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TELECOMMUNICATION SECTOR: POTENTIAL CATALYST FOR DIGITAL INDIA MOVEMENT

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- On 28 May 1959, the Institute was established by a special Act of Parliament, namely, the Cost and Works Accountants Act 1959 as a statutory professional body for the regulation of the profession of cost and management accountancy.
- It has since been continuously contributing to the growth of the industrial and economic climate of the country.
- The Institute of Cost Accountants of India is the only recognised statutory professional organisation and licensing body in India specialising exclusively in Cost and Management Accountancy.

MISSION STATEMENT

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

VISION STATEMENT

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

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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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Institute Motto

असतोमा सद्गमय
तमसोमा ज्योतिर् गमय
मृत्योर्मामृतं गमय
ॐ शान्ति शान्ति शान्तिः

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

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

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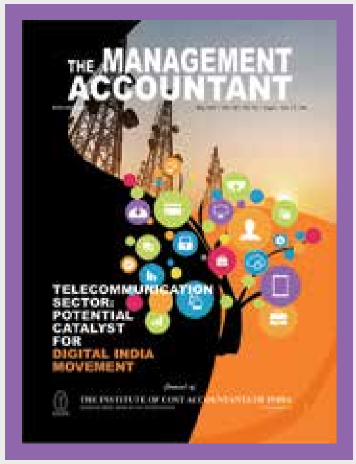

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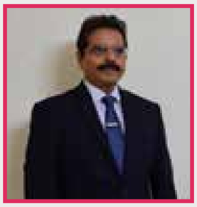

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We have expanded our Readership from **1** to **94** Countries

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

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EDITORIAL

In the current scenario, when the world is reeling under the coronavirus pandemic, communication plays a very crucial role in delivering the information with accuracy, helping us to connect to our dear ones. Life seems to be incomplete with no internet and communication. World Telecommunication and Information Society Day (WTISD) is celebrated every year on May 17 to help raise awareness about the importance of the internet and other means of information and communication in bringing the world closer.

India's population and a competitive telecom market have led to a multi-fold increase in the number of subscribers in this sector. The Telecom industry in India is the second-largest in the world with a subscriber base of over 1.2 bn with a tele-density of 86.22% as of September 30, 2020. Gross revenue of the telecom sector stood at Rs. 66,858 crores in the first quarter of FY21. Over the next five years, rise in mobile-phone penetration and decline in data costs will add 500 million new internet users in India, creating opportunities for new businesses.

India is also the second largest country in terms of internet subscribers. As per TRAI, average wireless data usage per wireless data subscriber was 11 GB per month in FY20. App downloads in the country increased from 12.07 billion in 2017 to 19 billion in 2019 and is expected to reach 37.21 billion by 2022. Strong policy support from the Government has been crucial to the sector's development. Foreign Direct Investment (FDI) cap in the telecom sector has been increased to 100% from 74%. The Government of India, through its National Digital Communications Policy, foresees investment worth US$ 100 billion in the telecommunications sector by 2022.

India's telecom sector is expected to see some major developments in 2021 which will fuel the growth for all telecom operators such as spectrum auction, likely launch of 5G services and Open RAN adoption. 5G is the next evolution in mobile network technology and is already available in many parts of the world. The network has low latency and presents use cases such as AR/VR, AI, high-speed broadband, among others. In the recent past Government of India has approved the Production Linked Incentive (PLI) Scheme for Telecom and Networking Products. The Production Linked Incentive (PLI) Scheme intends to promote manufacture of Telecom and Networking Products in India and proposes a financial incentive to boost domestic manufacturing and attract investments in the target segments of telecom and networking products in order to encourage Make in India. The scheme will also encourage exports of telecom and networking products 'Made in India'. Through this policy, India will move towards self-reliance. By incentivizing large scale manufacturing in India, domestic value addition will increase gradually. Provision of higher incentive to MSME will encourage domestic telecom manufacturers to become part of the global supply chain.

The telecommunications industry has to exactly understand the requirements of the consumers in India across urban, semi-urban, rural, hinterlands as well as through all possible segmentations based on socio-economic demographics and create a social change through equity model that shall lead to equality. Unless this approach is adopted, the benefits of digitalization cannot be harnessed to the full potential. The telecom layer will get deployed over the uneven structure of the society which will result in uneven development of the sector. Telecom will not just drive the communications industry going forward. It is going to be the core over which social, economic and political activities will develop ushering not just to Digital Economy, but Digital Living. As we celebrate the glorious 25 years of mobility services in India, this is the time to rise up and extensively drive research and thought-leadership to peep into the future and lay the foundation of a magnificent telecom sector in the country that will in essence drive everything.

The post COVID-19 era is resulting in emergence of digital and innovative organisations and the telecom sector has a foundational role to play in this transformation through convergence and capitalization of multiple technologies such as 5G, AI, Machine-to-Machine and IoT to build a robust ICT infrastructure. Hence there is an urgent need to re-focus on ease of doing business and improve the financial health for the sector for which CMAs can play a crucial role. CMAs, based on their techno-professional skills, can render advisory services like facilitating in framing of suitable policies concerning cost control and cost reduction; fixing of tariff; decision-making and outlining innovative schemes. CMAs are authorised to conduct Audit for Metering and Billing Accuracy and Audit of Digital Addressable System for Telecom Regulatory Authority of India (TRAI). They also have the Right to Legal Representation before Appellate Tribunal as per Section 17 of TRAI Act, 1997.

This issue presents a good number of articles on the cover story *"Telecommunication Sector: Potential Catalyst for Digital India Movement"* 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 would enjoy the articles.

As the country is struggling to combat the deadly second wave of the coronavirus pandemic, wish everyone to stay safe and secure! Let's pray the pandemic ends soon.

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

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

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PRESIDENT'S COMMUNIQUÉ

CMA Biswarup Basu
President
The Institute of Cost Accountants of India

"You can't cross the sea merely by standing and staring at the water."

– Rabindranath Tagore

My Dear Professional Colleagues,

I hope you and your families are all doing well, given the impact that second wave of COVID-19 is having in our Country. We have been battling the pandemic for over a year but the recent massive surge in COVID-19 cases is a matter of grave concern. It is a national health crisis and there is lot of uncertainty on how much time it will take to control the crisis. Our Government is taking all possible steps to curb the spread of fatal Coronavirus. We need to be self-disciplined and follow all the Covid safety protocols. The third phase of vaccination drive has already started. We appeal that all above 18 years of age should take the vaccine as early as possible. The pace of vaccination will have a strong bearing on controlling and suppressing the spread of coronavirus. We are quite optimistic that very soon the pandemic will be controlled globally and we would return to our world we lived before pandemic. Let's be confident and hopeful for a bright future.

I urge you all to take good care of yourself and your families during these challenging times. I would like to express my concern and support for all the members, students and other stakeholder affected by this pandemic.

Observance of Agriculture Month

I am pleased to inform that the Agriculture Task Force constituted by the Institute under the Chairmanship of CMA P. Raju Iyer, Vice President has decided to observe the month of May 2021 as "Agriculture Month" by organizing series of four National Webinars and several local webinars across the country covering multiple topics relating to ways and means of Augmenting the Farmers' Income through 'Strategic Agri Cost Management'.

I am pleased to share that Dr. G.R. Chintala, Chairman, NABARD has kindly consented to deliver Keynote address on the topic "Agri Financial Institutions facilitating Augmentation of Farmers' Income" at the National Webinar on 4th May, 2021, Dr. G. Narendra Kumar, IAS, Director General, National Institute of Rural Development and Panchayati Raj on the topic "Rural Development & Augmentation of Farmers' Income" at the National Webinar on 11th May, 2021, Prof. Nageshwar Rao, Vice-Chancellor, IGNOU at the National Webinar on the topic "Academic Institutions Catalyzing the Augmentation of Farmers' Income" on 18th May, 2021 and Prof. Vijay Paul Sharma, Chairman, Commission for Agricultural Costs & Prices, Ministry of Agriculture & Farmers Welfare, Government of India will deliver Keynote Address at the "National Webinar on "Agriculture Cost Management" on 25th May 2021.

We have requested Shri Narendra Singh Tomar, Hon'ble Union Minister for Agriculture& Farmers Welfare, Rural Development, Panchayati Raj, and Food Processing Industries to be the Chief Guest for the National Webinar scheduled on 25th May 2021. The Regional Councils and Chapters are also requested to organise webinars on relevant topics to make this initiative a grand success.

Launch of Diploma Course in Information System Security Audit (DISSA)

I am very much pleased to share that the Board of Advanced Studies & Research of the Institute has introduced an exciting and practical oriented professional course on Diploma in Information System Security Audit (DISSA). In this connection, the Board has organized a National Level Webinar on the theme "Future of Information System Security Audit" on 25th April 2021 for the members and students of the Institute.

I attended the inaugural session of the virtual seminar. The Chief Guest was CMA P. Vasudevan, Chief General Manager of Reserve Bank of India. He stressed upon the importance of this Course in today's context and congratulated the Institute for introducing such an important course with a rich curriculum for its members and students and hoped this Course will get its due recognition shortly. CMA Debasish Mitra, Chairman, Board of Advanced Studies & Research offered the welcome address and described the utility of DISSA Course with a relevant case study. CMA P. Raju Iyer, Vice President of the Institute, CMA Balwinder Singh, Chairman, T & EF and Placement Committee and CMA Chittaranjan Chattopadhyay, Chairman, BFSI Committee also delivered their special addresses during the inaugural session.

In the Technical Session, Shri Subhojit Roy, Sr. Vice President & Chief Information Officer, SBI Funds Management talked about 'Cyber Security Framework – Adoption and Practice', CMA (Dr.) Sanjoy Sen, Head of

Research & Eminence, Extended Enterprise Risk Management, Risk Advisory, Deloitte LLP discussed on 'Changing Global Threat & Opportunity Landscape: Implications for the future of Information Security', CA Johar Batterywala, subject matter expert, Deloitte Haskins & Sells highlighted the area 'Digital Framework & Cloud Computing', CA Arijit Chakraborty, Management Consultant emphasized on 'Artificial Intelligence, Cloud Computing & Future of IS Audit' and CMA (Dr.) P. Siva Rama Prasad, AGM, SBI (Retd.) gave an overview of DISSA Course.

I am very much glad to know that around 120 participants have already joined in the 1st Batch of this Course which is going to be commenced from 9th May 2021 through online mode. I urge all the members and final level students to join DISSA Course for their professional excellence and bright career.

Observance of MSME Month

I am happy to share that the Institute under the dynamic Chairmanship of CMA Chittaranjan Chattopadhyay, BFSI Committee took the initiative for observance of April 2021 as MSME month considering the significance of the MSME sector in the Indian economy. The Institute organized series of Webinars on relevant topics with presence of eminent persons from across the country and globe. The committee also organised an international Webinar in association with the International Affairs Committee, Training & Education Facilities & Placement Committee and London Overseas Chapter of Cost Accountants (LOCCA). The following are the webinars organized by BFSI Committee for MSME month:

On 6th April, 2021 on the topic "Project Evolution to Execution". Shri K.D.Bhattacharya, Joint Director, MSME-Inst, Eastern Region graced as Chief Guest along with the gracious presence of Shri P.S.Manoj, Dy. General Manager, SIDBI as the Guest of Honour and Shri P.N.Prasad, Director, Bank of India.

On 13th April, 2021 on the topic "Concurrent Cost Management through Value Chain" was graced by Past Presidents CMA (Dr.) A. S. Durga Prasad, CMA M. Gopalakrishnan and CMA Kunal Banerjee as Guests of Honour along with CMA R.Venkatramani, Director, Westcott Pvt. Ltd., Chennai and Shri Hariharan S. Ramamoorthy, National Vice-President, Laghu Udyog Bharati. The event was moderated by CMA Jyoti Satish, Former Chairperson, SIRC. The webinar was also graced by CMA H.Padmanabhan, Chairman, CAT and AAT Board.

On 20th April, 2021 on the topic "Perpetual Sustainability (with emphasis on various MSME Schemes)". Shri Sudhir Garg, IRSEE, Joint Secretary, Ministry of Micro, Small and Medium Enterprises was the Chief Guest. Other esteemed speakers were Shri Gaurang Dixit, Director Finance, National Small Industries Corporation Ltd., CMA Baldev Kaur Sokhey, Director Finance, NBCC (India) Ltd., CMA Chandra Wadhwa, Past President, ICAI , CA Mukesh Singh Kushwah, Government Nominee, ICAI and CMA (Dr.) S. K. Gupta, MD, ICMAI RVO.

Other reports of such observance of MSME Month conducted by Regional Councils and Chapter are stated in the Management Accountant Journal.

Webinar by Howrah Chapter

I am pleased to inform that I along with CMA P. Raju Iyer, Vice President, CMA Chittaranjan Chattopadhyay, Chairman, BFSI Committee and Indirect Taxation Committee attended the Webinar on "MSME : The Key factor for Indian Economy" organized by the Howrah Chapter on 30th April 2021. Shri Santosh Kumar Upadhyay, Secretary General, Howrah Chamber of Commerce & Industries graced the Webinar as its Guest of Honour. CMA (Dr.) Sreehari Chava and CMA Jyotsna Rajpal were the Speakers. I compliment the Chairman and other members of Managing Committee of Howrah Chapter of the Institute for organizing this Webinar to support the observance of the month of April 2021 as MSME Month.

Convocation Ceremony at Bhawanipur Educational Society College, Kolkata

I am pleased to share that I was invited at the Convocation Ceremony organized by the Bhawanipur Educational Society College, Kolkata for its Graduating Commerce Students on 12th April, 2021. I had the opportunity to brief the students about the CMA qualification and the career prospects available after completing the globally recognized CMA qualification of the Institute.

Webinar on Role of CMA in COVID Environment & Career in Commerce

I am pleased to inform that a Webinar on "Role of CMA in COVID Environment & Career in Commerce" was jointly organized by several Chapters of NIRC of the Institute on 17th April, 2021. Shri Om Ji Birla, Hon'ble Speaker of Lok Sabha graced the Webinar as its Chief Guest. Prof. Rajeev Jain, Vice-Chancellor, University of Rajasthan, Prof. Neelima Singh, Vice Chancellor, University of Kota, Prof. B.S. Rajpurohit, Former Vice-Chancellor, JNVU, Jodhpur were the Guests of Honour. The virtual event was also graced by CMA P. Raju Iyer, Vice President, CMA Balwinder Singh, Immediate Past President, CMA Vijender Sharma, Chairman- PD&CPD Committee & International Affairs Committee, CMA Rakesh Bhalla, Chairman-Direct Taxation Committee, CMA Harkesh Tara, Chairman, NIRC, CMA Ravi Kr. Sahni, Former Chairman NIRC, and CMA (Dr.) Meenu Maheshwari, Associate Professor, University of Kota, General Sec. IAA, Kota Branch & EC Member. I congratulate the Chairmen and other managing Committee members of Jaipur, Udaipur, Jodhpur, Kota, Ajmer-Bhilwara, Beawar & Bikaner-Jhunjhunu Chapters of the Institute for their sincere efforts in organizing the event successfully.

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

DIRECTORATE OF CAT

⊙ WEBINT

I am glad to see that the initiative of CAT Directorate to tap the potential of information technology has been doing wonders. The feedback from the Members and Students on the series of WEBINT on IND AS is encouraging. I ensure that CAT Directorate will thrive in its deed of providing virtual learning.

I would like to use this platform to acknowledge the tireless efforts of resource person of this series CMA (Dr.) Gopalakrishna Raju, for his continuous support and making this series a grand success.

I congratulate CMA H. Padmanabhan, Chairman, Committee for Accounting Technicians for his continuous efforts in organising these WEBINTs.

⊙ CAT Meetings and Development

I informed in my previous communiqués that delegation of CAT had meeting with senior officials of Skill Development Department in various states and I am happy to see its efforts are bearing fruits. In the month of March, a proposal was submitted to Maharashtra State Skill Development Society (MSSDS) in partnership with BFSI Sector Skill Council of India (BFSI) having a package of course contents approved by BFSI and Management & Entrepreneurship and Professional Skills Council (MEPSC). I am given to understand that the proposal is under active consideration and modalities are underway to materialise the same. I am hopeful that in the next communiqué, I would be able to share more good news about it.

I congratulate CMA H. Padmanabhan and the officials of team CAT for their continuous efforts in promotion of CAT course.

DIRECTORATE OF TRAINING & PLACEMENT

- **Pre-Placement Orientation Programme and Campus Placement Drive for Qualified CMAs of December 2020 Batch**

I had the pleasure to inaugurate 12 days Online Pre-Placement Orientation Programme on 13th April 2021 along with my Council Colleagues CMA P. Raju Iyer, CMA Balwinder Singh, CMA H. Padmanabhan, CMA Debasish Mitra and CMA Chittaranjan Chattopadhyay. More than 2000 qualified CMAs of December 2020 Batch attended this programme to develop their soft and interview skills and to enrich subject knowledge.

Eminent CMAs from the industry like CMA Rajneesh Jain, President & CFO - Reliance Jio Infocomm Ltd, CMA Sarvjit Dogra, Director Finance - Tripura State Electricity Corporation ltd., CMA Asim Kumar Mukhopadhyay, Vice President – Tata Motors Ltd., CMA Udayan Guha, Sr. Vice President – HCL Technologies (UK) motivated budding CMAs and deliberated on the topic 'Expectation of the Industry from the CMAs'. Apart from this, HR representatives from many recruiting companies also deliberated under 'Interaction with the Corporate' segment during this programme. Topics of discussions were mainly on Practical aspects of Direct & Indirect Taxation, Ind AS, Cost & Financial Management Strategies, SAP – FICO, Advanced Business Excel, Power BI. Leadership and Team Building, IBC & Valuation etc. Eminent personalities from the industry were the guest speakers. The programme ended on 24th April 2021.

I am pleased to share that the Directorate of Training & Placement of the Institute has also initiated the first phase of Online Campus Placement drive to be conducted in the month of May 2021 for the qualified CMAs of December 2020 Batch. Reputed companies have already consented to recruit qualified CMAs such as GAIL India ltd., NBCC(India) Ltd, Engineers India Ltd, Vedanta, Accenture Technology Consulting, CEAT Limited, Kalpataru Power Transmission Ltd., WIPRO, ITC (Internal Audit), Apex Fund Services Limited, Larsen & Toubro Limited, Accenture Advanced technology center in India, Accenture Operations, Lafarge Holcim Global Hub Business Services, Invenio Business Solutions, Capita India Pvt. Limited, Galaxy Surfactants, Consero Solutions India Private Limited, ITC (Foods), ABB Global Industries & Services Pvt. Limited and OLAM Information Services.

Many more companies will visit in the next phases of Campus Placement drives. I congratulate CMA Balwinder Singh, Chairman, T & EF and Placement Committee and concerned staff members of the Training & Placement Directorate for their untiring effort to make the campus engagement successful even during this deadly second wave of COVID situation. I would like to thank all the corporate for attending the first phase of campus placement drive to recruit the best resource pool for their organization. My best wishes to all aspiring qualified CMAs of December 2020 Batch.

INTERNATIONAL AFFAIRS COMMITTEE

I am happy to inform that the International Affairs Committee of the Institute under the Chairmanship of CMA Vijender Sharma organized the International Webinar in association with BFSI Committee, Directorate of Studies and London Overseas Centre of Cost Accountants (LOCCA) of the Institute on the theme "UK India living bridge (Business and Education)" on 23rd April, 2021 with the primary objective to extend business and higher education opportunities to Indian trade communities and academic ecosystem respectively, with regular interactions from U.K. stakeholders to enable new businesses connecting both countries and Indian students joining U.K. universities.

CMA Anirban Mukhopadhyay, Chairman, London Overseas Centre of Cost Accountants (LOCCA) offered the opening remarks followed by Welcome address by CMA Vijender Sharma, Chairman, International Affairs Committee. CMA Chittaranjan Chattopadhyay, BFSI committee briefed the participants about the activities undertaken by the BFSI Committee during the MSME Month while CMA Debasish Mitra, Chairman, Board of Advanced Studies & Research addressed on various initiatives taken by the Board. CMA P. Raju Iyer, Vice President of the Institute shared his valuable thoughts on the topic followed by my address. Lord Howard Darryl Leigh, Baron Leigh of Hurley, Member of the House of Lords, UK Government, Lord John Bird, Baron Bird, Member of the House of Lords, UK, H.E. Nick Low, British Deputy High Commissioner, Kolkata, Mr. Biswanath Bhattacharyya, President, Federation of Small & Medium Industries (FOSMI), Kolkata, Mr. Arnab Basu, Pointers Business Group, Mr. Chandrakant Salunkhe, Founder & President-SME Chamber of India &Federation of Indian SME Associations & member of UK SME Business Council and CMA B.B. Goyal, Former Addl. Chief Adviser (Cost), MoF, Govt. of India graced this important Webinar as our 'Honourable Guests'.

The Technical Session on Business was addressed by Mr. Kevin McCole, Managing Director, UKIBC (UK India Business Council), Dr. Farzana Lakdavala, Director, Scottish Development International, Mumbai, Mr. Alex Parker, Senior Policy Advisor, Export & Investment Policy Unit, Department for International Trade, Government of UK and Ms. Shalini Khemka, Founder & Chief Executive Officer, E2Exchange and Dealmaker UK, While the Technical Session on Education was addressed by Dr. Sanjib Kumar Basu, Dean, PG and Research Dept. of Commerce, St. Xavier's College, Kolkata, Mr. Daniel Petriello, Strategic Engagement Policy, UK Home Office, Ms. Tara Panjwani, Associate Director, UKIBC (UK India Business Council), Mr. David Ouchterlonie, Associate Director, Global Engagement (Strategy Support), University of Nottingham, UK and Prof. Jane Falkingham, OBE, Vice-President International, Executive Dean, Faculty of Social Sciences, Executive Director, University India Centre, University of Southampton, UK.

CMA Udayan Guha, Secretary, LOCCA moderated the Webinar, which ended with vote of thanks by CMA H. Padmanabhan, Chairman CAT and AAT Board. The deliberations during the Webinar were highly appreciated by the participants.

BANKING, FINANCIAL SERVICES AND INSURANCE COMMITTEE

- **Admission of the 3rd Batch of Certificate Courses for Banking and start of the 4th batch of Certificate Courses**

The BFSI department has again started admission for the three Certificate Courses namely Certificate Course on Concurrent Audit of Banks, Certificate Course on Credit Management of Banks and Certificate Course on Treasury and International Banking and I congratulate and welcome the members who are enrolling for these courses being conducted for Capacity Building and Skill Development.

On 17th April, 2021 the Institute started the 3rd batch of Certificate Course on Credit Management of Banks. CMA Manoj Batra, DGM, IDBI Bank was the Chief Guest for the Inaugural session. It was attended by bankers, CMAs and other professionals.

On 24th April, 2021 the Institute started the 3rd batch of Certificate Course on Treasury and International Banking. Shri Vikas Babu, DGM (Treasury), Union Bank was the Chief Guest for the Inaugural session. It was also attended by bankers, CMAs and other professionals.

The admission for the 4th batch of Certificate Course on Credit Management and Treasury & International Banking has started. I request all members and students to enroll for the courses to enhance their skill building.

The admission for the 3rd batch of Certificate Course on Concurrent Audit of Banks will be closing very shortly and we request all interested to take admission at the earliest.

- **Certificate Course on Investment Management in association with NISM**

The 4th batch of Level-I classes have commenced from 4th April, 2021. Also, the 1st batch of Level-III classes have commenced from 18th April, 2021. The Institute has started the admissions for 5th batch of Level-I and members and the students are requested to take the opportunity in taking registration in the course of capital markets.

- **Annual ICAI National Awards -Essay Contest for Bankers:**

The BFSI Committee has organised an annual ICAI National Awards essay contest for bankers and I call upon all members and students working in the banking sector to wholeheartedly participate in the event. The topic of the essay competition is "Digital Banking and Inclusive Growth". The winners would be felicitated and honoured by the Institute with a medal and a certificate and would be presented by a luminary in the banking field. Details of the event have been published by the BFSI department are available at the BFSI portal. The last date for application has been extended till 15th May, 2021.

- **Representation letters for inclusion of CMAs:**

The BFSI Directorate has continued to represent 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.

- **Meeting with President, Federation of Small & Medium Industries (FOSMI):**

CMA Chittaranjan Chattopadhyay, Chairman, BFSI Committee met on virtual mode Shri Biswanath Bhattacharya, President, Federation of Small & Medium Industries (FOSMI) to discuss joint collaboration with the Institute for development of MSME sector.

MEMBERS FACILITIES COMMITTEE

I heartily welcome and congratulate all the 462 new members who have been granted Associate membership and 76 Associate members who have been granted Fellowship during April 2021.

As mentioned in my earlier communique, membership fees and CoP renewal fees only for practising members for the year 2021-22 have fallen due from 1st April 2021 onwards. We find from systems data that such dues are yet to be received from some members and I call upon them to avail of the Institute's online facilities for payment of such fees at their earliest convenience.

All such payments may please be made vide the following link by login facility – https://eicmai.in/MMS/Login.aspx?mode=EU

Payment of membership fees is also possible without login vide the link: https://eicmai.in/MMS/PublicPages/UserRegistration/Login-WP.aspx

PROFESSIONAL DEVELOPMENT & CPD COMMITTEE

I am pleased to inform you that keeping in view the interest of our members, it has been decided to grant extension of time for successful completion of Mandatory Capacity Building Training (MCBT) upto 31st December, 2021 to the practicing members who have taken Certificate of Practice (COP) during the period 1st February, 2019 to 31st March, 2021 and have not undergone the Mandatory Capacity Building Training (MCBT) and desirous of renewing their COP for the year 2021-22. A Notification to that effect has been issued on 9th April 2021 and may be referred to vide the link https://icmai.in/upload/Notification-MCBT-Extension.pdf. I urge the practitioners to take this opportunity and undergo the MCBT.

I would appreciate the efforts of the Professional Development & CPD Directorate for commencing the 3rd batch of e-MCBT from 15th April 2021 for the practitioners who have acquired COP from 1st Feb 2019. The inaugural event was graced by past presidents, CMA D.C.Bajaj & CMA Chandra Wadhwa, CMA Vijender Sharma, Chairman, PD & CPD Committee, Gp. Captain R.K.Joshi, Former Joint Adviser, TRAI, CMA B.B.Goyal, Former Addl. Chief Adviser, MoF, GoI and CMA Sankalp Wadhwa. I alongwith CMA P. Raju Iyer, Vice President were also present and we shared our views with the participants.

I am pleased to inform you that on Institute's representation, Garden Reach Shipbuilders & Engineers Limited (GRSE) considered Cost Accountants Firm for appointment as Internal Auditors.

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

Members may please visit the PD Portal for Tenders/EOIs during the month of April 2021, where Cost Accountants are required in Chhattisgarh State Power Generation Company Limited (CSPGCL), Bharat Electronics Limited, National Fertilizers Ltd., RITES Limited, District Health & Family welfare Society (DH&FWS), Faridabad, Office of The Commissioner of State Tax, Uttarakhand, Dehradun, The Dedicated Freight Corridor Corporation of India Limited, CSIR-National Environmental Engineering Research Institute, Nagpur, Mazagon Dock Ship Builders Ltd., Nagar Panchayat Bundu, Bharat Dynamics Limited, The Odisha Agro Industries Corporation Ltd., A.P.J. Abdul Kalam Technological University, The Dedicated Freight Corridor Corporation of India Limited, Odisha Hydro Power Corporation Ltd., MP Power Management Co. Ltd. Jabalpur, Security Printing & Minting Corporation of India Limited, etc.

Professional Development & CPD Committee associated with the PHD Chamber of Commerce and Industry for organizing a webinar on "Burning Procedural Issues in GST-GST ITC, GSTR 2A/2B, HSN/SAC Code, E-Invoicing, QRMP ETC" on 22nd April 2021.

During the month, around fifty 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. We are sure our members are immensely benefited from the deliberations in the sessions.

REGIONAL COUNCIL & CHAPTERS COORDINATION COMMITTEE

I am happy to announce that based on recommendation of the Regional Council & Chapters Coordination Committee of the Institute under the Chairmanship of CMA (Dr.) K Ch A V S N Murthy a new chapter has been approved by the Council of the Institute, namely Tirupati Chapter of The Institute of Cost Accountants of India covering the area of Chittor district in the state of Andhra Pradesh under SIRC.

I am also pleased to share that based on recommendation of the Regional Council & Chapters Coordination Committee, the Council has decided to change the name of "Chandigarh-Panchkula Chapter of ICAI" to "Chandigarh-Panchkula-Mohali Chapter of ICAI" under NIRC.

The Ballari Chapter of Cost Accountants in the state of Karnataka under SIRC has been dissolved as decided by the Council based on the recommendation of the Committee.

Three numbers of Notifications, all dated 7^{th} April 2021 have been issued accordingly.

TAX RESEARCH DEPARTMENT

The Tax Research Department of the Institute has successfully conducted a workshop on "Customs Policy & Procedures" from 5^{th}April, 2021 to 7^{th}April 2021 attended by 60 participants. The webinar focused on the areas in which CMAs may contribute constructively and the detailed deliberations by Shri Saikat Das, Officer of the Customs Department – Port during the session were highly appreciated by the members. The department also conducted several other webinars on the Topic such as Latest issues in GST on 29^{th} April, 2021 and Income Computation and Disclosure Standards (ICDS) on 26^{th} April, 2021. Admissions for the upcoming batches of the courses (i) Certificate Course on GST, (ii) Advanced Certificate Course on GST, (iii) Certificate Course on Filing of Returns, (iv) Certificate Course on TDS, (v) Advanced Course on GST Audit and Assessment Procedure and (vi) Advanced Course on Income Tax Assessment and Appeal are going on. The classes would tentatively start by May, 2021. The department submitted a representation to Chairman cum Managing Director of SIDBI, Shri Sivasubramanian Ramann for Inclusion of Cost Accountants for appointment as Tax consultants for SIDBI. Another representation has been submitted for Inclusion of Cost Accountants (CMA) for appointment as Tax consultant for Housing & Urban Development Corporation Limited for Indirect Taxes and Direct Taxes.

ICMAI REGISTERED VALUERS ORGANISATION (RVO)

I am pleased to share that ICMAI RVO has organized the Master Class on Valuation on 4^{th} & 7^{th} April 2021, Master Series Case Studies on Valuation on 11^{th} April 2021, Master Class Global Trends In Valuation on 15^{th} April 2021, Mastering Essentials of Valuation on 18^{th} April 2021, Refresher Course on Valuation on 17^{th} & 18^{th} April, 24^{th} & 25^{th}April 2021, Valuation in VUCA Scenario on 21^{st} April 2021, Master Class Strategic Skills for Valuers on 25^{th} April 2021, Master Class on "Revisiting Basics of Valuation" on 28^{th} April 2021 and 13^{th} Online Batch of 50 hrs Valuation course on Securities and Financial Asset from 23^{rd} April 2021 to 2^{nd} May 2021.

INSOLVENCY PROFESSIONAL AGENCY (IPA) OF THE INSTITUTE

The Insolvency Professional Agency of the Institute has taken various professional development initiatives during the month for the professional development of its members such as organizing Webinar on "The Insolvency and Bankruptcy Code (Amendment) Ordinance, 2021 on 8^{th} April, 2021, Master Class on Ethics for Insolvency Professionals (Discussion on Handbook released by IBBI) on 10^{th} & 11^{th} April, 2021, Sensitization Program on The Essence of Professional Misconduct on 17^{th} April, 2021, Master Class on Pre- Packaged Insolvency Resolution Process for MSME's on 24^{th} & 25^{th} April, 2021 and 42^{nd} Batch of Pre-Registration Educational Course from 26^{th} April, 2021 to 2^{nd} May, 2021.

ICWAI MANAGEMENT ACCOUNTING RESEARCH FOUNDATION (MARF)

The Board of Directors of ICWAI Management Accounting Research Foundation (MARF) in its 42^{nd} meeting held on April 30, 2021 has approved a proposal to conduct Study on Cost of Healthcare Services in India. For this purpose, a High-level Committee has been constituted under the Chairmanship of CMA B.B.Goyal, Former Addl. Chief Adviser, MoF, GoI alongwith CMA Chandra Wadhwa, Past President and CMA Vijender Sharma, Chairman, PD&CPD Committee as its Members and CMA J.K.Budhiraja as its Member Secretary. MARF has already received nomination of very eminent Doctors representing FICCI, ASSOCHAM, IMA, AHPI & NATHEALTH. Further, nominations from MCA, CAC, NHA, DGHS, IRDAI, GIC & CII are awaited. The Study would recommend uniform rates for all medical procedures, irrespective of the source of funding; and performance costing & reporting system for the healthcare service providers. Besides, it will provide requisite inputs to the Government and Regulators.

I wish prosperity and happiness to members, students and their families on the occasion of Guru Rabindranath Tagore Birthday, Eid-ul-Fitr, Buddha Purnima & and pray for the success in all of their endeavours.

Wish you all a Happy 62^{nd} Foundation Day of the Institute.

Stay Indoor, Stay safe and healthy!

With warm regards,

Biswarup Basu

CMA Biswarup Basu

May 2, 2021

FROM THE DESK OF CHAIRMAN

Indirect Taxation Committee
The Institute of Cost Accountants of India

CMA Chittaranjan Chattopadhyay

Dear Esteemed Reader,

With a heavy heart, I am penning down my thoughts today in this crisis situation when a devastating second wave of corona virus outbreak has hit our country. Our nation is facing shortages of health facilities due to the rapid rise in the number of cases and people are facing problems in availing medical facilities despite the best efforts of our doctors and the Governments.

The nation has seen an unprecedented impact of the Pandemic during the last fiscal year also. Some strong decisions were taken and implemented by the Govt of India. The economy has gone for a tailspin. It recorded negative growth rate in the first two quarters, and then bounced back on account of various policy and monetary measures announced from time to time. In the second wave scenario, the State Governments are taking the financial decisions from time to time keeping in mind the socio-economic factors, which is being monitored by the Central Government.

I crave to share some thoughts which were there in my mind since long and place it before the readers for their intriguing minds. I feel that some of these changes may help us in building an Atmanirbhar Bharat, in the process of providing the much needed economic and financial support to the business community particularly the MSME sector through indirect tax reforms.

- The taxpayers are presently required to discharge GST liability on accrual basis. Given the critical financial situation and lack of liquidity prevailing overall in the economy, it is requested that the Government considers substitution of payment on accrual basis by the mechanism of payment of GST on outward supplies on collection basis till such time the crisis prevails.
- As per the GST provisions, if the recipient fails to pay the supplier within a period of one hundred and eighty days from the date of invoice, then he has to reverse the input tax credit availed along with interest @18%. On payment, the supplier can again avail the credit. Since the government is not at all prejudiced having received the GST from the supplier, this provision of reversal of input tax credit with interest may be done away with.
- Input tax credit is not eligible for goods lost or stolen or destroyed or written off or disposed of by way of gifts or free samples. The present crisis has resulted in stoppage of production and several finished goods have expired. Similarly, materials in process have also suffered damage and rust. A provision may be brought about to exempt reversal of input tax credit in such cases.
- Another important aspect is related to relaxation in matching for availing ITC, which has initially introduced to discourage the errant taxpayers for availing input tax credit. With the second wave in place and lockdown-like restrictions, the small taxpayers and especially the MSME units and the retailers, cannot operate and run at their full capacities and they are even technologically challenged in some cases. Now matching being a tedious process and requiring huge data it may be suggested to relax this matching provision for the time being which in turn will give leverage for the taxpayers and enable them to file their returns on time.

These would be some of my thoughts, which I have shared with my Tax Research Department as well. The department is always on its toes to provide the best of knowledge and services to its stakeholders and knowledge seekers. In this endeavor the major activities of the department are depicted below for your kind information:

- The Department comes out with publication of handbooks and knowledge packs on various Topics on Taxation. The department also brings out the fortnightly tax bulletin which contains Articles, Case Laws, Notifications and recent updates on both DT and IDT.
- It also submits representation to the Government and various other bodies, stating the various changes that may be considered in the Taxation arena which includes the pre-budget and post budget memoranda. It also submits representations to various corporates and other organisations for inclusion of Cost Accountants in various professional assignments in Direct and Indirect Taxation arena.
- Conducts Seminars/Webints and Webinars/Workshops on Taxation. In these activities a specific topic of taxation is addressed and the intricacies are discussed. Workshops on topics like "Special Audit under GST", "Workshop on FTP and DGFT (With Special Emphasis on Potential Areas for CMAs)" and "Workshop on Customs Policy and Procedures" have been recently conducted.
- The department also conducts courses in Taxations. The courses address the various areas of Taxation like:
  - Certificate course on GST
  - Advanced Certificate Course on GST
  - Advanced course on GST Audit and assessment procedure.
  - Certificate course on Income Tax Return filling
  - Certificate course on TDS and
  - Advanced course on Income Tax Assessment and Appeal

  The admissions for the above courses are going on now. Readers may find these courses useful for their learning, relearning and unlearning on the various facets of Taxation field.
- Crash Course on GST for College and University Level is being conducted successfully pan India to enhance practical knowledge among undergraduate and post graduate students as well as employability skill and thousands of students have been benefited through this course.

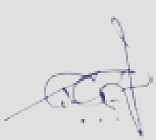
I conclude my thoughts today by congratulating Team members of Tax Research Department for all their endeavour to reach to excellence by putting their efforts to contribute positively in this field.

I am thankful to all the Committee Members and Resource persons for their exemplary efforts in motivating and guiding the department.

I hope and trust that the pandemic will be over soon by following all the protocols and SoPs mandated by the Ministry of Health, Govt of India . I pray for your safe and healthy life.

Any suggestion or constructive criticism is always welcome.

With Regards,

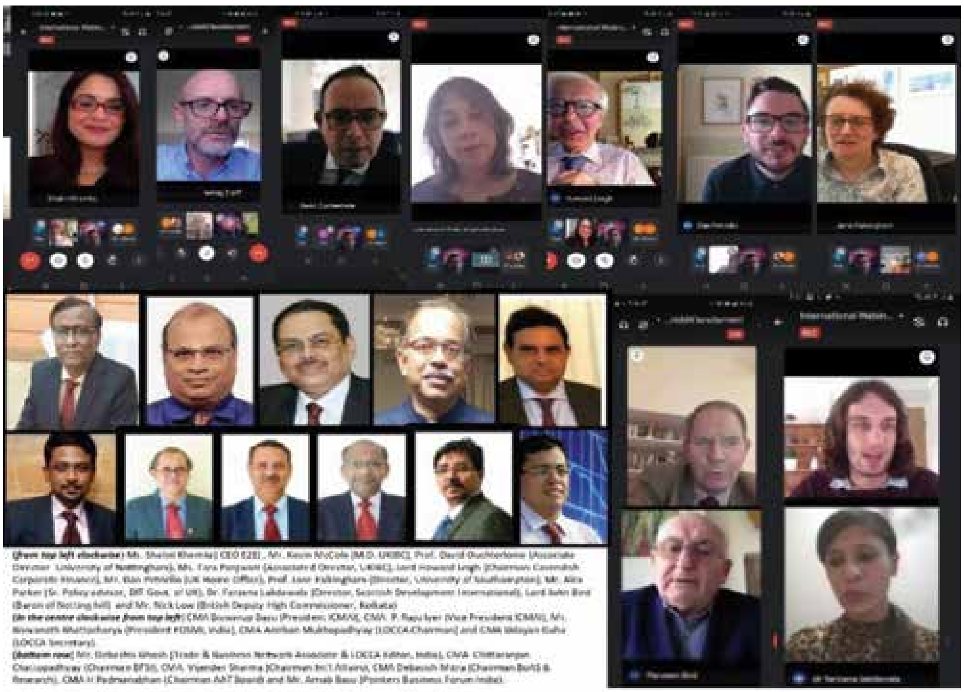


CMA Chittaranjan Chattopadhyay
May 2, 2021

INDUSTRY AND ACADEMIC DIASPORA OF U.K. CONNECT WITH THE INDIAN COUNTERPARTS AT UK - INDIA LIVING BRIDGE

London Overseas Centre of Cost Accountants (LOCCA) organized its first international webinar **UK–India Living Bridge** on 23rd April 2021 in association with the Government of UK, UKIBC, IBG and supported by FOSMI-Bengal, SME Chamber of India and PBF Kolkata who represented Indian MSMEs.

LOCCA Chairman CMA Anirban Mukhopadhyay said it was the beginning of a journey where MSME sectors in India would get to connect with UK SMEs. Similar sentiments were reiterated by President of the Institute, CMA Biswarup Basu and Vice-President, CMA P Raju Iyer along with CMA Vijender Sharma, Chairman, PD & CPD Committee and International Affairs Committee, CMA Chittaranjan Chattopadhyay, Chairman, Banking, Financial Services and Insurance Committee and Indirect Taxation Committee, CMA Debasish Mitra, Chairman, Board of Advanced Studies & Research and Members in Industry Committee, Immediate Past President, CMA Balwinder Singh, Chairman, Training & Education Facilities and Placement Committee and Cost Accounting Standards Board of the Institute who collectively highlighted MSME's role in India's GDP and employment generation.


(from top left clockwise) Ms. Shalini Khemka (CEO E2E), Mr. Kevin McCole (M.D. UKIBC), Prof. David Ouchterlonie (Associate Director University of Nottingham), Ms. Tara Panjwani (Associate Director, UKIBC), Lord Howard Leigh (Chairman Cavendish Corporate Finance), Mr. Dan Petriello (UK Home Office), Prof. Jane Falkingham (Director, University of Southampton), Mr. Alex Parker (Sr. Policy advisor, DIT Govt. of UK), Dr. Farzana Lakdawala (Director, Scottish Development International), Lord John Bird (Baron of Notting hill) and Mr. Nick Low (British Deputy High Commissioner, Kolkata)
(In the centre clockwise from top left) CMA Biswarup Basu (President ICMAI), CMA P Raju Iyer (Vice President ICMAI), Mr. Biswanath Bhattacharya (President FOSMI, India), CMA Anirban Mukhopadhyay (LOCCA Chairman) and CMA Udayan Guha (LOCCA Secretary)
(bottom row) Mr. Debashis Ghosh (Trade & Business Network Associate & LOCCA Editor, India), CMA Chittaranjan Chattopadhyay (Chairman BFSI), CMA Vijender Sharma (Chairman Int'l Affairs), CMA Debasish Mitra (Chairman BoAS & Research), CMA H Padmanabhan (Chairman AAT Board) and Mr. Arnab Basu (Pointers Business Forum India)

Former Addl. Chief Adviser (Cost), Ministry of Finance, GOI, CMA BB Goyal, Guest of Honour asserted that the Indian community has been playing a sizeable role in building up UK's economy and its education sector and discussed about the role both the countries could play in developing the MSMEs.

FOSMI President Mr. Biswanath Bhattacharya touched upon sectoral opportunities in Bengal wherein Mr. Arnab Basu of PBF talked about skill requirements in the VUCA world. Founder President of SME Chamber Mr. Chandrakant Salunkhe spoke about EDP and facilitation of bank loans to SMEs.

Guest of Honour, British Deputy High Commissioner of Kolkata Mr. Nick Low gave insights of the impending UK–India trade partnership and upcoming world-class vaccine industry in UK. Mr. Kevin McCole M.D. of UKIBC talked about UK SMEs with advanced technologies looking to support make-in-India initiatives.

Ms. Shalini Khemka, E2E, UK Govt Dealmaker spoke about the EIS tax scheme which is a tax relief scheme created by the UK Government to encourage investment into startups and early-stage businesses. At present the EIS Tax scheme offers a 30% tax shield that can be offset against current income of an investor that lowers investor's overall tax bill in the UK.

Lord Howard Leigh, Chairman of Cavendish Corporate Finance and Guest of Honour, Lord John Bird, Baron Bird, Member of the House of Lords, spoke about the security-and-investment bill and skill-based education for young generation. Mr. Daniele Petriello of UK Home Office presented the new points-based immigration system for students and professionals.

The event also saw excellent deliberations from eminent speakers like, Dr Farzana Lakdavala from Scottish Development International, Mumbai, Mr Alex Parker, Sr Policy Advisor, Export & Investment Policy Unit, Dept for International Trade, Govt of UK, who spoke on British freeports, Prof Sanjib Basu, Dean, St Xaviers College, Prof Jane Falkingham, Vice President International from University of Southampton, Mr David Ouchterlonie, Nottingham University and Ms. Tara Panjwani, from UK India Business Council.

LOCCA Secretary, CMA Udayan Guha deftly conducted the webinar and Chairman, CAT Committee and AAT Board of the Institute, CMA H Padmanabhan concluded the programme with the vote of thanks.

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GLOBAL RECOGNITION OF CMA QUALIFICATION

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

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

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

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

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

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

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

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

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

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CELEBRATION AND OBSERVANCE OF MAY 2021 AS AGRICULTURE MONTH

Webinars organized by

National Agriculture Task Force, The Institute of Cost Accountants of India

In line with the noble objective of the Government of India of Augmenting Farmers' Income, the Institute has constituted an Agriculture Task Force for the purpose of evolving ways and means of Augmenting the Farmers' Income through 'Strategic Agri Cost Management'. The Institute, thus, looks forward to extend its whole-hearted support to the Government in terms of preparing Concept Papers on Agricultural Costing and Pricing, conducting awareness programmes, and arranging discussion sessions on PAN India basis to analyze the current situation and advising on the steps to be taken in order to achieve the objectives set by the Government for the welfare of the farmers.

In this direction, the Institute has decided to celebrate May 2021 as 'Agriculture Month'. The Institute will be organizing a series of four National Webinars and several local webinars across the country covering multiple topics relating to "Augmentation of Farmers' Income".

The first National Webinar is being organized in coordination with **Nagpur Chapter of Cost Accountants, ICAI** on the theme "Agri Financial Institutions facilitating Augmentation of Farmers' Income" wherein Dr. G.R. Chintala, Chairman, National Bank for Agriculture and Rural Development (NABARD) has kindly consented to grace the event.

We have requested **Shri Narendra Singh Tomar, Hon'ble Union Minister for Agriculture & Farmers Welfare, Rural Development, Panchayati Raj, Food Processing Industries, Government of India,** for his kind consent to be the Chief Guest in the final Webinar of Agriculture Month scheduled on 25th May 2021 on the theme "Agriculture Cost Management".

All the events will be streamed live through the official YouTube channel of the Institute to reach the students, members and all stakeholders of the Institute.

Lists of Webinars

Date	Theme	Time	Speakers – Key Note Address by:
04.05.2021	Agri Financial Institutions facilitating Augmentation of Farmers' Income	5.00 pm - 7.30 pm	**Dr. G. R. Chintala,** Chairman, National Bank for Agriculture and Rural Development (NABARD)
11.05.2021	Rural Development & Augmentation of Farmers' Income	5.00 pm - 7.30 pm	**Dr. G. Narendra Kumar,** IAS, Director General, National Institute of Rural Development and Panchayati Raj
18.05.2021	Academic Institutions Catalyzing the Augmentation of Farmers' Income	5.00 pm - 7.30 pm	**Prof. Nageshwar Rao,** Vice-Chancellor, Indira Gandhi National Open University (IGNOU)
25.05.2021	National Webinar on "Agriculture Cost Management"	5.00 pm - 7.30 pm	**Prof. Vijay Paul Sharma,** Chairman, Commission for Agricultural Costs & Prices, Ministry of Agriculture & Farmers Welfare, Government of India

Key Note Speakers

Dr. G R Chintala
Chairman
National Bank for Agriculture and Rural Development (NABARD)

Dr. G. Narendra Kumar, IAS
Director General
National Institute of Rural Development and Panchayati Raj

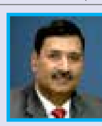
Prof. Nageshwar Rao
Vice-Chancellor
Indira Gandhi National Open University (IGNOU)

Prof. Vijay Paul Sharma
Chairman
Commission for Agricultural Costs & Prices
Ministry of Agriculture & Farmers Welfare, Government of India

CMA Biswarup Basu
President, ICAI

CMA P. Raju Iyer
Vice President & Chairman
National Agriculture Task Force, ICAI

CMA Chittaranjan Chattopadhyay
CCM & Chairman
Indirect Taxation Committee and BFSI Committee, ICAI

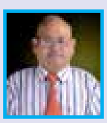


CMA Vijender Sharma
CCM & Chairman
Professional Development Committee & International Affairs Committee, ICAI

CMA (Dr.) K Ch A V S N Murthy
CCM and Chairman
Journal & Publications Committee and Regional Council & Chapters Coordination Committee, ICAI

CMA Neeraj D. Joshi
CCM and Chairman
Management Accounting Committee, ICAI

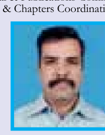
CMA P V Bhattad
Past President, ICAI



CMA (Dr.) Sreehari Chava
Member
National Agriculture Task Force, ICAI

CMA Santosh Sharma
Member
National Agriculture Task Force, ICAI

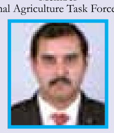
CMA CA Dendukuri Zitendra Rao
Member
National Agriculture Task Force, ICAI



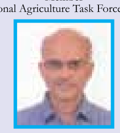
CMA Rabindranath Kaushik
Member
National Agriculture Task Force, ICAI

Dr. Vinayak Deshpande
Member
National Agriculture Task Force, ICAI

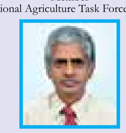
CMA Arindam Gupta
Member
National Agriculture Task Force, ICAI



CMA R. K. Sinha
Member
National Agriculture Task Force, ICAI



CMA Kishore Bhatia
Member
National Agriculture Task Force, ICAI



CMA Gopala Krishna Ayitam
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Statutory Body under an Act of Parliament

Banking, Financial Services & Insurance Committee

announces

ICAI National Awards - Essay Contest 2021 for Bankers

Topic

DIGITAL BANKING AND INCLUSIVE GROWTH

Date has been extended up to 15th May, 2021

CMA Biswarup Basu
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LEVIES, TAXES, AND DUTIES ON TELECOM SERVICES: THE EXISTING POLICY IN INDIA OBLITERATES THE SECTOR

Abstract

The Telecom companies in the country have invested a huge amount of funding for providing telecom services. Rapid changes in telecom technology have made it difficult for the Telcos to recover the cost as their investments are short-lived due to changes in Technology. The telecom tariff should be mostly cost-oriented, but the Telcos have no freedom to fix the tariff. Almost all Telcos are incurring losses in their operation for the past few years and the total loss of all the Telcos put together in the country has shown a figure of around ₹ 50000 Crores every year. The Government collects today various Levies, duties and taxes for Telecom Services. The Govt which was getting a mere ₹ 200 Crores as income from Telecom services in 1999-2000 is now getting around one lakh crores as income every year from the Service. It is time for the policymakers in the country to review its policy on levies, duties and taxes on telecom services for the long-term interest of the Telecom Sector.

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1.Introduction.

Indian Government started to initiate reform process in the telecommunication sector from the mid-eighties in line with the changes taking place the world over.

Telecom is now recognized, as a key area needed for the rapid growth of the economy and massive investments. The Government has also realized that to grow fast, the sector needed competition in the provision of services, and that competition could be encouraged as facilitated by unbundling of the telecom service sector.

However, the telecom sector in India has suffered from historically inconsistent policies and burdensome administrative requirements.

2.Indian Telecom in the Pre-liberalization era.

The Department of Telecom, referred to as DoT in short hereafter, was able to meet the funds required for development, largely out of its internal resources; budgetary support was generally provided only to the extent of the cost of inputs, finalized through various credits and long-term loans. This is illustrated by the fact that the Plan out of ₹ 2699 Crores for 1989-90 was met by the internal resources to the extent of ₹ 1912 Crores. The deficit of ₹ 787 Crores was financed by borrowing ₹ 500 Crores from the market and ₹ 287 Crores from the Government.

There was no source of income to the Indian Government from the Telecom Sector except the dividend income paid to the General Revenue of the Government by the DoT, which represents an element in the interest on capital. The total revenue, the surplus generated, and dividends received by the Government from the telecom sector up to the year 2000 are given in Table.1.

Table 1: The Revenue and surplus generated from the Telecom sector and the Dividend received by the Government from the Eighties to the year 2000. (₹ in Crores)

Year	Revenue Generated	Surplus	Dividend paid to General Revenue
1980-81	657.80	143.87	31.90
1985-86	1307.86	29.24	170.11
1990-91	3458.93	1168.55	220.27
1995-96	9676.24	4700.91	279.19

1999-2000	18628.59	8623.23	172.47
Source: Compiled from the information available in the Annual Reports of Department of Telecommunications, Ministry of Communication and Indian Telecom Statistics of various years published by the Department of Telecommunications.			

3.The problems confronted by the Telecom Operators in India.

Investment needs.

The magnitude of the investment is an approximate indicator of the growth in a sector. The extent of investment made in the telecom sector before and after the period of telecom, liberalization is shown in Table.2.

Table 2: Capital investment in Telecom Sector – Separately in Pre and Post Liberalization periods. (₹ in Crores)

Year ending March	Investment	Year ending March	Investment in Gross Block
1970-71	919	2007	240000
1980-81	2596	2008	275000
1990-91	22142	2009	337700
1997-98	75302	2010	416429
1998-99	94503	2011	479278
1999-2000	125323	2012	517818

Source: Compiled from the Annual Report of DoT of various years and from the Information document of 11th World Telecom/ICT Symposium (WTIS-13) dated 6-1-2014

It could be seen from the table above that the investment in the telecom sector was steadily increasing from the Seventies to the end of the year 2012, an increase of over 500 percent when compared to the investment in the sector in the nineties.

The telecom operators have invested a huge amount of funding for providing telecom services in the Country in the last two decades. The projects of telecom are Greenfield ventures with large upfront investments with revenues comparatively low and expected to grow at a very slow pace, there is very little scope for any significant operating cash flows in the early stages of the project.

The unique features of telecom services are that after an initial investment is made, the growth in the network can be sustained through internally generated funds. The additional requirement for enhancing the level of service should be covered by the revenues from the enhanced services.

Ever-changing telecom technologies.

Rapid changes are taking place in telecom technology. The technological changes have made it difficult for most of the Telecom operators to recover the cost of investments in the sector in many cases. There are also uncertainties in the proportion of cash expected to be generated internally out of the investment as the investments in the sector are short-lived in many cases because of changes in technology/technological innovations.

The timing of technological innovation can involve considerable uncertainties and risks, especially in the context of a major shift. As the Telecom Companies (Telcos) are operating in a competitive environment, they have to opt for new technologies to attract new customers in addition to retaining the existing customers.

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There are uncertainties in the proportion of cash expected to be generated internally for the next three to five years for taking an investment decision in new ventures.

Telecom Tariffs.

In a competitive environment, prices are largely regulated by market forces. However, the operators could be required only to fix their rates following the guidelines issued by the Regulator. Because of cutthroat competition, the prices have come down substantially, which has a remarkable effect on the financial performance of Telcos.

Regulation in the area of tariffs and access charges has increasingly become complex as the number of service providers increases. The operators are expected to work under a price cap regime. Inflationary pressure will in all probability put the operators in a vulnerable situation of generating revenue and forced to go to the TRAI for directions on tariff movements.

Currently, there is definitely cross-subsidization with short and long-distance calls. The tariff should be more cost-oriented. However, the Telcos have no option about the tariff in the regulated environment.

Because of cutthroat competition, the prices have come down substantially, which has a remarkable effect on the financial performance of Telcos

4.Taxes and Levy

Any levy by the Government on the telecom services is ultimately borne by the users, as operators have to consider these as pass-through to remain in business. The higher the levies, the higher is the cost of such services and the lesser will be the number of people who can use these services.

The Government collects today the following levies, duties and taxes from the telecom service sectors.

- For all users, a Service Tax, now known as the GST
- From all the operators, a Licence Fee
- Fees for usage of the Spectrum
- For all operators, import duty on all imported equipment and accessories.
- Besides, there are the normal incidences of Corporate taxes, sales taxes, Octroi duties, personal income tax

on the workforces involved in the Telecom services, etc. as applicable

The above is a major source of non-tax revenue to the Government of India from the telecom Sector. The amount of levies collected from these sources is shown in Table.3.

Table 3: Revenue from Telecom Services (₹ in Crores)

Year Ending March	Gross Revenue	Licence Fee	Spectrum Charges	Auction revenue	Revenue from Service Tax/	ARPU per month in ₹
2007		7037.92	2090.39		6049	
2008		8855.24	3055.72		5675	
2009	40444.66	9511.00	3455.00		5853	
2010	40265.12	9778.52	3809.54		4022	132.00
2011	45513.05	10286.44	3433.23	106264.73		100.00
2012	49242.99	11790.93	5192.30			97.24
2013	54283.78	11456.48	5679.19	1722.24		103.66
2014	60716.21	12955.00	6883.67	18267.18		115.28
2015	65226.73	12358.00	17841.93			121.81
2016	68335.39	15771.00				126.91
2017	63315.18	15615.00				89.34
2018	62198.26	13262.00				71.62
2019	58414.00	11132.00				72.49

Source: Compiled from the information available in the Annual Reports of Department of Telecommunications and Indian Telecom Statistics of various years published by the Department of Telecommunications, and Ministry of Finance, Government of India.

It could be seen from the table above that the Government of India, which was getting a meagre amount of around ₹ 200 Crores from the Telecom Sector, as dividend in 1999-2000 is now generating funds to the tune of around ₹ One lakh Crores from Telecom sector in various sources like Levies, Taxes, etc every year.

The information given above, shows that massive investments are needed in the Telecom sector, which adds up to a substantial burden on the Telecom operators and puts pressure on the probable feasibility of survival of the Telcos. This may ultimately lead to an increase in tariff for the subscribers, which is beyond their reach. In such a situation, it may be difficult to attract sufficient resources in the Telecom Sector.

In the "Telecom Policy 1999", the Government has accepted that telecom is a sufficiently important one for the common man. However, from the way the levies and taxes are imposed on the telecom services all these years, the Government has viewed the sector as a "Cash Cow" for generating more and more revenue to the Government's exchequer.

5. Performance of Telecom companies in India, an overview.

A look at the financial performance of Telecom companies in India may give an overview of the status of their financial operation. The information on the after tax income (ETA/PAT) status of nine telecom companies for the period from 2011-12 to 2018-19 is provided in Table. 4.

Table 4: Performance Telecom companies in India - an overview on Profit after Tax (PAT)

Position of Profit after tax (PAT) (₹ in Crores)

Operator	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
AIRCEL	-3237	-6855	-3478	-1451	-2961	-	-	-
AIRTEL	5730	5096	6600	13201	7780	-9926	79	-1829
BSNL	-8851	-7884	-7020	-8234	-4859	-4793	-7993	-14904
IDEA	577	818	1689	2810	2646	-831	-4781	-
JIO	-			-23	-24	-31	723	-
RCOM	156	624	730	-154	379	-1796	63	
TATA	-4228	-4858	-6167	-3846	-2409	-4617	-17630	-
UNINOR	-9686	-864	-232	-1701	-2279	-924	-	-
Vodophone	-2787	-1276	1166	-17	2368	-4200	-8082	-
Telecom Industry as a whole	-31118	-25559	-1371	-4588	-4971	-39952	-50436	-16553

Source: Compiled from the Information available in the Indian Telecom Statistics of various years published by the Department of Telecom.

It could be seen from the table that almost all the Telcos sustained financial loss during the period from 2011-12 to 2018-19 except 2/3 Telcos in the years from 2011-12 to 2015-16. It is seen that only one Telco has shown a sign of the profitable operation in the year 2017-18 in the above period. The overall position of all the Telecom companies in the country put together has shown a loss every year, ranging from 30000 Crores to 50000 Crores. In line with other Telcos, the fully government owned Telco the BSNL has also shown a loss, a bigger loss than all other companies because of its existence all over the country and a prominent provider of Basic /Land Line service in the country. It shows that the entire telecom sector is facing problems that need to be assessed and attended to by the policy makers in the country.

6.Suggestion

Keeping in view, the situations under which the Indian telecom operators are forced to operate these days, the following suggestions are made for the long-term interest of the Telecom Sector in the country.

Policy Changes.

- The Government should not view it as an opportunity for additional general resource mobilization. This needs to be reflected in its licensing and taxation policies.
- India must be prepared to take some very tough policy and political decisions to raise itself from the current turmoil of its own making.
- In deciding on the level of licence and spectrum fee, the Government should note the impact of these levies on tariff levels and thereby adoption of services.

Addressing the problems of Telecom operators.

- The government is receiving large amounts of funds from the telecom sector in the form of licence fees, duties, and taxes. This money must be used as seed money for developing Telecom infrastructure in the country. Therefore, it is suggested that a "Telecom Infrastructure Development Fund" be created and all telecom licence Fees and other revenues coming from the Telecom sector be transferred to this Fund.
- It is also suggested to set up a "Telecom infrastructure Finance Development Corporation" to provide (i) debt/fund to Telcos (ii) participate in equity in various infrastructure Telecom projects (iii) Provide resources for evaluation of the new emerging technologies
- To review the existing rate of the Licence Fee, Spectrum charges, and rate of Service Tax/GST and to make a substantial reduction in the rates keeping in view the long-term interest of the Telecom operators and thereby to the Telecom sector as a whole in the country.
- Consider extending relief in corporate tax by way of reducing the marginal rate of tax as sector-specific, and to provide Tax holidays to the Telcos for 10 years. MA

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Ref.No.:G/82(14)/04/2021 7th April, 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 decided to change the name of "The Institute of Cost Accountants of India, Chandigarh-Panchkula Chapter" to **"The Institute of Cost Accountants of India, Chandigarh-Panchkula-Mohali Chapter".**

The Institute of Cost Accountants of India – Chandigarh-Panchkula-Mohali Chapter
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(CMA Kaushik Banerjee)
Secretary

THE FRILLS & ILLS OF INDIAN TELECOM SECTOR

Abstract

The article gauges the performance of the Indian Telecom Sector during the recent period by examining the trend of five of the key performance indicators. The article puts forth the fact that the two specific challenges of the sector that warrant specific attention are cut throat competition and unwieldy customer domination. The article recommends a specific regulatory intervention thro' setting a base price (minimum band), formulated on cost plus basis, below which none of the operators be allowed to go either directly or indirectly.

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01.00 Warm Up

The telecom sector is one of the fastest growing industries in India. Apart from being the second largest in the world in terms of the number of subscribers, the exclusive share of telecom in Indian GVA is estimated to be of the order of 1.25%.

The sector has witnessed exponential growth over the last twenty years on account of multiple factors such that a series of reform measures by the government, wireless technology, active participation by the private sector, affordable tariffs, wider service availability, roll out of new facilities and services such as Mobile Number Portability (MNP), 3G through 5G, evolving consumption patterns of subscribers, and supportive regulatory environment.

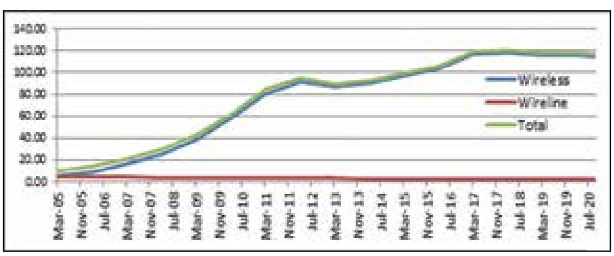
02.00 Performance

Given the above back ground, the performance of the Indian Telecom Sector during the recent period is proposed to be gauged by examining the trend of five of the key performance indicators, viz. (i) Subscriber Base of Telephones; (ii) Subscriber Base of Internet; (iii) Teledensity; (iv) Gross Revenue, and (v) Average Revenue per User (ARPU).

02.01 Subscriber Base of Telephones

As of September 2020, the sector accounts for an aggregate subscriber base of 116.87 crores. Graph 1 depicts the trend of the subscriber base of telephones in India from March 2005 to September 2020.

Graph 1: Trend of Telephone Subscriber Base (Crores)

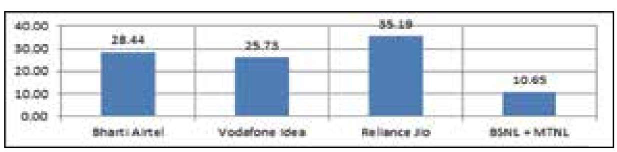


The subscriber base of 5.22 crores of wireless connections as of March 2005 has multiplied over twenty-two times to a mind boggling 114.86 crores by September 2020. However, wired line connections of 4.62 crores have dwindled down to 2.01 crores during the same period. Evidently, the demand has been surging up and up because of perpetual reductions in telecom tariffs for airtime and as also the handset prices.

Even though, the overall growth has been tremendous over the years, it is also obvious that the wired lines are on the way out. The PSU operators (BSNL and MTNL), account for the maximum in relation to basic wired services. Private players dominate the markets in relation to wireless loop services.

Wireless connections being the predominant element, graph 2 charts the market share of the various service providers as at 30th September 2020.

Graph 2: Wireless Telephones: Market Share of Operators as of September 2020

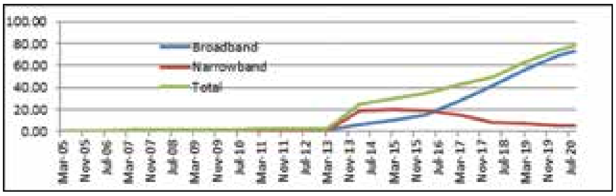


As of day, Reliance Jio turns out to be the biggest market player of the wireless telephone segment with a market share of 35.19%, followed by Bharati Airtel with 28.44%, Vodafone Idea with 25.73%, and then the PSUs at the 4th place with 10.65%. Noteworthy feature is that the Indian mobile market has emerged itself into a 3+1 oligopolistic model with three private players and one PSU player.

02.02 Subscriber Base of Internet

As of September 2020, the internet connectivity spreads across 77.64 crores of subscribers with 72.63 crores of broadband connections and 5.01 crores of narrowband connections. The trend of internet connections – both narrow band and broad band – over the years is displayed by means of graph 3.

Graph 3: Internet Connections (Crores)

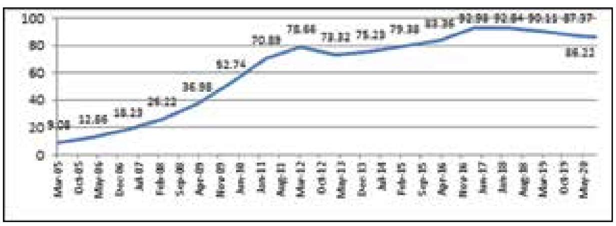


The number of internet connections has shot up from a meager 0.56 crores as of March 2005 to a huge 77.64 crores as of September 2020. The galloping has started from 2013 post the National Telecom Policy of 2012. As in the case of telephone subscribers, Broad Band market too is dominated by the private sector.

02.03 Teledensity

The teledensity, i.e. the number of telephone connections for every hundred individuals, has come to be perceived as a reflector of economic growth and is assumed to have significant correlation with the per capita GDP of the geographical area. Graph 4 tracks the momentum of Indian teledensity.

Graph 4: Indian Teledensity



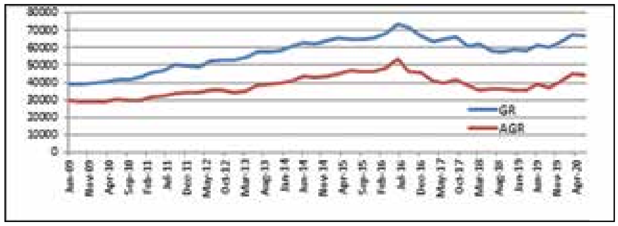
As may be seen from the graph, Indian teledensity has moved up from a mere 9.08 as of March 2005 to a fair 86.22 as of September 2020. However, Indian teledensity is fairly lower in terms of international comparison.

The urban density is stated to be a magnificent 138.25 and the rural density is placed at a moderate 58.96. The gap between urban and rural densities is substantial and needs to be minimized to a relevant range to catch up in line with the global trend.

02.04 Gross Revenue

The revenue generated by the sector is measured in terms of 'Gross Revenue' (GR) and 'Adjusted Gross Revenue' (AGR). Access services, followed by National Long Distance (NLD) are the major source of revenue for the telecom operators in India. Adjusted Gross Revenue, in simple terms, is derived by deducting access charges and roaming revenues passed on to other service providers and the GST paid to government. Graph 5 shows the trend of quarterly GR and AGR of Indian Telecom Sector over the last ten years.

Graph 5: Indian Telecom Sector: Quarterly Revenue (Rs.Crores)

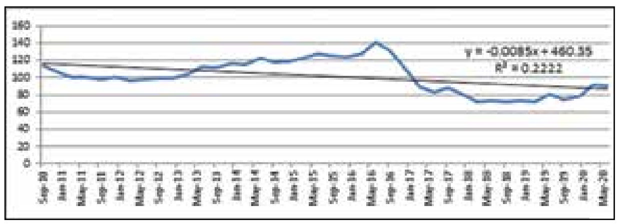


In terms of absolute figures, the GR has gone up from Rs.39,108 crores for the quarter from April-June 2009 to Rs.68,228 crores for July-September 2020. Similarly, the AGR has also gone up from Rs.29,733 crores to Rs.45,707 crores. However, the relevant concern to observe is that the graph takes a downward tilt from September 2016.

02.05 Average Revenue per User per Month (ARPU)

As access services contribute over 70% of the AGR, the ARPU of access services is considered as a fair parameter to visualise the trend of ARPU over the years. Graph 6 plots the quarterly trend from July 2010 to September 2020.

Graph 6: ARPU of Access Services (Rupees)



The trend of ARPU for the period keeps fluctuating in a cyclical manner. The ARPU was Rs.114/- for the quarter ended September 2010, came down to Rs.98/- for September 2011, went up to Rs.128/- by June 2015, then to an all-time high of Rs.141/- for June 2016, started a decline thereafter and stands at Rs.97/- for the quarter ending September 2020. The trend line is negative with $y = -0.008x + 460.3$ and the $R^2 = 0.222$. The obvious and vital reading is that of uncertainty.

02.06 Assimilation

The analysis portrays the strategic environment of Indian Telecom Sector to be a mixed basket of frills and ills. The

Indian Telecom suffered from two major bolts from the blue, viz. the 2G Taint and the AGR dispute, in the recent past

frill parameters include a large subscriber base and expanding teledensity. Wide spread users prompted by a growing economy and declining tariffs appear to be the growth propellers of Indian Telecom Industry. Untapped rural consumers appear to be the biggest opportunity.

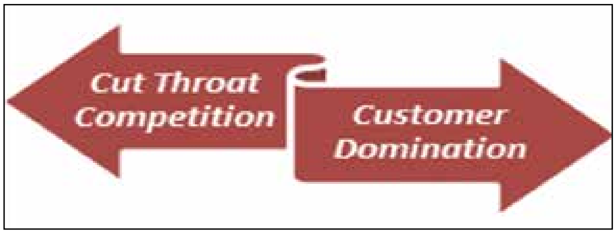
The ills are declining ARPU flows, eventual low capital productivity with eroding equity and uncertain (oligopolistic) ease of competition. It is also reported that the sector is laden with a heavy burden of over 7.50 lakh crores of debt.

03.00 Bolts from the Blue

As is well known, Indian Telecom suffered from two major bolts from the blue, viz. the 2G Taint and the AGR dispute, in the recent past. After the acquittal of the accused of the 2G scam by a CBI court in December 2017, the government is stated to be facing compensation claims worth over Rs 17,000 crores from the telecom companies. In relation to the AGR dispute, the litigated burden of Rs.1.47 lakh crores still remains hanging on the heads of the telecom operators. An apt reading in this context is that such of these unsettled scams and litigations when run for years do have an adverse impact on the entire sector in terms of impairing strategic financial planning and ease of doing business.

04.00 Specific Challenges

Two specific challenges of the sector that warrant explicit attention are cut throat competition and unwieldy customer domination.



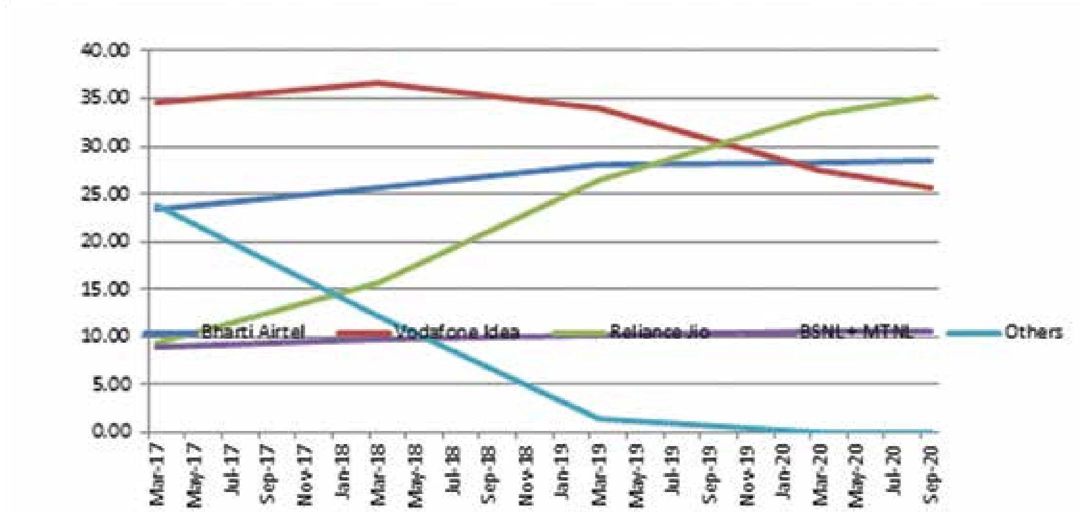
4.01 Cut Throat Competition

Put it across, competition in telecom sector is severe amongst the rivals. The wave of industry deregulation together with the receptive capital markets of the late 1990s paved the way for a rush of many new entrants into the Indian Telecom Sector. Customer luring is resorted to by the competitors through a raft of substitute services and low prices which are, in turn, leading to uncontained tariff wars culminating in lower and lower ARPU.

The entry of Reliance Jio in 2016 has, reportedly, disrupted the market share of telecom sector seriously. Jio offered data services at throwaway prices along with free unlimited national calls. While the entrance of Jio has contributed towards the Internet boom in India, it had put a lot of pressure on its competitors and driven down the prices to the rock bottom.

The trend in market share of the wireless subscribers from March 2017 to September 2020, i.e. post the entry of Jio, is shown in graph 7.

Graph 7: Trend of Market Share of Wireless Subscribers (%)



	Mar-17	Mar-18	Mar-19	Mar-20	Sep-20
Bharti Airtel	23.39	25.70	27.99	28.31	28.44
Vodafone Idea	34.56	36.67	33.99	27.57	25.73
Reliance Jio	9.29	15.76	26.40	33.47	35.18
BSNL+ MTNL	8.94	9.74	10.26	10.64	10.65
Others	23.82	12.13	1.37	0.00	0.00

It may be observed from the graph that the share of Bharti Airtel has gone up from 23.39% as of March 2017 to 28.44% by September 2020; the share of Vodafone Idea has come down from 34.56% to 25.73%; the share of Reliance Jio has galloped from 9.29% to 35.18%; and the share of BSNL+MTNL moved up marginally from 8.94% to 10.65%.

All other players; such as Aircel, Tata, Reliance Communications, Telenor, Sistema, etc.; holding a share of 23.82% of the market have been weeded out of the market completely. It is worth mentioning that over twenty big operators existing in the sector in 2005 have trickled down to a frightening four by 2019. Too few players deem the competition in telecom sector as a "cut throat" exercise by all counts.

04.02 Customer Domination

An important feature of the sector is that of almost zero product differentiation amongst the service providers. Further, even though the major players in the sector are in single digit, the capital investment in the sector is estimated to be a massive amount of over eight lakhs of crores with resultant huge under utilisation in capacity. This, eventually, has translated into customer driven market whereby customers have been seeking lower and lower prices on and off and the resultant tirade of massive switchovers from one operator to the other.

05.00 ARPU Revival the Exclusive Imperative

Unviable ARPU, resulting from cut throat competition and unwieldy customer power, is the primary factor for the ills of Indian Telecom Sector. As such, ARPU revival thro' price regulation is an exclusive strategic imperative for the long term survival of the sector.

By using a combination of pricing analytics and market research, telecom operators can uncover optimal pricing plans for their customers within the range of minimum and maximum bands. Price lead costing techniques comprising 'Yield Management' and 'Target Costing' are the two time tested resources that would come handy in this context

A focused regulatory intervention, in this context, should be setting a base price (minimum band), formulated on cost plus basis, below which none of the operators be allowed to go either directly or indirectly. The base price shall consider various cost and revenue aspects such as spectrum charges, optimum capacity utilization, fair operating costs and minimum return on capital investment.

At the same time, in order to protect the interests of the customers, a ceiling price (maximum band) which shall not be greater than fifty per cent of the minimum band shall also be put in place.

By using a combination of pricing analytics and market research, telecom operators can uncover optimal pricing plans for their customers within the range of minimum and maximum bands. Price lead costing techniques comprising 'Yield Management' and 'Target Costing' are the two time tested resources that would come handy in this context.

06.00 Bottom Line

COVID-19 brought to fore the significance of telecom connectivity in everyday life. Could it be doctors and the patients; isolated and the un-isolated; friends and relatives; teachers and students; venders and customers; and so many and so forth; it is the digital contact that has neutralized the physical barriers across the globe and enabled the sustenance against the unheard of pandemic.

Evidently, all is not, yet, lost for the Indian Telecom Sector. The curative need, of course, is that of remedying the ills and strengthening the frills through appropriate regulatory interventions! MA

Resources

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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 Chittoor District in the State of Andhra Pradesh.

The Institute of Cost Accountants of India – Tirupati Chapter
Tirupati,
Chittoor – 517 501
Andhra Pradesh.

(CMA Kaushik Banerjee)
Secretary

VALUE CREATION FOR TECHNOLOGY START-UPS THROUGH INNOVATORS' GROWTH PLATFORM

Abstract

With the launch of "Innovators Growth Platform", SEBI took a pathbreaking initiative to help promising technology companies for getting listed in a cost-effective and timely manner. With relaxed norms, even small but promising companies can avail these benefits and access capital markets. Though SEBI has kept IGP listing process simple, domain expertise of CMAs in finance & costing will be helpful while choosing suitable mechanism for listing and thereafter, devise suitable growth strategy. Besides comparing different modes of listing, various aspects for IGP like eligibility criteria, proposed amendments, benefits of listing, etc are covered in this article.

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Technological innovation has emerged as the most preferred option for all countries including developing nations to foster economic development, increase level of employability and also address various issues within society. Entrepreneurship has always been necessary for economic development and with continuous innovation of advanced technologies, developed nations have got an edge over others despite having much smaller population.

India is a grand country of nearly 135 crore citizens which has got over 6.5 crore business enterprises, however, hardly 6000 companies are listed on stock exchanges. With better awareness about benefits of listing, increasing number of promoters are coming forward to access capital markets by getting their companies listed, but there is a great scope to penetrate these levels and increase number of listed companies multifold. Initial Public Offer (IPO) has always been the most preferred route for getting listed on stock exchanges, however, considering the huge costs, time as well as uncertainty involved, many companies, particularly start-ups find it difficult to pursue the same which restricts their ability to raise funds through capital markets. On noticing this challenge, the government decided to offer relaxation to selective categories of SMEs and start-ups which are offering high end technology services and products.

SEBI made necessary provision in ICDR Regulations to allow listing on 'Institutional Trading Platform' (ITP) of stock exchanges without bringing an IPO. It was originally notified by SEBI in 2013 and detailed circular was issued, but subsequently it was modified in 2015 to facilitate listing of promising start-ups in new age sectors like information technology, bio-technology, data analytics, etc. In 2018, ITP was renamed as 'Innovators Growth Platform' (IGP) in order to position the product differently among the potential stakeholders, however, there was hardly any progress. Therefore, in order to make IGP more lucrative, during the Board Meeting on 25-3-2021, SEBI has approved sweeping changes to encourage technology based start-ups to go public locally and also get listed on IGP.

Indian Government's Atma Nirbhar Package - Fund of Funds Scheme

In May 2020, Hon'ble Finance Minister had announced about "Fund of Funds" scheme in the form of "Self Reliant India (SRI) Fund" for MSMEs for which guidelines were drafted in August 2020. Accordingly, a mother fund will be anchored by a special purpose vehicle having 100% equity from National Small Industries Corporation Limited. This mother fund will have corpus of Rs 10,000 crore and in turn it will have another 4-5 daughter funds whereby equity funding of Rs 50,000 crore will be invested across promising companies in order to enable them for expansion in size and capacity besides encouraging them for listing.

India has got vibrant capital markets since almost 150 years and larger number of investors are actively investing in listed companies due to various initiatives taken by the Government Regulator – SEBI

It is intended to help those businesses which are in their nascent and initial stages, where there are limited prospects to raise funds through the help of professional corporations or venture capitalists.

All investments will be compulsorily routed through daughter funds and in any given company, it will not hold stake beyond 15% of its issued capital. Once SRI Fund is actively operational through its daughter funds, deserving companies with corporate structure may be able to have easier access to funds besides opportunity to avail benefits of stock exchange listing. On successful exit from any company after listing, the proceeds will be deployed to make investments in other promising companies.

Luminous Capital Markets in India

India has got vibrant capital markets since almost 150 years and larger number of investors are actively investing in listed companies due to various initiatives taken by the Government Regulator – SEBI. There were nearly 2 dozen stock exchanges in the last century but most of them are closed down in the last decade.

Now, there are only 4 operational stock exchanges in India – National Stock Exchange (NSE), Bombay Stock Exchange (BSE), Metropolitan Stock Exchange of India (MSEI) and Calcutta Stock Exchange (CSE). CSE is a regional stock exchange while other 3 stock exchanges are nationwide stock exchanges. NSE and BSE are dominant players which account for over 99% of daily equity trading volumes. There are currently 3 options for companies to get themselves listed on stock exchanges:

- Listing on Innovators' Growth Platform
- IPO on SME Exchanges
- IPO on the Main Board

Comparative Analysis – IGP, SME Exchange & Main Board Listing

Particulars	IGP	SME Exchange	Main Board
Listing through IPO	Optional	Mandatory	Mandatory
Need of Intermediaries in this process – Merchant Banker, Underwriter, etc	Not Needed	Mandatory	Mandatory
Observations / Clearance Given by	SEBI	Stock Exchange	SEBI
Paid-up Share Capital	Rs 10 crores	Upto Rs 10 crores –On SME Exchange Rs 10-25 crores – Optional	Rs 10 Crores
Minimum number of allottees	50	50	1000
Minimum Application Size	Rs 2 Lakhs	Rs 1 Lakh	Rs 10,000
Minimum Trading Lot	Rs 2 Lakhs	Rs 1 Lakh	No minimum limit
Market Making	Not required	Mandatory	Not required
Reporting Frequency	Quarterly	Half Yearly	Quarterly
Cooling Period to trade on Main Board	1 Year	2 Years	Not Applicable
Minimum Lock-in of Promoters' Stake	6 Months	3 Years	3 years

Special Eligibility Criteria for IGP:

Chapter X of SEBI (Issue of Capital & Disclosure Requirements) Regulations, 2018 specifically covers provisions related to IGP towards listing of securities only for trading on a stock exchange without IPO. Given the concessional norms for listing on IGP without IPO as well as subsequent option to access main board of stock exchange in future, SEBI has prescribed strict eligibility criteria for determining eligible companies.

1) Company should be intensive in the use of technology, information technology, intellectual property, data analytics, bio-technology or nano-technology to provide products,

services or business platforms with substantial value addition.

2) As on the date of filing of draft information document with SEBI, 25% of the pre-issue capital of the company for at least a period of two years, should have been held by either of the following category of investors:

1. Qualified Institutional Buyers
2. Family Trust with net worth of Rs 500 crores
3. Accredited Investors for the purpose of IGP
4. Foreign Portfolio Investors
5. Registered Pooled Investment Fund having assets under management of USD 150 million

Subsequent to SEBI Board Meeting held on 25-3-2021, the period of holding is now reduced from 2 years to 1 year.

Accredited Investors of IGP:

Accredited Investors are allowed to hold upto 10% of pre-issue paid-up capital of the company. Following category of investors can be classified as Accredited Investors by undergoing due process as per Chapter X:

1. Any individual investor with total gross income of Rs 50 lakhs annually alongwith minimum liquid net worth of Rs 5 crores
2. Anybody corporate with net worth of Rs 25 crores

In order to get accredition, these investors have to open a demat account with a depository and thereafter, submit an application to the stock exchange in prescribed format. Subject to eligibility, stock exchanges can grant accredition to investors upto a period of 3 years. After getting accredition, these investors have got flexibility to invest in any company listed on IGP.

Subsequent to SEBI Board Meeting held on 25-3-2021, 'Accredited Investors' for the purpose of IGP will now be renamed as 'Innovators Growth Platform Investors'. Further, at present, pre-issue shareholding of such investors for meeting eligibility, is considered for only 10%, which shall be increased and considered for the entire 25% required towards meeting eligibility norms.

Process Snapshot for Listing on IGP without IPO:

SEBI has tried to simplify the process for listing on IGP which can be completed in a short span of 1 quarter if all documents are in order and the issuer companies successfully address the queries of the regulators. Following is the process for listing on IGP:

1. File draft information document with SEBI alongwith necessary documents and pay fees as per Schedule III
2. Draft information documents must contain disclosures as per Part A of Schedule VI
3. Obtain in-principle approval from the stock exchange where shares are proposed to be listed
4. Finish listing process in 30 days on getting final approval from SEBI
5. Draft and final information document has to be approved by the Board of Directors of company and it should be signed by all directors as well as CEO and CFO. Each of these signatories will have to compulsorily certify that all disclosures made in the information documents are true and correct.

In terms of present IGP provisions, issuer companies are not permitted to make discretionary allotment but subsequent to SEBI Board Meeting held on 25-3-2021, issuer company shall be able to allocate up to 60% of the issue size on a discretionary basis, prior to issue opening, to eligible investors with a lock in of 30 days on such shares.

Additional Concessions Proposed by SEBI on 25-3-2021:

1. **Listing of Companies having Differential Voting Rights:** In line with the provisions of Main Board IPO, issuer companies which have issued 'Superior Voting Rights' equity shares to promoters / founders shall be allowed to do listing under IGP framework.
2. **Relaxation for Migration:** As of now, if any company does not satisfy key conditions of profitability, net assets, net worth, etc. then for migration from IGP to Main Board, at least 75% of its capital need to be held by QIBs as on date of application for migration. This limit is now reduced to 50%.
3. **Higher Trigger for Open Offer:** For the companies listed under IGP framework, stipulation for triggering open offer under Takeover Regulations, 2011, has been relaxed from existing 25% to 49%. However, if there is any direct or indirect change in management control of listed company then open offer will be triggered irrespective of the shareholding of the acquirer.
4. **Concessional Delisting Norms:** Delisting under IGP framework shall be considered successful if the post offer acquirer / promoter shareholding, taken together with the shares tendered and accepted, reaches 75% of the total issued shares of that class provided at least 50% shares of the public shareholders are tendered and accepted. Further, for delisting under IGP framework, the Reverse Book Building mechanism shall not be applicable, and for computation of offer price, the floor price will be determined by following mechanism prescribed under Takeover Regulations, 2011, along with delisting premium as justified by the acquirer / promoter.

Substantial Benefits of Listing on IGP:

Large number of entrepreneurs are aiming to list their companies on stock exchanges with an objective to take their business to next level, strengthen financials and use funds to tap growth opportunities. For promising companies which will be raising funds through daughter funds of Indian Government's SRI Fund, attracting next round of funding from overseas / sovereign funds will be comparatively easier. Besides earning profits, every successful listed company has a potential to create significant value for different stakeholders who are associated with it ~ lenders, employees, vendors, banks, government, society and ultimately, its shareholders.

Benefits for Companies: Getting listed on IGP can help emerging companies to be self-reliant (Atma Nirbhar) in true sense while enjoying numerous benefits:

1. Cost effective listing
2. Enhanced brand equity
3. Relaxed norms due to optional IPO
4. Inspiring entrepreneurial spirit & innovation
5. Better visibility among competitors in the industry
6. Wider investor base to reduce dependence on single investor
7. An opportunity to raise capital for start-ups at nascent / early stage
8. High potential to grow inorganically by using shares as a virtual currency for M&A

Benefits for Shareholders: Investment in listed companies has got an edge over unlisted companies and shareholders can protect their interests.

1. Tax benefits for long term investors
2. Perfect de-risking strategy due to listing on recognised stock exchange
3. Smooth entry and exit plans for all investors ~ more particularly for big investors like Angel Investors, AIF / VC / Private Equity Funds, etc

Investment in listed companies has got an edge over unlisted companies and shareholders can protect their interests

4. SEBI has proposed easier norms for taking over or delisting such companies in the event of failed venture while safeguarding the investors

Momentous Role of CMAs:

India is third largest ecosystem in the world with more than 46,500 recognised start-ups. In order to promote innovation, development and improvement of key products, processes or services, Government of India has offered numerous benefits for start-ups. Several local companies have started accessing global markets and even, many of them have got great support from investors. For sure, stock exchange listing can positively help these recognised start-ups to access funds for expansion, particularly when there is an acute liquidity crunch due to Covid-19 pandemic. Listing is a crucial exercise which can create wonders if systematically planned and carefully executed.

Over last 6 decades, Cost Accountants have been widely respected for their rich knowledge in costing & finance as well as deep understanding of business processes. Thousands of CMAs have been consistently rendering top quality services across India to millions of business entities ever since their inception and hence, it can be rightly said that CMAs are in a position to rightly identify emerging technology companies at an early stage and help them to create value under various initiatives taken by the Indian Government. Given the cost effective listing alternative launched by SEBI in the form of IGP for technology companies, CMAs need to play a pro-active role by identifying eligible companies and charting suitable growth strategies by partnering with leadership team. Needless to mention, enormous value can be created by getting these emerging companies listed on IGP which will further strengthen Indian economy and also help to achieve an ambitious target of "USD 5 Trillion" in 2024.

Benjamin Franklin has rightly said, "An investment in knowledge pays the best interest." MA

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25 YEARS OF MOBILE TELEPHONY IN INDIAN TELECOM INDUSTRY

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Abstract

The first ever mobile phone call in India was made just over 25 years ago in July 1995 and ushered in the mobile revolution in the country and changed the way we communicate, work, live, bank, buy, study and travel. From the early days of months' long wait for a telephone connection to the on-demand mobile connections of today, the Indian telecom industry has come a long way. In this article we shall review some of the highlights of this glorious journey of 25 years that has changed each and every aspect of our lives.

Introduction

In the last two decades since the first mobile call in 1995 the Indian telecom industry has undergone wide spread changes. It has changed so much that today we find no similarity with the telecom landscape of the pre-1999 years. Today India is one of the fastest growing telecom markets with fiercest of competitions, has some of the lowest tariffs and the second largest number of telephone and broadband internet users. We also have one of the largest home grown and domestically managed satellite systems to support and augment the vast communications network.

Favourable policies of the last two decades have attracted major investment from the domestic private sector besides foreign investment in the form of FDI in telecom. This has led to the introduction of latest technologies that are at par with that in the developed countries.

The Introductory Phase

The first major change in the telecom sector was carried out in 1986 when some of the operations of the Department of Telecom (DoT) were corporatized. The DoT itself had been carved out of the Department of Posts & Telegraph a year earlier. Thus, **MTNL** was formed to carry out telecom operations of New Delhi and Mumbai and **VSNL** was created to cater to international telecom traffic. This was followed by the ***National Telecommunications policy in 1994*** that envisaged expansion, development and liberalisation of the telecom sector. Subsequently, the first mobile service was launched in 1995 on non-commercial basis.

However, it was ***the New Telecom Policy of 1999*** that laid the foundation of the transformation that we see today. Its key target was to attract investment in telecom by issuing licences to private operators for all the services including mobile services, national long distance (NLD) and international long distance (ILD). The ultimate goal was to improve tele-density in the country especially in rural areas, make phone connections available on-demand, provide internet in all district headquarters and make telecommunications affordable to all.

As part of the policy, pan-India telecom operations of the DoT were corporatized and **Bharat Sanchar Nigam Limited (BSNL)** was formed in October 2001. Its mandate was to provide telecom services across India, except New Delhi and Mumbai where MTNL was already operating.

To ensure a fair and conducive environment to all stakeholders a need was felt for a regulatory body and dispute settlement machinery. To that end, the ***Telecom Regulatory Authority of India (TRAI)*** was set up in 1997. Its objectives were tariff determination, policy making and overall regulation of the telecom sector in the country. Later in January 2000, the dispute adjudication, settlement and appellate functions of the TRAI were handed over to the newly formed ***Telecom Disputes Settlement and Appellate Tribunal (TDSAT).***

The telecom policy of 1999 attracted major investment from the private sector and tele-density improved rapidly within a decade following its implementation. To iron out policy issues raised during this period the government released the ***National Telecom Policy in 2012*** with the following objectives.

1. Simplifying the licensing framework and creating a single license for all telecom services for the whole country.
2. Liberalizing spectrum allocation and usage policies and additional

spectrum allocation for the next ten years to cater to future growth. It also envisaged re-farming of existing spectrum for new technologies, spectrum pooling, sharing and trading.

3. Increasing the rural connectivity and improving broadband coverage and quality.
4. Promoting domestic telecom manufacturing to address security and strategic concerns.

All these favourable policies made mobile telephony a lucrative business and attracted huge investment, both domestic and foreign. Among domestic entrants were corporate entities like Birlas (as Idea mobile), Khaitans (by acquiring BPL Mobile) and Tatas (Tata Indicom, Tata Docomo). Simultaneously, international operators such as Telenor of Norway (as Uninor), Sistema and MTS of Russia (as MTS India), Maxis of Malaysia (as Aircel) and NTT Docomo of Japan (as Tata Docomo) had also entered the country though the FDI route by entering into collaborations with Indian businesses. Entry of large companies, competitive call rates and falling mobile phone prices led to an exponential rise in mobile phone ownership.

Consolidation Phase in the Telecom sector

By mid-2000's competition among the several operators had become unsustainably high. Too many operators in the same telecom circle led to tariff wars and losses. Subsequently, between the years 2012 and 2018 the industry went through a major consolidation phase leaving just four operators by 2020. Some of the significant acquisitions and exits are mentioned below.

- Loop Mobile that started as BPL Mobile in 1994 was the first commercial mobile network in India. It was acquired by Bharti Airtel in 2014.
- Videocon Telecom was operating its mobile services in 11 telecom regions, but ultimately sold its spectrum and operations to Bharti Airtel in 2016.
- MTS India with licences and operations across India was acquired by Reliance Communications in 2016.
- Reliance Communications, one of the largest telecom companies with pan India operations declared bankruptcy in 2019 owing to huge debt.
- Aircel which had major presence in South and North East India stopped operations in 2018 and is currently into liquidation.
- Uninor, that was a joint venture between Unitech and Norwegian company Telenor, was one of the fastest growing telecom companies, but ceased operations by mid 2013.
- Tata Docomo, a joint venture between Tata group and Japanese NTT Docomo, was wound up in 2017 by selling its assets to Bharti Airtel.
- Idea Cellular, another major operator, was merged with Vodafone India in 2018.

Existing Landscape

The mobile technology used in India today is the GSM standard with 2G, 3G and 4G wireless technologies. 2G was launched with the launch of mobile services in 1995 and is still being used by a large chunk of subscribers. 3G was launched in 2008 but is now withdrawn from large parts of the country to free up spectrum and reuse it for 4G services that were launched in 2012. Higher speed and better connectivity of 4G has made it the predominant technology for mobile internet and since its introduction data consumption has increased while tariffs have fallen substantially.

Today India has the fastest growing mobile app market, the second largest telecom network and second highest number of internet users in the world. Mobile subscribers make up more than 98% of the total telephone subscribers, the rest being landline connections. Out of this, share of urban subscribers stands at 55%. Mobile tele-density stands at 85% with seven regions having a more than 100% tele-density. Tele-density in urban areas is 134% while in rural areas is 59%. The wireless market is dominated by the private sector with over 89% share.

The mobile market consists of 1.16 billion connections (as of Jan-21) and four operators, Airtel, Vodafone-Idea, BSNL-MTNL combine and Reliance-Jio. Among these Airtel is the oldest operator and provides 2G, 3G and 4G services. On the other hand, Jio entered the market in 2015 and provides only 4G services. The market leader is Reliance Jio with 35.43% share, followed by 29.36% of Airtel, 24.64% of Vodafone-Idea and 10.57% of BSNL-MTNL.

The number of subscribers increased from 165 million to 1144 million between FY 2006-07 and 2019-20, a growth of 593%. With falling data rates and higher speed offered by 4G, internet subscribers have increased at a CAGR of 21.36% in the last five years with about 743 million users in FY20. In 2012 this number was just 23 million. Average data usage per subscriber was 11GB per month in FY20 with an increase of 11% per quarter in FY21. At the same time the Average Revenue Per User (ARPU), a major profitability statistic for the industry, has also improved in FY20 with further growth expected in the next fiscal.

Latest Policy Support

To attract investment in latest technologies the government raised the FDI limit in telecom from the earlier 74% to 100%, of which 49% is available through the automatic route. Moreover, 100% FDI through the automatic route is allowed for telecom equipment manufacturers and infrastructure service providers.

To facilitate growth of the domestic economy and participation in the global digital economy the ***National Digital Communications Policy*** was formulated in 2018. The main objectives are to attract investments of USD 100 billion in the digital communications sector to provide connectivity to far flung and rural areas and improve

The number of subscribers increased from 165 million to 1144 million between FY 2006-07 and 2019-20, a growth of 593%

broadband penetration. It also aims to expand the Internet of Things (IoT) ecosystem to 5 billion devices and create a data security and protection regime to safeguard our e-assets. To achieve these goals significant investment has been made by the government and the budgetary allocation for 2020-21 to the DoT stands at Rs. 66,432 crores, an increase of 184% over last year's funds. At the same time, FDI inflow into the sector stood at USD 37 billion during April-September 2020 period.

In March 2020 a Productivity Linked Incentive scheme was approved to promote domestic manufacturing of mobile phones and ancillaries. This was followed by approval of a project to setup public wi-fi services in December. In February 2021, the cabinet approved an outlay of Rs. 12,195 crores over five years to boost investment in manufacture of telecom and network equipment for core transmission equipment, 4G/5G network gear, IoT devices, switches, routers etc. MNC manufacturers like Ericsson, Nokia and Samsung already have manufacturing operations in India, but the objective is to achieve 100% local content usage in their production. This will not only address our security concerns and reduce import dependence, but also make India a production hub for electronics and network equipments.

100% FDI through the automatic route is allowed for telecom equipment manufacturers and infrastructure service providers

The Road Ahead

While voice was the key driver in the initial phase of the mobile revolution, it is now replaced by data. In the coming years mobile internet subscribers are expected to double and overall internet traffic is expected to increase four times with 500 million new internet users. This will get a boost from the soon to be launched 5G services in the country and the ongoing development of smart cities across the country which will see more deployment of IoT and consequently push data usage. The government is looking to auction 5G spectrum in the fiscal year 2021-22 with on-ground roll out by early 2022. The two largest operators, Airtel and Jio, have already announced their readiness for 5G, pending spectrum auction and allocation.

Over the years tele-density, affordability and quality of services have improved, yet operational challenges still remain. It is expected that the pro-active stance of the government, greater private sector participation and availability of futuristic technologies will further boost the telecom industry and move India towards a 5 trillion dollars economy in the coming years. MA

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INDIAN TELECOM SECTOR – WILL IT REVIVE OR FADE AWAY?

Abstract

Growth of India's Telecom Sector, World's Second Largest in terms of Subscriber Base, has been breath taking and has changed lives of Indians in last Two Decades by providing one of the lowest Tariff Rates in the World. However, Sector has its own Challenges in terms of Cut throat Competition resulting in Recurring Losses of Telecom Operator's, Piling of Huge Debts and Rural Infrastructural reach. Big question which many of us are guessing is that "Will the Sector fade away due to Financial Stress or will it revive with upcoming 5G Roll out, anticipated Pace of Digitisation & an Ever-Promising India Story?"

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Somewhere in the Year 1999 when I started pursuing CMA Course, I happened to meet a person who had a Mobile Phone with him. Having a Mobile Phone used to be a Luxury in those Days! That Person got the call on his Mobile Phone and after he picked up the Call, it was understood that the Call was from a Wrong Number. The Said Person scolded the Caller as in those days Incoming Call was charged approx. @ Rs. 16 / Minute! Fast Forward to 2021, Forget about incoming Calls Charges, Even Outgoing Calls are virtually Free. What you get charged is for Rental, Data Services and Value-Added Services! Frenetic rise of Mobile Telephony in last 2 Decades, Thanks to the ever-dropping Tariff Rates, has been unimaginable.

Indian Telecom Sector provides Services in the Area of Cellular Connectivity, Internet Service and Value-Added Services. Let's start our Topic with brief highlights of Telecom Sector post liberalisation.

In those days Incoming Call was charged approx. @ Rs. 16 / Minute! Fast Forward to 2021, Forget about incoming Calls Charges, Even Outgoing Calls are virtually Free

Revolutionary Phase of Indian Telecom Sector Post 1994:

- Post Liberalisation, **National Telecommunications Policy was introduced in 1994** and the Sector was opened for Private Investments.
- **Telecom Regulatory Authority of India (TRAI) was set up in 1997** to provide level playing field to Telecom Operators, drafting Policies for the growth of the Sector as well as regulating Tariff Rates to the End Consumers. Telecom Sector became Multi Operator with around 15- 16 Operators at one point of time from couple of Government Owned Players (MTNL & VSNL).
- Post 2000, PCO Booths started to be seen in every nook and corner of the Country and **by 2008, Number of PCO's operating were in excess of 60 Lakh.** Continuous drop in Mobile Charges couple with availability of Cheaper Phones changes the picture completely and by 2019, only 2 Lakh PCO booths were operational!
- **Reliance Infocom started Operations in 2002 by Offering a Cell Phone at Rs. 500 and Call Rate of 40 Paisa Per Minute** (As they say, Call Charges equivalent to a Price of a Post Card) with a slogan" Kar Lo Duniya Muthhi Mein" (Get the World in Your Hand). Call Rates started dropping significantly post this event.
- **By 2003, Incoming Calls were made free.**
- In 2001, Tele-density (No. of Telephone Per 100 Person) was at 3.6 (3.6 Crs. Telephones). This shoots up at 52.7 (62 Crs. Telephones) by 2010.
- Earlier Feature Phones were replaced by Smart Phones in the second decade of this Century which paved way for Operators providing Value Added Services like Internet, Media etc. on the platform of New Technologies like 3G, 4G.

- **100% FDI was allowed in Telecom in 2013.**
- **Reliance Jio entered in 2016** and disrupted the Market by providing dirt cheap Data to Mass Population. Another Operators had to follow Jio to maintain the Customer base. **Mobile Internet Data Plans which used to cost Approx. Rs.150 Per GB in 2016, dropped to Approx. Rs. 10 Per GB in 2019.**As compared to beginning of 2016**, Monthly Data usage per Subscriber has risen from close to 0.5 GB to in Excess of 10 GB**. Number of Data Subscribers has doubled during the same period. To put things in simple perspective, T Series, A Bollywood Music Channel on Youtube, is the Most Subscribed Channel in the World with 17 Crores Subscribers! India have now comparable Internet Giants like Flipkart (E Commerce) , OLA (Cab Service), Grofers (Grocery) etc.
- **Subscriber Base has increased to 118 Crores in 2020**. Overall tele-density of 87.37% at the end of March,2020.
- As on Date, 4-5 Operators are operational others either closed Operations or merged with Bigger Players.

Changes in Market Share in % by Major Telecom Operators

Operator	2008	2010	2020	Remarks
Vodafone	14.6	16.2	25.8	Merged into Vodafone - Idea in 2017
Bharti Airtel	21.3	21.0	28.5	
Reliance Jio	-	-	35.3	Started Operation in 2016
BSNL	24.0	15.7	10.4	Falling Market Share of Government Owned Operators
MTNL	2.4	1.4	0.3	
Tata Teleservices	9.3	10.3	-	Mobile Network Division sold to Bharti Airtel
Reliance Comm.	15.5	16.7	-	Filed for Bankruptcy in 2019
Idea	9.3	10.3	-	Merged into Vodafone - Idea in 2017
Aircel	3.5	5.9	-	Filed for Bankruptcy in 2018

Let's discuss about some of the Issues & Challenges being faced by the Sector

- In 2010, Comptroller and Auditor General of India (CAG) Claimed that **2G Scam worth Rs. 1.76 Lacs Crores**. This incidence shocked the Telecom Industry and the Country as a whole. This was one of the reasons for UPA Government to lose election in 2014.As Telecom Licenses of more than 100 were cancelled by Supreme Court, Some of the Foreign Companies had to quit India. This put a bad Taste of Indian Telecom Industry from Global Investors Point of view.
- Government of India has kept a **High Reserve Price for Spectrum Auction**. Since Spectrum is Scarce & limited and it's an absolute necessity for Telecom Operators to carry out the Business, Operators were compelled to bid at a higher rate which has put stress on the balance sheet of Operators.
- Ongoing Price Ware has impacted in Financial Instability of the Sector. Average Revenue Per User (ARPU) was mere Rs. 71 in 2019 (Around USD 1 as against Global Average of USD 7-8) **Total Industry loss was at in Excess of Rs. 50,000 Crs as per 2017-18** Financials. Only Operator making money was Reliance Jio.
- Telecom Companies are required to pay certain Percentages of **Adjusted Gross Revenue (AGR) to Government.** As per Government's Definition of AGR, it not only includes Telecom related Revenue but also includes all the Revenue earned by the Telecom Operator, which seems to unfair on the part of Operators. During 2020, Supreme Court gave Judgement in favour of Government **to pay AGR worth Rs. 1.3 Lakh Crores including Interest & Penalty**. Paying such a huge amount can throw Operators like Vodafone Idea (AGR Due over Rs.50,000 Crores) out of business as they are already bleeding. In a situation where Vodafone Idea is out of Business, Only Bharti Airtel and Reliance Jio will be left out. Days of Cheap Tariff then will be over as these Companies may start doing Cartelisation and start charging Higher Tariff from Consumers to correct their Balance sheets!
- Industry requires **Additional Investment** for 5G Rollout, Spectrum Purchase and other Technological upgradation. Banking Sector, hit by prospects of higher NPA due to Covid 19 issue, is susceptible to give further Loans to the Sector which is already sitting on a Debt of Rs. 5 Lacs Crores. Current Government may find it difficult to lend a helping hand to Sector as the Opposition is already calling it as a "Suit-Boot ki Sarkar" (Corporate Friendly Government).
- Need of **Inclusive Growth** of Internet Connectivity beyond Cities and Towns to Country's 6 Lakh Villages' where there is far more scope for Telecom sector as compared to Urban Population.

What are the Strengths & Opportunities of the Sector?

- Year 2020 started with the **Covid 19 Challenges** to the entire World Economy as Offices and Factories were shut down & People were confined to Four Walls of their Homes. As Office going People started "Work from Home", As Students started "School from Home" & As Doctors were being consulted online; Demand for Internet Connectivity and New Mobile Connections started to increase. Aggregate data traffic on the three major private networks was estimated at 250 petabytes per day as of December 2019. Lockdown due to pandemic increased daily traffic to more than 350 petabytes.i.e. approximately by 33%. The Learning and Experience during Covid 19 Times has enabled Businesses to continue some the Practices like Work from Home which will further help in increase in Demand for Telecom Services.

- India has a Strong Base of 118 Crore Telephone Subscribers and 70 Crore + Internet Subscribers. Next Big Thing 5G, is bound to accelerate the pace of Data Consumption & Digitisation in the entire Economy with such a huge Consumer Base. Below attached Table shows that there is significant potential to increase Internet Subscription in India.

Internet Using Population %

Country	2005	2010	2018	2020
World	16	29	51	
Africa	2	7	24	
Europe	43	63	80	
US	36	49	70	
India	1	16	38	50

- Every Year India imports Telecom Equipment's worth More than Rs. 1 Lakh Crores. **"Make in India"** Initiative with a Liberal FDI Norms augurs well for shifting this part of Manufacturing to Domestic Industry.
- Operators like Vodafone India has started providing Integrated **IoT Solutions** to industry. These Type of Solution will connect intelligently with Machines, Energy Systems and range of applications like ERP, factory applications for industries helping the 4th Industrial Revolution **(Industry 4.0)**

Every Year India imports Telecom Equipment's worth More than Rs. 1 Lakh Crores. "Make in India" Initiative with a Liberal FDI Norms augurs well for shifting this part of Manufacturing to Domestic Industry

- Telecom Industry has evolved from a Pure Voice Calling to include their Scope in the Areas of Internet, **Digital Content Companies** (e.g. Vodafone Play TV, Jio TV) & **Digital Payments Platforms** (e.g. Airtel Money). This area should help ARPU from a Mass Population base.

Conclusion

- Indian Telecom Industry has enormous opportunity and Potential to succeed and become significant contributor to Indian Economy by touching almost each and every Sector from Banking & Finance, E Commerce, Education, Health, Manufacturing, Media etc. by taking part in the Process of Connectivity & Digitisation.
- Having said that, Paying AGR Dues and other Debt can break the Back of Operators unless there is some dynamic action taken from Government side, say to waive some part of Penalty and Interest on AGR.
- Telecom Players needs to understand that Current Price for ARPU is not sustainable for the survival of the Industry and need to increase the same instead of cutting each other through lower Tariff. If Strong Players carry out unhealthy practices, Government intervention is needed for the betterment of Sector. MA

Sources:

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2. *World Bank Data*

INDIAN TELECOM INDUSTRY: A KEY TOWARDS SUCCESS OF INDUSTRY 4.0

Abstract

The Industry 4.0 in India is happening. This fresh industrial revolution has a lot of offer to our country. While India hasn't taken complete advantage of the earlier three industrial revolutions, we are keen on not missing this opportunity. Industry 4.0 is all about cyber physical systems. Right Planning, Individualized Production, Collaborative Networks and Integrated Supply Chains can create value to the customers and profits to the business.

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INDIAN TELECOM INDUSTRY: AN INTRODUCTION

One industry in India which the whole world looks up to is theTelecommunication Industry. In a country like India where the population is so large and with people living in different corners of the country, providing connectivity to every part of the country is a challenge.Yet, the Indian Telecommunication industry has carried this responsibility so bravely and brilliantly.

Indian Telecom Sector roots can be traced back to 1851 when the British government laid the first operational landlines in Kolkata. Post-independence, all the foreign telecommunication companies were nationalized to form Telephone, Telegraph and Post (PTT), under Ministry of Communications as a monopoly. Later in 1980, private players were allowed in manufacturing telecom equipment which initiated reforming the telecommunication sector. In 1990s, with the concept of **"Telecommunications for all"** the government introduced "National Telecommunications Policy" and opened cellular telecom sector for private investments, which bought changes in ownership, service and regulation of telecommunications infrastructure. From then, Indian telecom industry has gone through a snowball of changes.

Current Scenario:

- Second largest subscriber base in the world – 1.16 billion subscribers
- Fastest growing 'app'market
- Second highest number of internet users
- Average wireless data usage per wireless data subscriber was 11 GB per month in FY20
- Expected contribution to the GDP by 2020 is 8.2%
- UPI payments hit record high of 2.2 billion in terms of volume with transactions worth ~Rs. 3.90 lakh crore in November 2020.

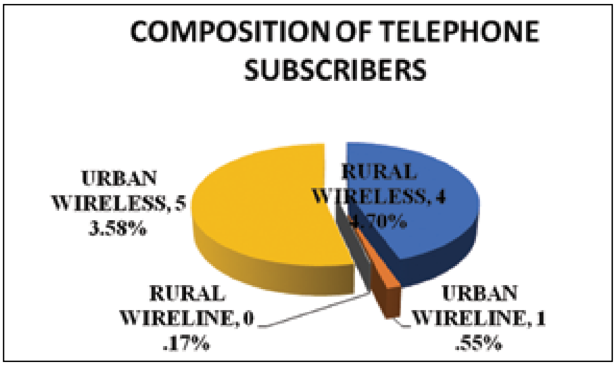

Figure 1: Composition of Telephone Subscribers

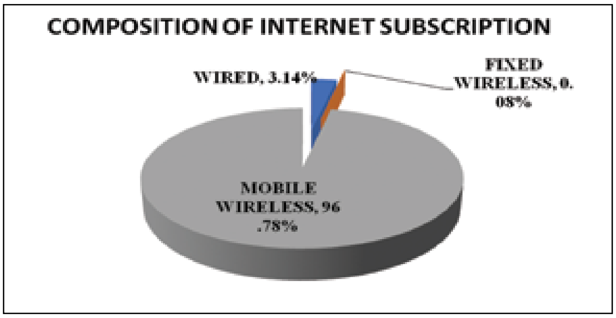

Figure 2: Composition of Internet Subscription

Recent Trends in Indian Telecom Industry:

- Intensive price-based and non-price-based competition in the market.
- Vertical Integration (Mergers & Acquisitions)
- Unbundling Service and Integration
- Infrastructure Sharing
- Increasing concern for data privacy and consumer protection

Key Government Initiatives:

- The Government of India has introduced Digital India programme under which all the sectors such as healthcare, retail, etc. will be connected through internet.
- Setting up of Public Wi-Fi Networks.
- PradhanMantriGramin Digital SaksharthaAbhiyan to encourage digital literacy.
- Approved the provision of submarine optical fiber cable connectivity between Kochi and Lakshadweep Islands

This prestigious and glorious industry of India, which was instrumental in developing the nation, is about to play another catalytic role in implementing Industry 4.0 and making India much competitive in this new industrial revolution.

INDUSTRY 4.0: A GLIMPSE

Industry 4.0 or the fourth Industrial Revolution is today,here. It has come not to rule the world, but make our lives better. Gone are the days when the businesses were run in traditional cost-cutting ways. Industries are now under constant pressure – to improve product quality, boost factory efficiency, stay competitive, enhance safety, security and sustainability, and remain profitable.

Digital transformation towards Industry 4.0 is no more an option, it is a priority. And the Covid-19 pandemic has accelerated the transmission. According to McKinsey & Company, a new survey finds that responses to Covid-19 have speeded the adaptation of digital technologies by several years – and that many of these changes could be here for the long haul.

The expression "Industry 4.0" was coined in Germany in relation to the digital transformation in the manufacturing industry. This expression became the buzzword around the world. This new industrial paradigm is based on individualized production, horizontal integration in collaborative networks, and integration of the supply chain.These technology advancements basically will impact the production and distribution of products and create better value to the customer.

The **First Industrial Revolution**, started by invention of steam power from water, has made a transition from human labor to machinery. Starting with textile industry, steam powered machines have marked increased production levels among several industries. The **Second Industrial Revolution** led by US, triggered with new sources of energy like electricity enabled mass production. It has created demand for skilled labor. The **Third Industrial Revolution** used electronics and information technology to automate manufacturing. It began during the early 1970's. The **Fourth Industrial Revolution** is the current trend of automation and data exchange in manufacturing technologies. The dominant technologies of Industry 4.0 will be IT, electronics, and robotics. It is indeed based on the cyber-physical system (CPS).

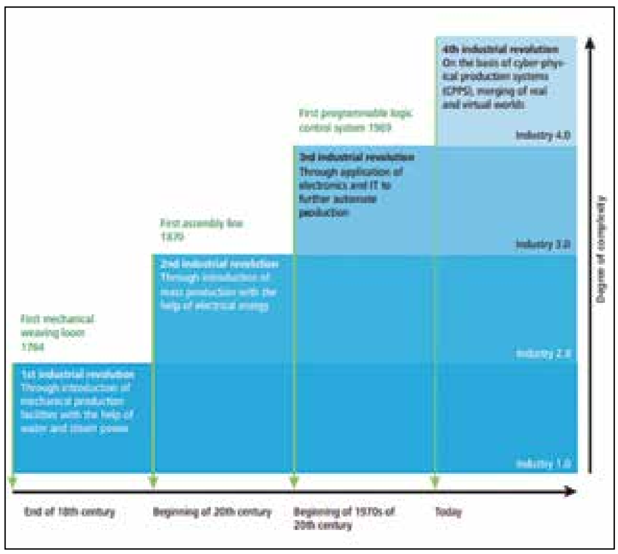

Figure 3: Explaining Industry 4.0. Source: deloitte.com

The main technology of Industry 4.0 is Cyber Physical Systems (CPS). According to Ericsson "cyber-physical system is an integration of systems with varying natures whose main purpose is to control a physical process and, through feedback, adapt itself to new conditions in real time. They're created at the intersection of physical processes, networking, and computation. With the help of integrated sensors, cyber-physical systems can autonomously determine their current operating status within the environment in which it is located, and the distances between objects. Actuators serve to carry out planned actions or to implement corrective decisions. Decisions are made by AI which evaluates information from its own internal sensors and information shared by other cyber-physical systems."

Applications of Cyber Physical Systems are: Automated Guided Vehicles (AGVs) in warehouses (AGVs, with the help of sensors, scans and understands the surroundings, and works in a way that various components are shifted from one place to other place in the plant. AGVs control happens in the cloud. Humans can interact with visual navigation and collision avoidance functionalities.), Intelligent Controls, Process and Assembly Automation, Interactive Traffic Control Systems, Wearable Sensors and Implantable Devices and Early Warning Systems.

Figure 4: Automated Guided Vehicle. **Source:** IndiaMart

TELECOM AND INDUSTRY 4.0: A CONFLUENCE

The essential component of cyber-physical systems is the presence of interconnected objects which, through sensors, actuators and a network connection, generate and acquire data of various kinds. Communication is vital in cyber-physical systems, as they allow different objects to exchange information with each other and with humans, at any time and in any conditions. Information is shared at the cyber level, which is currently raising questions around whether or not it's possible for physical objects, and their virtual representations, to create a 'social network of things.'

Network performance – in terms of latency, bandwidth, and reliability – largely impacts the interactions between the different components of a cyber-physical system, and the ability to execute parallel tasks within a specific timeframe is critical.

There are many types of cyber-physical systems, each with different applications. However, the future network platform should provide the right level of connectivity for them all to deliver optimum performance. For example, latency is an issue for all cases where a complex AI must make real-time decisions, and this needs to be as low as possible.

PROSPECTIVE CHALLENGES INDUSTRY 4.0 WILL FACE DURING IMPLEMENTATION

Industry 4.0 is a new breakthrough of industrial development. It has and is still continuing to enhance the way we interact with the world. But with great opportunities, also come great challenges. The following are few of the main challenges that are encountered while practically implementing Industry 4.0:

- **Sensor Technology:** Operation of Industry 4.0 focuses on providing machines with the ability to see, detect and communicate smartly. In fact, industry 4.0 may be impossible without smart sensors. In this regard, implementing this technology and training for it involves one of the most difficult challenges for a smart factory.
- **Data Sensitivity:** The rise in technology has also led to increasing concerns over data and IP privacy, ownership, and management. Further, our current data governance policies for internal use within organizations are inadequate to support cross-organizational data sharing. Data is a powerful asset – enterprises must make sure to keep it secure!
- **Capital Investment:** Industry 4.0 implementation will not be free. There will be varying degrees of cost involved from cheap IoT sensors used on existing machines or the purchase of large machinery with integrated I-4.0 solutions. The capital investment needed for some of these larger projects might hurt the balance sheet in the short term.
- **Recruiting and developing new talent:** The needs required of the workforce are all evolving. When looking to fill open positions, finding applicants who possess "digital dexterity" in that they understand both the manufacturing processes and the digital tools that support those processes is a major challenge.

ROLE OF TELECOM IN OVERCOMING THE CHALLENGES POSED BY INDUSTRY4.0

With 5G quickly becoming a real-world presence and the Internet of Things picking up speed, we are on the cusp of the Fourth Industrial Revolution. This exciting new age will see unprecedented levels of automation, convenience and connectivity and represents a real opportunity for Communication Service Providers (CSPs).

With 5G quickly becoming a real-world presence and the Internet of Things picking up speed, we are on the cusp of the Fourth Industrial Revolution

The Telecom industry with special reference to India can serve the following purposes thereby reducing the issues faced by Industry 4.0:

- **Network slicing:** Network slicing is a specific form of virtualization that allows multiple logical networks to run on top of a shared physical network infrastructure. It allows the active management of every connection in the network, so time-critical control can be guaranteed.
- **5G:** 5G opens the door to Industry 4.0. 5G can help relive improve manufacturing by boosting quality and efficiency, stay competitive, enhance safety, security and sustainability, and be profitable.
- **Cloud Computing:** Cloud Technology/ Cloud computing within Industry 4.0 means storing and accessing data and programs over the Internet instead of your computer's hard drive. This way, Telecom service providers can strengthen wireless transfer of data and thereby minimize manual transfer of data through computers.
- **Internet of Things:** In the broadest sense, the term IoT encompasses everything connected to the internet. Simply, the Internet of Things is made up of devices – from simple sensors to smartphones and wearables – connected together. The new rule for the future is going to be, "Anything that can be connected, will be connected." By this, telecom can play a vital role in connecting the globe through various devices.
- **TRAI:** India is a telecom regulated market with telecom service providers being required to obtain a license in order to provide services. TRAI, the telecom regulator of India is the authority entrusted with the duty and responsibility of ensuring compliance, thereby bringing down security concerns in the telecommunications sphere.

Way Forward:

Thus, telecom services can help bring down the challenges faced by industry 4.0 and hence transition seamlessly into the industrial market to join burgeoning ecosystems and claim their place at the heart of industry 4.0.

17th May, the World Telecommunication and Information Society Day, with its 2021 theme as, **"Accelerating Digital Transformation in Challenging times"** can play a pivotal role in increasing the awareness about the digital world in a healthy way at a time when the entire globe is hit by the pandemic. MA

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FINANCIAL PERFORMANCE OF SELECTED TELECOM COMPANIES OF INDIA: A STATISTICAL ANALYSIS

Abstract

This paper uses 2-factor ANOVA to analyse the profitability, solvency and turnover ratios of three Indian telecom companies. Data for computing these ratios was collected from the annual reports of these companies. The study covers the financial years between 2010 and 2020.

The paper concludes that Airtel has been the most profitable while BSNL has faced continuous losses. Long term solvency of Airtel and BSNL was better than Idea while turnover ratios of Idea were relatively higher than the other two companies.

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INTRODUCTION

Since 2010, the Indian telecom sector has been facing a host of challenges in the form of increased competition, falling profitability and changes in Government policies. In face of these challenges, several telecom companies had to wind up operations in India, declare bankruptcy, merge with other firms or be acquired by their competitors. A few cases are summarized below:

Table1: Market exit by telecom operators (2010–2020)

Year	Operator	Reason for exit
2012	S Tel	License cancellation by the Indian Supreme Court (TOI(2012))
	Etisalat	
2014	Loop Mobile	Shutdown of operations (Telecomtalk(2014))
2015	Virgin Mobile	Merger with Tata Docomo (Telecomtalk(2015))
2017	Videocon Telecom	Shutdown of operations (Economic Times(2017))
2017	MTS India	Acquisition by Reliance Communications (Economic Times (2016))

2018	Idea Cellular	Merger with Vodafone India (Economic Times (2018))
	Vodafone India	Merger with Idea Cellular
2018	Telenor India	Acquisition by Bharti Airtel(Business Line(2019))
2019	Tata Docomo	
2018	Aircel	Bankruptcy(Hindu(2018), NDTV(2019))
2019	Reliance Communications	
Source: *Compiled by author*		

Table1 indicates that majority of operators who exit the market between 2010 and 2020, did so due to their weak financial performance. As of 2021, the number of firms offering mobile telephone services is restricted to only four entities: Reliance Jio Infocom Limited, Bharti Airtel Limited, Vodafone-Idea Limited and Bharat Sanchar Nigam Limited. Hence it is relevant to analyse the financial performance of these firms between 2010 and 2020 so that inferences may be drawn on their profitability, solvency and operating efficiency during this period.

RESEARCH METHODOLOGY

Objectives

This paper analyses financial ratios of (i) Bharti Airtel Limited (ii) Vodafone-Idea Limited (VIL) and (iii) Bharat Sanchar Nigam Limited (BSNL). The objective is to apply statistical techniques on these ratios in order to analyse and asses their financial performance between the financial years 2010 and 2020.

Sample selection

The selection of these companies was motivated by the following factors:

- After the exit of several operators from the telecom sector due to closures, mergers and acquisitions, these three firms have remained as the dominant competitors in the Indian mobile telephone space
- Sufficient financial data spanning several accounting years is available for these companies. Thus it is easier to analyse and derive statistical inferences on their financial performance.

Data and Methods

To achieve the paper's objectives, profitability, solvency and turnover ratios of all three companies were analysed:

Table2: List of ratios analysed

Profitability ratios	Solvency ratios	Turnover ratios
Net Profit (NP) ratio EBIT Margin Return on Capital Employed (ROCE) Return on Net Worth (RONW) Return on Equity (ROE) Return on Assets (ROA)	Current ratio Net Worth (NW) ratio Debt Equity (DE) ratio Assets to Net Worth ratio	Capital Turnover ratio Working Capital Turnover ratio Asset Turnover ratio
Source: *Author*		

Data required for calculating these ratios was derived from the company annual reports. These annual reports were downloaded from the websites of the respective companies.

The following hypotheses were tested on the ratio values:

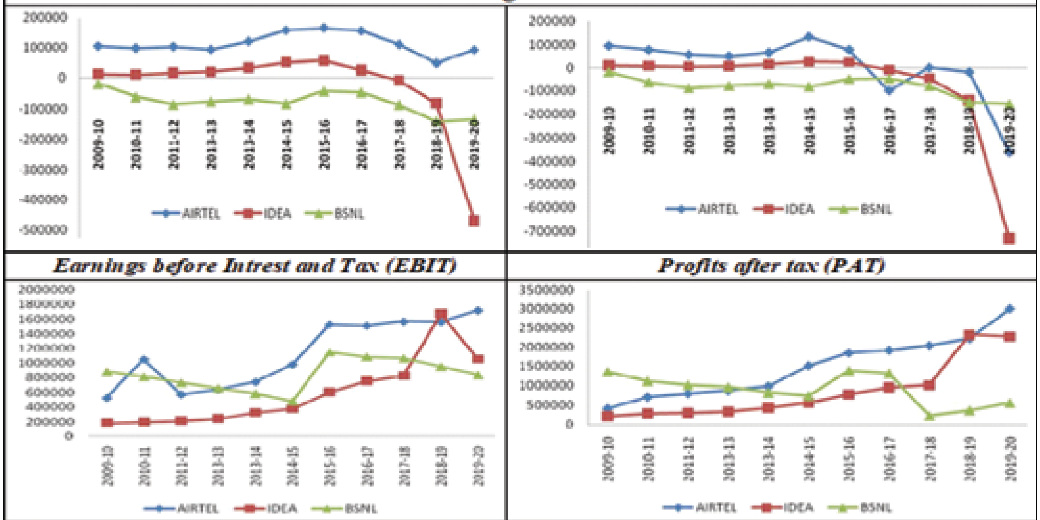
Table3: List of hypotheses tested
H01: There is no significant difference between the values of Profitability ratios of the telecom companies or of the different years
H02: There is no significant difference between the values of Solvency ratios of the telecom companies or of the different years
H03: There is no significant difference between the values of Turnover ratios of the telecom companies or of the different years
Source: *Author*

Since each null hypothesis actually contains two separate hypotheses, 2-way ANOVA was used for hypothesis testing. For each null hypothesis, F-values are computed and compared to values in the F-table for the given degrees of freedom. Where the computed values of 'F' are less than their table values, the null hypothesis is accepted.

RESULTS AND DISCUSSION

Both Airtel and Idea have had negative PAT after 2015-16. However, although EBIT of Airtel was positive throughout the study period, Idea's EBIT values were negative after 2015-16. BSNL experienced negative EBIT and PAT in all FYs between 2010 and 2020 (Figure1).

Figure1

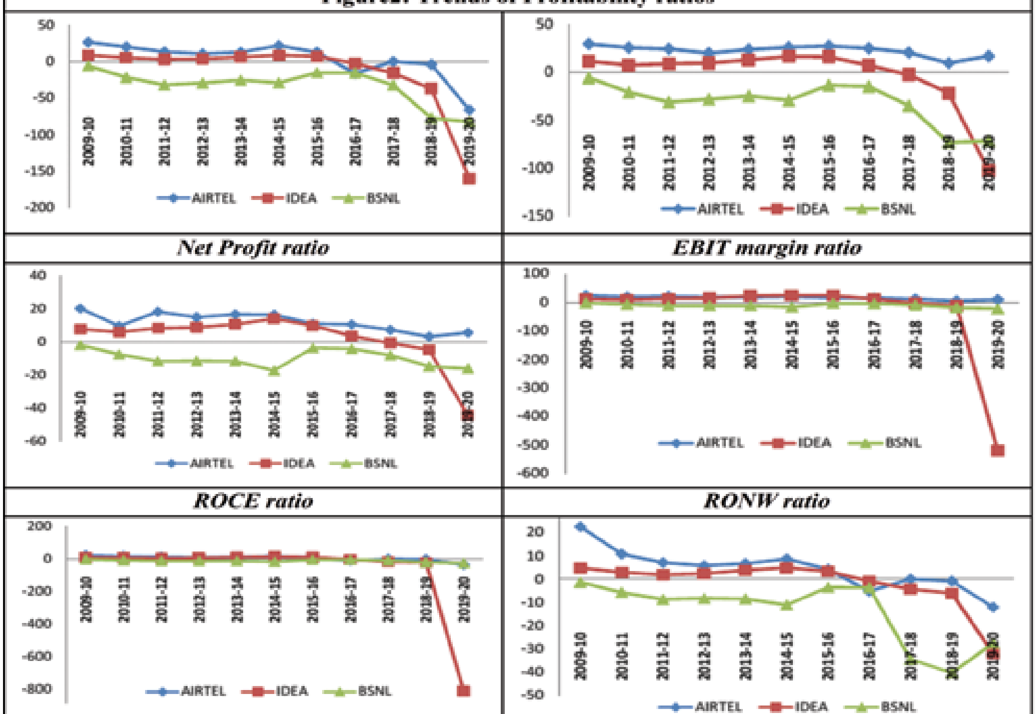


Earnings before Intrest and Tax (EBIT) | *Profits after tax (PAT)* | *Total capital employed* | *Total assets*

Source: *Annual reports*
Note: *Figures in Rs million*

Figure2 shows trends in profitability ratios. Owing to negative PAT, both Airtel and Idea had negative NP ratio, ROE and ROA after FY17. However, Positive EBIT allowed Airtel to have positive values for EBIT margin, ROCE and RONW throughout the study period. Post FY17, even these ratios were negative for Idea. All profitability ratios of BSNL had negative values between 2010 and 2020 owing to negative EBIT and PAT.

Figure2: Trends of Profitability ratios



Net Profit ratio | *EBIT margin ratio* | *ROCE ratio* | *RONW ratio* | *ROE ratio* | *ROA ratio*

Source: *Author's computation*

Figure2 indicates that profitability ratios of all three operators faced difficulties during the study period. However, the profitability of Airtel has been healthier than the other operators. Profitability ratios of Idea Cellular were impacted after its merger with Vodafone. Similar results were observed in case of Airtel. Values of Aircel's PAT have also been negative since its acquisition of Telenor and Tata Docomo. However, Airtel's post acquisition profit impairment has been less severe than Idea. This is borne by the fact that although both Airtel and Idea's capital employed and total assets rose rapidly during the study period (Figure1), Airtel was able to maintain comparatively higher values for all the profitability ratios (Figure2). This was due to Airtel's higher levels of EBIT and PAT (Figure1). Due to continuous losses at BSNL (Figure1), its profitability ratios were all negative (Figure2). Post 2014-15, capital employed and assets of BSNL were both lower than Airtel and Idea. Yet negative EBIT and PAT meant that ROCE, RONW, ROE and ROA were all lower.

Table 4 shows ANOVA results for profitability ratios.

Table4: Results of ANOVA for Profitability ratios

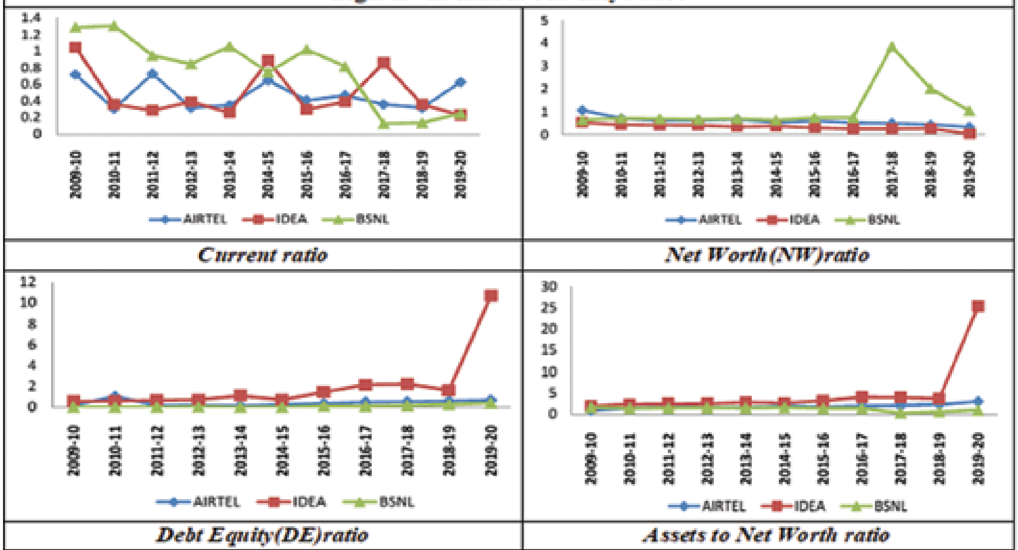
Ratio	Source of Variation	Sum of squares	Degrees of Freedom	Mean Square	F-value	
					Computed value	Table value
NP Ratio	Between years	30180.76	10	3018.076	8.276607	2.347878
	Between companies	7132.164	2	3566.082	9.779428	3.492828
	Error	7293.027	20	364.6514		
	Total	44605.95	32			
EBIT Margin	Between years	11172.39	10	1117.239	3.787049	2.347878
	Between companies	16159.32	2	8079.658	27.38722	3.492828
	Error	5900.313	20	295.0156		
	Total	33232.02	32			
ROCE	Between years	1667.749	10	166.7749	2.190941	2.347878
	Between companies	2641.851	2	1320.926	17.35315	3.492828
	Error	1522.404	20	76.12021		
	Total	5832.004	32			
RONW	Between years	93622.49	10	9362.249	1.126668	2.347878
	Between companies	15361.96	2	7680.978	0.924341	3.492828
	Error	166193.6	20	8309.679		
	Total	275178	32			
ROE	Between years	232715.4	10	23271.54	1.243435	2.347878
	Between companies	35653.21	2	17826.6	0.952504	3.492828
	Error	374310.5	20	18715.52		
	Total	642679.1	32			
ROA	Between years	2763.405	10	276.3405	5.43357	2.347878
	Between companies	1903.045	2	951.5223	18.70939	3.492828
	Error	1017.16	20	50.858		
	Total	5683.609	32			

Source: *Author's computation*

F-values in Table4 indicate that for NP ratio, EBIT margin and ROA, the null-hypothesis cannot be accepted. These ratios differ significantly both between the years and the operators. However, for RONW and ROE, the null-hypothesis can be accepted. Hence, there is no significant difference between the years and operators regarding the value of these ratios. Also, the value of ROCE does not differ significantly between the years. However, they do differ significantly between the operators.

Current ratio of BSNL has shown falling trends through the years while that of the other operators have followed an uneven trend.

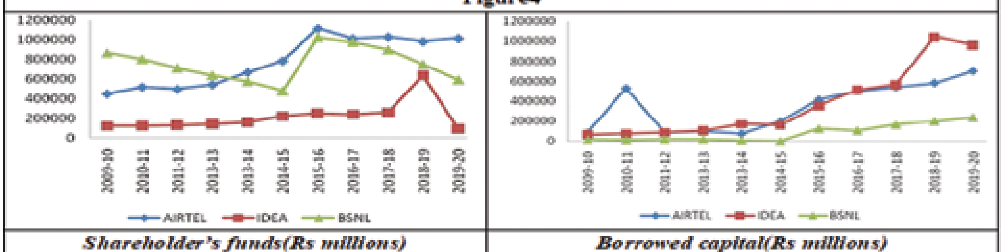
Figure3: Trends of Solvency ratios



Source: *Author's computation*

Idea had lower NW ratio but higher DE ratio than Airtel and BSNL (Figure3). This is due to the fact that Idea had lower levels of Shareholder's funds but higher debt levels compared to the other operators (Figure4). Idea's falling NW ratio is reflected in a corresponding rise in its Assets to NW ratio.

Figure4



Source: *Annual reports*

Debt levels of both Airtel and Idea have increased after mergers and acquisitions. Yet, higher levels of shareholder's funds and comparatively lower debt levels of Airtel and BSNL have allowed these operators to maintain lower DE ratio. Airtel and BSNL have relatively greater long term solvency compared to Idea.

Table5 shows ANOVA results for solvency ratios.

Table5: Results of ANOVA for Solvency ratios

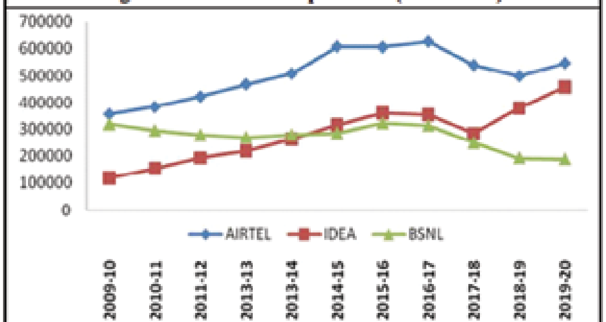
Ratio	Source of Variation	Sum of squares	Degrees of Freedom	Mean Square	F-value Computed value	F-value Table value
Current ratio	Between years	1.197073	10	0.119707	1.346539	2.347878
	Between companies	0.638733	2	0.319367	3.592426	3.492828
	Error	1.778	20	0.0889		
	Total	3.613806	32			
NW ratio	Between years	2.843455	10	0.284345	0.756478	2.347878
	Between companies	3.684915	2	1.842458	4.901706	3.492828
	Error	7.517618	20	0.375881		
	Total	14.04599	32			
DE ratio	Between years	33.26523	10	3.326523	1.239618	2.347878
	Between companies	24.06732	2	12.03366	4.484302	3.492828
	Error	53.67015	20	2.683508		
	Total	111.0027	32			

Assets to NW ratio	Between years	169.192	10	16.9192	1.125763	2.347878
	Between companies	90.70095	2	45.35048	3.017511	3.492828
	Error	300.582	20	15.0291		
	Total	560.4749	32			
Source: *Author's computation*						

F-values in Table 5 indicate that values of Current ratio, NW ratio and DE ratio do not differ significantly between the years but do differ significantly between the operators. However, there is no significant difference between the years and operators regarding the value of Assets to NW ratio.

Figure shows income from operations earned by the three companies.

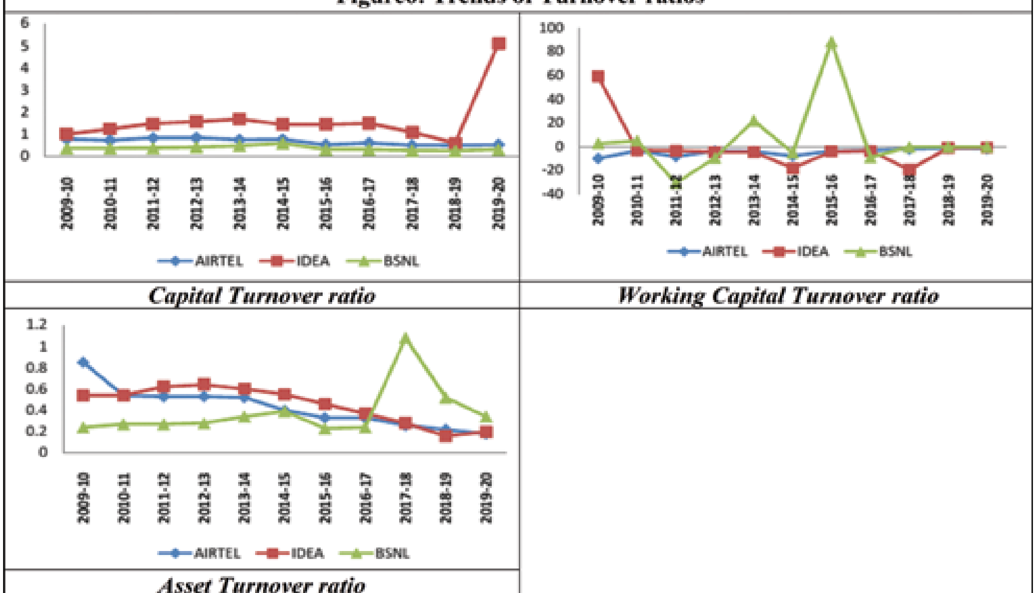
Figure5: Income from operations (Rs millions)



Source: *Annual reports*

Idea had higher Capital and asset turnover ratios compared to Airtel and BSNL (Figure6). Although Airtel had higher income from operations (Figure5), its capital employed and total assets were also higher (Figure1). Both Capital and asset turnover ratios of Airtel and Idea have shown a falling trend onwards of FY14. The WC turnover ratio of BSNL and Idea has shown an uneven trend. This is reflected in falling values of current ratio (Figure3) and income from operations (Figure5).

Figure6: Trends of Turnover ratios



Capital Turnover ratio | *Working Capital Turnover ratio* | *Asset Turnover ratio*

Source: *Author's computation*

F-values in Table6 indicate that there is no significant difference between the years and operators regarding the values of Working Capital turnover and Asset turnover ratios. Thus, the null hypothesis can be fully accepted for these ratios. However, capital turnover ratio does not differ significantly between the years but does differ significantly between the operators.

Table6: Results of ANOVA for Turnover ratios

Ratio	Source of Variation	Sum of squares	Degrees of Freedom	Mean Square	F-value	
					Computed value	Table value

Capital Turnover ratio	Between years	4.554073	10	0.455407	0.942028	2.347878
	Between companies	9.812479	2	4.906239	10.14875	3.492828
	Error	9.668655	20	0.483433		
	Total	24.03521	32			
Working Capital Turnover ratio	Between years	4360.096	10	436.0096	0.963969	2.347878
	Between companies	570.9161	2	285.458	0.631116	3.492828
	Error	9046.132	20	452.3066		
	Total	13977.14	32			
Asset Turnover ratio	Between years	0.321297	10	0.03213	0.672161	2.347878
	Between companies	0.026988	2	0.013494	0.282296	3.492828
	Error	0.956012	20	0.047801		
	Total	1.304297	32			

Source: *Author's computation*

Idea had comparatively higher capital and asset turnover ratios than others, mainly on account of Idea's relatively lower capital employed or smaller asset base

CONCLUSION

Profitability of Airtel has been the highest followed by Idea, while BSNL has been facing losses continuously throughout the study period. Debt levels of all three companies have risen consistently during this period. However, in terms of long term solvency, Airtel and BSNL are in a better position compared to Idea. Idea had comparatively higher capital and asset turnover ratios than others, mainly on account of Idea's relatively lower capital employed or smaller asset base. MA

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AT THE HELM

Our heartiest congratulations to CMA Rakesh Bhalla, a Fellow Member of the Institute on being elevated to the position of Chief Financial Officer (CFO) in SML Isuzu Limited (SMLI). During the last 20 years, he has handled Indirect Tax including installation of systems for compliance of varied regulations, Tax Planning, Liaison with various Indirect Tax & Audit Authorities. He has also headed the Internal Audit Department of SML ISUZU since the last 30 years.

He is also a Council Member and Chairman of Direct Taxation Committee of the Institute.

We wish CMA Rakesh Bhalla the very best for all his future endeavours.

CYBER SECURITY – "BEWARE, CONNECT WITH CARE"

Abstract

There was once a time when business's worst nightmare would be a group of hooligans and thieves. But, now the threat landscape has changed significantly Now a cyber criminal can enter a business and obtain extremely sensitive and protected information and that could cost the company time, effort and endless amount of money. The goal of this article is to help to gain an understanding about the growing instances of cyber crimes in India, the challenges and the steps that can be taken by organizations to face today's constantly evolving threat landscape.

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After Awakening, one of the first five things most people do is checking their phones. This might not have been the case in the 1990s but in 2019, it is a different story altogether. In the era of technology driven world, internet is considered to be the prerequisite. Most people today have a second life "online". Everyone requires an internet presence for various reasons. Today access to internet is considered as a basic need, alongside food, clothing and shelter. Most people's lives are thrown into disarray in the event of an internet outage. People stay relevant today because they interact with rest of world with the help of cyber technology.

Data Driven world

At the heart of this revolution is "data". Considering the value of internet data that is being created every second across the world, with all the access to it, anybody can create a similar but alternate identity of several individuals. The most important question at this juncture is whether we should worry about these data? Whether we should stop using technology? Some companies are paying hefty amount to get access to the data. Companies, Governments, institutes etc are trying to collect information for some reason or the other. While the system largely works in our favour, it almost certainly will also work against.

Growing threat of cyber crime

Cybercrime is criminal activity that either targets or uses a computer, a computer network or a networked device.

Today cybercrime is increasing in numbers, each day hackers are coming up with new methods of obtaining important and privileged information. Internet is a good place considering the benefits we derive, but at the same time we should not forget that it is the murkiest place on earth. Every time we login, there is always somebody keeping an eye on our activities. At this point, it is important to understand that idea of "ZERO CYBER RISK" can never be achieved, in case anyone assures zero level of cyber risk ***then*** it is a flat lie. What we must learn is to identify these attacks and try to prevent them from taking place.

There are multiple ways to carry out Cyber-attacks the most common form of them are - email attacks, phishing, Malware, ransom ware, and attack using web based application etc

Cyber Crime in India

The advent of Digital India and Smart City initiatives has brought about a paradigm shift in terms of connectivity, services and threats for both urban and rural eco-systems. While greater connectivity promises wider deliverables, it also paves the way for the emergence of new vulnerabilities. Leading companies in energy, telecommunications, finance, transportation and other sectors are targeted by new-age cyber criminals. **According to the National Crime Record Bureau Data, there had been a huge increase of 63.5 % in cyber**

crime cases in India in the year 2019 as compared to the year 2018.

According to Mr. Rajesh Pant, India's cyber security chief, everyday 4 lakh malware are found and approximately 375 cyber-attacks are witnessed in India. India was the second most targeted country in the Asia-Pacific region as far as cybercrimes are concerned with a 7% share in such incidents globally, a study by technology major IBM had revealed. As per the report, in India ransom ware (sending suspicious links via email/ messages) to block access to one's personal file/ data was the most rampant cybercrime accounting for 40% of the all attacks.

Some of the major cyber-attacks that had taken place in India in the recent past are:

- May 2017- The personal data of 17 million users of Zomato was stolen by a hacker
- June 2017- The Ransomware attack where a container handling functions at terminal operated by a Danish firm at Mumbai's Jawaharlal Nehru Port trust was attacked
- January 2018- UIDAI data breach: The big data breach is believed to have compromised the personal information of all 1.1 billion citizens
- July 2018- Fraudsters used skimming devices on ATMs of Canara Bank to steal and replicate the information of debit card holders and wiped off almost Rs.20.00lacs from different banks
- August 2018- The personal data of 17 million users of Cosmos Bank were stolen

Challenges in Cyber security in India:

Inadequate budgets and lack of top management support: Budgets are usually driven by business demands and low priority is accorded to Cyber security. Top management focus also remains a concern, support for cyber security projects are usually given low priority. This is primarily due to the lack of awareness on the impacts of these threats.

Most people today have a second life "online". Everyone requires an internet presence for various reasons

Poor identity and access management:

Identity and access management is the fundamental element of cyber security. In an era where hackers seem to have upper hand, it requires only one hacked credential to gain entry into an enterprise network. Due to lack of integrated data base it becomes easy for the cyber criminals to hide their identity. The criminals manage to open Bank accounts and obtain mobile sim under fake identity

Lack of comprehensive cyber law framework: In the Information Technology Act 2000, there was small section in cybercrime which was expanded a bit in the Information Technology (Amendment) Act 2008 but what we need is comprehensive cybercrime penal code in line with the developed countries and also the prosecution need to be easy and fast. At present there is lot of ambiguity regarding admissibility of digital evidence produced by police and prosecutions.

Lack of specialist to tackle and curb cyber-attacks: There is lack of skills among the investing officers to understand the modus operandi of cybercrimes. It becomes difficult on their part to decode hi tech cybercrimes due to inadequate proficiency in those areas. Exhaustive and continuous training in cybercrime investigations and forensics to conduct quantity investigations is the need of the hour in states and central law enforcement departments

Weak reporting culture:

As per the survey done by KPMG, only 3% of the respondents informed that they had reported cybercrime incidents to the appropriate authority. Due to weak reporting culture it becomes difficult to build up database and tackle future crimes. Inadequate awareness of the citizens and failure in treatment of cases pertaining to major crimes by the investigation agencies are responsible for increasing cybercrimes.

Lack of adequate infrastructure:

The investigating agencies are not well equipped with digital forensic tools required to carry out forensic analysis of complex and hi tech cybercrimes. Unlike global scenario, the investigating agencies in India are unable to conduct critical analysis under various domains such as tower dump analysis, disk analysis, mobile forensic analysis, Video and image enhancement etc

Delay in examination of reported cases:

Due to inadequate capacity and huge volume of data being collected on daily basis, plenty of cases remain pending for analysis, resulting in creation of backlogs. This further leads to loss of critical time frame to follow the leads. In such cases it becomes difficult on the part of investigator to arrive at a logic conclusion.

Impeding dark net market:

Dark net is an overlay network within the internet that can be accessed with specific software, configuration and authorization. The dark nets are intentionally hidden from search engines to facilitate illicit activities. Dark net is the virtual equivalent of a black market. Criminals looking to protect their identities in order to evade detection and capture are drawn to this aspect of the dark net. The Dark net is mushrooming in the Indian cyber market, it becomes increasingly challenging to actively target this market and disrupt their services.

Data wiping:

There are large number of free tools are available for data destruction, where the investigating authority fail to recover the traces of the crime after the data gets wiped off.

Poor recovery mechanism:

Individuals and organization are ignorant about the "cyber readiness". There is negligence in terms of budget allocation, training and development in cyber risk management. There is a need to have a holistic view on cyber security risk and look at it as an integral element across all business process. It should not be considered as an add on. Organization must be ready to be resilient enough to withstand and respond to cyber-attacks.

Way forward:

Cyber risk management: Organization must develop strong and effective Cyber risk management policy with comprehensive mechanism of cyber risk assessment model, technology landscape, respond and recover strategies. The framework must have a governance structure along with clearly defined roles and responsibilities. There must be frequent cyber maturity assessment to ensure continuous change in the policy in line with the growing complexity in the cyber space.

Cyber security talent pool: There is lack of cyber security talent pool across all organization irrespective of industry. With the exponential rise in the sophisticated cyber-attacks and advancement in the agenda of cyber criminals, there is inevitable need of cyber security specialist to manage and protect digital assets.

Focus on Cyber awareness: Human capital of the organization is one of the vulnerable point of cyber-attacks. It is important to educate and train the employees about the increasing magnitude of cyber-attacks. Some of the measures that can be adopted are – incentivizing employees for increasing cyber security quotient , creating hands on training experience, develop simulation based learning environment , provide new and innovative ways to attract talents by organizing events like hackathon.

The dark nets are intentionally hidden from search engines to facilitate illicit activities. Dark net is the virtual equivalent of a black market

Cyber security across business value chain: Organization must ensure that they have adequate cyber security measures embedded across their business value chain. The third parties, business partners should have adequate focus on cyber security. Outsourcing brings several risks such as operational risks, strategic risks, reputational loss etc. Business entities must develop proactive third party management framework for identifying, mitigating and managing risks arising due to third party business partners and vendors.

Assessment of cyber risk: It is important to assess the cyber risk proactively with the help of people, process and technology. It is important to seek new source of information, new ways to interact with the business partners to derive information. Business firms must adopt a practice of regularly monitoring the data access trails and data logs to gather insightful information and detect cyber threats at the nascent stage.

Prepare for the worst: It is important to get prepared for the worst by allocating sufficient fund for the cyber security management. Business entities must move from compliance based approach to risk based approach, it must expand its scope from customary patch work testing to valuing the risk in real terms to business i.e impact on customer service, service disruption, loss of sensitive data and financial loss.

The diversity of the digital world demands extra precaution while working in cyber space. Cyber security is a battle that doesn't seems to have an end in sight. The ultimate issue concerning cyber security is not just about solving the cyber security problems, but how to manage them. These problems will always exist. The approach to cyber security is no different from what we do about drug abuse, hunger, crime, and terrorism. We can only manage them to the best of our ability. Depending on the scenario or environment, cyber security risks can lessen or worsen. MA

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TELECOM - BACKBONE OF INDIA'S DIGITAL ECONOMY: CHALLENGES, OPPORTUNITIES AND FUTURE TRENDS

Abstract

Before pandemic, Indian Telecom industry after 25 years journey, transformed as oligopoly of only four players from a competitive market of 15 players in 2015, was ailing due to disruptive price war, high costs of spectrum acquisition and rising debt burden struggling for its survival. But during the country-wide lockdown due to COVID-19 in 2020, the average daily data traffic of 250 petabytes per day as of December 2019 increased to 370 petabytes with a salient shift in traffic from urban to outskirts and rural areas and from offices to residential areas emphasizing the exigency of telecommunications in maintaining economic activity. The telecom sector's contribution to India's GDP is estimated to escalate substantially during pandemic time. Post pandemic, the efficient competitive market development by combined efforts of the telecom operators, the government and the regulator will be a key for the success of Indian digital economy.

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1. Introduction

Telephony was invented by Alexander Graham Bell in 1876 but could not take off till 1984 with only 15 crore telephones in a monopolistic market, a year when the telecom rush began with creation of The Baby Bells, the regional telephone operators in USA formed due to the antitrust breakup of AT&T and then in 90s, consumption sky rocked due to drastic fall in prices as a consequence of conversion of monopolistic market into competitive market with easing of telecom industry regulation. The average price for a sixty seconds call fell from \$4 in 1990 to \$0.50 by 2000 across the world resulting into upsurge of international traffic from 10 billion minutes in 1980 to 100 billion minutes by 2000.During the first decade of 21st century, tele density took off worldwide including India with mobile users rise from less than one per hundred in 1992 to 115 per hundred by 2020.

In India, the telecom revolution began when then Chief Minister of West Bengal, Jyoti Basu made the first mobile phone call in India to then Union Telecom Minister Sukhram in August 1995.Since then the cellular telephony become the fastest growing segment in the Indian telecom industry as a result of both handset and tariff cost reduction. The enhanced competition and commoditization of telecom services offered a wide variety of choices available to customers both in fixed as well as mobile telephony. The policy measures like lowering of taxes and enhancing FDI limits further the prospects of the mobile industry.

The telecom sector in India evolved from tightly controlled monopoly to now a lightly regulated one with lowering of entry restrictions over time. The spectrum was unbundled from the license in 2012 while spectrum sharing and trading was permitted in 2016 which enabled efficient utilisation of current spectrum. Regulations like Interconnection tariffs, net neutrality rules and mobile number portability (MNP) shaped a fair competition in the sector.

India achieved second position globally with 118 crore telephone connections in September 2020.The tele density reached 87% in urban and 59% in rural area. The number of internet subscribers reached to 78 crore with 72 crore broad band subscribers and data usage surpassed 75EBs during the period of January to October 2020 with shrinking price of ₹10 per GB, enabling affordable internet access for Indian citizens. Trivandrum city in India achieved the mobile penetration milestone of 100 mobile connections per 100 people in 2014 and currently tops the Indian cities with a mobile penetration of 168.4.

2. Market Structure of Indian Telecom Industry

The private players allowed in Indian telecom industry in 1992.By year 1999, India had thirteen 2G technology-based private mobile service providers. The European telecom powerhouses like Vodafone entered aggressively in India in 2004 to cater recently opened Indian markets hungry for their services. By 2020, exits, license cancellations by Supreme Court, bankruptcy and mergers had reduced the number of operators to four - Jio (35.43%), Airtel (29.72%), VI (24.32%) and BSNL (10.53%).

By 2016, Indian consumers dominated by youth population using Facebook, YouTube and Whats app started looking at communication services beyond voice and messaging. Riding on freebies and almost-free voice and data services using 4G technology, launch of Reliance Jio sent many incumbents reeling caused massive disruption, forcing other players to drastically cut prices. The data prices declined from ₹ 180 per GB in September 2016 to ₹ 150 per GB in December 2016 and a just ₹ 7 per GB in 2019 drastically reducing the Average revenue per user (ARPU), squeezing the bottom line and putting the financial health of incumbent operators under severe pressure triggering a wave of consolidation where smaller operators either shut or sold off to bigger operators while two big telcos Vodafone and Idea merged.

The telecom operators in India migrated to a new system in 1999 wherein they had to share a part of revenue with the department of telecommunications (DOT) which eventually led to a 14-year battle between telecom companies and DOT on the definition of adjusted gross revenue (AGR) in the sector

While most firms exited their businesses, only Bharti Airtel Ltd and Vodafone Idea Ltd (Rebranded as VI) survived the ferocious tariff war. ARPU of Bharti Airtel plunged to ₹ 90 per month in second quarter of fiscal 2019 from ₹ 195 in the first quarter of FY17. Prior to its merger with Vodafone, Idea's ARPU stood at ₹ 175, fell to a record low of ₹84, for the combined entity in the September quarter of 2019. Jio had an ARPU of ₹135 in the September quarter of 2019.

3. Economics of Indian Telecom Industry

The technological disruption and brutal tariff war in conjunction resulted into severe decline in earnings of incumbent operators leading to the financial distress in entire telecom sector from 2016 to 2020.The adjusted gross revenue (AGR) in the telecom industry fell from ₹1.99 lakh crore in 2016 to ₹ 1.60 lakh crore in 2017 .The average EBIDTA of the industry decreased from 5.5% in 2013-14 to negative 2.8% in 2019-20 and Return on Equity fell from 7.5% in 2015-16 to negative 7.6% in 2017-18.The Industry exhibited a declining ICR, exhibiting the industry's inability to service debt and pay taxes. A negative Profit after Tax turns ROE negative for all operators except Reliance Jio.

Airtel had set aside ₹35,000 crore and Vodafone Idea ₹25,000 crore after the Supreme Court upheld the government's definition AGR in September 2019.As a result, Bharti Airtel posted a record behemoth loss of ₹23,000 crore in the September 2019 quarter from a profit of ₹120 crore previous year. Vodafone Idea posted loss of ₹51,000 crore for the September quarter as against loss of ₹4,900 crore in the previous year. The government of India is spending ₹70,000 crore to resuscitate its two ailing telcos Bharat Sanchar Nigam Ltd and Mahanagar Telephone Nigam Ltd.

When R Jio launched 4G in 2016, 3G was just seven years old in India, and a substantial number of 2G subscribers were also into existence. Vodafone, as of May 2020, had 2G, 3G and 4G subscribers of 2crore, 1.5 crore and one crore respectively while Airtel had 2.5 crore, 20 lakh and 1.4 crore respectively. Managing multiple technologies added to the cost of doing business for these operators. The mix technologies will remain for few more years and will impact the competitive strength of these operators. During the initial years following the liberalisation of the sector, spectrum came bundled with the license that acted as an entry barrier. The Indian operators have paid ₹4 lakh crore across 6 auctions between 2010 and 2016. The spectrum cost in India was 8% of total revenue, the most expensive in the world.

The telecom operators in India migrated to a new system in 1999 wherein they had to share a part of revenue with the department of telecommunications (DOT) which eventually led to a 14-year battle between telecom companies and DOT on the definition of adjusted gross revenue (AGR) in the sector. The Supreme Court in its verdict given in October 2019 directed telcos to pay ₹92,000 crore in past dues to the government. Subsequently in

September 2020, the Supreme Court allowed telcos 10 years to pay their AGR dues, including penalty, interest with 10% upfront payment of the total dues, while the rest is to be paid in ten annual installments starting from 1 April, 2021.

DoT collects recurring fee from operators licensed by it. The license fee is 8% of the AGR after various adjustments and levy of taxes, while SUC is imposed for usage of spectrum and calculated as a percentage of AGR depending on the quantum assigned to operators for their network. The Supreme Court upheld the Centre's broader definition of revenue on which it calculates levies on operators while rejecting the interpretation suggested by operators to exclude revenue from non-core telecom operations such as rent, dividend and interest income.

After two decades of lowest pricing in the world, now non price factors are driving competition in the Indian telecom market. Even though the average Indian consumer is price sensitive, other factors such as Service Quality, data speed and differentiated bundled offerings are now influencing consumer preference. The rise in wireless data subscribers from 30 crore in 2013 to 67 crores in 2019 shows the locus switch of competition from voice to data giving propulsion to "bundled offerings' of voice, data, SMS and content providing the operator new ways of monetization.

4. Current Trends in Telecom Industry

After consolidation telecom operators are focusing on digital transformation from being providers of traditional voice-only services to complete digital solutions by providing multiple services such as broadband, cable TV, B2B enterprise solutions, e-payment platforms, music apps and over-the-top (OTT) platform in a bundled form along with the traditional wireless mobile services to ensure customer retention and expand the market footprint.

In 2018 internet penetration in urban India was 65% and only 21% in rural India exhibiting digital divide where growth is biased in favor of urban areas. The government is trying to bridge the gap by promoting higher

The operators are forging strategic partnerships with Entertainment and Internet services providers e.g. Reliance Jio- Balaji Telefilms, Vodafone-Hotstar and Reliance Jio-Facebook and also building own ventures like Airtel's Hike, Reliance's Jio Cinema

investment in rural infrastructure and providing services at affordable tariffs for rural subscribers under the Universal service obligation scheme. The regulator TRAI notified the Prohibition of Discriminatory Tariffs for Data Services Regulations, 2016 barring telecom service providers from charging differential rates for data services on the basis of content for maintaining the Net neutrality.

5. Future Trends

With decreasing ARPU and increasing demand for Value Added Services, the telecom operators are converging to next-generation network (NGN) which provides telecom services using multiple broadband transport technologies wherein services are independent from underlying transport-related technologies offering unrestricted access for users from different service providers.

The operators are including OTT services in their offerings. The operators are forging strategic partnerships with Entertainment and Internet services providers e.g. Reliance Jio- Balaji Telefilms, Vodafone-Hotstar and Reliance Jio-Facebook and also building own ventures like Airtel's Hike, Reliance's Jio Cinema. The data is growth engine of future. With growth in data usage, the data is emerging as biggest contributor of revenue.

Worldwide telecom operators started deploying 5G technology as successor of 4G. Along with US and China, Asian countries like South Korea and Philipines have taken lead in this endavour. Currently the 5G Ecosystem is nascent stage in India in terms of applications and devices, the prices of 5G spectrum are expensive and will take at least 2-3 years for 5G to gain significance in India.

6. Conclusion

The telecom sector's contribution to India's GDP is estimated to escalate substantially during pandemic time. Post pandemic, the efficient competitive market development by combined efforts of the telecom operators, government and regulator will be a key for long term violability of telecom industry for the success of Indian digital economy. MA

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25 YEARS OF MOBILITY: GLORIOUS JOURNEY OF INDIAN TELECOM INDUSTRY

Abstract

Over a past decade Indian telecom sector is witnessing an exponential and substantial growth. The number of subscribers over a decade and more are increasing at a fast pace thus changing the face of the telecom sector. This new face is continuously changing and dynamic in nature. Every traditional approach is shifting towards digitalization and so is the traditional voice calls and technology associated with it. This paper examines the growth of Indian telecom sector by comparison of landline (wireline) verses wireless subscribers bases. This paper also highlights on road-map of Telecom Sector for the future.

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1] Introduction

Over a past twenty five years and specifically since previous decade the telecom sector is witnessing advent and adaptation of various technologies. Since the year 2017, this is rise of 4G services in India and 5G is expected to launch by end of the year 2021.

The entry of the new player with introduction of the VoLTE technology, strikes as a surprise to the telecom sector. The tariffs saw a declined path while the data usage is massively proliferated.

India is beholding a data explosion with the increase in the smart phone users. To cop up with the pace, the mobile base stations also enhanced for further improvements in the coverage and reach. The telecom services are acting as a backbone for the various crucial sectors like education, banking and health.

The Telecom Regulatory Authority of India (TRAI) came into existence in the year 1997, since then it is in operation for last two and half decades and by the end of year 2020, total subscribers base in India has reached to 1173.83 million with the rank two largest telecom market in the world.

At the end of the year 2020, The Total subscriber base reached to 1173.83 million with wireless subscribers as 1153.77 million and landline subscribers as 20.05 million. The overall tele-density recorded as 86.38% and requests for mobile number portability (MNP) cumulative reached to 536.41 million.

2] Evolution of the Telecom Sector in India

1881	Oriental Telephone Company Limited (England) was permitted and granted license to open telephone exchanges in India (Kolkata, Mumbai, Madras and Ahamadabad)
1982	Central Exchange opened at Kolkata with 93 subscribers
1902	Establishment of first wireless telegraph station (Between Sagar Island & Sandheads)
1913	First Automatic exchange was installed in Simla
1927	Inauguration of Radio Telegraph between India and UK (in Khadki & Daund)
1960	First subscriber trunk driving route was initiated between Kanpur and Lucknow
1979	First optical fiber system for local junction was started in Pune
1980	First satellite earth station for domestic communication was established at Sikandrabad (UP)
1985	First mobile telephone service on non-commercial basis was started in in Delhi

1995	Cellular services and GSM services stated in Kolkata
1997	TRAI (Telecom Regulatory Authority of India) was established
2002	Establishment of Internet Telephony and CDMA technology
2006	Number Portability was proposed
2010	Implementation of MNP (Mobile Number Portability) across India
2011	Introduction of 3G services in India
2012	Introduction of 4G services in India
2021	Introduction of 5G services in India (Expected)

Table 1: Evolution of the Telecom Sector in India

3] Wireline verses wireless subscriber base in India

3.1 Subscriber Base for landline Users in India

The voice usage and voice calls enabler Landline (Wireline) has shown shrunk in the subscriber base over the years.The following table shows the number of subscribers for Wireline (landline) services in India from the year 2004-05 to 2019-20. The table number2 clearly shows the gradual decrease of wireless subscribers in India.

According to the annual reports of the TRAI, the subscriber base for landline was 40.02 million for the financial year 2004-05. The subscriber base had shown continuous but slow growth till financial year 2006-07 where the subscriber base has reached to 41.54 million. But after that the base has shown steady shrunk till the financial year 2019-20 it has reached to the subscriber base of 20.22 million.

3.2 Subscriber Base for Wireless Users in India

The growth in the subscriber base of wireless users in India over a past decade is remarkable. In India, the first call on a mobile phone was made on August 95 in Kolkata and over since there is no looking back to the telecom sector. The increase in the subscriber base every year is tremendous. The following table shows the growth in subscriber base for wireless users in India since the financial year 2004-05 onwards.

According to the annual reports of the TRAI, the subscriber base for wireless users in India was 33.69 million for the financial year 2004-05. Interestingly, the number of landline users was more than the wireless users for this year. The subscriber base has shown continuous and fast growth till at end of the financial year 2019-20 it has reached to 1157.75 million.

Financial Year	**Wireline Subscribers in India (Figures in Millions)**	**Wireless Subscribers (In Millions)**
2004-05	40.02	33.69
2005-06	41.43	52.22
2006-07	41.54	98.77
2007-08	40.75	165.11
2008-09	39.42	261.07
2009-10	37.96	391.60
2010-11	36.96	584.32
2011-12	34.73	811.59
2012-13	30.21	867.80
2013-14	28.49	904.51
2014- 15	26.59	969.89
2015- 16	25.22	1033.63
2016-17	24.40	1170.18
2017-18	22.81	1183.41
2018-19	21.70	1161.81
2019-20	20.22	1157.75

Table 2 Wireline Verses Wireless subscribers in India

(Source: http://www.trai.gov.in/annual-reports**)**

Graph 1:Wireline verses Wireless subscribers in India

(Source: http://www.trai.gov.in/annual-reports**)**

4] Current Scenario of Indian Telecom Sector

Indian telecom market is at the second position in the worldwide largest telecom market. The total subscriber base at the end of the year 2020 was 1173.83 million. The following summary shows the telecom subscription data as on 31st December 2020.

Particulars	Wireless Subscribers	Wireline Subscribers	Total Subscribers
Total Telephone Subscribers (In millions)	1153.77	20.05	1173.83
Urban Telephone Subscribers (In millions)	629.67	18.24	647.91
Rural Telephone Subscribers (In millions)	524.11	01.81	525.92
Overall Tele-density (In %)	84.90	01.48	86.38
Mobile Number Portability Requests (In millions)	544.61	-	544.61

Table 3: Current Scenario of Indian Telecom Sector

The entry of the new player with introduction of the VoLTE technology, strikes as a surprise to the telecom sector. The tariffs saw a declined path while the data usage is massively proliferated

5] Telecom Sector: Road-map for the future: 2020 and Beyond

Over the last two-decades the telecom sector is a relentlessly evolving sector. The exponential growth in the subscriber base has created demand of information waves and data explosion. The situations are continuously supported by the technical transformations.

However, the telecom sector will witness an age of saturation in the telecom market. There should be an awareness regarding the upcoming challenges and telecom sector needs to be ready with predetermined action plan to face the upcoming challenges.

The exponential growth in the subscriber base has created demand of information waves and data explosion

Following are key areas which researcher highlights as the roadmap for the telecom sector.

IoT (Internet of Things): A game changer for telecom sector. In recent future, the sector will brace itself for an extraordinary increase in data traffic across the whole networks. This will comprise the data consumed by the customers as well as the data generated by the devices by interacting with each other. Integration of IoT with allied technology will undoubtedly set to grow and penetrate the market.

The upswing of the data explosion will quickly push the entire world through Exabyte towards the Zettabytes per year. There is an urgent need that telecom service providers should revisit their existing infrastructure including their business models to abundantly capitalize the upcoming opportunity.

Market Saturation: Telecom sector has done the market penetration thoroughly among the youngsters and middle age demographic profile. The elder population will soon fully adopt the latest technology and will be associated with the pace of the telecom service. With this, the remaining community will fulfill the market penetration of the telecom sector and lead towards market saturation.

Data Security: Waves carriers play a vital role in fighting the incipient new threats and act as custodians of the networks. Data security will be the key expectation from the customers.

Content as a service (CaaS): Integration of telecom and content as a service (CaaS) is emerging service oriented model that delivers the 'content on demand' to the customer. The delivery is done through web services. Thus technology convergence between content service providers and telecom service providers is expected in recent future for which the telecom sector must be ready. The fact is, being connected continuouslywill be cheaper. Thus in the information value chain, connectivity is expected to capture a smaller proportion while content delivery is expected to capture more. MA

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EMERGING DIMENSIONS OF INDIAN TELECOM SECTOR – A STUDY

Abstract

The Indian telecom segment is the second biggest on the planet as far as the number of subscribers. Telecom department has seen outstanding development over the years as a result of reasonable tariffs, greater service availability, carrying out of new facilities such as 3G and 4G, developing consumption style subscribers, and favorable administrative climate. Since its commencement, the mission of the Telecom Regulatory Authority of India (TRAI) has been to make and support conditions for the development of the telecommunication and broadcasting areas in the country, in a way and at a pace, which will empower India to play key role in the global information market. So, in this paper an attempt was made to present the performance of Telecom sector in the form of growth of the market and key financial variables.

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INTRODUCTION

The telecommunication sector became an 'indispensable service' for connectivity purpose during COVID difficult situations. During the lockdown of the country also, the telecom segment facilitated for the smooth and effective performance of many tasks and services of the economy. 'Work from Home', Financial Institutions , Education area, entertainment, news and other many key services were functioned with uninterrupted connectivity; and were also approachable safely from home in addition to promising connectivity with family and friends who are far away.

OBJECTIVE OF THE STUDY

The purpose of this research paper is to focus on the Telecom sector performance during 2015-16 to 2019-20. For analyzing the performance, various financial variables like Income & Expenses, FDI, Revenue, Investments liquid assets and liabilities have been undertaken. For presenting the growth of Telecom sector, subscribers both wire and a wireless subscriber, Density etc has been taken into the consideration.

DATA ANALYSIS AND INTERPRETATION

Table - 1

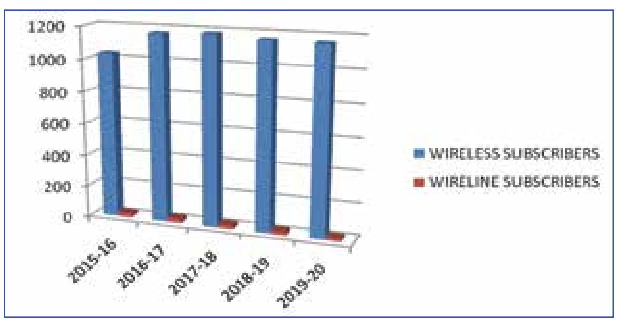
WIRELESS & WIRELINE SUBSCRIBERS BASE

(Million)

YEARS	WIRELESS SUBSCRIBERS	WIRELINE SUBSCRIBERS
2015-16	1033.63	25.22
2016-17	1170.18	24.40
2017-18	1183.41	22.81
2018-19	1161.81	21.70
2019-20	1157.75	20.22

Source of Data : TRAI Annual Reports & Schedules

Chart -1



The above table has been showing the number of subscribers (wireless and wire line) during the reference period. The wireless subscribers initially increased from 1033.63 to 1183.41 (2015-16 to 2017-18) after that there was a decline in the subscribers number. Whereas the number of wire line subscribers continuously decreased during 2015-16 to 2019 -20.

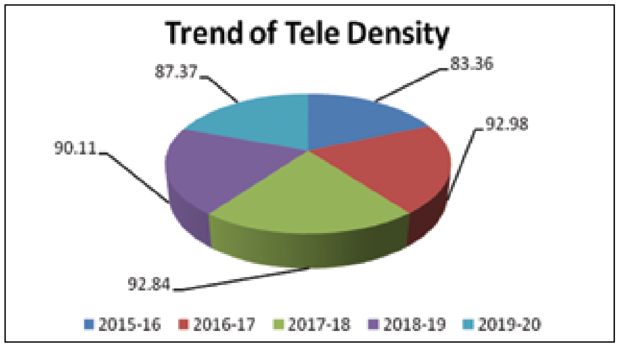
Table - 2

TREND OF TELE DENSITY

YEARS	TREND
2015-16	83.36
2016-17	92.98
2017-18	92.84
2018-19	90.11
2019-20	87.37

Source of Data: TRAI Annual Reports & Schedules

Chart -2



The density of Telecom sector was 83.36 at the end of 2015-16 year. The density was almost constant during the years 2016-2017 and 2017- 2018. In the last two years of the study, the tele density declined and stood at 87.37.

Table - 3

SUBSCRIBER BASE OF WIRELESS SERVICES FROM 2015-16 TO 2019-20

(Million)

	2015-16	2016-17	2017-`18	2018-19	2019-20
Reliance Jio	-----	108.68	186.56	306.72	387.52
Bharati	251.21	273.65	304.19	325.18	327.81
Vodafone	197.95	209.06	222.70	394.84	319.17
Idea	175.07	195.37	211.21		
BSNL	86.35	100.99	111.68	115.74	119.87
MTNL	3.56	3.63	3.56	3.45	3.36
Rcom/RTL	102.41	83.50	0.19	0.02	0.0178
Aircel	87.09	90.90	74.15	-----	-------------
Tata	60.10	48.99	31.19	15.85	--------------
Telenor	52.45	50.49	37.98	0.00	-------------
Sistema	7.69	4.91	-----------	---------	----------------
Videocon	6.56	-----	-----------	----------	-------------
Quadrant	3.16	------	------------	-----------	-------------
Total	1033.63	1170.18	1183.41	1161.81	1157.75

Source of Data : TRAI Annual Reports & Schedules

Reliance Jio subscriber base stood at 108.68 in the year 2016-2017 and increased to 387.52 by the end of 2019-20. Jio launched their commercial services in 2016 -17 only. Bharati Airtel base was 251.21 in 2015-16 and the subscriber base has been increased throughout the reference period. The highest base registered in the year 2019-20 which was stood as 327.81. The Vodafone and Idea service providers' subscriber base increased in the first three years of the study. Both networks registered highest base in the year 2017-18. M/s Vodafone and M/s Idea Cellular got merged their services from 31st August 2018. BSNL wireless subscriber base was 86.35 in 2016. By 2019-20 the number was increased to 119.87. MTNL registered 3.56 million subscribers at the beginning of the study period. In the next years the base declined continuously and stood at 3.36 in the year 3.36. Due to the Insolvency problem, Aircel operated their services till March 2018 only. TATA and Telenor have merged with Bharti Airtel from May 2018 to 6th February 2020. Videocon and Quadrant discontinued services in the year 2016-17.

From the above table, it has been understood that M/s Reliance Jio Infocom Ltd was the largest service provider with 387.52 million subscribers; followed by M/s Bharti Airtel Ltd, M/s Vodafone Idea Ltd and M/s BSNL with 327.81 million, 319.17 million and119.87 million respectively.

Table -4

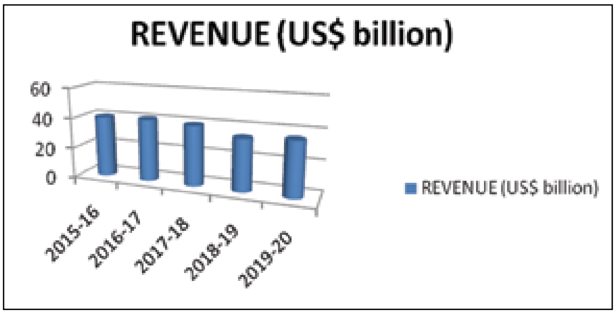
TELECOM REVENUES

YEARS	REVENUE (US$ billions)
2015-16	40.29

2016-17	40.93
2017-18	39.49
2018-19	33.97
2019-20	35.87

Source of Data : TRAI Annual Reports & Schedules

Chart -3



The Revenue of Telecom sector stood as 40.29 billion dollars in the year 2015-16. In the following years also the revenue of the telecom declined and finally stood at 35.87 billion dollars during the 2019-20.

Table -5

INFLOW OF FDI INTO TELECOMMUNICATION

YEARS	FDI (US$ billions)
2015-16	1.32
2016-17	5.56
2017-18	6.21
2018-19	2.66
2019-20	4.45

Source of Data : TRAI Annual Reports & Schedules

In the year 2015-16 the FDI was 1.32 billion US dollars, inflow of FDI increased to around 5 times result in 5.56 US billion dollars into telecom sector. There was a slight increase in the FDI during the year 2017-18. .FDI suddenly falls down to 2.66 in the year 2018-19. With the effect of govt initiative on 100% FDI in some tele companies, the FDI bounced back in the year 2019-20.

Table -6

INCOME AND EXPENSES AS PER TRAI SCHEDULES

YEARS	INCOME	EXPENSES	
		Establishment	Administrative
2015-16	14,87,07,140	26,03,37,365	27,90,61,321
2016-17	40,60,160	31,41,33,702	45,87,16,872
2017-18	3,92,449	41,68,47,773	50,44,03,030
2018-19	4,27,317	43,63,99,254	59,19,93,097
2019-20	2,84,667	46,06,09,333	44,36,29,717

Source of Data: TRAI Annual Reports & Schedules

The above table revealed the income and expenses of TRAI during the period of study. The income was 14, 87, 07,140 in 2015-16. In the following years income was 40,60,160, 3,92,449, 4,27,317, and 2,84,667 respectively.

The establishment expenses have been increased throughout the study period. The establishment expenses stood as 260337365 in the year 2015-16. In the year 2017-18 the expenses were 41,68,47,773 . The expenses registered as 46,06,09,333 in the year 2019-20.

The administrative expenses recorded as 27,90,61,321 in the year 2015-16, then continuously increased in the years 2017- 2018 and in the year 2018-19 the expenses recorded as high i.e. 59,19,93,097. In the year 2019-20 the expenses are declined to 44,36,29,717.

Table -7

LIQUIDITY POSITION

Particulars	Current Assets	Current Liabilities	Current Ratio	Investments
2015-16	8870395.05	2104670.33	4.21	106600000
2016-17	943386165	499634422	1.888	110400000
2017-18	36846745.12	412866474	0.089	151732748
2018-19	365900195	480008912	0.76	206622748
2019-20	300921870	430471351	0.699	250202274
Average			1.52	

Source of Data: TRAI Annual Reports & Schedules

From the above table, it has been understood that the organization invested huge funds in the current assets in the year 2015-16. Because of heavy investment in the liquid assets the current ratio in the respective year stood as 4.21 which is almost double compared to the standard current ratio i.e. 2:1. From the year 2016-17 the investment in the current assets decreased, at the same time, current liabilities almost doubled in the 2016-17 year which was resulted in 1.888 C.R. In the year 2019-20, both current assets and current liabilities declined which were resulted in 0.699 ratio. The average current ratio in the reference period stood as 1.52, which means the sector has maintaining 1.52 rupees of current assets for every one rupee of current liability.

CONCLUSION

India in the second position globally in the aspects of number of telecommunication subscriptions, Internet users, downloads of apps etc. As per TRAI reports wireless data subscriber usage around 11 GB per month in the financial year 2020. There is an opportunity in front of the telecom sector to enjoy the 70 percentage of revenue from its prime beneficiaries of 5 G. We may expect the India subscriptions above 350 million by the end of 2026. The investment allocated by the Telecommunications department in the year 2020-21 is 66432. On the other hand, the national Digital communications policy may attract 100 billion US dollars and provide 4 million jobs in the home sector by the end of 2022. There should be a Strong policy and support from the Govt.of India for

There is an opportunity in front of the telecom sector to enjoy the 70 percentage of revenue from its prime beneficiaries of 5 G

the development of telecom sector. Foreign Direct Investment (FDI) cap in the telecom sector has been increased to 100% from 74% which was good move from the government. MA

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THE CURRENT SOCIO-ECONOMIC IMPACTS OF 5G TECHNOLOGY AND RESULTANT IOT ON SELECTED SECTORS OF INDIA

Abstract

This paper highlights the socio-economic prospect of 5G network in India; observable through unprecedented levels of connectivity and its application in different sectors of society, with key features like ultra-reliable low latency communication, high reliability, efficient energy usage and use in Internet of Things (IoT).

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Background:

The Information and Technology (I&T) sector is the most crucial sector for bringing success in any other sectors of the world, especially when knowledge accessibility defines success; in all respects. Advancement in I&T sector is the main pillar for supporting innovations in all other sectors, over the world. In the last few years I&T sector exhibits tremendous performance with mesmerizing advancement in wireless communication networks. The 4G wireless network that has been initially launched at Kolkata in India in April, 2012 is going to be replaced by 5G wireless network technology completely, in coming few years. 5G technology exhibits much faster data transfer capacity along with capacity to connect larger number of devices, in comparison to 4G technology. Fourth Industrial Revolution will be based on new innovations in Internet of Things (IoT), ensured by 5G technology. IoT basically defines electronic devices connected through wireless networks (internet) and a definite purpose is served through information dissemination. As per McKinsey, the 65% of the world population will have access to 5G technology by the year 2025. Considering this huge prospect, it is very worthy for social science researchers to look into sector wise prospect of this 5G technology in India.

Review of Literature:

The researchers have undertaken extensive review of existing literatures regarding the concerned area to identify the research gap.

Some of the important findings are; Advancement of 5G technology will bring huge improvement in the health-care sector related technologies, **West, (2016).** 5G Technology will bring sustainable and huge economic benefits to all the sectors of the economy in the world, **Campbell et. al., (2017).** The introduction of 5G technology will be a game changing move for financial technology related innovations in financial services sector. This will make financial services safer and faster, **Tian et. al., (2019).** The advent of 5G technology will ensure successful implementation of "Internet of Things" in construction sector. Current challenges to implementation will be solved through high speed and robust 5G technology, **Reja & Varghese, (2019).**

Considering the existing studies in the area, researchers found that existing literature lacks any specific study regarding the prospects identifiable at present for induction of 5G technology and resultant innovations in "Internet of Things" arena; through it, on healthcare, automotive and education sector of India. So, researchers conducted the study to fill up the vital research gap.

Research Objectives:

The study is based on following objectives:

1. To identify the prospects available at present for induction of 5G technology and resultant innovations in "Internet of Things" arena through it on healthcare, automobile and infrastructure sector of India..
2. To identify the efficient ways for making the new technology more fruitful to the concerned sectors.

Research Methodology:

The study is explorative and qualitative in nature and based on secondary sources of data. The researchers logically analyzed various facts and figures available from reliable sources to identify the prospects created for the advent of 5G technology, in selected sectors of India. The research also tries to identify the possible ways for ensuring wide scale innovations in concerned sectors through the technology.

Analysis of the study

Basic overview:

The new innovations in Internet of Things (IoT) based on 5G technology has brought new industrial revolution; known as Industry 4.0. From the different study it is estimated that by 2025, there will be more than 30.9 billion IoT connections, almost 4 IoT devices per person on average. To access these voluminous data we have to reach new levels of efficiency of mobile network, but the major problem of mobile network is latency. If we study the Table-1, we can easily understood that 5G could easily solve the network latency issues that will be help to increase the efficiency of network and able to transmit data more efficiently. Network failure issues can be solved to a huge extent with the advent of 5G technology.

Table-1

FEATURES	3G- Network	4G- Network	5G-Network
Latency	100-500 milliseconds	20-30 milliseconds	Less than 10 milliseconds (Ultra- low Latency)
Average Speed	144kbps	25 mbps	200-400 mbps

Source: *Compiled by Authors.*

Network failure issues can be solved to a huge extent with the advent of 5G technology

With the application of 5G network people want to make Smart cities, Smart factories, Data-driven Health care, Smart retailing system, Self-driving cars, Drones and try to download of movies in a blink of an eye. So, 5G network system will bring a broad range of opportunities in different sector in our life. Hence, researchers try to analyse the impact of 5G network in different sectors of our economy.

5G and the Healthcare sector:

5G will bring advance facilities in healthcare sector for patients and care providers; by securing device connectivity throughout 24*7 hours. If a patient needs immediate consultation with a doctor who lives far away from healthcare centre; patient can transmit important statistics to doctors through wearable devices/ sensors like fitness trackers and smart watches. With 100 times faster speed than 4G network, 5G is capable to transmit critical medical data and information before arrival of the patients into the medical centre. 5G supports the telemedicine procedure through real-time high-quality video and audio, which are required for connecting patients and doctors. In the world the size of the telemedicine market was estimated at USD 55.9 billion in 2020 and now it is expected to expand at a compound annual growth rate (CAGR) of 22.4% from 2021 to 2028. As per EY-IPA study, the telemedicine market in India is expected to grow at a compound annual growth rate (CAGR) of 31% for the period 2020–25 and expected to reach USD 5.5 billion by 2025. During the COVID-19 pandemic situation Telemedicine has been used widely across the world to reduce the number of patients coming into the medical centres, using remote monitoring and IoT devices. The application of 5G has increased the use of augmented reality (AR), virtual reality (VR), and spatial computing; which opens up an opportunity for remote-controlled surgery. Now we are also waiting for use of robotics in healthcare sector, especially concerning surgical cloud robotics. Using 5G technology, we able to utilize the vast amounts of data stored on the cloud to enhance patient care and better treatment for the patients.

5G and the Automotive sector:

With the increase in number of vehicles on road; it is high time to use Intelligent Transportation Systems (ITS) to solve the problems of transportation by using 5G network system. If we use the ITS we can able to improve safety mechanism, fuel economy, traffic efficiency and riding comfort etc. 5G wireless technology will bring revolutionary phase into the automotive Industry as wireless technology will be a key enabler of more reliable communication for *vehicles*. In this regard, Driverless automated car; which come into scenario with the advent of 5G, may be a game changer for the automotive industry. 5G will bring more reliable and efficient communication design like Autonomous Driving which is latency-sensitive (e.g. Collision avoidance) or use of Perception/Intention sharing (e.g. coordinated driving) for smart communication system for transportation system. With the advent of 5G, proper use of vehicle-to- vehicle (V2V), vehicle-to- infrastructure

With the help of 5G technology the education sector will get three unique features such as ubiquitous connectivity, extremely low latency, and very high-speed data transfer

(V2I) ,vehicle-to-pedestrian (V2P) and latest 5G application vehicle-to- everything (V2X) communication system handle all critical issues like 3D HD map updates, traffic light operation, in-car traffic signals, traffic jam warning and advanced safety services.

5G and Education Sector:

Revolutionary innovation in the communication and information technologies in the 21st century has made the education system more dependent on cloud solutions. With the help of IoT, the education sector is getting the advantages of collaboration among the students, educators and administration. With the advent of 5G, online education will become more accessible, more convenient and much better. It will truly be a next-generation teaching-learning procedure in near future. The educational institutions across the world are always trying for new and innovative ways to provide their students with the best learning experience. With the help of 5G technology the education sector will get three unique features such as ubiquitous connectivity, extremely low latency, and very high-speed data transfer. As per recent study conducted by Online Education Market in India, it estimated that the market value of online education across India to reach about 2 billion U.S. dollars, where as in 2016 it was 250 million dollars, the growth rate of online education market value is near about 52 percent. Fifth Generation technology has the ability to support a million devices without any delays. This is very important for any educational institution that has multiple campuses within close proximity to each other. This means the students and tutors can use virtual reality (VR) and augmented reality (AR) without any problems at all.

Conclusion and Recommendations:

It may be concluded that 5G opens the door to new realities, instant satisfaction to the users and lightning-fast response. This network is more efficient than any of the previous networks and this network will ensure modern infrastructure with facilities like digitization, automation and connectivity to machines, robots and transport solutions etc. The new technology should be used for ensuring innovations even in MSMEs, so that employment creation can be ensured. Adequate numbers of trained personals are required for efficient handling of new technology based devices.

Government, academic institutions and other stakeholders should ensure inclusive, ethical and efficient use of new technologies based on 5G network systems.

Maintaining of data and device security is also a serious area for concern. In this regard, Regulators are expected to take precaution for protecting privacy, safeguarding national security and stimulate economic growth as a whole. Appropriate security framework should be considered to prevent the malfunctions.

For, the transformation from high level latency to ultra low level latency, authorities need to understand new threats and need to learn how to mitigate them for the security of the society. MA

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INDIRECT IMPACT OF TELECOMMUNICATION USE ON ECONOMIC PERFORMANCES: A STUDY OF INDIAN STATES THROUGH MEDIATION MODEL

Abstract

India has set its economic target based on digitization as 'Digital Economy'. Studies on indirect impact of internet and digital communication on the economic performances of a country are very much scanty, especially in Indian context and more particularly on the state level. Present study is an initiative to understand about the issue Mediation model. Taking sixteen states data on the telecommunication and internet subscribers, it is found that there is significantly positive indirect impact on the economic performances of the states.

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1. Introduction:

Telecommunication facilities and its development are necessary for an economy to exists and improve. Recent developments of telecommunication and internet have caused better scope for business, economic development and creativity. With the help of digitisation and internet, India has entered in the era of Industry 4.0. So, telecommunication and internet have to play a significant role in industry as well as for the economy. In addition, better innovation also helps in economic growth. Telecommunication and internet also facilitates innovativeness. So, it can be said that telecommunication facilitates innovation at primary level and economic development at macro level. Different existing studies have focused on the innovation's and telecommunication's direct impact on economic performances. Indirect impact of telecommunication on the economic performance through the innovation has not been studied yet in India. The present study has been prepared to explore that indirect relationship.

2. Literature Review:

There are literatures on the study of the relationship between the telecommunication use and economic performance and innovation with the economic performance. Most of these studies show positive results at country level. Studies on the Indian states are not much available. However, some the existing studies are being reviewed here briefly.

The study of Solomon & Klyton (2020) has shown that individual level of digital technology use can have positive impact on the economic growth of the African countries. The same paper has narrated different literatures like Wamboye et. al. (2015), Chavula (2013), Njoh (2018) who have made almost same type of studies with the help of GMM model. A panel data study on European countries by Toader et. al. (2018) has found that information and communication technology infrastructures have positive impact on the countries macro-economic performances. All these studies have used Cobb-Douglas production function form. Some studies regarding internet and telecommunication and innovation

Telecommunication and internet also facilitates innovativeness. So, it can be said that telecommunication facilitates innovation at primary level and economic development at macro level

can also be mentioned here. Apavaloaie (2014) has graphically narrated with example that development of internet can cause several innovative aspect of business environment. The description article of Leefmans (2015) has indicated that internet use can make people creative. Positive impact of use of internet on economic growth has been found out by Yasmeen & Tufail (2015) in selected South Asian countries. Xu et. al. (2018) has study internet use and accessibility with the patent in USA and found a positive relationship

So, all these studies have its common form of economic growth measurement models and done in the foreign countries. In India, state level studies are yet to be done. Studies to consider indirect impact of telecommunication use on the economic growth has not been explored that much. Considering these gaps, a simple initiative is taken in this study.

3. Objective of the Study:

Therefore, the objective of the study is to find out indirect impact of telecommunication use on the economic performances through the innovativeness of the states.

4. Methodology:

This methodology part consists of sample, variables, statistical tools and equations for analysis.

i) Sample:

Here, two years data (2018 and 2019) of sixteen states have been taken from the Yearly Performance Indicator (YPI) reports of Telecom Regulatory Authority of India (TRAI) and the India Innovation Index reports. Altogether, thirty two state-years data are taken for the present study.

ii) Variables:

The independent variables include the number of telecommunication (TELSUB) and internet (INTSUB) subscribers. The dependent variables are Gross State Domestic Production (GRSGDP) and Gross Value Added in Service Sector (SERVAD) for economic performances. The innovativeness of a state is taken as mediator by the Innovation Index (INNOVA) score. Here, dependent variables are in Rupees in thousand crore and the independent variables are in million.

iii) Tools:

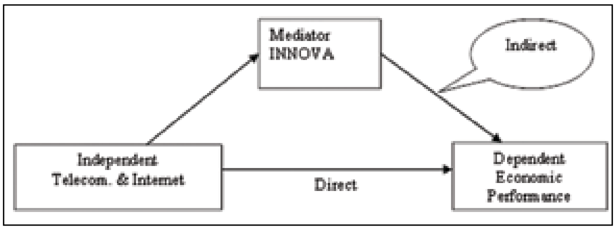
Descriptive statistics, correlation analysis, Hayes mediation model are being used here.

iv) Hypothesises & Equations:

Considering the objective of the present study, the basic idea is that increase in TELSUB has positive impact on the INNOVA, which is again affecting the GRSGDP. Therefore, the alternative hypothesis ***H1a*** is that increase in number of TELSUB has positive indirect impact on the GRSGDP and SERVAD. In the same way, alternative hypothesis ***H1b*** is that increase in number of INTSUB has positive indirect impact on the GRSGDP and SERVAD.

The YPI reports have also mentioned rural and urban subscribers. Considering this, other two alternative hypothesises ***H2a*** and ***H2b*** can be described as, the increase in number of rural subscribers (RURSUB for telecommunication & RUINSUB for internet) have positive indirect impact on the GRSGDP and SERVAD and the increase in number of urban subscribers (URBSUB for telecommunication & URINSUB for internet) have positive indirect impact on the GRSGDP and SERVAD, respectively. The structure of the Mediation Model is given in the Figure -1.

Figure-1 Simple Mediation Model



5. Findings:

From the Table-1 of descriptive statistics, it can be seen that the minimum values of all the variables are very much lower than maximum values and for the same reason the SD values are very high. But, the SD values of RURSUB and RUINSUB are lower than URBSUB and URINSUB respectively. The mean values comparison of INTSUB and TELSUB show that around 54% of the telephone subscribers are with internet connection. This proportion need to be increased. The RUINSUB and URINSUB mean values show that around 63% of urban internet subscribers are rural subscribers.

Table 1 Descriptive Statistics

	Minimum	Maximum	Mean	SD
TELSUB	10.62	169.75	68.96	42.16
RURSUB	7.02	90.15	31.56	19.41
URBSUB	2.88	90.20	37.43	23.33
INTSUB	4.95	91.57	37.43	21.12
RUINSUB	3.11	40.13	14.63	8.37
URINSUB	1.84	66.05	22.79	14.17
GRSGDP	1538.45	26327.92	10351.02	6195.59
INNOVA	7.74	42.50	21.56	9.00
SERVAD	613.72	13714.77	4773.81	3286.70
Valid N (list wise)		32		

The Table-2 shows that TELSUB has positive and significant coefficients for all variables except INNOVA. But, increase in the number of data may give a significant result. The INTSUB relationships are positive and significant with others. These are showing that there is significant relationship of internet with the states' economic performances and innovation. Table-2 is also showing some interesting facts regarding the coefficient values of URSUB (0.460) with INNOVA and URINSUB with INNOVA (0.504), which are significant and positive. But, the same could not be found with respect to RUSUB (-0.028) and RUINSUB (0.104). So, it can be said that the telecommunication user and internet user number of urban areas are having better relation or contribution towards states' innovation.

Table 2 Pearson's Correlations

		TELSUB	RURSUB	URBSUB	INTSUB	RUINSUB	URINSUB	GRSGDP	SERVAD
RURSUB	Cor	.876**							
	Sig.	.000							
URBSUB	Cor	.941**	.725**						
	Sig.	.000	.000						
INTSUB	Cor	.938**	.815**	.914**					
	Sig.	.000	.000	.000					
RUINSUB	Cor	.862**	.944**	.730**	.892**				
	Sig.	.000	.000	.000	.000				
URINSUB	Cor	.889**	.657**	.931**	.964**	.738**			
	Sig.	.000	.000	.000	.000	.000			
GRSGDP	Cor	.817**	.511**	.918**	.810**	.545**	.885**		
	Sig.	.000	.003	.000	.000	.001	.000		
SERVAD	Cor	.764**	.442*	.856**	.739**	.485**	.814**	.958**	
	Sig.	.000	.011	.000	.000	.005	.000	.000	
INNOVA	Cor	.298	-.028	.460**	.379*	.104	.504**	.681**	.751**
	Sig.	.098	.879	.008	.032	.573	.003	.000	.000
**. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).									

Considering previously mentioned hypothesises, the regression results of mediation models are mentioned in the Table-3 and Table-4. From Table-3 it can be seen that R^2 values are above 60% with F- statistic value highly significant. This implies validity of the mediation models. All these models also show that there is significant and positive indirect impact of TELSUB and INTSUB on the GRSDP and SERVA respectively. Here, dependent variables have been transformed into square root to get normality. Now, the mediation results of Model 1 are showing that TELSUB coefficient (0.493) is positive and significant and directly impacting the GRSDP. The INNOVA coefficient (0.098) is positive and significant and indirectly affecting GRSDP. Other models of the Table-3 can also be interpreted accordingly. All together, these models are showing that the telecommunication and internet subscribers' number have a positive impact in the economic performances of the states through the positive impact on the innovativeness of the states.

Table 3 Simple Mediation Model Results for Hypothesis H1

Model		Coeffi.	SE	t	LLCI	ULCI	*p*	Hypothesis
1	Dependent => SQRGRSDP R^2 =0..654 F= 56.607 p=0.000							H1a
	Direct: TELSUB	0.493	0.057	8.619	0.376	0.609	0.000	
	Indirect: INNOVA	0.098	0.051		0.011	0.199	0.000	
	Total Effect	0.591	0.078	7.524	0.430	0.751	0.000	
2	Dependent => SQRSERVA R^2 =0.611 F= 47.162 p=0.000							
	Direct: TELSUB	0.342	0.038	8.875	0.263	0.421	0.000	
	Indirect: INNOVA	0.087	0.045		0.003	0.176	0.000	
	Total Effect	0.429	0.062	6.867	0.301	0.557	0.000	
3	Dependent => SQRGRSDP R^2 =0.674 F= 62.014 p=0.000							H1b
	Direct: INTSUB	0.977	0.128	7.637	0.716	1.239	0.000	
	Indirect: INNOVA	0.219	0.097		0.046	0.424	0.000	
	Total Effect	1.197	0.152	7.875	0.886	1.507	0.000	
4	Dependent => SQRSERVA R^2 =0.808 F= 109.934 p=0.000							
	Direct: INTSUB	0.639	0.096	6.637	0.587	1.105	0.000	
	Indirect: INNOVA	0.206	0.088		0.045	0.393	0.000	
	Total Effect	0.846	0.127	6.661	0.443	0.837	0.000	
	All Constant Values are Positive and Significant							

The Table-4 is based on the hypothesises H2a and H2b. Here, ratio of RURSUB against URSUB (RUROFURB) and RUINSUB against URINSUB (RUINOFUR) are being considered. RUROFURB shows the number of rural telecom subscribers per urban subscribers and inverse of it (i.e. URBOFRUR) is to indicate the number of urban subscribers against rural subscribers. Same methodology applicable for RUINOFUR and URBIOFRU calculation.

Table 4 Simple Mediation Model Results for Hypothesis H2

		Coeffi.	SE	t	LLCI	ULCI	*p*	Hypothesis
5	Dependent => SQRGRSDP R^2 =0..282 F= 11.799 p=0.001							
	Direct: RUROFURB	-27.897	7.997	-3.488	-44.254	-11.540	0.001	
	Indirect: INNOVA	-11.935	6.714		-30.101	-3.038	0.000	
	Total Effect	-39.833	7.513	-5.301	-55.177	-24.488	0.000	
6	Dependent => SQRGRSDP R^2 =0.503 F= 30.385 p=0.000							
	Direct: RUINOFUR	-37.694	9.125	-4.131	-56.356	-19.031	0.000	
	Indirect: INNOVA	-13.719	7.656		-32.906	-3.221	0.000	
	Total Effect	-51.414	9.327	-5.512	-70.463	-32.365	0.000	
7	Dependent => SQRGRSDP R^2 =0..411 F= 20.959 p=0.001							
	Direct: URBOFRUR	23.263	9.461	2.459	3.913	42.614	0.020	
	Indirect: INNOVA	14.070	7.317		0.209	29.131	0.000	
	Total Effect	37.334	7.771	4.804	21.463	53.204	0.000	
8	Dependent => SQRGRSDP R^2 =0.462 F= 25.785 p=0.000							
	Direct: URBIOFRU	20.891	6.688	3.124	7.212	34.569	0.040	
	Indirect: INNOVA	10.022	4.949		2.057	21.584	0.000	
	Total Effect	30.913	6.087	5.078	18.479	43.346	0.000	
	All Constant Values are Significant for all these Models							

The Table-4 consists of mediation Models-5 to 8. The Model-5 & 6 independent variables are RUROFURB and RUIOFUR respectively. The coefficient values of these variables are significant and negative. Indirect effects of the same variables are also negative and significant on INNOVA. It indicates that increase in the ratio of rural subscribers against urban subscribers is significantly reducing GRSDP. These results are not complying with the hypothesis H2a. Now, the mediation results from Model-7 & 8 are showing that the ratio of urban subscriber against rural subscribers has positive and significant coefficient values for both the direct impact and indirect impact of INNOVA on the GRSDP. This signifies that increases in number of subscriber base at urban areas are more effective to improve the innovativeness of the states as well as the GRSDP. Same process can be followed to check indirect impact on the SERVAD, where same results are found as in Table-4.

6. Conclusions & Limitations:

The descriptive statistics is showing that Indian states are having significant differences in its economic and innovation performances and ratio of internet subscribers needs to be improved. The study indicates that improvements in the telecommunication and internet subscriber base are improving innovativeness of the states, which is having indirect positive impact on the economic performances. But, rural subscribers' improvement is not effective in that respect. This should be taken care of by the government with proper policies. The study would have been much more reliable if the published Innovation Index data are available for more than two years. MA

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ATMANIRBHAR BHARAT: THE ADVENT OF 5G TECHNOLOGY IN ADVANCING A STEP TOWARDS INDIA'S DIGITAL EMPOWERMENT

Abstract

The 5th generation technology will surely change the way of living and leading life but its implementation is going to be the key for the future. Our government is optimistic in making India digitally empowered to be self-reliant and here the role of 5G will be crucial. The research paper provides a brief overview on how the next generation 5G technology can improve the digital empowerment and lead our country towards being Atmanirbhar..

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BACKGROUND

The 5G technology can be traced back to the early 1980s when the technology was prototyped. It helps in more consistency and reliability, low latency rate which ensures less time gap between connecting one person to another, and it has got multi Gbps crowning data speed which is the need of the hour for any economy. The technology will provide better performance in minimal time and will act as a game changer in the corporate front and it establishes a new wireless standard that will redefine the network system in our nation. It provides high speed connectivity and is designed to connect virtually which is needful for a vast country like India, especially for the rural areas. The digital empowerment initiative started in the year 2015 was the first step towards being Atmanirbhar Bharat and now the 5G technology can play a key role in making India digitally empowered and fulfill the dream of becoming Atmanirbhar. India's National Digital Communications Policy, 2018 also gives importance to the 5G technology which can play a lead role in making our country digitally empowered. Atmanirbhar Bharat aims in promoting things that are made within the boundaries of the country so that we do not have to depend on others. It provides key knowledge about digital literacy to individuals, to empower them and to be digitally accessible which ensures inclusive growth, that is the growth by taking all in the process.

The road to make every individual digitally equipped is not easy and it is a tough task but it can be achieved through the development of technological advancement. Indian telecom exports are one tenth of that of imports which is a matter of concern and there are other problems like lack of coordination among different departments, poor infrastructure and lack of literacy, these are the obstacles while making the nation digitally empowered. In a vast nation like India, it is a massive challenge to implement something new like the 5G technology and creating awareness about its benefits to the common people is tough. Moreover, connecting each and every corner of our economy with the 5th generation technology is a herculean task especially because of the wide digital divide between the urban and rural India, and also the poor and delayed infrastructure that we possess, which the government need to think of. But the essence of being self-reliant is essential, which will ensure digital and technological enhancement that will help in economic stability. There will be difficulties while implementing the 5G technology and such difficulties are faced at the initial stages for every new initiative taken but success lies in how well and good it operates for the socio-economic benefit of the nation. The research on making our nation Atmanirbhar with the advancement of digital empowerment through 5th generation technology has got social implications for betterment of the structure of the country which ensures over all social welfare and economic growth.

RESEARCH OBJECTIVES

The study has been based on the following research objectives:

1. To identify how the 5G technology can be successful in promoting the digital empowerment in India.
2. To know the implication and effects of the 5G technology in leading India towards Atmanirbhar Bharat.

RESEARCH METHODOLOGY

The study is descriptive in nature and is purely based on secondary sources of data. The secondary sources of the descriptive analysis have been collected from various news reports, research works, published information and working papers. Various websites were also visited to fulfill the above desired research objectives and to know how the 5G technology can promote the digital empowerment in our economy and generate a better future for our country and thereby lead us towards self-reliant India. At first the researcher has collected available and relevant information about the 5G technology and its implementation in near future and then it was analyzed that how the technology can change the dynamics of the economy loading one step forward towards a generation. The available relevant information has also been clearly and conceptually analyzed to conclude on the concrete role that can be undertaken by the future generation technology and thus the researcher has also provided several recommendations which can lead India towards digital empowerment and be Atmanirbhar.

ANALYSIS

Digital empowerment is one of the bases of being Atmanirbhar and that too with the help of future ready 5G technology is moving a step towards the digital India movement. Effective implementation of the 5G will change the dynamics of business operations along with making India digitally empowered and there are

One of the visions of the Atmanirbhar Bharat Abhiyan is to make our country a digitally knowledgeable and empowered one and it's motivate is to achieve inclusive growth

examples from other countries like The United States of America or the United Kingdom, where there was considerable amount of progress at their business productivity and profitability after the implementation of 5G at the initial stages. One of the visions of the Atmanirbhar Bharat Abhiyan is to make our country a digitally knowledgeable and empowered one and it's motivate is to achieve inclusive growth. Over the years there has been considerable improvement in the technological and digital advancement in our nation but still further work is needed to be done to make the vast sections of the population digitally empowered for the overall progress towards self reliant India.

The future generation 5G technology can improve the nation digitally and socially by improving various day to day services in different sectors like healthcare and medicine industry, education sector, financial service sector, transport and hardware industry, and can provide uninterrupted services like mobile banking, public safety, e-commerce services and disaster management. The technological advancement can provide exponential growth in our country by giving opportunities in the field of employment generation and thereby the unemployed can engage in fulfilling their productive work. The domestic Indian companies can associate with the multinational companies to provide 5G services after its implementation since they have the capability to provide 5G services with support from the government which can make a 5G manufacturing hub in India. If we want to be Atmanirbhar, it is better not to wait for the immediate policy finalization rather work on it, since domestic 5G solution is possible as till now there is 80 to 90 % success levels as tried out by the domestic players along with Research and Development, and Information Technology teams. There has also been enormous support from the government as they have sanctioned rupees 224 crores to set up a domestic 5G hub to make India a 5G leader. The Production Linked Incentives Scheme for the telecom sector and especially for the 5G setup worth rupees 15000 crores is likely to take place and the incentives could be available for 5 years provided that the incremental production of rupees 300000 crores takes place along with that, which acts as a booster dose for the multinational companies to set up the 5G manufacturing base in India and that can be a win-win situation for both the parties. It was also estimated that the future ready technology will make a contribution of approximately rupees 33000 billion to India's National Digital Communications Policy (NDCP) which will help India in making digitally access that will lead us towards Atmanirbhar Bharat.

Being Atmanirbhar is very much essential for the social and economic development, to maintain the security of the country and for that the development of an indigenous 5G technology is the need of the hour as the telecommunication sector is the common thread to all other sectors and those who controls the telecommunication sector controls other sectors as well. To be self reliant, each and every stakeholders of every sector should step aside on their personal goals and come together to deliver as a unit for a better digital India. We all have to brace ourselves to the transformative next frontier digital revolution that will take place through 5G technology in our country which will affect every aspect of our day to day life from staying connected to the way we live and work that can make India a global leader in 5G technology and its subsequent telecommunication industry.

CONCLUSIONS AND RECOMMENDATIONS

From the above analysis it can be clearly inferred that the implementation of the 5G technology will act positively towards digital empowerment which will certainly lead towards Atmanirbhar Bharat. The next generation technology will bring improvement not only in the digital sector but also in other several sectors and industries associated with it. Evidence from several Western Nations has shown that there has been considerable improvement in their growth and development after the implementation of the 5G technology in their country. There are certain barriers and obstacles for effective implementation of the 5G technology in a country like India, where there is lack of literate people and especially digital literacy is lacking in rural areas. Moreover, Lack of expertise, lack of know-how and improper digital infrastructure are the main common barriers for the effective use of the 5th generation technology. Considering that there are certain barriers for the effective implementation of the 5G technology, the researcher put forwarded the following recommendations for the effective functioning of the 5G technology which can lead the nation towards digital empowerment.

- The digital infrastructure especially in rural areas needs to be improved since such infrastructure is the base for making our country digitally empowered through 5G technology.
- The Telecom Regulatory Authority of India (TRAI) and Department of Telecommunications (DoT) should support and act hand in hand accordingly for the nation's technological development.
- Adequate digital knowledge among every individual in our country is needed for the success of the 5G technology to become Atmanirbhar.
- The implementation of the 5G technology should be done keeping in mind on its reliability, security and affordability looking at our vast diverse population.
- The regulators of the technological department along with its peer department should play the lead role in its effective implementation.
- Proper expertise people in digital handling is needed for the next generation technology who can guide, train and make individuals digitally knowledgeable and empowered for the overall development. MA

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NOTIFICATION

In pursuance of Regulation 146(4) 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 has dissolved the following Chapter of The Institute of Cost Accountants of India.

The Institute of Cost Accountants of India – Ballari Chapter
SSA Govt. First Grade Degree College
Ballari – 583 101
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(CMA Kaushik Banerjee)
Secretary

DIGITAL OBJECT IDENTIFIER (DOI)

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CMA Rajneesh Jain

President & CFO

Reliance Jio Infocomm Limited, Mumbai

What Leads To Success!!!

Mr. Rajneesh Jain is President & Chief Financial Officer (CFO) at Reliance Jio Infocomm Limited. He is a Cost & Management Accountant (CMA). As a CFO, Rajneesh Jain has been leading Commercial function at Jio to act as a strategic partner and enabler of business and operations units to lead the digital revolution in India. He is also a key member of Jio Executive Committee.

Mr. Jain, an accomplished finance veteran with over thirty (30) years of professional experience *in the industry has worked with a number of established organizations like Indo Rama Synthetics, Ispat Industries and BHEL. He has wide experience and proficiency in the fields of Finance, Projects Execution, Corporate governance, Project planning & financing, Cost control, Process establishment & improvement, Process Automation, Accounting and Audits.*

He is a Co-opted Member of the Board of Advanced Studies & Research Committee of The Institute of Cost Accountants of India (ICAI). Also is a Member of Industry Advisory Board of Amity University Novel Communication Lab (AUNCL) and Member of Governing Board of SIES College of Management Studies, Mumbai.

CMA Mr. Rajneesh Jain has been adjudged Best CMA CFO in the Mega-Service industry category in the recently concluded 6th CMA Awards. He has received multiple industry recognitions on various platforms over the years including featuring in CFO Power list and multiple 'CFO of the Year' awards. He has also been an active speaker at various universities and youth platforms, to interact with youth of the country.

Mr. Jain is a role model for all the young CMAs. Here are the key lessons he would like to share with our Young CMA fraternity as they build their career.

'Set up stiff targets for executing a job and work relentlessly to exceed your own expectation. Make winning a habit.'

- Mr Rajneesh Jain
President & CFO
Reliance Jio

"As I look back at my professional journey till date, full of ups and downs with both miserable and ecstatic moments, five lessons come to my mind which has led me on the path to success.

1. **Education is the greatest blessing in life**

   I personally rate this above health and wealth. With good education, one can manage both of them. The brilliance of Stephen Hawkins was never deterred by his crippled health. Though born to lower middle class parents, my Father always kept my education at the top of his agenda. Post matriculation, I decided to manage my education on my own. I started taking tuitions, took CMA to avoid extra hours on articleship and completed both graduation and professional degree simultaneously to be ready for a job at the earliest.

2. **Cardinal Principle of my Career has been Risk taking mindset**

   Experiment, Failure, Repeat, Success has been my mantra. Enjoying the fruits of success does not interest me. On the contrary, the longevity in particular state brings boredom which makes me to experiment all over again.

3. **I have always played to my strengths**

   Was quick to realise as a teenager that I was bestowed with a reasonable good sense of planning, strategy, intuition and soft skill of team building. On many occasions, I was happy to play the role of a support function to bring the talents together. This was extremely rewarding as whichever team had me always won. It has been my strong belief that while Brilliance can only win battles, while it is always a TEAM which can win WARS.

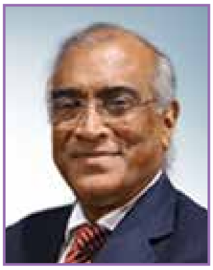
4. **Never been afraid to accept challenges**

   From Engineering behemoth, BHEL, to the Challenger Indo Rama or part of bringing life to sinking Ispat, transforming telecom history through 40 paisa calls in RCOM or finally part of Shri Mukesh bhai's Digital India Vision, it has been a roller coaster ride of various challenging roles. The journey has been challenging but enriching and rewarding.

5. **Never stop dreaming**

   My advice to all youngsters is to never stop dreaming. Back up your dream with a VISION, set up clearly defined GOALS to accomplish and execute them with relentless hard work, timely course correction, formidable team and SUCCESS is assured. Even, if you are not successful after all the efforts, it would be a life spent meaningfully."

DIGITAL TRANSFORMATION - TREASURE AND WEALTH FROM DIGITAL DUST AND SMART DUST



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Introduction

People of wisdom proverbially taught us that lots can be done by a stem of grass at the time of need if safely preserved. That stem of grass metaphorically signifies anything which prima facie appears to be trifling. They wanted us to be more cautious, vigilant and apply providential judgement before rejecting or accepting anything. Their advice was to follow this rule even for anything that is ranked as trivial in common parlance.

A goldsmith knows this better than any other professional because of being mindful that his work process generates tiny gold particles which get mixed up with volumes of other unwanted particles. He never uses a traditional broom to sweep his workshop and throws the gathered dust. Instead, he uses a specially crafted brush and preserves gatherings in a container. The art and science of extracting gold from dust has been passed on to him through generations which he has further upgraded.

Why this rule should be different in this era of hyper social media activism and neck breaking speed of contents creations by all and sundry, when data is called the new gold mine? An experiment to prove that different types of digital dusts (DDs) are gathered by open digital objects can be performed by a simple task. Let an account in Facebook, LinkedIn, Instagram, or Twitter be opened by anybody with minimum and mandatory information and left for some days as it is. One would most certainly find that many unwanted information, notices, advice, contents, etc. have been thrown at that account. Infliction of such digital dusts would be more if that person has an account in more than one media or Applications (App) under control of the same digital giant as Google for Gmail and YouTube.

Business entities mostly gather varieties of DDs thrown at them by customers and other stakeholders. Most of those are sought for and welcomed, and even if not, efforts are made to make meaning out of those. This is because, as readers would further read in following paragraphs, refined DDs help getting business intelligence, formulating business strategies, and generating income in a digitally transformed operating environment like that goldsmith getting gold from shopfloor dusts.

Smart Dusts (SDs) on the other hand are self-inserted digital dusts which are used for enhancing multiplicity of applications and effectiveness of certain digital devices and platforms. SDs are also enablers for gathering DDs. More have been explained about these in some of the following segments.

Objective

Digital dusts are of hardly any value for an individual user of computing devices and smart digital devices like mobile phones. Marie Kondo[1], a tidying expert and a bestselling author suggests *"…… getting rid of things that don't spark joy, consider what a good old fashioned spring cleaning might do for your digital life and mental health. We'd suggest focusing on three areas: social media, apps, and notifications*." But such an axiomatic advice does not hold good for business organisations. Accordingly, this article aims to achieve two simple objectives, viz., bring more clarity in conceptual understanding of digital dusts and smart dusts, and know more about their meaningful use by business entities. Efforts have been made to generate some ideas for wider utilisation of digital dusts to generate economically meaningful results.

Digital Dusts and Smart Dusts - Definitions

Oxford dictionary has defined 'dust' as *"Any material in the form of tiny particles"* and the word 'digital' as "*Relating to, using, or storing data or information in the form of digital signals*." Before combining these two it will be useful to know what is meant by the world 'digitise'. Again, Oxford dictionary defined the same as "*Convert pictures, text or sound into a digital form that can be processed by a computer."*

If these three definitions are combined one can simply define digital dusts as digitised texts, sounds, images, or documents that were used in some transaction, auto captured/inserted due to some one's footfall in an entity's website, which are not purged-off and allowed to snowball. One simple example of DDs is the set of personal details provided by job seekers when they visit a company's website, click the 'Career' Tab, and punch in minimum personal information for which the company provided slots.

Incidentally, the very first Tab on the landing page of Infosys https://www.infosys.com/ is 'Careers'. Almost every large company provides such a Tab to collect digital dust, irrespective of their nature of products and services. Like a gold smith these companies have some objectives to serve from such DDs and derive benefits by way of reduced expenditure for hunting before talent acquisition.

Smart Dusts are technically called as Micro Electro Mechanical Systems (MEMS). These items, as tiny as one grain of coarse salt, are fitted with sensors to detect light, sound, temperature, magnetism, chemicals, and vibrations. Eminent digital influencer Bernard Marr[2] writes, *"With an incredible amount of power packed into its small size, MEMSs combine sensing, an autonomous power supply, computing and wireless communication in a space that is typically only a few millimetres in volume. With such a small size, these devices can stay suspended in an environment just like a particle of dust. ..... The potential of smart dust to collect information about any environment in incredible detail could impact plenty of things in a variety of industries from safety to compliance to productivity*."

Challenges for innovating and manufacturing such tiny MEMS by using traditional processes are avoided by using 3D Printers. Thus, optical lenses required for incredibly powerful sensors become performance effective. Readers can know more about SDs from the quoted article of Bernard Marr[2].

The author has chosen the words 'Treasure' and 'Wealth', while coining the title of this article, to symbolically convey two different points. As per Oxford dictionary Treasure means "*a quantity precious metals, gems, or other valuable objects*" and Wealth means '*an abundance of valuable possessions or money*". This article aims to convey that smart dusts are certainly treasures because those generate enormous digital signals for process improving effectiveness, speed, cost optimisation and energy savings. Whereas digital dusts can be converted to treasure of business insights and help framing strategies that can contribute and enhance income and wealth of business entities.

Difference between Data and DD

Merriam webster dictionary has provided the following two definitions of data:

- *"Information in digital form that can be transmitted or processed.*
- *"Information output by a sensing device or organ that includes both useful and irrelevant or redundant information and must be processed to be meaningful"*

From the perspectives of data scientists and commercial organisations any data is nothing but a pile of digital dusts (bites) if those cannot be used as it is, or irrelevant, or contain redundant information. From the perspective of an individual user also unwanted and unusable data is nothing but digital dusts. However, computer scientists also have innovated ways and means for exacting treasure of information from DDs like a goldsmith extracts gold from shopfloor dusts.

Digital Dust to Internet of Behaviour

The author has written about applications of Internet of Things (IoTs) in his earlier two articles[3&4] on digital transformation of health care services and manufacturing operations. Readers will inter alia note that IoTs attached to a machine can observe its performance by reading throughputs, recognising noise, electricity consumed, idle time, etc. Those IoTs can also transmit such observations to a computing device as DDs which prima facie may not be of any use, albeit can pile up. However, if need be, engineers can put those DDs together, refine and process for further analyses. The digital gold that can be extracted is the machine's behaviour, which helps planning and initiating actions for maintenance and performance improvement.

The concept of 'Internet of Behaviour' (IoB) is the essence in the form of heuristic features of an user that can be extracted from DDs thrown by computers, smart phones, wearables like FitBits, Smart Watches etc. IoTs fitted to a patient's pillow can even study sleeping pattern and transmit information to the attending doctor's smartphone/computer. DDs thrown by such IoTs can be put together, refined, converted into useful data for further analyse and drawing inferences as IoBs.

Such DDs can be auto accessed by other Applications (Apps) with permission. Facebook and Instagram use software for analysing the psychological and behavioural characteristics of various pictures and videos posed by users, which are otherwise nothing but DDs for them. Inferences from all those help them to create IoBs of a user. This in turn lead them to decide and push through advertisements for products that are likely to be of interest to the concerned users.

Brian Burke, Research Vice President of Gartner in his paper on top strategic technology trends of 2021[5] commented that, *"IoB captures digital dust of people's lives. ... Collecting data to influence behaviours has the potential to be a powerful tool, and its social reception might depend on just how heavy-handed* *organizations are with what they're trying to do. For example, while drivers may not object to having speed, breaking, and cornering tracked in exchange for lower insurance premiums, they might not be as receptive to law enforcement also being able to track that information. At the end of the day, the IoB must offer a mutual benefit to both parties or risk being rejected by consumers*."

A user of a smart phone downloads and uses many Apps. Certain Apps are even pre-embedded. Many of such Apps can generate piles of unwanted bites, i. e., DDs. Some can access generations by other Apps like photographs, list of websites visited, health data, results of daily physical exercises, etc. Certain Apps concurrently work in coordination to process and generate out of such DDs meaningful data and/or pattern of the user's behaviour.

For example, IoTs fitted in a car can be connected to the Driver's smartphone and the computing system of insurance companies. These IoTs continuously generate and throws DDs to the driver's smart phone and insurance company's portal(s) indicating driver's style of driving, number of hard pressing of breaks, routes followed (in coordination with GPS App), etc. If need be, the insurance company can put those unstructured DDs into a process of data analytics to assess the degree of risks taken by the driver and determine premium on a daily basis, if the scheme opted contains such a term. Even in an unfortunate incident of accident such DDs can be gathered to derive help for investigating the causes and nature of actual incident which in turn would help ascertaining and speedy settlement of claims.

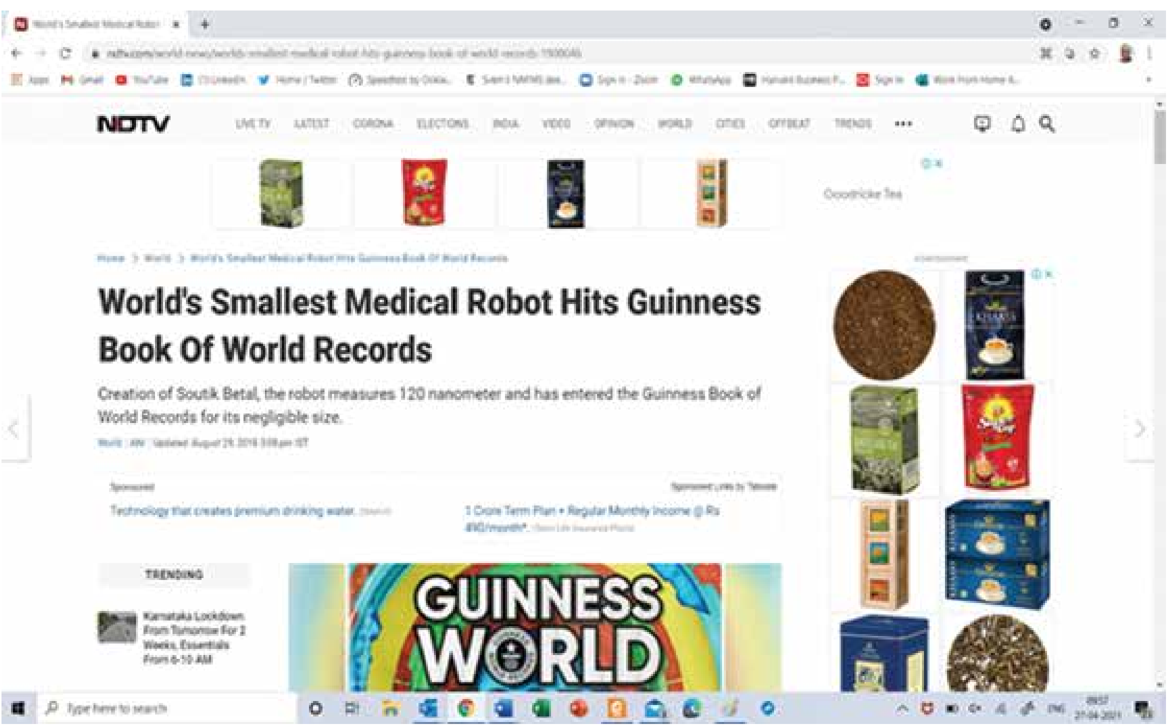
Digital Dusts for Business Intelligence

An example has been quoted above about the process by which DDs are converted to IoB and how marketing managers use those IoBs crafted by digital giants like Facebook and Google for pushing advertisements for target customers. The second quoted example is of employment related DDs inflicted by job seekers from which business entities hunts out treasure of talents.

Readers, with experience of shopping from eCommerce sites like that of Amazon, Flipkart, Zivame, etc. are aware that those players make best use of trends of past purchases and products spotted/ reviewed by customers both at individual and different demographic groups levels. Essentially customers generate DDs while shopping at their websites which remain as floor dusts in their data storage systems. Those business entities welcome such dusts. There is an organisation by the name Digital Dust Agency https://digitaldustagency.com/?lang=en. Their service is to make best use of such DDs and derive business intelligence for their client companies which in turn helps framing strategic plans. They claim themselves as "…. a *boutique agency specialised in influencer marketing and content production for the social media world.*"

If a product is out of stock and not added to wish list for purchase, as one can do while on the website of www.amazon.in, that item is thrown up to the computer screen of the concerned shopper during her/his next visit. This is nothing but use of digital dust. eCommerce players also use 'Search Keys' which are used by customers at their website to check whether a particular item is available for shopping. These keys are not data in its true sense but DDs. Such search keys are processed for extracting useful data related to frequencies of use to get a sense of items which are wanted by customers. Such processed information is mapped against existing list of products to ascertain gaps, plan for contracting vendors, and intermediating sales in future. One therefore, can conclude that DDs are primary sources of business intelligence and thus collectively a source of treasure.

Let another example be considered which is a live experience of the author. At the outset permission is being solicited for writing this section in first person. The words I and me would mean the present author. Let me request readers to carefully look at the following picture, which is a screen shot of my laptop computer:



Let me narrate what it is all about. A few days ago, I was browsing through Google Chrome to confirm whether Soutik Betal's claim of creating the tiniest medical robot of the world is bearing with reality or not. Within nano split of a second certain digital dusts were thrown at my laptop covering circa 30% of screen space. Those pictures of coloured boxes are actually various options for buying tea thrown at me by Google perhaps by using an embedded software of Chrome.

Let me confess that just about a day before I bought a particular type of Darjeeling leaf tea from the eCommerce website of a tea garden company. Other products of the same company have been thrown as displays for alluring me to buy. This is a standard practice followed by many consumer goods selling companies, including wearing apparels, etc. Probably Google has contractually done this under a commercial contract with that company. This revenue generation model may be based on collaborative digital transformation of the trio, viz., Google, that tea company and the news service provider. That tea company is using such digital dusts for marketing campaign and revenue generation.

As if this is not enough, readers may notice that Google has given a short text-based link for a news item about lockdown in Karnataka due to the second wave of Covid-19 Pandemic, which is a DD for me. This is because I read eNews using Apps on my Apple phone. The driving motive is, if I click to read that news item, there will be another digital footfall, which will again give Google an opportunity to push some other advertisements based on my behaviour of browsing. Thus, more the footfall more the revenue for Google.

Applications of Smart Dust

Smart Dusts, as have been defined above, are pre-programmed MicroElectroMechanical Systems and fall in the field of nano technology. These are also called Motes because of their minuscule size and insignificant weight. They can work without any human mediation.

SDs are used while designing any IT oriented device/component and connected with remote computing system for receiving signals. However, some designers are sceptical about their applications because such powerful objects if fall in the hands of people with ulterior motives, probabilities of data infringement cannot be ruled out. Because of being tiny, it is also a challenge while making a device with perfection, and thereafter to detect and retrieve after they are deployed.

Readers may know more about another type of SDs called Internet of Body (IoB) in the author's article[5] on digital transformation of health care services. Such tiny IoBs are planted into a patient's body or swallowed by her/him with water. These tiny objects emit signals about physical conditions of nearby organs which facilitates diagnosis, radiography, robotic surgery and administering internal medicines. Swallowed IoBs dissolves after a defined time span.

Readers may hold their breath before reading that a smart dust can be a robot also. Dr. Soutik Betal[6] an Indian Bengali student of the University of Texas "… *has built the world's smallest medical robot that cannot be seen with the human eye ….. the robot measures 120 nano meter ….. The robot is basically a series of nano-composite particles of multi-functional oxide materials that can be remotely controlled by an electromagnetic field"*. The author had the benefit of speaking to Dr. Betal, presently a faculty member of IIT Delhi, on this during a personal conversation. This tiny robot would be of great help in diagnosis administering medicines to human cells in conditions such as cancer and Alzheimer's because it can interact with biological cells.

SDs are used for designing solutions for digital transformation in various fields. Certain global companies like Beta Batt, Defendec, and Cube Wacs have designed and marketed various products using SDs in the fields of medical diagnostic and treatment, agriculture, manufacturing and inventory management, defence, multi-modal travel safety and security, etc. Large corporations, viz., Cargill, General Electric, Cisco Systems, and IBM have staked substantial investments for conducting research on SDs. Many of which are at different stages of conceptualization to proof of concept. Readers can know more about all these from the paper of Dr. Priyom Bose.[7]

Conclusion

The author dared to write on Digital Dusts and Smart Dusts because knowledge of digital transformation remains incomplete without having some structured inputs about these two. Existence of the former type of dusts are knowingly or unknowingly being experienced by all users of internet. Objective of this article will be served if readers become more mindful about DDs and to the extent possible avoid leaving digital footprints in websites they visit. One can also be more conscious of better housekeeping as advised by Marie Kondo[1]. This would help improving speed and quality of performance of any computing/handheld device and reduce chances of unethical infringements by other Apps and cybercriminals for extracting data and DDs.

Going forward many readers will have to use IoTs fitted with SDs. Some may be already using those. Knowledge about SDs would help better understanding about the products, and effectively use in compliance with the safety and security measures as advised by product vendors in users' manual.

This article would be better read if taken in similar lines of Socratic method of learning, the objective of which is to foster critical thinking. It may not be considered as reasonably complete in terms of knowledge content. Answers for questions remaining open may be hunted out for more application-oriented knowledge and critical thinking for innovative value creation. MA

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PRE-PACKAGED INSOLVENCY RESOLUTION PROCESS FOR MSME

Abstract

President of India has promulgated an Ordinance on 4th April 2021 to facilitate Pre-Packaged Insolvency Resolution Process (PPIRP) for the Corporate Debtors being MSME. PPIRP will provide an opportunity to financially stressed MSMEs to restructure their debts in time bound manner. Maximum overall period allowed for PPIRP is 120 days with a timeline of 90 days for submission of Resolution Plan to Adjudicating Authority by Resolution Professional after approval of Committee of Creditors. Prepack is quicker, more flexible, cost effective, time effective, Resolution Process for MSME and is less disruptive to businesses. PPIRP provides adequate protections and checks so that the system is not misused by the Corporates to avoid making payments to creditors

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Introduction and Background

Insolvency and Bankruptcy Code 2016 was a part of the deep economic reforms aggressively carried out by the Government of India. This reforms not only improved India's rank from 136 to 52 in terms of '*resolving insolvency*' in the last three years in the *World Bank Group's Doing Business Reports*. In the *Global Innovation Index*, India's rank improved from 111 in 2017 to 47 in 2020 in '*Ease of Resolving Insolvency*'. Pre-packaged Insolvency Resolution Process (PPIRP) is another reform carried out by Government to ease the financial distress of Micro, Small and Medium Enterprises (MSME) whose businesses have been impacted all over the world by NOT ONLY COVID-19 pandemic but by other reasons also. The Pre-pack will emerge as an innovative corporate rescue method that incorporates the both informal (*out-of-court*) and formal (*judicial*) insolvency proceedings in time bound manner with shorter time frame as compared to normal Corporate Insolvency Resolution Process (CIRP).

Government constituted a sub-committee of Insolvency Law Committee (ILC) vide order dated 24.6.2020 to prepare a detailed scheme for implementing pre-pack and prearranged insolvency resolution process. The sub-committee has designed a pre-pack framework within the basic structure of the Insolvency and Bankruptcy Code, 2016, for the Indian market as detailed in their report of October, 2020. The public comments on Concept Paper were invited by the Government on 8th January, 2021.

After incorporating the public comments, the Government has notified "*Pre-packaged Insolvency Resolution Process (PPIRP*" by an Ordinance dated 4th April, 2021 to urgently address the specific requirements of micro, small and medium enterprises relating to the resolution of their insolvency, due to the unique nature of their businesses and simpler corporate structures.

Readers may note that Pre-packaged Insolvency Resolution Process is not new to World as many countries have already successfully implemented PPIRP though with different variants considering the needs and dynamics of the country concerned.

Ordinance dated 4th April, 2021 has inserted certain definitions, amended some definitions, introduced new Chapter IIIA and new Definitions Section 54A to Section 54P to facilitate PRE-PACKAGED INSOLVENCY RESOLUTION PROCESS.

Further, the Ministry of Corporate Affairs notified Rules on 9th April, 2021, and IBBI also notified Regulations on 9th April 2021 to facilitate initiation of application under Pre-Packaged Insolvency Regulations Process.

In this article, I shall provide brief insight to PPIRP contained in Ordinance issued by the Government, Rules and Regulations referred above and also some extempore questions which came in my mind and given in the form of FAQs.

What is meaning of Pre-Package Insolvency Resolution Process (PPIRP)

Pre-packaged is a pre-insolvency proceedings formal agreement between the promoter of a distressed company, secured creditors and investors instead of a public bidding process, for restructuring or resolution of the debts of a distressed company with mix of informal (*out-of-court*) and formal (*judicial*) insolvency proceedings.

What are the Special Features of PPIRP as compared to normal CIRP

Pre-pack or Pre-packaged Insolvency Resolution Process have many special features which are different from the normal Corporate Insolvency Resolution Process (CIRP). These features would facilitate timely implementation of PPIRP having shorter Resolution Times Frame. Main Features are:

(i) Applicability and Default Amount

Applicability of both CIRP & PPIRP is based on default committed by Corporate Debtor in payment of debts to creditors. *However, PPIRP is applicable to ONLY to those Corporate Debtors who are classified as Micro, Small and Medium Enterprises (MSME)* of section 7(1) of the Micro, Small and Medium Enterprises Development Act, 2006.

I. **Minimum Default Amount for initiation of CIRP is Rs. 1 crore** with effect from 24th March, 2020 vide Notification number S.O. 1205(E) dated 24th March 2020.

II. **Minimum Default Amount for initiation of PPIRP is Rs. 10 lakhs** vide Notification number S.O. 1543(E) dated 9th April, 2021.

Vide notification number S.O.1702 (E), dated the 1st June, 2020 (effective from 1.7.2020), definition for MSME has been revised and is as follows:

Revised MSME Classification			
Sr. No.	**Enterprises**	**Investment in and Turnover**	**Limit**
(a)	**Micro Enterprises**	Investment in plant and machinery or equipment; **AND**	does not exceed one crore rupees **(<Rs. 1 crore)**
		Turnover	does not exceed five crore rupees **(<Rs. 5 crore)**
(b)	**Small Enterprise**	Investment in plant and machinery or equipment; **AND**	does not exceed one crore rupees **(<Rs. 10 crore)**
		Turnover	does not exceed five crore rupees **(<Rs. 50 crore)**
(c)	**Medium Enterprise**	Investment in plant and machinery or equipment; **AND**	does not exceed one crore rupees **(<Rs. 50 crore)**
		Turnover	does not exceed five crore rupees **(<Rs. 250 crore)**

(ii) Time Period for completion of Insolvency Process

PPIRP is to be completed within 120 days as compared to Normal CIRP in 180 days with one-time extension upto 90 days. ***Total Time Frame for CIRP has been amended to 330 days by IBC Amendment Act 2019 (w.e.f. 16.08.2019), that includes any extension granted by Adjudicating Authority and the time taken in legal proceedings***.

Please note, there is no provision of extension of time beyond 120 days which may raise a question whether time period for the pending legal proceedings with Supreme Court or NCLAT and NCLT will be excluded in reckoning the time period of 120 days. Keeping in view the present scenario in respect of CIRP and Liquidation under IBC 2016, where time period spent in legal proceedings is excluded, this may also be followed in PPIRP.

(iii) Conditions for initiating Pre-packaged [Section 54A]

The following conditions are applicable ONLY to PPIRP and not to CIRP:

- Corporate Debtor must be classified as MSME **[Section 54A (1)]** and has committed a default **(Section 54A (2)**;
- Corporate Debtor has not undergone pre-packaged insolvency resolution process or completed CIRP during the period of ***three years*** preceding the initiation date **[Section 54A(2)(a)];**
- Corporate Debtor is not undergoing a CIRP **[Section 54A(2)(b)]**;
- No order of liquidation against the said Corporate Debtor is passed by Adjudicating Authority **[Section 54A(2)(c)]**;
- Corporate Debtor is eligible to submit a resolution plan under section 29A **[Section 54A(2)(d)]**; ***(It may be noted that (Section 240A applies to PPIRP and hence, Section 29A(c) and (h) shall not apply)***
- Financial Creditors having at least 10% of total financial debt have to propose name of Resolution Professional **[Regulation 14 of PPIRP]**. Written Consent of Resolution Professional will be in **Form P1 of Regulations**.
- Financial Creditors of the Corporate Debtor (*not being its related parties*), representing not less than 66% in value of the financial debt, have approved the name of Resolution Professional **(Terms of Appointment in Form P3 of Regulations]** and filing of an application for Pre-pack proposal **[Form P4 of Regulations]**;
- Majority of Directors / Partners to declare (**in Form P6 - Regulation 16**): that, PPIRP shall be initiated within 90 days; initiation of application is not to defraud any person; and name of the Insolvency Professional proposed & approved by Financial Creditors will be appointed as Resolution Professional **[Section 54A(2)(f)].**
- In case of company, the members of Corporate Debtor have passed the Special Resolution or in case of LLP ¾th of total number of partners approved the Resolution, to initiate PPIRP **[Section 54A(2)(g)].**
- Prior to approval, the Financial Creditors shall be provided with ***(a) Declaration; (b) Special Resolution; and (c) Base Resolution Plan*** **[Section 54A (3)]**
- The Corporate Debtor shall file an application for initiating pre-packaged insolvency resolution process within 90 days from the date of approval received from

the Financial Creditors.

Note:
(a) Corporate Debtor being MSME must commit a minimum amount of default of INR 10 Lakhs.
(b) Reference to Financial Creditor shall be understood as unrelated Financial Creditors.
(c) If Corporate Debtor does not have financial debt or all the Financial Creditors are related - Unrelated Operational Creditors shall substitute such Financial Creditors. In this case Committee of Creditors shall consist of (a) 10 largest Operational Creditors (OC) in value or in case less than 10, with those OC; (b) a representative of Worker; and (c) a representative of employees.

(iv) Formal & Informal process: Pre-admission of application under PPIRP by Adjudicating Authority (NCLT) shall be the informal process. Post admission of the Pre-pack application by the NCLT- shall be Formal with effect from the date of commencement of PPIRP. There is no such informal discussion before admission of application by NCLT in case of CIRP.

(v) Management of Affairs of Corporate Debtor

Major change is made in case of PPIRP**. Instead of Creditors in possession applicable to CIRP, Debtor in possession with creditors in control model of management is adopted in case of PPIRP.** The management of the affairs of the Corporate Debtor **shall continue to be vested** in the Board of Directors **(BOD)** of the Corporate Debtor, **and BOD will not be suspended.** ***There is default Rule given below.***

However, if (a) the affairs of the corporate debtor have been conducted in a fraudulent manner; or (b) there has been gross mismanagement of the affairs of the corporate debtor, the Committee of Creditors by a vote of 66% in value can decide to vest the management of affairs of Corporate Debtor with the Resolution Professional after seeking the approval of NCLT. [Section 54J(2)]

(vi) Resolution Professional to be a Monitor; and not CEO of Corporate Debtor

As per Section 17, in case of CIRP, the management of Affairs of the Corporate Debtor are vested in Resolution Professional and all powers of Board of Directors are being exercised by him/her. However, there is a major change in PPIRP, Resolution Professional **will monitor management of the affairs** of the corporate debtor and **will inform** the committee of creditors in the **event of breach of any of the obligations** of the Board of Directors or partners, as the case may be, of the corporate debtor.

(vii) Claims from Creditors are not called through Public Announcement in PPIRP

Though Public Announcement (**Form P9 of Regulations**) is required to be made by Resolution Professional within two days of the commencement of the process but this will be intimation of PPIRP. List of Claims will be sent by Resolution Professional to every creditor, listed in **Form P2 of Regulations**. Please note the list of claims will be submitted by Corporate Debtor to the resolution professional in **Form P10 of Regulations**.

Pre-packaged Insolvency Resolution Process (PPIRP) is another reform carried out by Government to ease the financial distress of Micro, Small and Medium Enterprises (MSME) whose businesses have been impacted all over the world by NOT ONLY COVID-19 pandemic but by other reasons also

(viii) Constitution of the CD and first CoC meeting

In PPIRP, Committee of Creditors (CoC) is to be constituted by Resolution Professional within 7 days of the pre-packaged insolvency commencement date, and **first CoC meeting** is also to be conducted in 7 days of PPIRP. In case of CIRP, CoC is to be constituted within 23 days of the CIRP commencement date, and **first CoC meeting** is to be held within 30 days of CIRP.

(ix) Submission of Resolution Plan

In case of PPIRP, the Base Resolution Plan prepared by the Corporate Debtor is to be presented to the Resolution Professional **within 2 days of the PPIRP commencement date**. CoC can approve the Base Resolution Plan for submission to NCLT **if such plan does not impair any claims** owed by the Corporate Debtor to the Operational Creditors OCs. However, in case of CIRP, there is no concept of Base Resolution. Corporate Debtor is eligible to submit the Resolution Plan **only if it qualifies under Section 29A** of IBC 2016 and all the Resolution Plans received by Resolution Professional as per the provisions of IBC 2016 will be put up to Committee of Creditors for approval, voted by the CoC simultaneously.

(x) Termination of PPIRP, Liquidation of the CD and Initiation of CIRP

Resolution Professional to submit Resolution Plan approved by COC within 90 days from the commencement date of PPIRP to Adjudicating Authority (AA). If Resolution Plan is not approved by CoC within this time, Resolution Professional is to file application with AA **for termination of PPIRP**.

Further, where Adjudicating Authority **rejects the Resolution Plan** being not in conformance to provisions of PPIRP, it shall order **termination of PPIRP and pass a liquidation order** in respect of the corporate debtor.

The committee of creditors, at any time after the pre-packaged insolvency commencement date but before the approval of resolution plan, by 66% of voting shares, may resolve to initiate CIRP in respect of the corporate debtor, if such corporate debtor is eligible for corporate insolvency resolution process under Chapter II [Section 54-O].

Will PPIRP applicable to all MSME

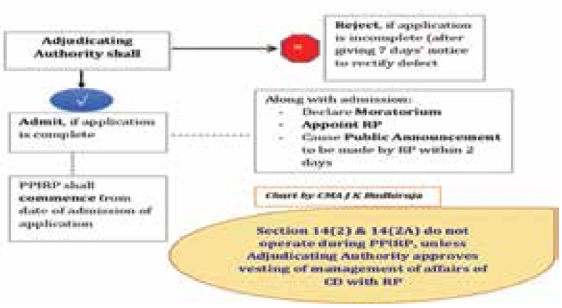
Form-1: Application by Corporate Applicant to Initiate Pre-Packaged Insolvency Resolution Process

under Chapter III-A of the Code, attached to the Rules: **Insolvency and Bankruptcy (pre-packaged insolvency resolution process) Rules, 2021, mandates,** attaching a copy of **Udyam Registration Number, as per Notification No. 2119(E)** dated 26.06.2020 of Ministry of Micro, Small and Medium Enterprises. Therefore, a large number of MSMEs in India will not be able eligible under this Scheme.

According to National Sample Survey 73rd Round (2015-2016), there are an estimated 6.3 crore MSMEs that exist in India. However, as per the data available with Udyam Registration (MSME registration) website only 26.42 lakh MSMEs have registered till date. This essentially means that the unregistered MSMEs which exceed the registered MSMEs by a large number cannot take recourse under the pre-packaged regime for insolvency resolution. [**Source: *Moneycontrol dated April 12, 2021***].

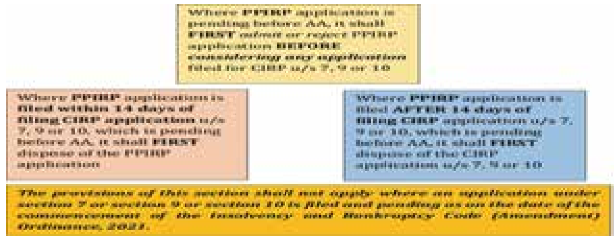
Application for Initiation of PPIRP [Section 11A]

1. Application shall be in ***Form 1 of Insolvency & Bankruptcy (PPIRP) Rules, 2021***; and a copy thereof is required to be served to IBBI before filing with Adjudicating Authority.
2. **Application to be filed by the Corporate Applicant** – only where the Corporate Debtor meets the eligibility and conditions for initiation of PPIRP.
3. **Documents to be attached** with the applications are:
   - Declaration - **Form P6**
   - **Special Resolution**
   - **Approval** of Financial Creditors for initiation of PPIRP- **Form P4**
   - Written Consent of proposed Resolution Professional - **Form P1**
   - Report of Resolution Professional for eligibility of Corporate Debtor and Base Resolution Plan **[FORM P8]**
   - Declaration by Corporate Debtor for existence of Avoidance transactions **[Form P7]**
   - Information relating to books of account of Corporate Debtor
   - Name of the Authorised Representative, if any **[Form P5]**
   - Latest & Updated Udyam Registration Certificate, or, Proof of being classified as MSME

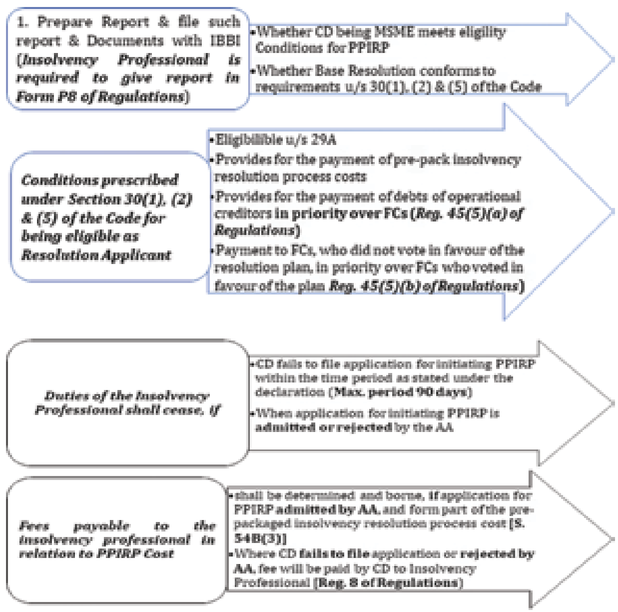


If (a) the affairs of the corporate debtor have been conducted in a fraudulent manner; or (b) there has been gross mismanagement of the affairs of the corporate debtor

Disposal of applications under section 54C and under section 7 or section 9 or section 10



Duties of resolution professional before initiation of pre-packaged insolvency resolution process [Section 54B]

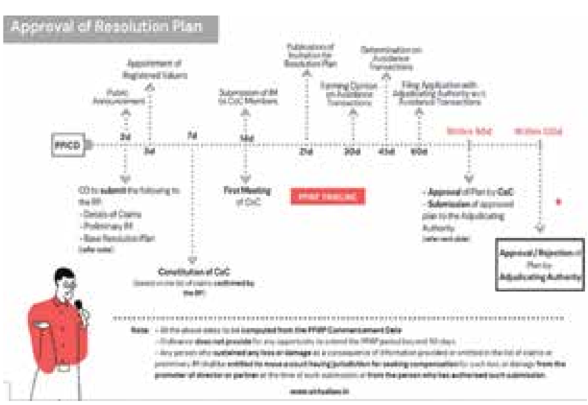


Duties and powers of resolution professional during pre-packaged insolvency resolution process [Section 54F] and Role of Resolution Professional

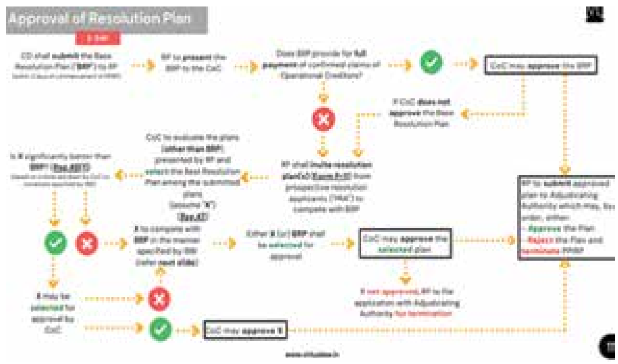
The resolution professional shall conduct the pre-packaged insolvency resolution process of a corporate debtor during the pre-packaged insolvency resolution process period and shall perform the following duties:	
Claims	- **Confirm** the list of claims **(Form P10)** submitted by CD - **Inform** the Creditors regarding their claims - **Maintain** updated list of claims
Monitor	- **monitor** management of the affairs of the corporate debtor - **Reg. 50**

Public Announcement	- To **publish** Public Announcement **(Form P9)** on the website of CD & IBBI and - **sent** to every creditor in the list of creditors **(Form P2)** and Information Utilities **(IUs)**
Committee of Creditors (CoC)	- **Constitute CoC** - **Convene, & attend** all the CoC Meetings - **act as Chairperson** of meetings of CoC **(Reg. 33)** - **Inform CoC** in the event of breach of any of the obligations of the Directors or Partners of the CD
Information Memorandum (IM)	**Prepare** Information Memorandum **on the basis of Preliminary IM** submitted by CD
Avoidance or Fraudulent Transactions or Wrongful Trading	**File application** for avoidance of transactions under Chapter III or fraudulent or wrongful trading under **Chapter VI - Reg. 41**
Appointment of Professionals	- **Appointment** of Professionals - **Reg. 10** - Person who is not registered with the regulator of the profession concerned **shall not be appointed**.
Registered Valuers	- Appoint **two Registered Valuers** within **three days** of RP's appointment - **Reg. 38** to determine the fair value and the liquidation value of CD - There is no provision for appointment of third valuer
Separate Bank Account	- **Operation of a separate bank account** for meeting Resolution Professional fee and expenses incurred for conducting PPIRP - CD shall **maintain such account** with such amount as advised by CoC
Invitation for Resolution Plan	- **Publish Invitation** for Resolution Plans **(Form P11)- Reg.43** - **on the website** of CD & IBBI - **not later than 21 days** from the pre-packaged insolvency commencement date
Present Resolution Plan to CoC	**Present** the resolution plans (**which confirm** to S.30 (1), (2) & (5) to the CoC for its evaluation
File Resolution Plan with AA	- **for Approval** of Resolution Plan; or - **Termination** of PPIRP; or - **Initiation of CIRP**

Timelines under PPIRP



Approval of Resolution Plan



Some important questions and clarification

Q 1. Why Section 29A said to be applicable to Corporate Debtor of MSME who by virtue of new Scheme of PPIRP is exempted under Section 240A inserted by Insolvency and Bankruptcy Amendment Act, 2018 with effect from 6th June, 2018?

Section 240A provides that the provisions of clauses (c) and (h) of section 29A shall not apply to the resolution applicant in respect of corporate insolvency resolution process of any micro, small and medium enterprises. Section 29A have other clauses than (c) and (h), other clauses are related to *undischarged insolvent, wilful defaulter as per RBI, convicted for any offence, disqualified to act as a director under Companies Act, 2013, prohibited by the SEBI, promoter of a company where there are PUFE transactions, and connected person not eligible* to be Resolution Applicant. Accordingly, other clauses of Section 29A will be applicable to Corporate Debtor of MSME who submits Resolution Plan as Resolution Applicant. Further, Supreme Court ***in the matter of Arun Kumar Jagatramka v. Jindal Steel and Power Ltd. & Anr*** has also closed the back-door entry of defaulting promoters by using a special provision of compromise or arrangement during the liquidation phase of the insolvency proceeding.

Q 2. What is the status of Section 8 regarding serving of Notice by the Operational Creditor?

This is not applicable since the application for PPIRP is to be initiated by Corporate Debtor and Operational Creditor cannot initiate PPIRP. So, there is no question of Notice under Section 8 of the Code.

Q 3. When will a period of 90 days for submission of approved Resolution Plan to Adjudicating Authority commence?

Section 54D provides that the resolution professional shall submit the resolution plan, as approved by the committee of creditors, to the Adjudicating Authority within a period of 90 days ***from the pre-packaged insolvency commencement date***.

Q 4. Can PPIRP be initiated by a company, when the company is not at default to financial creditors? However, the management foresees certain events in future which would lead to default.

No. Section 54A (2) specifically states that an application for initiating pre-packaged insolvency resolution process may be made in respect of a corporate debtor, ***who commits a default*** in payment of debts and also subject to other conditions.

Q 5. Will there be any extension in time period of 120 days allowed to complete the PPIRP?

As of now there is no provision for granting extension beyond 120 days to complete the PPIRP.

Q 6. In some cases, it may not be possible to complete PPIRP in 120 days due to litigation with regards to many issues such as NOT LISTING the Claims of certain Creditors or otherwise, will period spent in litigation be excluded in reckoning the maximum period of 120 days?

As PPIRP is a new scheme, as of now there is no case law available. The same process, as applicable in CIRP, may also be applicable in PPIRP and time spent in litigation, and appeal to NCLAT and Supreme Court, may be excluded.

Q 7. Why should MSME adopt PPIRP instead of CIRP which allow more time upto 330 days as compared to 120 days in PPIRP?

As compared to CIRP, prepack is **quicker, more flexible, cost effective, time effective, and less disruptive to business**. In view of benefits attached to PPIRP, I am of the view that MSMEs, if are eligible under the Scheme should opt for PPIRP in place of CIRP.

Q 8. Is migration from PPIRP to CIRP possible? What will happen to PPIRP and cost incurred on PPIRP?

Yes, it is possible as per Section 54-O of the Code but it shall be with the approval of Committee of Creditors and Adjudicating Authority. If at any time after commencement of PPIRP but before approval of Resolution Plan, the Committee of Creditors with voting share of 66% resolves to initiate CIRP against the Corporate Debtor, the Resolution Professional shall intimate to Adjudicating Authority the decision of CoC for initiating CIRP against the Corporate Debtor. Adjudicating Authority shall, **by order - *Terminate the PPIRP - Appoint RP under PPIRP as Interim Resolution Professional for the CIRP - Declare that PPIRP costs shall be included in IRP Costs***.

Q 9. Notification number S.O. 1543(E) issued by the Government on 9th April, 2021 specifies <u>ten lakh rupees</u> as the minimum amount of default for the matters relating to the pre-packaged insolvency resolution process of corporate debtor. Notification number S.O. 1205(E) issued by the Government on 24th March, 2020 specifies <u>one crore rupees</u> as the minimum amount of default for initiating CIRP. Does it mean that PPIRP can be initiating for the default less than Rs. 1 crore and CIRP for default of Rs. 1 crore and above?

No. These notifications only specify the **MINIMUM DEFAULT amount**, which means that the application below this default amount cannot be initiated under these schemes. For example, if there is a default of Rs. 10 crore in payment of operational debt by an MSME, application can be initiated by Operational Creditor under section 8 & 9 of the Code for CIRP not for PPIRP, *as Operational Creditor is not eligible to file the application under PPIRP, i.e. PPIRP can be initiative only by Corporate Debtor being MSME who is eligible under the provision of PPIRP*. Therefore, if Corporate Debtor being MSME likes to initiate PPIRP, it can be done by following the procedure mentioned in the Ordinance on PPIRP issued by Government on 4th April 2021.

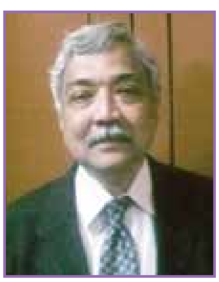
Conclusion

I tried to give in sight, as much as possible, on the provision relating to Ordinance on Pre-packaged of Insolvency Resolution Process (PPIRP) issued by the Government, Rules and Regulations issued by MCA and IBBI on 9th April, 2021. Still there may be some issues and clarification required by the readers. They are welcome to approach me through email or mobile given herein. MA

References:

1. *The Insolvency and Bankruptcy Code (Amendment) Ordinance, 2021*
2. *The Insolvency and Bankruptcy (pre-packaged insolvency resolution process) Rules, 2021*
3. *The Insolvency and Bankruptcy Board of India (Pre-packaged Insolvency Resolution Process) Regulations, 2021*
4. *Presentation made by Shri Prakul Thadi, VirtuaLaw at IICA webinar dated 11th April 2021*

OBITUARY



CMA Gopal Chalam, Member of the Institute and former Dean of Centre for Corporate Research and Training (CCGRT-ICSI) and former Regional Director of Western India Regional Council of the Institute of Company Secretaries of India passed away on March 11, 2021. God let his soul rest in peace.

FEMININE POWER SHAPING THE WORLD OF THE FUTURE BY BUILDING A NEW NORMAL: BEING-FUL LEADERSHIP & THE CATALYTIC ROLE OF CSR IN WOMEN EMPOWERMENT IN INDIA TO TAKE A PARADIGM SHIFT

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Abstract

The article provides a roadmap to how women leaders and more specifically feminine powers will contribute in shaping the future world, with a focus on the new normal in India. We trace the past of successful women as statesmen, generals, and scholars, explain the present hurdles faced by women leaders and steps to accelerate conditions for women leaders. Through an exhaustive literature survey, we establish the drivers of success for women leaders, feminine qualities critical specifically in new normal and digital marketing sector. We introduce the concept of Beingful leadership, sustainability, corporate social responsibility and exemplify through women leaders who have exhibited such being-centric leadership. Our work seeks to provide evidence that feminine powers will be a crucial ingredient in shaping the new normal. In a country like India, mass women empowerment is only possible if strategic efforts through activities like CSR (Corporate Social Responsibility) are used effectively not only in other areas but also in the areas of Women Empowerment through top down and bottom-up approach. The article seeks to highlight the role CSR can take in acting as a catalyst amongst the other interventions of the Government and the Policy makers, Private Organizations, social reformers, NGOs, etc.

History:

There has been recent rise of the feminism and strong opinionated authors comparing female vis a vis male in various sectors of society in the 19th and 20th century in the western society. Like the occident, the orient is also witnessing a rise of feminist writers (Jayaverdena, 2020). However, the shift to such a status of women competing with men is unknown. It must have been a gradual shift over ages and more surprisingly in the east. In many parts of India, women are worshiped as goddesses and so in many parts of the world. Apart from Germany and few exceptions ,most nations refer their country as "motherland". (Swami Vivekananda, 1894) "I am the Empress of the Universe, the Fulfiller of all prayers." (Vide "Devi Sukta", Rig-Veda 10.125), in the 10th chapter, God is referred to as a woman, written by a woman sage. This is the first glimpse of women contribution to Vedas! The Hindus believe that the power of God (Shakti) is feminine. Many tales of Rajput women leading armies like that of Rani Laxmi Bai, prowess of Rani Padmini. Great leaders of recent past like Margaret Thatcher, Indira Gandhi etc. have shown that women can be Iron- ladies when required.

Being-ful Leadership:

(Nidumoli, 2013) Adopts from the Upanishads to cite, how a leadership of Being-centric approach is different from a leadership of seeking approach. He explains how from the lower bird which hops from branch to branch seeking sense pleasures misses the nectar, which is enjoyed by the higher bird of compassion. We will see how women or more specifically Feminine power is crucial to such success and we exemplify these through two beingful leaders: Anita Roddick, founder and CEO of Body Shop and Dr. Evita Fernandez, Chairperson of Fernandez Hospital Foundation. Dr. Anita was a constant crusader for protecting nature. She was an example of being centered leadership looking at the larger purpose for business context, having a shared purpose, viewing the external world as a reflection of the inner inspiration, having courage to embody the principles in her life. Dr. Leslie and Lourdes Fernandez founded the Fernandez Hospital in 1948 in Hyderabad. The path was not so easy, challenges of customer awareness, brand image, competitive differentiation were very prominent when Dr. Evita began the journey. She brought a change with a purpose-oriented beingful leadership.

The New Normal & Women in new Normal:

The Covid-19 pandemic has forced businesses to work remotely. This will promote digital transformation and more distributed mode of working than centralized working. AI, bots and hybrid modes will be prevalent. Collaborative skills will be valued. (Acharya, 2020). ***They say if you survive in short run only will there be a long run. The future will be marked with uncertainty, the VUCA world will be more prominent.*** Distance will gain currency, contact free economy will be important, resilience will be critical. Succession planning will be beyond and deeper than the C-Suite level. Government intervention will be more than before. (Kevin Sneader, 2020). Customers will change, their spending patterns will evolve, change is imminent, R&D and innovation will be critical. (Stern, 2020). (Norzom, 2020) cites these 4 women entrepreneurs starting businesses in the new normal Namrata Parikh, Nisha Natrajan , Runki Goswami, and Pallavi Bhardwaj. (Stewart, 2020) Women are opening 3/4th of businesses in US, post pandemic. Women entrepreneurs were very less when we compare with male entrepreneurs before pandemic. Before the pandemic it was the number of men entrepreneurs who were double than that of women entrepreneurs. (Quintos, 2019) informs how women entrepreneurs can be boosted. (Elsesser, 2020) cite works which show that women have a different leadership style due to participative behavior and this could be a key factor in current crisis. Women has shown more caring behavior and compassion especially during pandemic crisis as per the survey done by Eagly. (Croteau, 2020) highlights empathy, compassion, listening and collaboration – feminine qualities as a reason for more equitable nations handling crisis better. (Eagly, 2007) says women will take more leadership positions in the 20th century. (Javadi, 2016) takes 5 women leaders and perceptions on becoming a successful leader is health sector is illustrated. Key ingredients identified as tenacity to challenge the status quo, listening and skills, and early age social support to develop confidence and credibility. (Hasan, 2020)writes about success of 5 women leaders viz Jacinda Ardern, prime minister of New Zealand, Tsai Ing-wen, Taiwan President, Angela Markel, Geman Chancellor, Sanna Marin , Prime Minister of Finland, Katrín Jakobsdóttir, Prime minister of Iceland. (Folkman, 2020) say women are more effective than men in crisis. The key reasons explained are: as more collaborative, employee engagement higher, interpersonal skills and relationship building.

Women Empowerment through CSR, the present position:

We are living in the 21st century and we can still witness and experience deep-rooted gender inequalities in most societies across the world particularly in India. These types of gender inequalities lead to lack of access to work and meaningful occupation, education in true sense, and holistic health to women in the Indian Society. Consequently, women are underrepresented in almost every sphere including political and economic decision making process. Quite often, gender inequalities take the shape of extreme situations where women become victims of violence, sexual abuse and discrimination.

It is high time to eliminate all the inequalities and discrimination against women. It can only be achieved through the process of women empowerment. This would help in accelerating the process of achieving the future we all want.

In India, CSR can act a catalyst in the entire process of holistic empowerment of women. At present, the Indian economy is expected to grow at a rapid stage in the next 4-5 years (if the pandemic comes to a reasonable halt) and the private sector is also bound to flourish and contribute to this journey. Hence, corporates will have an important role to play in women empowerment in India.

At this crucial juncture, empowerment and independence of women and the requirement of increasing their political, social, economic and health status cannot be undermined. The policy makers need to integrate policies that will improve the access of women to secure livelihoods and economic resources. Here comes the role of Women leaders and Board Room Women members who have to take the lead.

The authorities and policy makers must remove legal hurdles for the participation of women in all spheres of public life. Earlier studies and research works amply proves that the development programs are effective when concrete steps are taken to improve the status of women. Raising social awareness and appreciation through effective programs of education and mass communication are important interventions to bridge the gap in this direction in the long run.

India is the one of the Pioneers & one of the first countries in the world to formalize the role of corporate social responsibility (CSR) in nation building through enactment of Section 135 of Companies Act, 2013, which mandates that eligible companies have to spend 2 per cent of their net profits on social development or explain the reasons for not spending through their annual report disclosures. Schedule VII of the Act defines 'promoting gender equality and empowering women' as one of the key cause areas for corporate investment. It can be observed from the areas specified in Schedule VII of the Section 135 of the Companies Act2013, that there is an emphasis on women and their overall well-being and also a mention about gender equality and empowerment of girls . It has been proved that extra income within the hands of girls results in significant and positive changes in human development since it's largely spent on children's education, health and nutrition, and is a catalyst for inducing gender development. Many corporate houses, working towards improving income and employment for women in rural India have used the Self Help Group (SHG) approach towards creating and enhancing 'income earning' or 'decent livelihood' opportunities. One of the authentic ways to empower women in rural India is through the time tested SHG (Self Help Group) approach and by giving credit and other support for microenterprise development (Kabeer, 2001). As women through Self Help Groups progresses to micro-enterprise activities which are sustainable, it leads to overall economic empowerment of women undertaking the activities in SHG.

The reason for this is clear: despite significant progress in economic growth and social development, India ranks 112 out of 153 countries on the gender inequality index as of 2020. Our falling female labor force participation rate has been the subject of international discussion for years, having declined from 34.1 per cent in 1999-00 to 20.3 in per cent in 2019-20 (Behind Pakistan & Afganisthan). How can this be allowed to continue? According to a report published by Mckinsey Global Institute "progress towards gender parity in economic participation may boost India's GDP by $0.7 trillion (16 per cent) by 2025, not to mention the human and social gains that are incalculable and invaluable." Data from the India CSR Portal & the online returns filed by the listed companies, shows that 71 per cent of BSE 100 companies reporting CSR programs on the CSR Portal & the mandatory requirements of BSE listing (the Business Responsibility Reports) for promoting women's economic empowerment, there is an obvious interest in and commitment to this issue. However, the quantum of spending is relatively low: BSE 100 companies reported a cumulative expenditure of about Rs 250.62 crore on women's economic empowerment in FY 2017-18, amounting to around 8 per cent of overall CSR expenditure on the average . Moreover, the data from the CSR portal also shows that in the last six years, particularly after CSR being made mandatory after Companies Act 2013 the overall percentage of annual spends on PAN India basis has also not increased to a great extent as desired. However, State wise, and PSU/Private Sector Wise and Industry wise the spending pattern in Women empowerment varies.

Table A

Year	Total CSR Expenditure (Rs in CR)	Expenditure on Women Empowerment (Rs in Cr)	% age spent of Women Empowerment in Total Expenditure
2014-15	10065	73	0.72
2015-16	14517	123	0.84
2016-17	14342	141	0.98
2017-18	13889	203	1.46
2018-19	18654	199	1.07
2019-20	7822	42	0.53
Grand Total	79289	781	0.98

The above Table A shows that though there has been a steady rise in the amount spend on women empowerment through CSR spends, the increase has not been to the desired extent. Going beyond the investment scale, data analysis and research, we see a need for companies to take a more comprehensive & holistic approach to address the gaps in a woman's journey toward economic empowerment. We charted companies' CSR interventions across the life cycle of women progress - from activities that 'train & prepare ' women for basic work, to those that enable them to 'Enter' the actual workforce, and gradually 'Grow and Sustain' themselves, with all three stages underpinned by a set of 'facilitators'. The basic concept being the bottom up approach where we can empower women from lower socio- economic classes to become financially independent, be educated and be professionally equipped, and then respond to supply chains and share value as women customer segment and then reach the higher echelons of Management at Board level and also in the policy making stage. This will lead to real desired women empowerment. From 2012 to 2012 March India saw an increase of about 8.5% in Women Directorship in Indian Company Boards.

Let us just mention some popular women empowerment CSR Projects in India.

Project Shakti (Hindustan Lever), Project Salon-i (Godrej), Project Prerna (Mahindra & Mahindra), Pronam Project (Sree Cement Ltd Kolkata), Sakhi (Hindustan Zinc Ltd.,Vocational Skill Development Program of Tata Steel Ltd, Self Défense

Program of Indraprastha Gas Ltd ,Women Empowerment Program of Hero Motor Corp, Santoor Women Scholarships, CSR Program at Wipro etc are some of the notable CSR Projects in India towards women empowerment.

Each & every company participating in any CSR activity should spend a noteworthy part in Women Empowerment activities in the next five years at least. Our analysis shows that CSR intervention is currently concentrated in the prepare and enter stages of a woman's journey towards economic empowerment, with less emphasis on the grow & sustain stage and on the facilitators that are pivotal to the realisation of the impact of all other interventions along the way.

While interventions like vocational skills training and the formation or strengthening of Self-Help Groups (SHGs), were very popular, programs that promote key enablers such as access to digital and financial literacy, saw much less support with less than 15 per cent of companies supporting these. Similarly, only 22 per cent of companies supported life skills education that aims to improve a woman's self-esteem, agency & entrepreneurial skills. These soft skills, agency & entrepreneurial skills are also important for women to be capable of and for translating their ability to earn a continuous income into empowerment, where they have a say in decisions that matter to them.

Our research and analysis of data examined showed that though there are still many obstacles to equality, corporate India is starting to show greater sensitivity to the fact that companies need to recognize women as legitimate employees, supply chain members, and customer segments.

Our data analysis and research also shows that Female representation in the permanent workforce of BSE 100 companies was generally low. Women work force make up less than 10 per cent of the permanent workforce for the majority of BSE 100 companies. However, the planning and institution of gender-inclusive policies, has led to higher & increased female participation which were predominantly historically dominated by males such as manufacturing sector, in the permanent workforce. This is an encouraging trend. Finally, with women increasingly asserting their preferences in purchasing decisions and income levels rising both in urban and rural India, companies stand to gain by developing products and services tailored to women. Companies should try for being careful not to unnecessarily gender-wash products and impose the pink tax on the emerging customer segment for the females. There is no need to unnecessarily burden the women force with this pink tax concept, which is a gender -based pricing not actually doing any good but a psychological phenomenon.

Conclusion:

There appears to be an increasing international concurrence, that, without a sustained global effort towards gender equality in true sense of the term, none of the other 16 SDGs(Sustainable Development Goals) will be achieved, and that the private sector is key to this achievement. However, the private sector also needs support from other actors - foundations, multilateral agencies, and civil society - all of whom play a role in bridging this gap. Economic empowerment of girls brings about the betterment of the family as almost the whole income earned is spent on family requirements which increase the general impact of corporate intervention. Businesses who are engaged in facilitating micro enterprise formation in rural areas should also ensure that these enterprises can provide sustainable income and become self-sufficient in the long run. Empowering women socially, economically, educationally, politically, and legally appears to be a Herculean task. But it can be made possible with dedicated and determined effort of family, society, business houses, NGOs, local bodies, and government to eradicate deep-rooted problem of disregard for women. CSR can play a very vital role in taking all these forces together towards Social, economic, and Financial -here to stay for many more years to come. The road to become beingful leaders can only be travelled by taking the path of CSR through concerted efforts of the Government, Policy Makers, Corporates, NGOs and others who shall work hand in hand in this journey. Only then there would be sustainable employment and real economic empowerment of Women. This will lead to feminine power growing up to strong entrepreneurs, beingful leaders, in the new normal, in the days to come. MA

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AN UNDERSTANDING ON SAP HANA - IN LIGHT OF SPEED, AGILITY AND RESILIENCE & IT'S IMPLEMENTATION STRATEGIES ON POST COVID SCENARIO

Abstract

In this article author tried to give an idea to readers regarding much talked about New generation ERP system of SAP i.e SAP HANA system, How it works and its technical advantages in terms of Strategic Agility & resilience, along with its suitability on post covid situation. This article also talks about the different Implementation & transition scenarios of SAP S4 HANA . ***SAP*** *S/4HANA is an* ***ERP*** *business suite based on the* ***SAP HANA*** *in-memory database which enable the user companies to perform business transactions and simultaneously helps in analyzing business data in real-time. This article also describes the different deployments models of SAP S4 HANA and also describes the multiple transition scenario's for moving to SAP HANA . In this article author also tried to identify the potential reasons for shifting to S4 Hana from ECC6.*

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What is SAP HANA ?

SAP HANA (high-performance analytic appliance) is an application SAP system that uses in-memory database technology which allows the processing of huge amount of real-time data in shortest timeframe. HANA is the in-memory computing engine which allows to process data stored in RAM instead of reading it from a permanent storage media like Hard disk.

HANA systems are able to perform advanced analytics, spatial data processing , text analysis for text search and also includes the ETL(extract, transform, load) capabilities in addition to perform as an Application server.

As Hana system works in a different way i.e instead of storing the information in the complex relational databases of dedicated servers, it stores the data in main Random Access Memory i.e on RAM & because of this SAP HANA system, which is known as next generation ERP technology enables the users to cache data regularly and locate information much faster than traditional system. At the same time, decision makers can quickly detect patterns of information by analyzing the massive data volumes involved in the same database.

History of HANA

"Prior to commercialization of SAP HANA, a few other in-memory database technologies were introduced by SAP SE like the TREX search engine, P*TIME, MaxDB, etc. Then in later 2008, *Mr Hasso Plattner*, from SAP SE introduced the **concept of SAP HANA** as a real-time analytics and aggregation technology supported by an in-memory database management system. "The name HANA for this SAP technology was given by former SAP SE executive *Mr Vishal Sikka* and it is believed to be short for "Hasso's New Architecture".[4]

"Officially, *SAP HANA was announced in September 2011* as a support technology for SAP Net Weaver Business Warehouse. Then in the following years, SAP worked on introducing new technologies like **cloud computing**, enterprise cloud services, business suites, SAP ERP compatibility etc. In the year 2015, S/4 HANA was released which supported functionalities like ERP, CRM, SRM etc." [6]

Why SAP HANA is a Necessity?

Currently we are in the age of Big Data. We work in a time where integrated systems like IoT (Internet of things), Machine Learning, and Artificial Intelligence have already started as a pattern of new age of business on global basis. Even the smallest of businesses are also trying to test this new phenomenon. Because of this adoption in our system the business will handle more number of transactions and which will ultimately end up with an associated record keeping. Database sizes will grow exponentially and ERP Systems like SAP will be requiring to handle such huge transactions i.e company's data in their Storage device. Because of this business needs an in-memory database that like Hana which are capable of reading data more faster than traditional ERP databases which are stored data on hard drive . The Real-time analytics and instant business decision making process require the huge speed also , which is expected to be delivered by the SAP HANA System .

Why SAP HANA System is so powerful ?

SAP HANA is an in-memory column-oriented relational database management system that combines database with application processing along with integration services. SAP HANA handles so many things in a single platform like big data, real-time analytics and aggregation, powerful data processing, data management and data warehousing.

SAP HANA system uses modern hardware and database systems in order to combine online transaction with online analytical processing – offered within one single source data base. Because of this, the HANA platform supplies more powerful real-time analytics while also simplifying application and database structures. HANA improves reporting and transactional processes, enabling rapid real-time processing of enormous amount of data which are required to support today's most innovative Big Data applications.

As Hana system works in a different way i.e instead of storing the information in the complex relational databases of dedicated servers, it stores the data in main Random Access Memory

HANA further reduces the Disk I/O operations along with the formation and storage of indexes and aggregates. SAP Hana system also reduces the complexity of coding, administration, and infrastructure, it allows for smooth design with fewer objects and operations. Organizations who are using SAP HANA will be able to decrease their storage footprint, excludes the need for different layers of software and hardware, and enhance systems performance while reducing their power usage and total cost of ownership. Put simply, SAP HANA simplifies the technology load.

HANA Database System Approach

"HANA considered as an intelligent enterprise system which needs resilience in order to prevent any volatility which may happen due to an unexpected world events . Hana is built on Enterprise data fabric approach. An Enterprise Data Fabric is an emerging methodology of data management which is capable of delivering a unified, intelligent, and integrated end-to-end solution. This approach supports new and emerging use cases and is proving to be a successful way to resolve the complex data architectures and to deliver the access to a trusted data, and finally helps to derive value from an organization's data assets."[10]

In simplest terms, a **data fabric** is a single environment which involves a unified architecture, and services or technology set up which runs on that particular architecture & also helps the organizations to manage their **data**. The objective of **data fabric** techniques is to maximize the value of your organization's **data** and to expedite the digital transformation process.

SAP's Data Fabric Foundation :

- **Integrate any data** – ensure the data flows and integrate any kind of data.
- **Ensure data quality** – Discover, prepare, & govern all your data assets in the same tool.
- **Democratize data** – through self-service data preparation and automation capabilities.
- **Any cloud or on-premise** – deploy on any where Cloud, On Premise or hybrid .
- **Reuse any engine** – manage any SAP or non-SAP data processing engine.

SAP HANA technology mainly focuses on three main areas like Intelligence, Agility & Efficiency. Because of its advanced analytics and machine learning capabilities of SAP HANA it not only enable you to handle a vast amount of data and also helps you to gain detail insights from it on real-time. With all these in built capability of SAP Hana system, it is going to bring a new dimension to all Business, who will be using it.

How SAP HANA works ?

SAP HANA system is designed to process structured data rapidly from any relational databases, which is capable of accepting data both from SAP and non-SAP systems. SAP Hana system is competent of applying three(3) methods of data replication process based on the source of the data i.e log-based, ETL-based and trigger-based. The relocated structured data is stored directly in memory. Because of this feature, data can be accessed quickly in real time by the HANA system .

SAP HANA supports various real life scenario's like :

- Supply chain and optimization of retail process.
- Detection of Frauds & its security mechanism.
- Profitability Forecasting and Reporting.

Reasons why all sap users will

consider the switch to S4 Hana

a. It is expected that SAP will stop supporting ECC w.e.f year 2027 with an Extended Maintenance which will be available for three years from 2028 to 2030. In that situation customers will be forced to adopt this new Technology. Not only from this technical Issue also from the point of Business agility and sustainability.

b. Customer will enjoy a complete overhaul of the current SAP GUI system in the form of Fiori and UI5 which is the most welcome part of the S/4 HANA suite**.** SAP Fiori is a new user experience (UX) for SAP software and applications**.**

c. SAP S/4HANA adoption will give the customers the opportunity to access the new innovations such as embedded real-time analytics and the latest user experience across all devices with SAP Fiori, along with faster response times & also a smooth performance.

d. If your organization is planning or thinking to expand its business, into new regions, new markets or to create a new warehouse or to add a new production facilities then you'll need a such system which can grow and adapt with you. Then best choice will be converting your current SAP system to New Generation system SAP S4 HANA .

e. If you (i.e the customer) make a quick transition to SAP S/4HANA, will be able to start a new solution which will meet your growing business requirements. However, if the customer continues to invest in and upgrade their existing ERP system , future migration may become more complex.

f. Because of dynamic quarterly releases happening on SAP S/4HANA , which incorporates the new features every time which may ultimately converts your core system more intelligent.

HANA considered as an intelligent enterprise system which needs resilience in order to prevent any volatility which may happen due to an unexpected world events

g. If you're looking to renew hardware or hosting solutions because they are reaching end of life, then consider migrating immediately to avoid a 'double' move. Then it is advisable to go straight to SAP S/4HANA and purchase the new hardware solution as per business requirement which will be compatible to S4 Hana.

While each customer will need to assess the best course of action based on its particular circumstances. it would be wise to take into account the following considerations in Post Covid Scenario:

- **Resiliency:** Currently Whole World is passing through an unprecedented pandemic situation i.e COVID-19 ,which calls for reducing reliance on human and other resources because they are susceptible to unavailability or disruption during such pandemics or in case of any natural disasters and other likely events . Migration to S/4 HANA system may provide an opportunity for existing SAP customers to reduce the level of customization and complexity in their current ERP solution, ultimately this will help to reduce the need for company-specific resources to maintain and support their application.

  The Customers who are running their ECC6 system on premise, migrating to S/4 HANA also provides an them an opportunity to move ERP into the cloud, either by subscribing to S/4 HANA Cloud or hosting it with a leading cloud platform provider like AWS, Azure, Google etc. Cloud platforms are generally more automated and robust, and less human resource-dependent, than traditional on-premises solutions, thus providing a higher level of resiliency during a crisis.

- **Digital Capabilities: Since there is a huge** focus over the past decade on enhancing digital capabilities—particularly on automation, data analytics, machine learning and artificial intelligence, this trend will likely to increase in leaps and bounds on Post Covid situation. As S/4 HANA offers machine learning and predictive analysis to enable better performance along with a simplified user experience, hence it is natural that customers of SAP will likely to follow this route.

- **Resource Scarcity:** Leading research Firms on SAP has predicted that there will be a significant shortage of experienced SAP consultants for supporting S/4 HANA migration. This shortage of qualified SAP resources may become even more acute as the 2027 deadline approaches which will ultimately result in significant increase in the implementation costs. The shortage may be relieved somewhat in the short term as some customers may opt for pause button on their S/4 HANA migrations due to COVID-19 and also for the extended deadline from SAP. If so, this will offer an opportunity for those customers who wants to take advantage of an easing in demand scenario in Post Covid situation and may move forward aggressively with their implementation plan.

- **Financial Considerations:** Migration to S4 Hana, it self needs a significant to moderate capital Investment. This investment cost may be reduced to some extent by adopting any one of following options. Like (1) By adopting a fresh i.e Greenfield implementation , which may reduce level of customization and complexity of the current ERP solution. (2) By deploying a cloud –based solution for S/Hana has the potential to reduce operational cost by avoiding fixed cost of On-premise solutions. (3) The advanced digital capabilities of S4 Hana may enable the organizations to achieve the greater efficiency and better customer service.;(4) As In case S4 Hana organizations does not need to pay on user based licenses' , hence it also helps the organizations to save money in the event of indirect access of SAP ERP Software.

SAP Hana Transition Scenarios

Scenario 1 -System Conversion

This option is applicable when your ultimate focus is to convert your current business processes to a new platform, and also you need to develop some custom made programs or wants to maintain your old custom developed programs .

Another issue of such action is that you want to avoid the risk and investment of a big bang conversion project by reducing the scope of the transition project to a pure (as much as possible) technical conversion project, and also wants to plan for adopting new innovations as per your convenience in phased manner.

Scenario 2 –New Implementation

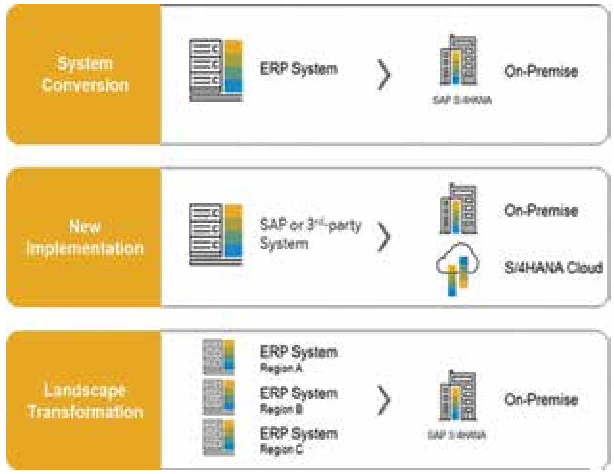
This scenario happens when a fresh / new installation of a SAP S/4HANA system (either on-premise or cloud-based), takes place. This scenario also commonly known as "Greenfield" approach. This option is considered a perfect approach for any organization who looks for reengineering of their current business process and also aims at process simplification based on latest innovations available on SAP Hana system. This scenario is especially applicable for those customers who are planning to migrate from a non SAP/ 3rd party legacy system and it is considered as a suitable approach. But this approach is also ideal for a SAP system which is in older version & also a highly customized system & also does not fulfill your all business / process requirements.

Scenario 3-Landscape Transformation

This scenario applies when companies go for selective system / data migration to the new S/4HANA platform. This is applicable when our focus is not migrating a whole system, but to convert some of entities, which we want to modify and move on to the new SAP S/4HANA platform.

This scenario consists of several sub-scenarios, which are as below:

- Consolidation of a current SAP systems which covers so many multiple systems across the globe & converting them into one global SAP S/4HANA system, or
- Selective data migration based on legal entities, such as a clients or a company codes.
- Implementation of SAP Central Finance Scenario. In central finance system Each finance transaction posted in a source legacy ERP is replicated through SLT function & mapped to the target structures of the S4 Central Finance System



(Source : https://blogs.sap.com/2017/07/06/how-to-find-my-path-to-sap-s4hana-understand-the-available-transition-options)

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REVERSE STRESS TEST: AN IMPORTANT RISK MANAGEMENT TOOL

Abstract

In Reverse Stress Test (RST) the quest is for plausible exogenous trigger scenarios that might "break the bank." RST is a nifty tool for thinking and experimentation with various test designs and configuration sets. RST has been advocated as a concurrent exercise to supplement the stress testing framework so as to avoid any possible myopic lapse in choosing scenarios as to the vulnerability of the bank's business models. It helps address the concern that forward stress tests may miss the idiosyncratic vulnerabilities of individual firms. For most financial services firms, RSTs are not only a regulatory requirement but a risk management tool that grew in importance in 2020. The unexpected arrival of the COVID-19 pandemic shows how important reverse stress testing can be in managing business vulnerabilities.

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Introduction

A decade ago, perhaps few banks had been using Reverse Stress Testing (RST). But in the wake of global financial crisis 2007-08 financial sector regulators across the world introduced different requirements and recommendations for banks to compulsorily perform RST. One of the most serious challenges facing the design of an effective stress test is selection of scenarios which are extreme and plausible revealing key weaknesses of a bank. RST has the objective to highlight the circumstances triggering business failure, factoring in both the internal sources of risks and external conditions. RST has been advocated as a concurrent exercise to supplement the stress testing framework so as to avoid any possible myopic lapse in choosing scenarios as to the vulnerability of the bank's business models.

What is Reverse Stress Test

In RST, main objective is to discover scenarios in which specified and defined adverse outcomes are likely to hit the bank impairing its solvency /liquidity or rendering the business model unviable. RST is a process of identification of possible scenarios that could lead to a set of defined adversative consequences viz., regulatory breaches, significant rating down grade, insolvency or illiquidity etc., for an institution. It involves a process of reverse engineering of scenarios designed to match a set of defined adverse outcomes to be endured by the bank or the financial sector. For example, a reversed engineered scenario for forex risk would determine the size of an exchange rate shock that would be triggering erosion of capital to a given extent.

While under stress testing framework the attempt is to focus attention to critical out comes the business is likely to exhibit in well-defined business climates and macroeconomic scenarios chosen by the risk managers, under reverse stress testing objective is to discover the business and economic scenarios in which the present business model could become unsustainable. In RST framework after identification of pre-defined outcome (e.g. states in which the business model of the entity becomes unviable, or likely to fail.) follows the exploration of scenarios and circumstances that might trigger defined outcomes.

Symbolically in stress testing given the scenarios defined by vector $\mathbf{Y(y_1,y_2,y_3\ldots\ldots y_n)}$ are mapped to=> Outcome vector $\mathbf{O(o_1,o_2,o_3,\ldots\ldots o_k)}$. In reverse stress testing $\mathbf{O_R(o_1,o_2,o_3,\ldots\ldots o_k)}$ are mapped to=> $\mathbf{Y_R(y_1,y_2,y_3\ldots\ldots y_n)}$. For example, it may be stress tested how in the event of top 10 borrowers defaulting or in a scenario like global financial crisis 2007-08 the capital of the bank would be impacted. But in reverse stress testing it would be of interest to know the scenario in which the bank is likely to breach the regulatory capital limits or face liquidity crunch impairing its solvency and market reputation. While the impacts of 15 per cent depreciation / appreciation in 30 days for rupee exchange rate may be stress tested, RST might seek answer to how much currency depreciation would have potential to cause erosion of Tier I capital down to 3 per cent of risk weighted assets over a period of 30 days? In reverse stress testing default or near-default scenarios are simulated.

The judgement of Financial Policy Committee (FPC) in December 2020 that UK banks, as a whole, would have adequate capital buffers to continue lending remaining resilient amidst a varied range of shocks to the UK and global economies was based on findings of a RST exercise, carried out earlier. The RST exercise enabled assessment of the needed degree of severity of the economic trajectory for the UK and global economies that would cause erosion of regulatory capital buffers by about 5 percentage points. The indicative paths generated by RST exercise were very severe, projecting a consequential cumulative loss of economic output associated with the Covid outbreak amounting to double the amount projected by the Monetary Policy Committee's (MPC) in August 2020 and accompanied by a significant rise in unemployment. The Bank of England has run a "reverse stress test" with the expectation that it will help it prepare for possible further rounds of financial instability due to Covid-19. Instead of subjecting the bank balance sheets to a fixed shock and modelling the response of capital ratios, the BoE's financial policy committee took the results of the 2019 test as a given and asked what sort of Covid-related stress might cause such a major drop in capital.

Sensitivity analysis of risk factors that would potentially entail adverse impact on regulatory parameters like regulatory capital, Leverage ratio, Liquidity Coverage Ratio, Stable Funding Ratios, NPA ratio etc. may be performed for each material risk type. This exercise may form a base starting point for evolving a bank-wide reverse stress test.

Traditional stress testing and RST differ in two key features. While traditional stress tests, start with defining a scenario(macro-financial) and then assess its impact on business, in terms of earnings, capital and liquidity, RST starts with the defined outcomes to reach the scenarios through reverse-engineering such that, in the event of unfolding of the same scenario the defined outcomes will be likely to materialise. The second difference is in regard to the severity of the stress. RST delves deep into the extreme tail of the loss distribution function for the business model up to the point of business collapse.

Why RST?

Business often loses sight of the low probability high impact events which have high octane disruptive powers to drive the business model haywire to the brink of income, capital or liquidity triggered insolvency. RST provides for more detailed idea of the furthest regions of the "tail of loss distribution function underlying the business model. On tail risk hitting the business, the counter parties and investor would tend to lose confidence taking wind out of the business sails triggering erosion of capital and drying of liquidity. The exercise also intended to add greater awareness as to the latent non-apparent vulnerabilities of business model for being factored in while drawing business strategy plans and taking decisions, evolving contingency plans and putting in place responsive risk management framework. RST can be used as a risk management tool to increase the institutional awareness of its inherent and latent weaknesses and vulnerabilities. RST provides opportunity to assess the combined effect of several types of extreme events, which individually may not appear to be that risky, but a combined effect thereof has the potential to substantially impair the solvency of bank. RST can bring to spot light hitherto uncared for sources of risks that can be mitigated through improved risk management.

If the findings of reverse stress testing reveal unacceptably high risk to business model becoming unviable /unsustainable vis a vis its risk appetite, the institution can initiate steps to aligning its risk appetite with the actual risks revealed by the reverse stress testing, and evolve strategies and measures to prevent or mitigate such risks, taking into consideration the time institution should have to react and implement the measures. As part of these measures, the institution may also consider if changes to its business model are needed. However, if the business decides to take on the exposure it may workout its contingency plans to meet the capital/ liquidity need in the eventuality of the incremental risk crystallising. RST can also be used for calibrating the thresholds of key risk indicators (KRI) for early warning purposes within the risk appetite framework.

A RST drives the entities to focus attention to scenarios beyond normal business climates leading to events with contagion and systemic implications. For example, a bank having significant exposures to complex structured credit products may explore what kind of scenarios have potential to trigger large scale losses similar to those occurred at the time of global financial crisis. Within the frame of reference of this scenario, the bank may review its hedging policy as to the hedge effectiveness and robustness of the strategy in the stressed market environment with volatile market liquidity and spiked up counterparty credit risk. RST of the kind can move spot light to latent weaknesses and susceptibilities and inconsistencies in hedging strategies.

RST may constitute a starting point for developing scenarios to test the effectiveness of the list of recovery options available to the entity. The main objective of recovery planning is to delineate the ensemble of available choices to infuse financial strength and viability when the entity is subjected to severe stress. Scenarios used for recovery planning should be only "near default" and not a "default" or resolution scenario. As the scenarios used for RST are those in which, the business model has already failed and recovery measures would not be effective, reverse stress tests should only be seen as a starting point for developing scenarios to test the efficacy of entity's menu of recovery options. RST framework may be gainfully used as valuable source of input in recovery planning exercises by tweaking of the scenario to "near default" (close to failure) instead of 'default'. The 'near-default' scenarios should identify and describe the point that would lead an institutions or a group's business model to become non-viable unless the recovery actions were successfully implemented. RST outputs can be used as input to a recovery plan stress test by identifying the conditions under which the recovery might need to be planned and to test the efficiency and effectiveness of recovery actions, appropriateness of calibration of recovery action plans, and analyse sensitivities around corresponding underlying assumptions. RST enables identification of the risk factors and describes the scenarios that would result in 'near default' of the entity, assessing effective recovery actions that can be credibly implemented, either in advance or as the risk factors or scenarios develop. By using a dynamic and quantitative scenario narrative, RST can contribute to the evolving of recovery plan scenarios by covering the recovery triggers (i.e. the point at which the entity would enact recovery actions in the hypothetical scenario); the recovery actions required and their expected effectiveness.

Regulatory Dictates

As per RBI guidelines RST should be carried out regularly to supplement the findings of stress testing, by large and complex banks (i.e., Group A banks whose Total Risk Weighted Assets exceeds Rs.2000 billion) to identify the risk factors that have potential to completely erode their capital resources and also make their business unviable. The regulatory expectation has been that to begin with RST exercise would be more of a qualitative nature than other types of stress testing. With the gain in experience over the time the exercise would evolve into more sophisticated qualitative and quantitative exercises developed for other stress testing.

European Banking Authority (EBA), an independent EU Authority to ensure effective and consistent prudential regulation and supervision across European banking sector, has issued guidelines for reverse stress testing process for both regular stress testing and recovery planning purposes; and additional issues that have gained importance in the stress testing programme to be carried out by the banks in Europe.

A RST drives the entities to focus attention to scenarios beyond normal business climates leading to events with contagion and systemic implications

As per Fed Reserve (US) guidelines a banking organization in their stress testing exercise should employ several approaches and applications viz., scenario analysis, sensitivity analysis, enterprise-wide stress testing, and reverse stress testing.

The Financial Conduct Authority (FCA) regulates the financial services industry in the UK. As per FCA guidelines Banks, building societies and investment firms and insurers must carry out reverse stress-testing on both a solo and consolidated basis.

Conclusion

RST is a nifty tool for thinking and experimentation with various test designs and configuration sets. In RST the quest is for plausible exogenous trigger scenarios that might "break the bank." It can serve as a basis for choosing the kinds of stress scenarios which can conveniently be used for direct stress-testing. This will obviate oversight of banking, financial, macroeconomic, and international sources of extreme but plausible shocks relevant for the entity from risk management point of view. It thus helps address the concern that forward stress tests may miss the idiosyncratic vulnerabilities of individual firms.

Particular business areas to which benefits of using RST would accrue are business lines exhibiting attractive risk/return trade off by the conventional business models; new products / markets having no history of occurrence of severe strains; and exposers having no liquid two-way markets.

For most financial services firms, RSTs are not only a regulatory requirement but a risk management tool that grew in importance in 2020. The unexpected arrival of the COVID-19 pandemic shows how important reverse stress testing can be in managing business vulnerabilities.

Supervisory authorities and central banks also have been continuing to devote greater attention and engage more resources to enhance the stress testing including reverse stress testing of regulated institutions. The Supervisory exercises are being carried out mostly on annual basis. Relying on reverse stress-testing regulators design stressful scenarios to uncover the emerging sources of risk relevant for the regulated entities and the financial system as a whole. MA

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7. *RBI Guidelines on Stress Testing*

BANK VALUATION: KEY DETERMINANTS

Abstract

Article seeks to delineate the key variables that affect bank valuation through a regression analysis of bank specific and macro variables. Study covers 16 financial years from 2005 to 2020 and is further divided into four year cohorts. Overall result indicate that wage structure (whether IBA-union negotiated pay or not), CASA, Net NPA and GDP growth are the most significant variables affecting bank valuations. Analysis segregating the data into four time periods showed that wage structure is the consistent value influencer over time.

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Bank Valuation: Key Determinants

Banks are complex institutions due to their high leverage, ability to create reserve money, tight regulatory stipulations and scrutiny (Basel III Capital and Liquidity Standards, Reserve Ratios), crucial role in payment & settlement system and the developmental role they are called upon to play in emerging economies like India which ranges from priority sector lending to funding the fiscal deficit of the central and state governments. Bank valuation is a topical issue especially in the backdrop of Government's announced policy to privatise a significant number of PSBs. Disinvestment of PSBs account for the major chunk of Rs 175000 crore disinvestment target of the central government for 2021-22.

This paper draws heavily from the work of Bilyana Bogdanova, Ingo Fender, Előd Takáts; *The ABCs of bank PBRs;* BIS Quarterly Review, March 2018.

Why Price to Book Value?

A bank's Price to Book Value (PBV) is defined as the ratio of the market value of equity to its book value. Book Value is seen as the key measure which reflects a bank's ability to undertake its principal business activities and is thus widely perceived to be the most appropriate trading metric for a bank's valuation. Use of PBV in the assessment of bank valuations emphasises the intangible value created by banks' unique business strategy with regard to deposits and advance growth and mix, emphasis on fee income, cost management etc. as a driver of investor behaviour – enabling banks to earn profits above and beyond what would have been possible strictly based on banks' book value alone. In PBV terms, values above one would suggest positive market premia from intangibles (eg from higher CASA and lower Cost to Income Ratio), while values below one would suggest discounts (eg higher Net NPAs, low employee productivity).

Bank valuation is a topical issue especially in the backdrop of Government's announced policy to privatise a significant number of PSBs

Unlike other companies, book value is a more reliable measure in the case of banks due to the following:

- Banks are required to maintain provisions for standard and NPA accounts based on RBI guidelines which ensures standardization of provisioning across banks and comparability.
- Banks are subject to continuous scrutiny by RBI through Risk Based Supervision system. This ensures that value depleting events like frauds, accounting irregularities, provision shortfalls etc are spotted at an early date and gets adjusted in the book value.
- A significant portion of the bank's investment book has to be Marked to Market as banks have restrictions as to the amount that can be parked in Held to Maturity category (where they can carry the investments at amortised cost).

Model Specification

OLS (Ordinary Least Square) Regression of the form y = a+b1x1+b2x2+….+bnXn where we use n independent variables (x) to predict the value of dependent variable y has been used in this paper.

While Price to Book Value has been taken as y variable, x variables considered are as follows:

i. **CAR**: Capital Adequacy Ratio representing the ratio of capital funds to risk weighted assets. CAR apart from giving comfort to investors on solvency of the bank also points out to the buffer available for future growth without going for dilution.

ii. **Net NPA Ratio:** Net Non Performing Assets to Net Advances ratio is a key indicator of the asset quality of any bank. An account is classified as NPA if there is 90 day delinquency and Net NPA is Gross NPA less provisions.

iii. **CASA Mix:** Proportion of Current and Savings deposits to total deposits. CASA franchise is one of the most important drivers of bank valuation as it shows the cost efficiency of the deposit franchise since Current Accounts carry zero interest rate and Savings Deposits carry much lower interest rate than term deposits.

iv. **CD Ratio:** Ratio of credit (loan book) to total deposits. Higher the better from a profitability angle but lower the better from a liquidity angle.

v. **Leverage:** In this paper leverage has been given the same meaning as gearing and computed by dividing total liabilities with total equity. Higher the better from a profitability stand point but lower the better from a solvency angle.

vi. **ROA:** Return on Assets is computed as the ratio of Net Profit to Average Assets.

vii. **Assets:** To capture the impact of size on value, log of total Assets has been considered as a variable.

viii. **Repo Rate:** RBI's key monetary policy tool and represents the rate at which RBI is prepared to lend to banks against security of Government Securities. RBI has been relentless tinkering loan pricing mechanism of banks to ensure proper monetary transmission.

ix. **Real GDP Ratio:** Real GDP ratio is important with its effects on deposit and advance growth and interest rates.

x. **CPI:** Consumer Price Index is important to banks not only due to its effect on real interest rates but also due to the fact that banks under IBA settlement pays Dearness Allowance lined to CPI.

xi. **Ownership:** Whether the banks is owned by government or not. This has been used as a dummy variable with 1 for GOI ownership and 0 otherwise.

xii. **IBA settlement:** Public Sector banks and old private sector banks (banks in existence prior to 1991) are covered under IBA wage negotiation and settlement that happens every 5 years after a protracted bargaining between trade unions and the IBA. In the model, value of 1 is given to banks under IBA settlement and 0 to others.

Data Source

a) All the data relating to X variables and book value for Y variable has been sourced/ derived from Statistical Tables relating to banks in India and Handbook of Statistics on Indian Economy as available in RBI's website www.rbi.org. in>Publications>Annual).

b) Share price for arriving at price for Y variable has been sourced from yahoo finance website (in. finance.yahoo.com)

Time Period Covered

Financial Year 2005 to 2020.

Banks Covered

Table 1: List of Banks covered in the study

Sl No	Name of Bank
1	AXIS BANK LIMITED
2	BANK OF BARODA
3	BANK OF INDIA
4	BANK OF MAHARASHTRA
5	CANARA BANK
6	CENTRAL BANK OF INDIA
7	CITY UNION BANK LIMITED
8	DCB BANK LIMITED
9	DHANLAXMI BANK
10	FEDERAL BANK
11	HDFC BANK LTD.
12	ICICI BANK LIMITED
13	IDBI BANK LIMITED
14	INDIAN BANK
15	INDIAN OVERSEAS BANK
16	INDUSIND BANK LTD
17	KARNATAKA BANK LTD
18	KARUR VYSYA BANK
19	KOTAK MAHINDRA BANK LTD.
20	PUNJAB AND SIND BANK
21	PUNJAB NATIONAL BANK
22	RBL BANK LIMITED
23	SOUTH INDIAN BANK
24	STATE BANK OF INDIA
25	UCO BANK
26	UNION BANK OF INDIA
27	YES BANK LTD.

- Of the 27 banks, 12 are owned by GOI
- Of the 27 banks, 18 are under IBA wage settlement

Value of Variables

Table 2: Averages of key variables over 4 time periods

	4 year averages				16 yr Avg
	2005-08	2009-2012	2013-2016	2017-20	

GDP growth rate (%)	9.33	7.58	6.45	5.83	7.29
CPI inflation (%)	5.93	10.25	7.18	4.23	6.90
Repo rate (%)	7.00	6.31	7.44	5.73	6.62
CD Ratio (%)	74.11	75.20	77.78	75.79	75.72
Leverage (times)	16.72	15.46	14.74	13.85	15.19
Assets (Rs Cr)	42,279.56	93,937.36	1,72,047.10	2,37,078.62	1,36,335.66
PBV (times)	**1.62**	**1.48**	**1.24**	**1.40**	**1.44**
CAR (%)	12.61	14.29	13.12	13.57	13.40
RoA (%)	1.01	1.06	0.77	0.06	0.72
Net NPA (%)	1.31	0.96	2.36	4.53	2.29
CASA (%)	30.90	29.57	29.91	36.11	31.62

- PBV was highest in the 4 year period were GDP growth was the highest
- Between 2005-08 to 2017-20, BS size of banks grew at around 6 times but RoA declined significantly from 1.01% to 0.06% and asset quality deteriorated with Net NPA surging from 1.31% to 4.53%. On the positive side, CASA ratio improved from 30.90% to 36.11%.

Statistical Tool

R Cover Team (2013). R:A language and environment for statistical computing. R Foundations for Statistical Computing, Vienna, Austria. URL http://www.R-project.org/

Study Results

Coefficients:

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-125.24189	69.07126	-1.813	0.070559 .
CAR	0.93201	2.45665	0.379	0.704608
NetNPA	-9.07607	2.38792	-3.801	0.000167 ***
CASA	2.77529	0.49579	5.598	0.000000040816 ***
CDRatio	0.09526	0.23502	0.405	0.685451
Leverage	1.82597	1.37970	1.323	0.186453
RoA	6.45584	6.52609	0.989	0.323156
Assets	12.80603	4.04819	3.163	0.001681 **
Repo	7.60901	3.45786	2.200	0.028353 *
GDP	10.30520	1.63601	6.299	0.000000000803 ***
CPI	-2.46247	1.44487	-1.704	0.089119 .
GOI	-15.48292	13.65199	-1.134	0.257438
IBA	-146.22641	11.97962	-12.206	< 0.0000000000000002 ***

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 73.5 on 393 degrees of freedom

Multiple R-squared: 0.613, Adjusted R-squared: 0.6012

F-statistic: 51.87 on 12 and 393 DF, p-value: < 0.00000000000000022

Analysis of the Results

- Most significant variable affecting bank valuation is whether or not the bank is under IBA wage settlement. The negative sign for the coefficient denotes that IBA wage settlement is viewed negatively by the market. This is predictable given the low correlation in IBA wage structure between pay and performance which in turn breeds inefficiency
- Other significant variables affecting bank valuation are Real GDP, CASA Mix and Net NPA. While the coefficients of GDP and CASA Mix have positive coefficients indicating value will go up with increase in GDP and CASA Ratio, Net NPA has a negative coefficient indicating value will decrease with increase in Net NPA. All these are pro intuitive.
- Of the other variables, factors which negatively affect value are GOI ownership and CPI inflation. All other variables viz. Asset Size, Repo Rate, RoA, Leverage and CD Ratio have positive signs

showing that value goes up with the increase in these variables. The sign for Asset Size is especially significant since it indicates that size does matter in determining bank value.

- Adjusted R squared of 60.12% signifies that the model explains 60.12% of the variations in price to book value.

Further Analysis

To gauge whether the significance of variables have remained consistent over time, now we do the regression over four 4 year groups. Results are tabulated below:

Table 3: Regression Results over 4 time periods

	2005-08	**2009-12**	**2013-16**	**2017-20**	**Overall**
a) Coefficients					
Intercept	83.76	-226.26	466.10	-121.49	-125.24
CAR	-1.20	-1.27	3.31	0.81	0.93
Net NPA	-37.39	-10.75	-9.08	-7.29	**-9.08**
CASA	2.30	3.07	2.79	**4.69**	**2.78**
CD Ratio	0.00	0.28	0.91	0.28	0.10
Leverage	1.68	6.62	5.37	-4.13	1.83
RoA	-4.28	24.81	-4.36	6.19	6.46
Ln(Assets)	12.57	10.60	12.90	-7.86	12.81
Repo	13.34	11.22	-45.85	54.14	7.61
GDP growth	2.51	**15.92**	-25.57	1.95	**10.31**
CPI	-11.20	-7.00	-17.18	5.00	-2.46
GoI ownership	-2.53	-17.17	-48.90	12.51	-15.48
IBA wage	**-198.84**	**-102.20**	**-137.96**	**-151.43**	**-146.23**
b) Adjusted R^2	0.5890	0.5020	0.6940	0.7146	0.6012

- Coefficients given in bold indicate high level of significance. Accordingly, only IBA wage settlement is the variable that has been highly significant in all the four time periods and the sign has been consistently negative i.e. banks with IBA wage settlement are valued less across time periods.
- Signs of coefficients have been consistently negative for Net NPA and consistently positive for CASA.
- Signs have been positive in all but one time period in the case of Leverage, Asset size, Repo and GDP growth while it has been negative in all but one time period in the case of GOI ownership and CPI Inflation.
- In 2017-20, leverage and BS size has negative value connotations possibly in the wake of the collapse of IL&FS and the ripple effects on banks. This was also the period when the asset quality stress of private lenders came to the fore and this is perhaps reflected in the positive sign for GOI ownership.

Most significant variable affecting bank valuation is whether or not the bank is under IBA wage settlement

- In 2005-08 and 2009-12, the market seems to be valuing high CAR as a sign of weakness rather than strength as it signifies excess capital. But the tables have turned in the following two time periods as safety is now given a premium possibly in the wake of implementation of Basel III guidelines.

Conclusion

Wage structure reforms will help PSBs and old private sector banks to improve valuations. High CASA and low Net NPA are perennial value drivers for banks while solvency in the form of high capital adequacy ratio is also important. MA

References

1. *Bilyana Bogdanova, Ingo Fender, Előd Takáts; The ABCs of bank PBRs; BIS Quarterly Review, March 2018.*
2. *Statistical Tables Related to Banks in India, RBI publication.*
3. *Handbook of Statistics on Indian Economy, RBI publication.*

Down The Memory Lane

May 2011

Cost Advisor and Chief Guest Shri B.B. Goyal is addressing to the Members Meet on “Cost Audit Emerging Opportunities”, on 20.05.2011 organized by the Ludhiana Chapter of ICWAI.

Chairman Mr. Jayanta Sen (2nd right), Vice Chairman Mr. Jayant Jain (1st right) with Consuls of CGI Dubai and Convenor of ICWC (at most center) at CGI office in Dubai.

Hon’ble MP Shri Gajanan Babar is addressing at the inauguration ceremony of Pimpri Chinchwad Akurdi Chapter of ICWAI on 31.05.2011.Mrs. Aparnatai Doke, Former Mayor of Pimpri Chinchwad Metropolitan Corporation is seen with Hon’ble President of ICWAI, Shri B.M. Sharma and other dignitaries on the dais.

May 2001

A group photo of the Members of the 57th CAPA Executive Committee Meeting at Kuala Lumpur Malaysia.

D.C. Bajaj, President and V.V. Deodhar, Vice President, ICWAI are seen with the representatives of Korea and Observer from ICAI at CAPA EXCOM.

Down The Memory Lane

May 1991

Joint meeting of Hyderabad Chapter of Cost Accountants and Company Secretaries on May 06, 1991. Seen in the picture from Left to Right: P.V. Ramana Sarma, Chairman; Chief Guest Prof. A.S. Sastry, Tata Consultancy Services and P.V.S. Jagan Mohan Rao.

Seminar on Cost Consciousness at Ritz hotel on May 19, 1991. Shri K Narayana Rao, Member, Hyderabad Chapter, presenting a memento to Shri N.J. Yeseswy, an eminent Management Consultant and Industrialist and a Member of the Institute delivered key note address.

May 1981

Vice President of the Institute, Shri A.V. Ramana Rao, (now President) delivering his speech at the inaugural session of the Workshop on Farm Management Accounting and Control at Oberoi Grand, Calcutta on May 30 and 31, 1981. On his right are: Dr. S.K. Mukherjee, an eminent Agronomist and Former VC, CU; Shri Amitava Bhattacharyya, Chairman, Research & Publications of the Institute; Shri V. Kalyanaraman, CCM of the Institute; Shri N.K. Bose; Shri Bimalendu De. On Shri Rao's left are Professor N.K. Roy and Professor Shyamal Banerjee.

May 1971

Hon'ble Governor opens New Premises of WIRC OF The Institute if Cost Accountants of India on 27th May, 1971.

Mr. S.L. Mehta, Chairman, Indian Jute Mills Association as Chief Guest giving Inaugural Address at Regional Cost Conference, Calcutta on May 22, 1971.

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Executive Diploma in Cost & Management Accounting for Engineers
Basic Course Fee: ₹30,000/- & Duration: 6 Months
Certificate Course in Arbitration
Basic Course Fee: ₹20,000/- & Duration: 3 Months
Executive Diploma in Business Valuation
Basic Course Fee: ₹20,000/- & Duration: 6 Months
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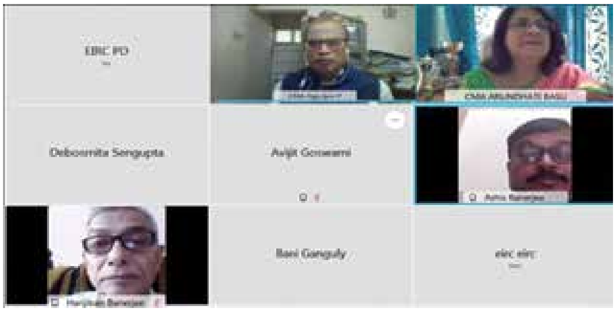
FROM THE INSTITUTE

EASTERN INDIA REGIONAL COUNCIL

On the occasion of month long observance of "International Women's Day", ICAI-EIRC had organized a virtual programme on 12th March 2021 where CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Women Empowerment Committee welcomed the members. CMA Ashis Banerjee, Chairman, EIRC addressed the participants and expressed his heartfelt gratitude to the honoured Guests for their kind presence during the programme. There were two Technical Sessions. The Technical Session on "Emotional Intelligence – Strongest Driver of Leadership & Personnel Excellence" was addressed by the Guest Speakers CMA Chandana Bose, Former Senior Director - Research, ICAI. The other Technical Session on "IBC 2016 – The First Case Study "was addressed by the Guest Speaker CMA Meera Prasad, Practising Cost Accountant. CMA Kavita Dubey and CMA Tanmaya Pradhan compered the programme and introduced the speakers. A virtual programme was organized on the occasion of month long celebration of International Women's Day on 19th March 2021. CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Women Empowerment Committee welcomed the members and expressed her sincere gratitude to the honored Guests for their kind presence during the programme. CMA Kavita Dubey, Practicing Cost Accountant recited a poem on Women Empowerment during the programme. There were two Technical Sessions. The first technical Session was on "Entrepreneur in the Context of MSME"CS Rupanjana De Practicing Company Secretary, Former Secretary - ICSI-EIRC & Independent Director and Ms Shaleni S Biswas Managing Director of Easy Notes Stationeries were the guest panellists and deliberated elaborately on the topic. The other technical session was on "An Overview of Intellectual Property Rights - Patent, Trade Mark, Copy Right & Design". Ms Astha Sharma Patent Attorney L.S.Davar & Co,Ms Kajal Sinha Sr Trade Mark Attorney (Trade Mark & Design) L.S.Davar & Co, Ms Souma Samanta Copy Right Attorney L.S.Davar & Co were the guest speakers. CMA Tanmaya Pradhan moderated the programme and introduced the speakers. The last virtual programme, of the month long series of the International Women's Day, was organized on 26th March 2021. CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Women Empowerment Committee welcomed the members and expressed her sincere gratitude to the honored Guests for their kind presence & their excellent deliberations during the programme and also expressed her gratitude to all the woman CMAs namely, CMA Chandana Bose, CMA Tanmaya Pradhan, CMA Aparna Biswas, CMA Ranjana Dutta, CMA Meera Prasad, CMA Subhra Saha & CMA Kavita Dubey for their active participation and cooperation for making all the four programmes organised on this occasion a grand success. CMA Swati Chaturvedi Chairperson Noida Chapter, PCMA & Registered Valuer, CMA Jyoti Satish Independent Director Cost & Management Consultant Imm. Past Chairperson – SIRC, CMA Manisha Agrawal IP, RV, Qualified Independent Director and CMA Manjula B.S. Chairperson Bengaluru Chapter of Cost Accountants had graced the occasion as the honoured guests and addressed during the programme. CMA Debosmita Sengupta, Sr Officer - PD recited a poem on the occasion. There were two Technical Sessions. The first technical Session was on Inquest of the Illusive Assets – A Case Study. CMA Sujata Chattopadyay Insolvency Resolution Professional was the Guest Speaker. The other technical session was on "Roadmap for New CMAs Venturing into Practicing Field". CMA Ranjana Dutta Practicing Cost Accountant was the guest speaker. CMA Tanmaya Pradhan moderated the programme and introduced the speakers.

Award ceremony of E-Quiz Contest for students of EIRC & Guest Faculty Meet organised by EIRC under the initiative of Student Facilities & Training Committee of EIRC on 27th February, 2021 at J.N.Bose Auditorium. CMA Arundhati Basu Vice-Chairperson, EIRC & Chairperson – Student Facilities & Training Committee delivered the welcome address. CMA Ashis Banerjee, Chairman also addressed the students and congratulate them on winning the award for the Quiz Contest. CMA Biswarup Basu, President, ICAI, CMA Amal Kumar Das, Former President, ICAI, CMA Harijiban Banerjee, Former President, ICAI, CMA Avijit Goswami, Former CCM, ICAI, CMA C.R. Chattopadhyay CCM, ICAI & CMA Pallab Bhattacharyya Former Chairman – EIRC, ICAI were present during the occasion and addressed the students.CMA Umesh Kumar Pandey, the Quiz Master was also awarded during the ceremony on conducting the Quiz Contest very successfully. The Students who participated in the quiz contest were also awarded. CMA Ashis Banerjee & CMA Arundhati Basu addressed the Faculties & thanked them for their dedicated service for the students. Different issues relating to the development of the students were discussed. EIRC had conducted E-Career Awareness Programme on 31st March, 2021 for the student of Netaji Nagar College Kolkata, under the initiative of Student Facilities & Training Committee of ICAI-EIRC. Dr. Amrita Dutta, Principal, Prof. Pinaki Ranjan De - Associate Prof. & Coordinator, IQAC & Dr. Kaberi Bhattacharyya - Associate Prof. & HOD Commerce, Career Counselling Cell addressed the students. Arundhati Basu, Vice Chairperson, ICAI-EIRC and Chairperson -Student Facilities & Training Committee addressed the students on the CMA Course and its prospects when pursued along with a degree course. CMA Debosmita Sengupta, Sr Officer – PD gave an introduction about the Institute. A Virtual Meet was organised on 12th April 2021 for the Students who were shortlisted by TCN Global & Economic Advisory Services LLP for campus placement. CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Student Facilities & Training Committee addressed the students and also guided and suggested them for facing the interview. Virtual Student Meet (Final passed Students) was organized on 16th April, 2021 by ICAI - EIRC under the initiative of Student Facilities & Training Committee of ICAI-EIRC where CMA Arundhati Basu, Vice Chairperson, EIRC and Chairperson, Student Facilities & Training Committee welcomed the Students & Dignitaries. CMA Ashis Banerjee- Chairman, EIRC-ICAI had graced the occasion and addressed the students. CMA Raju Iyer - Vice President, ICAI, CMA Harijiban Banerjee- Former President, ICAI, CMA Avijit Goswami- Former CCM, ICAI were present and addressed the CMA Qualified on the various aspects and opportunities available for them within and outside India.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA RAJPUR CHAPTER

The Chapter organized a webinar on 27th March, 2021 on "Application of Cost Management Techniques in Economic Recovery - Post COVID 19". CMA S.N. Das, Secretary of the chapter gave a hearty welcome to the participants, guest speakers and explained the reason for selecting the topic to highlight the role of CMAs in recovery of the economy of the country in a pandemic situation. The webinar was inaugurated by CMA Amit Apte, former President ICAI who in his address first hailed Rajpur Chapter for first time upholding such an important issue on CMA for its role in economic recovery. He stressed the use of the MSME sector in a proper way to contribute more to the economy. CMA Manas Kumar Thakur, former President ICAI complemented CMA Amit Apte for his comments and further impressed upon the government to look at the agricultural sector specially for the Indian economy revive and survive. Then the guest speaker Hon'ble CMA CA CS Kalyan Kar took over and gave a detailed presentation with projections about the importance of CMAs in helping in the economic recovery process. Hon'ble CMA Ravi Sahni, former Chairman, NIRC, ICAI was the second and last guest speaker to the seminar who mainly made a threadbare discussion on the role of CMAs in helping the business and industry scenario of a country as well as more revenue to the government. CMA Sahni called upon CMAs to be careful about cost audit reports so that it could actually help a business in its way to prosperity. The webinar ended with a vote of thanks by the chapter to participants and speakers for their patient hearing.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA BHUBANESWAR CHAPTER

The Chapter organised a seminar cum motivational session on "Leading Profession through Passion" on 22.03.2021 at its conference hall following various precautionary measures to contain infection of Pandemic COVID-19. Dr Sudhir Kumar Das, Adjunct Professor in Business Strategy, Author of the Book "Newtons Fourth Law", News Analyst in Electronic Media & Columnist was the "Resource Person" on the occasion. CMA Saktidhar Singh, Chairman, PD Committee of the Chapter delivered welcome address and CMA Ajay Kumar Samal, Secretary of the Chapter extended formal vote of thanks on the Occasion. The Chapter has organized a WEBINT in association with NSIC, National SC/ST Hub, and Bhubaneswar on the theme "Initiatives of NSIC for MSMEs including SC/ST Enterprises" on 16.04.2021. On the occasion CMA Kamal Lochan Nayak, Sr. Branch Manager, NSIC, Nagpur and Shri Subhasis Das, NSSH Head, NSIC, Bhubaneswar were the "Resource Person". CMA Saktidhar Singh, Chairman, PD Committee of the Chapter delivered welcome address and extended formal vote of thanks. CMA Asutosh Debata, MC Member and Member PD Committee delivered the key note address. On the Occasion CMA Damodar Mishra, Past Chairman of the Chapter also accompanied during presentation of mementoes to the Resource Persons. The Chapter has organised an interaction meet among the Practicing Members on 06.03.2021 in reference to discussion held in the previous meeting held on 24.02.2021 at conference hall of CMA Bhawan. Discussion held on "Compliance for the COP holders, Cost Accountants Firms and Professional Avenues". CMA Mukesh Chaubey, Chairman welcomed the Practicing Members Participated in the discussion. CMA Saktidhar Singh, Chairman, Professional Development Committee moderated the meeting and appraised the members regarding formation of various committees. CMA Niranjan Mishra, Past Chairman, ICAI-Bhubaneswar Chapter and Sr Partner M/s Niran and Co, Cost Accountants highlighted on "Compliance for the COP Holders, Cost Accountants Firms: Institute Prospective", CMA Chaitanya Kumar Ray, Managing Partner, M/s Ray Nayak and Associates highlighted "How to become an IBC Professional and its Avenues for CMAs" and CMA Prasanjit Mohanty, Partner, M/s BSS & Associates , Cost Accountants highlighted on Career opportunity as "Insurance Surveyor And Loss Assessor". The Chapter successfully celebrated "International Women's Day" on 8th March, 2021 at CMA Bhawan in a grand way. Discussion held on the theme "Women Empowerment". Dr. Rajashree Mallick, Hon'ble MP, Jagatsinghpur Constituency graced and inaugurated the event as "Chief Guest" and addressed on "Women Empowerment" and highlighted on role of women in nation building , Shri Ananta Narayan Jena , Hon'ble MLA, Bhubaneswar (Central) Constituency graced as "Special Guest" and praised the contribution of women in transforming better society. Mrs. Sasmita Patra, President, NALCO Mahila Samiti, Bhubaneswar graced as "Special Guest of Honour" and encouraged girls to choose a noble profession. Amongst others Ms. Reena Ravichander , Secretary, Rotary Club of Bhubaneswar Friends and CMA Minati Mishra, DGM (Finance) , OPTCL were "Guest of Honour" and addressed on power of women . CMA Mukesh Chaubey, Chairman, ICAI-Bhubaneswar Chapter delivered welcomed and highlighted about the role of Women CMAs in the development of Global Economy. More than 150 participants consisting Members such as CMA Niranjan Mishra, CMA Saktidhar Singh, CMA Damodar Mishra, CMA Himoj Mishra, CMA Ajay Kumar Samal, CMA Santanu Kumar Rout, CMA Asutosh Debata, CMA Surya Narayan Tripathy , other members and girls students of the chapter actively participated in the programme . CMA Mukesh Chaubey, Chairman of the Chapter and CMA Niranjan Mishra, Past Chairman of the Chapter met Shri Mohan M, Hon'ble Chairman, Odisha Gramya Bank and appraised about the role and scope of CMAs for nation building specifically role of CMAs on Banking Sectors. On behalf of the Chapter, CMA M Chaubey and CMA N Mishra felicitated Shri Mohan M , Chairman , Odisha Gramya Bank. All Odisha Quiz Competition through online among +2 and +3 Commerce Students was held on 14.03.2021. As a part of Career Counseling and enhancing further visibility, the chapter organized an Online "All Odisha Quiz Competition" separately for +2 Commerce and +3 Commerce Students at Odisha on 14.03.2021.

NORTHERN INDIA REGIONAL COUNCIL

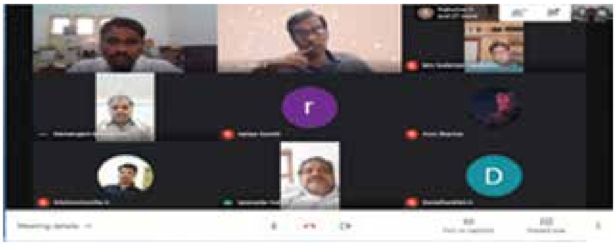
THE INSTITUTE OF COST ACCOUNTANTS OF INDIA BEAWAR CHAPTER

The chapter organized a career counseling seminar for students. CMA Rupesh Kothari (Chairman), CMA Mitesh Chopra (Secretary), CMA Jyoti Maheshwari (Treasurer), CMA Mandeep Singh (Joint Secretary), CMA Lokesh Sankhla, CMA Lekhak Agarwal, CMA Ayush Mantri, CMA Piyush Duggar, CMA Shubham Sankhla, Rakesh Kumawat (Student Member) and other members and students participated the program. The Chapter also felicitated the foundation passed students. The Institute of Cost Accountants Beawar and Kota chapter jointly conducted a webinar on Professional Avenues for CMAs and professional opportunities in Commerce on 26 March 2021. Chairman of Beawar Chapter, CMA Rupesh Kothari and CMA Aakash Agarwal, Chairman of Kota Chapter welcomed all the guests, school and college principals, faculties and participants. CMA Balwinder Singh, immediate past president and chief guest of the webinar stressed on the need for CMA'S and shed light on the various opportunities available for career growth .CMA J. K. Budhiraja, keynote speaker gave a presentation on the various courses available for commerce students, role of CMA'S job and practice opportunities for CMAs. He also gave insights into the role of CMAs in industries and institutions. Guests of honour, CMA Harkesh Tara, Chairman NIRC; Dr. R. C. Lodha, Principal Vardhaman Girls College, Beawar and Dr. Kanchan Saxena, Principal JDB Commerce Girls College also shared their views spoke briefly about various avenues available for commerce students. Program convenor CMA S.N. Mittal, Chairman PD Committee Kota Chapter spoke about the need for career counseling advised students to take up such courses which give immense opportunities for growth. The program was hosted by CMA Rupesh Kothari Chairman, Beawar Chapter. Vote of thanks was delivered by CMA Ashok Jethalia, Secretary, Kota Chapter. CMA Tapesh Mathur, CMA Mitesh Chopra, CMA RP Vyas, CMA Jyoti Maheshwari, Professors, Lecturers, Teachers and students of many schools and colleges attended the webinar. The Chapter conducted a webinar on "Woman as CMApreneur" on 3rd April 2021 on the occasion the Chief Guest, CMA Deepika Bhugra, Chairperson, Woman Committee of NIRC spoke on the need for more women CMA's and their contribution to the economy and the country. Guest of Honour, CMA Swati Chaturvedi, Chairperson, Noida Chapter of NIRC, highlighted the inherent qualities of women and said that CMA is the most suitable career for women due to their cost effective nature and managerial skills. CMA Vidhu Mittal, Chairperson Karnal-Panipat Chapter of NIRC spoke pointed out the issues being faced by Women CMApreneurs. CMA Reetika, Chairperson Jalandhar Chapter of NIRC talked about how women can be better CMAs. The Keynote Speaker was CMA Priyanka Saxena, an effective consultant to various legal and corporate firms. She has recorded her name in BRAVO WORLD RECORDS for creating more than 127 rank holders in the shortest span of 7 years. Vote of thanks was delivered by the chairman, CMA Rupesh Kothari. The program was hosted by CMA Jyoti Sarda. CMA Aditi Gaur, CMA Nikita Bhutra were the coordinators. It was a very successful webinar with CMA Jagan Mohan Rao congratulating all the lady speakers and Beawar Chapter for a great program. The chapter organized a webinar for students who to prepare for campus placement and CV writing on 4th April 2021. On the occasion Chief guest CMA Sumit Khicha, Deputy Manager (Finance), Coal India Ltd. address the participants and spoke about scope of CMA course. Guest of Honor CA Darshan Bhandari, A.O. BEL spoke pointed out the issues being faced by a person during interview. The Keynote speaker was Anil Kumar Jain. CMA lekhak Agarwal and CMA Mandeep singh shared their experience of campus. They highlighted the interview questions and how to properly answer questions. The program was coordinated and conducted by CMA Rupesh Kothari, Chairman of the chapter. An online webinar was organized under joint auspices of Beawar, Jaipur, Udaipur, Kota, Ajmer- Bhilwara, and Bikaner-Jhunjhunu Chapters of NIRC of the Institute on 17th April 2021. The topic for the discussion was to Explore the Role of CMA's and Commerce in the Covid Time in order to Provide the robustness to the Economy in different manner. According to Mr. Rupesh Kothari, Chairman Beawar Chapter, the webinar was held under the joint auspices of all the seven chapter of the Institute in Rajasthan in which the position of Chief Guest was honored by Shri Om Birla Ji (Hon'ble

Speaker of Loksabha). The role of CMAs and commerce graduates plays an important role in order to provide the robustness to the Economy of the Country, said Shri Om Birla Ji. The Special Invitees for the webinar was CMA Biswarup Basu (President-The ICAI), CMA P Raju Iyer (Vice–President,The ICAI), Prof. Rajeev Jain (VC-Rajasthan University), Prof. Neelima Singh (VC-Kota University), Prof. B.S.Rajpurohit (Former VC- Jodhpur University), CMA Balwinder Singh (Immediate Past President of The ICAI), CMA Vijendra Singh (Chairman - PDP Committee), CMA Rakesh Bhalla (Chairman-Direct Tax Committee) & CMA Harkesh Tara (Chairman-NIRC of The ICAI). Vice Chancellor of Rajasthan University told that in this last one decade the interest of students has been increased towards the commerce field as it has much wider scope than the other fields. The former vice chancellor of Jodhpur University told that covid taught us how to leave with the less sources in order to survival and The same is taught in CMA course too that how to do cost cutting and how to reduce the cost of any kind of products or services etc. Vice president of the Institute told that the value of CMA's is exists not only in the Big Corporate but in MSMEs too. In order to resolve the problems and queries of the businessmen's we are establishing the MSME Centers. In order to develop the transparent reporting system government is working day to day basis and as a professional we CMA's are responsible for the corporate Compliances, said CMA Biswarup Basu. CMA Meenu Maheshwari highlighted the various topics and career opportunities exist in the market for CMAs and Commerce graduates. CMA Rajendra Bhati (RCM-NIRC) was the Program Moderator. In last the vote of thanks was given by CMA Sudarshan Nahar, Secretary, Jaipur Chapter and special thanks were given by all the chairmen of all the seven chapters.

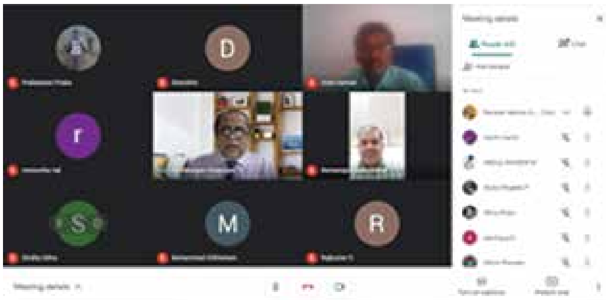
SOUTHERN INDIA REGIONAL COUNCIL

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA RANIPET VELLORE CHAPTER



The chapter organized a motivational program on ""Know Thyself" on 3rd April -2021 through the Google Meet. The speaker of the program was Sudarsan Sundaram, MSW, ML, LAWYER & PSYCHOLOGIST. Chief Guest CMA Dr.I Ashok Former chairman SIRC , Practicing Cost Accountant Madurai addressed the students , member and speaker, explained about the career opportunity & role of practicing avenues for CMAs. CMA Manoharan. R, chairman of the chapter gave introduction of the Chief Guest and speaker to the members and students. CMA Sezlian. S Secretary of the chapter presented formal vote of thanks to the speaker and participants. The chapter organized a virtual programme on 27/03/2021 on "Recent Government Initiatives for the growth of MSME Sector" Manoharan .R chairman of the chapter welcomed the member, CMA Chittaranjan Chattopadhyay, CCM, ICAI had graced the occasion as Guest of honour. CMA Manivannan.V DEPARTMENT OF INDUSTRIES AND COMMERCE GOVERNMENT OF TAMILNADU was the Guest Speaker. CMA Chittaranjan Chattopadhyay, CCM, BFSI Committee, ICAI highlighted that in the growth of MSME, Cost Accountants will play a crucial role in making India self-reliant. Manivannan. GM delivered to the participants about the recent

Initiatives for the growth of MSME Sector and briefly explained the various scheme at MSME Sector. There was an overwhelming response and also the participants had highly appreciated the programme.



THE INSTITUTE OF COST ACCOUNTANTS OF INDIA HYDERABAD CHAPTER

Maintenance of Cost Records in Health Care Sector (Hospitals)

Career Counseling at Telangana State Welfare Residential Junior College for Boys, Chengicharla & Telanagana State Welfare Residential Junior College for Girls, Chengicharla

Women's empowerment plays a crucial role in the development of Society as well in their lives. A programme was conducted on 07.03.2021 on 'Inspire & Empowerment' on the occasion of International Women's Day. Women iconic personalities like Smt. Sailaja Vissamsetti- Founder- Sahaja Foundation, Dr.G.L.K.Durga, Retd – Principal -AMS- Art & Science College for Women & Smt Shashi Kala Kalaga – VP-HR Helius Computech were invited for this programme. The Central Govt introduced the Faceless Assessment Scheme to provide transparency, efficiency in Income Tax assessments on 08.03.2021. CMA N. Shravan Kumar clearly explained the entire activity with relevant sections and examples. A webinar was conducted on the eve of Mahasiva Ratri on 11.03.2021 and invited Shri Bibekananda Mohanty, Regional Director, South East Region, MCA as a chief guest. CA Ankit Manglik – Practising Chartered Accountant, CA Kanakamba H K – Practising Chartered Accountant, CMA A.S Nageswara Rao Garu- Past Chairman – HCCA, CMA Dr. P.V.S. Jagan Mohan Rao – Past President – SAFA, CS Madhavi Latha Reddy, Practising Company Secretary, CMA P. Chandra Sekhara Reddy – Practising Cost Accountant have taken sessions on Forensic Audit, Stock Audit, IBC Quick Recap with Case Laws, Restoration of the name of the Company, Annual Filing with ROC under Company Act, 2013 and LLP Act, 2008. CMA Dr. Chandrasekhar Rajanala Past Chairman, ICAI-Hyderabad Chapter has visited Telanagana State welfare Residential Junior College for Boys, Chengicharla & Telanagana State welfare Residential Junior College for Girls, Chengicharla on 17th March, 2021. He explained about career prospects of CMA Course. The Chapter conducted a webinar on Maintenance of Cost Records in Health Care Sector (Hospitals) on 23.03.2021 through virtual mode. CMA Debaraja Sahu, Practising Cost Accountant clearly explained about Revenue stream, variety of Services, expenditure, MIS& Cost Data etc through detailed presentation. A virtual programme was organized on 24.03.2021 on 'Corporate Social Responsibility.' CS Rahul Jain, Legal Professional elaborated the topics about Amendments to CSR Legislation vide – Companies (Amendment) Act, 2019 & 2020, Companies (CSR Policy) Amendment Rules,2021. This programme was well appreciated by the participants.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA COIMBATORE CHAPTER

The chapter chairman conducted online orientation programs to the students on 23.03.21 at Sri Ramakrishna College of Arts & Science, Coimbatore and on 15.04.21 at Sri Saraswathi Thiyagaraja College, Pollachi.

WESTERN INDIA REGIONAL COUNCIL

WIRC organised Maharashtra CMA Conclave on 13th and 14th March, 2021 at Bhor Pune, Maharashtra by strictly adhering the Covid 19 protocol. All the topics by eminent speakers on - GST Audit – Introspection by CMA B.M. Sharma, Past President ICAI and CMA Ashok B Nawal, Past Chairman WIRC, Investigations through Artificial Intelligence by Mr Sushil Kumar Solanki, Principal Commissioner of Customs & Excise (Retd.) Mr. Ajit Limye, GST Intelligence (DGGI) and Presidential Award Winner and Cryptocurrency by CMA Anand Karwa, Management Consultant were in line with current digital environment improvement in all fields of business activities and personal life. CMA Harshad Deshpande, Chairman WIRC welcomed the participants and CMA Mahendra Bhombe, Chairman P.D. Committee, WIRC proposed vote of thanks. WIRC organized International Women's Day on 8th March 2021 by online mode. Ms. Sampada Mehta, Joint Commissioner of Investigation, GST Department, Mumbai was the Chief Guest for the programme. Ms. Anuradha Lashkari, Ex Bharti Axa - Deputy Vice President, Heading Global Accounts & CMA Neeta Phatarphekar, Partner, Deals (Business Restructuring, Services), Pricewaterhouse Coopers Professional Services LLP were the speakers. CMA

Poonam Shah, CMA Pradnya Chandorakar & CMA Sakshi Jain, Members Task Force for Women Empowerment coordinated the programme.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA AHMEDABAD CHAPTER

A Brain storming discussion meeting on Exposure Draft of Standard on Quality Control (ED SQC) was held on 5th February'21. The speaker of the meeting was CCM-CMA Ashwin Dalwadi. There was detailed and healthy discussion between all the participants on the subjected topic. 2nd part of the meeting was held on 1st March'21. Many members including CMA Ashish Bhavsar-RCM, Hon.Secretary-WIRC attended the meeting. Exposure draft was discussed in detail and all the members present gave their valuable inputs in this discussion. Inaugural Program of online computer of previous batch students was organized on March 5, 2021. CMA Haren Bhatt, chairman of chapter welcomed speakers, CMA A G Dalwadi-CCM, Chief Guest CMA Harshad Deshpande, Chairman, WIRC, CMA Manish Analkat, Chairman of Computer Training & Soft Skill Development Committee, members and students present. Felicitation of Chief Guest CMA Harshad Deshpande, Chairman, WIRC was with the hands of CMA Haren Bhatt, Chairman of Chapter by offering memento and bouquet. CMA A G Dalwadi-CCM gave brief about computer training and other technological activities done by HQ. CMA Harshad Deshpande, Chairman, WIRC explained his view and importance of computer training as a part of study as well as in profession. The program was well informative useful to the students. CMA Manish Analkat, chairman of Computer Training & Soft Skill Development Committee proposed vote of thanks. The Chapter organized CEP Program on Brainstorming / Discussion meeting on Guidance Note on Internal Audit of Pharmaceuticals on 16/03/2021. CMA Dakshesh Chokshi, Chairman-Professional Development committee welcomed speaker CMA Ashwin G Dalwadi and participants. CMA Ashwin Dalwadi gave detailed presentation and explained about Guidance Note on Internal Audit of Pharmaceuticals. CMA Haren Bhatt, chairman proposed vote of thanks. The chapter had organized CEP webinar on Strategic Cost Management on 28/03/2021. CMA Dakshesh Choksi, Chairman PD Committee welcomed speaker CMA P D Modh and participants. CMA P D Modh gave detailed presentation and explained on subject of webinar.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA NAVI MUMBAI CHAPTER

The chapter conducted a Webinar CEP programme on "Corporate Governance in Central PSU" on 18th April 2021 via Google Meet app. The speaker for this event was CMA Debashish Mitra G.M. Finance , Konkan Railway Corporation and was welcomed by CMA Sirish Vasant Mohite Chairman of the Chapter . CMA Vivek Bhalerao PD Chairman of the Chapter welcomed the participants and initiated the programme The participants consisted of Cost Accountants in Employment as well as in Practice and it was a very good interactive session. The presentation & the interactive workshop came to an end with the Past Chairman of the Chapter CMA L.Prakash providing the concluding remarks along with the vote of thanks.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA PIMPRI CHINCHWAD AKURDI CHAPTER

The Chapter conducted a webinar on 'PSU Banks: The Unsung Heroes of Indian Economy' on 20th March 2021 through Google Digital platform. CMA Pradeep Deshpande, Secretary of PCA Chapter has welcomed all the audience and introduced the speaker Dr. Divya Kumar Agrawal, Chief Manager (Research), State Bank Institute of Credit and Risk Management. Dr. Agrawal in his speech started with introduction of PSU Banks. He covered the topic such as , Justification of privatization given by Critics, Purpose of Nationalisation of Public Sector Bank, Ability to serve in National Calamities etc. The seminar was attended by members in practice, members from industries, professionals and students in large numbers. The program ended with vote of thanks.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA KALYAN AMBERNATH CHAPTER

On 8th March, 2021, the chapter organized a virtual programme on celebration of International Women Day. CMA Neetu S. Kapoor, Secretary of Chapter welcomed CMA M.R.Dudani , immediate past chairman of chapter, CMA Gopichand B. Shamnani, Chairman of Chapter, CMA S.G. Narasimhan and CMA Gopal U. Keswani ,Treasurer of chapter and speakers . CA Dr. Bhavna Binwani , Vice Principal, C.A. (Prof.) Reshmi Gurnani, Prof. Kajal Bhojwani faculty member of Smt. C.H.M. College of Arts Science & Commerce Ulhasnagar and other dignitaries were present in the programme. CMA Gopichand B. Shamnani Chairman informed about Golden Jubilee Celebration last year Feb 2020 and conducting online lectures for Foundation, inter and Final levels , CMA S.G. Narasimhan Vice Chairman appreciated the role of women in the corporate world and gave examples of many successful women entrepreneurs and executives ,C.A. (Prof.) Reshmi Gurnani speaker lecture on

" Women's Empowerment - Where there is a Woman There is Magic ". She explained importance of role played by women in history and modern society and CA Dr. Bhavna Binwani gave power point presentation on" A talk on successful Women's and Mompreneurs ." Many Faculties members of chapter and adjoining colleges attended the programme- including Prof. Jyoti Chand , Prof. CMA Shama Khan , Prof. Sonam Gupta , Prof. Barkha Shamnani , Dr. Riya Nathani ,Prof Manisha Gur , Prof. Neha Gyrdasani, Prof. Jiya Chawla , Prof. Savita Punjabi , and Prof. Sanjay Premchandani . More than 50 students of Foundation, Inter and Final attended and faculty members joined virtual lecture . The programme was co-coordinated by Mr.Raju P.C.Executive Secretary , Mr. Ravi Rohra Office Assistant, . Programme was anchored by Prof. Komal Bhojwani , faculty of chapter. CMA Neetu S. Kapoor, Secretary of Chapter , proposed vote of thanks . The Chapter organized Virtual 7 days Industry Oriented Training commencing on 20th March 2021 to 26th March 2021 , for final students appearing June 2021 examination .CMA Gopichand B. Shamnani, Chairman of chapter welcomed faculty and students and explained how students will be benefited by updated knowledge shared by faculties during 7 days of training . Eminent and experienced faculties of colleges and professionals were invited to deliver lectures on topics like - Impact presentation, Resume Writing & Interview Skill by Prof Pratik Gupta , Investment in Mutual Funds and Equity Market by Dr. Riya Nathani , Budget Analysis & Stepping Stone of G.S.T. by C.A. Prof. Bharat Khatri, Group Discussion and Interview skills by Prof. Nitin Pagi , Introduction to Foreign Exchange by C.A. Dr. Bhavna Binwani, Transportation & Assignment Problem, by Prof. Bharti Khiyani, Sustainability Reporting In India by Dr. Prof. Srichand Hinduja , Capital Budgeting , Project Financing & Risk Management by CA Reshmi Gurnani Students listened to faculties and raised queries which were replied by faculties to their satisfaction. Programme was co-ordinated by Mr. Raju P.C Executive Secretary and Mr. Ravi Rohra Office Assistant For improving the communication and presentation skills and to face interview after completing CMA course for appointment of Cost Trainee/Accounts Executive at private sector and public sector organizations, the chapter organized seminar online virtual lecture on March 2021 on Communication and Presentation for Intermediate students appearing June 2021 examination CMA Gpoichnad B. Shamnani Chairman of Chapter welcomed and introduced.Prof. Krishna Naidu Corporate Trainers and Motivational speakers. He explained to students the importance communication and presentation skills for students pursuing professional courses like Cost & Management Accountancy . Mr. Raju P.C. Executive Secretary of Chapter coordinated the seminar and presented vote of thanks.

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA SURAT SOUTH GUJARAT CHAPTER

The Chapter organized a Webinar on "CSR Policy 2021 & its implications on Corporates" on 23rd March. 2021 through the Google meet. The Speaker of the Program was CMA Pankaj Kannaujiya- Practicing Cost Accountant & Certified CSR Professional, Hon'ble Secretary of the Chapter. The Immediate Past Chairman of the Chapter, CMA Brijesh Mali presented a welcome address and Vice Chairman, CMA Bhanwar Lal Gurjar briefed the introduction of the Speaker to the members. The Speaker commenced the session and spoke about the Corporate Social Responsibility Policy 2021- its introduction and its recent changes. Around 50 members took the benefit of the program. CMA Keval Shah, treasurer of the Chapter presented formal vote of thanks to the speaker and participants. The Veer Narmad South Gujarat University proposed to constitute a Fee Regulation Committee to monitor & review the fees of self-finance colleges. The Chapter represented to the Vice Chancellor of the university to include our members in FRC committee. CMA Pankaj Kannaujiya (Secretary) and CMA Brijesh Mali (Immediate Past Chairman) submitted the representation to the Vice Chancellor on 22nd March 2021. By taking all necessary safety precautions & following the Government & HQ guidelines, the Chapter hosted a Press Meet for the result declared on 29th March 2021 for Intermediate and Final exam of December 2020 term held in January 2021 at the Chapter office on 31st March 2021. CMA Harshad Deshpande (Chairman-WIRC) was the Chief Guest of the program. CMA Bharat Savani, (Chairman) gave a formal welcome to the gathering and Chairman Sir along with CMA Bhanwar Lal Gurjar (Vice Chairman of the Chapter), CMA Pankaj Kannaujiya (Secretary), CMA Keval Shah (Treasurer), CMA Kishor Vaghela (managing committee member) felicitated to CMA Harshad Deshapande. Harshad Sir addressed to the students and congratulated all the passing students. CMA Mahesh Bhalala (Managing Committee Member), CMA Brijesh Mali (Immediate Past Chairman) and Intermediate and Final passed students joined the Meet. CMA Pankaj Kannaujiya (Secretary) gave formal vote of thanks.

DIRECT & INDIRECT TAX UPDATES - APRIL 2021

DIRECT TAXES

- **Notification No. 28 /2021 dated 1st April 2021**: In exercise of the powers conferred by section 44AB read with section 295 of the Incometax Act (43 of 1961), the Central Board of Direct Taxes, hereby, makes the following rules further to amend the Income-tax Rules, 1962:

  (a) in rule 6G, after sub-rule (2), the following sub-rule shall be inserted, namely:- "(3) The report of audit furnished under this rule may be revised by the person by getting revised report of audit from an accountant , duly signed and verified by such accountant, and furnish it before the end of the relevant assessment year for which the report pertains, if there is payment by such person after furnishing of report under subrule (1) and (2) which necessitates recalculation of disallowance under section 40 or section 43B."

  (b) in Appendix II, in Form 3CD (i) in PART A for clause 8A, the following clause shall be substituted, namely: - 8A Whether the assessee has opted for taxation under section 115BA/115BAA/115BAB/ 115BAC/115BAD

  (ii) in PART-B, for clause 17: the following clause shall be substituted, namely:- Where any land or building or both is transferred during the previous year for a consideration less than value adopted or assessed or assessable by any authority of a State Government referred to in section 43CAor 50C

- **Notification No. 29 /2021 dated 1st April 2021:** An Agreement between the Government of the Republic of India and the Government of the Islamic Republic of Iran for the avoidance of double taxation and prevention of fiscal evasion with respect to taxes on income was signed at New Delhi on the 17th February, 2018.

- **Notification No. 30 /2021 dated 1st April 2021:** The Central Board of Direct Taxes hereby authorizes the Director of Income Tax(Centralized Processing Centre), Bengaluru and Commissioner of Income-Tax (Exemption), Bengaluru, for the following purposes, namely:

  (i) for receiving applications for provisional registration or registration or provisional approval or approval or intimation in Form 10A under clause (i) of sub-rule (1) of rule 2C of the Rules, sub-rule (1) of rule 5CA of the Rules, clause (a) of sub-rule (1) of rule 11AA of the Rules or clause (i) of sub-rule (1) of rule 17A of the Rules

  (ii) for passing order granting provisional registration or registration or provisional approval or approval in Form 10AC under sub-rule (5) of rule 2C of the Rules, sub-rule (5) of rule 11AA of the Rules or sub-rule (5) of rule 17A of the Rules.

  (iii) for issuing Unique Registration Number (URN) to the applicants under sub-rule (5) of rule 2C of the Rules, sub-rule (5) of rule 5CA of the Rules, sub-rule (5) of rule 11AA of the Rules or sub-rule (5) of rule 17A of the Rules.

  (iv) for cancelling the approval granted in Form 10AC and Unique Registration Number (URN) under sub-rule (6) of rule 2C of the Rules, sub-rule (6) of rule 5CA of the Rules, sub-rule (6) of rule 11AA of the Rules or sub-rule (6) of rule 17A of the Rules

- **Notification No. 31 /2021 dated 5th April 2021:** In exercise of the powers conferred by sub-section (1) and sub-section (4) of section 92D and sub-section (8) of section 286 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 principal rules, in rule 10DB (a) for sub-rule (1) the following sub-rule shall be substituted, namely: "(1) The income-tax authority for the purposes of section 286 shall be the Joint Director as may be designated by the Principal Director General of Income-tax (Systems) or the Director General of Income-tax (Systems), as the case may be."; (b) in sub-rule (6), for the words "five thousand five hundred" the words "six thousand four hundred" shall be substituted.

- **Notification No. 32 /2021 dated 15th April 2021:** In exercise of the powers conferred by sub-clause (iii) of clause (c) of Explanation 1 to the clause (23FE) of section 10 read with section 295 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby makes the following rules further to amend the Income-tax Rules, 1962:

  In the Income-tax Rules, 1962 (hereinafter referred to as the principal rules), in rule 2DB

  (i) after clause (iii), the following proviso shall be inserted, namely:− "Provided that the provisions of clause (iii) shall not apply to any payment made to creditors or depositors for loan taken or borrowing for the purposes other than for making investment in India;"

  (ii) clause (iv) shall be omitted

  (iii) after clause (vi), the following Explanation shall be inserted, namely:− 'Explanation: For the purposes of this rule, "loan and borrowing" shall have the same meaning as assigned to it in sub-clause (b) of clause (ii) of Explanation 2 to clause (23FE) of section 10.

- **Notification No. 33 /2021 dated 19th April 2021:**In exercise of the powers conferred by sub-clause (vi) of clause (b) of the Explanation 1 to clause (23FE) of section 10 of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as the "Act"), the Central Government hereby specifies the sovereign wealth fund, namely, the Norfund, Government of Norway, (hereinafter referred to as "the assessee") as the specified person for the purposes of the said clause in respect of the investment made by it in India on or after the date of publication of this notification in the Official Gazette but on or before the 31st day of March, 2024.

- **Notification No. 34 /2021 dated 22nd April 2021:** In exercise of powers conferred by sub-clause (iv) of clause (c) of the Explanation 1 to clause (23FE) of section 10 of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as the "Act"), the Central Government hereby specifies the pension fund, namely, the Canada Pension Plan Investment Board, (hereinafter referred to as "the assessee") as the specified person for the purposes of the said clause in respect of the eligible investment made by it in India on or after the date of publication of this notification in the Official Gazette but on or before the 31st day of March, 2024. \

- **Notification No. 35 /2021 dated 22ndApril 2021:** In exercise of powers conferred by sub-clause (iv) of clause (c) of the Explanation 1 to clause (23FE) of section 10 of the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as the "Act"), the Central Government hereby specifies the pension fund, namely, the Canada Pension Plan Investment Board Private Holdings (4) Inc., (hereinafter referred to as "the assessee") as the specified person for the purposes of the said clause in respect of the eligible investment made by it in

India on or after the date of publication of this notification in the Official Gazette but on or before the 31st day of March, 2024.

- **Notification No. 36 /2021 dated 23rd April 2021:** In the exercise of the powers conferred by clause (b) of sub-section (2) of section 80G of the Income-tax Act, 1961 (43 of 1961), the Central Government hereby notifies "MaaUmiya Temple managed by VishvUmiya Foundation at Jaspur, Ahmedabad (PAN: AACTV3807E)" to be place of artistic importance and a place of public worship of renown throughout the state of Gujarat State for the purposes of the said section from the Financial Year 2021-2022 relevant to the Assessment Year 2022-2023.
- **Notification No. 37 /2021 dated 26th April 2021:** In exercise of the powers conferred by sub-clause (iii) of clause (c) of Explanation 1 to the clause (23FE) of section 10 read with section 295 of the Income-tax Act, 1961 (43 of 1961), the Central Board of Direct Taxes hereby makes the following rules further to amend the Income-tax Rules, 1962.

  In the Income-tax Rules, 1962 (hereinafter referred to as the principal rules), in rule 2DB

  (i) after clause (ii), the following proviso shall be inserted, namely:− "Provided that the condition in clause (ii) shall be deemed to have been satisfied with respect to assets being administered or invested, if the following conditions are satisfied; namely:

  (a) value of such assets is not more than ten per cent of the total value of the assets administered or invested by such fund

  (b) such assets are wholly owned directly or indirectly by the Government of a foreign country; and

  (c) such assets vests in the Government of such foreign country upon dissolution."

  (ii) after the proviso to clause (iii), the following proviso shall be inserted, namely:- "Provided further that the provisions of clause (iii) shall not apply to earning from the assets referred to in the proviso of clause (ii), if the said earning are credited either to the account of the Government of that foreign country or to any other account designated by such Government so that no portion of the earnings inures any benefit to any private person;"
- **Notification No. 38 /2021 dated 27th April 2021:** In exercise of the powers conferred by sub-section (1) of section 3 of the Taxation and Other Laws (Relaxation and Amendment of Certain Provisions) Act, 2020 (38 of 2020) (hereinafter referred to as the said Act), and in partial modification of the notifications of the Government of India in the Ministry of Finance, (Department of Revenue) N\:

  where the specified Act is the Income-tax Act, 1961 (43 of 1961) (hereinafter referred to as the Income-tax Act) and, — (a) the completion of any action, referred to in clause (a) of sub-section (1) of section 3 of the said Act, relates to passing of any order for assessment or reassessment under the Income-tax Act, and the time limit for completion of such action under section 153 or section 153B thereof, expires on the 30th day of April, 2021 due to its extension by the said notifications, such time limit shall further stand extended to the 30th day of June, 2021;

  (b) the completion of any action, referred to in clause (a) of sub-section (1) of section 3 of the said Act, relates to passing of an order under sub-section (13) of section 144C of the Income-tax Act or issuance of notice under section 148 as per time-limit specified in section 149 or sanction under section 151 of the Income-tax Act, and the time limit for completion of such action expires on the 30 th day of April, 2021 due to its extension by the said notifications, such time limit shall further stand extended to the 30th day of June, 2021.
- **Notification No. 39 /2021 dated 27th April 2021:** In exercise of the powers conferred by section 3 of the Direct Tax Vivad se Vishwas Act, 2020 (3 of 2020), the Central Government hereby makes the following amendments in the notification of the Government of India, Ministry of Finance, (Department of Revenue)

  In the said notification,

  (i) in clause (b), for the figures, letters and words "30th day of April, 2021", the figures, letters and words "30th day of June, 2021" shall be substituted; (ii) In clause (c), for the figures, letters and words "1st day of May, 2021", the figures, letters and words "1st day of July, 2021" shall be substituted.
- **Notification No. 40/2021 dated 30th April 2021:** In exercise of the powers conferred by sub-section (1) of section 245M 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:

  "44DA. Exercise of option under sub-section (1) of section 245M and intimation thereof

  (1) The exercise of option by an assessee to withdraw his pending application under sub-section (1) of section 245M shall be in Form No. 34BB.

  (2) Form No. 34BB shall be verified by the person who is authorised to verify the return of income of the assessee under section 140.

  (3) Form No. 34BB shall be furnished electronically in accordance with the procedures, formats and standards specified by the Principal Director-General of Income-tax (Systems) or Director-General of Income-tax (Systems), as the case may be, and thereafter signed printout of the said form shall be uploaded in the manner specified by the Principal Director-General of Income-tax (Systems) or Director-General of Income-tax (Systems), as the case may be, under sub-rule (4).

  (4) The Principal Director-General of Income-tax (Systems) or Director-General of Income-tax (Systems), as the case may be, shall specify the procedures, formats and standards for the purposes of furnishing and verification and manner of uploading of Form No. 34BB."
- **Notification No. 1 of 2021** dated **20th April 2021**: Section 285BA of the Income Tax Act, 1961 and Rule 114E requires specified reporting persons to furnish statement of financial transaction (SFT). For the purposes of prefilling the return of income, CBDT has issued Notification No. 16/2021 dated 12.03.2021 to include reporting of information relating to dividend income. The new sub rule 5A of rule 114E specifies that the information shall be furnished in such form, at such frequency, and in such manner, as may be specified by the Director General of Income Tax (Systems), with the approval of the Board. The statement of financial transactions shall be furnished on or before the 31 st May, immediately following the financial year in which the transaction is registered or recorded.
- **Notification No. 2 of 2021 dated 20th April 2021:** Section 285BA of the Income Tax Act, 1961 and Rule 114E requires specified reporting persons to furnish statement of financial transaction (SFT). Reporting entities are required to prepare

the data file in prescribed format from their internal system. The statement of financial transactions shall be furnished on or before the 31st May, immediately following the financial year in which the transaction is registered or recorded. The reporting entities are advised to provide information of interest income, reported to Income Tax Department, to the account holder (in the form of Interest Certificate either through email or portal) which will enable tax payers to reconcile information dispalyed on 26AS.

- **Notification No. 3 of 2021 dated 30th April 2021:** Section 285BA of the Income Tax Act, 1961 and Rule 114E requires specified reporting persons to furnish statement of financial transaction (SFT). For the purposes of pre-filling the return of income, CBDT has issued Notification No. 16/2021 dated 12.03.2021 to include reporting of information relating to Capital gains on transfer of listed securities or units of Mutual Funds. The new sub rule 5A of rule 114E specifies that the information shall be furnished in such form, at such frequency, and in such manner, as may be specified by the Director General of Income Tax (Systems), with the approval of the Board. The statement of financial transactions relating to Financial Year 2020-21 shall be furnished on or before the 31st May 2021. Thereafter, the statement of financial transactions relating to the quarter ending 30th June, 31st September, 31st December and 31st March shall be furnished on or before 25th of July, October, January and April respectively.
- **Notification No. 4 of 2021 dated 30th April 2021**: Section 285BA of the Income Tax Act, 1961 and Rule 114E requires specified reporting persons to furnish statement of financial transaction (SFT). The statement of financial transactions relating to Financial Year 2020-21 shall be furnished on or before the 31st May 2021. Thereafter, the statement of financial transactions relating to the quarter ending 30th June, 31st September, 31st December and 31st March shall be furnished on or before 25th of July, October, January and April respectively. The reporting entities are also required to provide information of mutual fund transactions, reported to Income Tax Department, to the account holder which will enable taxpayers to reconcile the information displayed in the Annual Information Statement (AIS) (Form 26AS)

INDIRECT TAXES

GST

- **Notification No. 07/2021 Central Tax dated 27th April 2021:** In exercise of the powers conferred by section 164 of the Central Goods and Services Tax Act, 2017 (12 of 2017), the Government, on the recommendations of the Council, hereby makes the following rules further to amend the Central Goods and Services Tax Rules, 2017.

  In the Central Goods and Services Tax Rules, 2017, in rule 26 in sub-rule (1), after the third proviso, the following proviso shall be inserted, namely:- "Provided also that a registered person registered under the provisions of the Companies Act, 2013 (18 of 2013) shall, during the period from the 27th day of April, 2021 to the 31st day of May, 2021, also be allowed to furnish the return under section 39 in FORM GSTR-3B and the details of outward supplies under section 37 in FORM GSTR-1 or using invoice furnishing facility, verified through electronic verification code (EVC)."

CUSTOMS

- **Notification No. 26/2021 – Customs dated 8th April 2021**: Seeks to amend customs notifications to make changes consequential to enactment of Finance Act, 2021.
- **Notification No. 27/2021 – Customs dated 20th April 2021:** In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962), the Central Government, on being satisfied that it is necessary in the public interest so to do, hereby exempts the goods of the description specified in column (3) of the Table below, falling within the Chapter, heading, sub–heading or tariff item of the First Schedule to the Customs Tariff Act, 1975 (51 of 1975) specified in column (2) of the said Table, when imported into India, from the whole of the duty of customs leviable thereon under the said First Schedule:

Sl No.	Chapter or heading or sub–heading or tariff item	Description of goods
1	29	Remdesivir Active Pharmaceutical Ingredients
2	29	Beta Cyclodextrin (SBEBCD) used in manufacture of Remdesivir, subject to the condition that the importer follows the procedure set out in the Customs (Import of Goods at Concessional Rate of Duty) Rules, 2017
3	30	Injection Remdesivir.

This notification shall remain in force upto and inclusive of the 31st October, 2021.

- **Notification No. 28/2021–Customs dated 24th April 2021:** Seeks to exempt customs duty and health cess on import of oxygen, oxygen related equipment and COVID-19 vaccines, up to 31st July, 2021.
- **Notification No. 29/2021-Customs dated 30th April 2021:** In exercise of the powers conferred by sub-section (1) of section 25 of the Customs Act, 1962 (52 of 1962), the Central Government, on being satisfied that it is necessary in the public interest so to do, hereby makes the following amendment in the notification of the Government of India, in the Ministry of Finance (Department of Revenue), No. 27/2021- Customs, dated the 20th April, 2021. In the said notification, in the Table, after S.No.3 and the entries relating thereto, the following S.No. and entries shall be inserted, namely:-

(1)	(2)	(3)
4	3822	Inflammatory Diagnostic (marker) kits, namely- IL6, D-Dimer, CRP(C-Reactive Protein), LDH (Lactate De-Hydrogenase), Ferritin, Pro Calcitonin (PCT) and blood gas reagents.".

EXCISE

- **Notification 08/2021-Central Excise dated 8th April 2021:** Seeks to amend central excise notifications to make changes consequential to enactment of Finance Act, 2021.

Sources: *incometax.gov.in, cbic.gov.in*

Advisory for Renewal of Certificate of Practice For 2021-22

The members of the Institute holding Certificate of Practice (CoP) having validity up to 31st March, 2021 are requested to comply with the following guidelines for renewal of their Certificate of Practice:

1. The following changes consequent to amendment of the Cost and Works Accountants Regulations, 1959 vide Notification dated 4th February, 2011 published in the Gazette of India may be noted:
   a. The validity of a Certificate of Practice (CoP) is for the period 1st April to 31st March every year unless it is cancelled under the provisions of the Cost and Works Accountants Act and Regulations, 1959 as amended.
   b. The Certificate of Practice issued shall automatically be renewed subject to submission of prescribed Form M-3 (duly filled in) and payment of renewal fee* and annual membership fee*.
   c. From the year 2011-12 onwards, letter for renewal Certificate of Practice is not being issued. However, the members concerned may download the renewal status from the Institute's website www.icmai.in.
   Link: https://eicmai.in/MMS/Login.aspx?mode=EU
2. It may please be noted that under Section 6 of the Cost and Works Accountants Act, 1959, **both the Annual Membership Fee* and Fee for Renewal of Certificate of Practice*** falls due on 1st April each year.
3. Special attention is invited to the fact that the validity of a Certificate of Practice expires on **31st March** each year unless it is renewed on or before the date of expiry in terms of the amended Regulation 10 of the Cost and Works Accountants Regulations, 1959. Hence, a member shall be required to renew his certificate of Practice within **31st March** every year.
4. **If the Certificate of Practice of a member is not renewed within 31st March, 2021, his/her status of CoP from 1st April 2021 till the date of renewal would be "Not Active"**.
5. Subject to what has been mentioned in Sl. No. 4 above, a member can get his/her Certificate of Practice for 2021-22 renewed within **30th June, 2021**. If application for renewal of Certificate of Practice is made after 30th June, 2021, the member's Certificate of Practice for 2021-22 will not be renewed but will be considered as a case of fresh issuance with effective date being the date of the application or receipt of the prescribed fee * for Certificate of Practice, whichever is later.
6. It may please be noted that mere payment of fees * alone will not be sufficient for renewal of Certificate of Practice. Application in prescribed Form M-3 is to be used for Renewal of Certificate of Practice duly filled in and signed is **mandatory**. The soft copy of prescribed Form M-3 for Renewal of Certificate of Practice can be downloaded from Institute's website www.icmai.in.

   Link: https://eicmai.in/external/PublicPages/WebsiteDisplay/PractitionersForms.aspx
7. The Institute has introduced a scheme of Continuing Education Programme (CEP) and the same is mandatory in accordance with provison to sub-regulation (1) of Regulation 10 of the Cost and Works Accountants Regulations, 1959, as amended, whereby no Certificate of Practice and renewal thereof shall be issued unless a member has undergone minimum number of hours of such training. The detailed guidelines in this connection are available on Institute's website www.icmai.in.

Link:
https://eicmai.in/external/PublicPages/WebsiteDisplay/docs/CEP_Guidelines_280520.pdf

8. For renewal and application of new CoP issued on and from 1st February, 2019, please refer to Notification **F. No. CWA/21/2019 dated 1st February, 2019 and subsequent corrigendum dated 8th March, 2019.**
Link: https://icmai.in/icmai/news/5435.php)**.** Accordingly new CoP holders on and from 1st February, 2019 are required to comply with Mandatory Capacity Building Training (MCBT) requirement for renewal of CoP for the FY 2021-22.

9. **Other relevant issues for Renewal of Certificate of Practice are as follows:**

   a. Application for renewal of Certificate of Practice upto 31st March, 2022 has to be made in prescribed Form M-3 which may be filed online or through hard Copy of form duly filled in and signed on both sides together with Renewal Certificate of Practice fee of Rs.2,000/-* and all other dues to the Institute on account of annual membership fees * and entrance fees *.

   b. The annual membership fee for Associate and Fellow members are Rs.1,000/-* and Rs.1,500/-* respectively. The entrance fee * for Associate and Fellow members is Rs. 1,000/-* each payable at a time at the time of application for admission to Associateship or advancement to Fellowship, as the case may be.

   c. The fees * may be paid online or by Demand Draft/at par cheque payable at Kolkata if remitted by post to the Headquarters of the Institute.

   d. Members should note that the **renewal of Certificate of Practice can be effected only after receipt of the prescribed fees * along with duly filled in form at the Headquarters of the Institute and on meeting the stipulated CEP credit hours**. Mere submission of the same at the Regional Councils or Chapters will not be sufficient. Members are advised to make payment directly to the Headquarters or use the online facility of submission of application and payment to avoid any delay.

All practicing members are advised to send their application for renewal of Certificate of Practice for the year 2021-22 along with other requirements as indicated above immediately so as to reach the Institute's Office at Kolkata well in advance to enable the Institute to issue the renewal of Certificate by 31st March, 2021.

Renewal of Part-time Certificate of Practice

1. For renewal of part-time Certificate of Practice, it is also essential to furnish a certificate from the employer in the following form or in a form as near thereto as possible if the practising member has undertaken any employment or there has been a change in employment:

   "Shri/Smt ………………………………………………….. is employed as designation)…………………….. and (name of Organisation)…………………. …………………he/she is permitted, notwithstanding anything contained in the terms of his/her employment, to engage himself/herself in the practice of profession of Cost Accountancy in his/her spare time in addition to his/her regular salaried employment with us.

   Signature of Employers with seal of Organisation"

2. It may be noted that members holding Part-time Certificate of Practice (CoP) are not eligible to undertake statutory assignments like Cost Audit, Central Excise Audit, etc.

**GST is applicable against payment*

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)

TIME TABLE & PROGRAMME– JUNE 2021

FOUNDATION COURSE EXAMINATION
(Multiple Choice Questions)

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)
Friday, 23rd July, 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)

Examination Fees

Foundation Course Examination	**Inland Candidate**	**₹1200/-**
	Overseas Candidate	**US $ 60**

1. Application Forms for Foundation Examination has to be filled up through online and fees will be accepted through online mode (including Payfee Module of IDBI Bank).
2. STUDENTS FROM OVERSEAS HAVE TO APPLY OFFLINE AND SEND DD ALONGWITH THE FORM.
3. (a) Students can login to the website www.icmai.in and apply online through payment gateway by using Credit/Debit card or Net banking.
   (b) Students can also pay their requisite fee through pay-fee module of IDBI Bank.
4. **Last date for receipt of Examination Application Forms is 20th May, 2021.**
5. **The Foundation Examination will be conducted in M.C.Q Mode.**
6. **The mode of examination will be announced shortly.**
7. **Each paper will carry 100 marks 50 Multiple Choice Questions (Each Question will carry 2 Marks). Each session will be a total of 100 Multiple Choice Questions of 200 marks.**
8. **Candidates/Students are requested to provide updated and in use phone number and email id.**
9. **A Candidate/student who is completing all conditions for appearing the examination as per Regulation will only be allowed to appear for the examination.**
10. **Examination Centres: Adipur-Kachchh (Gujarat), Agartala, Agra, Ahmedabad, Akurdi, Allahabad, Asansol, Aurangabad, Bangalore, Baroda, Berhampur (Ganjam), Bhilai, Bhilwara, Bhopal, Bewar City(Rajasthan), Bhubaneswar, Bilaspur, Bikaner (Rajasthan), Bokaro, Calicut, Chandigarh, Chennai, Coimbatore, Cuttack, Dehradun, Delhi, Dhanbad, Duliajan (Assam), Durgapur, Ernakulam, Erode, Faridabad, Ghaziabad, Guntur, Gurgaon, Guwahati, Haridwar, Hazaribagh, Howrah, Hyderabad, Indore, Jaipur, Jabalpur, Jalandhar, Jammu, Jamshedpur, Jodhpur, Kalyan, Kannur, Kanpur, Kolhapur, Kolkata, Kollam, Kota, Kottakkal (Malappuram), Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Naihati, Nasik, Nellore, Neyveli, Noida, Palakkad, Panaji (Goa), Patiala, Patna, Pondicherry, Port Blair, Pune, Raipur, Rajahmundry, Ranchi, Rourkela, Salem, Sambalpur, Shillong, Shimla, Siliguri, Solapur, Srinagar, Surat, Thrissur, Tiruchirapalli, Tirunelveli, Tirupati, Trivandrum, Udaipur, Vapi, Vashi, Vellore, Vijayawada, Vindhyanagar, Waltair and Overseas Centres at Bahrain, Dubai and Muscat.**
11. **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 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)

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 (Time: 10.00 A.M. to 1.00 P.M.)		FINAL (Time: 2.00 P.M. to 5.00 P.M.)	
	(Group – I)	(Group – II)	(Group – III)	(Group – IV)
Monday, 26th July, 2021	Financial Accounting **(P-05)**	-------------------	Corporate Laws & Compliance **(P-13)**	-------------------
Tuesday, 27th July, 2021	-------------------	Operations Management & Strategic Management **(P-09)**	-------------------	Corporate Financial Reporting **(P-17)**
Wednesday, 28th July, 2021	Laws & Ethics **(P-06)**	-------------------	Strategic Financial Management **(P-14)**	-------------------
Thursday, 29th July, 2021	-------------------	Cost & Management Accounting and Financial Management **(P-10)**	-------------------	Indirect Tax Laws & Practice **(P-18)**
Friday, 30th July, 2021	Direct Taxation **(P-07)**	-------------------	Strategic Cost Management – Decision Making **(P-15)**	-------------------
Saturday, 31st July, 2021	-------------------	Indirect Taxation **(P-11)**	-------------------	Cost & Management Audit **(P-19)**
Sunday, 1st August, 2021	Cost Accounting **(P-08)**	-------------------	Direct Tax Laws and International Taxation **(P-16)**	-------------------
Monday, 2nd August, 2021	-------------------	Company Accounts & Audit **(P-12)**	-------------------	Strategic Performance Management and Business Valuation **(P-20)**

EXAMINATION FEES

Group (s)		Final Examination	Intermediate Examination
One Group	(Inland Centres) (Overseas Centres)	₹1400/- US $ 100	₹1200/- US $ 90
Two Groups	(Inland Centres) (Overseas Centres)	₹2800/- US $ 100	₹2400/- US $ 90

1. **Application Forms for Intermediate and Final Examination has to be filled up through online only and fees will be accepted through online mode only (including Payfee Module of IDBI Bank). No Offline form and DD payment will be accepted for domestic candidate.**
2. **STUDENTS OPTING FOR OVERSEAS CENTRES HAVE TO APPLY OFFLINE AND SEND DD ALONGWITH THE FORM.**
3. **(a) Students can login to the website www.icmai.in and apply online through payment gateway by using Credit/Debit card or Net banking.**
   (b) Students can also pay their requisite fee through pay-fee module of IDBI Bank.
4. **Students who have chosen for OPT-OUT for the Intermediate and Final Examinations, December, 2020 session will remain same for the Intermediate and Final Examinations to be held in June, 2021. Students need not to apply again.**
5. **Last date for receipt of Examination Application Forms is 20th May, 2021.**
6. **The mode of examination will be announced shortly.**
7. **Candidates/Students are requested to provide updated and in use phone number and email id.**
8. **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**
9. **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**
10. **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**
11. **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.phpand https://icmai.in/upload/Students/Circulars/Clarification-June-2021.pdf**
12. **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**
13. **Examination Centres: Adipur-Kachchh (Gujarat), Agartala, Agra, Ahmedabad, Akurdi, Allahabad, Asansol, Aurangabad, Bangalore, Baroda, Berhampur (Ganjam), Bhilai, Bhilwara, Bhopal, Bewar City(Rajasthan), Bhubaneswar, Bilaspur, Bikaner (Rajasthan), Bokaro, Calicut, Chandigarh, Chennai, Coimbatore, Cuttack, Dehradun, Delhi, Dhanbad, Duliajan (Assam), Durgapur, Ernakulam, Erode, Faridabad, Ghaziabad, Guntur, Gurgaon, Guwahati, Haridwar, Hazaribagh, Howrah, Hyderabad, Indore, Jaipur, Jabalpur, Jalandhar, Jammu, Jamshedpur, Jodhpur, Kalyan, Kannur, Kanpur, Kolhapur, Kolkata, Kollam, Kota, Kottakkal (Malappuram), Kottayam, Lucknow, Ludhiana, Madurai, Mangalore, Mumbai, Mysore, Nagpur, Naihati, Nasik, Nellore, Neyveli, Noida, Palakkad, Panaji (Goa), Patiala, Patna, Pondicherry, Port Blair, Pune, Raipur, Rajahmundry, Ranchi, Rourkela, Salem, Sambalpur, Shillong, Shimla, Siliguri, Solapur, Srinagar, Surat, Thrissur, Tiruchirapalli, Tirunelveli, Tirupati, Trivandrum, Udaipur, Vapi, Vashi, Vellore, Vijayawada, Vindhyanagar, Waltair and Overseas Centres at Bahrain, Dubai and Muscat.**
14. **A candidate who is fulfilling all conditions specified for appearing in examination will only be allowed to appear for examination.**
15. **Probable date of publication of result: To be announced in due course.**

*** For any examination related query, please contact exam.helpdesk@icmai.in**

CMA Kaushik Banerjee
Secretary

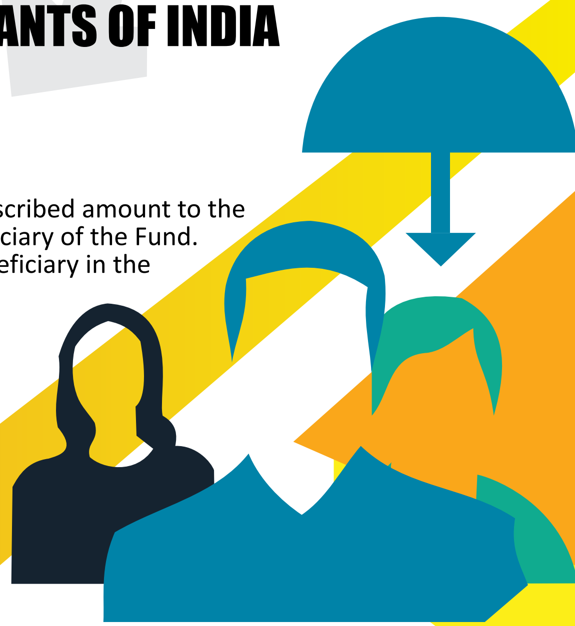
Benevolent Fund

FOR THE MEMBERS OF THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

CMA Bhawan, 12 Sudder Street, Kolkata - 700016

OBJECTIVE

The Fund has been created to provide outright grant of prescribed amount to the member in the event of critical illness of a member / beneficiary of the Fund. It is also for outright grant of prescribed amount to the beneficiary in the event of death of a member of the Fund.



LIFE MEMBERSHIP FEE

Onetime payment of ₹7500/-

BENEFITS

- ***Income Tax Benefit under section 80G***
- ***Outright grant not exceeding ₹3,00,000.00/- in each case to the beneficiary in the event of death of the member.***
- ***Outright grant not exceeding ₹1,50,000.00/- in each case to the member and beneficiary for critical illness duly certified by the doctor under whom the treatment is continuing.***

Coverage of Critical Illness, leading to hospitalization, may cover the following -

- Cancer / Malignancy
- Coronary Artery Bypass Graft Surgery
- Stroke / Cerebral Attack / Paralysis
- Heart Valve Replacement Surgery
- Myocardial Infarction (heart attack) / Heart Failure / Pace Maker Surgery / Kidney Dialysis(CKD)/ Renal Failure
- Major Organ Transplant
- Hemophilia
- Thalassaemia
- Neurological Diseases
- Flue Blown acquired Immune Deficiency Syndrome
- Multiple sclerosis
- Tuberculosis / Bronchopneumonia/ Pleurisy
- Permanent disablement
- Any other disease that may be considered by the Board of Trustees to be critical in nature.

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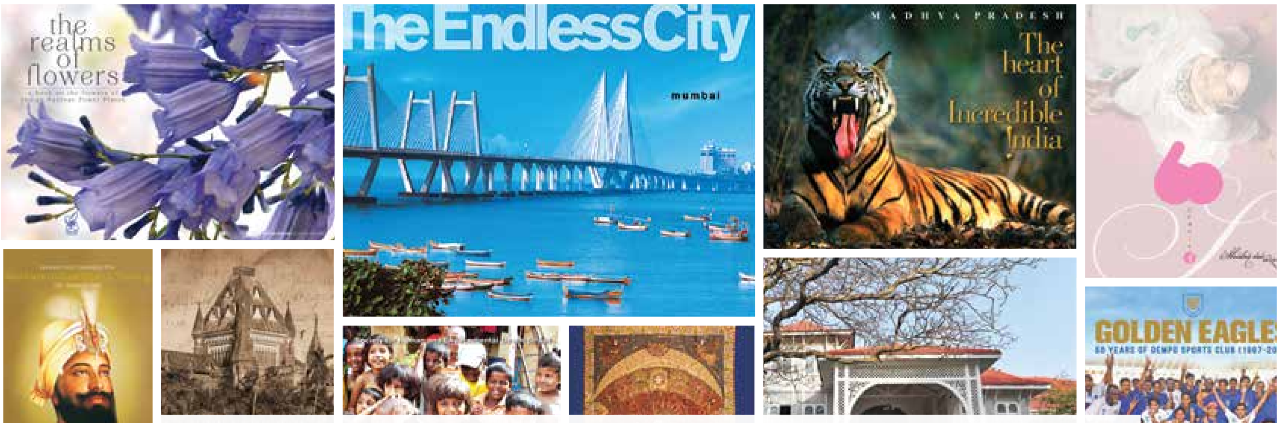

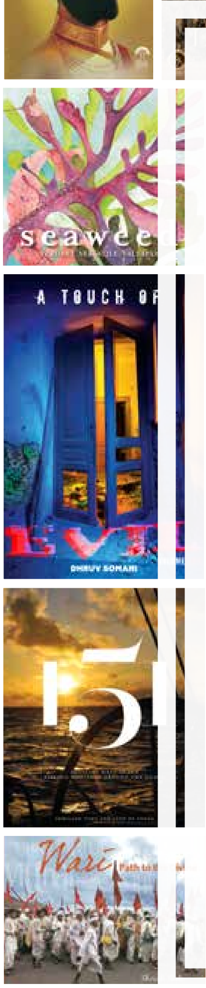

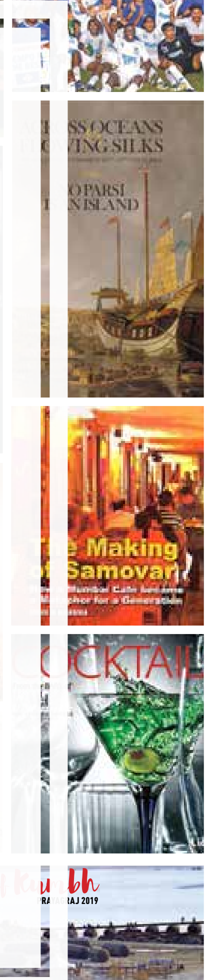

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