETICAL CASE

International Bearings Ltd., henceforth referred as 'company', manufactures different types of bearings for rotating equipment of Sugar Mills, Refineries and Fertiliser plants. The company has a team of service engineers equipped with the machine health monitoring equipment. Whenever their customers face major breakdown of rotating machines, they take the services of the company at cost.

At present the company is facing tough competition from their competitors. They have about 7-8 competitors. The market is not expanding as no newer sugar mills, refineries and fertiliser companies are being set up. None of their customers are expanding their capacity also. They have installed IOT in many of their own machines to monitor the health of key manufacturing facilities so as to carry out predictive maintenance and avoid unscheduled stoppages. Their service chief has sent a concept note to the top management for offering services as a separate business vertical for extra revenue. The service chief feels that the customers often face unscheduled outages resulting loss of production. And this happens because of not taking preventive measures in advance. The company has in-depth knowledge on maintaining machines and it can extend equipment health monitoring services. This is different from what they are now doing-warranty period repairing and on-call servicing. In other words, what the service chief is thinking is going for advanced level of servitization.

The CEO has suggested to present

a business case for this new service. As argued earlier an evidence-based approach will better examine the feasibility of the proposed service. The following paragraphs outline as to how should they go about it.

Evidence - based approach

As mentioned earlier the first step of evidence-based approach is to question the problem/opportunity first to ensure that the company's assumptions are valid and support the proposition. The first step both for the opportunity/problem and the solution explained through Logic Model (see Figure 1 and Figure 2 respectively in Annexure I).

From the logic model of the problem, it is clear what the problem is, its organisational consequences and what are the major causes. And from the logic model of the solution, it is clear how the proposed solution will help avoid the problem in a sustainable way.

The next step is to determine whether the problem and underlying causes or assumptions are supported by evidence. All the four sources of evidence should be consulted wherever it is applicable. The following assumptions are to be critically examined. The relevancy of these assumptions is verified with the already identified success factors for servitisation in the extant literature:

1. What is the evidence that the customer is not having necessary knowledge and capability? (Visnjic et al., 2013).(Theoretical perspective-resource based theory).
2. Does the customer has an equipment health monitoring system? (Theoretical perspective-resource based theory).
3. How often the critical equipment faces major breakdown and how many equipments are there?

4. How much is the average loss of production and revenue and how severe it is for the customer?
5. Does the evidence, from different sources, confirm that lack of predictive maintenance cause frequent major break downs in the context of the customer's organisation? And predictive maintenance reduces total shut down period.

Assuming that the evidences have supported the problem, the company now has to consider how evidence supports the proposed solution. In this case, the solution is offering health monitoring of customers' critical equipment and taking timely interventions of appropriate maintenance activities so as to avoid sudden breakdowns.

There are several underlying assumptions, which need to be validated by evidence from all relevant sources.

Some of the assumptions are:

1. What is the evidence that the company engineers are better knowledgeable than the customers' engineers? (Theoretical perspectives-resource based theory).
2. Will the customers appreciate the value of the proposed service and will take such services from the company?. Theoretical perspectives-game theory and contingency theory.
3. Will the customers be ready to pay at a price, which is sustainable for the company. Theoretical perspectives-resource based theory and contingency theory.
4. Will the customers be ready to share their data with the company and company engineers have the capability to collect the data. Theoretical perspectives- resource based theory and contingency theory.

5. Will the in-house experts be ready to switch their role from in-house expert to a fulltime service engineer?

Once the proposed solution is also supported by evidence, the other steps shall be taken up. But at every stage the evidence-based approach, which has been proposed in the case of problem and solution, shall be followed.

SCOPE OF FUTURE STUDY

This is a conceptual proposition. A study may be conducted while implementing servitisation in a company to examine the soundness of the approach.

CONCLUSION

The product manufacturing organisations can engage with their customers throughout the life of the product through servitisation and this could be a source of continued revenue stream. But the extant literature highlights that the way to servitisation is a risky proposition and if not done with due examination may lead to erosion of cash. It is postulated that the evidence - based approach, as explained here can help manufacturers to examine the feasibility of servitisation. It is also found that while following the proposed logic model it is realised that the resource-based theory, game theory approach and contingency theory-based factors play a major role in identifying and validating the conducive factors for servitisation.

MA

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Annexure I

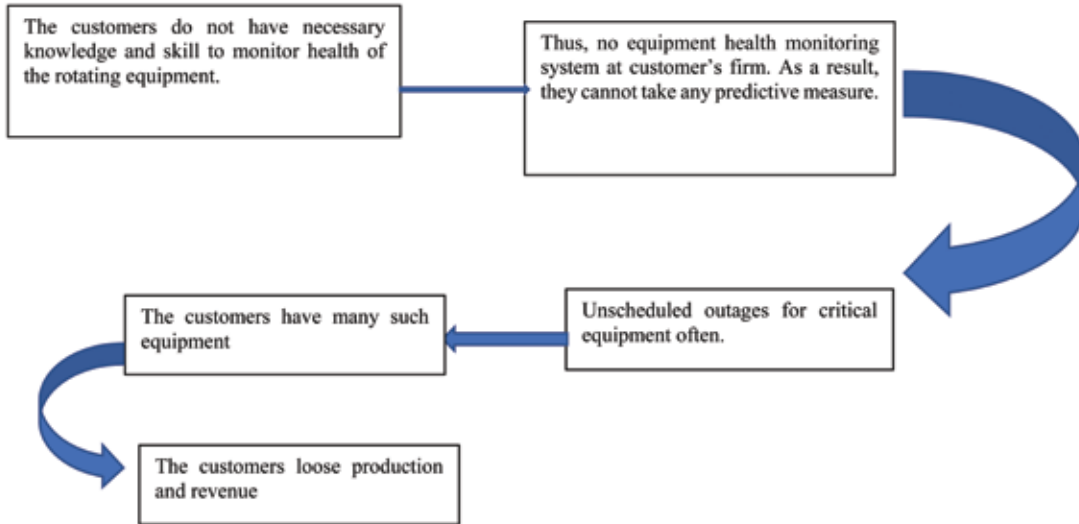


Figure 1. The logic model for the problem

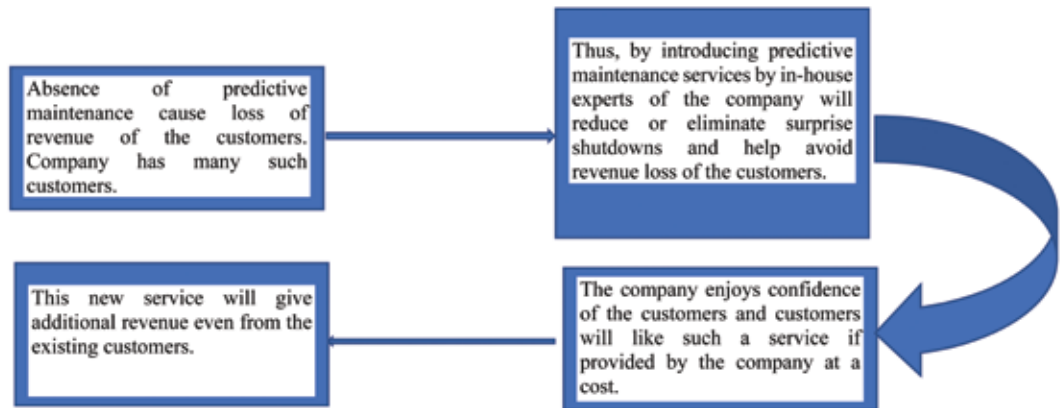


Figure 2. The logic model for the solution

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Cloud Computing Management Audit

(Weightage - 20%)

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

Duration

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Course Highlights

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

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

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

Module - III

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

Module - IV

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

Duration

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

Course Highlights

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- Qualifying Marks: 50%
- Certification on Completion

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Module - II

Planning and Executing Internal Audit (10 hrs)

Module - III

Internal Audit Skills & Techniques (16 hrs)

Module - IV

Internal Audit of Specific Functions (16 hrs)

Duration

- 50 hrs Online Live Sessions

Course Highlights

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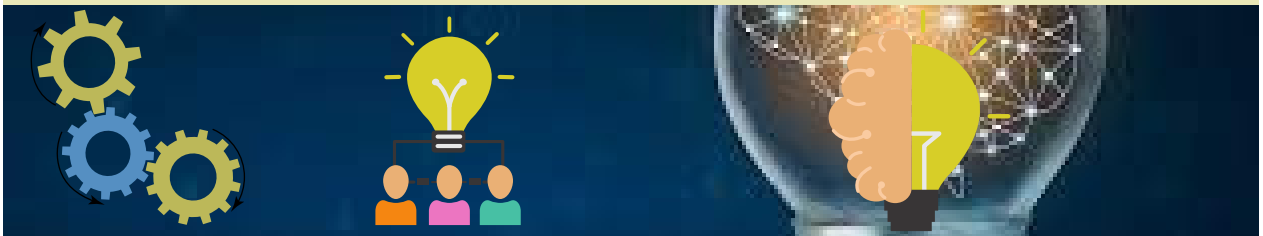
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Announces

Post Graduate Certificate Program in Valuation

About ICMAI RVO

ICMAI Registered Valuers Organization is a company promoted by the Institute of Cost Accountants of India (A Statutory body set up under an Act of Parliament) to oversee all matters in the Valuation domain. The company is recognized by the Insolvency and Bankruptcy Board of India. ICMAI RVO is an Academic member of the International Valuation Standards Council.

Importance and Employment Potential of Valuation

Valuation is the key element in all economic and financial transactions. Valuation is required under various laws and Regulations including Income Tax Act, FEMA, Customs Act, Companies Act, Insolvency and Bankruptcy Code, and SEBI Regulations. Knowledge about the conceptual approach and Tools and Techniques of Valuation enhances the employability of professionals in the marketplace. Valuation is the crux of all market transactions. In the Business world valuation is the key for companies at every stage of their life cycle. Valuation expertise opens up new vistas of professional engagement in various sectors of economy.

Eligibility

This course has been designed for the Students pursuing CMA, CA, CS, MBA, or M.Com, Registered Valuers, Insolvency Professionals so as to provide them knowledge inputs in the domain of valuation for enhancing their Potential Quotient/employment potential in the Business and Academic world

Course Duration:

70 learning hours spread over 3 months

Teaching Methodology

The course would be delivered in an interactive mode for sustained learning thru an appropriate mix of lectures, exercises, Case studies and presentations. The course will be delivered in ON LINE mode

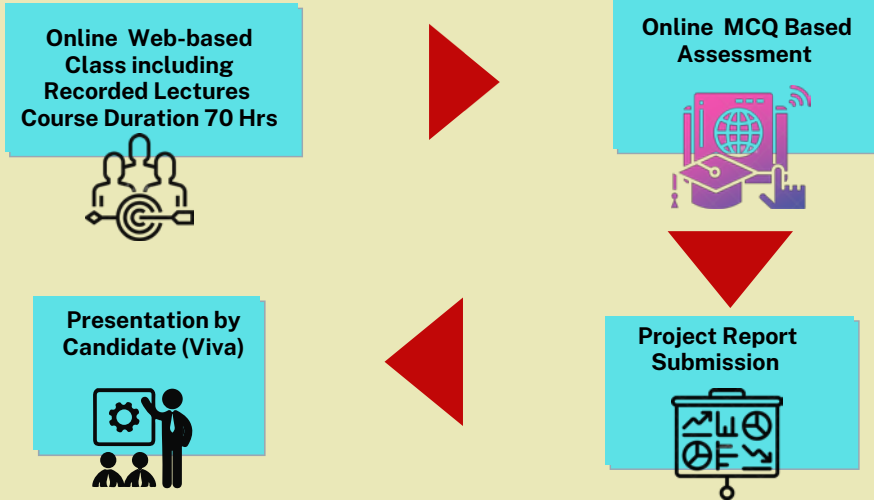
ICMAI RVO Resources

ICMAI RVO possesses adequate resources viz. Study Material, Published Books, Faculty comprising of Valuation practitioners to provide comprehensive inputs/support in teaching, training, research and publications in the domain of Valuation

Course Certificate

A Certificate on successful completion of the course/assessment test would be provided to all the participants by ICMAI RVO

Course Structure



Faculty: Valuation Professionals from India and other countries having hands on experience

CEP: 16 Hrs. (For Registered Valuers)/ 10 Hrs. (For Insolvency Professionals)/10 Hrs. (CMAs)

Contents

Module 1	10 Hours	Module 2	15 Hours
<ul style="list-style-type: none"> • Concept and Overview of Valuation • Requirements of valuation under various laws • Approaches to Valuation 		<ul style="list-style-type: none"> • Tools and Techniques of Valuation • Assumptions and forecasting in Valuation • Environmental Scanning for valuation • Exercises / Case studies in Valuation 	
Module 3	15 Hours	Module 4	30 Hours
<ul style="list-style-type: none"> • Valuation for Mergers and Acquisitions • Valuation of Startup companies • Valuation of Shares • Exercises / Case studies in Valuation 		<ul style="list-style-type: none"> • Financial Modelling for Valuation • Preparation of a Valuation Report • Exercises / Case studies in Valuation • Project Work 	

Start Date September 17th, 2022

Time 05.00 PM - 08.00 PM
Saturday -Sunday

Venue Online on Zoom Meeting

Course Fees: Rs 10,000/- Plus GST @18% and 5,000/- Plus GST @18% for CMA Members & Students

Passing percentage 50% in online Examination

Last Date of Registration is 15th September 2022

The Registration for the Certificate Course can be done by clicking on the link below

Registration Link for the Student & CMAs Member

<https://www.rvoicmai.in/Event?1vx6VxjWV2Avvk>

Registration Link for Others

<https://www.rvoicmai.in/Event?ntcs54oj8sis0vvk>

Contact Us

9411469499, 9457954906, 9990907530,8586985549,9990903962
or email : manager@rvoicmai.in, rvo.so1@icmai.in



ICMAI Registered Valuers Organization

Announces

VALUATION EXCELLENCE AWARDS

❖ Objective

To recognize contribution of Registered Valuers, Registered Valuer Entities, Academicians and other organizations engaged in Valuation Practice, Research, Training and Publications

❖ Categories for awards

- Registered Valuers
- Registered Valuers Entities
- Academicians
- Other organizations involved in Valuation domain

❖ Selection of award winners

Award winners will be selected by a committee consisting of eminent personalities drawn from amongst various stakeholders in the Valuation domain. The decision of the committee would be final.

❖ List of Awards

3 Awards (First / Second and Third) will be given for each category of selected applicants. Two additional awards in RV and Academician categories will be given to women candidates.

❖ Fee for participation

- Registered Valuer: Rs. 2000+GST@18%
- Registered Valuer Entity: Rs. 5000+GST@18%
- Academicians: Rs. 2000+GST@18%
- Other Organizations: Rs. 5000+GST@18%

❖ Registration

Participants can register and apply for the Valuation Excellence Awards through the following Link by providing details in the respective Google forms. [Click Here for Registration](#)

https://docs.google.com/forms/d/e/1FAIpQLScdBPdfQD2Ct075I4zB5wrk_qvFaTxRGS0Ap2YH2Ug7FaUx2w/viewform

❖ **Last Date for Registration:** 15th September, 2022

Contact Details

9411469499, 9457954906, 9990907530, 8586985549, 9990903962
or email: manager@rvoicmai.in, rvo.so1@icmai.in

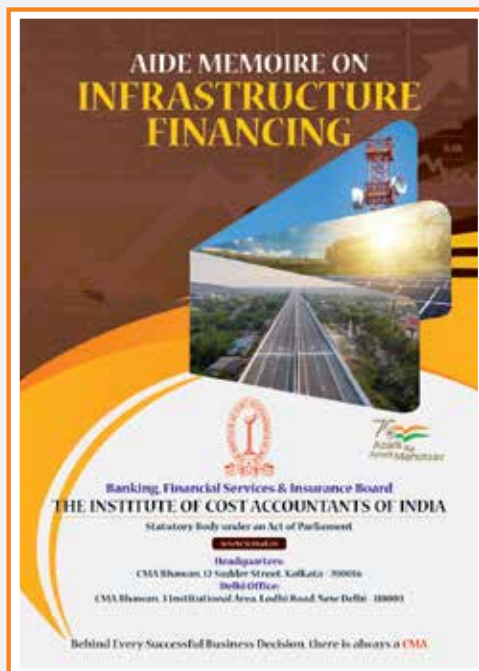
Aide Memoire on INFRASTRUCTURE FINANCING

Infrastructure is the backbone of any economy. It is a well recognised fact that Infrastructure has a multiplier effect on the holistic development and rapid sustainable growth.

A Robust Infrastructure Finance mechanism therefore assumes utmost importance in the entire Eco system.

Synopsis-Salient Features of the book

- A one stop, single reference point, in the niche area of Infrastructure Finance.
- The book covers the basic theoretical concepts as also the real nitty gritty of processes & procedures and nuances involved in Infrastructure Finance with all the relevant topics which inter include the following:-
 - ▲ Definition of Infrastructure sector-Harmonised master list of infrastructure sub -sectors, as notified by Department of Economic Affairs, Ministry of Finance, Definition under Companies Act 2013 and under Income Tax Act 1961.
 - ▲ Elements of Financing Infrastructure.
 - ▲ Types of Public Private Partnership (PPP) models.
 - ▲ Formation of the Special Purpose Vehicle (SPV) and Key project documents/structure for Infrastructure Finance.
 - ▲ Financing mechanism consortium/syndication.
 - ▲ Credit appraisal process-covering management appraisal, economic appraisal, marketing appraisal, technical appraisal and Financial appraisal.
 - ▲ In depth analysis of cost of project and means of finance with specific reference to Infrastructure projects, including interest during construction (IDC), Debt Service Reserve Account (DSRA) etc.
 - ▲ Key performance indicators including financial indicators and non financial indicators. This includes detailed discussion on all financial ratios for long term funding like DSCR, IRR, BEP and concepts like ESG compliances.
 - ▲ Detailed discussion on the intricacies involved in appraisal and sanction, including various aspects of concession agreement, Power Purchase agreement, Escrow agreement, Fuel supply agreement Inter creditors agreement etc
 - ▲ Assessment of various Risks involved in infrastructure finance like sponsor risk , construction risk,market risk, financial risk etc and mitigation thereof.
 - ▲ Detailed Case studies on the following projects
 - Road sector -Hybrid annuity (HAM)model -New Project
 - Road sector- Toll Operate Transfer (TOT) model-Funding against existing project as a part of Asset Monetization Plan.
 - Renewable Energy sector - Solar Power Plant-New Project.
 - ▲ Case studies on Credit Risk Mitigation
 - Waste to Energy Project
 - Water supply management project.
 - Railway station Redevelopment project.
 - ▲ Project monitoring and performance audit of infra projects
 - ▲ Restructuring, management of weak accounts and NPA accounts.
 - ▲ Infrastructure thrust by Government of India- National Infrastructure pipeline , National Monetization Pipeline, NABFID and Atmanirbhar Bharat
 - ▲ Alternate sources of funding including InvITs, IDFs, Securitisation, Credit, Enhancement etc
 - ▲ Methodology for pricing of loans
 - ▲ Preventive vigilance



BOOK IS NOW AVAILABLE

Members & Students of the Institute of Cost Accountants of India are eligible for **20%** discount on the book price

Online purchase can be made as per the following link:

https://icmai.in/booksale_bfsi/Home.aspx



Banking, Financial Services & Insurance Board
**THE INSTITUTE OF
COST ACCOUNTANTS OF INDIA**

Statutory Body under an Act of Parliament

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Warm regards
CMA Chittaranjan Chattopadhyay
Chairman
Banking, Financial Services & Insurance Board

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

Behind Every Successful Business Decision, there is always a CMA

Down The Memory Lane

September 2012



Glimpses of Pakistan India Management Summit held at Lahore on 20-21 September 2012.



Signing of MOU on behalf of the Institute by CMA Rakesh Singh, President with the Indian Institute of Corporate Affairs in the presence of Dr. Veerappa Moily, Hon'ble Union Minister, MCA, GoI.



CMA Rakesh Singh, President of the Institute; Shri Dipankar Chatterji, Chairman, CII National Committee on Accounting Standards; Shri M.M. Chitale, Chairman, NACAS; Ms. Jyoti Vij & Mr. Nesar Ahmad, President, ICSI at a Joint Programme organized with CII on "Corporate Disclosures: Impact of Accounting Reforms" held on 03.09.2012 at New Delhi.



CMA Rakesh Singh, President of the Institute; Shri Pankaj Srivastava, Director, MCA; CMA B.B. Goyal, Advisor (Cost), MCA and Shri Nimesh Mittal of TCS at an Awareness Programme on 'Filing of Cost Audit and Compliance Report in XBRL' held on 12.09.12 at SCOPE Complex, new Delhi.

Down The Memory Lane

September 2002



Inaugural Session of Workshop on Service Tax at Visakhapatnam. Seen in the picture from right: Dr. B Pradhan, Addl. Central Excise Commissioner; S. Satyananda Rao, Chairman; B.V. Ramana Murthy, President; A.K. Dhar, Director (Finance), Dredging Corporation of India; K. Ch. A V S N Murthy, Chairman, SIRC; A. Chandra Sekhar.



Inter Chapter Fest-Pragathi 2002 at Cochin Chapter. Venugopal C. Govind, Management Consultant inaugurates the Fest. Others seen are Koshy Mathew, Chairman; Sunil Chacko, vice Chairman; K.P. Shelvi, Secretary; Hari T.K. Treasurer; P.C. J. Nampoothiri PD Committee Chairman and Nandarajan R, Chairman, Kottayam Chapter.

September 1992



Shri H.R. Bharadwaj, Minister of State for Law, Justice and Company Affairs, U.P. Government, addressing the gathering. Sitting from left to right are: S/shri A.K. Bhattacharyya, Secretary, Allahabad Chapter; D.C. Bajaj, Past Chairman, NIRC; R.N. Roy, Chairman, Allahabad Chapter.

September 1982



Shri P.B. Sreenivasan, CMD, Indian Overseas Bank, inaugurating the Two-Day Continuing Education Programme on 'Project Management and Bank Finance' at Hotel Taj Coromandel on 11th and 12th September '82. Seated: (L to R): Shri M.J. Gopalakrishnan, Chairman, SIRC; Shri V. Kalyanaraman, Past President, Central council Member and Chairman, Programme Committee, ICWAI; Shri K.S. Ganapathi, Vice Chairman, SIRC.

Source: Extracted from the various issues of *The Management Accountant Journal*

DIGITAL OBJECT IDENTIFIER (DOI)

Issue: April - 2022 [Vol. 57 No. IV]

Name of The Theme Article	Name of Author/s	Volume	Issue	Issue No.	Page No.	DOI Numbers
BUILDING THE SKILLS OF EVIDENCE BASED MANAGEMENT	Michael Vodiano	57	Apr-22	4	31-33	10.33516/maj.v57i4.31-33p
MAKE EXPERIENCE MORE CREDIBLE IN THE CONTEXT OF EVIDENCE BASED MANAGEMENT	Dr. Prabir Kumar Bandyopadhyay	57	Apr-22	4	34-36	10.33516/maj.v57i4.34-36p
CREATIVITY ACTS AS DRIVING FORCE TO SUSTAINABLE BANKING CULTURE IN INDIA : A THEORETICAL UNDERSTANDING	Biswajit Dey	57	Apr-22	4	37-39	10.33516/maj.v57i4.37-39p
EVIDENCE BASED DECISION MAKING:ITS RELEVANCE TO A MANAGEMENT ACCOUNTANT	CMA Arunabha Saha	57	Apr-22	4	40-42	10.33516/maj.v57i4.40-42p
EBM...IS IT STILL RIGID TO APPLY?	Dr. Rohan Prabhakar Dahivale	57	Apr-22	4	44-46	10.33516/maj.v57i4.44-46p
EVIDENCE-BASED MANAGEMENT: CASE OF BAJAJ FINANCE LIMITED	Monica Mahali Dr. Kalpataru Bandopadhyay	57	Apr-22	4	47-51	10.33516/maj.v57i4.47-51p
CREATIVITY IS CREATIVITY	Dr. Jyotsna Haran	57	Apr-22	4	52-54	10.33516/maj.v57i4.52-54p
CREATIVITY, CULTURE – THE LINKAGEAND ECONOMIC GROWTH – A PERSPECTIVE	CMA R. Ravichandran Dr. Reshma Sultana	57	Apr-22	4	55-58	10.33516/maj.v57i4.55-58p
SUSTAINABLE HOUSING DEVELOPMENT IN INDIA AND THE NEED FOR EVIDENCE BASED POLICY MAKING: THE ROLE OF CMAs AND AN ACTION PLAN FOR 2030	Dr. Manoj P K Dr. Mini Joseph	57	Apr-22	4	59-62	10.33516/maj.v57i4.59-62p
SYNTHESIZING EMPIRICAL STUDIES TO EXPLAIN EVIDENCE BASED DECISION MAKING: A CORPORATE GOVERNANCE FUNDAMENTAL	Samuel S Mitra Ruby Mary Notts	57	Apr-22	4	63-67	10.33516/maj.v57i4.63-67p

Issue: May - 2022 [Vol. 57 No. V]

Name of The Theme Article	Name of Author/s	Volume	Issue	Issue No.	Page No.	DOI Numbers
NEW GENERATION ENTREPRENEURSHIP IN INDUSTRY 4.0: A SNAPSHOT FROM INDIA	Arindam Chakrabarty Dr. Anil Kumar Singh Dr. Sapna Dhaliwal Prof. Saket Kushwaha	57	May-22	5	38-43	10.33516/maj.v57i5.38-43p
A FUNDING MODEL OF SOCIAL ENTREPRENEURSHIP IN INDIA	Dr. Rakesh Kumar S. Manjhi	57	May-22	5	44-47	10.33516/maj.v57i5.44-47p
SOCIAL ENTREPRENEURSHIP – A WAY TO BUSINESS ENHANCEMENT THROUGH SOCIETAL TRANSFORMATION	Dr. Subhasish Roy Chowdhury	57	May-22	5	48-52	10.33516/maj.v57i5.48-52p
FRUGAL INNOVATION FOR ECONOMIC DEVELOPMENT – A PERSPECTIVE STUDY	CMA R. Ravichandran Dr. Preeti Kulshrestha Dr. Asha Nadig	57	May-22	5	53-57	10.33516/maj.v57i5.53-57p
SOCIAL ENTREPRENEURSHIP AND CORPORATE SOCIAL RESPONSIBILITYA CRITICAL EXPLORATION TO IDENTIFY A REACTIVE CAUSAL RELATIONSHIP	CMA Avik Ghosh	57	May-22	5	58-61	10.33516/maj.v57i5.58-61p
FINTECH DRIVEN FINCLUSION - AN ANALYSIS OF MOBILE PAYMENTS DURING COVID-19	Dr. Shivani Arora Dr. Meera Mehta Dr. Arun Julka	57	May-22	5	62-66	10.33516/maj.v57i5.62-66p
FINTECH: DRIVING FORCE FOR SOCIAL GOOD	Dr. Ruchika Jain CMA (Dr.) Rajni Bansal	57	May-22	5	67-70	10.33516/maj.v57i5.67-70p
BIBLIOMETRIC ANALYSIS ON AGRITECH AND AGRIBUSINESS MANAGEMENT PRESENT ACHIEVEMENT OF AGRITECH IN INDIA AND FUTURE RESEARCH AGENDA	Dr. R Murali Dr. K. Mohamed Jasim	57	May-22	5	71-76	10.33516/maj.v57i5.71-76p

NEWS FROM THE INSTITUTE



EASTERN INDIA REGIONAL COUNCIL



EIRC celebrated Independence Day and completion of 75 years of India's Independence and embarked Azadi Ka Amrit Mahotsav, a significant milestone in the Nation's history at EIRC premises on 15th August 2022. CMA P. Raju Iyer, President ICAI hoisted the National Flag at EIRC premises in the presence of CMA Biswarup Basu, IPP & CCM, ICAI, CMA Chittaranjan Chattopadhyay, CCM, ICAI, CMA B B Nayak, Chairman, EIRC, CMA Pallab Bhattacharya, Vice Chairman, EIRC, CMA Abhishek Kumar Singh, Secretary, EIRC and CMA Nishant Kumar, IPC & Regional Council Member, EIRC, CMA Harijiban Banerjee, Past President, ICAI, CMA Amal Kumar Das, Past President, ICAI, CMA Mahesh Shah, Past President, ICAI, CMA Avijit Goswami, Former CCM, ICAI, CMA Saswata Dasgupta, Past Chairman, EIRC, Secretary, ICAI, Senior Directors, Officials, Members and Students of the Institute. A tree plantation drive was also organized on the occasion.

CMA P. Raju Iyer, President, ICAI, CMA Biswarup Basu,

IPP & CCM, ICAI, CMA B B Nayak, Chairman, EIRC, CMA Pallab Bhattacharya, Vice Chairman, EIRC, CMA Abhishek Kumar Singh, Secretary, EIRC and CMA Nishant Kumar, IPC & Regional Council Member, EIRC visited Calcutta International Needs, Mukundapur, Kolkata, an NGO managing an orphanage for children and spent some time with the children of the orphanage and gifted them books and Art materials on 15th August 2022.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA SOUTH ODISHA CHAPTER

The Chapter has organised an evening Talk on 27.07.2022 at Chapter Conference Hall, Berhampur, on the topic "Start-up Funding". CMA Jagadananda Nayak, DGM, Project & Costing, IRE Ltd, Matikhalo, Chatrapur, Odisha graced the occasion as Chief Guest and Sri Amarjit Behera, AGM, State Bank of India, Main Branch, Berhampur graced the occasion as Guest Speaker and delivered in detail on the topic and elaborately highlighted over various aspects of the topic. CMA Narasingha Chandra Kar, Chairman, of the Chapter welcomed all the guests and invitees and addressed over basic points of the topic. CMA Ananda Sahu, Secretary of the Chapter discussed on the topic. Speaker Shri Behera cleared all the doubts raised by the participants along with CMA Nayak. CMA Binod Bihari Nayak, Chairman, Professional Development Committee, welcomed and introduced the guests and CMA Ananda Sahu, Secretary of the Chapter extended vote of thanks to all the participants.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
BHUBANESWAR CHAPTER**

The Chapter conducted a Seminar cum Career Awareness Programme in association with Pranath College (Autonomous) at their Auditorium at Khordha, Odisha on 29.07.2022. The seminar theme was “GST – A Conducive Tax Law Imperative for Accelerated Economy”. Dr. Ranjita Sethi, Principal, P N College (A), Khordha inaugurated the seminar and addressed the participants as Chief Guest, CMA Niranjan Mishra, Central Council Member and Chairman, Committee on Cost and Management for Public and Government Services, ICAI addressed as Special Guest. Shri Jogendra Nath Sahu, Reader & HOD (Commerce), P N College (A), CMA Santanu Kumar Rout, Chairman, ICAI-Bhubaneswar Chapter and CMA Surya Narayan Tripathy, Secretary, ICAI-Bhubaneswar Chapter addressed as Guests of Honour. CMA Shiba Prasad Padhi, Practicing Cost Accountant and Past Chairman, ICAI-EIRC and Bhubaneswar Chapter delivered a detailed talk on the topic as resource person. CMA Niranjan Mishra highlighted about the Institute and career prospects in CMA Course. CMA Santanu Kumar Rout briefly spoke about the Bhubaneswar Chapter and the facilities being provided by the Chapter. Dr. Sushil Kumar Pattnaik, Faculty in Commerce, P N College (A) facilitated the entire programme.

A Career Awareness Programme was conducted by the Chapter on 29.07.2022 at ICPS Academy, Bhubaneswar. CMA Saktidhar Singh, Chairman, PD Committee and Past Chairman of the Chapter highlighted on CMA course curriculum, career prospects and facilities provided by the Chapter. To enhance the professional skills of qualified Cost Accountants /students pursuing final course of ICAI and Members of the Chapter, the chapter organized its third and fourth Batches-of the 15 days (30 hours) SAP-FICO training session at CMA Bhawan from 08.08.2022. Prior to the commencement of the said training sessions, an inaugural cum interactive ceremony was held on 07.08.2022 at the Conference Hall of the Chapter. On that occasion participation certificates were also distributed to those who had successfully completed the training in the first two Batches earlier. CMA Niranjan Sahoo, Past Chairman of the Chapter and Former CGM (Fin), OPTCL inaugurated and graced the inaugural ceremony as Chief Guest. CMA Satya Sundar Mahasuar, Sr. Manager (Finance), NALCO Ltd. highlighted the importance of the SAP-FICO and other advanced technology as Special Guest. CMA Soumya Ranjan Singh, Dy. Manager (Finance & Accounts), TPCODL & Trainer of SAP-FICO highlighted the importance of the SAP-FICO in the present scenario and briefly described the coverage to be given in the training session. Among other dignitaries, Chairman of the Chapter CMA Santanu Kumar Rout and Secretary of the Chapter CMA Surya Narayan Tripathy addressed

the participants. CMA Saktidhar Singh, Chairman, PD Committee and Past Chairman of the Chapter co-ordinated the entire programme.

The chapter celebrated in a grand manner the 76th Independence Day at its premises to commemorate “Azadi Ka Amrit Mahostav”. CMA Niranjan Mishra, Central Council Member and Chairman, Committee on Cost Management for Public and Government Services, ICAI unfurled the National Flag as Chief Guest in the presence of CMA Santanu Kumar Rout, Chairman and Other members of the Managing Committee of the Chapter.



NORTHERN INDIA REGIONAL COUNCIL

**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
JAIPUR CHAPTER**

The Chapter organised a free vaccination camp on 6th August 2022 at the Chapter premises. The program was inaugurated by Chief Guest CMA H.L. Agarwal, Past



Chairman of the Chapter. Dr Anmol Khandelwal and his team from Jhalana Doongri Dispensary were welcomed to provide the vaccination. CMA Sudarshan Nahar, Chairman of the Chapter welcomed the Chief Guest and medical team. This camp was organised for Booster Dose of Covishield as well as Covaxin to Members, their family members and near relatives and also students.

Under “Har Ghar Tiranga” campaign from 13th to 15th August, Chairman of the Chapter CMA Sudarshan Nahar hoisted the National Flag on the roof of the Chapter premises alongwith Past Chairmen of the Chapter CMA Rakesh Yadav, CMA S.L. Swami, Members, Faculties, Staff and Students. On this occasion National Flags were distributed to all the participants for hoisting on their Houses.

Independence Day was celebrated with full zeal and enthusiasm at Jaipur Chapter on 15th August, 2022. Chairman of the Chapter CMA Sudarshan Nahar hoisted the National Flag alongwith Members, Faculties and Staff. CMA R.S. Bhati, Regional Council Member, NIRC also graced the occasion. Chairman CMA Sudarshan Nahar, in Chairman speech, briefed the gathering about various activities, achievements and latest developments at Jaipur Chapter. Program was conducted by CMA Swapnil Bhandari, Past Chairman of the Jaipur Chapter

SOUTHERN INDIA REGIONAL COUNCIL



SIRC organised its oral coaching inauguration programme on 6th August, 2022 at its premises. CMA Sankar P. Panicker, Chairman– SIRC in his inaugural address appreciated the students for taking right decision to choose a globally recognized professional course, i.e. ‘Cost and Management Accountancy’ Course, which is the most employable course in the country. CMA P. Raju Iyer, President advised the students to concentrate on studies and complete the course well within the time limit, he added the CMA Course has large scope in India and abroad and informed the students that a MoU has been signed with the organization to offer SAP Course to the CMA Members and students at a very nominal cost for getting more placement opportunities and enhance their professional career to meet out the current day challenges. CMA R. Vishwanath Bhat, Vice Chairman, SIRC and CMA Rajesh Sai Iyer also wished and blessed the students. CMA Vijay Kiran Agastya, Secretary, SIRC – ICAI proposed vote of thanks at the end.

The chapter organized a professional development program on the Theme: “ Enablers for CMA Profession – Rebound in the New Normal” on 06.08.2022 at SIRC Premises. SIRC organised the 76th Independence Day Celebrations at its premises on 15th August, 2022. CMA Sankar P. Panicker, Chairman – SIRC hoisted the National Flag and gave the independence speech. Regional Council Members – SIRC, Senior Members, Faculty, Staff Members of SIRC and students participated in the celebrations. As part of the Independence Day Celebrations, Oral Coaching

Faculty Meet programme were also organised.

An Oral Coaching Faculty meet program was organised at the SIRC Premises on 15.8.2022 and to discuss the results of the foundation, intermediate and final examinations. CMA Sankar P. Panicker, Chairman, SIRC and CMA Vijay Kiran Agastya, Secretary, SIRC addressed and discussed the various issues & suggestions raised by the oral coaching faculty on the above said points.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
MADURAI CHAPTER**

The Institute of Cost Accountants of India and Madurai Kamaraj University, Madurai entered into a MoU and jointly organised through the Madurai Chapter a one day workshop on Quality Enrichment & Mentoring on Accreditations and Rankings for Educational Administrators -(Principal, Deputy/Vice Principal, IQAC-CIQA Directors, Co-ordinators) on 25th July 2022 at Madurai Kamaraj University, Madurai.



Vice chancellor of the MKU, Dr. J Kumar inaugurated the workshop and highlighted the importance of skill and quality enhancement in HEIs. ICAI President CMA. P Raju Iyer spoke on the significance of MoU and growth potential for youth by skill enhancement.



During the inaugural function, the Registrar of MKU Dr. M. Sivakumar and ICAI President CMA.P Raju Iyer signed the Memorandum of Understanding and exchanged the MoU in the presence of Vice Chancellor of Mother Teresa University and Central, Regional Council and Chapter Members of the Institute. In the first technical session, Vice Chancellor of Mother Teresa University Dr. Vaidehi Vijayakumar spoke on Globalisation of Educational, Foreign Universities in India, Indian Universities establishing centres abroad, Initiatives to be taken by HEIs to transition to the next level etc. Resource person Dr. Sundarai elaborately narrated about student's support and progression, curriculum, teaching and learning Initiatives.

In the second technical session, Council Members, CMA Chittaranjan Chattopadhyay, CMA (Dr.) K Ch A V S N Murthy and Secretary of SIRC of ICAI, CMA Vijay Kiran Agastya spoke on the importance of 'Sustainable Development Goals' in general and higher education in general.



In the third technical session, CMA R Rakesh Shankar highlighted records and disclosure requirements in financials, various audits, etc., records with regard to infrastructural requirements, academic and administrative audit, etc. In the valedictory function, CMA P Raju Iyer, ICAI President and CMA (Dr.) S. Kumararajan, Chairman, Madurai Chapter distributed certificates to the participants.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
UKKUNAGARAM CHAPTER**

To commemorate Azadi Ka Amrit Mahotsav, the Chapter conducted a Badminton Tournament at Col. Nayadu Ukku Stadium on 09.08.2022, where the Chapter members and students participated. In addition, RINL Finance Directorate executives also participated. Chief guest of

the event was Sri VV Venugopala Rao and the guest of honour was Former SIRC Chairman Sri K Sanyasi Rao. Chapter Committee members, Vice Chairman, Secretary and managing Committee members were also present at the programme.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
BENGALURU CHAPTER**

CMA Nisha D, Additional Director, CMA Satish R, Chairman, Bengaluru Chapter and CMA Vishwanath Bhat, Vice Chairman, SIRC made a visit on 6th and 7th of August 2022 to BEML and HAL Factories.



The Chapter celebrated Independence day 15th August 2022



With CMA G.N.Venkataraman Insolvency Professional & Former President – ICAI as the chief guest, CMA Satish R – Chairman BCCA, CMA Raghavendra B.K., Secretary BCCA, CMA Jayaram A V- Vice Chairman BCCA, CMA Vijayalakshmi K R – Coaching Chairperson, CMA Manjula B.S. Chairperson PD Committee and CMA Kumar H.N Member BCCA were the speakers at the programme.

A talk on “Recent Changes under GST - 47th Council” was organised by the Chapter on 20.07.2022 . CMA CA Gella Praveen Kumar - Practicing Chartered Accountant, CMA Manjula B.S – Chairperson, Practitioners’ Forum CMA Satish R – Chairman – BCCA, CMA Vishwanath Bhat – Vice Chairman – SIRC, CMA – Pranabandhu Dwibedy – Treasurer – BCCA were the speakers at the programme.

The inauguration of the 112th Batch of oral coaching classes being conducted by the Chapter was done at Wadia Hall, The Indian Institute of World Culture , on August 13, 2022

The Chief Guest was Ramesh B Umarani, Soft Skill Train the Trainer LIMRA International Certified Facilitator, USA. CMA Satish R – Chairman BCCA , CMA Raghavendra B.K., Secretary BCCA, CMA Vijayalakshmi K R – Coaching Chairperson BCCA, CMA Jayarama A V - Vice Chairman BCCA, CMA Vishwanath Bhat – Vice Chairman SIRC, CMA G.N.Venkataraman Insolvency Professional & Former President – ICAI, CMA Pranabandhu Dwibedy – Treasurer BCCA were the speakers at the programme.



The Chapter conducted the Valedictory function of the Certificate Course in GST” at Government Ramnarayan Chellaram College of Commerce & Management Bengaluru on 16.08.2022. CMA Satish R – Chairman BCCA , CMA Vishwanath Bhat – Vice Chairman SIRC, CMA Ragavendra B.K Secretary BCCA, CMA Vijayalakshmi K R – Coaching Chairman BCCA, CMA Pranabandhu Dwibedy – Treasurer BCCA, Dr.B.Chandrashekara – Principal RC College were the speakers.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
MYSURU CHAPTER**

The Chapter celebrated Azadi Ka Amrit Mahotsav - 75 years of Independence at its premises on 15th August 2022.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
VISAKHAPATNAM CHAPTER**

CMA T.Harinarayana, Chairman, Visakhapatnam Chapter hoisted the flag and addressed the gathering on the occasion of 76th Independence Day Celebration on 15th Aug 2022 at the Chapter premises. Memorial Prizes were distributed to the students who got highest marks in different subjects in the Dec 2021 examination.

The Chapter organised a function on the occasion of m inauguration of oral tuition classes on 06.08.2022.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
TIRUCHIRAPALLI CHAPTER**

The 76th Independence Day was celebrated by the Chapter on 15-08-2022. CMA P. Manoharan, Vice - Chairman, Tiruchirappalli Chapter hoisted the flag.



**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
HOSUR CHAPTER**



The Chapter celebrated the 76th Independence Day along with the students and Members at the Chapter premises. During the students meet, Mrs. Kothai Kesavan Secretary gave a welcome address to the students. CMA. M R Rajhshekar narrated the objective of the program and introduced the guests. CMA Venkatesvaran Pandiyan spoke how to become an effective student. CMA Manikandeswaraj J a delivered speech on Comfort Zone versus Opportunity Zone. CMA Sakthivel spoke about the challenges faced by the students during online examinations and how to overcome them. Finally CMA Guruprasad, spoke about the various opportunities and scope available to students on completion of CMA. The meet concluded

with vote of thanks by CMA Sivakumar.

On behalf of The Institute of Cost Accountants of India on 26.8.2022 the chapter organized a career counselling and awareness program to students of II B.Com at MGR College Hosur.

**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
COCHIN CHAPTER**



The Chapter conducted various career guidance programmes on different dates of July and August 2022. A Joint Webinar with World Trade Center was conducted on 05-07-2022 on the topic “Key Open Issues Under GST Law”. Dr. Tiju Thomas, IRS, Commissioner of GST (Audit), Customs and Central Excise, Kerala & Lakshadweep, Deepthi Grover and Rajitha Boorugu were the speakers at the programme.

In terms of the directions of HQ, to play an active role in promoting ‘Har Ghar Tiranga’ campaign and to hoist our National Flag at offices and residences, MC Members, Staff and Students actively participated and hoisted the flag.

The Chapter organized a function to commemorate India’s 76th Independence Day on 15th August 2022. CMA Lajeesh K L hoisted the National Flag. Managing Committee members and Staff attended the function. The function started with the National Anthem and concluded with a closing speech by CMA Lajeesh K L, Chairman,

of the Chapter and CMA Thomas T V, Vice Chairman of the Chapter.

The Chapter organised a professional development programme on the topic “GST ITC Theory & Practice” on 19th August 2022 at CMA Bhawan Cochin. CA Reuben George Joseph, FCA was the speaker. CMA Lajeesh K L, Chairman welcomed the gathering and CMA Charujth C Mohan, Chairman, PD Committee proposed a vote of thanks.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA TRIVANDRUM CHAPTER

The Chapter celebrated its Golden Jubilee celebrations on 24th July 2022 at Hotel Residency Tower Trivandrum. Even though the chapter completed its 50th year of service to the State and the Country in 2020, the celebrations could hold now only due to the COVID related restrictions. The programme started with a welcome dance performance by students followed by a short video depicting the glorious history of Trivandrum Chapter. The meeting was chaired by CMA Hariprasad R, Chairman of the Chapter and inaugurated by CMA P. Raju Iyer, President of the Institute. CMA Vijender Sharma, Vice President of the Institute and a galaxy of Central Council Members viz. CMA H Padmanabhan, CMA Chittaranjan Chattopadhyay, CMA Niranjn Mishra, CMA Neeraj D. Joshi, CMA (Dr.) K. Ch. AVSN Murthy etc. and CMA Sankar P Panicker, Chairman of SIRC CMA Vijay Kiran Agasthya, Secretary

SIRC, CMA Rajesh Sai Iyer, Treasurer SIRC attended and blessed the occasion. The contributions and sacrifices made by the founding senior members were remembered by all and as a token of our gratitude the senior members including CMA N P Sukumaran Past President of the Institute. They were presented with mementoes and shawls. The members of the Chapter and family members who have made academic and other remarkable achievements in various fields including Guinness World record were honoured. The students who secured ranks and passed the intermediate and final examinations were also honoured with shields. CMA A K Suresh memorial endowment prize for meritorious students were also awarded in the function. The event ended with cultural performances by students and members.

The Inauguration of the 91st batch of intermediate course of the chapter was organized on 6th August, 2022. The function was chaired by the Chairperson, CMA Nisha Habi. The course was inaugurated by CMA Venkataraman, Senior Director Finance and Operations, Malayalam Communications Ltd. CMA Venkataraman

was honoured in the function by the Chairperson for his invaluable contributions for the profession. The student had also been honoured in the function for their selfless service for the smooth conduct of the SAFA conference as well as the Golden Jubilee Celebration of the chapter under the leadership of Sri Vinod our final student.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA HYDERABAD CHAPTER

On 01.07.2022 the chapter organized a programme on Recent Changes in GST and Cost Accountants Role in GST on the occasion of GST Day. The chapter invited Smt. Neetu Kumari Prasad, IAS, Commissioner of Commercial Taxes, Government of Telangana as the chief guest, Smt. K. Haritha, Additional Commissioner, Commercial Taxes, Government of Telangana and CMA Nookala Jagannath, Head Indirect Taxes, Reliance Group as the speakers, and CMA (Dr.) K.Ch.A.V.S.N. Murthy, Central Council Member as the special invitee. Smt. Neetu Kumari Prasad congratulated all on the successful completion of 5 years of GST and said it is a welcome step, cooperation is amicable and it is right towards development in spite of teething troubles in the past 5 years. Speaker Smt. K. Haritha Garu praised the 5 years' remarkable journey under the leadership of Chief Secretary of Telangana state Shri Somesh Kumar. CMA Nookala Jagannath explained about cost audit report, general information, and inputs to sales. CMA (Dr.) K.Ch.A.V.S.N. Murthy conveyed his best wishes and said great step by team India, a good start for transparency, and a good step towards the transformation. Programme from 06.07.2022 to 08.07.2022 – Exposure Draft – Revised Standards on Cost Auditing. The CAASB in its 40th meeting held on 18th May 2022 approved the release of Exposure Draft of Revised SCAs containing Restructured Framework, Revised Introduction, Glossary, Requirements & Application Guidance of 18 SCAs, seeking views/comments from all stakeholders.

As per Institute guidelines, the chapter conducted three days discussion programme on 'Exposure Draft -Revised Standards on Cost Auditing and send compiled suggestions/ comments received from our members for their consideration. CMA Debaraja Sahu, Practising Cost Accountant was the coordinator for this program.

On 11.07.2022 the chapter organised programme on Internal Audit Role in Risk Management. The Chapter invited CMA P. Raju Iyer, President, CMA Dr. K.Ch.A.V.S.N.Murthy, Central Council Member of the Institute as Special Guest and CMA V. Gopalan, Management Consultant, CMA P Naresh Kumar-Chief Risk Officer, IL & FS Engineering and Construction Company Ltd, CMA Rakesh Shankar, Assistant Professor in PG & Research Department of Commerce, Dwaraka Doss Goverdhan Doss Vaishnav College [Autonomous], Chennai as speakers. CMA (Dr.) V. Gopalan in his PPT

on Risk Management explained about Risk Assessment, Risk Prioritization, Risk Avoidance, Risk Mitigation, Risk Sharing, Risk Reduction, Risk Retention. CMA P. Naresh Kumar presented a detailed PPT covering the topics Internal Environment, Objective Setting, Event Identification, Risk Assessment, Risk Response, Control Activities, Information and Communication, Monitoring etc. CMA Rakesh Shankar has discussed about the Guidelines for the Creation of the Internal Quality Assurance Cell (IQAC) and Submission of Annual Quality Assurance Report (AQAR) by Accredited Institutions, Standard Operating Procedure (SOP), Online A&A Process Flow, HEI Registration Process, IQA Submission Process, SSR Submission Process, DVV Process, Student Satisfaction Survey Process, In fibnet Bibliometric Data Feed, SSR QnM Evaluation for Pre-Qualification etc.

On 11.07.2022, 57th Formation Day Celebrations organized at the Chapter. CMA P. Raju Iyer, President of the Institute, CMA (Dr.) K.Ch.A.V.S.N. Murthy, Central Council Member greeted Hyderabad Chapter's Members on this occasion.

On 12.07.2022 the chapter visited the office of Commissioner of Commercial Taxes, Govt of Telangana. CMA P. Raju Iyer, President, CMA (Dr.) K.Ch.A.V.S.N. Murthy, Central Council Member, CMA K. Someswara Babu, Chairman, CMA P. Chandra Sekhara Reddy, Immediate Past Chairman visited the office of Smt. Neetu Kumari Prasad, IAS, Commissioner of Commercial Taxes, Government of Telangana and handed over a request letter to utilize the services of Cost Accountants (CMAs) to minimize revenue leakage, better input tax management and proper compliance of GST in the State of Telangana.

On 16.07.2022 a programme was organised on Revised Schedule III vis a vis CARO 2020. CMA CS K. Chandra Sekhar explained about the Changes effective from F.Y 21-22, Expectation V/s. requirement, Reasons for amendments, Role of professionals in ensuring compliances, Changes notified under Schedule III, Reporting of additional regulatory information, Revised CARO 2020, Schedule III Vis a Vis with CARO 2020, Changes to Boards' report and Audit report etc.

On 17.07.2022 a workshop on ITR filing, Series 1 – ITR 1 & ITR 2 was arranged. CMA Kedarnath detailed the topics on Types of Income Tax Return Forms, Types of ITR, Income from Salary, Key changes in ITR - Schedule-FA, Key changes in ITR - Schedule of Capital Gains, Dividend Income, Dividend Income.

CMA (Dr.) K Ch A V S N Murthy, Council Member of the Institute along with CMA A. Vijay Kiran, Secretary, SIRC, CMA K. Someswara Babu, Chairman, Hyderabad Chapter and CMA P Chandrasekhara Reddy, Immediate Past Chairman, Hyderabad Chapter of the Institute had a meeting with Sri S.V. Kasi Visweswara Rao, Additional Commissioner (State Tax), Govt. of Telangana on 19th

July, 2022 in Hyderabad.

On 23.07.2022 a workshop was organized on ITR filing, Series 1 – ITR 3 & ITR 4 and in this session, CMA Kedarnath explained about ITR-3 : Additional Conditions for Applicability, ITR-4: Presumptive Taxation Scheme, How to Download ITR-3 from New Income Tax Portal, Structure of ITR-3, Trading on “Shares”, Trading of “Futures & Options” etc.



WESTERN INDIA REGIONAL COUNCIL

**THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
NAVI MUMBAI CHAPTER**

The Chapter conducted a Webinar CEP programme on “Overview of New TDS Rules” on 24th July 2022 via Google Meet app. The speaker for this event was CMA Ritu Shekhawat PCMA and Managing Committee Member of the Chapter. CMA Vivek Bhalerao, PD Committee Chairman of the Chapter welcomed the audience and introduced the speaker and briefed on the importance of the New TDS Rules wef 1st July 2022. The speaker summarized all the points and the various questions posed by the industry and the guidelines provided by CBDT for removal of difficulties. The lucid presentation and interactive workshop concluded with the vote of thanks proposed by CMA Vaidyanathan Iyer, Chairman of the Chapter.

The Chapter organised a function for the inauguration of the OFFLINE oral coaching on 31st July 2022 at KB Patil College Conference Hall Library Building, Navi



Mumbai. The Chief Guest for the event was CMA Sunil K Pandey of Arth Vritt Capital. The Oral Coaching Classes will commence from 1st August 2022 for Foundation, Intermediate and Final for December 2022 exams and will be conducted online for 3 months and offline for 1 month. The programme commenced with the Chairman of the Chapter, CMA Vaidyanathan Iyer welcoming the dignitaries and introducing the Chief Guest and welcoming him to the function. The Chairman briefed the students and other members present, on the Oral Coaching course curriculum and communication from HO directly to students regarding schedule of Skill Training comprising of SAP training, Microsoft Excel, Word, Power Point, Cambridge Soft Skills Training, E-Filing which will be organized for the benefit of the students. CMA Sushant Ghadge Secretary introduced the various faculties appointed for Oral Coaching Class and welcomed them to the Chapter. They congratulated the students on enrolling for the CMA course and wished them all success. The Faculties especially CMA Prashant Murkar had a face-to-face interaction with the students and welcomed them to the CMA Course. The Chief Guest then gave a pep talk to the students on the roles of future CMAs and explained operational excellence right from the grassroots level to the global level covering value addition and cost reduction techniques. CMA Vivek Bhalerao, PD Committee Chairman, CMA L Prakash, Past Chairman, CMA BN Sapkal, Past Chairman motivated the students and guided them in achieving their goals and also mentioned that CMA course is one of the best professional courses and the role of CMA is growing rapidly. CMA BN Sapkal,

Past Chairman proposed the vote of thanks.

The Chapter celebrated the 76th Independence day under AKAM on 15th August 2022 on the completion of 75 years of India's independence at its Chapter Office. CMA Vaidyanathan Iyer, Chairman of the Chapter and staff, Mrs Aparna Merekar participated in the event.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
AHMEDABAD CHAPTER

The MoU Signing ceremony between the Institute of Cost Accountants of India and GLS University, Ahmedabad was held on 27th June'2022 at CMA Bhawan, New Delhi. CMA P Raju Iyer-President, CMA Vijender Sharma-Vice President, CMA Biswarup Basu-Past President, CMA Malhar Dalwadi- Chairman of Ahmedabad Chapter and CMA Mitesh Prajapati-Secretary of Ahmedabad Chapter were present and signed the MoU. On behalf of the GLS University Dr.Chandni Kapadia-Executive Director, Dr. Dharmendra Shah-Registrar and CMA (Dr.) Marzoon Jokhi-Dean were present and signed the MoU. The purpose

of this MoU is to develop various professional programs for members and students, utilization of different services of GLS University and Institute of Cost Accountants, exchange of different services, exchange of faculty and to organize faculty development program.

The Chapter jointly with Baroda Chapter organized CEP webinar on “Emerging opportunities for CMAs in Investment Banking” on 16th August’2022. CMA Vandit Trivedi welcomed speaker Dr. Alok Shah and participants. Dr. Alok Shah delivered a lucid talk coupled with presentation. The session was very interesting to the participants. CMA Garima Soni proposed a vote of thanks.

The Chapter organized the first ever CMA Cyclothon and Flag unfurling ceremony as part of the celebration of 75th year of Independence of India on 15th August’2022. As a part of celebrating “Azadi ka Amrit Mahotsav” the Chapter organized CMA Cyclothon 2022 to promote #GoGreen & #FitnessFirst. Chairman of Chapter, CMA Malhar Dalwadi, CCM CMA Ashwin Dalwadi, RCM, Secretary-WIRC CMA Ashish Bhavsar, & Secretary of Chapter, CMA Mitesh Prajapati addressed the gathering. CCM CMA Ashwin Dalwadi & RCM, Secretary-WIRC CMA Ashish Bhavsar inaugurated & flagged off CMA Cyclothon. Large number of Members, students and faculties participated in CMA Cyclothon. The cyclothon was followed by the distribution of Medals and Certificates to the participants. The Flag unfurling ceremony was held @ 8.30am at the Chapter premises. CCM CMA Ashwin Dalwadi alongwith RCM, Secretary CMA Ashish Bhavsar unfurled the flag. CCM CMA Ashwin Dalwadi, RCM, Secretary CMA Ashish Bhavsar, Chairman of Chapter CMA Malhar Dalwadi, Secretary of Chapter CMA Mitesh Prajapati, Jt. Secretary of Chapter CMA Aparna Bhonde, other office bearers, students, parents of students, faculties and staff members of Chapter were present during the Flag unfurling ceremony. Flag unfurling was followed by National Anthem.

CMA Malhar Dalwadi, Chairman & CMA Mitesh Prajapati, Secretary of ICAI, Ahmedabad Chapter felicitated the faculties of GLS university for the “Professional & Communicative skills Enhancement Programs” organized in association with GLS University during 18th July’22 to 23rd July’22 at the Chapter premises.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
PUNE CHAPTER

The Chapter arranged a Career Counseling session at Hutatma Rajguru College, Rajgurunagar, Tal.Khed, Dist. Pune. The speakers were CMA (Dr.) R. W. Kulkarni and, Dr. A.V. Kamble. CMA Chaitanya Mohrir, RCM & Treasurer, WIRC, ICAI was the special invitee for the programme. Dr. Shirish Principal, Pingale of Hutatma Rajguru College and Dr.H.M.Jare , Principal of Sahebraoji Butte Patil College, Rajgurunagar, Dr.G.M.Dhumal, HOD, Hutatma Rajguru Commerce College, CMA Vitthal Dherange were present at the program. The Career Counseling programme started with offering garland to the statue of Hutatma Rajguru by CMA Chaitanya Mohrir, RCM & Treasurer, WIRC of ICAI. Dr. Shirish Pingale of Hutatma Rajguru College and Dr. H. M. Jare of Sahebraoji Butte Patil College, coordinated with the students and their parents. The speakers explained to the participants about the CMA Course which is statutorily recognized by the Parliament and how it enriches with higher degree of skills and guarantees life-long employment, CMA Course converge etc.

The Chapter organized a free seminar for career guidance for 12th pass & Graduation appeared Students on the topic ‘Career as Cost & Management Accountant’ on Saturday, the 6th August 2022 at CMA Bhawan, Pune. The speakers were CMA Chaitanya Mohrir RCM & Treasurer, WIRC, ICAI, CMA Amit Shahane, Practicing Cost Accountant and Prof. Moreshwar Apte, Principle Consultant, SAP implementation. CMA Nilesh Kekan, Treasurer, ICAI-Pune Chapter felicitated CMA Chaitanya Mohri CMA Nagesh Bhagane, Secretary, ICAI-Pune Chapter felicitated CMA Amit Shahane, CMA Rahul Chincholkar, Chairman, Coaching Committee, ICAI

- Pune Chapter felicitated Prof. Moreshwar Apte, CMA Nagesh Bhagane, Secretary of the Chapter welcomed & Introduced the speakers to the participants. CMA Nilesh Kekan, Chairman-Students coordination committee, ICAI-Pune Chapter made the opening remarks. The speakers explained the participants about CMA Course, which is statutorily recognized by the Parliament and its importance in achieving innumerable opportunities for gainful & prestigious employment as well as in the field of Consultancy and Teaching, requirement of professional accountants. The programme concluded with a vote of thanks by CMA Rahul Chincholkar, Managing Committee Member -ICAI-Pune Chapter.

The Chapter celebrated Azadi Ka Amrit Mahotsav - 75th Anniversary of Indian Independence Day Flag hoisting ceremony on Monday, 15th August 2022 at the Chapter premises. CMA Chaitanya Mohrir RCM & Treasurer, WIRC of ICAI unfurled the flag with CMA Smita Kulkarni, Vice Chairperson, ICAI-Pune Chapter. This was followed by recital of National Anthem. CMA Dr. Dhananjay Joshi, Past President of ICAI, CMA Chaitanya Mohrir, RCM & Treasurer WIRC of ICAI, CMA Dr. Sanjay Bhargave, CMA Meena Vaidya, CMA Dr. N. K. Nimkar, Advisors of ICAI-Pune Chapter, CMA Pramod Dube, Past Chairman of ICAI-Pune Chapter, CMA Nagesh Bhagane, Secretary, CMA Nilesh Kekan, Treasurer of ICAI-Pune Chapter, Mr. Jaydeep Manedeshmukh, Student Representative-ICAI-Pune Chapter & Staff were present at the ceremony.

The Chapter arranged a faculty meet of oral coaching centers on 21st August 2022 at the Chapter premises to discuss various issues of common interest with members of the Managing Committee. CMA Chaitanya Mohrir RCM & Treasurer, WIRC ICAI, CMA Nagesh Bhagane- Secretary, CMA Nilesh Kekan-Treasurer, CMA Abhay Deodhar-Managing Committee Member, CMA Rahul Chincholkar-Chairman, Coaching Committee, CMA Varsha Limaye Managing Committee Member – ICAI-Pune Chapter, CMA Meena Vaidya-Advisor, Shri Jaydeep Manedeshmukh, Student Representative-ICAI-Pune Chapter and faculties of various batches of Foundation, Intermediate and Final were present. CMA Rahul Chincholkar, Chairman, Coaching Committee -ICAI-Pune Chapter welcomed the members and faculties of Pune Chapter's Coaching centers. He also thanked the faculty members for their support during Covid pandemic. CMA Chaitanya Mohrir RCM & Treasurer, WIRC of ICAI felicitated Principal Dr. H. M. Jare, Sahebraoji Butte Patil College, Rajgurunagar. CMA Chaitanya Mohrir appreciated Dr. H.M. Jare for arranging the Career Counseling programme with overwhelming response from students and increasing the admission to the CMA Course in Rajgurunagar. CMA Chaitanya Mohrir explained some points related to Syllabus 2022, change of mindset, scope for improvement and the exam pattern. There was discussion among faculty members about the various points like session planning, topic wise assessments, MCQ pattern, worksheets etc. CMA Nagesh Bhagane, Secretary-ICAI-Pune Chapter proposed vote of thanks.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
PIMPRI CHINCHWAD AKURDI CHAPTER

The Chapter conducted a webinar on 'Corporate Governance, Internal Audit, Management Audit: Opportunity and Scope for CMAs' on 30th July 2022 through Google Digital platform. CMA Sagar Malpure, PD Chairman of PCA Chapter welcomed and introduced CMA S Mukerji, Dy. General Manager, Tata Motors Ltd. who in his address said that, corporate governance involves a set of relationships between a company management, its board, its shareholders and other stakeholders. Corporate governance also provided the structure through which the objectives of the company are set and the means of attaining those objectives and monitoring the performance are determined. A Question-Answer session was held during the session. The session was interactive. The session ended with a vote of thanks.

The Chapter celebrated Flag Hoisting Ceremony on the occasion of the 76th Independence Day of India on 15th August 2022 at its premises by observing the norms of social distancing. On this occasion CMA Dhananjay Kumar Vatsyayan, Chairman of PCA Chapter hoisted the flag. Other members of the Chapter also spoke on this occasion. Managing Committee Member and Past Chairman of WIRC CMA L D Pawar, Past Secretary & Treasurer of WIRC CMA Mahendra Bhombe, Faculty Members, Students and staff of the Chapter were present at this event. The function wound up with national anthem.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
KALYAN AMBERNATH CHAPTER

The Chapter organized virtual 7 days Industry Oriented Training commencing on 22nd August 2022 to 28th August 2022, for final students appearing in Dec 2022 examination. CMA Gopichand B. Shamnani, chairman of the chapter welcomed faculty and students and explained how students will be benefited by updated knowledge shared by faculties during 7 days of training. Eminent and experienced faculties of colleges and professionals were invited to deliver lectures on topics like - Interview Effectiveness by Prof Pratik Gupta, Investment in Mutual Funds and Equity Market by Dr. Riya Nathani, “An insight on Salary Income & Tax Planning for Individuals” by CA (Prof.) Bharat Khatri, “Your Signature your Personality, and Cultivating Thinking Skills” by Prof. Krishna Naidu, Introduction to Foreign Exchange by CA (Dr.) Bhavna Binwani, Transportation & Assignment Problem, by Prof. Bharti Khiyani, Sustainability Reporting in India by Dr. Prof. Srichand Hinduja, Capital Budgeting, Capital Rationing & Investment Analysis by CA Reshmi Gurnani. The programme was co-ordinated by Mr. Raju P.C, Executive Secretary and Mr. Ravi Rohra, Office Assistant.

IT Initiative

The Institute is happy to announce extending DigiLocker facility to its Member /Students. All the active students and members are now be able to download their ID Cards from DigiLocker.

To access their ID Cards the members/students have to first create an account on DigiLocker by using their AADHAR Number. All the authorized members/students are allowed to access their Membership ID cards/Students Id cards by putting their Membership Number/ Registration Number on digilocker portal.

The membership ID card /Student ID card displays respective member details like his Name, Address, Email ID, Mobile Number and his photograph.

DIRECT TAXES

- Notification No. 87/2022 dated 1st August 2022:** In the Income-tax Rules, 1962 (hereinafter referred to as the principal rules), in rule 21AK, in sub-rule (1), (a) in the opening paragraph, after the words “non-deliverable forward contracts”, the words “or offshore derivative instruments or over-the-counter derivatives,” shall be inserted.

(b) in clause (i), after the words “non-deliverable forward contract”, the words “or offshore derivative instrument or over-the-counter derivative” shall be inserted

(c) in clause (ii), after the word “contract”, the words “, instrument or derivative” shall be inserted.
- Notification No. 88/2022 dated 2nd August 2022:** In exercise of the powers conferred by clause (46) of section 10 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies for the purposes of the said clause, the Telangana State Pollution Control Board (PAN AAAGT0080Q), a Board constituted by the State Government of Telangana under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), in respect of the following specified income arising to that Board:

(a) consent fee received under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981); (b) analysis fees or air ambient quality survey fees or noise level survey fees; (c) reimbursement of the expense received from Central Pollution Control Board towards National Water Quality Monitoring Programme and National Air Quality Monitoring Programme like schemes; (d) authorisation fees (e) cess reimbursement and Cess appeal fees; (f) grants from State or Central Governments; (g) fees received under the Right to Information Act, 2005 (22 of 2005); (h) interest on loans and advances given to the staff; (i) miscellaneous income like tenders fees etc.; (j) penalties for non-compliance and Invoking of Bank Guarantees; and (k) interest earned on (a) to (j) above.

This notification shall be effective subject to the conditions that the Telangana State Pollution Control Board, (a) shall not engage in any commercial activity; (b) activities and the nature of the specified income shall remain unchanged throughout the financial years; and (c) shall file return of income in accordance with the provision of clause (g) of sub-section (4C) of section 139 of the Income-tax Act, 1961.
- Notification No. 89/2022 dated 3rd August 2022:** In exercise of the powers conferred by sub-clause (d) of clause (viiab) of section 47 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby makes the following further amendments in the notification of the Government of India, Ministry of Finance, (Department of Revenue), number 16/2020, dated the 5th March, 2020: In the said notification, - (i) in the first para, after clause (v), the following clause shall be inserted, namely: “(vi) Bullion Depository Receipt with underlying bullion,” (ii) in the Explanation, after clause (b), the following clause shall be inserted, namely: - “(c) “Bullion Depository Receipt with underlying bullion” shall have the same meaning as

assigned to it in clause (iii) of Explanation by the Department of Economic Affairs, Ministry of Finance vide its notification number S.O. 2957 (E), published in Gazette of India, Extraordinary, vide number, F.No.3/7/2020-EM dated the 31st August, 2020.”

- Notification No. 90/2022 dated 5th August 2022:** In exercise of the powers conferred by sub-clause (c) of clause (ii) of the first proviso to clause (2) of section 17 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies the following conditions, namely: The employee shall submit the following documents to the employer,

(i) the COVID-19 positive report of the employee or family member, or medical report if clinically determined to be COVID-19 positive through investigations, in a hospital or an in-patient facility by a treating physician of a person so admitted;

(ii) all necessary documents of medical diagnosis or treatment of the employee or his family member for COVID-19 or illness related to COVID-19 suffered within six months from the date of being determined as COVID-19 positive; and

(iii) a certification in respect of all expenditure incurred on the treatment of COVID-19 or illness related to COVID-19 of the employee or of any member of his family.

This notification shall be deemed to have come into force from the 1st day of April, 2020 and shall apply in relation to the assessment year 2020-2021 and subsequent assessment years.

- Notification No. 91/2022 dated 5th August 2022:** In exercise of the powers conferred by clause (XII) of the first proviso of clause (x) of sub-section (2) of section 56 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby specifies the following conditions:

The individual shall keep a record of the following documents:

(i) the COVID-19 positive report of the individual or his family member, or medical report if clinically determined to be COVID-19 positive through investigations in a hospital or an in-patient facility by a treating physician for a person so admitted; (ii) all necessary documents of medical diagnosis or treatment of the individual or family member due to COVID-19 or illness related to COVID-19 suffered within six months from the date of being determined as a COVID-19 positive;

Statement of any amount received for any expenditure actually incurred by an individual for his medical treatment or treatment of any member of his family, for any illness related to COVID-19 for the purposes of clause (XII) of the first proviso to clause (X) of sub-section (2) of section 56 of the Income-tax Act, 1961 shall be verified and furnished in Form No. 1.

The details of the amount received in any financial year shall be furnished in Form No. 1 to the Income Tax Department within nine months from the end of such financial year or 31.12.2022, whichever is later.

- **Notification No. 92/2022 dated 5th August 2022:** In exercise of the powers conferred by clause (XIII) of the first proviso to clause (x) of sub-section (2) of section 56 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby specifies the following conditions:

(i) the death of the individual should be within six months from the date of testing positive or from the date of being clinically determined as a COVID-19 case, for which any sum of money has been received by the member of the family; (ii) the family member of the individual shall keep a record of the following documents:

(a) the COVID-19 positive report of the individual, or medical report if clinically determined to be COVID-19 positive through investigations in a hospital or an inpatient facility by a treating physician

(b) a medical report or death certificate issued by a medical practitioner or a Government civil registration office, in which it is stated that death of the person is related to corona virus disease (COVID-19)

Statement of any sum of money received by a member of the family of a deceased person from the employer of the deceased person or from any other person or persons, on account of death due to COVID-19 for the purposes of clause (XIII) of the first proviso to clause (x) of sub-section (2) of section 56 of the Income-tax Act, 1961 shall be verified and furnished in Form A.

The details of the amount received in any financial year shall be furnished in Form A to the Assessing Officer within nine months from the end of such financial year or 31.12.2022 whichever is later.

- **Notification No. 93/2022 dated 5th August 2022:** In exercise of powers conferred by sub-clause (vi) of clause (b) of the Explanation 1 to clause (23FE) of section 10 of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as the Act), the Central Government hereby specifies the sovereign wealth fund, namely, Qatar Holding LLC (PAN: AAACQ3167H), (hereinafter referred to as the assessee) as the specified person for the purposes of the said clause in respect of the investment made by it in India on or after the date of publication of this notification in the Official Gazette but on or before the 31st day of March, 2024 (hereinafter referred to as said investments) subject to the fulfilment of certain conditions.

Violation of any of the conditions as stipulated in clause (23FE) of section 10 of the Act and this notification shall render the assessee ineligible for the tax exemption.

- **Notification No. 94/2022 dated 10th August 2022:** In exercise of the powers conferred by clause (a) of the tenth proviso to clause (23C) of section 10 and sub-clause (i) of clause (b) of sub-section (1) of section 12A read with section 295 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby makes the following rules further to amend the Income-tax Rules, 1962.

In the Income-tax Rules, 1962, after rule 17A the following rule shall be inserted, namely: - "17AA. Books of account and other documents to be kept and maintained. (1) Every fund or institution or trust or any university or other educational institution or any hospital or other medical institution which is required to keep and maintain books of account and other documents under clause (a) of tenth

proviso to clause (23C) of section 10 of the Act or sub-clause (i) of clause (b) of sub-section (1) of section 12A of the Act shall keep and maintain the following:

(a) books of account, including the following, namely: (i) cash book; (ii) ledger; (iii) journal; (iv) copies of bills, whether machine numbered or otherwise serially numbered, wherever such bills are issued by the assessee, and copies or counterfoils of machine numbered or otherwise serially numbered receipts issued by the assessee; (v) original bills wherever issued to the person and receipts in respect of payments made by the person; (vi) any other book that may be required to be maintained in order to give a true and fair view of the state of the affairs of the person and explain the transactions effected.

- **Notification No. 95/2022 dated 16th August 2022:** In exercise of powers conferred by sub-clause (vi) of clause (b) of the Explanation 1 to clause (23FE) of section 10 of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as the "Act"), the Central Government hereby specifies the sovereign wealth fund, namely, INQ Holding LLC (PAN: AADC15071P), (hereinafter referred to as "the assessee") as the specified person for the purposes of the said clause in respect of the investment made by it in India on or after the date of publication of this notification in the Official Gazette but on or before the 31st day of March, 2024 (hereinafter referred to as "said investments") subject to the fulfilment of certain conditions. Violation of any of the conditions as stipulated in clause (23FE) of section 10 of the Act and this notification shall render the assessee ineligible for the tax exemption.

- **Notification No. 96/2022 dated 17th August 2022:** In the Income-tax Rules, 1962 (hereinafter referred to as principal rules), for rule 17, the following rule shall be substituted, namely: "17. Exercise of option etc. under Explanation 3 to the third proviso to clause (23C) of section 10 or section 11

(1) The option to be exercised in accordance with the provisions of the Explanation to sub-section (1) of section 11 of the Act in respect of income of any previous year relevant to the assessment year beginning on or after the 1st day of April, 2016 shall be in Form No. 9A and shall be furnished before the expiry of the time allowed under sub-section (1) of section 139 of the Act for furnishing the return of income of the relevant assessment year.

(2) The statement to be furnished to the Assessing Officer or the prescribed authority under clause (a) of the Explanation 3 to the third proviso to clause (23C) of section 10 of the Act or under clause (a) of sub-section (2) of section 11 of the Act or under the said provision as applicable under clause (21) of section 10 of the Act shall be in Form No. 10 and shall be furnished before the expiry of the time allowed under sub-section (1) of section 139 of the Act, for furnishing the return of income.

(3) The option in Form No. 9A referred to in sub-rule (1) and the statement in Form No. 10 referred to in sub-rule (2) shall be furnished electronically either under digital signature or electronic verification code.

(4) The Principal Director General of Income-tax (Systems) or the Director General of Income-tax (Systems), as the case may be, shall— (i) specify the procedure for

filing of Forms referred to in sub-rule (3); (ii) specify the data structure, standards and manner of generation of electronic verification code, referred to in sub-rule(3), for purpose of verification of the person furnishing the said Forms; and (iii) be responsible for formulating and implementing appropriate security, archival and retrieval policies in relation to Forms so furnished.

- Notification No. 97/2022 dated 17th August 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, CPPIB India Private Holdings Inc. (PAN: AAICC2378J), (hereinafter referred to as the assessee) as the specified person for the purposes of the said clause in respect of the eligible investment made by it in India on or after the date of publication of this notification in the Official Gazette but on or before the 31st day of March, 2024 (hereinafter referred to as the said investments) subject to the fulfillment of the certain conditions. Violation of any of the conditions as stipulated in the said clause (23FE) of section 10 of the Act and this notification shall render the assessee ineligible for the tax exemption.
- Notification No. 98/2022 dated 17th August 2022:** In exercise of the powers conferred by sub-section (1) of section 239A read with section 295 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby makes the following rules further to amend Income-tax Rules, 1962. In the Income-tax Rules, 1962 (hereinafter referred to as the principal rules),

(I) in Part VIII, before rule 41, the following rule shall be inserted, namely: - “40G. Refund claim under section 239A. (1) A claim for refund under section 239A shall be made in Form No. 29D. (2) The claim under sub-rule (1) shall be accompanied by a copy of an agreement or other arrangement referred to in section 239A. (3) The claim under sub-rule (1) may be presented by the claimant himself or through a duly authorised agent.”

(II) in rule 41, in sub-rule (1), after the words and figures “under Chapter XIX” the brackets, words and figures “(other than under section 239A)” shall be inserted.

(III) In the principal rules, in Appendix-II, after the Form No. 29C, the Form No 29D shall be inserted.
- Notification No. 99/2022 dated 17th August 2022:** In exercise of the powers conferred by clause (ii) to fifth proviso to sub-section (1G) of section 206C of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as “Act”) and in suppression of the notification of the Government of India, Central Board of Direct Taxes published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) vide number S.O. 1494(E), dated the 30th March 2022, except as respects things done or omitted to be done before such suppression, the Central Government hereby notifies that the provisions of sub-section (1G) of section 206C of the Act shall not apply to a person (being a buyer) who is a non-resident in terms of section 6 of the Act and who does not have a permanent establishment in India.
- Notification No. 100/2022 dated 18th August 2022:** In

the Income-tax Rules, 1962, in rule 128, for sub-rule (9) the following sub-rule shall be substituted, namely:- “(9) The statement in Form No. 67 referred to in clause (i) of sub-rule (8) and the certificate or the statement referred to in clause (ii) of sub-rule (8) shall be furnished on or before the end of the assessment year relevant to the previous year in which the income referred to in sub-rule (1) has been offered to tax or assessed to tax in India and the return for such assessment year has been furnished within the time specified under sub-section (1) or sub-section (4) of section 139: Provided that where the return has been furnished under sub-section (8A) of section 139, the statement in Form No. 67 referred to in clause (i) of sub-rule (8) and the certificate or the statement referred to in clause (ii) of sub-rule (8) to the extent it relates to the income included in the updated return, shall be furnished on or before the date on which such return is furnished.” They shall be deemed to have come into force from 1st day of April, 2022.

- Notification No. 101/2022 dated 22nd August 2022:** In the Income-tax Rules, 1962, in rule 17CB, (i) for the words “trust or institution” wherever they occur, the words “specified person” shall be substituted; (ii) in Explanation, after clause (h), the following clause shall be inserted, namely: ‘(ha) “specified person” shall have the same meaning as assigned to it in clause (iia) of the Explanation to section 115TD.
- Notification No. 102/2022 dated 22nd August 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 Chhattisgarh, hereby designates all the Chief Judicial Magistrate Courts of the State of Chhattisgarh as Special Courts for the purposes of section 280A of the Income-tax Act, 1961 and section 84 of the Black Money (Undisclosed Foreign Income and Assets) and Imposition of Tax Act, 2015, for the areas falling within the respective territorial jurisdictions of the Chief Judicial Magistrate Courts in the State of Chhattisgarh.
- Notification No. 103/2022 dated 24th August 2022:** In exercise of the powers conferred by clause (46) of section 10 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies for the purposes of the said clause, the Andhra Pradesh Pollution Control Board (PAN AAAJA1610Q), a Board constituted by the State Government of Andhra Pradesh under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974), in respect of the following specified income arising to that Board:

(a) consent fee received under the Water (Prevention and Control of Pollution) Act, 1974 (6 of 1974) and Air (Prevention and Control of Pollution) Act, 1981 (14 of 1981);

(b) analysis fees or air ambient quality survey fees or noise level survey fees; (c) reimbursement of the expense received from Central Pollution Control Board towards National Water Quality Monitoring Programme and National Air Quality Monitoring Programme like Schemes

(d) bio medical authorization fees; (e) cess reimbursement and cess appeal fees; (f) grants from State or Central Gov-

ernment; (g) fees received under the Right to Information Act, 2005 (22 of 2005); (h) sale of law books where no profit element is involved and the activity is not commercial in nature; (i) interest on loans and advances given to staff of the Board; (j) miscellaneous income like sale of old scrap items, tender fees; and (k) Interest earned on (a) to (j) above. This notification shall be effective subject to the conditions that the Andhra Pradesh Pollution Control Board, (a) shall not engage in any commercial activity; (b) activities and the nature of the specified income shall remain unchanged throughout the financial years; and (c) shall file return of income in accordance with the provision of clause (g) of sub-section (4C) of section 139 of the Income-tax Act, 1961.

INDIRECT TAXES

GST

- **Notification No.17/2022–Central Tax dated 1st August 2022:** In exercise of the powers conferred by sub-rule (4) of rule 48 of the Central Goods and Services Tax Rules, 2017, the Government, on the recommendations of the Council, hereby makes the following further amendment in the notification of the Government of India in the Ministry of Finance (Department of Revenue), No. 13/2020 –Central Tax, dated the 21st March, 2020. In the said notification, in the first paragraph, with effect from the 1st day of October, 2022, for the words “twenty crore rupees”, the words “ten crore rupees” shall be substituted.
- **Circular No. 177/09/2022 dated 3rd August 2022:** Clarifications regarding applicable GST rates & exemptions on certain services.
 1. Rate of GST applicable on supply of ice-cream by ice-cream parlors during the period from 01.07.2017 to 05.10.2021;
 2. Applicability of GST on application fee charged for entrance or the fee charged for issuance of eligibility certificate for admission or for issuance of migration certificate by educational institutions;
 3. Whether storage or warehousing of cotton in baled or ginned form is covered under entry 24B of Notification No. 12/2017-Central Tax (Rate) which exempted services by way of storage and warehousing of raw vegetable fibres such as cotton before 18.07.2022;
 4. Whether exemption under Sl. No. 9B of notification No. 12/2017-Central Tax (Rate) dated 28.06.2017 covers services associated with transit cargo both to and from Nepal and Bhutan;
 5. Applicability of GST on sanitation and conservancy services supplied to Army and other Central and State Government departments;
 6. Whether the activity of selling of space for advertisement in souvenirs is eligible for concessional rate of 5%;
 7. Taxability and applicable rate of GST on transport of minerals from mining pit head to railway siding, beneficiation plant etc., by vehicles deployed with driver for a specific duration of time;
 8. Whether location charges or preferential location

charges (PLC) collected in addition to the lease premium for long term lease of land constitute part of the lease premium or upfront amount charged for long term lease of land and are eligible for the same tax treatment;

9. Applicability of GST on payment of honorarium to the Guest Anchors;

10. Whether the additional toll fees collected in the form of higher toll charges from vehicles not having fastag is exempt from GST;

11. Applicability of GST on services in the form of Assisted Reproductive Technology (ART)/In vitro fertilization (IVF);

12. Whether sale of land after levelling, laying down of drainage lines etc., is taxable under GST;

13. Situations in which corporate recipients are liable to pay GST on renting of motor vehicles designed to carry passengers;

14. Whether hiring of vehicles by firms for transportation of their employees to and from work is exempt under Sr. No. 15(b) of Notification No. 12/2017-Central Tax (Rate) transport of passengers by non-air conditioned contract carriage;

15. Whether supply of service of construction, supply, installation and commissioning of dairy plant on turn-key basis constitutes a composite supply of works contract service and is eligible for concessional rate of GST prior to 18.07.2022;

16. Applicability of GST on tickets of private ferry used for passenger transportation

The issues have been examined by GST Council in the 47th meeting held on 28th and 29th June, 2022. The issue-wise clarifications were recommended by the GST Council.

- **Circular No. 178/09/2022 dated 3rd August 2022:** GST applicability on liquidated damages, compensation and penalty arising out of breach of contract or other provisions of law.
- **Circular No. 179/09/2022 dated 3rd August 2022:** Clarification regarding GST rates & classification (goods) based on the recommendations of the GST Council in its 47th meeting held on 28th – 29th June, 2022 at Chandigarh.

CUSTOMS

- **Notification No. 45/2022-Customs dated 31st August 2022:** Seeks to further amend notification no. 130/2010-Customs dated 23rd December, 2010.
- **Notification No. 46/2022-Customs dated 31st August 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 up to and inclusive of the 31st March, 2023.
- **Circular No. 12/2022-Custom dated 16th August 2022:** Guidelines for launching of Prosecution in relation to offences punishable under the Customs Act, 1962.
- **Circular No. 13/2022-Custom dated 16th August 2022:** Revised Guidelines for Arrest and Bail in relation to of-

fences punishable under Customs Act, 1962.

- **Circular No. 14/2022-Custom dated 18th August 2022:** Custom duty on Display Assembly of a cellular mobile phone.
- **Circular No. 15/2022-Custom dated 23rd August 2022:** Simplification for procedure for compounding of offences under Customs Act, 1962.
- **Circular No. 16/2022-Custom dated 29th August 2022:** Faceless Assessment – Standard Examination Orders through RMS - Phase 1, Part 1.

EXCISE

- **Notification No. 21/2022-Central Excise dated 2nd August 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944) read with section 147 of Finance Act, 2002 (20 of 2002), the Central Government, being satisfied that it is necessary in the public interest so to do, hereby makes the further following amendment 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, against S. No. 2, for the entry in column (4), the entry “Rs. 4 per litre” shall be substituted.
- **Notification No. 22/2022-Central Excise dated 2nd August 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 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. 17,750 per tonne” shall be substituted; (ii) against S. No. 2, for the entry in column (4), the entry “Nil” shall be substituted.
- **Notification No. 23/2022-Central Excise dated 18th August 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944) read with section 147 of Finance Act, 2002 (20 of 2002), the Central Government, being satisfied that it is necessary in the public interest so to do, hereby makes the further following 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 per litre” shall be substituted.
- **Notification No. 24/2022-Central Excise dated 18th August 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 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. 13,000 per tonne” shall be substituted; (ii) against S. No. 2, for the entry in column (4), the entry “Rs. 2 per litre” shall be substituted.

- **Notification No. 25/2022-Central Excise dated 31st August 2022:** WHEREAS, the Central Government on being satisfied that the Special Additional Excise Duty leviable on Aviation Turbine Fuel falling under heading 2710 of the Fourth Schedule to the Central Excise Act 1944 (1 of 1944), should be revised and that circumstances exist which render it necessary to take immediate action. NOW, therefore, in pursuance of section 147 of the Finance Act, 2002, the Central Government, hereby directs that the Eighth Schedule to the said Finance Act, 2002, shall be amended in the following manner, namely: -In the Eighth Schedule to the Finance Act, 2002, against Item No. 4, for the entry in column (3), the entry “Rs. 12 per litre” shall be substituted.
- **Notification No. 26/2022-Central Excise dated 31st August 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, published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), vide number G.S.R. 584(E), dated the 19th July, 2022, namely: -In the said notification, in the Table, -(i) against S. No. 1, for the entry in column (4), the entry “Rs. 13,300 per tonne” shall be substituted; (ii) against S. No. 2, for the entry in column (4), the entry “Rs. 9 per litre” shall be substituted.
- **Notification No. 27/2022-Central Excise dated 31st August 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. 12 per litre” shall be substituted.
- **Notification No. 28/2022-Central Excise dated 31st August 2022:** In exercise of the powers conferred by section 5A of the Central Excise Act, 1944 (1 of 1944) read with section 112 of Finance Act, 2018 (13 of 2018), the Central Government, on being satisfied that it is necessary in the public interest so to do, hereby makes the following amendments in the notification of the Government of India in the Ministry of Finance (Department of Revenue), No. 10/2022-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. 1.50 per litre” shall be substituted.

Sources: incometax.gov, cbic.gov.in

Benevolent Fund

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OBJECTIVE

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BENEFITS

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- ⊙ **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 -

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- ⊙ 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
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