

THE MANAGEMENT ACCOUNTANT

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INDIAN RAILWAYS

INNOVATIVE
MEASURES
FOR A
BETTER
TOMORROW



Journal of

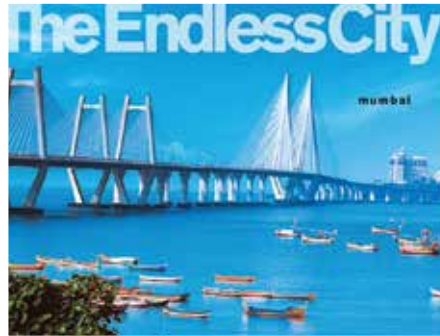


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1



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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.

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“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.”

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- 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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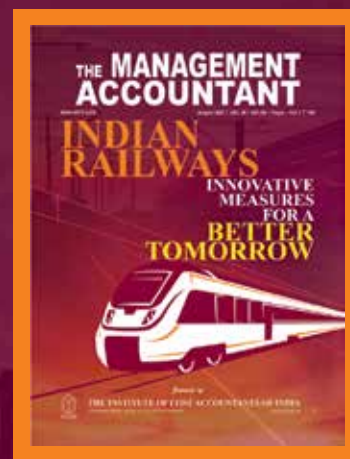
असतोमा सद्गमय
तमसोमा ज्योतिर्गमय
मृत्योर्मा मृतं गमय
ॐ शान्ति शान्ति शान्तिः

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

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INSIDE COVER STORY AUGUST 2021



AUGUST VOL 56 NO.08 ₹100

INDIAN RAILWAYS - YESTERDAY, TODAY AND TOMORROW ---- (2) (5)

MAKE IN INDIA MOVEMENT & INDIAN RAILWAYS ---- (2) (9)

INDIAN RAILWAYS VISION 2024: PURPOSE APPRAISAL THROUGH AN EMPIRICAL EXPLORATION OF THE KEY DRIVING FORCES ---- (3) (4)

SAFETY INITIATIVES IN INDIAN RAILWAYS ---- (3) (9)

PERFORMANCE COSTING SYSTEM OF INDIAN RAILWAYS: ROLE OF CMAs ---- (4) (2)

SPREAD OF IT IN INDIAN RAILWAYS ---- (4) (6)

ACCRUAL BASIS OF ACCOUNTING - THE FUTURE ACCOUNTING PROSPECTUS FOR INDIAN RAILWAY ---- (5) (1)

A STUDY ON ROLE OF INDIAN RAILWAYS TO COMBAT COVID -19 PANDEMIC ---- (5) (4)

UNDERSTANDING OF DIGITALIZATION AND GREEN MEASURES OF INDIAN RAILWAYS IN THE MODERN ERA ---- (5) (8)

DEDICATED FREIGHT CORRIDORS OF INDIAN RAILWAYS: A STEP TOWARDS BETTER TOMORROW ---- (6) (2)

INDIAN RAILWAYS: PAST, PRESENT AND FUTURE A JOURNEY TOWARDS 'MAKE IN INDIA' ---- (6) (6)

INDIAN RAILWAYS AND FREIGHT TRAFFIC OPERATIONS: AN OVERVIEW OF PERFORMANCE AND PROSPECTS ---- (7) (1)

IMPACT OF DIGITIZATION ON INDIAN RAILWAYS: A MASSIVE TRANSFORMATION TOWARDS MODERNIZATION ---- (7) (5)



DIGITAL TRANSFORMATION

DIGITAL TRANSFORMATION WITH
BLOCKCHAIN TECHNOLOGY –
ACCOUNTING AND AUDITING

7 9

COVID 19 - IMPACT

NEW CHALLENGES FOR
CMA PROFESSIONALS IN THE
DIGITISED WORLD

8 6

DID THE INDIAN STOCK MARKETS
SIGNAL THE ONCOMING CRISIS?
A STUDY IN PERSPECTIVE OF COVID 19

8 9

BANKING

A STUDY ON EFFECTIVENESS OF
RECOVERY CHANNELS FOR
NPA MANAGEMENT

9 4

COST ACCOUNTING

ZERO BASE BUDGETING

9 8

<i>Editorial</i>	06
<i>President's Communique</i>	10
<i>From the Desk of Chairman</i>	16
<i>ICAI-CMA Snapshots</i>	22
<i>Digital Object Identifier (DOI) July - 2021</i>	101
<i>Down the Memory Lane</i>	102
<i>News from the Institute</i>	105
<i>Statutory Updates</i>	114

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EDITORIAL

Railways are the principal mode of transportation for freight and passengers in India. Railways also make it possible for people to conduct manifold activities like business, sightseeing, and pilgrimage along with transportation of goods over longer distances. Railways in India bind the economic life of the country as well as accelerate the development of industry and agriculture.

With the supply chain across the entire nation disrupted and the transfer of essential goods and services badly affected, the national transporter emerged as a beacon of hope amid the outbreak of pandemic last year. Oxygen Express trains have served the nation in an extraordinary manner and these trains were the game-changer in the fight against the COVID-19 pandemic. Even the train coaches were converted to COVID CARE units. These were equipped with Oxygen cylinders, power points for equipment and mobiles, WiFi facility for communication, security, linen arrangement, and 24-h running water in toilets and bathroom. At the short notice, Railways ran a large number of “*Shramik Specials*” trains also. These helped to ferry more than 5 million migrant labourers, to their native places, from the big cities of India. The COVID-19 pandemic challenges have demonstrated the resolve of the national transporter to fight back and emerge stronger.

In FY20-21, Indian Railways recorded the highest loading in freight transportation. Freight traffic carried by Indian Railways stood at 1,232.64 million tonnes in FY21. With this, the freight revenue of Indian Railways also increased to Rs.1,17,386 crores (approx.) for the year 2020-21, as against Rs.1,13,488 crores during fiscal 2019-20.

This year the Union budget of India has placed a huge focus on

investment in infrastructure to improve the economy and has allocated Rs.110,054.64 crore to the Ministry of Railways. Railway Sector is highly responsible for propelling India's overall development and enjoys intense focus from the Government for initiating policies that would ensure the time-bound creation of world-class infrastructure in the country. Indian Railways have logged the highest ever electrification of sections covering 6,015 Route Kilometer (RKM) in a single year during 2020-21. In order to control spiralling fuel bill, reduce dependence on imported fossil oil, increase the energy security of the nation, reduce pollution, improve operational efficiency and operating ratio, it is imperative that electrification is indispensable.

In April 2021, Indian Railways completed the arch closure of the under-construction Chenab Bridge which is the world's highest railway bridge. The Indian Railway launched the National Rail Plan, Vision 2024, to accelerate implementation of critical projects, such as multitrack congested routes, achieve 100% electrification, upgrade the speed to 160 kmph on Delhi-Howrah and Delhi-Mumbai routes, upgrade the speed to 130 kmph on all other golden quadrilateral-golden diagonal (GQ/GD) routes and eliminate all level crossings on the GQ/GD route, by 2024. Meri Saheli initiative launched in the recent past by Railway Protection Force (RPF) from 17th October 2020 across zones has given focused attention to women traveling alone in long-distance trains. A team of young lady RPF personnel interacts with them at originating station, en-route till terminating station.

In June 2021, to boost the Government's ‘*Aatmanirbhar Bharat*’ Mission, the government approved the allocation of 5 MHz in the 4G spectrum to the Indian Railways network for the safety



and security of the public at railway stations and in trains. Recently, in a bid to promote domestic vendors and products, Indian Railways has sought a rejig in the procurement policy to increase the participation of local players in the rail sector in a significant way, a step towards gearing up to Mission Atmanirbhar Bharat. Indian Railways are all set to give a massive boost to the indigenous semi-high speed train set, *Vande Bharat*. To commemorate 75 years of Independence, railways is preparing to roll out a minimum of 10 such new trains, which will link around 40 cities, by August 2022.

India's railway system has played a fundamental role in the country's development, transporting people and goods throughout its vast territory, integrating markets and connecting communities. The scope for CMA Professionals here is immense in the areas like Capacity Planning, Resource allocation and utilization, Investment Decisions, Measurement of Operational efficiency, Outsourcing decisions, Waste elimination, Cost Conscious and Cost Management initiatives, etc. CMAs with their multi-disciplinary and techno-commercial skills are the apt professionals to conduct Green Audit to ensure Compliance of Environmental Laws, effective assessment of Environment Cost, Environment Impact Assessment and Carbon Credit. CMAs, by applying Activity-based Costing and Performance Costing, can act as a catalyst to the management to initiate timely action for effective use of resources to enhance productivity, profitability and best utilization of capacity.

This issue presents a good number of articles on the cover story “*Indian Railways: Innovative Measures for a Better Tomorrow*” written by distinguished experts. We look forward to constructive feedback from our readers on the articles and overall development of the Journal. Please send your emails at editor@icmai.in. We thank all the contributors to this important issue and hope our readers will enjoy the articles.

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THE MANAGEMENT ACCOUNTANT

PAPERS INVITED

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

September 2021	Theme	Information System Security Audit	Subtopics	- Overview of IS Security & Audit - Compliance & Security Framework - Business Continuity & Disaster Recovery - Cyber Security & Cyber Forensics - Business Application - Acquisition, Development & Implementation - IT Audit in Banking Sector - IT Audit in SAP Environment - Cloud Computing Management Audit - Adopting & Migrating to the Cloud - Role of CMAs in IS Audit
October 2021	Theme	Forensic Audit: Tool for Fraud Detection & Prevention	Subtopics	- Forensic Accounting: A way to Detect, Fight and Prevent Fraud - Early Warning Signals (EWS) and Red Flags - Digital Forensics, Cyber Security and Cyber law - Fraud Risk Management Strategy - Emerging Needs of Forensic Audit in Corporate and Banking Frauds in India - Forensic Accounting in Stock Market Management - Growing NPAs and role of Forensic Auditors - Forensic Accounting and Auditing: Laws and Regulations - Forensic Accounting and Auditing Practices: India v/s Rest of the World - Integral role of CMAs in combating financial fraud
November 2021	Theme	Blockchain and Cryptocurrency: the Way Forward	Subtopics	- Evolution of Accounting and Auditing with Blockchain - Enterprise Asset Management with IoT and Blockchain - Blockchain for Banking and Finance - Recent development and emerging trends in Blockchain - Blockchain: Revolutionizing Cybersecurity - Forensics readiness of Blockchain technologies - Cryptocurrency in India: Government's stand and legal status - Decrypting Crypto: Prospects and Challenges - Bitcoin: The most profound revolution of recent times
December 2021	Theme	Changing Contours of Indian Insurance Sector	Subtopics	- Life Insurance in the post-pandemic World - Emerging trends in the General Insurance sector and Road Ahead - Scope of IoT in Indian Insurance ecosystem - Global Impact on Insurance Industry in India - Evolving role of InsurTechs - Disruptions in Payments: Powering Innovation in a Digital world - The winds of change in Health Insurance - COVID-19: a Catalyst for Innovation in the Insurance Market - Cyber Security & Data Protection - Auto Insurance: Getting ready for a Post Covid-19 Landscape

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 Biswarup Basu

President

The Institute of Cost Accountants of India

*“Where the mind is without fear
and the head is held high,
where knowledge is free.*

*Where the world has not been broken up into fragments by
narrow domestic walls.*

*Where words come out from the depth of truth,
where tireless striving stretches its arms toward perfection.*

*Where the clear stream of reason has not lost its way
into the dreary desert sand of dead habit.*

*Where the mind is led forward by thee
into ever widening thought and action.*

*In to that heaven of freedom, my father,
LET MY COUNTRY AWAKE!”*

– Rabindranath Tagore

My Dear Professional Colleagues,

On behalf of the Institute and also on my personal behalf, I extend our heartiest congratulations and best wishes to all newly appointed Union Cabinet Ministers. I strongly believe that new set of Council of Ministers will help further accelerate the efforts of the Government to make India Self-Reliant and to achieve Hon’ble Prime Minister Shri Narendra Modi’s dream of becoming a \$5 trillion economy by 2025 through rapid structural reforms.

The Institute also extends its heartiest congratulations to Shri Rao Inderjit Singh on his appointment as Hon’ble Union Minister of State for Corporate Affairs, Dr. Bhagwat Kishanrao Karad and Shri Pankaj Chaudhary as Hon’ble Union Minister of State for Finance. The Institute and its members are fully committed

PRESIDENT’S COMMUNIQUÉ

support the various initiatives taken by the various Ministries, Government of India for the economic development of the Country.

Meetings with VIPs

I am pleased to inform that I along with CMA P Raju Iyer, Vice President, CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute and CMA B.B. Goyal, Advisor, ICWAI MARF & former Addl. Chief Adviser (Cost), Ministry of Finance, GoI had an opportunity to meet and congratulate Dr. Subhas Sarkar on 4th August, 2021 on his assuming charge as the Hon’ble Union Minister of State for Education.

During the meeting, we submitted the representations to the Hon’ble Minister (i) to engage services of the Institute to study the Cost of School Education, (ii) to engage services of the Institute to study the Technical Institutions imparting undergraduate and post-graduate degree courses in engineering and other technical disciplines, (iii) to recommend maintenance of Cost Accounting Records in all Educational Institutes, including Trusts, Societies, etc. and (iv) to grant status of Institute of National Importance to our Institute.

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

On 29th July, 2021, CMA Neeraj D. Joshi, Chairman, Management Accounting Committee and CMA (Dr.) Ashish P. Thatte, Chairman, Corporate Laws Committee had an opportunity to congratulate Dr. Bhagwat Kishanrao Karad, on his assuming charge as Hon’ble Union Minister of State for Finance. In another meeting, CMA (Dr.) Ashish P. Thatte, Chairman, Corporate Laws Committee extended greetings to Smt. Darshana Vikram Jardosh, Hon’ble Union Minister of State for Railways and Textiles.

CMA (Dr.) Ashish P. Thatte, Chairman, Corporate Laws Committee along with CMA Neeraj D. Joshi, Chairman, Management Accounting Committee extended greetings to Shri Narayan Tatu Rane, Hon’ble Union Minister for Micro, Small and Medium Enterprises and Shri C.R. Patil, Hon’ble Member of Parliament (Lok Sabha), Navsari, Gujarat on 2nd August, 2021.

On, 27th July, 2021, I along with CMA Manoj Kumar Anand, Former Principal Adviser (Cost) to the Government of India extended greetings to Ms.

Mithlesh, Advisor (Cost) to the Government of India, Cost Audit Branch, Ministry of Corporate Affairs and discussed important matters related to the profession.

Seeking comments of the members on Draft Guidelines for the Formation of MDP Firms

As decided by the Council, the Draft Guidelines for the Formation of Multi-Disciplinary Partnership (MDP) firms by the members of the Institute of Cost Accountants of India as per provisions of the Cost and Works Accountants Act and Regulations and Draft Frequently Asked Questions on Formation of Multi-Disciplinary Partnership (MDP) Firms by the Practising Members of The Institute of Cost Accountants of India have been uploaded on the website of the Institute on 22nd July, 2021.

Members are requested to submit their comments on the draft Guidelines and FAQs for the constitution of Multi-Disciplinary Partnership (MDP) Firms within 21 (twenty one) days from the date of this intimation to the e-mail id: mdpcma@icmai.in. For details visit: <https://icmai.in/icmai/news/Suggestions-Draft-MDP.php>

Meeting on GST Accounts Assistant Scheme

I wish to inform that I attended an online meeting held under the chairmanship of Shri Manoj Pandey, Joint Secretary to the Government of India, Ministry of Corporate Affairs on July 8, 2021 wherein matters regarding changes required in the scope of proposed GST Tax Assistant Scheme were discussed. Post discussions, the Institute gave detailed proposal to MCA alongwith draft structure & framework of the proposed course under the Accounts Assistant Scheme covering both Part-I: Local and Part-II: Overseas.

Joint Capacity Building Program with Guru Nanak College

I am pleased to share that I along with CMA P. Raju Iyer, Vice President of the Institute participated in the Inaugural session of 7 days' Capacity Enhancement Program on "Recent Trends in Commerce & Management" organised by PG & Research Department of Commerce, Guru Nanak College [Autonomous] in association with our Institute on 12th July, 2021. Shri Manjit Singh Nayar, General Secretary & Correspondent, Dr. M. G. Raghunathan, Principal, Guru Nanak College, Dr. T. K. Avvaikothai, HoD, PG & Research Department of Commerce, Ms. S. Shoba & Dr. J. Mahalakshmi, Organizing Secretaries also participated in the program. CMA Balwinder Singh, Immediate Past President, CMA Chittaranjan Chattopadhyay, Council Member, CMA Vijender Sharma, Council Member, CMA T C A Srinivasa Prasad, Former Council Member and CMA K V N Lavanya, Former Chairperson, Hyderabad Chapter of the Institute delivered their key note address at different technical sessions.

Webinar by Indore Chapter

I had the pleasure of addressing the members of Indore-Dewas Chapter of the Institute during the Webinar organized by the Indore-Dewas Chapter on 'Show Cause Notices and Summons under GST and their replies' on 7th July 2021. Shri Raju Jetley, IRS, Assistant Commissioner CGST, C.

Ex. & Customs, Pithampur (Indore), GST Trainer Appointed by the Government was the Chief Guest and CA Rajender Arora, Chairman, GST Committee of NIRC of ICAI was the Key Note Speaker. CMA Ashwin Dalwadi, Chairman, IT Committee of the Institute and CMA Aniruddh Gupta, Chairman Indore Dewas Chapter also participated in the webinar.

Webinar on Taxation of Deceased Persons

I was invited to address a Webinar organised by Gyan station- What Next Theme for Professionals on the topic "Taxation of Deceased Persons- Tax liabilities & consequences of a deceased taxpayer & successor's role" on 4th July, 2021. Renowned Tax Guru Dr. Girish Ahuja was the resource person who enriched the participants with his knowledge of various aspects of Tax liabilities & consequences of a deceased taxpayer & successor's role.

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

© Banking Month in the month of July, 2021

BFSI Board under the dynamic Chairmanship of CMA Chittaranjan Chattopadhyay successfully organized a series of WEBINTs in the month of July, 2021 which was declared as the Banking Month by the Institute. BFSI Board organized four nos. of WEBINTs. Regulator, top echelons of Banking Sector both public sector and private sector graced the programmes and addressed the participants on a variety of contemporary topics relevant in today's banking scenario. All the WEBINTs were highly interactive with number of queries raised by participants which were duly addressed by the learned speakers and guests.

On 15th July, 2021 the 1st WEBINT by BFSIB was organized on the topic of Costing - Is it a panacea for improving NIM in Banks? Shri Shivan J.K, Managing Director & CEO of Dhanalakshmi Bank was the Chief Guest, Shri Madhav Kshirsagar, Director and CEO, Quantact Consulting, Guest of Honour, and CMA B.B.Goyal, Former Additional Chief Adviser, Ministry of Finance, and Head of Indian Cost Accounts Service and Shri B. Raj Kumar, Former Executive Director of Indian Bank were the other speakers.

On 17th July, 2021 the 2nd WEBINT was organized on the topic of 52nd year of Nationalisation - Role of PSBs-Impact on various sectors of Economy and the Society-Way Forward, Post Consolidation. Ms. Padmaja Chunduru, Managing Director & Chief Executive Officer, Indian Bank graced the event as its Chief Guest and session was moderated by CMA Mohan V Tanksale, Former Chief Executive of Indian Banking Association. Panelists were Shri Rohit Rishi, General Manager, Indian Bank, Shri D. Shivakumar Sharma, Chief General Manager, Union Bank of India and in on deputation as Sr. Advisor of Indian Banking Association, Shri S. Adikesavan, Chief General Manager, State Bank of India and Shri S B Singh, Chairman, Aryavart Gramin Bank.

On 25th July, 2021 the 3rd WEBINT was organized on the topic RegTech vs FinTech - the intersection of regulation and

disruption in Financial Services. Shri Arijit Basu, Former Managing Director, State Bank of India was the Guest of Honour along with CMA T. K. Venugopal, General Manager, Canara Bank, CMA Ranjeet Kumar Mishra, Chief Credit and Risk Officer, Satya Micro Capital Ltd. and Shri Ashish Anand, Founder & CEO, Whrrl. The WEBINT was moderated by CMA Mohan Bhatia, FINTECH Consultant.

On 31st July, 2021 the 4th WEBINT was organized by BFSIB on the topic RBIA in UCBs-How the Cooperative Banks are gearing up. CMA Sunil P Sathe, Managing Director and CEO of Thane Janata Sahakari Bank was the Chief Guest. It was also graced by CMA S Srinivasaraghavan, BFSI & Micro Finance Expert and Dr. Jatin Naik, General Manager, The Surat People's Cooperative Bank Ltd. CMA (Dr.) S.K.Gupta, MD & CEO of ICMAI RVO was also a speaker on the concluding session of CMA- Critical for Banks Boards.

◎ Certificate Courses on Banking

On 20th June, 2021, the 4th batch of Certificate Course on Concurrent Audit of Banks was inaugurated under the gracious presence of Shri D. Shivakumar Sharma, Sr. Advisor, Indian Banking Association who is under deputation from Union Bank of India.

The admission for the 5th batch of Certificate Course viz. Certificate Course on Concurrent Audit of Banks and Certificate Course on Credit Management of Banks are presently going on along with the 4th batch of Certificate Course on Treasury & International Banking. I request all the members and students to enroll for the courses for skill development and capacity enhancement in the Banking Sector.

◎ Certificate Course on Investment Management in association with NISM

Members and students are requested to avail the opportunity by registering in the course on Investment Management and take admission for the 6th batch. The BFSI Board has also approved the Level-IV of the Investment Management Course on Trading for a Living – Integrated Technical Analysis and Advanced Derivative trading strategies in collaboration with NISM (An educational initiative of SEBI). The details have been uploaded in the BFSI portal and admissions for the course are open.

◎ Annual ICAI National Awards - Essay Contest for Bankers

The BFSI Board has announced the winners for the annual ICAI National Awards essay contest on the topic of "Digital Banking and Inclusive Growth". The winners were acknowledged with awards and certificates. Essays are expected to be published in the upcoming issue of BFSI Chronicle.

◎ Certificate Course on General Insurance in association with National Insurance Academy

The BFSI Board would be soon launching the certificate course on general insurance in association with National Insurance Academy (NIA) to update the members about various facets of general insurance which are necessary for them to update their knowledge in insurance sector. The course would be of 25 hours with 7 Modules and would

be for 5 week duration in the weekends. The course is priced very reasonable at Rs.5000 plus GST for members to take the opportunity for skill development and knowledge dissemination.

◎ Tie up with SIDBI for Certified Credit Counselors for members and students of the Institute

SIDBI has approached the Institute for forming a partnership by way which members and students of the Institute can act as Certified Credit Counselors to address the credit needs of the MSME sector. The Institute is working towards having a MoU with SIDBI to culminate the matter and enable new opportunities for members and students of the Institute.

◎ Representation letters for inclusion of CMAs

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

I congratulate the BFSI Board and BFSI department for all the initiatives and endeavor and I am sure that the BFSI Board will come out with more programmes during the month of August 2021 which has been earmarked as Investment Management Month. The details of the programmes will be available on the Institute's website and I call upon all stakeholders to participate in the programmes and make it a grand success.

DIRECTORATE OF CAT

◎ CAT Examination Foundation Course (Entry Level) Part - I Examination – July 2021 term

The result of Foundation Course (Entry level) Part- I July 2021 Term Examination of CAT Course was declared after the examination was successfully concluded on 25th July, 2021. I would like to congratulate all the students who have passed the examination. Passing CAT examination makes these students eligible to take direct admission in Intermediate Course of Cost and Management Accountancy (CMA).

I place on records the efforts of team CAT for successfully conducting the examination in home based online mode.

◎ Extension of date of admission for CAT Course students for December, 2021 Examination

The last date of admission for CAT Course students has been extended up to 31st August, 2021 for December, 2021 CAT Foundation Course (Entry Level) Part I Examination. I urge the CAT aspirants to register themselves as early as possible without waiting for the last date.

◎ Meeting with the Officials

As I have mentioned in my previous communiques that delegation of CAT regularly meets senior officers and Ministers of Central & State government to take up CAT proposal under skill development programme. I am happy to inform you that the delegation, comprising of Members of Committee for Accounting Technicians and other Council Members, viz. CMA P. Raju Iyer, Vice President, CMA H. Padmanabhan, Chairman, Committee for Accounting Technicians & AAT Board, Former Vice President of the Institute & CMA Rakesh Singh (former President), CMA (Dr.) K Ch A V S N Murthy, CMA

Chittaranjan Chattopadhyay, Members of Committee for Accounting Technicians and CMA Vijender Sharma, Chairman-Professional Development & CPD Committee and International Affairs Committee called on Shri N. Rangasamy, Hon'ble Chief Minister of Government of Puducherry, Shri A. Namassivayam, Hon'ble Home Minister- Government of Puducherry and Prof. Gurmeet Singh, Vice-Chancellor of Pondicherry University on 29th July, 2021 in Puducherry and the meetings took place in a very cordial environment and I understand that we'll see a positive outcome in coming months. I am thankful to CMA H. Padmanabhan for his tireless efforts towards uplifting the reach of CAT course.

◎ New ROCCs

I am pleased to see the CAT Directorate continuing to extend its family. I congratulate my Council colleague CMA H. Padmanabhan, Chairman-CAT for establishment of two new Recognized Oral Coaching Centres (ROCCs), one in Permade of Idduki District (Kerala) and another in north-eastern India-Dimapur, the most populous city of Nagaland. While the former is another shot in the arm of CAT Directorate which is being well positioned in the southern state of Kerala, the latter may open new doors of opportunity for the youth of not only the state of Nagaland but for the other north-eastern states too.

◎ WEBINT

The WEBINT series on IND AS- an initiative of the Committee for Accounting Technicians and AAT Board will be conducted this month. I am thankful to eminent resource person CMA (Dr.) Gopalkrishna Raju for giving knowledge to our Members and students. I express thanks to CMA H. Padmanabhan, Chairman-CAT & AAT Board, Former Vice President of the Institute for leading this initiative.

◎ Launching of CAT Course in Kozhikode-Malappuram Chapter

I am happy to see that CMA H Padmanabhan regularly holds direct dialogue with the Regional Councils and Chapters. In an online event lead by him and conducted jointly by RCC & CAT on 3rd July, 2021, CAT course was launched in Kozhikode-Malappuram Chapter of the Institute.

◎ Memorandum of Understanding with Association of Accounting Technicians (AAT)

I am glad to share with you that an MoU has been signed between the Institute and Association of Accounting Technicians (AAT) on 14th July, 2021. AAT will provide the education and training of "Accounting Executive" course and provide infrastructure and other facilities mainly for CAT course delivery under different schemes of the Central & State Governments / Union-Territories and Government promoted organizations. It will also handhold CAT passed students and take care of their post qualification needs, just like the Institute does for its Members. I hope this association will be beneficial and will remain everlasting.

◎ Interactive Talk Show

I am happy to see that CMA H Padmanabhan interacted with members and students through Interactive Talk Show organised by CAT ROCC- Logic School of Management, Cochin on 31st July 2021 through virtual platform.

DIRECTORATE OF STUDIES

◎ CMA National Online Business Quiz 2021

I am pleased to convey that the Grand Finale of 'CMA National Online Business Quiz 2021' in association with 'The Hindu Group' has been successfully conducted by the Directorate of Studies and Board of Advanced Studies & Research on 25th July 2021. This online mega final was graced by Shri Suresh Balakrishna, Chief Revenue Officer, The Hindu as the Chief Guest and my Council Colleagues CMA Balwinder Singh, CMA H Padmanabhan and CMA Debasish Mitra. The 1st Prize Winners were Priyanka Surana and Riya Chandak, the 2nd Prize Winner was Sanvedi Rane and the 3rd Prize Winner was Bhagyashri Taparia. This online event was viewed by a good number of audiences.

◎ Campus Placement 2021

I am very much pleased to announce that 3rd Phase of Campus Placement drives (August - October 2021) was initiated by the Training & Placement wing of the Institute. Around 500 qualified Cost Accountants have received placement offers in reputed organizations so far. Many reputed companies have been requesting us for enlistment in the 3rd phase of Campus Placement drives. I wish all success for these Campus Placement initiatives.

◎ International Conference in association with IIM, Jammu

I feel honored to be present in the inaugural session of the 2-day Virtual International Conference on 'Sustainable Finance, Economics & Accounting in the Pre and Post Pandemic Era' organized by IIM, Jammu held on July 30 - 31, 2021. Our Institute was one of the partners in this important conference. Academicians, Research Scholars and Professionals across the globe attended the conference.

INTERNAL AUDITING AND ASSURANCE STANDARDS BOARD

As you are aware, the Internal Auditing and Assurance Standards Board (IAASB) under the Chairmanship of CMA P. Raju Iyer, Vice President of the Institute has already released Guidance Note on Internal Audit of Cement Industry, Education sector and Risk Based Internal Audit.

It gives me immense pleasure to inform you that the Board has now released 'Guidance Note on Internal Audit of Pharmaceutical Industry' after considering the views/suggestions/ comments of all the stakeholders of the Institute. All Guidance Notes on Internal Audit are available in the website of the Institute under the Menu Tab "IAASB" with the caption "New Release – Internal Audit Guidance Notes".

Further, the Board has released Exposure Draft of the Guidance Note on Internal Audit of Power Sector inviting views/comments/suggestions from the stakeholders of the Institute. All members are requested to provide their valuable suggestions and comments on the Exposure Draft of aforesaid Guidance Note available at <https://icmai.in/icmai/news/IAASB-GN.php> in the specified format latest by 10th August 2021 through email at iasb@icmai.in

INTERNATIONAL AFFAIRS COMMITTEE

I am pleased to inform that the Union Cabinet, chaired by

Hon'ble Prime Minister Shri Narendra Modi, has approved the signing of Memorandum of Understanding (MoU) between Institute of Cost Accountants of India and the Association of Chartered Certified Accountants, United Kingdom, (ACCA, UK). Both the Institutes shall be signing this MoU very shortly to make it operational. This MoU would provide mutual advanced entry to the Members of both the Institutes through exemptions from appearing in majority of papers to acquire the qualification of the other Professional Body and to undertake joint research, continuing professional development activities. The MoU would facilitate the movement of professionals in both jurisdictions and will enhance the employability of Cost Accountants in India and abroad.

◎ CAPA Members Meeting and AGM

I wish to inform that I along with CMA Vijender Sharma, Chairman International Affairs Committee and CMA (Dr.) Ashish P. Thatte, Member of CAPA Member Development Committee attended the CAPA Members Meetings and AGM on 6th July, 2021 through virtual mode wherein recent initiatives of CAPA and future work plans were discussed.

MEMBERSHIP DEPARTMENT

I am happy to share that in the month of July 2021, 203 new Associate memberships have been granted and 41 Associate members have been granted Fellowship. I congratulate and extend a warm welcome to all the members.

A gentle reminder to members who are yet to pay membership fees for 2021-22, that membership fees for the current financial year have fallen due on 1st April 2021 and are required to be paid latest by 30th September 2021. From our records it appears that some members are yet to pay their membership fees and I call upon them to please avail the Institute's online facilities to pay their dues at the earliest and continue to enjoy the benefits of membership.

PROFESSIONAL DEVELOPMENT & CPD COMMITTEE

I am pleased to inform that on Institute's representation, Uttarakhand Power Corporation Limited (UPCL) considered Cost Accountants for Reconciliation of old accounts of units. PD Directorate submitted representations to various organizations for inclusion of cost accountants for providing professional services.

Please visit the PD Portal for Tenders/EOIs during the month of July 2021, where services of the Cost Accountants are required in Central Cottage Industries Corporation of India Ltd., India Government Mint, Karnataka Silk Industries Corporation Ltd, Karnataka Silk Marketing Board, NHM Chhattisgarh, Intelligent Communication Systems India Limited (ICSIL), Indian Institute of Management Jammu (IIMJ), National Highways Authority of India, Uttarakhand Power Corporation Limited (UPCL), District Health & Family Welfare Society Nuh, Jammu & Kashmir Project Construction Corporation Limited (JKPCC Ltd), Haryana Forest Development Corporation Limited, Konkan Railway Corporation Limited, etc.

As a step towards strengthening and guiding the professionals in practice and other stakeholders in Industry,

Expression of Interest (EOI) is invited from the experienced and knowledgeable professionals for the preparation of Guidance Notes / Revision of the existing Guidance Notes. I have unflinching faith in our own brigade of members for more participation to the EOI. For more details, visit website of the Institute.

During the month, Professional Development & CPD Committee associated with the PHD Chamber of Commerce and Industry conducted webinars on "Search, Seizure, Arrests, Recovery and Provisional attachment-Intricacies and Way Forward" ; "Faceless Assessments & Faceless Appeals: Laudable initiative - Mixed Beginning" and also "GST Day Celebration".

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

REGIONAL COUNCIL & CHAPTERS COORDINATION COMMITTEE

◎ National Regional Council & Chapters Meet

I am pleased to share that the Regional Council & Chapters Coordination Committee under the dynamic Chairmanship of CMA (Dr.) K Ch A V S N Murthy successfully conducted a day long interactive National Regional Council & Chapters Meet on 18th July, 2021 through Video Conferencing. I participated in the event along CMA P. Raju Iyer, Vice President and other council colleagues.

In his welcome address, CMA (Dr.) K Ch A V S N Murthy thanked and welcomed representatives from Regional Councils and Chapters who attended in large numbers. After hearing the views of Chairman from respective region the chapter representatives discussed a variety of issues while appreciating the proactive roles taken by the Regional Council & Chapters Coordination Committee. This was followed by responses on the issues from various heads of departments led by CMA Kaushik Banerjee, Secretary.

In the valedictory session I along with CMA P. Raju Iyer, Vice President, CMA (Dr.) K Ch A V S N Murthy, Chairman of the Committee and all other Council colleagues who were present addressed the participants with their most valuable views and guidance and encouraged them to keep on doing their best for the benefit of students, members and other stakeholders.

◎ WEBINT on Accounting Standards for Small and Medium Companies.

I congratulate CMA (Dr.) K Ch A V S N Murthy, Chairman of the Regional Council & Chapters Coordination Committee and CMA (Dr.) Ashish P. Thatte Chairman of the Corporate Laws Committee for jointly conducting a WEBINT on "Accounting Standards for Small and Medium Companies" which was held online on 23rd July, 2021. Vice President of the Institute CMA P. Raju Iyer, in his inaugural address mentioned about the opportunities of the CMA professionals in the small and medium companies.

CMA (Dr.) K Ch A V S N Murthy, Chairman of the

PRESIDENT'S COMMUNIQUE

Regional Council & Chapters Coordination Committee introduced the topic and CMA Gururaj Acharya who was the learned expert speaker for the day, to all the participants. After CMA Gururaj Acharya's address, CMA (Dr.) Ashish P. Thatte, Chairman of the Corporate Laws Committee summed up the session. The WEBINT was attended in large numbers and were appreciated by the participants.

TECHNICAL DEPARTMENT

I wish to inform you that the Ministry of Corporate Affairs has deployed Costing Validation Tool 3.2. Please use the current tool for validating Instance Documents. The tool is available at <https://www.mca.gov.in/XBRL/>

TAX RESEARCH DEPARTMENT

It is always a pleasure to note the efforts of the Tax Research Department to strive for the best possible knowledge upgradation of our members. Central Board of Direct Taxes (CBDT) celebrated 161st Anniversary of Income Tax Day on 24th July, 2021. To commemorate this occasion, TRD conducted a highly successful workshop of 8 hours covering 3 days, 30th July to 1st August, 2021 addressing the issues in filing of Income Tax returns. The topic for the session was "Filing of return of income - Provisions, Procedures and how to address issues". The workshop was highly appreciated all the participants. The department also conducted a webint session on the burning topic 'Linking up between Cost Audit and GST' during this fortnight. On the representation front, the department has submitted its suggestions for MOOWR Scheme, 2019 to Member (Customs), Central Board of Indirect Taxes and Customs (CBIC). Directorate General of Foreign Trade (DGFT), Department of Commerce has extended the Foreign Trade Policy (2015-2020) till 30th September 2021 and in order to prepare a new five year Foreign Trade Policy, suggestions/inputs were invited by the DGFT from various stakeholders vide its Trade Notice No. 09/2021-22 dated 16th July 2021. The department has submitted various suggestions in this front also. Classes for various TRD courses are also being conducted seamlessly. The department also released its 91st and 92nd Tax Bulletin.

ICMAI REGISTERED VALUERS ORGANISATION (RVO)

I am pleased to share that ICMAI RVO has organized the Virtual program on How to use Financial Modelling in Valuation on 3rd July, Practical Challenges in valuation and how to overcome them on 8th July, Case Studies on Valuation on 10th July, Learning Session Practical Aspects of Valuation on 11th July, Valuation of distressed companies - Impact of Covid on Valuation on 17th July, Demystifying Valuation Caveats, Limitations, and Disclosures in Valuation Report on 18th July, Practical Guidance How to handle valuation assignment in Challenging situations on 21st July, Case Studies in Valuation Observations of Peer Review of Valuation Report on 24th July, Enhancing skills for performing Valuations How to craft a credible Valuation Report on 25th July and Learning Session New Horizons In Valuation on 28th July 2021. ICMAI RVO also organized 50 hours Valuation Course on 'Securities or Financial Assets', 'Land and Building' and 'Plant and Machinery', 9th Online

Batch of seven days program on Plant & Machinery and Land & Building and 14th Online Batch of seven days program on Securities or Financial Assets during the month.

INSOLVENCY PROFESSIONAL AGENCY (IPA) OF THE INSTITUTE

I am pleased to inform that the Insolvency Professional Agency of the Institute has taken various professional development initiatives during the month for its members such as organizing Interactive Meet on Code of Conduct for Committee of Creditors on 2nd July, Master Class on Committee of Creditors on 3rd & 4th July, IP Conclave (5 Years Journey of IBC, 2016) on 11th July, Master Class on Evaluation Matrix, Liquidation & Fair Value from 16th to 18th July, 45th Batch of Pre-Registration Educational Course on 23rd July and Interactive Meet on Technologies for Insolvency Professionals on 24th July, 2021.

ICWAI MANAGEMENT ACCOUNTING RESEARCH FOUNDATION (MARF)

② Expression of Interest to Banks for participation in their Cost Optimization process after merger

As informed in my earlier Communique that ICWAI Management Accounting Research Foundation (MARF) of the Institute has submitted its expression of interest to various banks to participate in their Cost Optimization process after merger. I am pleased to inform that Union Bank of India has approached the Institute for the presentation on our proposal to their top management towards their efforts in cost reduction/optimization drive. ICWAI MARF and BFSI Board of the Institute made the presentation to top management of Union Bank of India. The Proposal is under consideration of Union Bank of India.

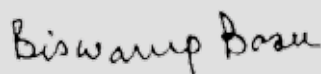
② Project Management Unit for Internal Audit in Indian Railways

I am pleased to inform that subsequent to the several meetings attended by the Institute's representative with the senior officers of Indian Railways regarding creation of a Project Management Team for Internal Audit in Indian Railways, we have submitted a proposal to the Indian Railways to engage the services of the Institute for creation of Project Management Unit for Internal Audit in Indian Railways.

I wish prosperity and happiness to members, students and their families on the occasion of Independence Day, Raksha Bandhan, Parsi New Year's Day, Janmashtami and wish them success in all of their endeavours.

Stay safe and healthy!

With warm regards,



CMA Biswarup Basu

August 5, 2021



FROM THE DESK OF CHAIRMAN

Committee for Accounting Technicians & AAT Board
The Institute of Cost Accountants of India

CMA H. Padmanabhan

My dear and respected Members,

Trust this finds you and your beloved ones in good health. We pray to Almighty for your good health and happiness always.

We are reaching you at a time when Covid-19 pandemic has made us learn the potential of internet-the e-learning. We are glad that WEBINT being run by the Institute have garnered a humongous response from all of you. While we learnt a lot from the eminent speakers who came on board and expressed great insights on relevant topics through these WEBINT. We are thankful to the President of the Institute who gave us a free hand in spearheading these WEBINTs.

The Committee for Accounting Technicians (CAT), tried its level best to cater to the needs of the students. The way we tapped the potential of information technology did wonders. The feedback from the Members and Students on series of WEBINT including the ones on IND AS spoke volumes about it. We ensure that Team CAT will always thrive in its deed of catering to the needs of the students providing virtual learning.

CAT course was designed meticulously having a blend of theoretical knowledge and practical training in the form of 45 days internship. The course is spread over a year encompassing accounting skill with conceptual clarity along with hands-on training through Tally. We are glad to share with you that recently, we have revamped syllabus of Certificate in Accounting Technicians (CAT) course to make it suitable for the stakeholders to cope up in contemporary business & economic environment. The updation in syllabus of CAT course was imperative since it is an employment oriented course. Now, the CAT course has become more relevant as per contemporary Laws & regulations, for e.g. Goods and Services Tax Law, Labour Laws etc. Apart from that significant changes have been made in Competency Level -Part-II like introduction of SAP End User Program and Cambridge - Generic Skills for Employability.

We are thankful to the Council of the Institute for giving us go ahead in this endeavour. We are thankful to all the Members of Committee for Accounting Technicians who gave their valuable inputs and the CAT Directorate who executed and finalised the changes.

To enhance the footprints of CAT course evenly all over India we have approached the State Governments and Union

Territories of India. The Institute has already been recognised under Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) of Government of India for offering the CAT course in various States. The delegation of Committee for Accounting Technicians {CAT} on a regular basis meets with senior officials of Skill Development Department in various states and we are pleased to share with you that our efforts are bearing fruits. In the month of March, a proposal was submitted to Maharashtra State Skill Development Society (MSSDS). We are hopeful that this partnership will give new dimensions to the CAT course in the State of Maharashtra. We are happy to share with all of you that three lakh students are targeted to be enrolled in CAT course by this. It is going to be the biggest in the history of the Institute given the volume of the students targeted with it, if it materialises. Many other states have shown interest in our proposal and Meeting with concerned authorities will take place soon. We hope, we would be able to share more good news about CAT foraying into other states.

We are glad to share with you that initiative is done with expansion of CAT and other Courses of the Institute with Pondicherry University and Government of Puducherry Union Territory. We met Honorable Chief Minister and Home, Education, Industries Minister of Puducherry Government and Vice Chancellor of Pondicherry University in this regard and had fruitful deliberations with them for way forward. We have been officially invited for further rounds of discussion to finalize the same by this month end.

The discussion about CAT course can never be completed if collaboration with the Government of Kerala under its ASAP program is not touched. Additional Skill Acquisition Programme (ASAP), a flagship programme of the Government of Kerala, the Institute being its first partner, CAT was introduced to the students of the State of Kerala for enhancing the employability of the students through Accounting Skill coaching and learning and continuous Faculty Development Programs. The ASAP model was a huge success in Kerala, benefitted more than ten thousand students of Kerala, who have been later able to earn well and many of them went on to grab handsome packages in the middle-east countries. In addition we were partners with them and successfully completed first ever SHE Skill Development Program exclusively for Girl Students of Kerala State.

The ASAP initially controlled by the Government of Kerala has now become Section 8 company and our partnership with ASAP is going to continue in future too. We are glad to share that we are into signing of MoU with ASAP Section 8 Company with little updates in the model based on the needs of the aspirants of Kerala.

We all are aware of the directions and guidance of our Honorable President of India in one of his statements requested Professional bodies like us to involve in awareness program reaching all sessions of Citizens of India on Financial Inclusion. We are pleased to inform that we are celebrating August 2021

as “Financial Inclusion” month on the theme “Financial Inclusion- Awareness Programme, Reach the Unreach” an initiative by CAT ICAI. We request your support and cooperation for making it a success.

Team CAT is trying to imitate the success of the Kerala model in other states too by seeking collaboration with them. The CAT course has got great potential specially in line with Skill India mission of the Government of India. With these steps we will leave no stone unturned to popularise CAT course in India and bridging the skill gap for the larger benefit of the youth of the India. We look forward to get your continued support and encouragement in our endeavours for CAT course.

Further, we are pleased to share that Institute has entered into the MoU with Association of Accounting Technicians (AAT) to promote the collaboration-to keep track of CAT qualified students, offering them membership of AAT, support them in enriching knowledge, grooming for enhancing their skills and providing them relevant training through value addition courses, webinars, seminars alike.

We are pleased to share with you that the doors are now open for CAT aspirants from abroad also. We have declared CAT Global alongwith declaration of CAT New Syllabus. This step has enabled CAT family to go GLOBAL.

For more details and recent updates on CAT course, please visit CAT portal at <https://icmai.in/icmai/cat/> regularly. Please feel free to write to us at cat@icmai.in or contact us at <https://icmai.in/icmai/cat/contactus.php>

We wish prosperity, happiness and good health to members, students and their family.

Follow PROTOCOLS

Stay Safe and Blessed

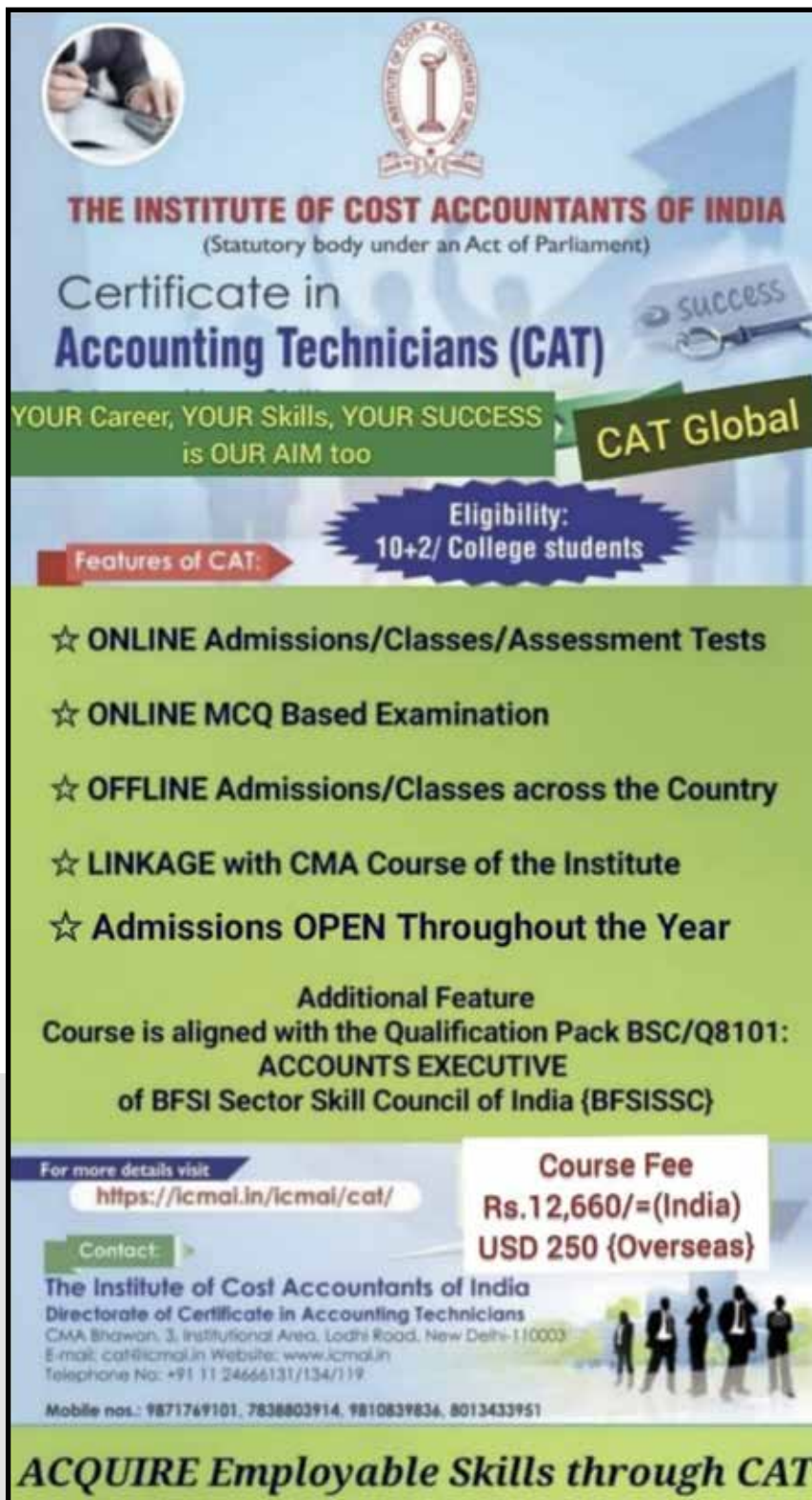
With Winning Wishes,
NAMASKAR



CMA H Padmanabhan

August 5, 2021

“ACQUIRE EMPLOYABLE
SKILLS through CAT”



The poster is for the Institute of Cost Accountants of India (ICAI) Certificate in Accounting Technicians (CAT). It features the ICAI logo at the top center. Below it, the text reads "THE INSTITUTE OF COST ACCOUNTANTS OF INDIA (Statutory body under an Act of Parliament)". The main title is "Certificate in Accounting Technicians (CAT)". To the right, there is a graphic of a key with the word "success" written on it. Below the title, a green banner says "YOUR Career, YOUR Skills, YOUR SUCCESS is OUR AIM too". To the right of this banner, a green box says "CAT Global". Below the banner, a blue box says "Eligibility: 10+2/ College students". To the left of this box, a red box says "Features of CAT:". Below these, a list of features is provided: "★ ONLINE Admissions/Classes/Assessment Tests", "★ ONLINE MCQ Based Examination", "★ OFFLINE Admissions/Classes across the Country", "★ LINKAGE with CMA Course of the Institute", and "★ Admissions OPEN Throughout the Year". Below the list, a section titled "Additional Feature" states "Course is aligned with the Qualification Pack BSC/Q8101: ACCOUNTS EXECUTIVE of BFSI Sector Skill Council of India (BFSISSC)". At the bottom left, a box says "For more details visit https://icmai.in/icmai/cat/". To the right of this, a box says "Course Fee Rs.12,660/=(India) USD 250 {Overseas}". Below the fee box, a green box says "Contact:". At the bottom, the text reads "The Institute of Cost Accountants of India Directorate of Certificate in Accounting Technicians CMA Bhawan, 3, Institutional Area, Lodhi Road, New Delhi-110003 E-mail: cat@icmai.in Website: www.icmai.in Telephone No: +91 11 24666131/134/119 Mobile nos.: 9871769101, 7838803914, 9810839834, 8013433951". At the very bottom, a green banner says "ACQUIRE Employable Skills through CAT".

DELEGATES MEET



As part of initiative of CAT and AAT Board of the Institute, CMA P Raju Iyer, Vice President, CMA Rakesh Singh, Former President, CMA Vijender Sharma, Chairman PD, CMA Chittaranjan Chattopadhyay, Chairman BFSI Board, CMA Dr K Ch A V S N Murthy, Chairman, Journal & Publications Committee and Regional Council & Chapters Coordination Committee and CMA H Padmanabhan, Chairman CAT and AAT Board met Honourable Chief Minister of Puducherry UT



As part of CAT & AAT Board ICAI initiative, team of delegates from Institute, CMA P Raju Iyer, Vice President, CMA Rakesh Singh, Former President, CMA Vijender Sharma, Chairman PD, CMA Dr K Ch A V S N Murthy, Chairman, Journal & Publications Committee and Regional Council & Chapters Coordination Committee, CMA Chittaranjan Chattopadhyay, Chairman BFSI Board and Indirect Taxation Committee and CMA H Padmanabhan, Chairman CAT and AAT Board met Shri A Namassivayam, Minister Puducherry-Home, Education, Industries & Commerce, Electricity, Sports, Sainik Welfare



CMA P Raju Iyer, Vice President of the Institute handing over proposal of CAT & AAT Board, ICAI to VC, Pondicherry University, Shri Gurmeet Singh along with CMA H Padmanabhan, Chairman, Committee for Accounting Technicians and AAT Board, CMA Dr K Ch A V S N Murthy, Chairman, Journal & Publications Committee and Regional Council & Chapters Coordination Committee, CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board and Indirect Taxation Committee, CMA Rakesh Singh, Former President and CMA Vijender Sharma, Chairman PD from Institute side along with other Officials of University



Chairman, BFSI Board and Indirect Taxation Committee, CMA Chittaranjan Chattopadhyay handed over Institute publications to Shri. Gurmeet Singh Vice Chancellor, Pondicherry University alongwith CMA H Padmanabhan, Chairman, CAT and AAT Board ICAI and University TEAM



CMA Chittaranjan Chattopadhyay, Chairman BFSI Board and Indirect Taxation Committee, CMA Vijender Sharma, Chairman PD and CMA H Padmanabhan, Chairman CAT and AAT Board ICAI met BANK top management Shri P Suresh, Puducherry Head and handed over BFSI Publication after discussing scope for PCMA's and IPAs in Banking Industry



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CMA NATIONAL ONLINE BUSINESS QUIZ 2021



CMA National Online Business Quiz 2021

Organized by

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The Institute of The Cost Accountants of India (ICAI)**

in association with

The Hindu Group



The quest for knowledge, like everything else of value, is not to be obtained easily. It must be worked for, studied for, thought for, and more than that must be prayed for. To encourage the students to widen their knowledge, The Directorate of Studies and Board of Advanced Studies & Research of The Institute of Cost Accountants of India in association with The Hindu Group organized First Round of CMA National Online Business Quiz 2021 in the month of April 2021. The mega online quiz event registered a participation of around 10,000 students in the preliminary round. Of which 263 students made it to the second level qualifying round. Subsequently, eight finalists from across the country battled it out to the finals of the online quiz event. The finals of the all-India quiz were held on 25th July 2021 through Zoom platform. The eight participants who made it to the finals were Bhagyashri Taparia (Maharashtra), Edde Nikil Kumar Reddy (Andhra Pradesh), T.P. Rakesh (Kerala), Priyanka Surana (Meghalaya), Sanvedi Rane (Maharashtra), Amandeep Singh (West Bengal), Riya Chandak (Rajasthan) and Yash Kansal (Uttar Pradesh).

The event commenced with the inaugural address of CMA H Padmanabhan, Council Member, ICAI where he appreciated the initiative of the Institute and The Hindu Group in

conducting a knowledge filled event. The Past President of the Institute, CMA Balwinder Singh, addressed the event and emphasized the importance of quiz to evaluate the knowledge of the participants within the academic level as well as beyond. He also added that conducting quizzes helps in the consistent quest for acquiring knowledge, hard work, determination and improving the social skill of the students. In the chief guest address, Shri. Suresh Balakrishna, Chief Revenue Officer, The Hindu appreciated the Institute for taking up the quiz event that ensured mass participation of over 10,000 students across the country. He also added that the partnership with the Institute and the execution of the programme was remarkable and would like to conduct events in future. The task of filtering from 10,000 participants to the final eight was a tough grind process.

The Grand Finale had two rounds-preliminary round and the finals round. The rules and regulations of the quiz were explained at the beginning. The first round was the Preliminary round consisting of three sub- rounds. At the end of the three sub-rounds six out of eight participants scored the same and this led to the tie-breaker sessions. At the end of the nail-biting tie breakers, the Quiz Master, CMA Debasish Mitra, Chairman, Board of Advanced Studies

declared the four finalists.

In the final round, the finalists went through five sub-rounds and the two finalists, Priyanka Surana and Riya Chandak came with the same score and were declared to be the winners of the competition. The finalists Sanvedi Rane and Bhagyashri Taparia were the first and the second runner-up respectively. The questions for the business quiz ranged from basic accounting and financial management to the business current affairs. The participants showed a spectacular performance that kept the heat of the event intact. CMA Debasish Mitra conducted the whole event as Quiz Master very efficiently with apt accompaniment by CMA Ria Chowdhury, Assistant Director of the Institute.

CMA Dr. D.P. Nandy, Sr. Director of the Institute announced the various prizes and certificates to be awarded to the successful participants of 2nd Round and Grand Finale of this Mega Quiz Contest. Kaustav Chatterji, Senior Deputy General Manager, The Hindu Group concluded the event with vote of thanks. He thanked the Institute for conducting an event that put everyone to the edge of their seats and for making the event a massive success. The online event has attracted more than 2000 viewership so far.



Grand Finale - CMA National Online Business Quiz 2021



CMA Biswarup Basu, President of the Institute along with CMA Manoj Kumar Anand, Former Principal Advisor (Cost) to the Government of India extending greetings to Ms. Mithlesh, Advisor (Cost) to the Government of India, Cost Audit Branch, Ministry of Corporate Affairs on 27th July, 2021.

CMA P Raju Iyer, Vice President along with CMA Chittaranjan Chattopadhyay, Chairman BFSI Board & Indirect Taxation Committee of the Institute and CMA B.B. Goyal, Advisor, ICWAI MARF & Former Addl. Chief Adviser (Cost), Ministry of Finance, GoI extending greetings to Dr. Subhas Sarkar, Hon'ble Union Minister of State for Education on 17th July, 2021

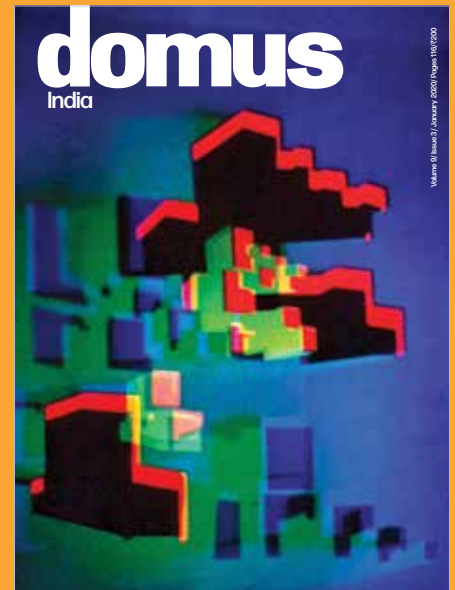
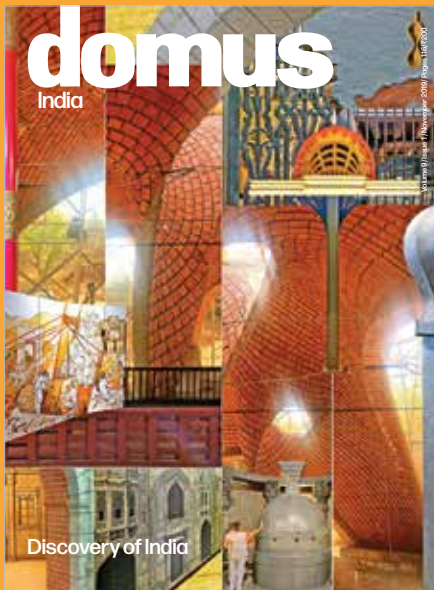


CMA Rakesh Singh, Former President of the Institute along with CMA Manoj Kumar Anand, Former Principal Advisor (Cost) to the Government of India, called on Ms Mithlesh ji, Advisor (Cost) to the Government of India, Cost Audit Branch, Ministry of Corporate Affairs, to discuss important professional matters.

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Technology is sweeping the world and is doing it much faster than all of us can anticipate or predict. Every single aspect of human behaviour is getting disrupted. Investing – long considered an art confined to smart bankers and advisors, is the new bastion being eyed by technology. Even as many of the older investors struggle to complete their targeted investments, tech savvy Millennials continue their investment journey uninterrupted through digital modes to grow financially.

Apropos to this, ICAI and NISM have launched a successful series of online Investment management program, that leverages on the strength of both Institutions. As a step towards strengthening this successful partnership, both institutions have planned to observe the month of August 2021 as “Investor Month” to spread the investment awareness among professionals.

The **Investor Month Observance** is an initiative of the **Banking, Financial Services & Insurance Board (BFSIB)** of the Institute in association with **National Institute of Securities Markets (NISM)**.

Distinguished speakers from the Securities markets are invited to share their thoughts and experiences, on relevant topics and with their gracious presence these events will be a source of inspiration to the participants and will serve as guidance in carrying out future endeavours in a much better manner. All the events will be streamed live through the official YouTube channel of the Institute to reach all stakeholders, members, students, investors and professionals of both Institutions across the country.

LISTS OF WEBINARS

(streaming link will be made available on the Institute's website)

Webinar	Topic	Date & Time
Webinar 1	New Age Investment in an Era of Low Interest rate	07.08.2021 (4 - 6 pm)
Webinar 2	Demystifying Mutual Fund Schemes	14.08.2021 (4 - 6 pm)
Webinar 3	IPO Investments	21.08.2021 (4 - 6 pm)
Webinar 4	Global Investments through Indian Mutual Funds	28.08.2021 (4 - 6 pm)

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

INDIAN RAILWAYS - YESTERDAY, TODAY AND TOMORROW

Abstract

Indian Railways is the lifeblood of the nation. For the last 150 years, the railways have run a parallel economy in such a manner that many small towns of India, specifically the railway towns are literally run by them. These towns thrive due to the railways. No railways, no jobs, no business.

Indian railway is one of the oldest organizations that is still functional. The history of railway in India started when in 1832, the British planned to build railways in Madras province, to transport granite (Red Hill Railroad). The project construction started in 1835 and was operational by 1836. Many more such small projects came up later on. In 1853, the first passenger train ran from Mumbai to Thane.

From the beginning days till 1951, railways were in private hands. In 1951, it was nationalised.

From the very beginning, railways have been the lifeblood of the economy of the nation. Be it passenger trains or goods trains, they have catered to the development of the nation. They have also been a major employer from the time of their inception.

By the end of 19th century, many railway towns had sprang up in India like Kharagpur, Asansol, Katni, Bhusawal and many more which were stopovers for the railways due to their proximity to Industrial and agricultural hubs, at the same time, they were places for repair and maintenance of Railway coaches and other engineering items.

The economies of these towns are still heavily dependent on the railways. There are instances where 3 generations of the same family have served the railways.

Let us discuss point wise, how railway controls the economy of these small railway towns:

1. Mass Employment:

The major employers of these towns are the Railways.

**From the very beginning,
railways have been the
lifeblood of the economy of the
nation**



CMA Abhishek Bhowmick

Manager (Finance), NISP

Nagarnar

abhi.abh.21@gmail.com

People work in various offices of the railways. From clerks to officers, doctors, nurses, ward boys, engine drivers, mechanics, engineers, school teachers, everyone is employed by the railways.

2. Indirect employment:

People who are engaged with the railways as contractors and suppliers are the ones who are working indirectly with the railways. The people working under these contractors and suppliers as engineers, staff, etc are also indirectly getting their remuneration from the railways itself.

3. Hawkers:

A huge number of hawkers or unorganised small business owners run their business and trade in the railway station and in from of the railway offices. That's why the railway stations and the office areas are always a bustling place full of people. These hawkers are in fact the largest number of persons who are directly or indirectly working under the umbrella called the

railway establishment.

4. Coolie:

The coolie or porter is a person who helps the passengers to port their luggage from outside the station right into the train. They are not railway staff, but they are registered under the railways and authorised to work as a porter in the railway station. A huge number of unskilled persons make their daily living working as a coolie.

5. Shopkeepers:

The shopkeepers who operate in these towns are all dependant on the railway population. Whether your shop is in front of the railway station, or within the platform, or outside the railway office, or within the vicinity of the railway colony, your customers are either the railway employees, or linked with the railways. No railway, no people, no business.

6. Lawyers:

The lawyers who are directly engaged on retainer-ship under the railways are serving the railways directly. But the independent lawyers, who cater common man, cater the railway employees, contractors or shopkeepers. Hence, their service is directly or indirectly linked with the railways.

7. Chartered/Cost Accountants:

In small towns, majority of the CAs or CMAs are serving the railway contractors and shopkeepers. Maintaining their books, audit, tax consultancy, tax return filing, appearing before Tax Dept, all these services are being given to the railway contractors, suppliers, businessman, etc.

They also receive various audit or consultancy projects from the railways and banks situated in railway towns which contribute to their own earnings.

8. Doctors:

Apart from the railway hospital doctors, there are many self-employed doctors who provide their services to the people living in the railway towns. Their daily bread is also earned from the railway, even though indirectly.

9. Railway based entrepreneurship:

Indian railways have always promoted entrepreneurship in the local economy. For e.g, the economy of Kharagpur Town and its surrounding areas are heavily dependent on the presence of the Kharagpur Workshop.

Many small and medium engineering units of West Midnapore and Howrah district are completely dependent on the railways.

Small entrepreneurs make small machine parts in these units as and when they receive a big order from the Railways. The engineering units of Howrah supply machine parts to Liluah and Kanchrapara workshops also.

10. Railways for education:

In towns like Kharagpur and Chakradharpur, many schools are run by the Indian railways. These schools, from the very beginning have focussed on the quality of education for the wards of local children.

11. Technical Education:

Railways have even taken interest in technical education by providing vocational training to many youngsters to prepare them for their future.

These students have gone forward to work with Indian Railways and have given back their technical knowledge to the railways.

Railways post Liberalization:

Currently Govt is trying to increase

the profitability of the railways through various methods. From increasing automation, to introduction of bullet trains to running trains on PPP model and increased private participation.

Any Public Sector Organization has more social responsibility than profit making approach. But if the profitability is on a declining mode, no organization can sustain for long. For this reason, Govt has increased private partnership and private participation. This will give a boost to major infrastructure boost to the railways, completely modernize the railway lines and engines and improve customer satisfaction through better facilities. Some salient features of modernization of the Indian Railways:

- ⊙ Giving more time to freight trains will increase revenue.
- ⊙ Hiking railway fares in long and short distance trains has major political impact, but not hiking the same at all will eventually lead to the closure of the railways.
- ⊙ Improving the timing will enhance consumer satisfaction.
- ⊙ Introduction of specific purpose trains like the Maharaja Express will boost in tourism and revenue of the railways.

The ministry of railways has given specific vision for the up gradation and modernization of the railways. We need to wait and expect that all the projects will be implemented on time and with due diligence which will increase profitability, as well as improve consumer satisfaction. **MA**

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1. <https://www.irfca.org/faq/faq-hist.html>
2. <https://www.ibef.org/industry/indian-railways.aspx>



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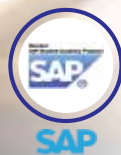
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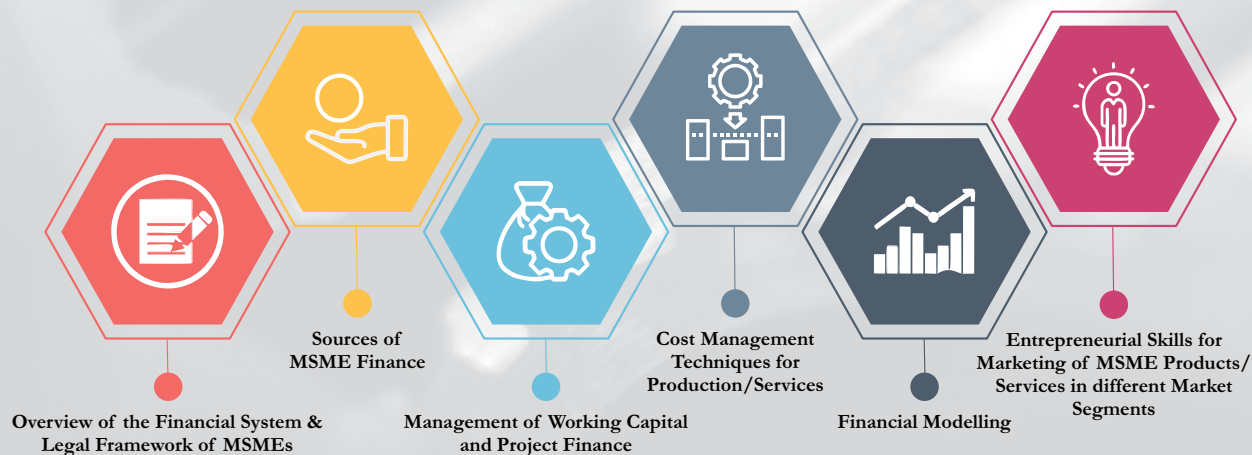
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MAKE IN INDIA MOVEMENT & INDIAN RAILWAYS

Abstract

The article explores into the progress of the Government's Make In India initiative since its kick off and brings forward the learning points to tackle the challenges of the future. This is done in a unique manner through the real life success story of indigenous High Speed Train 18 - a showcase example of Make In India in Indian Railways.



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Objective :-

To enable readers to have an objective exposure to this huge initiative that is Make In India and now the rechristened Atmanirbhar Bharat Abhiyan by presenting both the macro and micro aspects of

the initiative.

Section I - Macro View of Make In India

Section I of this article tries to take an objective view of the **Make-In-India** initiative of the Government of India that was launched in 2014 by presenting a holistic view of the progress so far made across sectors and the challenges that have been faced in these 6 years of journey.

Section II - Micro View

In Section II we shall look into the sector specific view of this initiative and would primarily focus on Railways – a critical sector that boasts its unique standing as the largest railway network in India and the second largest in the world under a single management. While attempting this we wish to present here a real life case that has been implemented – yes we are talking about **Train 18 – Vande Bharat Express** – a high speed train that was developed within a period of record 18 months at 80% indigenous equipment by ICF Chennai Team under the leadership of Mr.Sudhangshu Mani.

Section - I

Launching of Make in India – the backdrop

Since independence the share of manufacturing in the GDP has remained insignificant vis-à-vis other primary and tertiary sector contributions in spite of several Government policies floated to boost up the manufacturing sector. In 2014 when the present BJP Government announced the Make In India initiative, the percentage share of manufacturing remained at 15% only vis-à-vis Korea, Indonesia, Malaysia, Singapore & China @ 20% to 27%.

The Policy & Target

The policies formed under the initiative had three basic objectives. They are:-

- ⊙ Investment Growth
- ⊙ Output Growth
- ⊙ Employment Growth

in the manufacturing sector.

The above holistic objectives were also quantified in statistical terms as follows:-

- ⊙ to increase the manufacturing sector's growth rate to 12-14% per annum ;
- ⊙ to create 100 million additional manufacturing jobs in the economy by 2022;
- ⊙ to ensure that the manufacturing sector's contribution to GDP is increased to 25% by 2022 (revised to 2025) from the current 16%.

The number of sectors covered by the initiative:-

- ⊙ 15 Manufacturing Sectors
- ⊙ 12 Service Sectors

How we fared?

Five to six years' time may not be long enough time to evaluate the scheme but an objective assessment is necessary from the point of view of making necessary course connection in its implementation. The evaluation of the programme hence is done with this objective in view.

1. **Growth in Investment** – The Government push for policy reforms paved the growth in FDI. Total FDI inflow grew by 55%, i.e. from US\$ 231.37 billion in 2008-14 to US\$ 358.29 billion in 2014-20 in absolute terms and @9.14% CAGR. On the other hand which is not so good is the Gross fixed capital formation, a measure of aggregate investment, declined to 26.9% of GDP in 2019 from 30.3% in 2014 (World Bank Data).
2. **Growth in Output** – On the output front for the last 3 FY 2018-19, 2019-20 & 2020-21 the Index of Industrial Production (average IIP 131.46, 129.59 & 117.15) has in fact remained static and declined in the last fiscal year. Only in March 2019 and March 2021 it crossed

While numerous programme got launched but absence of dedicated execution approach lead to not having any impact at the end

@10% or more i.e. the targeted double digit growth envisaged by the programme.

3. Growth in Employment

– There has been sharp employment decline in the sector in the last 5 years. From employing 51 million Indians in 2016-17, employment in the sector declined by 46 per cent to reach 27.3 million in 2020-21. On a YoY basis, it employed 32 per cent fewer people in 2020-21 over 2019-20. It had seen a growth of 1 per cent (YoY) in 2019-20.

What needed to be done to make this program a success – lessons learnt: -

In conclusion we can say that there have been a lot of activities that are initiated under the Make In India initiative and with more focused approach towards execution of the same could result into achievements of the desired goals. The following could be some steps that may be taken now to have the program back on track:-

- ⊙ The economy is starved of demand and cash shortages as a result of major bank failures have blocked credit flow to the economy. Government measure for a faster route for supply of cash in the hands of the common masses could trigger the desired demand to propel manufacturing.
- ⊙ Absence of prioritizations and taking up all sectors under the scheme at a time could have led to lost focus syndrome to creep in. It is important to define a phase based sector specific approach according to the unique characteristics of each sector.
- ⊙ While numerous programme got launched but absence of dedicated

execution approach lead to not having any impact at the end. An efficient execution machinery needed to be established.

- ⊙ A clear need for boosting manufacturing is technology and innovation support. For triggering this one needs to have ensured assured funds to support the R & D in the country. Here the Government with less than 1% spending on innovation needed to infuse more funds and partner the R&D initiatives.

With the above background and perspectives in view we would now take a microscopic look into MII in sector implementation i.e. Railways..... And here we go.....

Section - II

Atmanirbhar and the Railway and Metro space in India -

Relevance of Train 18, Vande Bharat Express experience

By Mr. Sudhanshu Mani

Backdrop of Economy - The Make In India (MII) scheme launched by Modi government was a signal that India was aiming to be a factory of the world, leveraging the large internal demand manufacturing within India. However, after almost 6 years of its launching it could at the most be termed as moderate success since many other factors, that started plaguing the economy, crept in. Then came the pandemic in early 2020 and brought staggering economic woes with it. A rejjig was called for and the government turned the MII scheme into Atmanirbhar Bharat Abhiyan. The Government move towards boosting the supply side through credit guarantee and other measures of repackaging the existing schemes only yielded marginal outcome without helping to boost the up demand. The demand was already sluggish before Covid-19 and it had plummeted to new low circa April 2020. Recessionary indications needed to be negated by injecting money directly to expand the demand; such infusion of public capital to enhance the purchasing power of people at large causes consumption to go up which further boosts the demand and in turn, therefore, productions are augmented.

Unfortunately, there was hardly any fiscal gunpowder in these measures to boost demand and as a result different estimates of actual fiscal cost to the Exchequer stood at 1 to 2 % of GDP and not the declared 10%.

With this economic backdrop hurtling to lower growth for nearly two years, later the misery of border issues with China and the two successive waves of the pandemic, it was a tall order for the MII lions to roar into Atmanirbhar self-reliance. It called for a disruptive change of strategy. Successes, like our imports from China receding by 14%, with the trade deficit reducing by 22% in 2020, are not significant moves towards self-reliance as this has happened due to reduced production in our factories which use Chinese raw materials and import by China of raw and half-finished materials. In any case, there are questions galore which economists have to grapple with. But limiting ourselves to the essence of Atmanirbhar, let me present the perspective of a proud engineer.

The Gene of Innovation & Technology: Indian Perspective - Innovation, technology and its management! The birth of an idea, transformed into a product or a process in the practical reality of a marketplace with an outcome of value, completes the cycle of innovation. This leads to a systemic knowledge and skill to put together a product or service, employing an input, artistry and expertise with techniques for a usage and this is technology. A country should have an eco-system for managing incubation, nurturing and growth of such technology. Technology may be borrowed for some time by a country to catch up but it cannot be an endless routine for large developing country like ours; the essence of technology lives in minds and hearts of creators, which is not transferable. Transfer of technology, is therefore an oxymoron which cannot take you far. Self-reliance is predicated on creation of your own technology. This is the spirit of Atmanirbhar.

Examples abound in the international arena and it is not a rocket science. We merely need to look at our Asian brethren and pick up what would succeed here. We stand where Japan

was in the fifties or China in the nineties. They also imported and copied technologies at some stage but are now confident creators of products and technologies. In spite of our size and talent pool, we have remained an importer of technology. A country which can make Mangalyaan in an environment of technology-denial, at one tenth the cost of Antilia, the Ambani abode, has no home-grown products or technologies to show for! This has happened due to absence of strategic focus by successive governments over the decades and now the burden lies squarely on the present Government to change course and do it fast.

The government must step in here as our private sector can surely invest in R&D but may not be in these Pandemic times since their bottom lines are under pressure. Government can spend big but the bureaucratic straitjackets, sans accountability, are not amenable to any purposeful R&D solely on its own. The best bet is for the government to engage our industry as a partner with a caveat to do majority design and development work in India and source from wherever they wish. This was the principle we followed in the project Train 18/Vande Bharat Express, India's first indigenous semi-high speed train.

The Train18 Odyssey

The Mission and its Fundamentals

The Train 18 Vande Bharat express project was an unqualified success both from the standpoint of a demonstrator as well as optics, an engineering achievement to encourage similar projects. It demonstrated that Indian engineers could deliver products, from concept to design to engineering to manufacture at much less than the cost of import, if a proper environment is afforded. The project also exemplifies how to build a project around core expertise from within the country and importing components or sub-systems in areas where India is not capable, particularly through collaborative contracting such that we learn as the contractor designs such that the next time round, we are empowered enabled to do it ourselves.

The bedrock on which I could build the project was the understated chutzpah

among the technical personnel of ICF to do something far more challenging than they were usually engaged to do. Shakespeare said, through Lucio in Measure for Measure, "Our doubts are traitors, and make us lose the good we often might win, By fearing to attempt". The first hurdle to cross is to attempt, without fear of failure, and that alone is the road to success. Our problem is that we do not attempt and take the easy way out of importing or abandoning. Since we attempted fearlessly, and that too in a very tight time-line. Meticulous planning and execution were sine qua non to avoid stressed and chaotic working but since we were running against time, there indeed was some haphazard execution towards the end. Why? I had taken upon myself that team ICF would deliver and therefore it was necessary that I lead all the way to the end, which was turn out of the prototype before I retired 21 months after the project was sanctioned. In future, similar project need not be completed in 18 months but perhaps in 20 to 24 months so the working is more systematic and all those who matter are won over.

The 3 postulates of the journey route

map - One of the main challenges was in design itself and I will keep this simple. Assess the capability of your design team, being a "witty fool and not a foolish wit." Made a matrix of the requirements and got going on all items in which we were there, almost there or could be there by stressing ourselves and our vendor partners, challenging ourselves and them. This would result in some failures but this luxury had to be afforded on path to ultimate success. Then there were areas where you needed collaboration which we tackled by contracting Design Consultants and not a technology-provider companies, worked hands-on with them to learn in the process and equip ourselves for future.

The project broke away from the rut of extensive manual design work. In terms and a host of various engineering softwares were employed like Katia, Solidworks, Ansys, Hyperworks and LS Dyna. Computerized designing and simulations were done, inert alia, for Structural analysis of bogie frame (EN

13749:2011) and monoblock wheel (EN 13979-1+A1: 2011), Car body Design (EN 12663-1:2010+A1:2014), Design and endurance assessment of welded joints (DVS 1612:2014), Dynamic Multi Body analysis (EN 14363; software–SIMPACK) and CFD analysis (Siemens Star CCM plus).

Besides, ICF became the first PU IR to implement ERP in manufacturing, including its seamless use for Train 18 and partner vendors used their own tailor-made softwares for the bought-outs.

Safety & Passenger comfort—There were many new Safety features, like anti-climbing feature in coaches, semi-permanent jerk-free couplers which prevent capsizing of coaches, modern bogies, automatic plug doors, microprocessor-controlled brake system of current technology, sealed gangways, talk-back facility, video surveillance, alert systems etc. and all were run through specific Safety evaluation. With powering and hotel load equipment mounted under the board, the floor space was available for passenger seating and amenities like modern toilets with Vacuum-evacuation system, touch-free fittings, digital PIS, touch-free partition doors, spacious luggage racks, diffused lighting.

Project Management

The Founding Philosophy—Channelization of the inherent energy of the team, ours and vendors'. Once they realized that they were part of a project which would break the mould of decades to land in a new league, rest followed. Regular project management regime, however, did include periodic meetings in offices and later on shop floor, with all key team members presenting their Gantt charts.

The best bet is for the government to engage our industry as a partner with a caveat to do majority design and development work in India and source from wherever they wish

The Cardinal Principles

Some key principles I employed as the leader:

- ⊙ Engage an experienced project management team, not to be disturbed in the middle of the project
- ⊙ Provide opportunity for professional advancement to the team; unusual in government but we did what was best feasible.
- ⊙ Ensure a good preliminary design, no unnecessary haste
- ⊙ Stress upon on time values of the resources; funds were never a constraint
- ⊙ Contract only reliable and responsible suppliers
- ⊙ Monitor closely interdependent & control activities: continuous video contact
- ⊙ Adhere to Quality standards strictly

Testing & Commissioning – the final product:

There was stupendous excitement around the testing of the Train 18 at 180 km/h speed and its launch as Vande Bharat express by the PM himself. Two trains have been in successful operation for more than two years without any

hitch, a feat not paralleled by even any imported rolling stock so far.

ICF had delivered the first modern train entirely of Indian origin. We hardly realized that we were doing something great but the country loved the train, loved it as something of your own & imagine, it's just a train but the coverage it got was phenomenal. It made us feel very happy, proud & also grateful to each and every member of the team.

A million designs and projects are burgeoning in the minds and hearts of an aspirational India. This project conveyed that a thousand such projects can bloom in India given the leadership with a sense of purpose, empathy and pride of ownership. As a specific, we need a playing field which is skewed for the benefit of proficient local industry willing to design and create such that IPR would rest with India. The path to continued indigenous improvements in products and technology would open.

..... and the journey continues.....

(by the time this article goes into press today the Railway Ministry has awarded the contractual clearance for manufacture of Train 18 a dream comes to its fruition to enable faster railway transport for the masses.....Jai Hind) **MA**

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INDIAN RAILWAYS VISION 2024: PURPOSE APPRAISAL THROUGH AN EMPIRICAL EXPLORATION OF THE KEY DRIVING FORCES

Abstract

The story of the Indian Railways, one of the largest in the world, is one with a culmination of strong planning, able leadership, robust institutional support, deep-rooted utilitarian bias, and an imperishable vision. The all-encompassing strategic Vision 2024 document delineated the detailed blueprint to achieve 2024 MT loading by the year 2024. The statistical outcomes from this analysis claimed the strength and significance of dependence of the driving forces with the key observable outputs, whereas the predictive analysis has buttressed the future prospect.



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Conceptualized for the Indian peninsula in 1832 with its first trial run in the Indian soil as *Red Hill Railway* from Red Hills to the Chintadripet bridge in the then Madras province in 1837, Indian Railways traversed a significantly long distance. Starting with its first passenger train with a capacity of 400 people and a reach of 34 km, it presently caters to the ever-increasing need of nearly 8.5 billion passengers a year with approximately 70,000 km of route length. How can we illustrate this growth trajectory? Is it only demand-driven, or has sustainably been backed by a generic expansionary trend? There must be a strong motivation-backed vision, precisely 'the art of seeing what is invisible to others', to implement theorized plans into action. The story of the Indian Railways, one of the largest in the world, is one with a culmination of strong planning, able leadership, robust institutional support, deep-rooted utilitarian bias, and an imperishable vision. 'The vision must be followed

by the venture, it is not enough to stare up the steps - we must step up the stairs' - as propounded by Vance Havner, a visionary and a renowned revivalist, the long-cherished vision must be followed by a set of structured implementation plans. Indian Railways Vision 2024 document is an example of cataloging the growth mission to have an organized instrument to implement monitorable action plans more effectively.

Vision 2024- A Brief Introduction

Vision 2024 document of the Indian Railways was notified and put forth for circulation at the end of 2020. The all-encompassing strategic document delineated the detailed blueprint to achieve 2024 MT loading by the year 2024 with a consolidated summary of the major projects, planning and execution schedule, their prospective timeline, fund allocation status, etc. The strategic roadmap enumerated in the document had not only spoken about the imminent need for infrastructure development of the Indian Railways due to its lions share in the freight and passenger traffic but also brought about the quantified target schemes for identified classes of projects namely Critical Projects, Super Critical Projects, Priority Projects, Multi-Tracking Projects, etc. The focus for such accelerated infrastructure development was more on improving the prevailing ecosystem of efficient line connectivity through the introduction of additional length of New Lines (NL), Gauge Conversion (GC) & Doubling Projects (DL). The document substantially quantified the rolling plan of line length and expected funds. Figure 1 and Figure 2 talk about the sustainable momentum of additional NL, GC, and DL railway tracks and the required fund allocation to materialize the plans. These also emphasize the continuous urge to improve railway electrification to improve sectoral productivity to a considerable extent.

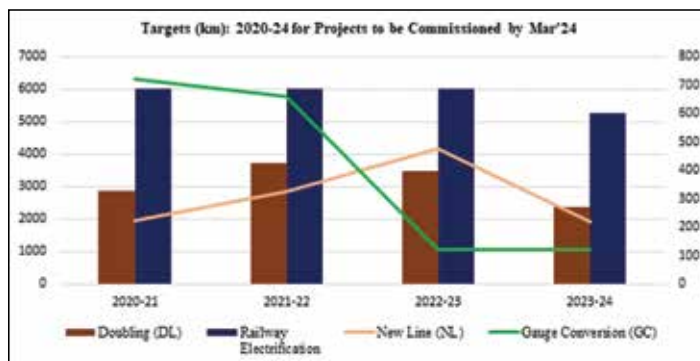


Figure 1: Targets (km): 2020-24 for Projects to be Commissioned by Mar'24

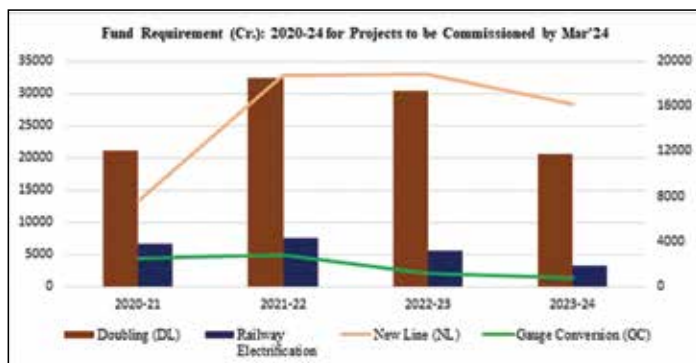


Figure 2: Fund Requirement (Cr.): 2020-24 for Projects to be Commissioned by Mar'24

As the vision document is focused on its target orientation, it is quintessential to evaluate the prospective targets in light of the major driving forces of the Indian Railways. This empirical investigation aims at identifying those driving forces, assessing the relationship with the outcome variables, discussing the expected trend of the key drivers, and debating the practicability of the 2024 vision.

Empirical Framework and Statistical Evidences

With an interest to empirically understand the broad-based targets of the Vision 2024 document, this study delved into performing an empirical analysis. Passenger Traffic (Passengers Originating in million-PSG), Freight Revenue (REV in Billion INR), and Freight Traffic (Freight Originating in million ton- FR) have been identified as the key indicators to assess the outcome or result of the segment. As most of the dependent indicators are associated with the macroeconomic condition of the country, this study identified a few of those having a near-direct impact on the exogenous variables under consideration. The relevance of the health of the Job Market on economic well-being, the impact of Electricity Generation on the industrial trend, the direct ramification of the manufacturing sector on the vigor of railway traffic, and the impact of agriculture-driven freight traffic on overall freight movement have been primarily considered to be significant to assess the relationship with the outcome variables. Furthermore, Naukri Job Speak Index (JSI)¹, Electricity (Gross Generation: Utilities in MWH mn- ELEC), Industrial Production Index- Manufacturing (2011-12=100- MFG), and Agriculture Stock- Foodgrains (in million Ton- FOOD) have been considered as independent and endogenous variables for the said analysis.

Monthly data of the said variables have been considered since April 2012 and nearly 107 data points have been uniformly assessed for every indicator. While performing the basic regression analysis, the multicollinearity has been checked and found to be insignificant. The basic regression equations considered for the said analysis are:

$$REV = \alpha_1 + \beta_1 JSI + \beta_2 ELEC + \beta_3 MFG + \beta_4 FOOD + \varepsilon_1$$

$$PSG = \alpha_2 + \gamma_1 JSI + \gamma_2 ELEC + \gamma_3 MFG + \gamma_4 FOOD + \varepsilon_2$$

$$FR = \alpha_3 + \delta_1 JSI + \delta_2 ELEC + \delta_3 MFG + \delta_4 FOOD + \varepsilon_3$$

While ascertaining the results of the linear regression analysis of the said variables, it was observed that all the regressions are having significantly high R^2 values, whereas most of the regression coefficients are significant at a 5% or lower level of significance. The R^2 values of 71%, 45%, and 75% reiterate the claim of the strength of the regression results. Table 1 summarized

¹ The job speak index includes jobs that might be for replacement hiring. December 2008 is taken as the base with an index value of 1,000 and the subsequent monthly index is compared with the data for December 2008

the regression coefficients to assess the interdependence of the endogenous and exogenous variables. Before predicting the output trajectory of the dependent variables, the homoskedasticity of the results and the variance inflation factors (VIF) have been measured and found to be satisfactory for further analysis.

	(1) REV	(2) PSG	(3) FR
JSI	0.067 (0.037)	2.665*** (0.684)	-0.012 (0.023)
ELEC	0.237* (0.112)	-12.781*** (2.095)	0.079 (0.070)
MFG	0.560*** (0.100)	2.646 (1.862)	0.587*** (0.063)
FOOD	0.103 (0.061)	-4.751*** (1.137)	0.115** (0.038)
_cons	-16.294 (9.323)	1342.501*** (173.973)	12.217* (5.848)
N	107.000	107.000	107.000
r2	0.709	0.451	0.745

Standard errors in parentheses
* p<0.05, ** p<0.01, *** p<0.001

Table 1: Summary of Regression Results

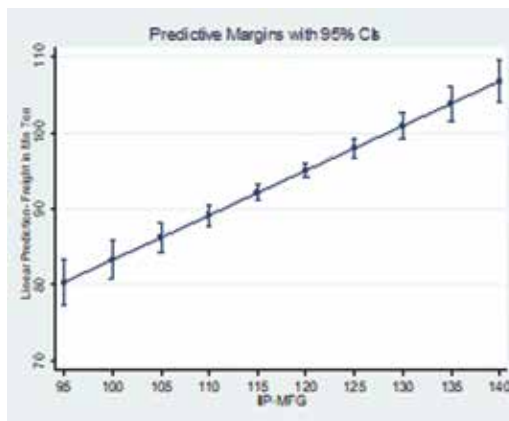


Figure 3: IIP-MFG Vs Railway Freight

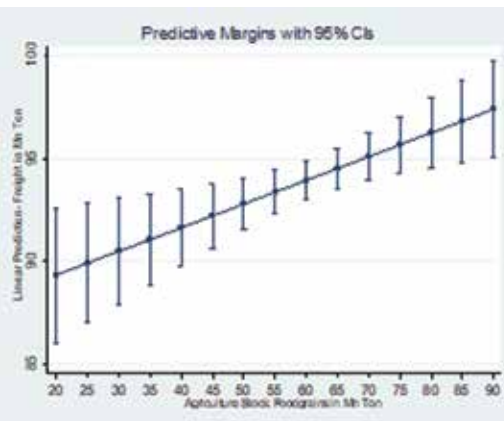


Figure 4: Agri Stock Vs Railway Freight

Vision 2024 categorically highlights the need to push the infra set up to facilitate the expected freight growth. To reaffirm the propensity of the freight growth, the predictive analysis of the impact of major drivers like the stock of agricultural foodgrains (Figure 3) and the production trend in the manufacturing industries (Figure 4) have been performed. Similarly, predictive analyses have been conducted to ascertain the influence of the employment market on passenger traffic (Figure 5) and the impression of manufacturing growth on freight revenue (Figure 6). The results are extremely encouraging and distinctly prompt progressive and positive linear relationships amongst the variables empirically signifying the role of those macro-indicators on the operational and financial health of the Indian Railways.

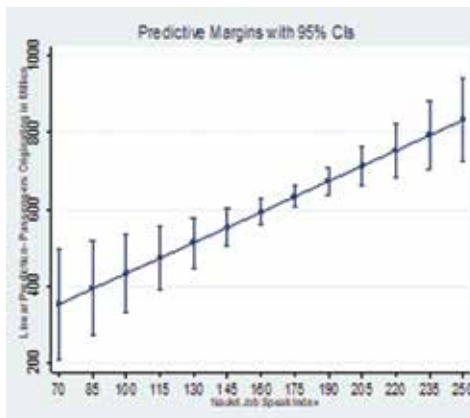


Figure 5: Naukri JSI Vs Passenger Traffic

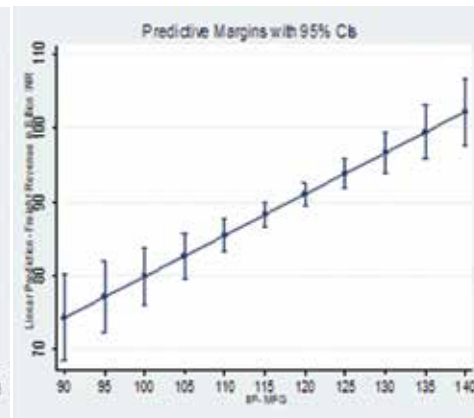


Figure 6: IIP-MFG Vs Freight Revenue

Interpretation in sync with Industry Forecast

The empirical pieces of evidence were instrumental in establishing the correlational relationship amongst the variables and facilitating the observation of predictive trends. Figure 7 depicts the trend in freight composition of Indian Railways and markedly signifies the uniformity of the components.

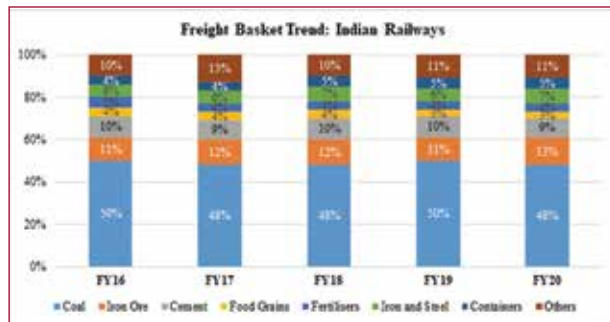


Figure 7: Freight Basket Trend of Indian Railways: FY16-FY20

While Coal, Iron Ore, and Cement contributed to freight growth since the olden days, these have immense significance in the present days. The vision document 2019-2024 of the Ministry of Coal estimated a considerable growth in Coal production from 730 MMT in 2019 to 1149 MMT in 2024. The Mineral production is also expected to reach 1232 MMT in 2024 from 616 MMT in 2019. This growth trajectory substantiates the projected 2024 MT freight vision of the Indian Railways. The CAGR of Iron Ore, Container, and Iron & Steel freight had been nearly 7% in the last five years.

As we figured out statistically the role of the manufacturing sector in influencing the railway freight and revenue, the 'Atmanirbhar' vision for the manufacturing industry in India is expected to contribute immensely. Multiple analyses projected the possibility of manufacturing gross value add (GVA) in India to achieve nearly \$1 trillion by 2025, determined by the prevalent growth ecosystem, robust systemic and institutional support, and necessary fiscal stimulus. The Production Linked Incentives (PLI) scheme of approximately Rs.2 lakh crore is expected to positively impact the manufacturing industry in India, with an aim to make it a hub for manufacturing and exports. Startup India Vision 2024, announced by the Department for Promotion of Industry and Internal Trade (DPIIT), would necessitate the creation of a significant number of jobs apart from the associated push for the manufacturing sector. The forecasted growth of manufacturing-based industrial production may hinder temporarily due to the pandemic but has already hinted at all possibilities of immediate recovery. The total installed capacity of electricity is expected to jump by 60% from 2019 and achieve 553 GW by 2024. This may not only influence the all-embracing growth ecosystem of the country but also the electrification vision of the railways.

Way Forward

The Vision 2024 of the Indian Railways has surely been supported by strong background data churning, and the empirical shreds of evidence exhort the projected estimates. The anticipated CAGR of 11%-12% in the freight growth to

Dedicated Freight Corridors will enhance ease of doing business, cut down logistic cost

achieve 2024 MT by 2024 is supplemented by a plethora of government measures to support and stimulate the driving forces. Apart from creating a country-wide macroeconomic ecosystem to boost the manufacturing industries, inspire the MSME sector, uplift job creation, and champion the ease of doing business, the government has endorsed the initiatives of the Indian Railways to reduce logistic costs to capture a higher market share. "Dedicated Freight Corridors will enhance ease of doing business, cut down logistic cost"- as stated by the Prime Minister, Indian Railways devised a wide range of policies to materialize it namely Liberalised Automatic Freight Rebate Policy, Rationalisation of Distance Slab, Policy of Long Term Traffic contract with key freight customers, Concession on long lead traffic, Round trip traffic, long lead discounts for clinker traffic, etc. All these add to the broad-based national-level initiatives to achieve the 2024 MT target by increasing freight traffic and revenue. The statistical outcomes from this analysis claimed the strength and significance of dependence of the driving forces with the key observable outputs, whereas the predictive analysis has buttressed the future prospect. The policy-level analyses, along with the long-term action roadmap of the industry as a whole, reiterate the strong qualitative underpinning to substantiate the much-cherished vision 2024.

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SAFETY INITIATIVES IN INDIAN RAILWAYS

Abstract

Indian Railways operates the fourth largest railway network in the world with 68,000 kilometres of route-length, around 1,00,000 kilometres of running tracks and over 12.5 lakh employees. In the financial year 2019-20 it transported over 8 billion people and hauled 1.2 billion tonnes of freight across the country. With such huge traffic comes a huge responsibility for the safety and security of the people and goods travelling on it. Consequently safety has always been a focus area for Indian Railways since its early days. This article discusses some of the latest initiatives in the field of railway safety.



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Introduction

Indian Railways is often considered the lifeline of the nation, and not without good reason. It promotes industry, trade and commerce, transports raw materials and finished goods, assists in relief operations during emergencies and disasters, and connects the people across the vast Indian subcontinent. Naturally, to successfully discharge such responsibilities safety has always been at the core of Indian Railways since the early years of its formation.

The importance of railway security and safety was first recognized in 'The Government of India Act of 1935'. It provided for setting up of the 'Railway Inspectorate', a body that was independent of the Railway Board which was responsible for railway operations. Accordingly the inspectorate was put under the administrative control of the 'Department of Posts and Air' in 1941 and later on under the 'Ministry of Civil Aviation', where it continues to this day. Subsequently in 1961 the inspectorate was renamed to 'Commission of Railway Safety'.

Aspects of Railway Safety

Safety in railway operations has multiple dimensions and is not limited to just the prevention of derailments and

collisions. Rather, it encompasses the lives and belongings of the passengers, the freight carried by trains, safety of the railway staff, railway equipments and its properties and premises. A few aspects are elucidated here.

1. Safety of the travelling passengers, railway staff and ancillary staff (such as housekeeping crew and pantry staff) is of the utmost importance. This includes safety against physical harm and loss of belongings while travelling on Indian Railways. It also involves providing relief at the earliest in case of an eventuality.
2. It also involves safety of the non-travelling public in the vicinity of railway operations. Any interface between railway operations and the public at large comes under its purview. Thus, public safety at railway stations, platforms, manned and unmanned level crossings, railway over bridges etc. are a part of railway safety.
3. When it comes to movement of goods across the country freight trains are of paramount importance. More so since goods haulage is the most profitable segment of the Indian Railways. The railways serve each and every kind of industry, from hauling coal and petroleum to transporting cars and edible oils. It also plays a major role during disasters and catastrophes. Whether it is a natural calamity such as a pandemic, or a war, railways have always been depended upon to transport men and materials. For example, during the ongoing Covid-19 pandemic railways were mobilised to transport liquid medical oxygen from production centres to the badly hit regions. Evidently the need for safety of such precious cargo is no less than passenger safety.
4. Safety of railway rolling stock (locomotives, coaches, wagons), railway tracks, operational equipment (such as signalling systems, route-relay systems, communication systems) and all other equipments that are essential for smooth day-to-day operations is also a focus area for the Indian Railways.
5. Safety of all physical facilities of the railways such as its offices, workshops, control centres, IT systems, platforms, stations, godowns is another vital aspect.

Ongoing Initiatives

Over the last few years a lot of emphasis has been laid by Indian Railways on improving safety in all areas of its operations. Consequently the number of accidents has reduced steadily over the years. Some of the steps taken are discussed here.

1. A dedicated fund called Rashtriya Rail Sanraksha Kosh (RRSK) was set up by the government in 2017-18 with an initial corpus of Rs 1 lakh crores to fund critical safety works. Since its inception budget outlay to the fund has increased significantly. In 2019-20 the total expenditure from the fund was over Rs 74,600 crores. Some of the focus areas of the fund relate to track maintenance, replacement of old traction equipment and transmission infrastructure, safety works at level crossings and implementation of train protection and warning system.
2. Older passenger coaches are being phased out and replaced with safer LHB coaches of German design on all important routes. Initially imported, LHB coaches are now manufactured at RCF Kapurthala, ICF Perambur and MCF Raebareli, with production touching 1500 units in 2020-21. Since 2014 almost 10,000 such coaches have been built most of which are now deployed on various trunk routes. These coaches are lighter in weight, have more powerful brakes and couplings and have anti-climbing features. Due to the anti-climbing feature, in case of an accident the coaches do not pile up or penetrate into adjacent ones thus reducing casualties.
3. Track renewal is vital when it comes to operational safety of the railways. It is an ongoing process based on established criteria and is a major focus area for Indian Railways. Renewals are undertaken depending on the age, condition and load carried by the tracks. While improving safety and comfort it also increases efficiency and thus reduces operating and maintenance costs. In the last five years till 2020, a

The importance of railway security and safety was first recognized in 'The Government of India Act of 1935'. It provided for setting up of the 'Railway Inspectorate', a body that was independent of the Railway Board which was responsible for railway operations

total of 18000 km of tracks were renewed on Indian Railways, with another 3200 kilometres of renewal due for the year 2021.

4. In the matter of track laying and renewal, usage of state of the art automated machines has speeded up work and reduced manual errors. Modern track recording cars, ballast tamping machines, ballast cleaners and dynamic track stabilizers are used extensively for all kinds of repair and maintenance.
5. The technology and materials used for tracks too have undergone major upgrades. The wooden sleepers of yesteryears have been completely replaced with concrete ones. Concrete sleepers can carry higher loads, and are more resilient to temperature, weather and even fire hazards. They also have longer lives and add stability to the tracks and require less maintenance. Another improvement is the use of welding technology to join and connect rails and reduce the use of fish plates which were a safety hazard. The grade of steel used nowadays is also of a higher tensile strength than earlier.
6. Pace of gauge conversion, track doubling and laying of multiple parallel lines has increased in recent years. Multiple parallel tracks not only prevent collisions but also reduce delay and waiting time of trains at stations and loop-lines. During the period

2019-20 new additions, gauge conversions, and doubling works were completed on a total of 2200 km with total investment of almost Rs 40,000 crores. Of this, doubling was carried out on 1500 km of tracks, with 562 km of projects in super-critical areas.

7. Major development of subways and railway over bridges has been undertaken to facilitate smoother movement of traffic and reduce accidents. Similarly, numerous foot-over bridges, underpasses, escalators and barricades at stations have been constructed to stop people from crossing railway lines at stations and avert mishaps.
8. All unmanned level crossings have been phased out from areas within the broad gauge network. This has reduced number of vehicular and pedestrian accidents at level crossings. A large number of manned crossings have been replaced in mission mode with Limited Height Subways, Road Over Bridges and Road Under Bridges. Regular publicity campaigns are also undertaken to promote road safety at level crossings.
9. Bridge safety is given a high priority in Indian Railways. A regular schedule of audit, testing and inspection of existing rail bridges is followed. Action is taken in the form of repair, renewal and reconstruction of structures that are in a poor condition or have reached their end of life.
10. Railway work has been brought under the ambit of MGNREGA (Mahatma Gandhi National Rural Employment Guarantee Act) to increase the pace of work while generating employment in rural areas at the same time.
11. To ensure passenger safety trains on vulnerable routes are escorted by RPF and GRP. To report security related incidents and register complaints a 24x7 helpline number is now available along with social media platforms.
12. For real time surveillance on

running trains CCTVs have been installed in thousands of coaches. Further, CCTVs are used in 700 stations along with an integrated security system in over 200 stations for constant monitoring of security threats. Plans are afoot to setup a multi-tiered security system in railways that will co-ordinate inputs from various security agencies.

Latest Developments

In 2020, tenders were awarded for the Mumbai-Ahmedabad high-speed rail corridor. Cutting edge technology will be used in this project especially in the areas of safety, comfort and environmental impact. It envisages the use of advanced crash avoidance system and automatic braking technologies from the Japanese bullet train system. Moreover, since the corridor will be passing through earthquake prone zones, early earthquake detection systems will be employed. Besides, sensors to detect track temperature, wind speed and rainfall will also be included for greater safety. Once these technologies are well established it is expected that some of these technologies will also be employed in other railway projects.

In June-2021 the government

approved allocation of 5 MHz in the 4G spectrum to Indian Railways. The additional spectrum will be used to improve existing communication and signalling systems. Already funds worth Rs 25,000 crores have been allocated towards setting up of a 4G based mobile radio communication network for railway operations. The project is expected to be completed in the next five years. This will reduce dependence on telecom service providers, improve network availability and security and reduce operating cost. Additionally, 4G will be used to implement train protection and anti collision systems which will help controllers to monitor routes and trains in real-time using GPS data from satellites, and take corrective action to avert accidents. It will also assist in real time video surveillance inside trains and stations.

Conclusion

Since its early years safety has been a key focus area for Indian Railways. Increasing budgetary support and adoption of latest technologies have led to significant improvements in recent decades not just in the matter of safety but overall quality of railway infrastructure. Projects are underway to install aircraft style black-boxes called 'Train Event Recorder Systems' and

'Fog Pass Devices' on trains. Trickle-down effect of advanced technologies to be implemented in the high-speed rail project will further improve operational safety of the railways. The same is expected from the newly allocated 4G frequency which is a game-changer in the field of railway safety due to its ability to support multiple communication and control systems using the existing infrastructure and provide a major boost to passenger safety. With all these developments Indian Railways is well equipped to help the country to travel into the golden age of rail travel. **MA**

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Ref.No.: G/82(131)/07/2021

30th July, 2021

NOTIFICATION

In pursuance of Regulation 146 of the Cost and Works Accountants Regulations, 1959, the Council of the Institute at its 329th Meeting held on 22nd March and 23rd March, 2021 by virtue of power conferred therein has constituted the following Chapter of The Institute of Cost Accountants of India covering the area of Dindigul District in the State of Tamil Nadu.

The Institute of Cost Accountants of India – Dindigul Chapter
7, First Floor, Vijaya Complex,
Siluvathur Road,
MSP Teachers Colony,
Dindigul – 624 005
Tamil Nadu.


(CMA Kaushik Banerjee)
Secretary

PERFORMANCE COSTING SYSTEM OF INDIAN RAILWAYS: ROLE OF CMAs

Abstract

Digital System for bullet trains and metro trains can be designed by engineers with the help of Cost & Management Accountants. Costs to railways can be bifurcated according to different activities performed.

Performance costing system can be developed by using Activity Based Costing (ABC) Method. The best opportunity for cost accountants in Indian Railways is Cost Benefit Analysis for Bullet Train Projects declared by the Government recently. Ahmedabad-Mumbai bullet train project is one of them.



CMA Shweta Shah

Tax Consultant

Vadodara

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Indian Railways is the major and pioneer sector of our country. Lower and middle class people can afford this platform in their routine life because it is designed for them and affordable to them too.

Now-a-days, many processes in Railway are digitalized such as Ticket booking, Schedule Board of Trains on Platforms, etc. So now Digitization is one of the major parts of railway.

What Cost Accountant can do for Indian Railways is very major aspect in career of CMA.

Cost Accountant can help in structuring Indian Railway website properly and in such a manner that site can be used smoothly by visitors. They can help in deciding rail fare considering different aspects of costs that railway bare. Charges for online booking can be determined considering digital system costs. Also helps in making digitalization effective in regularity and cost wise. Prices of different amenities provided in trains as well as on railway stations can be determined with the help of Cost Benefit Analysis.

Digital System for bullet trains and metro trains can be designed by engineers with the help of Cost & Management Accountants. Costs to railways can be bifurcated according to different activities performed.

Performance Costing System: Performance costing system can be developed by using Activity Based Costing (ABC) Method.

<u>Activities</u>	<u>Cost Driver</u>
Railway route Construction	No. of Hours Machines run to construct route
Fitting Railway Tracks	No. of Hours Machines run/ No. of Person engaged in work
Making of Trains & their Coaches	No. of Persons engaged / Labour Hours
Fitting Signals	No. of Persons engaged
Operating Signals	No. of Persons engaged
Operating Trains on directed routes	Kilometers ran away by Trains
Extension / Renovation of Platforms	Labour Hours consumption

Sensitivity Analysis can also be helpful to change in the performance of the sector due to change in preference of people in selecting transport mode for travelling

CMAs can take help of Decision Tree approach for making decisions and working activity-wise profitability. Sensitivity Analysis can also be helpful to change in the performance of the sector due to change in preference of people in selecting transport mode for travelling.

The best opportunity for cost accountants in Indian Railways is Cost Benefit Analysis for Bullet Train Projects declared by the Government recently. Ahmedabad-Mumbai bullet train project is one of them.

Route	Speed	Project Status	Length of Route
Ahmedabad - Mumbai	320 km/h	Under construction	508 kilometres
Delhi - Amritsar		Proposed	459 kilometres
Varanasi - Howrah		Proposed	760 kilometres
Delhi - Varanasi		Proposed	865 kilometres
Delhi - Ahmedabad		Proposed	886 kilometres
Mumbai - Hyderabad		Proposed	711 kilometres
Mumbai - Nagpur	350 km/h	Approved	753 kilometres
Chennai - Mysore		Proposed	435 kilometres

National High Speed Rail Corporation Limited (NHSRCL) launches these high speed and semi-high speed bullet train corridors in which the very first bullet train project of Ahmedabad - Mumbai corridor is going to be completed in December 2023. Japan has approved the loan for the same is 80% of Total cost of project while other 20% will be borne by the States of Gujarat and Maharashtra. The other project approved is between Mumbai & Nagpur for 753 kilometres. The another one is under review is Ahmedabad & Delhi for which NHSRC has declared Data collection and other researches and searches for finance availability. Average speed for all bullet trains will be around 300 km/h.

Benefits of Bullet Trains and its Projects for the Nation:

- Investing in High-Speed rails will create thousands of employment opportunities. Additional jobs will be created because there will be great boost to commerce through economic development and activity.
- It will increase economic activity because people can travel one place to another easily, comfortably, within short-time. It will increase efficiency of people also due to saving of timing in journey, resultantly, boosts productivity.
- High-Speed Rails is eight times more energy efficient than airplanes and four times more than automobiles use and, hence, will reduce Nation's dependence on oil

Bullet Train Project involves:

- Civil Construction and designing
- Building Works like constructing Bridges
- Structuring of Tunnels
- Developing of roads
- Establishing depots
- Maintenance of Depots
- Developing Associated Structures

This whole project requires giant finance and for that CMA Data is pioneer need till whole project takes shape. Every activity and part of work needs analysis to prepare this CMA data and its improvement at regular intervals. The other High speed rails projects are below- Some are proposed, some are under review and some are approved:

usage and imports. Also makes air to pollution free to the great extent.

- It will expand choices about travelling modes for people and makes mobility faster than other modes of transport. This will also help airports and highways even the regular trains work better.
- It will work like all-weather friend because there are many problems of road blockages in monsoon. It will save from road blockages to that extent.

Similarly, Metro rail Projects are also under construction in the Country in the Cities of Ahmedabad, Mumbai, Chennai, etc. It will also be benefited to the country. CMAs can also help in the same manner as in high-speed rails projects. CMAs have bundle of opportunities in Metro Projects, Metrolite Projects and Metro Neo Projects because here also some are under construction, some are approved and some are proposed. List is as follows:

City	State	Status of Project
Agra	Uttar Pradesh	Approved
Ahmedabad	Gujarat	Under Construction
Bangaluru	Karnataka	Some Operational & Some Under Construction

Bhopal	Madhya Pradesh	Approved
Chennai	Tamil Nadu	Some Operational and some Proposed
Delhi	Delhi-NCR	Operational
Gurgaon Rapid Metro	Haryana	Operational
Hyderabad	Telangana	Operational
Indore	Madhya Pradesh	Proposed
Jaipur	Rajasthan	Operational & Some Proposed
Kanpur	Uttar Pradesh	Some Under Construction & some Approved
Kochi	Kerala	Some Operational & Some Approved
Kolkata	West Bengal	Some Operational, Some approved & some proposed
Lucknow	Uttar Pradesh	Some Operational & some proposed
Meerut	Uttar Pradesh	Under Construction & Approved
Mumbai	Maharashtra	Under Construction
Nagpur	Maharashtra	Some Operational & Some Under construction
Navi Mumbai	Maharashtra	Proposed
Noida	Uttar Pradesh	Some Operational, Some Proposed
Patna	Bihar	Approved & Under Construction
Pune	Maharashtra	Approved & Under Construction

Gorakhpur Metrolite	Uttar Pradesh	Approved
Kozhikode Metrolite	Kerala	Approved
Nashik Metro Neo	Maharashtra	Approved
Surat Metro	Gujarat	Approved
Trivandrum	Kerala	Approved
Delhi Metrolite	Delhi	Proposed
Bengaluru Metrolite	Karnataka	Proposed
Chennai Metrolite	Tamil Nadu	Proposed
Coimbatore	Tamil Nadu	Proposed
Guwahati	Assam	Proposed
Jammu	J & K UT	Proposed
Prayagraj	Uttar Pradesh	Proposed
Raipur	Chhattisgarh	Proposed
Srinagar	J & K UT	Proposed
Uttarakhand	Uttarakhand	Proposed
Varanasi	Uttar Pradesh	Proposed
Vijayawada	Andhra Pradesh	Proposed
Vishakhapatnam	Andhra Pradesh	Proposed
Warangal Metro Neo	Telangana	Proposed

MA

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OBITUARY

The Institute and its Members deeply mourn the sad demise of CMA K M Varghese (M/1127) who left for heavenly abode on 18th July 2021. He was the **Founder Member** of ICAI-Trivandrum Chapter. He was the 1st Secretary of ICAI-Trivandrum Chapter during the pre-recognition period of 1969-70. He was the Chairman of Chapter for year 2003-04. CMA K M Varghese was a man of integrity, honesty, dedication and was the driving force behind the formation of ICAI-Trivandrum Chapter and the contributions made by him towards the development of CMA Profession will always be remembered.

May God bless the family and have the courage & strength to overcome the irreparable loss.



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- Enable Career development and practice specialization in Fraud Examination, Forensic Audit
- Professional development opportunities
- Provides development of Ethical Code in Forensic Audit & Fraud Investigations
- Enhances Skill development and contributes to a corporate and social environment free of frauds, helps in examination of financial crimes
- 10 CEP Credit hours for CMA members

Eligibility and Prerequisites

- Practicing Cost Accountants
- CMAs in the Employment at various roles
- CMA Insolvency Professionals/Registered Valuers
- CMA Final Students

Though there are no special prerequisites for this course, it is preferable if candidate has knowledge and concepts on financial accounting and financial statement analysis, knowledge of Corporate and banking laws, Business process understanding and IT skills

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Behind every successful business decision, there is always a CMA

SPREAD OF IT IN INDIAN RAILWAYS

Abstract

Automation and digitization are the need of the hour. While every segment is entering into this 'new' world, Indian Railways is also not lagging behind. By providing innumerable benefits like, enhanced productivity, greater efficiency, more safety and security, a lesser burden on staff, diminished costs, and higher reliability, information technology has imposed a huge impact in every field. The same goes with Indian Railways too. Let's take a glance at the impact of information technology on its functioning.

Introduction of Stand Alone Computerized Ticketing and Reservation System -

One is the time when people used to stand in long queues for hours to get their railway tickets over the counter. Now it's just a click away. Though online ticketing through the Indian Railway Catering and Tourism Corporation (IRCTC) website started way back in 2002, this also involved the hard copy of the tickets. Now, passengers can simply display the Virtual Reservation Message (VRM)/Short Message Service (SMS) containing all the vital details sent by IRCTC to their contact number and carry one of their identity proofs. Even unreserved tickets can also be booked online through the Unreserved Ticketing System (UTS) Application. Moreover, when it is said 'digitized', it is digitized. There is limited manual intervention before booking the ticket and strictly no intervention after that

New User Interface by Indian Railways -

Owing to the advancement in information technology, convenience is not merely in booking the tickets but in the ensuing activities too. Indian Railways has introduced a revised version of its new user interface that leads to smoother transactions for online ticket booking. The Next Generation e-Ticketing (NGeT) system lets the users perform various activities, like searching for trains, checking seat availability, sorting trains on various bases like departure and arrival times, destination-wise, or class-wise without even logging in to the interface

This user-friendly website works best in various aspects. While booking, you don't always get the confirmed ticket, hence, it has got a tool that predicts the probability of waitlisted ticket or Reservation against Cancellation (RAC) ticket getting confirmed at the time of booking as well as during Passenger Name Record (PNR) inquiry of the same. This tool functions somehow relying on the history of ticket booking of that particular train. Users can effortlessly ask for alternative trains, change boarding stations, cancel their tickets, print their tickets, and can also ask for additional SMS service.



CMA Swamy Nunna

Head of Risk & Audit
RMB Holding Group
Dubai

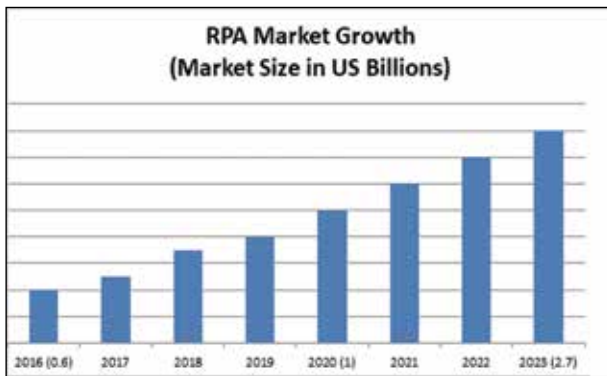
nunnaswamy@gmail.com

Application of RPA in railways -

Automation is one of the most innovative things we have come across lately in our country. Robotic Process Automation (RPA) is a type of automation that can work the way just like humans perform. The only thing that needs to be done is to record the steps that need to be followed to complete a piece of work. This is to be followed by 'that robotic worker' in order to perform the specific tasks. It renders ample benefits, some of them including the low probability of risk, enhanced productivity, higher accuracy, increased morale of workers/employees, more profit, more satisfied customers, and many more.

RPA is indeed a low-risk program since it is framed in a way that follows certain defined steps. It undoubtedly provides higher returns, so it's worth applying it to the railway department in some or other way. It can seamlessly be applied to rolling stock that aids in diminishing operating costs and provides all the aforementioned advantages.

The below graph implicitly shows the growth and importance of RPA and alarms its application in railways in all the aspects as early as possible.



Compound Annual Growth Rate- 29%

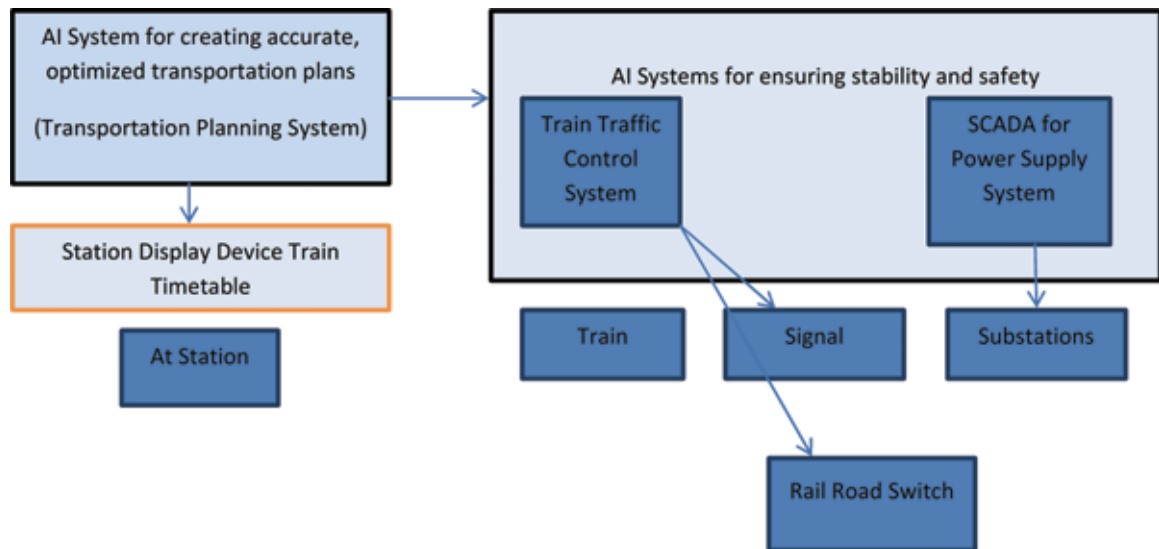
How has Artificial Intelligence (AI) modified the performance of Indian Railways?

Indian Railways, being the cheapest form of commutation for long distances, attracts a huge population of the country. More passengers lead to more data, hence, managing the data manually used to be cumbersome earlier. The real-time

availability of such a huge network is not a herculean task. That was the time when Indian Railways felt the need to improve their services and performance and collaborated with an enterprise for a digitized and data-driven operation. This not only helped to manage operations but also people onboard. Sensors and users' devices let the system collect data while tracking location and time for maximum efficacy and efficiency. Additionally, other parameters like power usage, temperature, humidity, pressure are also closely monitored for the overall improved performance.

Ample of efforts are being done not only to improve its Infrastructure, Locomotives, and Rolling Stock but also its controlling practices. AI has become an indispensable part of the process of the betterment of Indian Railways, whether it belongs to forecasting algorithms, predicting delays, or any other function. Nevertheless, the best is yet to come. The involvement of Information Technology and Artificial Intelligence can change the overall scenario and all its cost centers.

Let's understand the importance of Artificial Intelligence with the help of a flowchart:-



How much is the scenario changed due to technology?

E-ticketing forms a major part of its earnings, both in tickets and otherwise. As per the books of Indian Railways, e-ticketing accounts for 72.75% of reserved tickets in the year 2019-20 on Indian Railways. Approximately, more than 8.25 lakh tickets were sold daily collectively through IRCTC's website and Mobile App during 2019-20.

Year	2018-19	2019-20
No. of E-Tickets Booked (in Lakh)	2,842	3,019
No. of Passengers Booked E-tickets (in Lakh)	4,950	5,230

The revenue from the Internet Ticketing segment in 2019-20 was accounted for at INR 622.34 Crores as against INR 234.10 Crores in 2018-19. This spike is quite evident due to the IT involvement in Indian Railways

Introduction of online cargo booking and its procedure -

Owing to the gradual improvement in the department in the technical aspect, now customers can even book their parcels online. They just have to

- ① visit the site www.parcel.indianrail.gov.in,
- ② register themselves and login to the portal,
- ③ fill the Origin and Destination Stations in the online form,
- ④ select a train from the list of trains suggested by the system,
- ⑤ fill the booking form,
- ⑥ approximate freight charges will be calculated,
- ⑦ e-forwarding note will be generated by the system,
- ⑧ handover the parcel at the originating station along with the hard copy of the e-forwarding note.
- ⑨ After the parcel is weighed, pay the freight charges computed and get the Railway Receipt.

- Get the parcel after showing the original Railway Receipt.

Also note that:

- You can also track your parcel with its Track and Trace Facility
- E-payment facility is also provided to freight customers for freight charges and Wagon Registration Fee. It is quite surprising to see how the collection of freight charges through e-payment has rocketed from **76.16%** last year (2019-20) to **83.77%** in the current financial year (2020-21).

Influence of IT involvement in Indian Railways on government and public -

Information Technology has greatly benefited the globe to a great extent and when it comes to a huge network like Indian Railways, it is of paramount importance. It has undoubtedly brought various benefits to the government as well as the public, some of which are enumerated below:

a. Seamless Ticket Booking and Hassle-free Refund

People don't have to keep their important work aside and stand in long queues anymore for getting the reservation done. They just have to create an IRCTC account, login with their ID and password, fill in the requisite details and get the booking done.

In case an online ticket remains completely waitlisted even after the preparation of the final reservation chart, the respective ticket gets canceled, and hence, the names of all the passengers who are booked on that particular PNR Number get eliminated from the reservation chart. Due to its auto-refund policy, a refund of the fare amount of such fully waitlisted e-tickets is transferred directly to the account through which the booking was done. This greatly saves both the government and the public. People don't have to take rounds of the railway reservation counters for their refunds and the government doesn't have to employ a person for sanctioning refund. It's a win-win situation.

b. Diminished cost

Getting the work done manually is quite expensive, both in terms of time and money. Hence, getting the work automated with the help of IT hardware and software reduces the cost to a great extent. People don't have to waste their precious time in going to the Railway Reservation counter for their work, instead just go to their site and get it done then and there. The department can also update its integrated database regarding anything, which is just a click away. Moreover, the requirement of staff is also diminished due to the widespread use of IT.

c. Enhanced Revenue to Government

The price variation between the e-tickets and paper tickets is due to the 'convenience fee' charged by the IRCTC. It may be a nominal amount per ticket but collectively, it poses a huge impact on the government's revenue which is quite evident from the below facts.

Year	Amount collected as ticket fare online (INR in Crores)
2018-19	32,070

2019-20	34,055
2020-21 (Till Feb, 2021)	14,915

It's meritless to say that the reason for the decrease in revenue in the year 2020-21 is the global pandemic COVID-19.

d. Promotion of Cashless Transactions

Since the country is going gaga over digitization, the same goes for Indian Railways too. Automation and digitization work best when club together. The users can either use their debit card, credit card, or any wallet/UPI for the online payment, which will, of course, be credited with the respective amount in case of a refund.

e. Quick Grievance Redressal

Thanks to the widespread use of the internet, customers' grievances are looked after and sorted quicker than ever before. There are helpline numbers, email IDs, Twitter IDs, Facebook profiles through which normal people can contact the relevant persons who can solve their problems as soon as they can. I must say, social media is playing a crucial role in this regard.

f. More informative website and application

Website and application have become all the way more informative and helpful for users. These have come up with various facilities like checking PNR status, live status of the trains, seat availability of a particular train on a particular date, coach position, searching trains by name or number, etc. This has undoubtedly improved their performance and made the department well managed.

g. Rapid update about any changes

Earlier people didn't have any source of locating the trains so they used to arrive at the railway stations as per the scheduled time of the trains. If the train gets late, they would have to wait then and there at the railway station itself but now, people can not only track the trains but also receive an SMS from IRCTC in case of any major changes in the train timings. This is one of the crucial advancements in Indian Railways that helps in saving people's time and to some extent, of the Railway Staff too (as they don't have to answer people's queries). **MA**

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For more details

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ACCRUAL BASIS OF ACCOUNTING - THE FUTURE ACCOUNTING PROSPECTUS FOR INDIAN RAILWAY



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Abstract

When the whole world is using the double entry system of book keeping and accounting, our largest employer, the Indian Railways is yet to recognize the features of this accrual basis of accounting and the importance of adopting the matching principle of book keeping. This write-up looks into the birds eye view on the impact single entry book keeping methodology.

Indian Railways (IR) is the biggest organization under any Government in the world operating about 13 thousands passenger trains and 8500 freight trains on its about 68000 kms network. The network, links Varanasi (Bhuj Naliya) in West to Lehkhapani (East Frontier) (Under Meter Gauge- Non operational) / Tirap Railway Siding for Coal (Ledo) on the West to East Corridor and in the North South Corridor from Sopore / Baramulla (Kashmir) in North to Kanyakumari in South. On an average the Railway net work handles 23 million Passengers and about 3 Million Metric tonnes of freight per day (Pre COVID -19 Pandemic). Other than Railway budget nothing much of internal financial working of Railways is known to common man it is assumed that Railways have not opened up its Balance sheet for any inflow from any foreign Agency and is fully financed by the Union Budget of Government of India. The Railway budget is to the tune of Rs.4.26 lakhs crore of which Capital expenditure Stood at Rs.2.15

lakhs crore and revenue expenditure at Rs.2.11 crores (FY 2021-22) which is biggest ever outlay and the whole of the out flow is met by revenue collections of which 64 to 66 percent would come from freight and the balance would be from Passenger.

NON EXISTENCE OF BALANCE SHEET

IR being one of the major segments of Indian economy considered to be an enterprise having separate legal entity and perpetual succession assuming a going concern notion, giving employment to about 12.54 lakhs (2020), doesn't have its own Balance Sheet on any given date. At any given point of time the management is not able to easily identify the realizable value of its Property Plant and Equipment/ working capital funds and the way the proceeds can be used for settling the liabilities including the capital held by it. The basic usage of a Balance Sheet is:

- ⊙ The Statement of Affairs reveals the health of the institution and

that prompts as to what are the current fund requirement and from where it can be procured;

- ⊙ The balance sheet of each year is compared to understand and study the growth of the organisation from scratch;
- ⊙ This document helps in understanding the extent to which the enterprise shall continue to assume the Going concern concept of its existence;
- ⊙ Balance sheet helps to understand the project implementation status and the future commitments on the projects; and
- ⊙ Understanding the capital structure of the organisation.

NON EXISTENCE OF REVENUE STATEMENT

If IR had revenue statement, that would help them review how well the organisation fared over a period of time, say last one year and compare the same with the previous year. Once the organisation has its financial

results in mind it shall be helpful for them for better financial decisions, as the management is having concrete knowledge of how the overall operations have been conducted in terms of revenue and expenses in any reporting period.

RAILWAYS ACCOUNTING SYSTEM

IR maintains its Finance Accounts under Cash based Government Accounting and the presentation format for these accounts is designed by Controller General of Accounts and the Comptroller and Auditor General of India. However, since 1924, to become self-sufficient in Financial Management, IR evolved a mixed pattern of accounting by adopting a few aspects of Accrual Accounting through Link Accounts. As per Executive Summary of Accounting Reforms in Indian Railway as published by www.irastimes.org the Linkages of Accrual Accounting were provided by means of Suspense Heads viz. Traffic Suspense, Stores Suspense, Demands Payable etc. to capture the accrual impact of revenue, stores and establishment transactions. However, its independent arms like RITES limited, Railtel corporation India Limited, Pipavav Railway Corporation Limited, IRCON International Limited etc are all corporate giants having the accrual basis of accounting based on IND AS/ IFRS as the case may be and such institutions are fully enjoying the compact financial presentation having full control of its resources on a centralised way.

The following basic principles of accounting are yet to be focused upon by IR:

- a. Accrual Income from various Revenue sources are not identified and accounted for. Revenue from freight income, passenger income (Though not material), Royalty income, Rental income, Advertisement revenue income etc as accrued as at the year-end don't find place in the financial statement
- b. Accrued Expenses including the capital commitment on the project of which substantial portions are completed is not recognised so also the Employees post-retirement benefits future commitments / liabilities are not estimated at any

IR being one of the major segments of Indian economy considered to be an enterprise having separate legal entity and perpetual succession assuming a going concern notion, giving employment to about 12.54 lakhs (2020), doesn't have its own Balance Sheet on any given date

- point of time.
- c. Matching Principles of accounting are not ascertained. The revenue is not matched properly with the related expenses especially on account of non-charging of depreciation on assets.
- d. Finance cost including borrowing cost for Capital projects, if any and Working capital is never absorbed for capitalisation / revenue sheet, respectively as required by appropriate standards.
- e. Going concern assumptions not evaluated. Especially for units diversified like Coach making, wheel making, Diesel Loco making etc.
- f. Non retention of any consolidated / decentralised Fixed Assets register leading to Non estimation of fair value of Property Plant & Equipment (PPE) and non-provision of depreciation on the depreciable assets
- g. The gross profit percentage and other applicable ratios for comparison cannot be derived. Thus, comparison on absolute terms and / or percentage basis cannot be ascertained.
- h. Per person performance and productivity cannot be measured
- i. The value of waste / scrap lying at various places in the country and probable realisability of scrap including precious steel remains unascertained.
- j. Costing for ascertaining

responsibility of the cost centre not possible

- k. Depletion of resources, if any not identified
- l. Non-compliance to accounting standards and hence the results are never comparable and the performance not evaluated on any standard bench mark.

ACCRUAL BASIS OF ACCOUNTING

Accrual accounting measures an organisation's performance and position by recognizing economic events regardless of when cash transactions occur (Payment for the Liability / Expenses and Receipt for Revenue Income / Capital assets). Compared to the accrual basis of accounting the cash accounting methodology only records transactions when payment occurs (Inflows and out flows). The matching principle's main goal is to match revenues and expenses in the same accounting period/year. The principle in this regard states that:

- ⊙ All expenses incurred for earning the revenue has been completely identified and booked
- ⊙ All Revenue against which expenses are incurred during the common period have been full recognised as income.

HIGHLIGHTS OF ACCRUAL CONCEPT AND ITS USAGE:

- ⊙ The revenue or expenses are recorded when a transaction occurs rather than when payment is received or made.
- ⊙ The method follows the matching principle, which says that revenues and expenses should be recognized in the same period (Reporting Period).
- ⊙ Better Comparison- The results / performance is comparable on a Year-to-year basis
- ⊙ Better performance standards/ cash flows
- ⊙ Better evaluation of ongoing capital infusions
- ⊙ Impact of Depreciation on overall Network and rolling stock
- ⊙ Costing / efficiencies

IMPACT ON FINANCIAL STATEMENT – FOR NOT BEING

ACCRUAL

1. Revenue Impact
 - a. Based on accrual principle, revenues are recognized into the financial statement as and when if they are realized or realizable. Revenues must also be earned (the principle being that the ownership/title to the goods are transferred and for services they are rendered), without waiting for the cash inflows for the same. For organisation which adopts cash basis of accounting the revenue is recognized when cash is received.
 - b. The financial impact, which are to be considered for revenue aspect in preparation of financial statements are:
 - ⊙ Non recognition of revenue for the ticket booked for the period after the year end (Income should be derecognised)
 - ⊙ Recognition of freight for all freight charged for good laden up to the year end and the demurrage charges for good parked for the year end.
 - ⊙ Sales of inventory/scrap,
 - ⊙ Sales of Property Plant and Equipment other than inventory.
 - ⊙ Revenue from the use of the IR assets such as interest earned for money given as deposits or for loan, rent for using the Property Plant Equipment including the advertisement revenue, and royalties for using intangible assets, such as a licensed trademark.
2. Impact on Charges

An accrued expense in any enterprises is the amount liable to be settled with certainty in future. The unpaid expenses incurred by the entity on usage of services /or consumption of products are neither ascertained nor provided for.
3. Provisions for foreseen/unforeseen liability on Estimation

Various other provisions on estimation or other methods which are part of financial

statement for understanding the correct financial position are not included either part of budget or the revenue account like

1. Depreciation / Depreciation funding
2. Employee benefits on retirement in the nature of Gratuity / Pension/ Leave Encashment especially future pension liabilities.
3. Impairment of Property Plant & equipment on Fair valuation
4. Foreign Exchange fluctuation impact both on Revenue and capital account
5. Lease Rental Amortization
6. Provision for Non moving inventories of stores / spares
7. Writing off of obsolete items and its impact on revenue
8. Disclosures of contingent liabilities.

DEPRECIATION AND DEPRECIATION FUNDING

For identifying the cost of depreciation, the assets of the IR could be classified at least on the following broad Head:

- a. Freehold / Lease hold Land
- b. Various Buildings under IR including Staff Quarters, Schools, Hospitals, Building at railway gates and temporary structures thereof
- c. Station building and Platform structures
- d. Bridges including over bridges / Mountain Tunnel
- e. Railway gates and its equipment's in Manned / unmanned level crossings
- f. Roads/Streets inside the various entities / Family accommodations
- g. Railways Tracks.
- h. Track Signalling equipment's including the control Panels
- i. Various Tracks Components including tools for track maintenance.
- j. Furniture & Fixtures like Tables, Chairs, AC / Coolers
- k. Office Equipment Like computers / UPS/Invertors Telecom equipment, etc.

- l. Motor Cars / other Vehicles including Heavy duty Vehicles
- m. Plant, Machinery & Equipment in various units/sub units
- n. Medical Equipment in Hospitals
- o. School equipment's if any
- p. Plant & machinery and Spares of Loco/Coach/Wagon units
- q. Capital Work-in-Progress
- r. Intangible Assets include copyrights, trademarks, software, etc

Depreciation is a measure of the Wearing out, Consumption or Other loss of value arising from use of depreciable Property Plant & Equipment over its useful life and the same is allocated so as to charge fair proportion in each accounting year/period. The main purpose of charging depreciation as an expense in the revenue statement is to spread the initial cost of the asset over its useful life.

Since the IR prepare a Zero Based Budget (ZBB), the carry forward of funds for the subsequent projects is not ascertained. However, had they accounted for the depreciation and its related funds then the Depreciation Fund /Investment shall be available with them to be used for buying / procuring /constructing new assets the cost of which shall be equal to the depreciation fund amount.

CONCLUSION:

The cash basis of accounting or single accounting is easy to undertake for transactions on day to day basis, since no complicated accounting transactions such as accruals of income / Expenses and deferrals are perused. Such accounting methodology is useful for common man not having complex transactions and not much impact on his revenue. However the organisation like Railways should use only accrual basis of accounting primarily because the revenues and expenses of the same reporting period should match, so that the true profitability of IR can be identified/ discerned. **MA**

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A STUDY ON ROLE OF INDIAN RAILWAYS TO COMBAT COVID -19 PANDEMIC

Abstract

The nation was forced to go under lockdown to control the spread of coronavirus from 22nd March, 2020. The entire world is the witness of the miserable impact of the COVID-19 pandemic. The travelling industry was no exception of this. Indian Railways being one of the most important medium of travelling and transporting have supported the nation to combat COVID-19 in every possible ways. Although during the initial period of lockdown, Indian Railways for the first time suspended the passenger trains and long distance trains to ensure the health and safety of the nations, but continued the services of goods train to transport essentials commodities including medical equipment to various corners of the nation. This paper focuses on the role of Indian Railways to combat COVID-19 pandemic with the help of secondary data collected from various sources.



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1. Introduction:

The unprecedented threat from COVID-19 pandemic caused by SARS-CoV-2 virus which was for the first time identified in Wuhan, a Chinese city in December 2019, and the exponential growth of this disease observed throughout the world. World Health Organisation has declared COVID-19 disease as a pandemic on March 2020. This pandemic has created a world-wide public health emergency situation and to protect the human being WHO recommended use of mask, sanitizers, take the necessary personal hygiene measures, to maintain the social distancing norms strictly. This pandemic has greatly affected social and economic activities, so many rigid rules and restrictions have been implemented in the new normal era to curb the exponential growth of this pandemic. On 22nd March 2020, India has declared a nation-wide lockdown. Except essential services, other socio-economic activities has been stopped in this lockdown. As a result many organisation specially travel and tourism sectors were on the moratorium. This global pandemic immensely changed the socio-economic conditions, healthcare system, demographic condition, physiological resilience of the people.

At this pandemic situation nation lifeline i.e. Indian railways came forward and for the first time since its existence suspended passenger transportation services to evade the spread of virus. Keeping in the view of mass welfare Indian Railways suspended the service of all passengers, express and premium trains till 3rd May, 2020. However it continues the operation of cargo trains to ensure the supply of essential commodities, food grains and medical equipment etc. which are required by

household and industries on daily basis. Indian Railways utilised the lockdown period to train their staff so that they can handle the pandemic safely. For all their stakeholders Indian Railways organised several awareness campaign. The Indian Railways used its manufacturing facilities and successfully prepared and distributed PPE kits, sanitizers, masks etc. among their staff and general public to protect them from the outbreak of pandemic. The coaches of the trains and railways hospitals were converted in isolation centre to accommodate the rising number of COVID cases. During the critical situation Indian railways support the supply chain of the country, successfully transported medical equipment, life savings drugs, food items, other essential commodities etc. in different parts of the country. Indian Railways feed over 1,70,000 poor and helpless people till April 20 as a part of social service commitment. During this global health crisis when there was shortage of accommodation in hospitals, Indian Railways converted its' sleeper class coaches into the isolation centres with all the necessary facilities like oxygen, space for medicines, sanitized surface, dustbins, bathroom etc. to handle the contingency.

2. Review of literature:

Mishra (2020) focused on impact of banning of passenger trains and travel on the internal revenue of Indian Railways. He also added that during pandemic Indian railways forced to ban their passenger train service for restricting the spread of corona disease which affect the revenue but helps in improving the operating ratios. During lockdown Indian Railways was operating special parcel trains to carry essential goods, medical equipment, e-commerce items etc. that ultimately contribute in freight revenue. It also observed that the downward trend in revenue growth adversely affect the infrastructural investment ability of Indian Railways.

Rao & V.T (2020) stated that Indian Railways have taken all possible measures to combat against the ongoing pandemic in the country. At the initial phase of lockdown to prevent the nation from corona virus and its ill effects Indian Railways for the first time

This global pandemic immensely changed the socio-economic conditions, healthcare system, demographic condition, physiological resilience of the people

compels to halt the passengers' trains but continues the operation of various special trains to transport the essential commodities and medical equipment in the various part of the country.

Sharma (2020) examined the significant impact of COVID-19 on Indian economy. During lockdown due to strict restrictions connectivity supply chain was highly affected. At this global pandemic Indian Railways operated time table parcel trains, special trains to transport the essential commodities like food grains, milk, vegetables, medical equipment across the country, so that the common people can get all the necessary items and maintain their livelihood. This paper also added that Indian Railways feed people at starvation during the COVID-19 pandemic.

Srivastava et al. (2020) observed a long term impact of COVID-19, it does not restrict only in healthcare but also spread its wings in various socio-economic aspect across the globe. This pandemic situation has caused various physiological disorder such as stress, tension, anxiety, depression, anger among people. Lockdown magnifies the physiological issues because of constant fear of affecting by the corona virus, isolation, discrimination and social stigma, rumours about this illness, disruption of social lives, economic uncertainty etc.

Velmurugan et al. (2020) found that common people looking for sustainable mobility solution with limited exposures in the pandemic. They throw light on the consequences of travelling behaviour of the people during lockdown and unlocking phases and also concluded regarding the safety measures taken by railways, air-transport etc.

3. Objectives of the study:

Primarily this study put stress on the contribution of Indian Railways to combat COVID-19 pandemic. Different initiative of Indian Railways are analysed to draw the conclusion of the study. The aim of this study is three-fold:

1. To assess the social contribution of Indian railways during COVID-19 pandemic
2. To explore the precautionary measures taken by Indian railways during pandemic
3. To summarise the operation of Indian Railways in the different phase of lockdown and unlock during pandemic.

4. Research methodology:

The present study is exploratory in nature. Data is collected from annual report of Indian Railways, various publications of Ministry of Indian Railways. Moreover, available information on this context published in different journals, books, magazines, dailies and websites has also been taken into consideration for the study as secondary source.

5. Descriptive study:

5.1 Social contribution of Indian Railways during COVID-19 pandemic:

Swift and Efficient Transport of Utilities: During lockdown when movement were restricted to protect the nation from the spread of corona virus Indian Railways came forward with Swift and Efficient Transport of Utilities (SETU) to ensure nationwide circulation of essential commodities other than goods through time-table parcel trains and ensured the parity in demand and supply of commodities in the market

RO-RO facilities: To combat with this COVID-19 pandemic and improve the unstable economic condition of the country Indian railways has upgraded its transportation and carried loaded trucks by RO-RO (Roll on-Roll off) facilities which ultimately ensures faster and effective supply of essential commodities in the various corner of our country. Form 24.03.2020 to 22.05.2020 Indian railways operated

more than 23.2 lakhs of wagons, out of which 13.5 lakhs of wagons carried essential commodities like food grains, milk, edible oil etc.

Transportation of food grains, distribution of free meals and water bottle: To ensure prompt transportation of food grains and essential goods to the different part of the country, Indian Railways is operating zone basis “Annapoorna trains” which is a combination of two food-grains loaded trains. With the cooperation of railways staff and other government departments and NGO’s IRCTC has distributed food packets from its kitchen to the needy people who resides in the surrounding areas of the various stations across the country. Over 4.7 million free meals served till 22.05.2020 to feed people at starvation during the pandemic. IRCTC also distributed Rail Neer water bottles to the policeman who are posted in road nakkas to combat against COVID.

Parcel trains: During lockdown through Parcel trains a company or a person can easily transport various items such as e-commerce consignments, fruits, vegetables, medicines, medical equipment, seeds, eggs, milk, dairy products, packaged food items, stationary etc. to meet the supply of these items across the country. From March to May 2020 for transporting essential commodities, medical equipment Indian Railways run 3,255 parcel trains over 89 routes, out of which 3,160 were time-table trains.

Shramik special trains: 3840 Shramik Special trains have been operationalized by Indian Railways for Migrant labour to bring back them to their home from various states across the country. Through these trains more than 52 lakhs migrant labour moved across the country. Indian Railways distributed free meals to 85 lakhs and free drinking water to 1.25 crore passengers who were travelling in these trains.

Production of PPE kits, masks, sanitizers and various equipment: To combat the pandemic situation Ministry of Railways utilised the manufacturing facilities of its various production units such as Rail Wheel factory, Rail Coach factory, Integral Coach factory etc. to produce the essential items such as PPE kit, masks, sanitizers, simple hospital

During lockdown when movement were restricted to protect the nation from the spread of corona virus Indian Railways came forward with Swift and Efficient Transport of Utilities (SETU) to ensure nationwide circulation of essential commodities other than goods through time-table parcel trains and ensured the parity in demand and supply of commodities in the market

beds, washbasins, ventilators etc. which can be utilised for the treatment of COVID patients. Approximately 1.2 lakh of PPE kit, 1.4 lakh litres of sanitizer and more than 20 lakhs of face covers produced by Indian Railways in last year.

Converting the coaches into isolation centres: When beds were not available in the hospital across the country due to increasing number of COVID cases, at that tough time Indian Railways came forward. Coaches were furnished with medical equipment, oxygen cylinder, ventilators etc. seats are used as bed and by this way the coach have been converted into isolation centres for COVID affected patients. In fact many zonal hospitals of Indian Railways have been converted into COVID hospitals to fight against the pandemic situation. In the month of April 2020 Indian railways has moved around 1150 tonnes medical items in the various part of India.

Awareness campaign: Indian railways also arranged COVID-19 awareness campaign for passengers, employees and society as a whole through posters, video clippings, announcements, and social media, traditional media, station displays, brochures etc. This initiative

ultimately helped to educate the mass about the precautionary measures and reduced the panic a lot. Indian Railways also joined a public movement towards COVID accepted behaviour such as wearing mask, washing hand frequently, use hand sanitizers, do not touch the common surface, maintain social distancing, avoiding mass gathering etc. To break the chain Indian railways also took some measures like no blankets and curtains in transit, compulsion wearing of mask, maintain physical distancing norms etc.

Safety measures: During the pandemic situation Indian Railways had geared up its entire team to take the safety measures like sanitisation of coaches and railways stations, disinfected the seats, wash bins, toilets, doorknobs etc. and ensuring a safe travelling experience of its passengers.

5.2 The precautionary measures taken by Indian railways during pandemic:

For passengers: While entering in the railways platform thermal screening is compulsory for all passengers and only asymptomatic passengers are allowed to board. Passengers must enter the platform at least 90 minutes prior to their schedule time of journey and they are allowed the station only with the confirmed tickets. Indian Railways put compulsion on wearing of masks and maintaining physical distancing both at the station and at the train’s compartments, and using Aarogya Setu App for the passengers. To combat with this pandemic Indian Railways put restrictions on travelling of Waiting list passengers, they also cancelled the unreserved coaches, provided only ready to eat food, stop providing the blankets, bed sheets during travelling. Further to discourage nonessential travel and to protect the vulnerable category from the infection of corona virus concessional booking of railways’ ticket were banned barring differently abled category, students and patients since 20th March, 2020.

For employees: Since freight operation were continuing by Indian Railways during lockdown to meet the transportation of essential commodities, food grains, milk, vegetables, medical equipment to the different parts of the

country and try to maintain a parity in supply chain, so maintenance staff were working round the clock. Indian Railways took several precautionary measures to ensure the safety of their employees in the workplace, such as availability of mask, sanitizers, hand wash at the workplace for all the employees. They also maintain proper physical distancing norms at their workstations. Indian Railways also sanitized the commonly touched surface repeatedly. The overall safety measures helps in boosting the morale of the employees during the pandemic situation.

For the society: During the lockdown period Railways Emergency Cell for COVID addressed almost 13,000 queries, requested and suggestions on regular basis from five communication and feedback platform such as email (railmadad@rb.railnet.gov.in), social media, help lines 138 and 139, and CPGRAMS. Indian Railways responded positively almost 90% of the queries on one-to-one basis in the local language so that the caller understand it properly. Over 2,30,000 queries were answered by RailMadad helpline number 139 in the initial phase of lockdown and in the same period helpline number 138 received more than 1,10,000 phone calls.

5.3 Summary of Indian Railways operations during lockdown and unlock phases:

Lockdown 1: Due to the outbreak of corona virus, Indian Railways on 21st March, 2020 for the first time in its history banned its operation. Till 30th June, 2020 no passenger trains, long distance trains etc. were allowed to operate.

Lockdown 2: In order to maintain the undisrupted flow of essential goods in country's supply chain, Indian Railways continued the operation of parcel trains.

Lockdown 3: in this phase the restriction on passengers train service

of Indian Railways extended till 17th May, 2020. Shramik Special trains were introduced to ferry stranded migrant workers, students, tourist, pilgrims and others from different parts of the country to their native state.

Lockdown 4: From 21st May 2020 Indian Railways after few months of restrictions in their operation again commenced the reservations booking activities for passengers.

Unlock 1, 2 & 3: During these phase only Shramik Special trains, time table parcel trains and few long distance trains were in operation. The service of regular express trains, mail trains and other suburban trains' remains suspended.

Unlock 4: Indian Railways resumed its passenger train services from 12 September 2020 barring the service of express trains and other sub urban trains.

6. Concluding remark:

In the month of March 2020, when India was in lockdown mode to protect the nation from the outbreak of pandemic, all economic activities were shut down, restrictions were imposed upon movement of goods and passengers, social distancing norms were strictly applied, this scenario adversely affects the supply chain management of the country. Being one of the important pillar of the country Indian Railways always stood up with the country to handle the medical and socio-economic contingency. During the period of lockdown being one of the important transporting medium Indian Railways transferred essential commodities in every corner of the country. This activities ultimately supplied the much needed support in the supply chain. Besides that Railways manufacturing unit produced PPE kits, hand sanitizers, masks, ventilators, medical trolleys etc. to combat the pandemic. Railways coaches were converted into isolation centres to treat

the infected people. Indian Railways trained their officers, staffs, guards, and casual labours etc. as per the guidelines issued by Ministry of Family Welfare and Health so that they can handle the pandemic situation. It can be concluded that despite all the adverse scenario, Indian Railways have always stood with the country and set a good example by playing a significant role in the country's continuing grapple against COVID-19 pandemic. **MA**

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UNDERSTANDING OF DIGITALIZATION AND GREEN MEASURES OF INDIAN RAILWAYS IN THE MODERN ERA

Abstract

The balance among social, economic and environmental interests is being ensured through sustainable initiatives. Every sector of the economy need to make an optimum blend of digitalization and green initiatives to ensure sustainability. The Indian railway sector is exhibiting a lot of mesmerizing works resembling a wonderful meeting of digitalization and green initiatives. Railway Sector needs to be more focused on this aspect for more sustainable achievements and readiness in future.



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BACKGROUND:

The Indian railways took its first breadth in the mid 19th century through a historical initiative of then East India Company, under colonial rule. In the post 1925, Indian railway system started to become electrical and in the post independence era; the massive expansion of railway routes had been experienced. Over the years contribution of the sector in the country's economy also expanded rapidly. Total revenue earning freight traffic handled increased from 73.20

million tonnes in 1950-51 to 1208.41 million tonnes in 2019-20. The sector experienced faster growth in all respect through massive digitalization, in post 2000 era. For ensuring much larger role of the sector in sustainable development of the country; extensive digitalization and green developments are required. At this vital juncture understanding of how digitization and green initiatives change the traditional work process, along with identification of prospective areas where green technology can be used in Indian railway sector for betterment is definitely vital.

REVIEW OF LITERATURE:

The visual demonstration of the green measures undertaken by the Lodging industries in India is highly contributing in developing positive perception and confidence regarding them by the consumers (**Manaktola & Jauhari, 2007**).

Three Indian IT giants, HCL, Dell and TCS have adopted Green Supply Chain Management Practices in a big way. They are trying to ensure sustainable social-economic development through green innovations, (**Gupta, et al., 2013**). Commercial banks in India have

taken several initiatives for making green banking a reality, but the main challenge regarding this is able leadership for efficient and continuous achievement in this aspect (Kandavel, 2013).

The majority of the researchers who have done study for understanding the relationship between firms' performance and green initiatives undertaken by them in regards to global Automobile Sector, opined that there is a positive relationship exists between their sustainable positive performance and green initiatives undertaken by them, **Kushwaha & Sharma (2015)**.

Considering the existing literatures, researchers opined that literatures lack any specific study concerning exploration of digital and green measures undertaken by Indian Railways sector for ensuring sustainable socio-economic development of the country in modern era. Hence researchers conducted the study defined below to narrow the existing gap in this specific area.

OBJECTIVES OF THE STUDY:

1. To study the role of Indian railways in digitalization of customers' services.
2. To identify green initiatives undertaken by Indian railways.

RESEARCH METHODOLOGY:

The study is explorative and descriptive in nature. The researchers collected data from various secondary sources. The available information is presented in statement form and in graphical form. The data are logically analyzed by the researchers in order to achieve above mentioned research objectives.

ANALYSIS:

Business development is a process that should be sustainable in future and fit in tune with the current economic and society's development. During the age of digitalization and increase penetration of smart phone and internet connection, digitalization of service delivery is crucial for survival in the industry. Indian Railways has applied digitalization in service delivery to have sustainable growth and also focus on sustainable green measures to mitigate adverse effect on environment. During the last few years, Indian railways have steadily been changing its operation towards smart service, digital operation, and sustainable development goal achievement. It has modernized extensively its trafficking system with the help of ICT and real time data sharing and also introduced e-office system in official work.

Major areas of digitalization in Indian Railways:

1. Automatic Ticket Vending Machines (ATVMs)/ Coin-cum-Card Operated Automatic Ticket Vending Machines (CoTVMs):

In 2007, October, Indian Railways introduced automatic ticket vending machines to reduce the congestion pressure of physical ticket counter. Automatic ticket vending machines are self operated kiosks which help customers buying ticket without waiting in long queues. Ticket can be purchased by coins, notes and smart cards. ATVMs are being installed across railway stations to

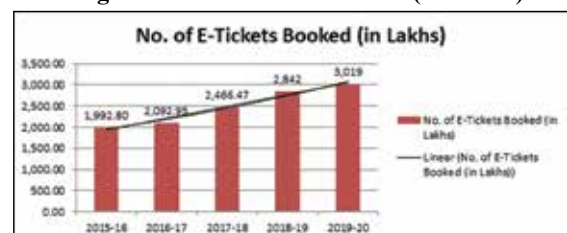
Indian Railways has applied digitalization in service delivery to have sustainable growth and also focus on sustainable green measures to mitigate adverse effect on environment

promote digitalization and cashless transaction and also to provide convenience to customers. As on 30.04.2020, 4077 ATVMs & Cash/Card Based ATVMs (CoTVMs) are commissioned over Indian Railways in which 3332 are in working condition according to the **6th report by Standing Committee on Railways**. According to **Indian Railways annual report 2019-20**, as on 31 March 2018, 3851 ATVMs and 459 Co-ATVMs (Cash/ Smart Card operated ticket vending machines) had been installed over 14 Zonal Railways.

2. E- Ticketing system:

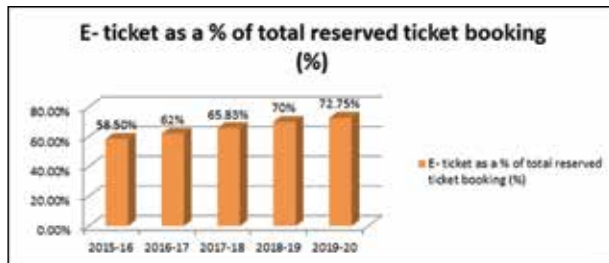
In 2005, Indian Railway has introduced the largest e-commerce portal in the World to deal with e-ticketing system. Under this system, passengers can book their reserved ticket online and take print out of it, known as electronic reservation slip, which authorizes the person to travel along with a stipulated identity proof. This digital system is moving towards paperless ticketing, supported by SMS sent by IRCTC. In 2014, 28 April, next generation e-ticketing system was launched. It has a capacity of booking 7200 tickets per minute. Indian Railway catering and tourism corporation (IRCTC) maintains a website www.irctc.co.in to facilitate online reserved ticket booking and such booking can also be done through a mobile app. The UTSONMOBILE APP has also been launched by Indian Railways for giving convenience to customers in buying unreserved ticket booking without investing much time at the counters. Payment can be made through either Railway wallet or R-Wallet that can be created with zero balance upon successful registration and linking with the mobile number or through other digital payment modes such as debit card, credit card, net banking, Paytm, Mobikwik, Freecharge etc. It is the greatest achievement of Indian Railways as part of digital India movement. Following diagrams show progress of e-ticketing system during last five years period.

Fig 1: No. of E-Tickets Booked (in Lakhs):



Source: Compiled by authors from annual reports of Indian Railways

Fig 2: No. E- Ticket as a % of total reserved ticket booking (%):



Source: Compiled by authors from annual reports of Indian Railways

From the above figure 1, it is clearly seen that no. of e-ticket booked during last five years is increasing in number. 1992.8 lacks numbers of e ticket were booked in 2015-16, which increased to 3019 lacks in 2019-20. Approximately 51.49% has been increased in 2019-20, over 2015-16 in number of e-ticket booked. From figure 2, it is also understood that, percentage of e-ticket booked is also increasing. 58.5% of total reserved ticket was booked online in 2015-16, which is increased to 72.75% in 2019-20.

Fig 3: E-ticketing Revenue Collection (in Crores)



Source: Compiled by authors from annual reports of Indian Railways

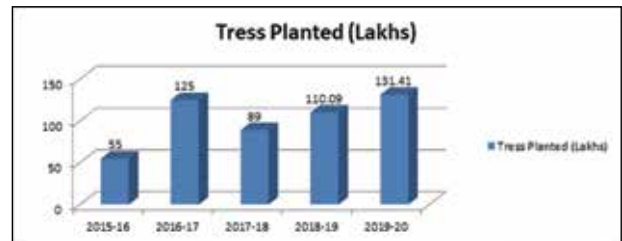
From the above fig 3, it is seen that revenue collection of Indian Railways from e-ticketing system is growing. In 2015-16, revenue collected was Rs. 23,395.03 Crores whereas in 2019-20, it became Rs. 34,055 Crores. Revenue collection is increased by 45.56% (appx.) in 2019-20 from 2015-16.

Major areas of environmental/ green sustainability measures:

Indian Railways is a greater energy consuming sector whereas it is a least pollutant mode of transport. Environment degradation is a major cause of concern for sustainable growth. Being a part of society, Indian railways are steadily making its operation environment friendly so that carbon emission becomes the least. It has taken different initiatives like less use of wooden sleepers, afforestation, installation of solar panels, use of bio diesel, setting up of wind mill power plant, observing energy conservation week on 14th December etc. Indian railways have taken commendable efforts for mass plantation as its commitment to improve environment and restrict unauthorized access to the vacant lands under its

control. As on 31.03.2018 approximately 0.42 hectares of railway land has been taken under afforestation. A considerable numbers of trees are planted every year. In 2015-16 it was 55 lakhs, whereas in 2019-20, it reaches at 131.41 lakhs (Fig 4).

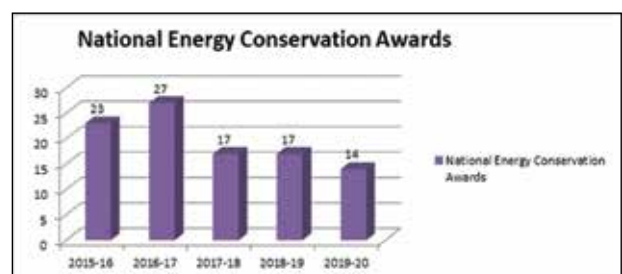
Fig 4: Afforestation



Source: Compiled by authors from annual reports of Indian Railways

Indian railways have installed 114.07 MW of solar power till 31st March 2020, both on rooftop and land. It was 82.42 MW till March 2019, where 40.94 MW has been installed in 2018-19 and 30.19 MW installed in 2017-18. It has also utilized 26MW of solar energy in 2016-17 and 14 MW in 2015-16. Besides solar power, Indian railways have also installed wind based power plants. It has planned to install 200 MW of Wind-mill Power plants, of which 103.4 MW wind-based power plants have been installed till 31st March 2020. Indian railways have also given tremendous effort in energy conservation to yield fruitful result and received many National Energy Conservation Awards (NECA) (fig 5). Introduction of 100% LED lighting fitting across all the station will achieve 240 million units of electricity savings per annum amounting to 180 Crores reduction in annual electricity bill of Indian railways.

Fig 5: Numbers of National Energy Conservation Awards



Source: Compiled by authors from annual reports of Indian Railways

Conclusion:

Indian Railways have made admirable endeavor in regard to digitization in customers' servicing and convenience. It has made easy to book e-ticket for the customers and making online booking a customer's choice. Number and percentage of e-ticket booking show increasing proclivity which also aggrandizes the revenue collection from it. It shows a sustainable outcome in the era of digital economy. It has also placed greater footfall in maintaining environmental values and sustainable development through various green

Indian Railways is a greater energy consuming sector whereas it is a least pollutant mode of transport

initiatives including digitalization. More such initiatives should be undertaken through adequate investments in green technology related researches and developments. **MA**

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DEDICATED FREIGHT CORRIDORS OF INDIAN RAILWAYS: A STEP TOWARDS BETTER TOMORROW

Abstract

“Time is Money”, this phrase is commonly well understood by any business and commerce graduates. Reality may reveal lot of scope for improvement in this regard—one such area is Indian Railways. No wonder the Ministry of railways plans to introduce faster trains and high speed tracks for future. Conveyance is used for both human and non human factor and the railways meet both. In this article we state the plans, progress and developments of railway freight system aiming to improve logistics and reduce cost and the underlying challenges in an attempt for better tomorrow.



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Background:

With about 1200 metric tonnes of freight, India stands 4th globally. Recent trends have shown increase in freight tonnes carried; from 745 million tonnes in FY 2007 to 1208.41 million tonnes in FY 2020, and it is expected to grow. However the freight rails run on same tracks as that of passenger trains, which thus delays. Generally for freight, road transport is usually favoured indicating opportunity loss of Indian railways. With increase in demand and constraints on capacity, Dedicated Freight Corridor (DFC) was the only option. DFCs are dedicated railway tracks for freight transport. At present six DFCs; Western DFC, Eastern DFC, North-South DFC, East-West DFC, East-South DFC and South-South DFC, has been commissioned by the Dedicated Freight Corridor Corporation India Limited (DFCCIL); a body established by Government of India, with the aim to meet the freight transport demand and capture the opportunity that lay ahead. Details about these proposed freight corridors are given in the table below.

Dedicated Freight Corridors	Route		Length
	From	To	
Eastern Dedicated Freight Corridor	Ludhiana (Punjab)	Dankuni (West Bengal)	1337 km

Western Dedicated Freight Corridors	Jawaharlal Nehru Port Mumbai (Maharashtra)	Dadri (Uttar Pradesh)	1506 km
East – West Dedicated Freight Corridor	Dankuni (West Bengal)	Palghar (Maharashtra)	2013 km*
North – South Dedicated Freight Corridor	Itarsi (Madhya Pradesh)	Chennai (Tamil Nadu) via Nagpur (Maharashtra) and Vijaywada (Andhra Pradesh)	1206 km*
East Coast Dedicated Freight Corridor	Kharagpur (West Bengal)	Vijaywada (Andhra Pradesh)	1265 km*
Southern Dedicated Freight Corridor	Chennai (Tamil Nadu)	Madgaon (Goa)	892 km*
Total			8219 km

* The lengths (km) of these DFCs are not conformed as different sources of websites shows different figures due to the fact that these DFCs are all in planning stage. Those data has been taken, which are found common after comparing different sources. These data are subject to change depending upon the constraints to be faced during the construction.

The significance of separate dedicated corridors for freight comes from the fact that about 65% of total revenues earned by Railways are from freight transport, and there are scopes to improve earnings with such development.

Past developments:

DFCs were first proposed in the year 2005 followed which Rail India Technical and Economic Service Limited (RITES) submitted a report in 2006. In the same year the proposal was approved and DFCCIL was established to simultaneously work at Western DFC (1506 km) and Eastern DFC (1337 km) under separate phases at an estimated cost of Rs. 84,538.6 crores. However the proposal suffered setbacks as the first major civil contract was issued only after 7 years in 2013. By 2014 not even a kilometre of the track was built. Capital expenditure from FY 2006 to FY 2014 was Rs. 4000 crore, which was mostly spent to acquire the land. According to DFCCIL official about 88% of land acquisition was completed by then. In FY 2019 DFCCIL allocated 4419 hectares and 5985 hectares of land to Eastern DFC and Western DFC respectively. By November 2019, 211 bridges were built, 271 Road Under Bridges (RUB) were commissioned out of 562, 67 Road Over Bridges (ROB) have been complete out of commissioned 296.

Present Scenario:

From January 2021, 306 km of Eastern DFC and 347 km of Western DFC are operational on the Eastern arm from Rewari in Haryana to Madar. By May, 2021 453 km of the corridor was completed. As the project faced delays previously, at present there is a meeting every week to review the progress of the work, due to which over the past one year there has been substantial improvement. According to Project Status report of May, 2021 by DFCCIL track linking of 131 km is under progress with 29 km of Overhead Equipment (OHE) wiring for running electric locomotive for freight trains. Out of projected 540 required bridges, 311 has been completed accounting for 58% progress. 1105 out of 1582 RUBs and 93 out of 302 ROB has been completed. As of now 71% of the project is accomplished with trial run for 335 km stretch from Madar to Palanpur, is successfully completed. With more than 4000 trains already operated through the stretch from Khurjato to Bhaupurand and Madar to Palanpur DFCs, DFCCIL reports to have earned more than 300 crore Gross-ton-km since their respective commissioning. The table below highlights the present condition along the Western DFC and Eastern DFC.

Section/Packages		Length	Commissioning Target	Financial Progress(works)
Western DFC				
Rewari-Palanpur	Rewari-Madar	306 km	Commissioned	71%
	Madar-Palanpur	335 km	Completed	
Palanpur-Makarpura		308 km	March 2022	
Makarpura-Sachin		135 km	June 2022	
Sachin-Vaitarna		186 km		
Vaitarna-JNPT		109 km		
Dadri-Rewari		127 km	March 2022	

Eastern DFC				
Bhaupur-Khurja		351 km	Commissioned	72%
Bhaupur-DDU	Bhaupur-Sujatpur	180 km	December 2021	
	Sujatpur-DDU	222 km	June 2022	
DDU-Sonnagar	DDU-Ganjkhwaja	37 km	December 2021	
	Ganjkhwaja-Chirailpathu	100 km	Completed	
Khurja-Dadri		46 km	June 2021	
Pilkhani-Ludhiana		179 km	June 2022	
Khurja-Pilkhani		222 km		

Source: <https://dfccil.com/Home/ProgressStatusImage>

However according to the report, COVID has badly impacted the work progress, thus delays are now inevitable.

Future Prospect:

The purpose of DFCs are to reduce congestion, increase speed, reduce cost of transit and increase revenue, at the same time achieving carbon negative footprint. DFCs are planned to have multiple tracks, and it is expected to run electric locomotives for goods carriages. It is also expected to almost triple the average speed of freight trains from 25kmph to 65-70kmph. At present the freight trains on average is about 700 metres long, upon completion of DFCs the corridor would be able to support 1300 metres long trains which will increase the freight carrying capacity from 5400 tonnes to 13000 tonnes. This is expected to reduce logistic cost from 13-15% of the product cost to 6% of the product cost. This is a significant decrease. Once DFCs are completed 70% of total good trains would be shifted to it, thus freeing up enough space to add more passenger trains to meet the ever increasing demand. With Public Private Partnership sanctioned for DFCs, we can expect Private Goods Train; which shall be allowed to run upon payment of track usage charges. Indian Railways expects to increase their market share in goods movement by 2.5 times in the next decade.

Challenges:

Significant delay has been suffered by DFCCIL because of COVID and with second wave hitting within a year, things did slow down further. Further

delays are expected if third wave is going to occur. Not just the disease but railways' good ethics came on its way to delay things further. Railway Minister Honourable Mr. Piyush Goyal suggested railways not to forcibly acquire land, which has been its trend for quite a considerable time. Though the decision is appreciated, it put an adverse impact on the project for DFC. According to reports by DFCCIL, they had to realign their original plan to complete the route of DFC. This actually added to further cost. If DFC becomes fully operational, which it will eventually, then Ministry of Railways has to deal with the cost of compensation. According to an official of DFCCIL (name withheld from reports) DFC will allow railways to carry cargo that required 1 lakh trucks in a single day. The question is about how the affected truck drivers and truck owners and other related non-title holders be compensated. Cost to someone is someone else's gain; also reduction in cost is someone else's loss. With current estimates of reduction in logistic costs by half the railways would become preferable option for transit, but would the benefit trickle down to consumers or will it only add to the profit of businesses and companies as reduction in cost with unchanged price remains unsolved as of yet. Considering ethically, the project is financed largely based on loans, which will be repaid

DFCs are dedicated railway tracks for freight transport

with the help of tax payer's contribution. Only future would reveal if this project was financed at the cost of tax payers for the benefit of Corporate or the benefit would be equitable for both.

Conclusion:

Dedicated Freight Corridors is surely a bold and ambitious plan devised by the Ministry of Railways. Keeping aside the delays, setbacks and ethical dilemma, it is surely going to contribute to the railways revenue. DFCs are great option not just because of the reduction in logistics cost but also because of the comparative lower number of railway accidents as compared to road accidents involving goods trucks. With integration of in-house dedicated system to monitor the movement of trains and tracks, Ministry of Railways are surely providing a safer, convenient, faster mode of transport. With reduced time for travelling wastage of materials on transit would be significantly reduced. DFCs would impact the GDP positively if railways are able to capture majority of the market share. Public private partnership is expected to contribute much needed efficiency to the system.

MA

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INDIAN RAILWAYS: PAST, PRESENT AND FUTURE A JOURNEY TOWARDS 'MAKE IN INDIA'

Abstract

Indian Railways (IR) is a major contributor to jobs, GDP, and safe mobility. But, scaling-up modernization has not taken place for decades of underinvestment and absence of assured funding. In the emerging situation, the Government of India cannot conduct this massive operation alone for the growing needs of a New India. IR has taken extensive steps to add its muscle to the 'Atmanirbhar Bharat Abhiyaan' via public private partnerships (PPPs), Joint Ventures (JVs) and FDI for development massive infrastructure in a 'Make in India' – led dynamic growth so as to motivate domestic manufacturing.



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Background

After Industrial Revolution railways are considered to be the 'prime mover' of the economy. However, in India the development of railway was peculiar. Firstly, railways were developed to 'lessen the effect of a famine.' The other factors were development of internal and external trade and opening up of coal fields. Secondly, in most cases the construction of railways was rested on the policy of 'guaranteed companies.' Indian Railways (IR), once colonial instrument, is now the backbone of Indian public transport system. IR has experienced 168 years of glorious journey, the only high capacity transport mode that can transport people and materials in large numbers

at short notice. IR is the world's largest passenger carrier serving the nation since the 16th April, 1853. Today, IR is the single biggest civil employer in India and the 8th largest employer in the world providing with 12.54 lakh regular employees and about 15 lakh pensioners. Moreover, IR is one of the least polluting modes of transport. That is why IR is one of the fundamental institutions of India. A number of IR infrastructure development initiatives for 'Atmanirbhar Bharat' with renewed focus under the 'Make in India' are:-

- ⊙ All coaches manufactured in Production Units are completely indigenous except for the forged wheel and axle. Efforts are being made to indigenize them also.
- ⊙ 97% of Electric loco equipments are indigenously sourced.
- ⊙ Most of the track machines (around 87%) are manufactured in India
- ⊙ Complete all executable gauge conversion projects. Complete the identified 58 super critical, 68 critical and 20 coal projects for capacity augmentation. 3 new Dedicated Freight Corridors (DFCs) are identified.
- ⊙ As part of National Rail Plan, Vision 2024 has been launched for accelerated implementation of certain critical projects by 2024. Proliferation of indigenously developed Automatic Train Protection (ATP) Systems has been introduced in signalling for enhancing safety of running trains.
- ⊙ Indian Railways has been striving for Net zero carbon emission by 2030.



Source: Total transport System Study by RITES (2007-08).

Concise Vision 2024/2024

The Vision 2024 is a sub-set of National Rail Plan (NRP). The vision is to achieve targets of 2024 MT freight loading and other projects etc. by 2024 through augmenting infrastructure that would require nearly Rs.5.32 lakh crore. Budget 2019-2020 estimates that the Railways infrastructure will require investment of about Rs.50 lakh crore over 2018-2030. India has committed to boost the amount of freight moved by IR from about 35 per cent in 2015 to 45 per cent by 2030 to reduce overall emissions from transportation.

Transport & Logistics (T&L) industry's performance is evaluated on the basis of infrastructure density and travel speeds but IR lack in both the parameters. Generally speaking an efficient railway should strive towards attainment of the following major objectives:

- to provide High-speed Rail (HSR) and satisfactory transport in densely populated India.
- to earn adequate financial returns by increased revenues through expansion of business.
- to boost 'Atmanirbhar Bharat Abhiyaan' and to foster private investment in the sector for regaining share

from airlines and roads.

- to promote economic and social progress at the regional and national level.
- to tackle with any situation relating to disturbance, disruption, damage, attack/hostage/hijack and disaster situations in railway areas/zones.

In short India strives for faster trains, modern trains, safe and punctual services, high-class stations and skilled staff. It is necessary to access the performance of Indian Railways on the basis of two parameters: (a) physical expansion of the railway that is expansion in railway track, passenger coaches and number of wagons, (b) trend in the ratio between the working expenses and gross revenue receipts that is Operating Ratio. With these parameters the performance of IR will be analyzed from 1950. The share of IR in overall GDP has been stagnant at 0.80% only and has actually gone down to 0.75% in 2017-18.

The Current Scenario

The network spans 1,26,366 kms of track length, while the route length is 67,956 kms as on 31.3.2020. As a consequence India has the fortune of possessing world's fourth longest railway network after those of the United States 2,57,722 kms, China 1,27,000 kms and Russia 85,513 kms respectively. IR own 7,325 stations, 76,608 coaches and 2,93,077 wagons. IR provided affordable transport services to almost 12 million passengers during 2019-20. There are more than 1,50,390 bridges of which 14,000 road over bridges (ROBs) and road under bridges (RUBs) where railway lines are passing through in the country. The revenue earned from freight traffic has registered a sustained increase from ₹139.30 crore in 1950-51 to Rs.1,17,386 crore in 2020-21. Passenger revenue was Rs.50,669 crore, though it formed only about 29% of the total earnings of the Railways in 2019-20. 5 Private Freight Terminals (PFTs) have been commissioned in 2019-20. The number of IR's locomotives are 12,729 and EMU coaches are 11,360 (Table 1).

Table 1: Growth in the Number of Passenger Coaches and Employees

Year	EMU Coaches		Conventional Coaches		DMU/DHMU		Other Coaching Vehicles in Number*	No. of employees (in thousands)
	Number	Capacity (+Standing)	Number	Seating Capacity	Number	Seating Capacity		
1950-51	460	87,986	13,109	854,678	-	-	6,059	913.6
1960-61	846	150,854	20,178	1,280,797	-	-	7,415	1,157
1970-71	1,750	340,541	24,676	1,505,047	-	-	8,719	1,374.2
1980-81	2,625	500,607	27,478	1,695,127	-	-	8,230	1,572
1990-91	3,142	609,042	28,701	1,864,136	-	-	6,668	1,651.8
2000-01	4,526	859,701	33,258	2,372,729	142	13,884	4,731	1,545
2010-11	7,292	13,64,948	45,082	32,54,555	761	74,097	6,500	1,328.2
2019-20	11,360	20,72,843	57,083	42,05,915	1,793	1,57,012	6,372	1,254.6

*Includes luggage vans, mail vans, parcel vans etc. Source: Ministry of Railways.

Table 2: Growth in the Number of locomotives/engine, Wagon and Total Stations

Year	Number of locomotives/engine				Total Station	Total wagons on line (in unit)	Number of locomotives/Engine	Route kilometers (RKM's)		Running Track Kms.
	Steam	Diesel	Electric	Total				Route Kms.	of which Electrified	
1950-51	8,120	17	72	8,209	5,976	205,596	8,209	53,596	388	77,609
1960-61	10,312	181	131	10,624	6,523	307,907	10,624	56,247	748	83,706
1970-71	9,387	1,169	602	11,158	7,066	383,990	11,158	59,790	3,706	98,546
1980-81	7,469	2,403	1,036	10,908	7,035	400,946	10,908	61,240	5,345	1,04,480
1990-91	2,915	3,759	1,743	8,417	7,100	346,102	8,417	62,367	9,968	1,08,858
2000-01	54	4,702	2,810	7,566	6,843	222,193	7,566	63,028	14,856	1,08,706
2010-11	43	5,137	4,033	9,213	7,133	229,987	9,213	64,173	19,607	1,14,037
2019-20	39	5,898	6,792	12,729	7,325	2,93,077	12,729	67,956	39,329	1,26,366

Source: Ministry of Railways.

Table 3: Indian Railways Financial Snapshot

Year	Total Investment (₹ in crore)	Gross revenue receipts (₹ in crore)	Working expenses (in crore)	Excess (+)/ Shortfall (-) (₹ in crore)	Passenger earnings (₹ in crore)	Freight Earnings (₹ in crore)	Operating Ratio (per cent)
1950-51	855.2	263.30	215.74	(+)15.05	98.2	139.3	81.00
1960-61	1,868.6	460.42	372.55	(+) 32.01	131.6	280.5	78.75
1970-71	4,099.4	1,006.95	862.22	(-) 19.84	295.5	600.7	84.13
1980-81	7,448.4	2,703.48	2,575.99	(-) 197.87	827.5	1,550.9	96.07
1990-91	22,200.5	12,451.55	11,337.77	(+) 175.67	3,144.7	8,247.0	91.97
2000-01	63,341.01	36,010.95	11,337.77	(+) 763.59	10,483.2	23,045.41	98.34
2010-11	2,31,615.25	96,681.02	90,334.88	(+)1,404.89	25,705.64	60,687.05	94.59
2019-20	6,40,408.27	1,74,694.69	1,73,105.07	(+)1,589.62	50,669.09	1,11,472.30	98.41

Source: Ministry of Railways.

Therefore, a higher Operating Ratio indicates a poorer ability to generate surplus that can be used for capital investments such as laying new lines, or deploying more coaches.

Core Challenges facing Indian Railway- Picked Up 'Speed'

Nationalised in 1951, as the largest public sector undertaking (PSU) it has varied and complex problems. Some of them are –

- ⊙ The main challenge facing IR nowadays is its inability to meet the demands of its customers, both freight and passenger.
- ⊙ Presently IR suffers from a severe and chronic under-investment. There is massive backlog of renewal and replacement of 'over-aged assets'. IR has 21,323 level crossings of which unmanned level crossings is 948

(around 17000 in 2011-12) in number still exist as on 01.04.2020.

- ⊙ Pricing is not based on Economic Rationale in passenger transport services. The earnings from freight traffic have increased but the IR has been losing out on market share, particularly in retail commodities, of course a major cause for worry.
- ⊙ Indian Railways aims for net-zero carbon emissions by 2030.
- ⊙ The high density networks of the IR are facing acute capacity constraints. Maximum speed of a passenger train in India is about half of the Chinese Railways range 160kms/hr to 350kms/hr. Since passenger and freight traffic move on the same tracks in India, accordingly huge investment is essential for new tracts of HSR.

Table 4: Indian Railways Overall average speed including halts (Kms. /hr.)

Type of trains	Broad Gauge				
	2010-11	2016-17	2017-18	2018-19	2019-20
EMU	40.4	37.4	37.5	37.5	37.9
Mail/Express *	50.1	50.6	50.3	50.2	50.6
Ordinary Passenger Trains (incl. mixed)	36.7	33.9	33.8	33.5	33.5

Note: inclusive of Metro Railway, Kolkata. Source: Ministry of Railways.

Ambition to reality- Contemporary Developments

It is remarkable that new Government introduced many well-planned reforms and well-directed investments, as a result the number of train accidents have progressively reduced to an all-time low of 54 in 2019-20. As per the Road Accident in India, 2019, a total number of 4,49,002 accidents took place in India during the calendar year 2019 leading to 1,51,113 deaths and 4,51,361 injuries.

Figure 2: Unmanned Level Crossing Accidents

Source: Ministry of Railways.

Introduction of Kisan rail, Tejas, Humsafar trains, Utkrisht Double Decker Air-conditioned Yatri (UDAY), Bullet Train project, Electrifying routes, redevelopment station, arranging of second, third, and fourth lines on busy routes to enhance network capacity and bringing in northeast connectivity through broad-gauge conversion have been remarkable as priorities. Abolition of separate budget for IR, Flexi-fare, also got a major thrust. IR inducted the first Commandos for Railway Security (CORAS) for railways on 14.08.2019, comprising RPF and RPSF personnel, the CORAS are armed with special uniforms with bullet-proof jackets, helmets and sophisticated weapons.

Figure 3: Operating Ratio (paisa spent to earn one rupee)

Source: Ministry of Railways.

Figure 4: Passenger Traffic Average Lead (in kms)

Source: Ministry of Railways.

Figure 5: Freight Traffic Average Lead (in kms)

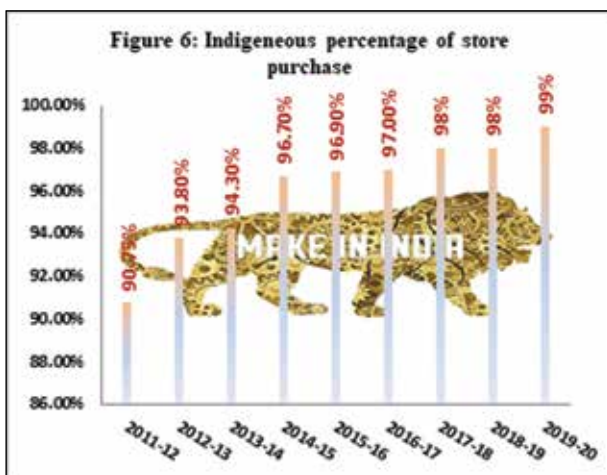
* Lead of traffic represents the average distance each passenger or tonne of goods is transported. Source: Ministry of Railways.

The average lead of total passenger traffic in 1950-51 was 51.8 kms and in 2019-20 it was 129.9 kms signifying a 150 percent growth. In contrast to the significant growth in average lead of all passenger traffic (in kms) the average lead of all goods traffic in kms exhibits a dwindling trend.

Success Stories for 'Make in India' and 'Atmanirbhar Bharat'

Vande Bharat Express, 40% cheaper than a similar train imported from Europe, was most successful in 2019 under Indian government's 'Make in India' initiative. Indian Railways has taken huge steps to add its muscle to the Atmanirbhar Bharat Abhiyaan, India's first 'Make in India' with Regional Rapid Transit System (RRTS) project aims at providing regional connectivity to National Capital Region (NCR) with an operational speed of 160 kilometres per hour. National Capital Region Transport Corporation (NCRTC) and Bharat Electronics (BEL) will jointly make indigenous platform

screen doors (PSDs) for RRTS, metro and other high-speed rail projects. Delhi Metro Rail Corporation Limited (DMRC) took a major step towards the development of an indigenously-built signalling technology for metro trains in line with the government's flagship 'Make in India' initiative. IR is a major shareholder of 16 PSUs and other organizations related to the rail transport in India. IR has taken several steps in developing indigenous sources in the country for the items presently being imported to India. Therefore, sufficient capacity has been developed for manufacturing different components in railways' workshops as well as in public/private sector units with indigenous designs and competency. For example, The Rail Wheel Factory (RWF), formerly known as Wheel and Axle Plant, produces railway wheels, axles as well as wheel sets, all under one roof under the 'Make in India' policy, and aim towards the Atmanirbhar Bharat initiative to boost domestic manufacturing.



Source: Indian Railways Year Book 2019-20, Ministry of Railways.

Privatisation for Modernisation vs. Social Obligations

Almost all Indians are directly or indirectly connected to Indian Railways. The railways have magical power to reduce poverty as IR is connecting less-developed regions to developed regions. Footloose labourers use IR as a migration corridor to get **access to livelihoods** or better jobs.



The Net Social Service Obligation borne by IR in 2019-20 is assessed at Rs.45,541.92 crore. Rail transportation is six times more energy-efficient than road and four times more economical. The social costs in terms of environment

Vande Bharat Express, 40% cheaper than a similar train imported from Europe, was most successful in 2019 under Indian government's 'Make in India' initiative

damage or degradation are significantly lower in rail. Rail construction costs are approximately six times lower than road for comparable levels of traffic. It is the only major transport mode capable of using any form of primary energy. COVID-19 patients are also being treated in the Railway identified hospitals including the CGHS beneficiaries. In November 2020, IR developed anti-COVID-19 coach to prevent the spread of coronavirus. This anti-COVID-19 coach has hand-free water tanks and flushes with copper-coated handles and locks. IR is running Oxygen Express in response to its fight against Covid-19. The recent opening up of PPP opportunities by IR is a clear indicator that a reform-driven agenda is thus implemented. It is a controlled foray into PPP, where market forces will help enhance the quality of services and in-transit experiences, with the control of Government over public safety and security. IR is planning to seek assistance from private players for construction and operation of high speed train/bullet train projects enabling it to compete with air travel. Poor infrastructure and services result in loss of remunerative business for Railways leading to further deterioration in finances.

Conclusions

Indian Railways has an illustrious past, an unstable present and a bright future. It is labelled as the lifeline of Indian economy, not only transporting passengers and goods but also connecting the entire nation with a common thread to save lives and livelihoods. After decades of massive under-investment and absence of assured funding, however the railway sector however has to serve huge upcoming demand on its network, possibly with private sector, PPPs, JVs and FDIs to "Reform, Perform & Transform". **MA**

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INDIAN RAILWAYS AND FREIGHT TRAFFIC OPERATIONS: AN OVERVIEW OF PERFORMANCE AND PROSPECTS

Abstract

Indian Railway has its cash inflow from various sources, one of the most important among the sources are Freight Traffic Operations. The Indian Railway generates income from transporting various commodities both for industrial and domestic purposes. Over the years Indian Railway has played a vital role in transporting commodity through its interconnected railway lines connecting the nation from east to west and north to south. The freight operations of Indian railway have been promoting nation-wide industrialisation since the inception of the esteemed organisation.



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BACKGROUND OF THE STUDY

India has always been an attraction for industrialisation. Post liberalisation the Indian market has provided wider scope for growth, diversification and expansion of business. The railway lines are well connected with coastal areas, facilitating the exports and imports as well and transporting the goods within the nation to both easily accessible and remote locations. Indian railway has been a pioneer in employment generation, promoting industrialisation, inclusive development and national integration. The Indian railway is one of the largest railway networks globally.

The large network of interconnected railway lines is an ideal mode of transport for passengers and movement of commodities. The passenger traffic, freight traffic, parcel business and sundry earnings have been revenue generation sources for the Indian railway. India being a country with 3.287 million km² requires an efficient and economical mode of transport. The Indian railway is a very economical and efficient mode of transport, thus is preferred by the passengers and by the industrialists for freight traffic. The easy and cost effective movement of bulk industrial commodities through Indian railway helps in cost control and promotes industrial activities. India

Brand Equity Foundation (IBEF) in its report on Indian railways industry for April 2021, reports that the railway industry in India has witnessed a strong revenue growth over the years and the gross revenue of Indian railway was Rs 174,660.52 crore (US\$ 24.78 billion) in FY20. The industry report by IBEF also stated that the freight revenue stood at Rs 113,487.89 crore (US\$ 16.24 billion). IBEF further stated that freight revenue has been the major contributor in revenue generation for Indian railways, contributing 65% of the total revenue in FY20. As per the Industry Report of IBEF on April 2021, the freight traffic segment of Indian railways recorded freight loading at

109.68 million tonnes in November 2020 whereas in January 2021 the Indian railway recorded highest freight loading at 119.79 million tones and Indian railway also announced that 40% dedicated freight corridor will be opened by the end of FY 21.

The heavy revenue earning capacity of freight segment and development of dedicated freight corridor by Indian railway encourages the researchers to study and provide an overview of the freight traffic operations in terms of revenue generation and originating loading for the past decade i.e. 2010 – 11 to 2019 – 20.

OBJECTIVES OF THE STUDY

The study concentrates on the freight traffic operations of the Indian railway and aims at the following objectives:

- To provide an overview on the freight traffic operation for the period 2010 – 11 to 2019 – 20;
- To statistically analyse the commodity based freight revenue and originating loading for the period 2010 – 11 to 2019 – 20;
- To study the freight marketing strategies adapted by Indian railways in recent years.

ANALYSIS

The focus of the study is to analyse the freight traffic operation of Indian railway, for which the researchers have used various tables, charts and tools.

Table 01: Freight Revenue & Originating loading for the period 2010-11 to 2019-20

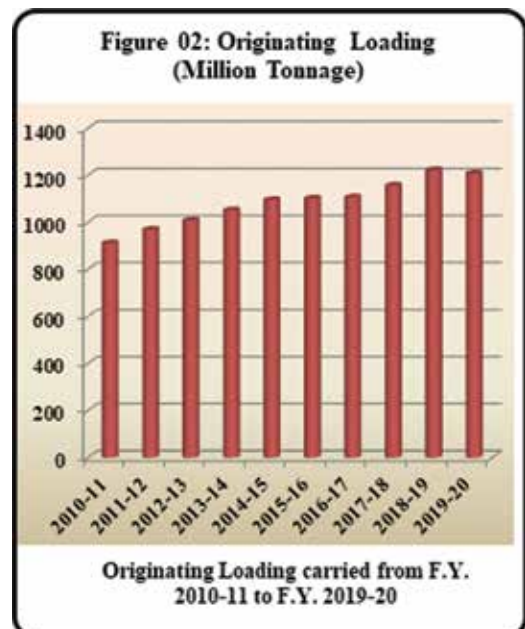
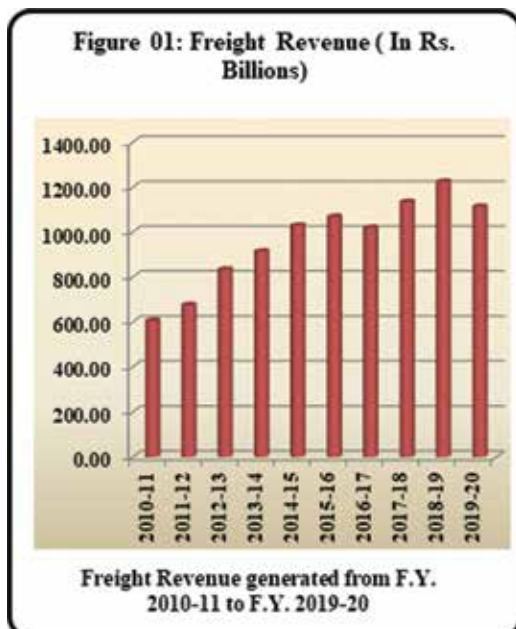
YEAR	REVENUE (in Rs. Billions)	Originating Loading (Million Tonnage)
2010-11	606.87	911.73

2011-12	677.43	969.05
2012-13	834.78	1008.09
2013-14	915.70	1051.64
2014-15	1030.15	1095.26
2015-16	1069.40	1101.51
2016-17	1020.27	1106.15
2017-18	1135.23	1156.55
2018-19	1225.80	1221.98
2019-20	1114.82	1208.41

Source: Annual Report (Ministry Of Railways) [Compiled By Researchers]

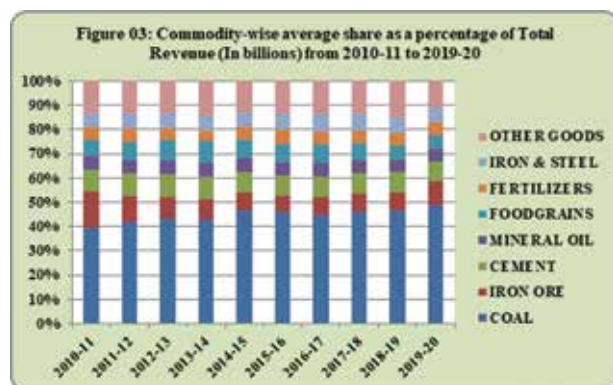
Revenue growth has witnessed a strong increase over the years. Freight Earnings of Indian Railways have increased to Rs.1114.82 billion in F.Y. 2019-20 from Rs 606.87 billion in F.Y. 2010-11, maintaining an average growth rate of 7.38% over last 10 years. A constant increase in freight revenue has been observed over the years except in F.Y.2016-17 and F.Y. 2019-20, as those two years experienced a slight decrease in revenue generation (Refer to **Figure 01**).

Originating Loading has also witnessed a constant increase over the years. Freight loading of Indian Railways has increased to 1208.41 Million Tonnage in F.Y. 2019-20 from 911.73 Million Tonnage in F.Y. 2010-11. Thus, during the last decade, Indian Railways has carried incremental freight traffic on an average of 32.96 million tonnes annually while the average growth rate remained at 3.21%. A constant increase in freight loading has been observed over the years except in F.Y. 2019-20, the year experiencing 1.11% decrease in freight loading (Refer to **Figure 02**).



Source: Compiled By Researchers (Through Ms – Excel)

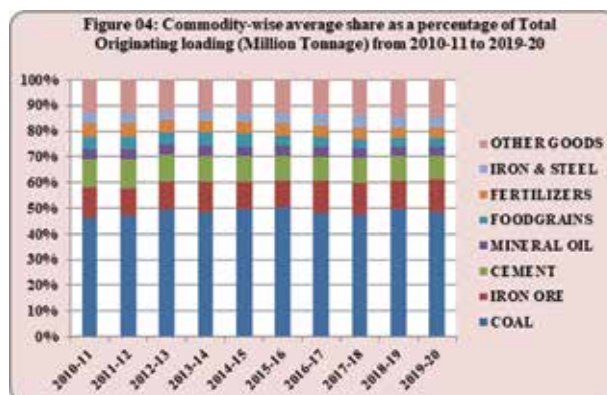
Freight Business of Indian Railways is dominated by the following major commodities namely Coal, Iron Ore, Cement, Mineral Oil, Food grains, Fertilizers, Iron and Steel and balance are other goods comprising of raw materials for steel factories, containers etc. Among all the major commodities, Coal has accounted an average of 44.5%, contributing highest share in total revenue earnings of Freight Traffic Segment of Indian Railways for the period 2010-2020. Iron ore contributed at around 9% of total revenue generated, followed by Cement contributing 8.73%, Food grains 7.26%, Iron & Steel 6.46%, Mineral Oil 5.37%, fertilizers 5.26% and balance other goods at 13.39% for the decade 2010-2020 (Refer to Figure 03).



Source: Compiled by Researchers (Through Ms – Excel)

In terms of Originating Loading, Coal has accounted an

average of 48.47%, contributing highest share in Freight Traffic Segment of Indian Railways for the period 2010-2020. Iron ore contributed at around 11.5% of total loading generated, followed by Cement contributing 10.03%, Fertilizers 4.57%, Food grains 4.31%, Iron & Steel 4.07%, Mineral Oil 3.88% and balance other goods at 13.18% for the decade 2010-2020 (Refer to Figure 04).



Source: Compiled By Researchers (Through Ms – Excel)

Accordingly, to check whether there exists any variation among the major commodities in terms of Freight Revenue as well as Originating Loading over the years, a statistical test of Analysis of Variance (ANOVA) has been performed. ANOVA being a parametric test, normality of the data has been checked through SPSS at 5% level of significance.

Hypotheses Formulation

H01: There exists no significant difference in the Freight Revenue generated by Different Commodities over last 10 years.

H02: There exists no significant difference in the Originating Loading carried for Different Commodities over last 10 years.

Table 02: Results Of ANOVA for Freight Revenue (Crore) and Originating Loading (Million Tonnage)

Basis	Sources Of Variation	Sum of Squares	Degrees of Freedom	Mean Square	F-Statistic	Sig.
Freight Revenue (Crore)	Between commodities	11608563384.939	7	1658366197.848	92.266	.000
	Within commodities	1294114735.937	72	17973815.777		
	Total	12902678120.876	79			
Originating Loading (Million Tonnage)	Between commodities	1856273.576	7	265181.939	526.161	.000
	Within commodities	36287.586	72	503.994		
	Total	1892561.162	79			

Source: Compiled By Researchers (Through SPSS)

From **Table 02**, the value of F-Statistic for Freight Revenue is 92.266 with a significance value (.000) less than 0.05, indicating a significant difference between revenues generated by various commodities in last 10 years, leading to the rejection of null hypothesis at 5% level of significance.

The value of F-Statistic for Originating Loading (Million Tonnage) is 526.161 with a significance value (.000) less than 0.05, indicating a significant difference between tonnes carried by Indian railways of various commodities in last 10 years, leading to the rejection of null hypothesis at 5% level of significance.

The Indian Railways experienced a 1.11% decrease in freight loading in 2019-20 as against 2018-19, attributing the slowdown to the Corona virus pandemic. Though COVID-19 pandemic, the subsequent lockdown and social distancing measures had a significant impact on the overall service sector leading to a sharp contraction of almost 16% after March 2020, yet a number of concessions and

discounts were also being given in Indian Railways to make the Freight Movement more attractive and eventually the freight traffic showed signs of recovery as the economy gradually entered the unlock phase (*The Economic Survey Report*).

Indian Railways has always focussed on strengthening its transportation in bulk commodities and attracting new commodities like fly ash, automobiles etc. by going into a partnership with the private freight operators. Thus to maintain parity with the operational

strategy of Vision 2020, Indian Railways has formulated several schemes to boost freight traffic and create a win-win situation for both the freight customers and Indian Railways, some of which are outlined below (Refer to **Table 03**) :

Table 03: Freight Marketing Scheme Initiatives taken by Indian Railways in Recent Years

SCHEMES	INVESTORS	COMMODITIES	PROCUREMENT
Procurement of Rakes by inviting Private Investment			
General Purpose Wagon Investment Scheme (GPWIS)	End Users, Public Sector Undertakings (PSUs), Port Owners, Logistic Providers and Mine Owners	Any Commodity	In 2019-20, Approved:- 103 rakes Inducted:- 25 rakes
Liberalized Wagon Investment Scheme (LWIS)	End Users viz. Producers, manufacturers and consumer of goods in Special Purpose Wagons (SPWs) and High Capacity Wagons (HCWs)	Any Commodity	Till 2019, Approved:- 133 rakes Inducted:- 54 rakes In 2019-20, Approved:- 49 rakes Inducted:- 3 rakes
Special Freight Train Operator (SFTO)	End Users, Transport & Logistic Company, Warehousing Companies, Port & Land Terminal Operators, Container Train Operators & Wagon Leasing Companies	Non-Traditional Commodities:- Molasses, Fly ash, Edible oil, Caustic Soda, Chemical, Petrochemicals, bulk alumina & bulk cement.	Till 2019, Approved:- 37 rakes Inducted:- 16 rakes In 2019-20, Approved:- 9 rakes Inducted:- 4 rakes
Automobiles Freight Train Operator (AFTO)	Logistic Service providers and Road Transporters	Automobiles	Till 2019, Approved:- 59 rakes Inducted:- 27 rakes In 2019-20, Inducted:- 8 rakes
Liberalized Special Freight Train Operator (LSFTO)	End Users, Transport & Logistic Company, Warehousing Companies, Port & Land Terminal Operators, Container Train Operators & Wagon Leasing Companies	Non-Traditional Commodities:- Molasses, Fly ash, Edible oil, Caustic Soda, Chemical, Petrochemicals, alumina & bulk cement.	
Development of Private Freight Terminals			
	End Users	Logistic Service with Warehouse Solution	Operationalised:- Till 2019: 67 PFTs In 2019-20: 5 PFTs
Source: Annual Reports (Ministry of Railways) (Compiled By Researchers)			

ROAD AHEAD

Every organisation faces certain threats and challenges and railway is no different but a successful organisation shall try to transform the threats into an opportunity or counter the challenge with innovative strategies. In India, the freight traffic is also transported through roadways, coastal shipping, IWT and pipeline besides railways. In 2018 – 19 railway reported 27% share in total freight generated transporting 1221.5 million tonnes, the Indian railway plans to carry 2400 million tonnes by 2024 and 6366 million tonnes by 2026 and to further increase the freight share to 45% by 2030. The biggest challenge for

railway shall be the capacity constraint and considering this the government has increased the annual expenditure on railway capacity expansion, planning to spend nearly Rs.50 lakh crore by 2030 in increasing and improving railway infrastructure. Additionally, railway plans to increase the speed of freight trains for faster deliveries and the project of dedicated freight corridor of 600 km shall be completed by 2024. The Indian railway promises potential development and growth for India and industries in the nation. **IMA**

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IMPACT OF DIGITIZATION ON INDIAN RAILWAYS: A MASSIVE TRANSFORMATION TOWARDS MODERNIZATION

Abstract

Indian Railways (IR) have been undergoing a massive transformation through having footprints in digital space. Rapid digitization of fourth industrial revolution leaves lot of impacts on IR such as modernizing signaling system, traffic management, freight services, train services, coach factories, electrification and so on. This article describes digitization in IR focusing on key areas and major implementations both in digital and social media space.



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Introduction

Digital India' is one of the great initiatives of the Govt. of India, launched by Hon'ble PM Narendra Modi on 1st July, 2015 to expand India's footprints to a digitally empowered society and Knowledge economy. Its basic purpose is to offer innovative ideas and practical solutions, empowering every citizen with access to digital services, knowledge and information. So, innovation and technologies are the two weapons of digitization. The twenty-first century is the age of the new innovations and improvement of technologies. Hence digitization is being spread in almost each and every section of the public

sector as well as the private sector.

Indian railway, the third largest railway network in the world by size, is not at all an exception in this regard. The various Railway Boards and Railway Ministry too, are very agile to implement digitization through radical improving their activities like passenger's information, Signaling, Coaching, Locomotive, Staff management, Infrastructure etc. The whole railway is definitely a time-bound approach regarding speed, maintenance and operational activities. Both digitization and automation may be tremendous helpful in achieving the main functions of railway activities. Not only that, to ensure stability between demand and supply in enhancing overall

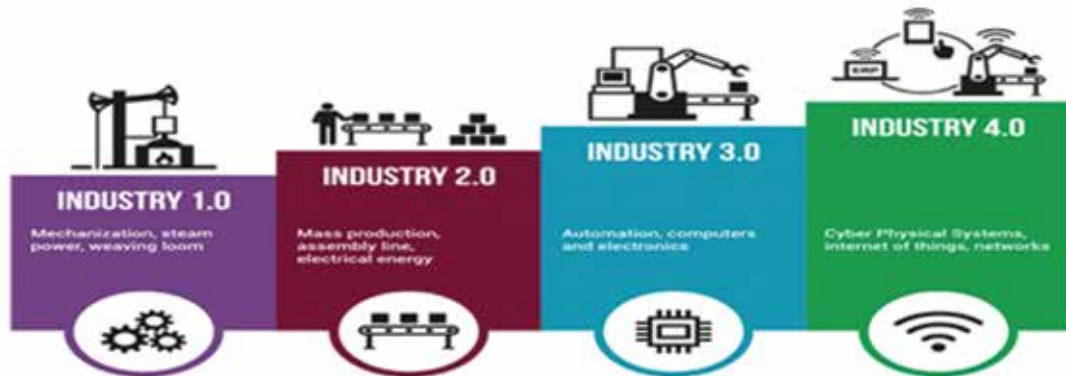
railway infrastructure, to maximize passengers' safety, to ensure increase in efficiency in its every step of activity and assets, digitization has been playing a vital role. Still, we believe that there is a room for further progress that requires steady progress in an urgent basis. At present, new innovations and modern technological advancement have been properly utilizing in the Indian railway industry. Thus, in near future, railway industry will emerge to be an effective and developed industry in India and expected to be an agile partner in Indian economy through its operations and responsibility. In this article, we discuss about digitization of Indian Railways with major focus on key areas with charts and diagrams and major implementations in tabular form.

Implementation of Industry 4.0 in Indian Railways

A series of Industrial Revolutions were happened to bring about some radical changes in industry, such as, the First Industrial Revolution was to change the steam based industries, the Second Industrial Revolution was the usage of science in mass production and manufacturing units,

digitization begun in the Third phase and the Fourth one (Industry 4.0) experienced technological changes such as the internet of things, big data analytics, cloud computing, artificial intelligence, robotics, 3-D printing, etc. in many sectors to augment process and skill in each and every industry including Indian railway. Rail 4.0, a subset of Industry 4.0, backed by rapid digitization, has enhanced and improved

the entire process used in railways such as signaling, infrastructure, rolling stock, operational efficiencies, coaching designs, work force management, passenger information devices, traffic management etc. where the new innovations and technologies have been implemented to achieve the maximum utility at a low-cost. This has been a deep impact on the future of the Indian Railway.



Source: <https://empowerias.com/blog/prelims-special-facts/industry-4-0-empower-ias> (Accessed on 28-06-2021)

Signaling

Indian railways have been trying to modernize its signaling system by implementing the Modern Train Control system with Long Term Evolution (LTE) based Mobile Train Radio Communication (MTRC) System on its entire network in order to upgrade its signaling system. Through adaptation of such new advanced technologies in Signaling, the system in railway has been changed enormously improving long-term safety, line capacity so that trains run at a higher speed minimizing collision in the railway operation. Due to introduction of advance signaling system, fatal accidents are seldom in occurrence in regular railway operations. It took several measures like Electronic Interlocking System, Automatic Train Protection System, Remote Diagnostic and Predictive Maintenance System, Long Term Evolution based Mobile Train Radio Communication System and Centralized Traffic Control System or Train Management System under upgradation activities. RailTel Enterprises Limited (REL), a subsidiary of RailTel Corporation of India Limited (RCIL), has received the responsibility to implement these

pilot projects. According to the Railway Ministry, implementation of Modern Train Control system will reduce travel time from existing 18 hours to 12 hours on Delhi-Howrah and Delhi-Mumbai routes, raising train speed up to 160 km per hour.

Coach Factories

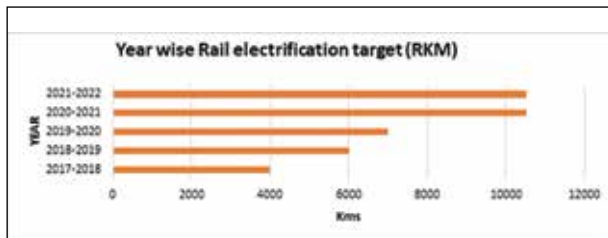
The modernizations of the railway coach factories all over India, improvement in sustainable maintaining system of railway coaches and tracks, are also contributing a major part to minimize railway accidents. At present, most of the rakes are the accumulation of modern new advanced coaches which have the power to restrict the accidents, if occur, to become a fatal one. The initiative was taken by the Ministry of Railways and Department of Science & Technology along with Indian Institute of Technology Kanpur to implement at Modern Coach Factory (MCF), Raebareli that was established as a State-of-the-Art coach manufacturing unit with the capacity to manufacture 1000 passenger coaches annually and has modern automated machines and robotic fabrication lines catering to the need of various packages, systems,

applications and Hardware within Design or Planning, and Networking as part of Industry 4.0. Starting from 140 coaches in 2014-15, MCF has produced 285 coaches in 2015-16, 576 coaches in 2016-17, 711 coaches in 2017-18, 1425 coaches in 2018-19, 1920 coaches in 2019-20 and 1360 coaches due to revised target in 2020-21.

Electrification

The electrification in the entire network of the Indian railway is possible due to modernization along with proper renovation. Due to electrification, old coal locomotives have been replaced by the advanced electric as well as diesel locomotives. Electrification in Indian railway has come as a god-gifted blessing to the passengers as this modern system is saving much time with pleasure to travel from place to place. However, during the year 2020-2021, Indian Railways have achieved a landmark of highest electrification in sections sheathing 6,015 Route Kilo-meter (RKM) to become more environment friendly and energy secured. In recent years, Railway Electrification has been found significant importance with a vision of

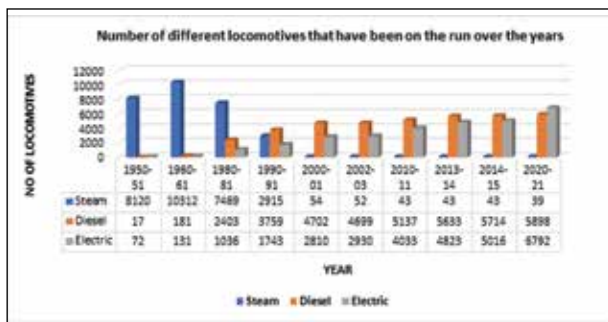
implementing eco-friendly, faster and energy-efficient mode of transportation by way of decreasing the dependency of the nation on imported petroleum-based energy and enhancing the energy security of country. Over the year, the Indian Railways have electrified some of the major sections that include major route: Mumbai to Howrah via Jabalpur, Delhi-Darbanga-Jaynagar, Mumbai to Marwar, Chennai-Trichy, New Delhi-New Coochbehar-Srirampur Assam via Patna & Katihar, Gorakhpur to Varanasi via Aunrihar, Jabalpur-Nainpur-Gondia-Ballarshah, Indore-Guna-Gwalior-Amritsar, Delhi-Jaipur-Udaipur, Ajmer to Howrah, Delhi-Moradabad-Tanakpur.



Source: Presented by the authors [<https://powerline.net.in/2018/01/03/rail-electrification/> (Accessed on 28-06-2021)]

Electronic Locomotive

The old coal-locomotives were one of the causes for air pollution and our valuable non-renewable resource like coal was being exhausted. New electric locomotives reduce air pollution, save valuable fuel and increase speed to a high degree. Latest example is Remote Monitoring and management of Locomotives and Trains (REMMLOT), where the electrical data of the electrical machines is gathered from the locomotives. If we notice the graph below, we will find that the number of locomotives that have been running over the years showing an increasing number in electric locomotives. Whereas Diesel locomotives is also showing an increasing trend, but not at par with Electric locomotives. On the other hand, the use of Steam engine is gradually decreasing. Currently in the year 2020-2021 the number of Steam locomotive is 39, Diesel locomotive is 5898 & Electric locomotive is 6792. The chart below shows number of different locomotives which have been on the run over the years.



Source: Presented by the authors [<https://blog.trainman.in/blog/evolution-of-railways/> and <https://www.statista.com/statistics/1029182/india-rolling-stock-number-by-type/> (Accessed on 28-06-2021)]

Discussion on Few Cases: Digitization of Indian Railway

Case	Digital Innovations	Benefits
1	<i>Electrification of Railway tracks</i>	- Modernization and increase in efficiency in carrying system - Reduced time between producers - Maximum speed without any stoppage in the middle
2	<i>New Software Technology in important stations</i>	- Real time Action - Avoiding unnecessary time loss - Improve service reliability among the passengers
3	<i>Facial Recognition, WiFi Infotainment System, Automatic Plug Doors in the coaches, Installation of Escalator</i>	Better passenger travel experience
4	<i>Electrical Light Boards in the platform above the railway coaches</i>	Easy Identification of scheduled coaches by the passengers
5	<i>Modern Computerized Reservation System</i>	Easy checking the Up-To-Date reservation position
6	<i>Platform-based 3D Technologies</i>	- Modelling of new passenger coach designs as per international standard - Correcting faults and to eradicate its inefficiencies and high costs
7	<i>Long Term Evolution based Mobile Train Radio Communication System, Remote Diagnostic and Predictive Maintenance System, Electronic Interlocking System, Centralized Traffic Control System or Train Management System & Automatic Train Protection System</i>	Improving the efficiencies in customer service maintenance and repair work
8	<i>Digital Train Operation and Wireless Communication System</i>	- Reduced train gathering - Enhanced safety and punctuality - Enough safe zones around trains - Increasing line capacity

Source: Compiled by the Authors (2021)

Concluding Remarks

As a part of rapid digitization, Indian Railway Ministry and the administrative wings are trying to implement fully digital railway operations and mobile based passenger services across the country. To mark the starting, India's world class intercity express train 'Vande Bharat Express' was first launched in February, 2019 from New Delhi to Varanasi (distance 760 Km). The train ran through the track with the help of Automatic Track Protection (ATP) signaling and Train collision Avoidance System (TCAS). At the same time, India's fastest train is able to compete with the train of European Countries too, in speed at present while Indian Railways has planned to fully electrify its tracks by December 2023. Apart from all these, Indian railways also have footprints on social media like Facebook pages ('Ministry of Railways, Government of India') and Tweeter (@RailwaySeva, @RailMinIndia, and so on) for providing better services in the form of better information dissemination, grievance redressal, customer engagement and so on. **IMA**

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DIGITAL TRANSFORMATION WITH BLOCKCHAIN TECHNOLOGY – ACCOUNTING AND AUDITING



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Introduction

Accounting in common parlance is the process for identifying, measuring, recognising, recording, and reporting economic events to facilitate informed judgements and decisions by internal and external stakeholders. Four frameworks, viz., Conceptual, Institutional, Regulatory and Legal, are followed for establishing authenticity, fairness, relevance, reliability, and integrity of financial information. The said second framework is structured by various accounting standards as crafted by apex accounting institutions befitting the dynamics of emerging business ecosystem and country specific needs, and finally recognised in the related laws of respective countries.

Like any legislated law or regulation, historically the first two frameworks of accounting also owe lineage to practices followed by people. Researchers have established that Franciscan Luca Pacioli, considered as the ‘Father of Accounting’, did not

ideate, or invent double entry accounting system. In his book (1494) titled ‘*Summa de Arithmetica, Geometria, Proportioni et Proportionalita*’¹ he simply described the methods practised by Venetian merchants for keeping transactional records during the Italian Renaissance period. The first accounting book was one of the five sections in Fra Pacioli’s mathematics book and the only textbook available till the 16th century for accounting.

Many present-day institutional frameworks, as opined by researchers, also stand on the foundation laid by Fra Pacioli. Albeit ERP oriented accounting systems like SAP, Oracle Financial, etc. have reduced rudimentary tasks for book writing, human interventions continue to be a must for reviewing, monitoring, and reporting. SOPs for minimising certain operational and financial risks can be embedded while configuring ERPs, yet one can still not conclude with conviction that accounting has gone through digital transformation worth reckonable. The tasks for ensuring internal controls for financial reporting (ICFR), as assigned by sections 134, 143 and 177 of the Indian Companies Act, 2013, in similar lines of Section 404 of the Sarbanes Oxley Act, 2002, USA, are still to a large extent dependent on human interventions.

Literature Review

The author has studied since 2016 many research papers of academic scholars; publications of global professional organisations like IBM, Gartner, Deloitte, PwC, EY; and university level academic institutions like MIT, Harvard, Oxford, etc. Their findings and conclusions have been quoted in many of his earlier articles under this column. References (URLs) of those articles have been provided below under the segment ‘Blockchain Technology Revisited’. Due to limitation of space those are not being repeated here.

It will be pertinent here to the note conclusions of Aleksy Kwilinski in his seminal paper² that, “*The Blockchain technology*

aims to put an end to traditional methods of billing, documenting, processing, registering, inventory systems, and paying for business. The introduction of the blockchain technology (or its more advanced technological counterparts) will allow synchronizing accounting records between contractors, which will allow for ongoing automated audits. The emphasis will be shifting to questions that will require the auditor's own judgment: complex non-standard operations, effective internal control mechanisms, analytics and forecasting, IT audit, assessment".

According to a report by Deloitte, Germany³ "Digitalisation of the accounting system is still in its infancy. Some of the reasons may be found in the exceptionally high regulatory requirements in respect to validity and integrity. The entire accounting system is built, such that forgery is impossible or at least very costly. Among other things there are systematic duplication of efforts, extensive documentations, and periodical controls. Most of them are manual, labour intensive tasks and far from being automated."

None can deny that "To err is human." Again, history of human civilisation is not without black spots of financial frauds and forgeries. Therefore, whenever any system and process are crafted with deliberately designed scope for human intervention, none can ensure that there would not be any instance of human error, fraud, and forgery post its implementation. Therefore, according to the present author any attempt for digitalisation of accounting and reporting should ensure that bare minimum, if not nil, scope is left for such risky instances creeping in to distort and vitiate the entire systems and processes. Summation of relevant conclusions drawn from literature surveyed prompts to infer that Blockchain technology is the ideal solution for this out all those presently available.

Objective

Keeping in view the above discourse one of the major objectives for digital transformation of accounting must be to ensure that none of the four frameworks of accounting and reporting are compromised, yet at the same time the errors and distortions due to human interventions are obviated. Additionally, relevance, reliability, and integrity of transactional records and reporting therefrom must further be enhanced simultaneously with improvements in speed and documented authenticity of financial

information generated from transactional and accounting records.

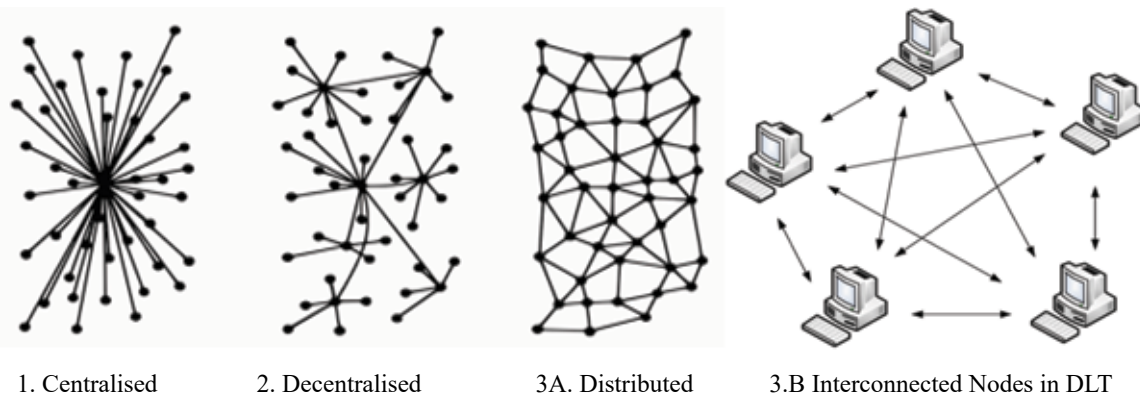
Therefore, the first and foremost objective of this article is to explain how blockchain technology, with distributed data storage management systems (DDSM), can be of help achieving all these. Efforts would also be made to bring out how blockchain technology can assure user organizations, their auditors, and stakeholders all the above features of financial accounting with near zero error possibility. This article would also explain how blockchain platforms can automate and digitalise the processes of recording each transaction, with or without involvement of financial value(s), and minimise various risks of fraud and forgery as well as reporting risks by complying with all the said four frameworks of accounting.

This article would also bring out how a blockchain a platform can ensure only one version of truth and minimise any subsequent distortion or deletion by reducing human interventions. The method for digitalising of the entire process of handling transactions, duly driven and directed by digitally embedded smart contracts, and the process for integrating blockchain platforms with the accounting platform like SAP, will also be narrated.

Blockchain Technology Revisited

Decentralised Technology

The author has in his several earlier articles narrated various features of blockchain technology⁴, use of smart contracts for transactions executed through blockchain platforms⁵, advancements in applications of blockchain technology⁶. Three articles have also been written by him on comprehensive applications of this technology for agriculture⁷, healthcare services⁸ and crowd funding⁹. In the last three articles he has ideated how other digital technologies, like AI, Robotics & RPA, IoTs, AR & VR, Drones etc., can also be integrated with blockchain as the main platform for adding versatile capabilities and end to end delivery of services. Interested readers may go through those to know more. For the limited purpose of this article the fundamentals of Blockchain Technology (BT) which is also synonymously known as Distributed Ledger Technology (DLT) will be revisited, from the predominant purpose of accounting and auditing in the following lines.



Source: 1, 2 and 3A: <https://www.semanticscholar.org/paper/Organizational-Networks-as-Catalysts-for-Strategic-Doyle-Hikisch/c254328d7977cac03ddd8b00111c342fc18d3f51>

3B: <https://www.semanticscholar.org/paper/A-Peer-to-Peer-Network-Framework-Utilising-the-Blunn/4d72b0dcfcb87231dc1f7d2bfb3834bcc1af48bc>

Information and communication technologies (ICT) can broadly be divided into three groups, viz. Intelligent, Digital and Mesh. The aspect of networking between computers comes under the third group. Computerisation during 1960s hardly had any networking facility. There used to be a centralised technology in which all records and data used to be stored at one central server, albeit inputs were possible to be inserted from computers of at different locations into the centralised record keeping facility. As is evident from the first graphic, none of the individual computers could connect with each other.

In the second stage of development came the facility of hub and spoke model with more than one sub-central storage system which in turn used to relate to the central storage system. In this decentralised system individual computing devices continued to remain outside the network, i. e., one computing device could not connect with the other. Hence for both the systems there used to be a need for a central administrator. Blockchain technology or DLT established the Mesh form of ICT in its truest sense. The computing device of each participant, technically known as a Node, is individually interconnected to each of the other Nodes participating in transactions being processed through a Blockchain Platform (BP). And hence, it is called a Mesh Architecture of Systems and Apps (MASA).

There is no need for any centralised storage of transactional records for a BP because each node has facilities to store all data and references thereof of all connected parties. Moreover, there is no role of any administrative activities at a central level except for maintenance of devices hosting the data associated with the BP at the local node level. This task would include the operating system, codebase, scripts and associated embedded smart contracts. Transaction-specific documents in digital form, which are required to be maintained as evidence(s), can be stored in a central cloud-based document management system (DMS). Such a storage system can be designed to be administered by the BP itself using encryption tools. The participants, involved in the transaction, and other connected parties, would be able to retrieve, view and download the same on a 'need-to-know and do' basis as defined in the smart contract and further

explained below.

According to a publication of Gartner Research¹⁰, an eminent technology research, advisory organisation “*Evolving business needs require application architecture that enables agility, flexibility, integration and innovation. MASA — a mesh architecture of apps, APIs and services — provides application technical professionals delivering applications with the optimal architecture to meet those needs. Most importantly, they should build new skills in areas of modern software frameworks, hybrid platforms and continuous delivery and integration.*” Digitalisation of accounting and reporting using blockchain platforms can meet these recommendations of Gartner as is evident from the above discourse and the quoted articles of the author.

Self-audited Wallet for Each Node and Smart Contract

Each participating individual and/or entity can access the BP from their respective devices using an assigned Private Key and will be known to all other participants by a differently assigned Public Key. Hence there is no need for disclosure of any name, phone number, mail ID, etc. Such identity-oriented information, however, must have to be submitted at the time of gaining permission to participate in the BP from the BP Administrator. Such a process is called know your participant (KYP). The designed solution architecture of a platform crafted with the application of Blockchain technology in a mesh-network environment facilitates the following for each participating Node.

- ⊙ **Nodal Wallet:** This is a software that is installed in the participating Node for the purpose of engaging with the blockchain platform and contains the cryptographed details of all non-financial and financial transactions, right from expression of intent to execution and settlement by participating parties.
- ⊙ **Smart Contracts:** All transactions are contractually agreed and executed by all relevant participating Nodes in compliance with the terms and conditions (T&Cs) of one or more Smart Contracts (SCs) which drive and govern the transactions. SCs are embedded digital frameworks, in duly coded form, and digitally signed for recognition as a legally binding contract by

and between two or more parties. All transactions can be digitally executed subject to meeting T&Cs as crafted in the respective SCs. Such T&Cs are also considered while writing scripts and coding the BP to ensure that no transaction can pass through if any T&C is violated.

SCs are drafted in total compliance with the concerned provisions of the related Laws, Regulations and Accounting Standards of all countries if the transacting parties are from more than one sovereign nations. Before adopting for any BP, eminent functional experts, lawyers, and accountants scrutinize and approve the SC. Thus, SCs serve as the backbone of the BP binding all parties. The author's interactions with eminent professionals reveal that digital and consulting giants like IBM, Microsoft, JP Morgan, Morgan Stanley, etc. are working for creating libraries for SCs which can be adopted by BP developers with suitable modification as needed.

- ⊙ **Reference of Evidence and Documents:** Maintenance of reference keys for all documentary evidence, linked to any transaction, which the participating Node operator can retrieve from the storage of the BP's DMS and act on by view and/or further propagating as per the accepted workflow. For this her/his private key and the public key(s) of the other transacting party(ies) are to be used. The DMS is administered and controlled strictly following the features of blockchain technology, including encryption.

It must be noted here that each block of transactions and related records of any blockchain technology-based platform, which are cryptographically secured using complex algorithms, are immutable. Those cannot be altered and deleted by any party. Any correction, if needed, are to be inserted by a reversed set of transactions.

- ⊙ **Integration of Wallet with ERP for Accounting:** The Wallet at each Node can be integrated with the ERP System(s) of the Node's legal entity using a suitable tool called Application Programme

Interface or API. The objective is to seamlessly extract all transaction-wise quantitative and financial data from the Wallet, transform and load into the accounting and other quantitative records without any human intervention. For the second set of jobs appropriate ETL tools can be used. Reverse flow and implanting of transactional data from the ERP system to the BP can also be digitally programmed via the wallet software at the Node.

All these would in turn help in creation of accounting records like financial ledgers, etc. to be followed by preparation of financial statements and reporting. Accounting records can also be reconciled by any party vis-à-vis that of the opposite party(ies) of the same transaction(s) as any of the parties would also be able generate details of both sides of the transactions using the related public key of the other party.

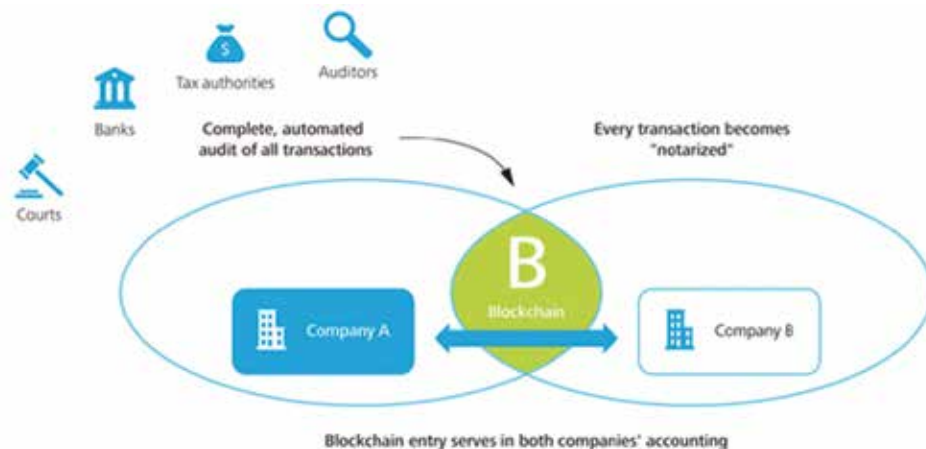
The reader might have by now realised that such a process would also satisfy the double entry system of maintaining books of

accounts. Moreover, all principles of accounting in compliance with given GAAP and Accounting Standards of the related country can also be ensured because the coded script of the BP has already taken care of the same for generating transactional information. The entity would also be able to integrate their ICT systems for generating management information for both internal and external stakeholders. Operational data, reports documents and other evidence can also be extracted for conducting analyses using Big Data Analytics and AI. This has more been explained in the following section while describing the case of a BP for delivery of health care services.

- ⊙ **Self-audit and IFC FR:** The above binding features of a BP strictly ensure complete compliance with T&Cs of the related Smart Contract, which have already been drafted in compliance with all the relevant provisions of all applicable Laws, Regulations and Accounting Standards. Such a feature of BPs prompts Deloitte¹¹ to conclude that

“Stakeholders place their trust in the auditors retained by management to vouch for them. An obvious problem of agency is created by this arrangement: Do auditors work for the managers who hire and pay them or for the public that relies on their integrity in order to make decisions? Blockchain technology enables complete, conclusive verification without a trusted party.” Here the referred trusted party seems to be the external statutory auditor, which by itself is a source of risk under agency theory,

Thus, dependence on an external auditor for testing and establishing reliability and integrity in financial information related to operating transactions if an entity uses a BP. Such inherently embedded controlling and monitoring features of a BP also can help the functional leaders and Board of Directors of an entity to certify that there are adequate internal operational and financial controls for financial reporting (IFC FR).



Source: https://www2.deloitte.com/content/dam/Deloitte/de/Documents/Innovation/Blockchain_A%20game-changer%20in%20accounting.pdf

The above graphics used by Deloitte in their literature, titled “Blockchain Technology - A game-changer in accounting?”¹⁰ indicates that a Blockchain technology-based platform not only help completely automated method for executing and recording transactions with consent of all, but it also helps self-auditing of those. All these features are in turn essential requirements for any efficient and effective accounting and

reporting system with much needed integrity. The author has made efforts in the above paragraphs to corroborate this conclusion of Deloitte. Thus, blockchain technology help practicing all the three features of good governance:

- ⊙ Openness, transparency, and integrity,
- ⊙ Effective collaboration, and

- ⊙ Performance orientation.

Ideated BP for Healthcare Service Delivery (BPHSD)

In this section the above points relevant to the configuration of a BPHSD, as ideated by the author in one of his earlier articles⁸, have further been elucidated. The configuration would also facilitate extraction of accounting and operational data, including evidentiary documents.

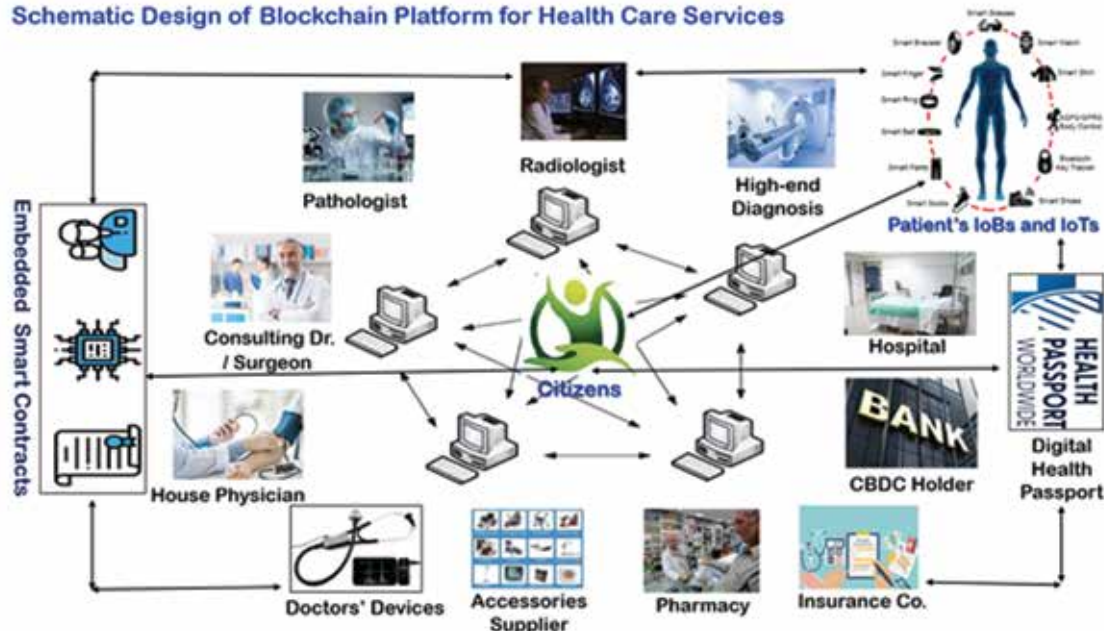
At the central point of the following schematic graphic of a BPHSD citizens have been shown as the principal recipients of services. The icon at the top right corner represents the cluster of medical internet-of-things (MIoTs) and internet of bodies (IoBs) which are linked to the platform via the Node of the patient. The interconnected computing devices around the centre represent the Nodes of various service providers as have been named in the graphic. Medical devices

used by any of the service providers, e. g., ECG and blood pressure measuring machines of doctors, report writing computers of pathologists, CT scanners and sonographers of radiologists are connected to the BPHSD and also its document management system through their respective Nodes.

Thus, in this scheme various digital tools would also function as enabling medical devices in an orchestrated manner. The entire platform is being

encompassed, presided, driven, and controlled by the Smart Contracts to be signed-off by patients and the concerned service providers before commencement of service deliveries, including insurance companies and banks. The end function of the BPHSD would be issuance of Health Passport to the citizen, subject to complying with all T&Cs, after digitally accorded concurrence of the designated agency. Such an authority would also be a participant in this ideated BPHSD.

Schematic Design of Blockchain Platform for Health Care Services



Note:

The above schematic design has been ideated by the author and graphics are from Google Images.

All data and medical records of patients can be extracted based on permissions granted by the governing SC(s) for any defined geographic region and/or specific type of disease(s). Those can then be analysed for conducting various medical research. Both federal and state government agencies, as nodal participants, would also be able to use information, processed out such data, for preparing/amending national health care policies, setting up infrastructural facilities, allocating funds, etc. wherever there are gaps. All records of health conditions and medical treatments/procedures done for a patient and related financial transaction can chronologically be stored on a permanent basis and retrieved for future reference. These can also be accessed by the contracted Insurance Company for reimbursement or direct payments to service providers as

well as the designated agency for issuing health passport.

Transactions of a Service Provider using BPHSD

Let the Node of a radiography service provider be taken as an example. The sequence of transactions events and instances of transactions that would take place in the BPHSD would be as follows:

- ⊙ The patient, who is assumed to be suffering from an ailment curing of which needs a surgery, has consulted the house physician, who has advised him to consult a surgeon beforehand.
- ⊙ The surgeon, as a prior event, has advised to get some radiographic tests done for confirmation of the prognosis through a transaction in the BPHSD and the patient

has issued a request for quotation (RFQ).

- ⊙ The participating entities, who provide radiological diagnostic services (RDSP) would respond to that RFQ to provide services with quotes for charges, through the next blocks of transactions.
- ⊙ The patient would accept one of those quotes. Post that the platform would trigger the SC to be digitally executed by and between the two parties and define public keys of those other participants who would be entitled to access the RDSP's test reports on a need-to-know basis.
- ⊙ Once the reports are uploaded into the DMS of the BPHSD and acknowledged by the patient and/or the Surgeon, the RDSP would raise invoice following the scripted process. This invoice can

also be seen by the bank of the patient or the insurance company who would make payment to the RDSP post consent of the patient is accorded. The payment can be initiated from within the system if both the banks of the payer and the RDSP have account for a common cryptocurrency, e.g., the central bank digital currency (CBDC) of the country.

- ⊙ The consulting clinicians of the RDSP, physicians, surgeons would be able to extract the report(s) for confirming their diagnosis, explaining to the patient, and deciding line of treatments/surgery, and monitoring subsequent developments. The surgeon would also be able retrieve digital films, generated during radiography, through the Node of the participating hospital on the frontend display screen for viewing while performing surgery. There will be no need for off-line duplication, physical copies, and human interventions in the entire process

So far as the RDSP is concerned operational and financial transactions have ended there. It can extract all data, reports of radiologists and films of any given period from the DMS of the BPHSD for generating internal MIS and big data analytics for research and reporting purposes. All these transactional references and records, as well as the documents and reports stored in the DMS would form a part of the accounting and operational records for the RDSP as a commercial entity and meet legal and regulatory compliance requirements. Finally, all financial transactions like service invoices raised, payments and / or intimation of payments received also can be loaded into the ERP system for accounting, viz., SAP or Oracle Financial for generating accounting entries and posting into financial ledgers. For this a suitable API and a ETL are to be installed for integration of accounting system with the Node of the RDSP and data transfer.

Role of Management Accountant

Axiom says and the common experience of any reader in personal and working life is that “What is trusted may not be what is true, and what is true may not be what is trusted”. Any blockchain technology-based platform, designed and created for any purpose, including commercial

transactions, provides a high degree of trust and bridges the gap between truth and trust. It establishes only one version of truth through compliance of the T&Cs of Smart Contracts. All these are absolute musts for accounting function, accountants, and auditors.

Such a powerful digital technology, i. e., Blockchain can be reasons of worries and anxieties for any accountant, particularly because any BP would minimise, if not obviate, routine jobs for handling, documenting, and recording business transactions. But one cannot afford to forget that BPs would demand several new capabilities from accountants, as BPs becomes more entrenched systems for mainstream finance functions. Despite automation of jobs at all steps of conducting business transactions it would demand from accountants:

- ⊙ More business insights for effective value aggregation.
- ⊙ Application oriented knowledge of the provisions from relevant laws, regulations, and accounting standards, that would govern the transactions, for approval of each T&C of the SCs which are digitally embedded into the scripts and codes for operating BPs. Else have to initiate actions for amendment using the functional steps as permitted by the platform.
- ⊙ Skills and knowledge to perform more cerebral tasks by using tools from the stable of AI and Data Analytics, and drawing inferences from information processed from large volume of data and unstructured records like invoices, logistical documents, etc. This would enable accountants to contribute toward formulation of business strategies, forecast operating volumes and create tactical plans for implementing in order to achieve strategic objectives.
- ⊙ Skills and business wisdom for according consents to different business transactions before those are allowed to be pushed through and added as blocks of transactions.
- ⊙ Capabilities to embed proactive measures to be provisioned while writing scripts and codes for the BP for proactive mitigation of foreseeable risks and ensuring smooth functioning of the BP. The predominant objectives should be

maximisation of value creation and minimisation of value destruction.

- ⊙ Professional expertise more than ever before to analyze operational and financial results rather than focusing on the mundane tasks of reconciling and verifying transactions.

It is, therefore, evident that financial and cost accountants will have to transform themselves more to become management accountants and hone skills for strategic aspects of business management.

Auditing of Transactions of a BP

At the outset one can raise a valid question that if a blockchain technology can validate all that are needed to be verified and validated by an auditor, then what is left to be done by an internal auditor for controlling and monitoring an organisation's performances, and a statutory auditor before issuing independent opinion to shareholders. It would be pertinent to quote here a report of Wall Street Journal published in July 2018¹².

“PricewaterhouseCoopers LLP's answer: Validate the validators. The Big Four accounting firm unveiled a new offering Friday that will provide an outside look at clients' use of the blockchain -making sure companies are implementing and using it properly and allowing people within a company to continuously monitor its blockchain transactions. The move will facilitate and encourage companies' use of the new technology, PwC says. Attesting that all is going as planned will help ease any internal concerns about blockchain and get people to feel more comfortable with its use, it adds”.

One can further add the following narratives in support of the above approach for PwC toward auditing transactions in an environment of one version of truth created by Blockchain technology:

- ⊙ Systems and processes followed by different BPs cannot be validated by any standardised audit tool because the related control environment can and shall vary according to the nature and need for transactions processed using the underlying uniquely drafted smart contracts.
- ⊙ The design architecture of each Blockchain environment is unique and there would hardly be any standardization, particularly keeping

in view that no code of standards has so far evolved at global and any national level on such matters.

- ⊙ All organisations may not have trained manpower with due knowledge, skillsets, and experience, for designing of control environments. This may leave scope for congenital errors while creating the architecture, configuring codes, and writing scripts for the BP and creating the Wallet for Nodal users.
- ⊙ Hitherto followed audit tools and methods, in compliance traditionally defined auditing standards, are dependent of available historic data ledger and audit trails created through human interventions.
- ⊙ Any Blockchain platform create real time environments and do not per design provide historic ledgers for auditing and incorporating audit observation related corrections.

Deloitte in their publication of 2017¹² have recorded the view that “Blockchain technology will transform business models from a human-based trust model to an algorithm-based trust model, which might expose firms to risks that they have not encountered before. In order to respond to such risks, firms should consider establishing a robust risk management strategy, governance, and controls framework.” They have cautioned that Blockchain may not be at the top of CEO’s and CFO’s agenda. Audit teams may not have the expertise in ensuring how to gain comfort with a system that puts trust in advanced cryptographic algorithms.

PwC has suggested for an online tool that would take into consideration the following:

- ⊙ Assess the risks and controls taking into consideration the customised framework of the client’s BP,
- ⊙ Develop a software befitting that customised framework for online auditing,
- ⊙ Install a read only node as a participant in the peer-to-peer network of the BP,
- ⊙ Access the BP through the node for testing and validating transactions stored in the client’s Node,
- ⊙ Keep monitoring transactions and issue reports from time to time, and
- ⊙ Modify approach and the customised auditing software with passage of time and development of technology

Keeping all these in view the present author has written an article under this digital transformation series titled, ‘Digital Transformation - Emerging Dimensions of Risks and Audit 4.0’¹³. He would urge upon readers to peruse through that article. The underlying theme of that article has suggested to adopt a proactive approach and involvement of auditors right from the stage of conceiving and developing the Blockchain platform.

Conclusion

Digital enthusiasts associated with Blockchain technology predict that seven to ten years from now none would talk about what is Blockchain technology like not even a common man talks today about what is internet. In 2030s a common man will speak about what is the new application from the stable of Blockchain. From the perspective of accounting and reporting blockchain is also due to evolve further and bring in revolutionary developments. One can make out from the above narratives the capabilities of Blockchain technology at its present state. Alvin Toffler, one of the world’s most outstanding futurists and known for works on modern technologies, including the digital revolution, said that “The illiterate of the 21st century will not be those who cannot read and write, but those who cannot learn, unlearn, and relearn.”

The author is of the view that the above comment was never applicable and will continue to be not applicable to accounting and auditing professionals. However, accountants would have to evolve further, transform, and reorient themselves more for the role of a management accountants and value aggregators. The professionals of auditing fraternity will have to also evolve and make themselves savvy and confident for applying digital tools. Their roles will also evolve with the advent of Blockchain technology. The commercial world expects them to apply tools and techniques that would enable them to conduct concurrent audit using digital tools instead of applying post facto and lagging techniques. Their reports must add values by proactive alerts for risks that can cause value destruction, digital crimes, breach of data, defacing of digital displays and spawning of malwares. MA

Note:

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NEW CHALLENGES FOR CMA PROFESSIONALS IN THE DIGITISED WORLD

Abstract

Covid 19, no doubt, has changed the entire complexion of the business scenario all over the world. Global economy in general and the economies of various developed countries have been devastated due to the killing impact of this pandemic. The conditions of the developing economics, India in particular, have become worse than ever before.

In order to combat this long lasting adverse impact of the pandemic, our CMA Professionals working in business houses, commercial organisations and institutions have to adapt themselves with the new technological innovations / tools and use them effectively for the sake of survival and continuity of business, commercial and non-commercial activities.

Introduction

Covid 19 has changed the entire complexion of the business scenario all over the world. Global economy in general and the economies of various developed countries have been devastated due to the killing impact of this pandemic. The conditions of the developing economics, India in particular, have become worse than ever before. This has been manifested in the countries' falling GDP, declining business operations, increasing cost of production & services, inflation, large scale unemployment, decreasing per capita national income etc. during the last 2 years. The sufferings of the developing economies like India have been unprecedented in terms of death of millions of the countrymen due to shortage of oxygen, medicines, vaccinations, medicare infrastructure etc. According to recent UNICEF report, 25 countries have enforced lockdown nationwide and 50 countries locally at present.

Impact of Covid 19 on the Economy

The impact of Covid 19 has been mixed on various sectors of the economy across the countries. **Agricultural sector** has been seriously impacted due to climate change apart from the adverse impact of the pandemic. Despite the various relief schemes launched by the Central and State Governments, the sufferings of the small and marginal farmers will hardly be absorbed. In the **Manufacturing sector** it is expected that India will emerge as a favoured destination by way of more investments from developed countries into India for manufacturing operations. As far as **Healthcare sector** is concerned, we have observed the devastating impact of the pandemic in terms of shortage of hospital infrastructure and healthcare resources all over the countries. However, it has created new avenues in terms of provision of nutrition products, online medicine delivery services, online medical consultations, increased



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sale of immunity based products such as sanitisers, masks, oxymeter etc. It is expected that Pharmaceutical Industry will be immensely benefitted in future in respect of business volumes and profitability. During this pandemic **Insurance sector** has seen major pressure in terms of more number and value of claims. However, its future appears to be positive as more number of people is taking insurance policies now. But the fate of the poor citizen of many underdeveloped and developing countries will remain gloomy mainly due to lack of adequate government initiatives in this respect. The business activities in the **Banking sector** has undergone sea change in this period of crisis as the banks are now operating with their skeleton staff with short duration of working hours. Most of the banking operations are transacted online and through net banking route. On the contrary, the number of bank fraud cases is also on the rise causing serious concern for the bank officials. **Telecom sector** has witnessed the boom during the pandemic period. With the strict restrictions such as lock down

(total or partial), prolonged suspension of transport (air, road and rail) facilities etc. the people are now forced to work from home resulting in increased use of voice calls, video calls, video conference etc. across the countries. On the contrary, **Aviation sector** has been worst hit due to the pandemic in terms of considerable decrease in the number of passengers, cancellation / reduction of flights, etc. which ultimately resulted in loss of revenues, lay off of about 5 million employees, bankruptcy declaration etc. The workings of **Education sector**, on the other hand, have changed drastically. Virtual classes, examinations, teacher-student interaction through online platforms viz. Zoom, Google Meet, Microsoft Teams etc. are the new norms today. Therefore, **Information Technology sector** is happy to see its revenues and profitability soaring currently and in the years ahead due to the pandemic. On the other hand, the **Start-up sector**, **e-retail sector** etc. are witnessing great opportunities in terms business volume and profitability during the pandemic time.

Adoption of New Age Technologies in Pandemic Regime

Due to the several restrictions imposed by various countries, the corporate houses, business organisations, non-business establishments, institutions etc. have found out alternative ways to continue their operations and therefore, adopted new technologies in order to remain competitive in the changed circumstance. Since the present situation is likely to continue for a long period, it is always prudent for the professional accountants like CMAs to gain knowledge of the emerging new age technologies that are necessary for implementation in the work places. Let us briefly mention some of the new technologies as under:

1. **Artificial Intelligence:** The main purpose of using artificial intelligence is to replace human intelligence in work place. Such equipments and tools are now being extensively applied in various sectors of the economy viz. insurance, banking, manufacturing, healthcare, retail etc.

2. **Robotics Process:** In this process robots do perform the task of customer service, transactional operations, etc. with much more accuracy and efficiency. Besides, the software robots do perform the job of data security, repetitive tasks etc. automatically in various business applications.
3. **Data Analytics:** Data analytics perform the tasks of descriptive analytics, predictive analytics and prescriptive analytics with a view to transforming every aspect of business activities right from R & D to marketing, and thereby ensuring ready availability of quality and correct real time information online for urgent decision making.
4. **Digital Commerce:** Digital commerce has now created new business models for ensuring growth of the economy. It uses the internet, mobile network and other infrastructure/platform in order to accomplish transactions with the customers/clients. It is extensively used in various sectors of the economy viz. transport, housing, food & beverage, travel & tourism etc.
5. **Block Chain:** Block chain is an innovative ledger / record keeping system that permits each participant (node) to visualize clearly the source of information and disposal of information. The main purpose of using block chain technology is to replace the age-old physical system of invoicing, record keeping, reconciliation etc. through mechanisation. It is extremely difficult to alter / modify data or add any untrue information.
6. **Cloud Accounting:** Cloud accounting stores data on remote servers and provides opportunities to the users to work on the data from anywhere without any geographical boundary. The large companies have now started using this technology.
7. **Cyber Security:** Cyber security permits the corporate officials to detect frauds and other vulnerabilities in the ERP system

in their corporates. It prevents cyber attacks in the company on real time basis. It provides opportunity for the CMAs towards engaging themselves in new advisory services such as, risk assessments, risk aversions etc. It requires adequate knowledge, skills and experience of professionals in the areas such as, (a) Understanding the Industry and business operations; (b) Existing IT systems and technology; (c) Changes in the IT technology and systems environment; (d) Understanding IT processes and control; and (e) Cyber security framework. Needless to mention that cyber attacks are a growing reality and a challenge for the professional accountants in the digitised world today. The big corporate houses, banks, financial institutions are now spending huge money on cyber security infrastructure.

Role of CMAs

It is no denying the fact that despite its devastating effect on mankind, trade, business and commerce, Covid 19 has opened a new horizon of opportunities for the professional accountants in general, CMAs in particular. It has proved to be a catalyst in bringing technological changes throughout the world. CMAs have an important role to play in assisting trade, business and commerce during this crucial time. They are supposed to take a leading role in helping the economy to recover at the earliest. They must have requisite knowledge, skills and experience to assist business houses for implementation of new technologies and provide adequate support services in building proper information system controls and cyber security protection to them.

Our CMAs can provide all types of cyber risk & security consultancy services including cyber strategy, cyber intelligence and cyber analytics to the management of business houses which are at present shaken by various types of unknown cyber attacks. They can create a strong and robust cyber security infrastructure (including training to

the officers/staffs) that can facilitate the companies to detect frauds in their organisations.

Besides, CMAs also can help *e-commerce companies* in many ways as the business of these organisations is booming during the pandemic time. They can go through the developments taking place in this sector and being advisors, they can assist such companies by way of valuation, due diligence, negotiation and funding arrangement services etc. since huge investments are pouring into these e-commerce companies.

Institute's Initiative

Our Institute has stood firm and acted fast and brilliantly in discharging its responsibilities even before the pandemic period. Having understood the necessity and importance of knowledge, skills and experience required for CMAs in accepting the challenges of implementation of new age technologies, the *Advance Studies and Research Wing* has successfully launched various training programmes and short duration courses such as, **Diploma in Valuation, Certificate Course in Entrepreneurial Finance, Diploma in Forensic Audit, Diploma in Information System Security Audit, Certificate Course in Data Analytics, SAP Finance Power User Course,**

Economies of the world have to follow 'new norms' and implement 'new age technologies' for the sake of their survival, sustenance and growth

Microsoft Certificate Course in Advanced Business Excel for Finance Professionals etc. in which various topics under new age technologies have been included. Besides, in order to ensure that the students pursuing the CMA Course should possess and acquire robust employability skills to cope with the global challenges and become a future-ready professional, the *Directorate of Studies* have introduced **Skills Training Programme** for its Intermediate students in partnership with SAP, Microsoft Education, Cambridge University Press and E-Filing. Moreover, various current topics viz. Information System Security Audit, Cloud Computing, Forensic Accounting and Audit, Fraud Risk Management Strategy, Block Chain, Data Analytics etc. have also been included in the **New Course Curriculum** of the Institute to be introduced soon.

Concluding Remarks

The world has not remained the same

any more due to the pandemic that has devastated the countries' at large. 'New Normals' are going to stay in this planet permanently. Economies of the world have to follow 'new norms' and implement 'new age technologies' for the sake of their survival, sustenance and growth. Let us not ignore the positive side of the impact of Covid 19 that has opened a new vista of opportunities for the professional accountants and auditors to apply their updated knowledge, skills and experience and accept the challenges of new age technologies introduced in the digitised world. **MA**

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DID THE INDIAN STOCK MARKETS SIGNAL THE ONCOMING CRISIS?

A STUDY IN PERSPECTIVE OF COVID 19

Abstract

The COVID 19 pandemic unleashed an unprecedented crisis for the Indian economy. This paper turns to the Indian stock market to answer this questions that whether there were indications of economic consequences in India even before the lockdown, and how has the Indian stock market reacted to the policies of lockdown, liquidity, and fiscal initiatives. Results reveal that stock markets were showing signs of oncoming disturbances beforehand, possibly due to the interconnectedness of global stock markets. As markets adjusted, later interventions by the government did not make a statistically significant impact.



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1. Introduction

The COVID-19 pandemic has destabilized nations around the world. So far, the pandemic has affected the first- and third-world countries alike. The impact of the COVID-19 pandemic is both on human lives and the global economy.

As the pandemic started spreading, governments of various nations headed for lockdowns. Gopinath (2020) estimated the global GDP to fall to a historical low of -3 percent. The global GDP is estimated to contract by a total of 5.2 percent in the wake of the pandemic (World Bank, 2020).

In India, there was declaration of lockdown. The weekly unemployment levels in the country stood at over 17 percent¹ in the first week of June 2020. In March 2020, the industrial production in India was down by 16.7 percent². A Fitch report in April acknowledged that India's GDP growth rate to a meager 0.8% in the current fiscal year.

The impact of COVID-19 on the economy trickled down to the stock markets. In this research paper, the authors strive to uncover how the spread of COVID-19 affected stock markets, with a particular focus on India.

The movement in a stock index can accurately reflect the movement of the entire stock market. This research makes uses of stock index data of four countries: India (Nifty 50), the United States, or the US (S&P 500), United Kingdom, or the UK (FTSE 100), and China (SSE Composite Index or SSE-CI).

The impact of the pandemic is unraveled through three different methods. First, a breakpoint analysis of Nifty 50 is carried out to explore the most significant break dates. Next, an event study is carried with twelve distinct events out to analyze how the COVID-19 may have impacted the movement of Nifty 50.

¹ From CMIE database on unemployment in India

² From the Ministry of Statistics and Program Implementation

2.1 Review of literature

Forbes (2004) used data from over a thousand companies from across 40 countries to reveal that abnormal stock returns of firms in affected countries were also lower. Though their research did not reveal a very drastic impact of the Asian flu of that time. An important argument put forward by Peckham (2013) is that the interconnectedness of the global economies will have an increasing impact on the spread of contagions. In his paper, Peckham (2013) studied the 2009 Influenza (H1N1) pandemic.

Carlsson-Szlezak et al. (2020) made an initial analysis of the COVID-19 pandemic. Carlsson-Szlezak et al. (2020) predicted a V-shaped recovery for the economies suffering from the pandemic. However, they also cautioned that if the pandemic worsens significantly, the world could witness an L-shaped recovery phase.

The early impact of COVID-19 (Zhang et al., 2020) showed fear and confusion in the markets. The study

by Zhang et al. (2020) showed that the uncertainty around COVID-19 increased the stock market volatility in all countries in the sample. Albulescu (2020) showed that financial market volatility in the US, was significantly affected by news of the spread of the contagion outside China.

Initially proposed by Fama et al. (1969), the event study methodology became one of the most widely used tools in finance to analyze the impact of significant news events on the stock markets. The review of the event study methodology by MacKinlay (1997) lays out the methodology that is still in practice among researchers.

Appropriate identification of structural breaks can provide an accurate estimation of unit roots in a series (Perron, 1989; Vogelsang & Perron, 1998).

2.2 Research Questions

The researchers are guided by the following questions:

Q1: How did the various global and

national events, which resulted in the wake of the COVID-19 pandemic, impact the stock market in India?

Q2: Which important events caused a significant structural break in the Indian stock market?

3.1 Data

This study makes use of daily stock index data of four different countries for a period between 2nd December 2019 and 5th June 2020, totaling 126 trading days. The four stock indices are:

- ⊙ The Nifty 50 index. The benchmark stock index of the National Stock Exchange (NSE) of India
- ⊙ The S&P 500 index. The benchmark stock index of the US
- ⊙ The FTSE 100 index. The benchmark stock index of the UK
- ⊙ The SSE Composite Index (SSE-CI). The benchmark stock index of China

3.2 Methodology

In most cases, this study uses a logarithmic index returns. The index log-returns are computed as:

$$R_t = \ln \left(\frac{V_t}{V_{t-1}} \right) \quad (1)$$

Where, R_t is the index return at time t . The index values at the current and prior periods are denoted by V_t and V_{t-1} .

The event study method adopted in this study follows MacKinlay (1997). The details of 12 events are presented in Table 3 in the results and discussion section.

The abnormal returns are estimated as the returns above the mean return of the estimation window.

$$AR_t = R_t - \frac{1}{\eta} \sum_{i=t-\eta}^t R_i \quad (2)$$

Cumulative abnormal returns (CAR) are computed for meaningful analysis of the impact of events on stock returns throughout the event window since AR is expected to have a mean of zero:

$$CAR_{\omega} = \sum_{i=T_3^-}^{T_3^+} AR_i \text{ for } \forall i \quad (3)$$

Once CAR for each date in the event window is estimated, a simple hypothesis test is done to test the null hypothesis that $CAR_{\omega} \sim N(0, \sigma_{\omega}^2)$. σ_{ω}^2 is estimated from the variance of returns during the estimation window (σ_{η}^2) as follows:

$$\sigma_{\omega}^2 \approx (\tau - T_3^- + 1) \sigma_{\eta}^2 \quad (4)$$

The t-statistic for each CAR is obtained from the standardized value of CAR (SCAR). The null hypothesis assumes that there is no impact of the event, and the t-statistics are insignificant at $\eta - 2$ degrees of freedom. The SCAR is computed as below:

$$SCAR_{\omega} = \frac{CAR_{\omega}}{\sigma_{\omega}} \quad (5)$$

For equation 5, $\sigma_{\omega} = \sqrt{\sigma_{\omega}^2}$ as it is computed in equation 4 above.

The unit root test with structural breaks is conducted to obtain an accurate estimate of the presence of unit root in a non-stationary series. In this paper, this test is used on Nifty 50 at level (index values) and on index returns to identify the break dates in the index level and returns.

4. Results and Discussion

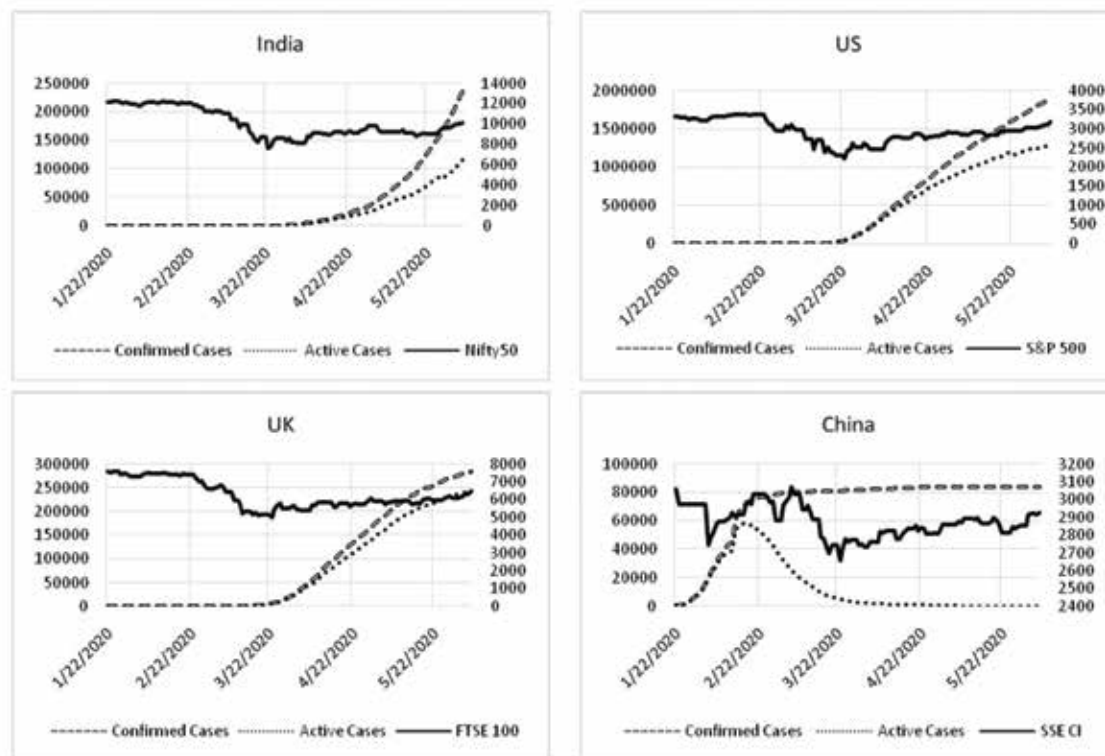
A simple graphical analysis presented in Figure 1 shows how stock markets of the four different countries reacted as the coronavirus disease progressed. The stock markets in all

countries declined at the onset of the COVID-19 pandemic, especially till the last week of March 2020. After that, markets stabilized.

Next, the descriptive statistics laid out in Table 1 shows the maximum and minimum levels, returns, and maximum downturn during the sample period. The most notable figure is the maximum downturn, which shows the severity of the impact of COVID-19. In the case of India, the downturn was highest at over 48 percent in a short time.

Figure 1
Progress of Coronavirus and Stock Indices

This figure shows how stock indices in four major economies moved as the cases of COVID-19 progressed in these countries.



Source: Authors' own analysis. Data from in.finance.yahoo.com and Datahub.io.

The standard deviation of index returns was also quite high during this period, and single-day fall in stock indices crossed the 10 percent mark in most cases.

Next, the analysis focusses on iteratively determining the significant breakpoints in the Nifty 50 index. The breakpoints are estimated at the level and for index returns. Table 2 shows the results of the analysis. At level, the break happened on 6th March 2020 when global cases exceeded 100,000. For index return, the break came on 25th March 2020, the beginning of the first lockdown in India.

Table 1
Descriptive Statistics

This table presents the descriptive statistics of five stock market indices from the start of the pandemic in 2nd December 2019 to 5th June 2020. The descriptive statistics during this entire period computed as $\ln(\text{Index}_{\text{low}}/\text{Index}_{\text{high}})$

	India [Nifty 50]	US [S&P 500]	UK [FTSE 100]	China [SSE-CI]
Index High	12362	3386	7675	3116
Index Low	7610	2237	4994	2660
Max. Daily Return	8.4%	9.0%	8.7%	3.1%

COVID 19 - IMPACT

Min. Daily Return	-13.9%	-12.8%	-11.5%	-8.0%
Average Return	-0.1%	0.0%	-0.1%	0.0%
Std. Deviation	2.6%	2.7%	2.3%	1.3%
Downturn	-48.5%	-41.4%	-43.0%	-15.8%

Source: Author's own computations. Data from in.finance.yahoo.com

Table 2
Unit Root Test with Breakpoints

This table shows the results of a unit root test with a breakpoint on Nifty 50. The test is conducted at a daily level of Nifty 50 and also on a daily log-return. The selection of breakpoint is made iteratively with the help of software packages by minimizing coefficient parameters of a general Augmented Dicky-Fuller (ADF) test equation.

	Nifty 50 at level	Nifty 50 log returns
Breakpoint Date	06-03-2020	25-03-2020
ADF test statistic (Lag 1)	-4.7831	-15.38749
ADF statistic p-values	0.1290	<0.01

Source: Author's own computations. Data from in.finance.yahoo.com

The next objective is to analyze the impact of the most important events, which are likely to have a significant impact on stock markets. In the case of India, 12 such events are selected. The results from Table 3 show that the most significant impact happened between 11th to 26th March 2020. The lockdown was declared on 24th March, and the immediate impact was seen from an over 16 percent fall in Nifty 50 the very next day. Notably, the free-fall of stock markets was stemmed after 27th March when relief packages of the government and RBI's intervention took effect. The impact of Unlock 1.0 is again significant and helped in lifting the mood of the markets. It may be conjectured from the event study that the stock markets did show an impending crisis even before the lockdowns started.

Table 3
Results from the Event Study

The table below presents the results from an event study of the impact of COVID-19 on the S&P CNX NIFTY index (NIFTY50). Twelve events since the declaration of the outbreak are included in the study. The values in the table are the cumulative abnormal returns (CAR) for the event window. The event window is here days pre- and post-event event date (T_3^- to T_0 ; T_0 to T_3^+). The null hypothesis is that the $CAR_{it} \sim N(0, \sigma_{CAR}^2)$, implying that the event has no significant impact on CAR. The statistical significance of each value is indicated in the table. '****' refers to significance at the 1% level, '***' refers to significance at 5% level, and '**' refers to significance at the 10% level.

Event no.	Event	Event date	Trading Date	-3	-2	-1	0	1	2	3
1	First Case in Wuhan China	31-Dec-19	31-Dec-19	-0.78%	0.15%	0.18%	-0.59%	-0.53%	0.24%	-0.27%
2	WHO Public Health Emergency	30-Jan-20	30-Jan-20	-1.11%	-1.69%	-1.13%	-1.96%	-2.62%*	-4.82%***	-2.58%*
3	COVID-19 Cases cross 100k	6-Mar-20	6-Mar-20	1.48%	0.98%	1.1%	-1.45%	-6.51%***	-6.48%***	-15.18%***
4	COVID-19 Declared Pandemic	11-Mar-20	11-Mar-20	0.12%	-2.43%	-7.49%***	-7.46%***	-16.17%***	-12.47%***	-20.43%***
5	Junta Curfew	22-Mar-20	23-Mar-20	-5.73%**	-8.2%***	-2.54%	-16.45%***	-13.99%***	-7.59%***	-3.78%
6	Lockdown 1.0	25-Mar-20	25-Mar-20	5.68%**	-8.21%***	-5.72%**	0.71%	4.54%*	4.77%*	0.31%
7	First Relief Package	26-Mar-20	26-Mar-20	-13.9%***	-11.42%***	-4.99%**	-1.17%	-0.95%	-5.42%**	-1.66%
8	RBI Liquidity Measures	27-Mar-20	27-Mar-20	2.5%	8.94%***	12.78%***	13.02%***	8.57%***	12.34%***	8.29%***
9	RBI Add. Liquidity Measures	17-Apr-20	17-Apr-20	-1.3%	-2.07%	-1.31%	1.69%	1.64%	-1.44%	0.83%
10	First tranche of Relief Package	13-May-20	13-May-20	0.57%	0.44%	-0.03%	1.98%	-0.62%	-0.68%	-4.17%
11	Final Tranche of Relief package	17-May-20	18-May-20	2.01%	-0.59%	-0.65%	-4.14%	-3.51%	-1.42%	-0.99%
12	Unlock 1.0 begins	1-Jun-20	1-Jun-20	3.12%	4.99%	5.94%*	8.48%***	10.03%***	10.86%***	10.54%***

Source: Author's own computations. Data from in.finance.yahoo.com

5. Conclusion

This research paper presents a unique perspective on the impact of COVID-19 on stock markets. The results of this research demonstrate that the stock markets in India may have indicated the impending economic crisis much before its onset. This paper is arguably the first of its kind for showing the event-wise impact of COVID-19 on the Indian stock market. The results of this study demonstrate that the interconnectedness of global markets results in the transmission of the impact of contagions. This study also demonstrates that the Indian stock market may have adjusted to COVID-19. The early monetary and fiscal interventions by the Indian government did have a positive impact on the stock markets, but later interventions did not. Thus, living with the effects of COVID-19 may have become the new norm, even in stock markets. **MA**

This study also demonstrates that the Indian stock market may have adjusted to COVID-19. The early monetary and fiscal interventions by the Indian government did have a positive impact on the stock markets, but later interventions did not.

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A STUDY ON EFFECTIVENESS OF RECOVERY CHANNELS FOR NPA MANAGEMENT



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Introduction

The existence of the robust banking and financial institutions are vital for sustained growth of a nation's economy, especially developing economy like India since trust heavily on banking sector for financial needs. At present Indian banking sector is in very fragile condition. Main reason for the bad shape of banking system is ever increasing Non-performing Assets (NPAs) and sluggish bad loan recovery by recovery channels. Continued deterioration of the asset quality of Indian public sector bank is serious cause of concern. The main source of income for banks is from interest generated from loans and advances. If loans and advances fail to generate interest, then such loans and advances considered as NPAs. "An asset, including a lease asset, becomes non-performing when it ceases to generate income for bank. A NPA is defined as a credit facility in respect of which the interest or instalment of principal has 'past due' for a specified period of time" (RBI, 2001). If the

Abstract

Non-performing Assets (NPAs) is considered as terrorism in banking sector. At present, Indian banking sector is facing difficult time due to increase in NPAs. Hence, there is a worry regarding continuous deterioration of asset quality in Indian banks. Hence, it is very vital for the banks to take efficient resolve techniques for recovering massive amount of NPAs in order to improve their financial performance. In view of the above, the present study made an attempt to understand the effectiveness of recovery channels for NPAs management. To study the same data is collected from secondary sources for 12 years. Based on simple descriptive statistics, the present study found that performance of IBC in recovering NPAs is commendable and most effective recovery channel as compared to DRTs, Lok Adalat, and SARFAEST Act. However, it is too early to draw conclusion on effectiveness of IBC in comparison with other above said recovery channels since it is functioning to recovery NPAs with effect from 2018.

interest or instalment of principal remains due for a period of more than 90 days, the asset is considered as NPAs. On the basis of duration of NPAs banks require classifying the NPA into 3 categories.

- **Sub-standard asset:** if the loan has been remained NPAs for the period of less than or equal to 12 months;
- **Doubtful asset:** if the loan has been NPAs for more than 12 months;
- **Loss asset:** loans were loss has been identified by bank or auditors or RBI inspector but loan amount has not been fully written off.

Ever increasing bad loans in the books of banks is not flattering event for banking sector, as it affects the balance sheet of the banks negatively. There is also an unfavourable

impact on banks profitability and banks requires to make large provisions against the doubtful and bad loans which adversely affect the ability of banks to give fresh loans. Indian banking sector continuously under the burden of increasing stressed assets. In recent times RBI started to take cognizance of worsening NPAs situation and suggested banks to take proper action to reduce the burden of NPAs. Banks have four (4) legal mechanism to recover the NPAs namely Debt Recovery Tribunal (DRTs), Lok Adalat, Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI Act) & Insolvency and Bankruptcy Code (IBC).

Literature Study:

Banking sector plays a vital role in the Indian economy. Maintaining the assets quality is important for growth of the banking sector. In the recent year's asset quality in banks especially in public sector banks continuously deteriorating and creating a lot of stress in financial sector. Over the period of few years Gross NPAs and Net NPAs increased sharply and adversely impacting asset quality so it's necessary to take steps to reduce the NPAs and improve the recovery mechanisms (Senthil Arasu B. et.al, 2019).

Profitability of banking industry became a cause of concern for the Indian economy. Bank based Indian economy is under tremendous stress due to rising NPAs, bad loans persistently draining profits of the banks and hampering the ability of the banks to give fresh loans. NPAs are considered as the major detractor of banks profit. An increase in the portion of bad loans in the total loan portfolio of banks leads to decline in credit quality and hinders the banks performance. Thus, it is very important for banks to handle their loan portfolio carefully. The problem of NPAs if dragged for long time may endanger the financial stability of the country. (Dolly Gaur & Dipthi Rajan, 2020).

The quantum of NPA is the best indicator of soundness of banking system of the nation. The burden of NPA is low in private sector banks compared to the nationalised banks. Nationalised banks failed to effectively control the rising NPAs and NPAs percentage is phenomenally high in these banks. The present condition is

The quantum of NPA is the best indicator of soundness of banking system of the nation

troublesome for the banking sector, not only the small banks, big names in the banking sector also failed to curb the rising NPA. (Varun Agarwal & Nidhi Agarwal, 2019).

The worsening of NPAs condition in Indian banks is mainly driven by public sector banks. Many reasons attributed to deterioration of quality of assets such as, irregular monitoring of loans, improper evaluation at the loan appraisal stage, deficiencies in recovery mechanism etc. The increase of NPAs is problem for banks because as per the RBI guidelines banks are required to create provisions for bad loans depending upon amount of NPAs, hence NPAs not only impact profitability but also reduces the ability of banks to give fresh loans (Binoy Joy Kattadiyil & Mrutyunjay Sisugoswami, 2020).

From the above literature it is clear that the issue of NPAs in India banking sector has become subject of serious discussion, poor asset quality is adversely impacting liquidity position of banks. So it's important to study the efficacy of recovery mechanisms used by banks to understand the recovery of NPAs in India.

The objective of this paper is to study the effectiveness of the various recovery channels of NPAs. The study has considered four recovery channels namely Lok Adalat, SARFAESI, Debt recovery tribunal and Insolvency Bankruptcy code (IBC 2016). IBC 2016 came into force in 2016 and therefore the data related to recovery of NPAs through this channel is available only for the three financial years and remaining three recovery channels data is collected for 12 years from 2008 to 2020.

The study has considered four recovery channels namely Lok Adalat, SARFAESI, Debt recovery tribunal and Insolvency Bankruptcy code

NPAs Recovery Channels in India:

Lok Adalat: It is off the court settlement of recovery dues and it is one of the dispute redressed mechanism where the cases pending in the court of law or at a pre-litigation stage are compromised or settled amicably. RBI issued guidelines vide notification LEG. BC.114/09.06.2000-01 dated 20-5-2001 for implementation of Lok Adalat as recovery mechanism. The Lok Adalat's can be utilised as a method of recovery of Debt up to a ceiling limit of 20 lakhs.

Debt Recovery Tribunals (DRTs):

It is an expeditious adjudication process and recovery of debts due to banks and financial institutions. DRTs are governed by law relating to Recovery of Debt Due to Banks and Financial Institution Act 1993. The act is applicable to the cases where the amount of debt due from banks or any financial institutions is more than ₹20 lacks.

SARFAESI Act: The securitization and reconstruction of financial assets and enforcement of securities interest act 2002, it is an Indian law which allows the bankers and financial Institutions to auction residential or commercial properties of defaulters to recover the loans without the involvement of courts. The SARFAESI act also allows RBI to give licence to Asset Reconstruction Companies (ARCs) which takes over the stressed assets from banks and enforce the security interests without the intervention from the courts. The SARFAESI act is applicable to cases where security interest for any securing repayment of financial assets is more than ₹1 lack and the amount due is 20% or more of the principal amount and interest thereon. The act is not applicable to any securities interest created against the agricultural land.

IBC 2016: Insolvency and Bankruptcy code is bankruptcy law in India enunciated in 2016 which seeks to consolidate the existing framework by creating a single law for insolvency and bankruptcy. IBC provides time bound resolution scheme, cases admitted to IBC proceedings need to be solved within 180 days. In IBC insolvency professional is appointed to harmoniously recover the dues from insolvent accounts, he decides whether to restructure the loans, or to liquidate the assets of the defaulter to recover the due amount. The Adjudicating authority under IBC for insolvency and bankruptcy of individuals and

partnership firm is Debt Recovery Tribunals (DRTs) and National Company Law Tribunal (NPLT) for

corporate insolvencies. For individuals and partnership firm to start insolvency proceedings minimum default amount

must be not less than ₹1000 and for corporates it is ₹1 lakh.

Table No: 1.1
Recovery of NPAs through Various Channels

(Amount in Billion)

Year	Channels	No of cases Referred	Amount Involved	Amount Recovered	% of Recovery Recovered/Involved	Amount Unrecovered	% Unrecovered
2020	Lok Adalats	5986790	678	42	6.2	636	93.8
	DRTs	40818	2456	100	4.1	2356	95.9
	SARFAESI Act	105523	1966	526	26.7	1440	73.3
	IBC	1953	2325	1058	45.5	1267	44.5
	Total		7425	1726	23.2	5699	76.8
2019	Lok Adalats	4087555	535	27	5.1	508	94.9
	DRTs	51679	2684	106	3.9	2578	96.1
	SARFAESI Act	235437	2586	389	15.0	2197	85
	IBC	1152	1456	664	45.7	792	44.3
	Total		7261	1186	16.3	6084	83.7
2018	Lok Adalats	33,17,897	457	18	4	439	96
	DRTs	29,551	1333	72	5.4	1261	94.6
	SARFAESI Act	91,330	1,067	265	24.8	802	75.2
	IBC	701	99	49	49.6	50	50.4
	Total		2956	404	14	2552	86
2017	Lok Adalats	35,55,678	361	23	6.3	338	93.7
	DRTs	32,418	1008	103	10.20	905	89.8
	SARFAESI Act	1,99,352	1414	259	18.30	1155	81.70
	IBC	37	-	-	-	-	-
	Total		2783	385	14	2398	86
2016	Lok Adalats	44,56,634	720.33	32.24	4.48	688	95.52
	DRTs	24,537	693.41	63.65	9.18	630	90.82
	SARFAESI ACT	1,73,582	801	131.79	0.08	669	92
	Total		2214.74	227.68	10	1987	90
2015	Lok Adalats	29,58,313	309.79	9.84	3.18	300	96.82
	DRTs	22,004	603.71	42.08	6.97	562	93.03
	SARFAESI ACT	1,75,355	1,567.78	256	16.33	1312	83.67
	Total		2481	308	12	2173	88
2014	Lok Adalats	16,36,957	23200	1400	6.03	21800	93.97
	DRTs	28,258	55300	5300	9.58	50000	90.42
	SARFAESI Act	1,94,707	94602	24402	25.79	70200	74.21
	Total		173102	31102	18	142000	82
2013	Lok Adalats	8,40,691	66	4	6.06	62	93.94
	DRTs	13,408	310	44	14.19	266	85.81
	SARFAESI Act	1,90,537	681	185	27.17	496	72.83
	Total		1057	233	22	824	78
2012	Lok Adalats	4,76,073	17	2	11.80	15	88.2
	DRTs	13,365	24.1	41	17.00	-17	83
	SARFAESI Act	1,40,991	353	101	28.60	252	71.40
	Total		394.10	144	37	250	63

2011	Lok Adalats	6,16,018	53	2	3.7	51	96.30
	DRTs	12,872	141	39	27.6	102	72.40
	SARFAESI Act	1,18,642	306	116	37.9	190	62.1
	Total		500	157	31	343	69
2010	Lok Adalats	7,78,833	7235	112	1.55	7123	98.45
	DRTs	6,019	9797	3133	32	6664	68
	SARFAESI Act	78,366	14,249	4269	30	9980	70
	Total		31281	7514	24	23767	76
2009	Lok Adalats	5,48,308	4023	96	2.4	3927	97.60
	DRTs	2004	4130	3348	81.1	782	18.90
	SARFAESI Act	61,760	12067	3982	33.0	8085	67
	Total		20220	7426	37	12794	63
2008	Lok Adalats	1,86,535	2142	176	8.2	1966	91.80
	DRTs	3,728	5,819	3020	51.9	2799	48.10
	SARFAESI Act	83,942	7,263	4429	61	2834	39
	Total		15224	7625	50	7599	50

Source: www.rbi.org

Interpretation: The table 1.1 as shown above reflect that, out of the four recovery channels Lok Adalats is the one which is having highest number of referred cases, since it is a people's court but the amount involved is less, it is also indicating that the amount involved per case is also not much significantly high. Whereas in case of SARFAESI Act the amount against each referred case is comparatively higher. DRTs are on the moderate level in terms of number of cases and amount involved in each case. In terms of recovery the SARFAESI Act showed the maximum proportion of recovery and the Lok Adalats and DRTs struggling to recover NPAs. IBC 2016, in the year 2018, 2019 and 2020 made a remarkable recovery as a new entrant in the segment of recovery channels to the extent of almost 50%.

With respect to unrecovered amounts of the NPAs, out of the total amount involved in particular channels for the financial year 2008 was at 50% and the same continued to increase till 2010 and after that it fell down for two years and then again picked up its pace and reached up-to 90% in 2016. In the year 2017 it marginally reduced to 86% and in 2018 it remained at 86%. The total unrecovered amount further reduced in the years 2019 and 2020 with 83% and 77% respectively, reduction is mainly because of good recovery made by IBC. Lok Adalats made a recovery of ₹1943.84 billion, whereas DRTs recovered NPAs to the

extent of ₹15411.73 and SARFAESI Act made a major recovery of ₹39310.79. In terms of effectiveness of the recovery channels of NPAs, SARFAESI Act performed moderately well, DRTs and Lok Adalats performance is not up to the mark. IBC After the introduction in 2106 recovered ₹1771 billion in just 3 years which is above 40% recovery rate and IBC performing well in recovering NPAs.

Conclusion:

The recovery of NPAs is always been the big challenge to Indian banks, though the study of effectiveness of the recovery channels found that recovery channels are not much effective since they did not produce any evidence of significant amount of recovery of NPAs. The Government of India and RBI should take the steps towards improving the efficiency of recovery channels with suitable autonomy to recovery channels. **MA**

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ZERO BASE BUDGETING

Abstract

Zero base budgeting challenges the very drivers of budget items and thus helps prepare a true guiding budget.



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Budget and budgets are integral part of business.

Commercial entities are involved in budgeting process for knowing their future business scene looking to the present and future economic environment. Budgets are also necessary to estimate future working capital needs as well as overall fund requirement of the business and to help estimate advance tax liability. Non-commercial organisation prepares their budget mainly for estimation of grant required from their parent organisation for running their operations.

Having worked in a company being part of a MNC the author was acquainted with following types of budgets

Types of Budget

1. Nature of Expense

- ⊙ Revenue Budget i.e. Budgeted Profit & Loss Account
- ⊙ Capital Budget-Capital expenditure

2. Based on time

- ⊙ We call **budget** when the estimates are made for future period which is yet to start.
Thus normally to speak clearly budget for financial year 2021-22 is finalised before March-2021 itself.
- ⊙ We call it **forecast** when the estimate contains some part of the period is actuals and the rest part is estimated. Thus when we say forecast 2021-22 it includes actual figures of April -21 to June-21 and budgeted figures for Jul-21 to March-21.

- ⊙ This combine figure of two periods gives revised budget of 2021-22 and is called forecast 2021-22.

This applies to both capitals as well as revenue budget.

- ⊙ While as a part of strategic planning we had budget for Five years where in company will have long term outlook in terms of product market situation, competition and introduction of new product lines. This entire exercise is called strategic planning.

Normally the budget preparation process is not taken in true spirit by organisations and merely looked upon as routine annual exercise. All organisations prepare only projected profit & loss account while preparation of balance sheet is ignored. In big organisation having various departments when the inputs for budgets are asked, they give their figures based on past performance having no regard to future business environment or in-depth study of cost drivers of estimates. Thus the end figure is some normal increment on their past actual figures. This is against the very spirit of budget.

Zero base budgeting - budget from scratch challenges and examines the very base and the driver on which the element of expense or income is dependent upon.

Let us now discuss ZBB (zero base budgeting) in each major head of expense.

Raw Material Consumption

Before estimating RM consumption for the year we should have beforehand a detailed sales budget giving detailed product mix provided by marketing dept.

Based on the product mix raw material consumption will be worked out. We should have per unit consumption and wastage norms as communicated by technical department duly counter checked with previous year consumption and will be challenged by management for any possible reduction.

In order to estimate value part of raw material consumption study of price trend is necessary. If there is only one major raw material it is advisable to have rate contract to obviate the danger of price fluctuation. We can prepare target costing for our product which will help us to negotiate the price of raw material by reverse working based on projected sales realisation. This will give "**What price has to pay for Raw Material**".

Stores & spares

Budgeting stores & spares consumption needs classification

of items into production & maintenance stores. Generally, there is a single ledger account for total stores items covering consumables, maintenance stores, emergency spares etc. We need to classify all items mainly into consumable stores and maintenance stores. Each category will be mapped with separate ledger account in profit & loss account.

Consumption in quantity of production stores items will be arrived at based on technical norms of per unit production of finished goods which will be checked with past consumption. Quantity wise consumption will be translated into value based on latest items rate. Here in this case fixing rate contract for any major item of consumption is advisable.

Salaries & wages

Estimation of salaries & wages starts with correctly arriving at monthly salary bill and based on the same estimate it for the year after giving effect for projected attrition during the coming year.

Based on ZBB concept what needs attention is to check various allowances of salary package. Due to changes in personal taxation laws sometimes new allowances are introduced to give tax benefit to employees the same has to be reviewed with present provisions and if the allowances are tax neutral the same should be removed.

Further to examine the calculation and amount of benefit given to employees. In one such company there was a benefit of reimbursing mediclaim insurance to retiring employee restricted to Rs 2000 per person and the amount paid was before taxes.

Considering present cost of medical insurance which is between

Rs. 20000 to Rs 50000 the amount decided some 15 years ago looks meagre. Moreover the reimbursement should be total amount including taxes.

There was another such benefit of granting housing loan interest subsidy on loan up to Rs 4.0 Lacs. Considering the present scenario where the property costs are so high the benefit seems very meagre and needs revision.

The CEO of the company while supervising budgeting exercise directed team to examine each such benefit and asked to revisit such matters before finalisation of budget.

Zero base budgeting - budget from scratch challenges and examines the very base and the driver on which the element of expense or income is dependent upon

Administrative expenses

Administrative expenses consists of various expenses like travelling & conveyance, Printing & stationary, Security expenses, legal & professional charges etc.

Here also ZBB focuses on the cost drivers of each expense and challenge the same for correct estimation.

Consider example of estimating legal & professional charges.

Legal & professional charges consist of advocate fees and other court expenses relating to court cases. It also contains retainer-ship fees paid to consultants/experts for various legal or professional matters. Careful analysis of the expense will highlight the matters involved in old cases against the companies and help us to work out strategies to systematic closure of such cases. We can explore any possibility of hiring a single/ limited consultants offering all services under one umbrella.

Projected Balance sheet

We shall now discuss the preparation of projected balance sheet. Generally the budgeting exercise is meant as preparation of estimated profit & loss account only while the preparation of projected balance sheet is ignored. Profit & loss account and balance sheet are inter-dependent and in the absence of projected balance sheet, budgeted profit & loss account will not show the correct result. As we proceed with the discussion of preparation of balance sheet we will come across instances as how both the statements are inter-dependent.

Preparation of projected balance sheet also helps us to understand and evaluate requirement of finance and working capital needs for coming year considering various challenges before the companies.

Gross/Net Block of Fixed Assets.

A well thought over capital expenditure

plan is pre-requisite to estimate gross block of fixed assets. One important point to note in this regard is to identify and decide retirement /disposal of non-performing assets. Structured programme of physical verification of assets will be helpful in this regard. Some organisation does have structured asset class wise obsolescence policy. This is helpful in case of small assets like furniture & fixtures where the physical verification of assets pose a major problem. Effect of projected loss on retirement/disposal of assets will have bearing on profit & loss account.

Inventory

Inventory will be classified as raw material, Stores & Spares, work in progress, & finished goods.

Raw material

We will work out quantity of each item of stock based on its lead time (Time taken from purchase requisition to material entry in stores). The ideal stock level will be consumption for lead time period. Give reasonable allowance for imported items for their high lead time. The quantities of items worked out will be ideal Stock at latest prices.

Work in progress

Through investigation of work in progress inventory will helps us to reduce the size of inventory by examining possible areas of improving manufacturing process through which inventory blockage can be reduced. Work in progress also contains finished goods in unpacked condition. The basis of valuation should be consistent and uniform and at the same it should be according to the nature of work in progress i.e. finished goods lying in unpacked condition should be valued at cost price considered after ignoring packing cost as considered for finished goods.

Finished goods

Finished goods stock should be equal to the lead time or manufacturing process time plus allowing time for unplanned disruption in manufacturing process. If the industry has some seasonal changes in demand the same will be considered in deciding inventory level. The valuation basis should be consistent and as per

accounting standards.

An important point to be note while fixing finished goods inventory is the stock figure which is close ended figure and it should be equal to (Op. stock+Production-sales) At times this point is missed out .

After arriving at optimum inventory level we will examine the items of each class of inventory to decide whether any item of inventory is obsolete or unserviceable. Appropriate provision is made for obsolescence/disposal of such items.

Debtors/Receivables

Estimation of debtors will depend upon the credit policy followed by the organisation and a through effort should be made to review all other relevant policy of discount etc. This will help to contain the level of outstanding. The inherent nature of receivables is that the older the same the chances of recovery are doubtful.

Estimation of debtors at the year end is keeping certain days sales as outstanding.

The formula is

= Annual sales / 360 * _____ Days = Debtors at the year end.

This level will be compared with previous three/four years so that the estimated figure is realistic.

We will have careful look of present receivables in terms of their outstanding period .If any receivable is doubtful or bad necessary legal action is to be initiated for recovery. If any receivable

is reviewed as bad or doubtful relevant provision will be made in budgeted accounts

Loans & Advances – Current liabilities & provisions

List of advances /liabilities will be reviewed in terms of their nature and period of their outstanding .Generally the items will be year-end outstanding balances like loan balances, salary payable, and other statutory liabilities plus old items which are not payable/ receivable and needs provision in accounts

Creditors

Creditors outstanding will be in relation to average credit period given by suppliers but we can estimate the same by following simple formula.

Creditors will consist creditors for material and services purchased and the same can be arrived at by following method.

(Material consumption / Expenses) /360 days * __A__ Days = Creditors.

A=Average credit period given by vendors

Secured loans/Unsecured loans

Projected loan balances will be is as per repayment schedule. Loans will be reviewed in terms of current ROI to find out any possibility pre-closure.

Cash & Bank Balance

Having decided main heads of the

balance as above in the most judicious manner, at times we are left with cash & bank balance as a balancing item .We may have a situation where the figure may be little high as compared to present trend giving us an opportunity to examine possibilities of early repayment of loans or enhancing CAPEX.

Conclusion

Budgeting exercise is considered as routine matter and prepared without any through study of the items of profit & loss and balance sheet. In case of PSU sometimes it is being done as an annual exercise just as a part of board meeting note. After discussion now one will appreciate how important is to prepare both statements to have correct financial projection. ZBB helps us to challenge the drivers affecting items of budget and helps find out areas requiring improvements. The improved parameters will be used as measurement of efficiency and in turn to decide appropriate incentive scheme for employees. Thus ZBB technique if applied religiously will help preparing a deliverable budget and also lead to an all-round improvement in every sphere of the organisation. **IMA**

References

1. Major Reference - Practical experience at the organisations worked in various capacities .
2. Minor reference of the book "Cost Accounting By -V K Saxena & C D Vashishta Ref-Chapter-T-14 :19

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Issue: July - 2021 [Vol. 56 No. VII]

Name of The Article	Name of Author/s	Volume	Issue	Issue No.	Page No.	DOI Numbers
GST PROCEDURE SIMPLIFICATION: ANALYSING TAX PAYER'S RELIEF	CMA Gaurav Agarwal	Vol.56	Jul-21	7	27-29	10.33516/maj.v56i7.27-29p
MAINTENANCE OF ACCOUNTS AND CONSEQUENCES OF NOT MAINTAINING ACCOUNTS UNDER GST LAW	CMA (Dr.) K. Nagarajan	Vol.56	Jul-21	7	30-32	10.33516/maj.v56i7.30-32p
PERCEPTION OF COMMERCE POST GRADUATES OF KERALA STATE ABOUT AMENDMENTS IN CGST ACT 2017 AS PER FINANCE ACT 2021	CMA Sivakumar. A Haritha Ravi	Vol.56	Jul-21	7	33-36	10.33516/maj.v56i7.33-36p
PETROLEUM PRODUCTS UNDER GST: A TRADE-OFF BETWEEN GOVERNMENT REVENUE AND CONSUMER'S WELFARE	Dr. Jyotsna Haran CA Saurabh Ojha	Vol.56	Jul-21	7	37-39	10.33516/maj.v56i7.37-39p
GOODS AND SERVICES TAX IN INDIA AND OTHER COUNTRIES: A COMPARATIVE STUDY	Kritika Tekwani Prof. C. K. Pabla	Vol.56	Jul-21	7	40-44	10.33516/maj.v56i7.40-44p
GST AND EASE OF DOING BUSINESS IN INDIA: BOTTLENECKS AND SCOPE FOR FURTHER IMPROVEMENT	Dr. Pramod Kumar Pandey Renisha Rana	Vol.56	Jul-21	7	45-47	10.33516/maj.v56i7.45-47p
GOODS AND SERVICES TAX - A STUDY OF BARRIERS IN FILING GST RETURN IN INDIA	Priyajit Kumar Ghosh Abhijeet Bag	Vol.56	Jul-21	7	48-50	10.33516/maj.v56i7.48-50p
A COMPREHENSIVE STUDY ON THE PROPOSED AMENDMENTS UNDER GST WITH REFERENCE TO THE UNION BUDGET 2021 IN INDIA	Priyajit Ray	Vol.56	Jul-21	7	51-53	10.33516/maj.v56i7.51-53p
GST ON PETROL: AN ANALYSIS OF IMPACT ON GOVERNMENT REVENUE	Subhajit Roy Sumi Karmakar	Vol.56	Jul-21	7	54-57	10.33516/maj.v56i7.54-57p
PRACTICAL ISSUES IN INPUT TAX CREDIT	Vineet Agrawal	Vol.56	Jul-21	7	58-59	10.33516/maj.v56i7.58-59p
REVOLUTIONISING GOODS AND SERVICES TAX IN INDIA: IS IT TRULY REVOLUTIONISED?	Dr. Pravin D. Sawant	Vol.56	Jul-21	7	60-63	10.33516/maj.v56i7.60-63p
HUMANE AND ETHICAL DIMENSIONS OF DIGITAL TRANSFORMATION	CMA (Dr.) Paritosh Basu	Vol.56	Jul-21	7	64-70	10.33516/maj.v56i7.64-70p
THE FUTURE OF INDIA-US2+2 MINISTERIAL DIALOGUE: EXPECTATIONS FROM BIDEN ADMINISTRATION	Prof. (Dr.) Badar Alam Iqbal Dr. Mohd Nayyer Rahman	Vol.56	Jul-21	7	71-73	10.33516/maj.v56i7.71-73p
STOP, LOOK, REFLECT ON OUTCOMES AND THEN STEP AHEAD	Debopam Chell	Vol.56	Jul-21	7	74-76	10.33516/maj.v56i7.74-76p
ORGANISATION STRENGTH & ITS EFFECTIVENESS	CMA IN Murthy	Vol.56	Jul-21	7	77-79	10.33516/maj.v56i7.77-79p
BUSINESS CONTINUITY AND DISASTER RECOVERY: TOWARDS BUILDING A RESILIENT ORGANIZATION BY PLANNING FOR FUTURE DISASTERS	CMA (Dr.) Debdas Rakshit Ananya Paul	Vol.56	Jul-21	7	80-83	10.33516/maj.v56i7.80-83p
COMPANIES (CSR) AMENDED RULES 2021 – IMPERATIVE OF MANAGEMENT ACCOUNTING FOR PARTNER NGOS AND BEST PRACTICES FOR SUCCESSFUL CORPORATE NGO PARTNERSHIP	CMA K.R. Sreedhar	Vol.56	Jul-21	7	84-88	10.33516/maj.v56i7.84-88p
HOW DIGITAL TRANSFORMATION CAN HELP INDIAN MSMEs IN OVERCOMING CONSTRAINTS AND IMPROVING PERFORMANCE? –AN ANALYSIS AND WAY FORWARD	Dr. Ravindra B. Gawali	Vol.56	Jul-21	7	89-94	10.33516/maj.v56i7.89-94p
APPLICATION OF “EOQ” FOR SOME TYPE OF TRANSPORTATION PROBLEMS	CMA S. Srinivasan	Vol.56	Jul-21	7	95-101	10.33516/maj.v56i7.95-101p
UNDERSTANDING (ADJUSTED GROSS REVENUE) WOES	CA Ranganatha Achar Krishna	Vol.56	Jul-21	7	102-103	10.33516/maj.v56i7.102-103p
CASE STUDY ON INDO USA DTAA	CMA Padmanabhan Satyes Kumar	Vol.56	Jul-21	7	104-106	10.33516/maj.v56i7.104-106p

Down The Memory Lane

August 2011

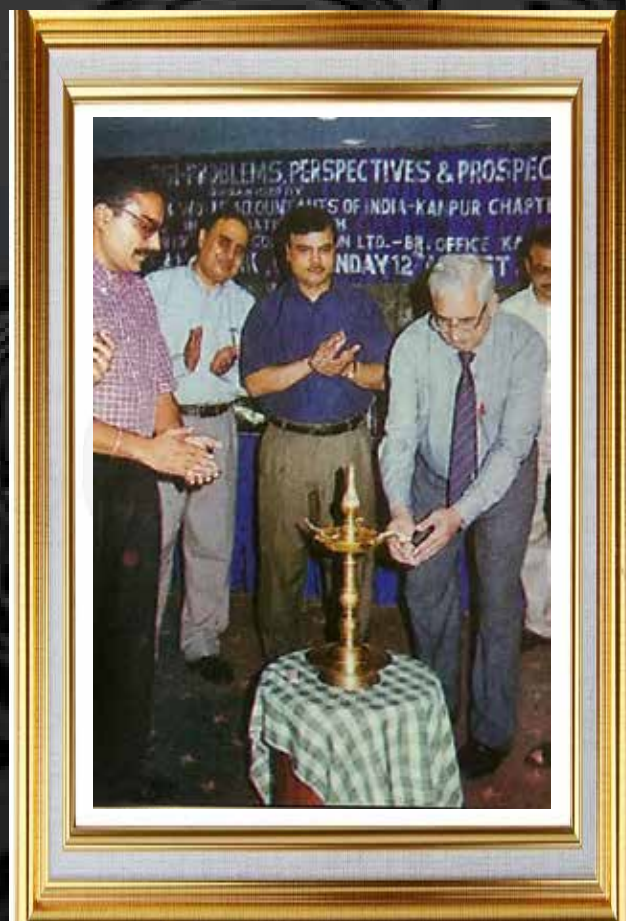


Shri M. Gopalakrishnan President ICWAI & Shri Rakesh Singh VP, ICWAI in a discussion with Dr. M. Veerappa Moily Hon'ble Union Minister of Corporate Affairs.



Shri K.R. Kamath CMD, PNB handing over the first PNB ICWAI, co-branded credit card to Shri M. Gopalakrishnan, President, ICWAI at a function organized by PNB at Bengal Club on 24th August 2011.

August 2001



KL Jaishankar CCM inaugurating a seminar on Small Scale Industries – Problems, Perspectives & Prospects at Kanpur Chapter.

Down The Memory Lane

August 1991

Professor J. R. Danies of Strathclude Business School Glasgow, U.K. visited India and delivered a talk on International Monetary System & Exchange Rate Risk at Constitution Club, New Delhi on 30th August 1991.



Professor JR Danies exchanging pleasantries with NIRC members

Seminar on “Cost Consciousness- Cost Management” organized in Bombay on 30th August 1991



Shri S.S. Nadkarni CMD, IDBI inaugurating the seminar on “Cost Consciousness- Cost Management” organized by WIRC

August 1981

A meeting was held on 1st August 1981 at Hotel Connemara, Madras to felicitate Shri A. V. Ramana Rao, newly elected President of ICWAI and Shri M. P. Pandit V.P.



Shri A. V. Ramana Rao replying to the felicitations, others in pictures (L-R) Shri MJ Gopalakrishnan, Shri K. Narayana Rao, Shri AVS Rao, Shri Shyamal Banerjee, Shri MP Pandit, Shri V. Kalyanaraman, Shri G.N. Venkataraman

Two day seminar on “Cost & Management Audit” at The Taj Mahal Hotel, Bombay on 20th and 29th August 1981



Shri MP Pandit presenting a bouquet to Shri K. R. Poddar at the concluding session of the programme.

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

GLOBAL RECOGNITION OF CMA QUALIFICATION

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

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

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

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

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

Link to the benchmarking results of CMA qualification published in UK NARIC website:

<https://www.ecctis.com/news.aspx?NewsId=1138>

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

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



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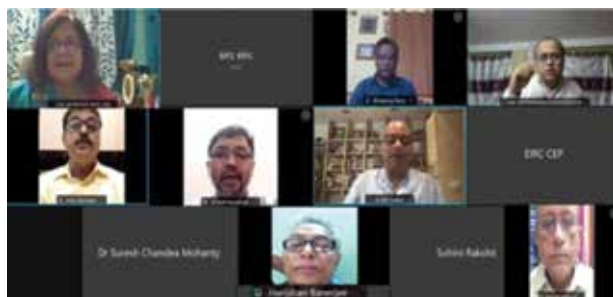
Behind every successful business decision,
there is always a **CMA**

NEWS FROM THE INSTITUTE

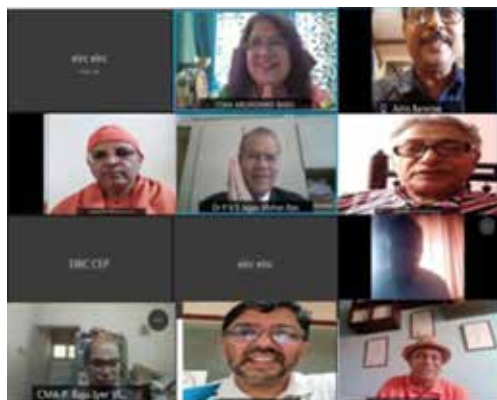


EASTERN INDIA REGIONAL COUNCIL

The Region had organized a Virtual Awareness Programme on “Novel Corona Virus & the Effectiveness of Vaccination to reduce its Transmission” on 16th June, 2021 under the initiative of Seminar & Workshop Committee. CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Seminar & Workshop Committee welcomed the members. CMA Biwarup Basu, President-ICAI, CMA Chittaranjan Chattopadhyay, CCM-ICAI, CMA H. Padmanabhan, CCM-ICAI, CMA Harijiban Banerjee, Former President –ICAI, Dr. Suresh Chandra Mohanty Former President –ICAI, CMA Ashis Banerjee, Chairman, ICAI-EIRC & CMA Kaushik Banerjee, Secretary –ICAI had graced the occasion. Dr. Kunal Sarkar, Senior Vice Chairman & Senior Consultant – Cardiac Surgeon MEDICA Superspecialty Hospital, Kolkata was the Chief Guest. He highly appreciated EIRC, for taking the initiative for conducting this awareness programme. The participants expressed their utmost satisfaction & were overwhelmed by the excellent deliberations of Dr.Kunal Sarkar.



A Virtual International Yoga Day 2021 was celebrated on 21st June, 2021 under the initiative of Seminar & Workshop Committee. CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Seminar & Workshop Committee welcomed the members. Revered swami Bhitiharananda Maharaj Director Vivekananda Health Centre, Ramakrishna Math, Hyderabad was the Chief Guest. CMA Biwarup Basu, President-ICAI, CMA P. Raju Iyer, Vice-President-ICAI, CMA H. Padmanabhan, CCM-ICAI, CMA Harijiban Banerjee, Former President –ICAI, CMA Ashis Banerjee, Chairman, ICAI-EIRC & CMA Kaushik Banerjee, Secretary –ICAI had graced the occasion. Dr. P V S Jagan Mohan Rao, Former CCM-ICAI, Former President SAFA Former President ICSI was the Guest Speaker. Yoga Performance was done by CMA Umesh Kr. Pandey, faculty of EIRC.



Inaugural Programme of 201st Session of Oral Coaching was held on 1st June, 2021 by the initiative of Student Facilities

& Training Committee of ICAI-EIRC. CMA Arundhati Basu, Vice Chairperson, ICAI-EIRC and Chairperson – Student Facilities & Training Committee welcomed the dignitaries and the students. CMA Biswarup Basu, President, ICAI was the Special Guest of Honour, CMA P Raju Iyer, Vice President, ICAI, Shri Bhaskar Basu, Former Regional Internal Audit Director, Asia Pacific Region, DIC Asia Pacific Pvt Ltd, Asia Pacific HQ, Singapore (a Japanese MNC), CMA Aparna Biswas, Company Secretary (WBSEDCL) & CMA Swapna Nair, Chief Financial Officer Tata Steel Downstream Products Ltd. were present. CMA Ashis Banerjee, Chairman, EIRC, had also graced the occasion and addressed the students. After the Inaugural Ceremony CMA Arundhati Basu, Vice Chairperson, ICAI-EIRC and Chairperson – Student Facilities & Training Committee addressed the students and at length answered the queries of the students. The students expressed their utmost satisfaction and requested for more such programmes.



The Region had conducted Virtual Career Awareness Programme on 10th July 2021, for the students of Raigunj University, under the initiative of Student Facilities & Training Committee of ICAI-EIRC. Dr. Manas Naskar Associate Professor& Head, Department of Commerce, Raigunj University, welcomed the Students. Honorable Vice Chancellor Sir , Prof. Anil Bhuimali-Dean of Arts, Commerce and Law , Prof. Dipak Kumar Roy, Dean of (Science), Prof. Kali Shankar Tiwary-Registrar & Prof. Dr. Durlav Sarkar also addressed the students. CMA Ashis Banerjee, Chairman, EIRC, had also graced the occasion and addressed the students. CMA Arundhati Basu, Vice Chairperson, ICAI-EIRC and Chairperson -Student Facilities & Training Committee, gave an introduction about the Institute and addressed the students on the CMA Course and explained in details about its prospects. There was an overwhelming response from Students.

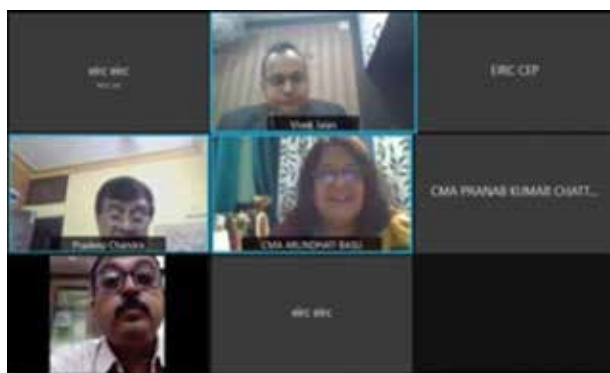


The Region had organized a Virtual CEP on “Strategy to Pass the Limited Insolvency Examination & Opportunities for CMAs in IBC 2016” on 11th July, 2021 under the initiative of Seminar & Workshop Committee. CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Seminar & Workshop Committee welcomed the members. CMA Ashis Banerjee,

Chairman, ICAI-EIRC had also graced the occasion. CMA Chittaranjan Chattopadhyay, CCM-ICAI was also present. Shri Sushil Behl, IP Former Director (Finance), Western Coalfields Limited, Govt. Nominee (ICAI), Director (IPA ICAI) was the Guest of Honour. CMA J K Budhiraja, CEO, ICWAI MARF Former CEO- IPA ICAI was the Guest Speakers.



The Region had organized a Virtual CEP on “MONTHLY ANALYSIS OF GST & CUSTOMS - RECENT ISSUES, NOTIFICATIONS & CASES- & Capital Gains under Income Tax Act 1961” on 13th July, 2021 under the initiative of Seminar & Workshop Committee. CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Seminar & Workshop Committee welcomed the members. CMA Ashis Banerjee, Chairman, ICAI-EIRC had also graced the occasion. Shri Vivek Jalan, Chairperson, Ease of Doing Business Committee- The Bengal Chamber of Commerce & CMA Pradeep Kr. Chandra Practicing Cost Accountant were the Guest Speakers.



On the auspicious day of Guru Purnima the Region had organized a Virtual Programme of the Award Ceremony for Essay Competition on 24th July 2021 under the initiative of the Women Empowerment Committee of EIRC. CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Women Empowerment Committee welcomed the members. Revered Swami Anupamanandaji Maharaj, Secretary, Ramakrishna Mission Ashrama, Tirupati was the Chief Guest. CMA Biawarup Basu, President-ICAI, CMA P. Raju Iyer, Vice-President-ICAI,

CMA H. Padmanabhan, CCM-ICAI, CMA Harijiban Banerjee, Former President –ICAI had graced the occasion. Dr. P V S Jagan Mohan Rao, Former CCM-ICAI, Former President SAFA Former President ICSI was the Honoured Guest. CMA Chandana Bose, CMA Subhra Saha & CMA R.N Pal were the Judges for The Essay Competition had graced the occasion. CMA Aparna Biswas, CMA Tanmaya Pradhan of WOMEN CORE GROUP of IWD-2021 were also present. Members & Students attended the programme. The names of the winners from the “CMA Students” Category & “Women CMA” Category were announced by the three judges. The programme ended with a cultural performance by the students of the Intermediate Level. There was an overwhelming response and the participants highly appreciated the programme and requested for conducting more such competitions.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA BHUBANESWAR CHAPTER

The Chapter has organized a WEBINT in association with Utkal Hospital, Bhubaneswar on the theme “HOW TO LEAD A HEALTHY LIFE POST COVID” on 19.06.2021 during surge of Pandemic COVID-19. Dr. Abinash Mohanty, MBBS, RCGP, MRCEM (UK), Consultant Critical Care, Utkal Hospital, Bhubaneswar guided the participants about various precautionary measures to lead a healthy life.

The Chapter has observed 4-days series of WEBINT on GST on the theme “e-Symposium of GST -1460 day” to commemorate the GST Day Celebration Week from 01.07.2021 to 04.07.2021. Day-1 WEBINT was kept for CMA Students and Pursuing +3 Commerce Students of Various Colleges at Odisha. Day-2 to 4 was kept for members and stakeholders.

Day-1 of 4-day series of WEBINT on GST organised on the topic “GST – Introduction, Valuation Rules and Forms & Returns” on 01.07.2021. Day-2 of 4-day Series of WEBINT on GST organised on the topic “GST Special Audit” on 02.07.2021. Day-3 of 4-day Series of WEBINT on GST organised on the topic “GST Simplification (Relaxation and Returns)” on 03.07.2021 and Day-4 of 4-day Series of WEBINT on GST organised on the topic “Preparedness of GST Audit & Assessment by the Department” on 04.07.2021.

The Chapter in association with all other Chapters at Odisha has organised a 2-day series of WEBINT on the theme “e-Symposium of Ind AS” on 17.07.2021 and 18.07.2021. More than 150 CMA Members and Invitees joined the WEBINT and interacted actively. 2-days WEBINT series was organized successfully with the collective effort of the team of Bhubaneswar Chapter and other Chapters at Odisha.

The Chapter has organized “Award Ceremony” of “All Odisha Online Commerce Quiz Competition” on 25.07.2021 in Zoom Platform. During Pandemic COVID-19, as a part of

the Career Awareness drive and bringing competitive spirit among the Commerce Students, the Chapter had organized subject based online quiz competition separately for +2 and +3 Commerce category Students at All Odisha level. Around 1900 students from +2 Categories and around 3100 Students from +3 Categories successfully participated in the said online Commerce Quiz Competition. Out of the total participants, from each category best 50 (Fifty) students were shortlisted on the basis of their merit as Winners.

Considering COVID-19 guideline issued by the Government, the Chapter has organized Award Ceremony in online mode on 25.07.2021. Shri Sujit Kumar, Hon'ble Member of Parliament (Rajya Sabha), Odisha graced the occasion as "Chief Guest", CMA Pravakar Mohanty, Past President, ICAI graced the occasion as "Guest of Honour" and Prof. Sanjay Kumar Satapathy, Vice Chancellor, Kalahandi University, Bhawani Patna, Balangir graced as "Special Guest". All the dignitaries congratulated, blessed and inspired the Winners for their bright Career. They also praised the initiative taken by Bhubaneswar Chapter for the betterment of Commerce Students even in the Pandemic condition.



NORTHERN INDIA REGIONAL COUNCIL

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA JAIPUR CHAPTER



The Chapter organized a webinar on 26th June 2021 on "EASY WAY OF COST ACCOUNTING FOR MSME". Chief Guest of above webinar was Shri Tara Chand Choudhary, President, Vishwakarma Industries Association. At the beginning of the program, CMA Swapnil Bhandari, Chairman of the Chapter welcomed the Chief Guest, Key Speaker and the participants. Key Speaker of the Technical Session was CMA B. L. Gurjar, Practicing Cost & Management Accountant. He told that during the period of Corona Pandemic MSME Sector is highly affected in terms of pricing, competition from big players through online platforms, thereby reducing the scope of business as well as profitability. The webinar

was conducted by CMA Naveen Vaswani. At the end of the program CMA Naveen Vaswani thanked all the guests and participants. The Chapter organised Free Vaccination Camp at Chapter premises on 27th June, 2021 between 10 am to 3 pm. The program was inaugurated by Chief Guest, CMA Gaurav Chaturvedi, and RAS. Chief Guest was welcomed by CMA Swapnil Bhandari, Chairman of the Chapter. Management Committee Members and also many members of the chapter took active part in this program.



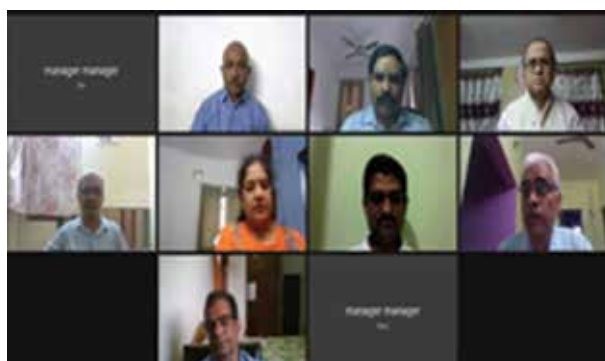
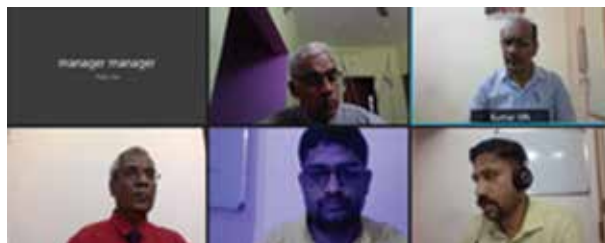
SOUTHERN INDIA REGIONAL COUNCIL

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA BENGALURU CHAPTER

The Chapter organized a Professional Development Meet on June 23, 2021 on "Mindfulness of Project Management Office at Bengaluru Chapter, through online Webinar – in association with Erode Chapter. Dr.Sudhindra Bhat, MBA,LLB, LL M, MFM, CFA, ACA, M Phil, PGPM, Ph.D, Advocate Professor & Corporate, CMA Manjula B.S.- Chairperson BCCA, CMA Sreepada H R – PD Chairman BCCA, CMA Kumar H N – Vice Chairman BCCA, CMA Satish R – Secretary & Coaching Chairman BCCA, CMA Vishwanath Bhat, Secretary SIRC, CMA R Gopal Chairman Erode Chapter attended the meet. The Chapter organized a meet on "Accelerating Excellence in Professional Education - Impact of National Education Policy 2020" at Bengaluru Chapter, through online Webinar on June 26, 2021. Prof. Dr. Anand K Joshi, Policy Advisor - ISDC Global, London, Member- VTU Task Force to Implement NEP, 2020, former Pro Chancellor - Atmiya University, Rajkot, Former Vice Chancellor - CMR University, Formerly with AICTE, NCTE & IGNOU (MHRD, GOI), Mr. Pranob Jyoti Chetia, Director HR, Volvo Group - Trucks Operation, SML, APAC Region Singapore, CMA Manjula B.S.- Chairperson BCCA, CMA Satish R Secretary & Chairman Coaching BCCA, CMA Sreepada H R PD Chairman BCCA were the speakers of the programme. The Chapter organized a PROFESSIONAL DEVELOPMENT MEET on "Advance Ruling Mechanism in GST and its impact - A Critical Analysis" - At Bengaluru Chapter, through online Webinar – in association with Thrissur Chapter on July 1, 2021 and Dr. Raviprasad M.P., Addl. Commissioner - Policy & Law and Member- Advance ruling, Karnataka, CA Madhukar N. Hiregange, B com, FCA, DISA, CISA, Partner Hiregange

& Associates, Chartered Accountants, CMA Manjula B.S. Chairperson BCCA, CMA Satish R Secretary & Chairman Coaching BCCA, CMA Sreepada H R PD Chairman BCCA, CMA Kumar H N Vice Chairman BCCA, CMA Jagadish A D Chairman Thrissur Chapter were the speakers of the Meet. The Chapter organized a Professional Development Meet on “Corporate social Responsibility - Issues & Challenges” at Bengaluru Chapter, through online Webinar in association with Cochin Chapter and Dr. CMA Murali Santhanam, Knowledge Management Consultant, CMA Manjula B.S. Chairperson BCCA, CMA Satish R Secretary & Chairman Coaching BCCA, CMA Sreepada H R PD Chairman BCCA, CMA Kumar H N Vice Chairman BCCA, CMA Suresh Kumar K P Chairman Cochin Chapter attended the Meet. Professional Development Meet was organized on “A Comprehensive update of MSME Schemes in India” at Bengaluru Chapter, through online Webinar in association with , KASSIA and Shri. K.B. Arasappa Hon’ble Pressident, KASSIA, Shri. Suresh N. Sagar Chairman of Sub Committee on Banking & Finance, KASSIA, Shri. Umashankar T. S. Chairman of Sub Committee on VAT & GST, KASSIA, CMA Sankaranarayanan A., ACMA, ACS Financial Advisor, CMA Shivram Rao, FCMA Business Advisor & Mentor, CMA Manjula B.S. Chairperson BCCA, CMA Sreepada H R PD Chairman BCCA, CMA Kumar H N Vice Chairman BCCA were the speakers of the Meet. “Rural Development and Augmenting Farmers Income” at Bengaluru Chapter, through online Webinar was organized and Chief Guest : Dr. K S Murali Executive director- Ms Swaminathan Research Foundation, Guest of honour, Dr. G.V Ramanjaneyulu-Executive Director, Centre for Sustainable agriculture & Expert director, Sahajaaharam Producer Company, CMA Rabindranath Kaushik, CMA CA Dendukuri Zitendra Rao, CMA (Dr) Sreehari Chava, CMA G.N.Venkaraman, CMA Gopalakrishnan, CMA Dr A S Durga Prasad , CMA Manjula B.S. Chairperson BCCA, CMA Satish R Secretary & Chairman Coaching BCCA, CMA Sreepada H R PD Chairman BCCA were the speakers of the Meet. “Relevance of Indian System of Medicine (Ayurveda) in the Present Scenario” at Bengaluru Chapter, through online Webinar was organized by the chapter and CMA H Padmanabhan, Central council Member ICAI, Dr.Niranjan Hegde,B.A.M.S., M.Sc., MD(Ay), Ph.D, CMA Manjula B.S. Chairperson BCCA, CMA Satish R Secretary & Chairman Coaching BCCA were the speakers of the PD Meet. “Blockchain Technology and Management Accountants” at Bengaluru Chapter, through online Webinar was organized on June 2, 2021 and CMA Guruprasad V , ACA, ACMA, ACS, CMA Manjula B.S Chairperson BCCA, CMA Satish R Secretary & Chairman Coaching BCCA, CMA Sreepada H R PD Chairman BCCA were the speakers of the PD Meet. Many more Professional Development Meets were organized by the chapter in the month of June 2021. Students Programme on “Career Counselling with Sri Jagadguru Renukacharya Pre-University College, Bengaluru” was organized at Bengaluru Chapter, through online Webinar on June 18, 2021, “Vaccination drive” for Students ,Members and their families in association with Narayana Hrudralya, Bangalore, at Bengaluru Chapter was organized on June 16, 2021, “International Yoga Day” was organized at Bengaluru Chapter, through online Webinar on June 21, 2021 “Faculty Meeting” at Bengaluru Chapter,

through online Webinar on June 5, 2021 and “Condolence Meeting for CMA Kalyanaraman Past President” were organized at Bengaluru Chapter, through online Webinar on June 5, 2021.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA HYDERABAD CHAPTER



The Chapter organized a joint programme on 5th June, 2021 - Climate Change, Sustainability Development and Role of CMAs & Corporate Social Responsibility Latest amendment in association with the company secretaries of India Hyderabad branch on the occasion of ‘World Environment Day. CMA P. Raju Iyer, Vice President and CMA CS Dr P.V.S. Jagan

Mohan Rao, Former President SAFA, Former President, ICSI was Chief Guest and Guest of Honour. CMA Dr. P.V.S. Jagan Mohan Rao gave an exhaustive power point presentation on Latest Amendment of Corporate Social Responsibility. On the occasion of “International Yoga Day”, the chapter organized a joint programme in association with The Company Secretaries of India for the benefit of members on June 20, 2021. Ms. K. Vijaya Reddy, Yoga Instructor guided the participants virtually.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA TRIVANDRUM CHAPTER

As a part of Agricultural Month – May 2021 celebration by the Institute, the Chapter conducted on PD Programme on the topic “Edible urban Spaces”. It was held on online platform - Microsoft teams on 29.05.2021 from 6pm to 8.30pm. The function was inaugurated by CMA H Padmanabhan, CCM. Dr. Anil Kumar Nadesapanicker, Senior Director & Scientist from M S Swaminathan Research Foundation is the key speaker. The session was very informative and large numbers of students and members have been benefitted. The meeting was chaired by CMA Pramode Chandran PG, Chairman, ICAI-Trivandrum Chapter and Vote of thanks delivered by CMA Ajithkumar A, PD Committee Chairman. As a part of International Yoga Day, the Chapter conducted a Yogasana Training Session on 21.06.2021. It was held on online platform through Google Meet from 7 am to 9.30 am. The function was inaugurated by CMA Biswarup Basu President of ICAI and CMA H Padmanabhan, CCM also participated through out the Yoga session. The session was handled by Shri K Chandrasekharan Yoga Teacher. The Session was chaired by CMA Pramode Chandran PG, Chairman, ICAI Trivandrum Chapter in which CMA Raman Pushpakumar, Chairman CAT Committee have done the welcome address and vote of thanks was delivered by CMA Ajithkumar A, PD Committee Chairman. As a part of the commemoration of June as Insurance Month by the Institute the Chapter conducted a PD Programme on the topic “Covid 19 - Importance and Reforms in Insurance Sector”. It was held on online platform - Microsoft teams on 25.06.2021 from 6.30 pm to 9pm. The function was inaugurated by CMA H Padmanabhan, CCM and the session was handled by Mrs. Anchana Sasidharan, Divisional Manager, the New India Assurance company Ltd. The session was very informative and large number of students and members had been benefitted by attending this programme. The meeting was chaired by CMA Pramode Chandran PG, Chairman, ICAI-Trivandrum Chapter in which CMA Raman Pushpakumar, Chairman, CAT Committee gave the welcome address and the vote of thanks was delivered by CMA Ajithkumar A, PD Committee Chairman. As a part of GST week celebration by the Institute on the eve of the 4th anniversary of GST implementation in the country, the chapter conducted one PD Programme on the topic “GST-So Far and the way forward”. It was held on online platform Microsoft teams from 6.30 pm onwards to 8.45 pm on 06.07.2021. The function was inaugurated by CMA H Padmanabhan, CCM. The Chief Guest was Sri Kiranlal P S, Joint Commissioner of SGST, Thiruvananthapuram. The session was handled by Sri Maheshkumar U., Assistant Director (Retd.), National Academy of Customs, Excise and Narcotics. The session

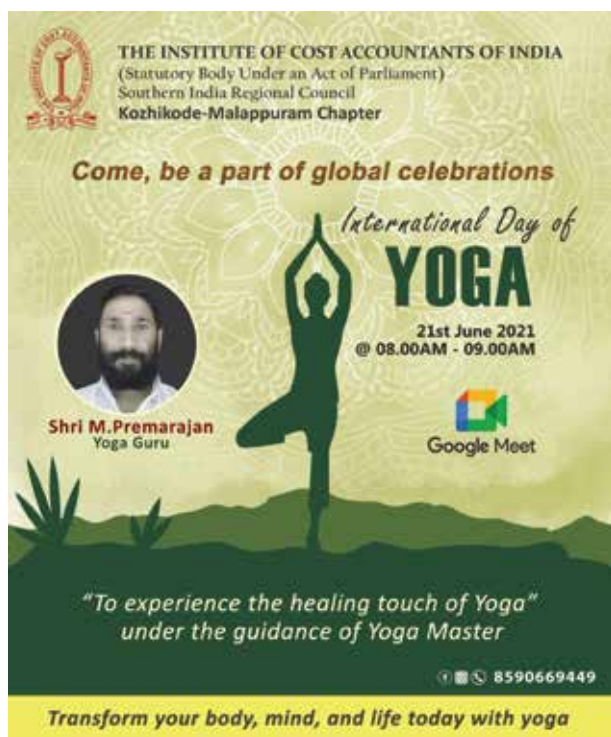
was very informative and large numbers of students and members have been benefitted. The meeting was chaired by CMA Pramode Chandran PG, Chairman of the chapter and vote of thanks delivered by CMA Ajithkumar A, PD Committee Chairman.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA KOZHIKODE MALAPPURAM CHAPTER

The Chapter organized a program of Membership Drive for the newly qualified Cost Accountants and the official launch of CAT Course Programme under the Chapter, on Saturday 03rd July 2021 at 4.30 PM through Online Google Meet Platform. The Chairman of the Chapter CMA Askar Ali P C welcomed the audience and Vice Chairman of the Chapter CMA Anas K presided over the function. CMA H Padmanabhan Council Member & Chairman, CAT & AAT Board of ICAI, inaugurated the program. CMA (Dr.) K ChA V S N Murthy Council Member & Chairman, RC & CC, and Journal & AAT Publication Committee of ICAI was the chief guest of the Program. CMA Arup Bagchi Director of Membership Department, Secretary of RC & CC Committee, made a key speech on the Membership procedures and CMA Rajesh Kumar Jain – HOD and CAT Directorate of ICAI, continued the session with the conduct and benefits of CAT Course for the students. The program has wide acceptance through the participation of the members as well as from the students. The Program ended with the vote of thanks by CMA Adarsh K P, Secretary of the Chapter.



The chapter organized an online Yoga Practice and Meditation for its Members, Students and other CMA aspirants on International Yoga Day, Monday 21st June 2021 at 8.00 AM through Google Meet Platform. The Vice Chairman of the Chapter, CMA Anas K welcomed the participants and Chairman of the Chapter CMA Askar Ali P C has inaugurated the program. Shri. M. Premarajan, the Yoga Guru, presented the Yoga classes for all the participants. The Program ended with the vote of thanks by CMA Adarsh K P, Secretary of the Chapter.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA TIRUCHIRAPALLI CHAPTER

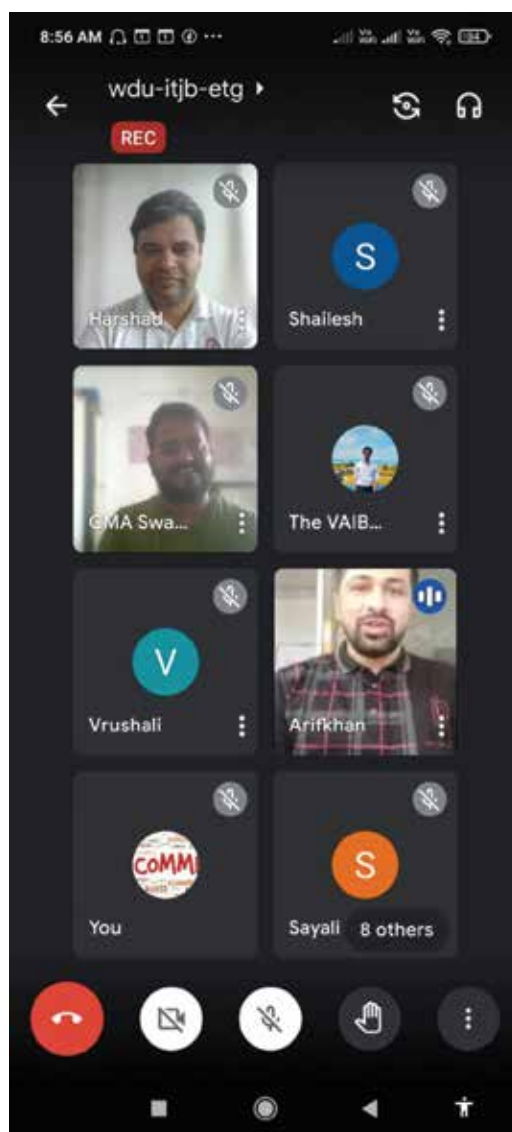
The Chapter PD committee organized a virtual seminar on “New Tally Prime Future & GSTR 2B Add-On Tools” for students and members on 27.06.2021. The programme was organized by Tiruchirappalli Chapter in association with AXN Infotech and Raj Data. AXN Infotech is a pioneer in Tally Software education having presence in all over Tamil Nadu. CMA Subburaj Raj Data has roped in AXN Infotech for organizing this event. The seminar inaugurated by Welcome speech given by CMA N Shanmugasundaram, Secretary of the Chapter. The Resource person Shri P Vijayakumar, AXN Infotech has handled the session. Shri P Vijayakumar gave a presentation about New Tally Prime Future with special reference to GSTR-2B, GSTR 2B reconciliation tool, Input Tax Credit statement, and explained frame by frame how the add on tools facilitate monitoring of Input Tax Credit and avoids cash loss. The programme was attended by Members, Practicing Cost accountants, members from Industry, Faculties and students. Shri K Rajagopal, Treasurer, SIRC Region thanked the resource person Mr Vijayakumar for nice presentation and enlightens the members and students. Shri K Rajagopal also thanked the Chapter for the initiatives taken for organizing this seminar. Shri M Vinoth, Branch Head, AXN Infotech proposed the vote of thanks.

WESTERN INDIA REGIONAL COUNCIL

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA NASIK OJHAR CHAPTER

The Chapter conducted “Online Yoga Camp”. The inauguration was on 13th June 2021 through the Google meet.

Ms. Yogini Neetu Chaudhary, Certified Yoga Teacher from Delhi explained the importance and also gave the details about Yoga Asanas. On 21st June 2021, on International Yoga day, CMA Swapnil Kharade Chairman welcomed all participants, CMA Nikhil Subhash Pawar, Secretary briefed about the Yoga camp conducted by Nasik Chapter. CMA Harshad Deshpande, Chairman WIRC in his speech, motivated all the participants and also declared the result of the Yoga competition. Ms. Yogini Neetu Chaudhary, Certified Yoga Teacher spoke on the importance of Yoga in our life as well as how it is useful for students to concentrate their mind. Vote of thanks was given by CMA Arifkhan Mansuri, Treasurer of the chapter.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA PUNE CHAPTER

The Chapter arranged CEP Webinar through GOOGLETEE video conferencing tool on Tuesday, 11th May 2021 on the subject “Case Studies in Startup Valuations “. CMA Rammohan Bhawe, Faculty & Consultant in IFRS/IndAS, Valuation was Speaker for the programme. CMA Smita Kulkarni, Secretary, ICAI-Pune Chapter welcomed and introduced the speaker to

the participants. CMA RammohanBhave explained various cases with practical examples to the participants. Response of participants was overwhelming. CMA ShrikantIppalpalli, Member of ICAI-Pune Chapter delivered vote of thanks. The Chapter arranged CEP Webinar on the subject “Forensics and Occupational Fraud - The role of Accounting Professionals in being the shield for organisations” on 14th May 2021 through GOOGLEMENT video conferencing tool. CA, CMA S Balasubramaniam, Former EVP & CFO Zensar Technologies was speaker for the programme. CMA Smita Kulkarni, Secretary, ICAI-Pune Chapter welcomed and introduced the speaker to the participants. Speaker CA, CMA S Balasubramaniam, explained various examples of frauds & its detection with the participants. The Chapter organized CEP Webinar on the subject “Use of data analytics and visualizations in internal audit” on 21st May 2021 through GOOGLEMENT video conferencing tool. CMA Neha Dharurkar was speaker for the programme. She is Risk Advisory Practitioner & Corporate Trainer. CMA ShrikantIppalpalli, welcomed and introduced the speaker to the participants. Speaker CMA Neha Dharurkar, explained various examples with presentation on Data Analytics or usage of tools for Internal Audit to the participants. The Chapter on demand from members rearranged the CEP Webinar through GOOGLEMENT video conferencing tool on Friday, 28th May 2021 on the subject “Case Studies in Startup Valuations “. CMA Rammohan Bhave, Faculty & Consultant in IFRS/IndAS, Valuation was Speaker for the programme. CMA Smita Kulkarni, Secretary, ICAI-Pune Chapter welcomed and introduced the speaker to the participants. CMA ShrikantIppalpalli, Member of ICAI-Pune Chapter welcomed and introduced CMA Amit Apte, former President, ICAI on the occasion of 62nd Foundation Day of ICAI. He expressed his wishes the Institute & CMA profession touches greatest heights. CMA Rammohan Bhave explained various cases with practical examples to the participants. CMA Rahul Chincholkar, Member of the Chapter delivered vote of thanks. Due to the global COVID-19 pandemic ICAI-Pune Chapter arranged “Students Day Program-2021” through Online Video Conferencing tool on Saturday, 29th May 2021 to felicitate the students who excelled in ICAI Examinations held in Dec. 2019 and December 2020. Mr. Abhay Pendse was the Chief Guest for the function. Dr. Mrs. Charusheela Birajdar was Guest of Honour. Other dignitaries who participated in this online program were CMA Amit Apte, Past President ICAI, CMA Neeraj Joshi, CCM, ICAI, CMA Dr. Sanjay Bhargave, Advisor, ICAI-Pune Chapter, CMA Narhar Nimkar, CMA Pramod Dube, Past Chairman, CMA Meena Vaidya, Past Chairperson, ICAI-Pune Chapter, CMA Sujata Budhkar, Chairperson, ICAI-Pune Chapter, CMA Abhay Deodhar, Vice Chairman ICAI-Pune Chapter, CMA Smita Kulkarni Secretary ICAI-Pune Chapter & CMA Rahul Chincholkar, Chairman Student’s Co-ordination Committee, CMA ShrikantIppalpalli Member of ICAI-Pune Chapter also attended the program. CMA ShrikantIppalpalli Member of ICAI-Pune Chapter welcomed the participants. CMA Rahul Chincholkar, Chairman Student’s Co-ordination Committee welcomed and introduced the Chief Guests and Invitees. He welcomed the students & congratulated them for choosing CMA Course for their career. Welcome address was given by Sujata Budhkar, Chairperson, ICAI-Pune Chapter. She stated due to COVID-19 pandemic ICAI-Pune Chapter arranged the “Students Day Program-2021” through Online Video

Conferencing tool for the first time to felicitate the successful students. CMA Neeraj Joshi, CCM ICAI congratulated newly qualified CMAs & Inter complete students. CMA Dr. Sanjay Bhargave, Advisor, ICAI-Pune Chapter congratulated the students and told them that CMA Degree is Entry Ticket only and that they have to enhance their performance ahead. He expressed about the global importance of CMA course, practical training for CMA students. He also told Yoga & positive thinking is helpful in this pandemic. CMA Amit Apte, Past President of ICAI also congratulated successful students & their parents. He expressed about global importance of CMA course, Practical Training, Placement Training Programs for CMA students. Dr. Mrs. Charusheela Birajdar Guest of Honour congratulated the successful students. Mr. Abhay Pendse, the Chief Guest working with Lawkim Motors (Division of Godrej & Boyce Mfg. Co Ltd) & currently heading all the operations of plant (Manufacturing electric motors with turnover of Rs 500 Crores congratulated the successful students. Vote of thanks given by CMA Rahul Chincholkar, Chairman Student’s Co-ordination Committee. A condolence meeting in the memory of CMA V. Kalyanaraman, former President of The Institute of Cost Accountants of India and South Asian Federation of Accountants, was held by the Pune chapter of ICAI through Google Meet on 05/06/2021 at 5.30 pm. CMA Sujata Budhkar, Chairperson, ICAI-Pune Chapter paid her respectful homage. The meeting observed two minute silence as a mark of respect to the departed soul and prayed to the Almighty God for keeping his soul to rest in peace in the heavenly abode. CMA H Padmanabhan, CCM, CMA V Murali, CCM, CMA Harijiban Banerjee, Past President, CMA D. C. Bajaj, Past President, CMA Vikas Deodhar, Past President, CMA Dr. Dhananjay Joshi, Past President, CMA G. N. Venkataraman, Past President, CMA Brijmohan Sharma, Past President, CMA Amit Apte, Past President, CMA Dr. Sanjay Bhargave, Past CCM, CMA Vimal Chand Kothari, Past CCM & more than 90 Members across India were present to pay tribute to CMA V. Kalyanaraman. The Chapter arranged CEP Webinar on the subject “Pre-packed Insolvency Resolution Process for MSME” on 5th June 2021 through GOOGLEMENT video conferencing tool. Speaker CS Sushant Kulkarni explained the process for MSME. CMA ShrikantIppalpalli, Member of ICAI-Pune Chapter delivered vote of thanks. The Chapter arranged CEP Webinar on the subject Cost Auditor Appointment and Report Writing” on 11th June 2021 through GOOGLEMENT video conferencing tool. CMA Rahul Chincholkar, Member of ICAI-Pune Chapter welcomed & introduced the Speaker CMA Neeraj Joshi, CCM, ICAI to the participants. Speaker CMA Neeraj Joshi Sir explained the issues faced by new practitioners, cost audit records etc. CMA ShrikantIppalpalli, Member of ICAI-Pune Chapter delivered vote of thanks. The Chapter had arranged Faculty-Meet to discuss on various issues of online lectures regarding time allotted for lectures, syllabus changes, notification, communications, exam dates, online or offline batches etc. CMA Abhay Deodhar, Vice-Chairman, ICAI-Pune Chapter, CMA Smita Kulkarni, Secretary, ICAI-Pune Chapter and CMA Rahul Chincholkar, Chairman Student’s Co-ordination Committee discussed with faculties on various issues. The Chapter organised CEP Webinar on the subject “Bringing AI to Business Intelligence-Cost Benefit Analysis” on 18th June 2021 through GOOGLEMENT video conferencing tool. CMA ShrikantIppalpalli, Member of ICAI-Pune Chapter welcomed

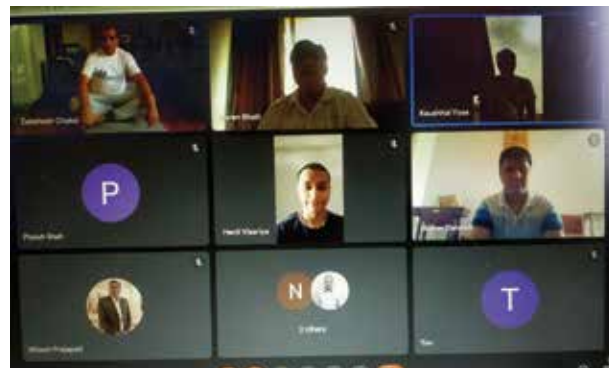
& introduced the Speaker CMA Ajay Mahajanto the participants. CMA Rahul Chincholkar, Member of ICAI-Pune Chapter delivered vote of thanks. In response to the call given by our Prime Minister Narendra Modi, Pune Chapter celebrated 21st June 2021 as Yoga Day through GOOGLEMEET video conferencing tool. Yog guru CMA D V Patwardhan Sir guided the participants about Yoga and its advantages in this Pandemic. CMA Amit Apte, Past President, CMA Neeraj Joshi, CCM, ICAI, CMA Harshad Deshpande, Chairman WIRC, CMA Chaitanya Mohrir, CMA N K Nimkar, CMA Anant Dhavale, CMA Sujata Budhkar, CMA Smita Kulkarni, CMA Rahul Chincholkar & other members attended the programme. The Chapter organised CEP Webinar on the subject "Advisory on the treatment of various items of cost in light of COVID 19" on 25th June 2021 through GOOGLEMEET video conferencing tool. CMA Shrikant Ippalpalli, Member of ICAI-Pune Chapter welcomed & introduced the Speaker CMA Amit Apte, Past President, ICAI to the participants. Speaker discussed on the fallouts of the Pandemic on economy, challenges faced by CMAs & impact on industry & business. CMA Rahul Chincholkar, Member of ICAI-Pune Chapter delivered vote of thanks. The Chapter had arranged a guest lecture for Intermediate & Final Students on Tuesday, 29th June 2021 between 5:00 pm to 6:30 pm by CMA Sanjali Dias Deputy Commissioner with GST Department of Maharashtra on GST. CMA Sanjali Dias explained various rules of utilization of ITC (Input Tax Credit) to the students. Large number of students attended the session. The Chapter arranged CEP Webinar on the subject "Profit Reconciliation and Indirect Taxes Reconciliation under Cost Audit" on 2nd July 2021 through GOOGLEMEET video conferencing tool. Speaker CMA Dr. Sanjay Bhargave explained Profit Reconciliation and Indirect Taxes Reconciliation. The session was very informative. CMA Nilesh Kekan Member of ICAI-Pune Chapter welcomed & introduced the Speaker CMA Dr. Sanjay Bhargave, CMA Shrikant Ippalpalli, Member of ICAI-Pune Chapter delivered vote of thanks. The Chapter arranged CEP Webinar on the subject "GST after 4 years- Preparedness for Audit and Assessment" on 3rd July 2021 through GOOGLEMEET video conferencing tool. Mr. Dhananjay Akhade Additional Commissioner of State Tax (GST Pune Zone) was Chief Guest for the programme. Speakers for the Webinar were CMA Dr. Sanjay Bhargave, CMA Dr. Waman Parkhi and CMA Vinayak Datey. CMA Rahul Chincholkar, Member of ICAI-Pune Chapter welcomed & introduced the Chief Guest. CMA Shrikant Ippalpalli, Member of ICAI-Pune Chapter welcomed & introduced all the Speakers. The session enabled knowledge sharing with practical approach. CMA Rahul Chincholkar, Member of ICAI-Pune Chapter delivered vote of thanks. The Chapter arranged CEP Webinar on the subject "Panel Discussion on Cost Audit" on 9th July 2021 through GOOGLEMEET video conferencing tool. CMA Nilesh Kekan, Member of ICAI-Pune Chapter welcomed & introduced the Panel Members, CMA Chandrashekhar Adawadkar, CMA Pradnya Chandorkar & CMA Nitin Chaturbhuj & Speakers CMA Dr. Sanjay Bhargave, CMA Amit Apte, Past President, ICAI & CMA Neeraj Joshi, CCM ICAI to the participants. CMA Nilesh Kekan, Member of ICAI-Pune Chapter delivered vote of thanks. The Chapter arranged CEP Webinar on the subject "Discussion on Developing Cost and Management Consultancy and Implementation of ABCM in MSME units" on 16th July 2021 through GOOGLEMEET video conferencing tool. Speaker CMA B N Mule discussed on Developing Cost and Management

Consultancy and Implementation of ABCM in MSME units. CMA Rahul Chincholkar, Member of ICAI-Pune Chapter welcomed & introduced the Speaker to the participants CMA Nilesh Kekan Member of ICAI-Pune Chapter delivered vote of thanks. In addition to other activities, to support government measures to combat pandemic Novel Coronavirus (COVID-19) the Chapter conducted Vaccination Drive. The Chapter is thankful to CMA (Dr) Dhananjay Joshi, Past President, CMA (Dr) Sanjay Bhargave, Past CCM, CMA Amit Apte, Former President CMA Neeraj Joshi, Central Council Member & CMA Chaitanya Mohrir, Regional Council Member for their efforts & support in organizing this COVID19 Vaccination Drive. Also special thanks to CMA Sadanand Shahane, Pune Chapter's very own member & official at Indian Red Cross Society & his colleague Mrs. Smita Kale from IRCS for all the coordination for making this tie-up possible for the benefit of the Students & Members. The Chapter arranged CEP Webinar on the subject "Get ready for GST Annual Return" on 23rd July 2021 through GOOGLEMEET video conferencing tool. Speakers for the Webinar were CMA Dr. Sanjay Bhargave & CMA Rahul A Chincholkar. CMA Smita Kulkarni, Secretary, ICAI-Pune Chapter welcomed & introduced the Speakers to the participants. The session was very informative & knowledge sharing with latest amendments about GST. CMA Shrikant Ippalpalli, Member of the chapter delivered vote of thanks.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA AHMEDABAD CHAPTER

International yoga day was celebrated by the chapter on 21st June, 2021. An online yoga was arranged by chapter for members, students and staff members to celebrate international yoga day. CMA Haren Bhatt, Chairman welcomed Shri Kaushal Vyas- Yoga Trainer, members, staff and students. Shri Kaushal Vyas gave his views on importance of Yoga. Various asana of yoga were demonstrated by Shri Kaushal Vyas during the program. CMA Malhar Dalwadi, Secretary proposed vote of thanks to Shri Kaushal Vyas and participants.



DIRECT & INDIRECT TAX UPDATES - JULY 2021

DIRECT TAXES

- ⊙ **Notification No. 76/2021 dated 2nd July 2021:** In exercise of the powers conferred by section 48 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, namely:

In the Income-tax Rules, 1962, (hereinafter referred to as the principal rules) in rule 8AA, after sub-rule (4), the following sub-rule shall be inserted,

(5). In case of the amount which is chargeable to income-tax as income of specified entity under subsection (4) of section 45 under the head —Capital gains,— (i) the amount or a part of it shall be deemed to be from transfer of short term capital asset, if it is attributed to,

(a) capital asset which is short term capital asset at the time of taxation of amount under subsection (4) of section 45; or

(b) capital asset forming part of block of asset; or

(c) capital asset being self-generated asset and self-generated goodwill as defined in clause (ii) of Explanation 1 to sub-section (4) of section 45; and

(ii) the amount or a part of it shall be deemed to be from transfer of long term capital asset or assets, if it is attributed to capital asset which is not covered by clause (i) and is long term capital asset at the time of taxation of amount under sub-section (4) of section 45.

In the principal rules, after rule 8AA, the following rule shall be inserted, namely:—

“8AB. Attribution of income taxable under sub-section (4) of section 45 to the capital assets remaining with the specified entity, under section 48.

- ⊙ **Notification No. 77/2021 dated 7th July 2021:** In exercise of the powers conferred by proviso to section 50 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 8AB, the following rules shall be inserted, namely:—

“8AC. Computation of short term capital gains and written down value under section 50 where depreciation on goodwill has been obtained.

(1) For the purposes of proviso to section 50, the written down value of the block of the asset and short term capital gains, if any, for the previous year relevant to the assessment year commencing on the 1st day of April, 2021 shall be determined in accordance with this rule.

(2) Where the goodwill of the business or profession was the only asset or one of the assets in the block of asset “intangible” for which depreciation was obtained by the assessee in the assessment year beginning on the 1st day of April, 2020, the written down value of this block of

asset for the previous year relevant to the assessment year commencing on the 1st day of April, 2021 shall be determined in accordance with the provisions of item (ii) of sub-clause (c) of clause (6) of section 43.

- ⊙ **Notification No. 78 /2021 dated 9th July 2021:** In exercise of the powers conferred by clause (46) of section 10 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies for the purposes of the said clause, ‘Haryana Building and Other Construction Workers Welfare Board’ (PAN AAATH6995H), a Board constituted by the State Government of Haryana, in respect of the following specified income arising to that Board, namely:

(a) Registration fees and yearly subscription collected from Construction Workers registered with the Haryana Building and Other Construction Workers Welfare Board as beneficiaries; (b) Proceeds of the cess collected under the Building & Other Construction Workers Welfare Cess Act, 1996 (28 of 1996) and rules there under; and (c) Interest income received from investment.

This notification shall be effective subject to the conditions that Haryana Building and Other Construction Workers Welfare 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. (d) shall file the Audit report along with the Return, duly verified by the accountant as provided in explanation to section 288(2) of the Income-tax Act, 1961 along with a certificate from the chartered accountant that the above conditions are satisfied.

- ⊙ **Notification No. 79/2021 dated 12th July 2021:** In exercise of the powers conferred by clauses (ii) of sub-section (1) of section 35 of the Income-tax Act, 1961 (43 of 1961) read with rules 5C and 5D of the Income-tax Rules, 1962, the Central Government hereby approves M/s Patanjali Research Foundation Trust, Haridwar (PAN:- AABTP8183E) under the category “Research Association” for Scientific Research for the purposes of clauses (ii) of sub-section (1) of section 35 of the Income-tax Act, 1961 read with rules 5C and 5D of the Income-tax Rules, 1962.

This Notification shall apply with effect from the date of publication in the Official Gazette (i.e from the Previous Year 2021-2022) and accordingly shall be applicable for Assessment Year(s) 2022-23 to 2027-28.

- ⊙ **Notification No. 80/2021 dated 14th July 2021:** In exercise of the powers conferred by clause (46) of section 10 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies for the purposes of the said clause, ‘Haryana Labour Welfare Board’

(PAN AAATH2451C), a Board constituted by the State Government of Haryana, in respect of the following specified income arising to that Board, namely:

(a) Contribution to the Labour Welfare Fund by the Employers and Employees; (b) Unpaid accumulation which were due to employees but not paid to them within a period of 2 years by the Employer; (c) Fine on delayed deposit of contribution and unpaid accumulation; (d) Interest on loans and advances given to staff of the board; and (e) Interest income received from investment.

This notification shall be effective subject to the conditions that Haryana Labour Welfare 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. (d) shall file the Audit report along with the Return, duly verified by the accountant as provided in explanation to section 288(2) of the Income-tax Act, 1961 along with a certificate from the chartered accountant that the above conditions are satisfied.

- ⊙ **Notification No. 81/2021 dated 14th July 2021:** In exercise of the powers conferred by clause (46) of section 10 of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies for the purposes of the said clause, 'Himachal Pradesh Computerization of Police Society', (PAN AABAH0360G), a body established by the State Government of Himachal Pradesh, in respect of the following specified income arising to that body, namely:- (a) Amount received in the form of Grant-in-aid; and (b) Interest accrued on Grant-in Aid deposited in the account of Himachal Pradesh Computerization of Police Society.

This notification shall be effective subject to the conditions that Himachal Pradesh Computerization of Police Society,- (a) shall not engage in any commercial activity; (b) activities and the nature of the specified income shall remain unchanged throughout the financial years; (c) shall file return of income in accordance with the provision of clause (g) of sub-section (4C) of section 139 of the Income-tax Act, 1961; and (d) shall file the Audit report along with the Return, duly verified by the accountant as provided in explanation to section 288(2) of the Income-tax Act, 1961 along with a certificate from the chartered accountant that the above conditions are satisfied.

- ⊙ **Notification No. 82 /2021 dated 27th July 2021:** In exercise of the powers conferred by section 139 and section 148 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, namely:

In the Income-tax Rules, 1962, in rule 12, (a) in sub-rule (1), in the opening portion, for the words, brackets and figures or sub-section (1) of section 148I, the words and figures or section 148I shall be substituted; (b) in

sub-rule (5), for the figure 2019, the figure 2020I shall be substituted.

- ⊙ **Notification No 83/2021 dated 29th July 2021:** In exercise of the powers conferred by 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.

"130. Omission of certain rules and Forms and savings.-(1) Rules 5A, 5AB, 6ABB, 12B, 12BA, 16D, 16DD, 16E, 16F, 18B, 18BB, 18BBA, 18DD, 18DDA, 20AB, 29AA, 29D, 37, 37E, 37F, 44A, 48, 123 and rule 124 shall be omitted.

In Appendix II, Forms ITR-8, 2B, 2C, 2E, 3AA, 3AAA, 3BA, 4, 5, 5A, 10AA, 10C, 10CC, 10CCA, 10CCAA, 10CCAB, 10CCABA, 10CCAC, 10CCAD, 10CCAE, 10CCAF, 10CCAG, 10CCAH, 10CCAI, 10CCBA, 10CCBB, 10CCBBA, 10CCBC, 10CCBD, 10DB, 10DC, 10G, 10HA, 11, 11A, 12, 12A, 15I, 15J, 16AA, 22, 24, 26, 27E, 30, 34A, 34B, 34BA, 37, 37EE, 37F, 37G, 37H, 37-I, 54, 55, 56A, 56AA, 56B, 56BA, 56C, 56CA, 56E, 56F, 56FF, 56G, 56H, 58A, 58B, 63, 63A and Form 63AA shall be omitted.

Notwithstanding such omission, on and from the date of commencement of this rule-

- i) any proceeding pending before any income-tax authority, any Appellate Tribunal or any court, by way of appeal, reference or revision, shall be continued and disposed of as if rules and forms mentioned in sub-rule (1) and sub-rule (2) have not been omitted;
- (ii) any agreement entered into, appointment made, approval given, recognition granted, direction, instruction, notification or order issued under the rules and Forms mentioned in sub-rule (1) and sub-rule (2) shall be deemed to continue in force as if rules and forms mentioned in sub-rule (1) and sub-rule (2) have not been omitted.

- ⊙ **Circular No 14/2021 dated 2nd July 2021:** Guidelines under section 9B and sub-section (4) of section 45 of the Income-tax Act, 1961.

INDIRECT TAXES

GST

- ⊙ **Circular No. 157/13/2021-GST dated 20th July 2021:** The Government has issued notifications under Section 168A of the CGST Act, 2017, wherein the time limit for completion of various actions, by any authority or by any person, under the CGST Act, which falls during the specified period, has been extended up to a specific date, subject to some exceptions as specified in the said notifications. In this context, various representations have been received seeking clarification regarding the cognizance for extension of limitation in terms of Hon'ble Supreme Court Order dated 27.04.2021 in Miscellaneous

Application No. 665/2021 in SMW(C) No. 3/2020 under the GST law. The issues have been examined and to ensure uniformity in the implementation of the provisions of law across the field formations, the Board, in exercise of its powers conferred by section 168 (1) of the Central Goods and Services Tax Act, 2017 (hereinafter referred to as “CGST Act”).

- ⊙ **Notification No. 29/2021 dated 30th July 2021:** In exercise of the powers conferred by clause (b) of sub-section (2) of section 1 of the Finance Act, 2021 (13 of 2021), the Central Government hereby appoints the 1st day of August, 2021, as the date on which the provisions of sections 110 and 111 of the said Act shall come into force.
- ⊙ **Notification No. 30/2021 dated 3rd July 2021:** Seeks to amend Rule 80 of the CGST Rules, 2017 and notify Form GSTR 9 and 9C for FY 2020-21. Rule 80 provides for exemption from GSTR-9C to taxpayers having AATO upto Rs. 5 crores.
- ⊙ **Notification No. 31/2021 dated 30th July 2021:** In exercise of the powers conferred by the first proviso to section 44 of the Central Goods and Services Tax Act, 2017 (12 of 2017), the Commissioner, on the recommendations of the Council, hereby exempts the registered person whose aggregate turnover in the financial year 2020-21 is upto two crore rupees, from filing annual return for the said financial year.

CUSTOMS

- ⊙ **Notification No 35/2021 Cus dated 12th July 2021:** Seeks to exempt basic customs duty on imports of specified API/ excipients for Amphotericin B and raw materials for manufacturing COVID test kits, till specified period.
- ⊙ **Notification No 36/2021 Cus dated 19th July 2021:** Seeks to amend notification No. 45/2017-Customs dated 30th June, 2017, to clarify levability of IGST, on recommendation of the GST Council.

- ⊙ **Notification No 37/2021 Cus dated 19th July 2021:** Seeks to amend notification No. 46/2017-Customs dated 30th June, 2017, to clarify levability of IGST, on recommendation of the GST Council.
- ⊙ **Notification No 38/2021 Cus dated 26th July 2021:** Seeks to amend notification No. 50/2017-Cus dated 30.06.2017 to reduce the basic customs duty from 10% to Nil on Lentils (Masur) [HS 0713 40 00] and to amend notification No. 11/2021-Cus dated 1.02.21 to reduce the Agriculture Infrastructure Development Cess on Lentils (Masur) [HS 0713 40 00] from 20% to 10%.
- ⊙ **Circular No 13/2021-Cus dated 1st July 2021:** Online filing of AEO T2 & T3 application.
- ⊙ **Circular No 14/2021 Cus dated 7th July 2021:** Improvements in Faceless Assessment - Measures for expediting Customs clearances.
- ⊙ **Circular No 15/2021 Cus dated 15th July 2021:** Implementation of RMS for processing of Duty Drawback claims.
- ⊙ **Circular No 16/2021 Cus dated 19th July 2021:** Clarification regarding applicability of IGST on repair cost, insurance and freight, on goods re-imported after being exported for repairs, on the recommendations of the GST Council made in its 43rd meeting .
- ⊙ **Circular No 17/2021 Cus dated 23rd July 2021:** Efforts required to Reduce the compliance burden for citizens and business activities.
- ⊙ **Circular No 18/2021 Cus dated 31st July 2021:** Amendment in AEO Programme: Auto-Renewal of AEO-T1 validity for continuous certification based on continuous compliance monitoring- regarding.

Sources:

1. incometax.gov.in
2. cbic.gov.in



(07.01.1961 – 27.06.2021)

OBITUARY

The Institute and its Members deeply mourn the demise of CMA Sitangsu Kumar Bhaduri (M/12796), retired Senior Commercial Manager of Eastern Railway who left for heavenly abode on 27th June, 2021.

May God bless the family and have the courage & strength to overcome the irreparable loss.

ICMAI grads land jobs with 43% higher pay than last yr

Tamaghna Banerjee
@timesgroup.com

Kolkata: A bunch of final-year cost and management accountancy students from ICMAI have bagged record offers in the online campus placement drive this year, the average salary rise being 43% compared to the packages last year. This, despite the pandemic that has led to largescale pay-cuts, layoffs and frozen employment across industries.

Around 500 out of 2,000-odd students have already secured jobs at bluechip companies, such as Accenture, Goldman Sachs, Wipro, TCS, Philips, L&T, Capgemini, CITCO, ITC, CEAT and Nestle, along with PSUs like GAIL, NBCC, Powergrid, ITDC, IRCON and HSCC. More companies, like Deloitte, KPMG, Axis Bank and Kotak Mahindra, are scheduled to hold interviews. The highest pay packages secured by five students have been in the range of Rs 22 lakh per annum, while the average salary on offer was Rs 10 lakh a year. In 2020, the average pay package was around Rs 7 lakh per annum.

"I bagged a job at Accenture in Bangalore in the very first interview. The institute has made me on a par with students of some of the best management and engineering institutes in the country," said Indranil Banerjee (24), who did his graduation from an Asansol college.

Headquartered on Sudder Street in Kolkata, the Institute of Cost Accountants of India (ICMAI) is a premier statutory professional accountancy body under an Act of Parliament

CAMPUS PLACEMENT DRIVE

- Corporates who took interview so far: **50**
- Students who have secured job: **500**
- Highest CTC offered: **₹22 lakh per annum**
- Average CTC offered: **₹10 lakh per annum**

COMPANIES HIRING

PSUs: GAIL, NBCC, EIL, REC, Mazagon Dock, Powergrid, ITDC, IRCON, HSCC

MNCs & Corporates: Accenture, Philips, Vedanta, ITC, ABB, CEAT, Apex, Capita, Invenio, Consero Global, Kalpataru, Olam, LafargeHolcim, Goldman Sachs, L&T, Tech Mahindra,



Citico, Capgemini, Wipro, Deloitte, KPMG, TCS, Biocon, Runaya Group, Nestle, RSM, AM/NS India

Banking & Financial: Axis Bank, Kotak Mahindra Bank

and is the largest cost and management accounting body in Asia and the second largest in the world. "During the pandemic, companies are sacking employees and adopting cost-reduction methods for which cost and management accountants play a key role. So, there has been a spurt in demand of cost and management accountants," said Debaprosanna Nandy, senior director (studies, training, placement and advanced studies), ICMAI.

An ICMAI official pointed out they upgraded the online education system over the past year and arranged for skill training programmes, including compulsory SAP training, Microsoft education, e-filing and Cambridge University soft skill programme for no addition-

al cost. Officials believe these added skills and the closure of several private engineering colleges acted as a catalyst for the robust placement drive.

The first phase of online campus placement for the December 2020 batch was held in May and the second phase is now on. Officials plan to carry it on till October. "We are pleased with the response from the corporates. A number of PSUs and Indian and global companies are hiring. It's a positive sign the companies are recognizing the importance of CMA professionals in the changing business scenario," said Biswarup Basu, president, ICMAI. "The institute plans an overseas placement drive soon," said Balwinder Singh, a former president and chairman of ICMAI.

Source:

<https://timesofindia.indiatimes.com/city/kolkata/icmai-grads-land-jobs-with-43-higher-pay-than-last-yr/articleshow/84279702.cms>



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THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)

RE-SCHEDULED TIME TABLE & PROGRAMME- JUNE 2021

FOUNDATION COURSE EXAMINATION

(Multiple Choice Questions – Online mode of Examination from home)

Day & Date	Foundation Course Examination Syllabus-2016	
	Time 10.00 A.M. to 12.00 Noon. Paper – 1 & 2 (200 Marks)	Time 2.00 P.M. to 4.00 P.M. Paper – 3 & 4 (200 Marks)
Sunday, 5 th September, 2021	Paper – 1 : Fundamentals of Economics & Management (100 Marks 50 Multiple Choice Questions) Paper – 2 : Fundamentals of Accounting (100 Marks 50 Multiple Choice Questions)	Paper – 3 : Fundamentals of Laws & Ethics (100 Marks 50 Multiple Choice Questions) Paper – 4 : Fundamentals of Business Mathematics & Statistics (100 Marks 50 Multiple Choice Questions)

The Institute has decided to conduct June 2021 Foundation Examination through online mode using mobile / laptop / desktop /tab from their home only.

1. The Foundation Examination will be conducted in M.C.Q Mode through online from home.
2. Each paper will carry 100 marks 50 Multiple Choice Questions (Each Question will carry 2 Marks). Each session will have a total of 100 Multiple Choice Questions of 200 marks.
3. All Candidates/students are encouraged to appear in the Foundation examination through online mode using mobile/laptop/desktop/tab from their home.
4. Candidates/students are requested to appear the Foundation Examination from their home only by logging within the time span given. Login credentials and URL link will be given in due time.
5. It may be noted that if any candidate/student gets disconnected while taking the examination, they may login again in the same device to finish the rest of the examination.
6. A candidate/student who is completing all conditions for appearing in the examination as per Regulations will only be allowed to appear for the examination.
7. Probable date of publication of result: To be announced in due course.

* The Candidates/students are advised to keep regularly in touch with the website of the Institute for further notifications and announcements relating to Foundation Examination of June 2021 and in case of any query or clarification can e-mail us at- exam.helpdesk@icmai.in

CMA Kaushik Banerjee
Secretary



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)

RE-SCHEDULED INTERMEDIATE AND FINAL EXAMINATION TIME TABLE & PROGRAMME – JUNE 2021

PROGRAMME FOR SYLLABUS 2016				
ATTENTION: INTERMEDIATE & FINAL EXAMINATION WILL BE HELD ON ALTERNATE DATES FOR EACH GROUP.				
Day & Date	INTERMEDIATE		FINAL	
	(Group – I) (Time: 10.00 A.M. to 1.00 P.M.)	(Group – II) (Time: 2.00 P.M. to 5.00 P.M.)	(Group – III) (Time: 2.00 P.M. to 5.00 P.M.)	(Group – IV)
Thursday, 21 st October, 2021	Financial Accounting (P-05)	-----	Corporate Laws & Compliance (P-13)	-----
Friday, 22 nd October, 2021	-----	Operations Management & Strategic Management (P-09)	-----	Corporate Financial Reporting (P-17)
Saturday, 23 rd October, 2021	Laws & Ethics (P-06)	-----	Strategic Financial Management (P-14)	-----
Sunday, 24 th October, 2021	-----	Cost & Management Accounting and Financial Management (P-10)	-----	Indirect Tax Laws & Practice (P-18)
Monday, 25 th October, 2021	Direct Taxation (P-07)	-----	Strategic Cost Management – Decision Making (P-15)	-----
Tuesday, 26 th October, 2021	-----	Indirect Taxation (P-11)	-----	Cost & Management Audit (P-19)
Wednesday, 27 th October, 2021	Cost Accounting (P-08)	-----	Direct Tax Laws and International Taxation (P-16)	-----
Thursday, 28 th October, 2021	-----	Company Accounts & Audit (P-12)	-----	Strategic Performance Management and Business Valuation (P-20)

- The mode of examination will be online-centre based.
- The provisions of Direct Tax Laws and Indirect Tax Laws, as amended by the Finance Act, 2020, including notifications and circulars issued up to 30th November, 2020, are applicable for June, 2021 term of examination for the Subjects Direct Taxation, Indirect Taxation (Intermediate), Direct Tax Laws and International Taxation and Indirect Tax Laws & Practice (Final) under Syllabus 2016. The relevant Assessment Year is 2021-22. For statutory updates and amendments please refer to: <https://icmai.in/studentswebsite/Syl-2016.php>
- Companies (Cost Records and Audit) Rules, 2014 as amended till 30th November, 2020 is applicable for June, 2021 examination for Paper 12- Company Accounts and Audit (Intermediate) and Paper 19 - Cost and Management Audit (Final) under Syllabus 2016. For updates and amendments please refer to the link: <https://icmai.in/studentswebsite/Syl-2016.php>
- The provisions of the Companies Act 2013 are applicable for Paper 6 - Laws and Ethics (Intermediate) and Paper 13 - Corporate Laws and Compliance (Final) under Syllabus 2016 to the extent notified by the Government up to 30th November, 2020 are applicable for June, 2021 term of examination. Additionally, for applicability of ICDR, 2018 for Paper-13 - Corporate Laws & Compliance (Final) under Syllabus 2016 refer to relevant circular in website for June, 2021 term examination by following link: <https://icmai.in/studentswebsite/Syl-2016.php>
- For Applicability of IND AS and AS for Paper 5 - Financial Accounting, Paper 12 - Company Accounts and Audit (Intermediate) and Paper 17 - Corporate Financial Reporting (Final) refer to relevant clarification and circular in website for June, 2021 term examination in the given links: <https://icmai.in/studentswebsite/Syl-2016.php> and <https://icmai.in/studentswebsite/Syl-2016.php>
- Pension Fund Regulatory and Development Authority Act, 2013 is being included in Paper 6-Laws and Ethics (Intermediate) and Insolvency and Bankruptcy Code 2016 is being included in Paper 13 - Corporate Laws and Compliance (Final) under Syllabus 2016 for June, 2021 term of examination. Please refer to the link: <https://icmai.in/studentswebsite/Syl-2016.php>
- Examination Centres: Adipur-Kachh (Gujarat), Agartala, Agra, Ahmedabad, Akurdi, Allahabad, Ansool, Aurangabad, Bangalore, Baroda, Berhampur (Ganjam), Bhillai, Bhiwara, Bhopal, Buar City(Rajasthan), Bhubaneswar, Bikaner (Rajasthan), Bolaro, Calicut, Chandigarh, Chennai, Coimbatore, Cuttack, Dehradun, Delhi, Dhanbad, Dullajjan (Assam), Durgapur, Ernakulam, Erode, Faridabad, Ghaziabad, Guntur, Gurgaon, Gwahati, Haridwar, Hazaribagh, Howrah, Hyderabad, Indore, Jaipur, Jabalpur, Jalandhar, Jamnagar, Jamshedpur, Jodhpur, Kalyan, Kannur, Karmur, Kolhapur, Kolkata, Kottakal (Malappuram), Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Naitathi, Nashik, Nellore, Neyveli, Noida, Palakkad, Panaji (Goa), Patiala, Patna, Pondicherry, Port Blair, Pune, Raipur, Rajahmundry, Ranchi, Rourkela, Salem, Sambalpur, Shillong, Shimla, Siliguri, Solapur, Srirangar, Surat, Thrissur, Tiruchirappalli, Tirunelveli, Tirupathi, Tiruvandrum, Udaipur, Vapi, Vashi, Vellore, Vijayawada, Vindhyannagar, Waltair(Vishakhapatnam) and Overseas Centres at Bahrain, Dubai and Muscat.
- A candidate who is fulfilling all conditions specified for appearing in examination will only be allowed to appear for examination.
- Probable date of publication of result: To be announced in due course.

* The Candidates/students are advised to keep regularly in touch with the website of the Institute for further notifications and announcements relating to Examination of June 2021 and in case of any query or clarification can e-mail us only at- exam.helpdesk@icmai.in

P. Banerjee
CMA Kausik Banerjee
Secretary

Benevolent Fund

FOR THE MEMBERS OF THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

CMA Bhawan, 12 Sudder Street, Kolkata - 700016

OBJECTIVE

The Fund has been created to provide outright grant of prescribed amount to the member in the event of critical illness of a member / beneficiary of the Fund. It is also for outright grant of prescribed amount to the beneficiary in the event of death of a member of the Fund.

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Onetime payment of ₹7500/-

BENEFITS

- ⊙ **Income Tax Benefit under section 80G**
- ⊙ **Outright grant not exceeding ₹3,00,000.00/- in each case to the beneficiary in the event of death of the member.**
- ⊙ **Outright grant not exceeding ₹1,50,000.00/- in each case to the member and beneficiary for critical illness duly certified by the doctor under whom the treatment is continuing.**

Coverage of Critical Illness, leading to hospitalization, may cover the following -

- ⊙ Cancer / Malignancy
- ⊙ Coronary Artery Bypass Graft Surgery
- ⊙ Stroke / Cerebral Attack / Paralysis
- ⊙ Heart Valve Replacement Surgery
- ⊙ Myocardial Infarction (heart attack) / Heart Failure / Pace Maker Surgery / Kidney Dialysis(CKD)/ Renal Failure
- ⊙ Major Organ Transplant
- ⊙ Hemophilia
- ⊙ Thalassemia
- ⊙ Neurological Diseases
- ⊙ Flue Blown acquired Immune Deficiency Syndrome
- ⊙ Multiple sclerosis
- ⊙ Tuberculosis / Bronchopneumonia/ Pleurisy
- ⊙ Permanent disablement
- ⊙ Any other disease that may be considered by the Board of Trustees to be critical in nature.

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