THE JOURNAL FOR CMAs

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INTEGRATED TRANSPORT ECOSYSTEM: THE WAY AHEAD

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

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

MISSION STATEMENT

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

VISION STATEMENT

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

IDEALS THE INSTITUTE STANDS FOR

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

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

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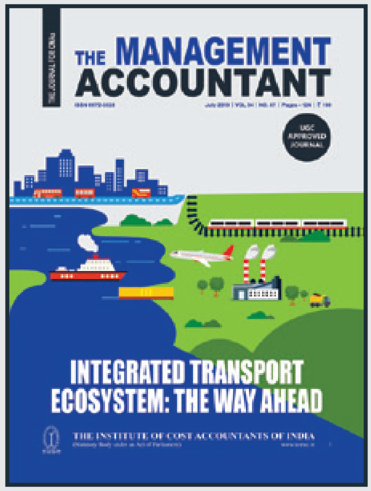

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We have expanded our Readership from 1 to 94 Countries

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EDITORIAL

Greetings!!!

The transportation sector is currently at a juncture characterized by both great opportunities and challenges. The introduction of new technologies, new players and changing customer behaviours provide the sector with the potential to transform as a system, to develop new business models and for different modes to provide more concrete responses to the challenge of environmental sustainability and carbon emissions reductions in the sector.

The transportation sector has responded to these challenges by actively seeking and implementing solutions to reduce its impact on the environment. Ambitious carbon emissions reduction targets have been defined both by entire industrial sectors (such as the air and marine transport sectors) and individually by leading companies in the sector.

Integrated transport system reckons to multi-modal transport system where different modes of transport are efficiently connected with each other. This implies that there should be smooth movement of freight over several modes of transport like road, railways, ports, coastal shipping, inland water and civil aviation. Logistic cost in India is 13-14 percent of GDP while it is 7-8 percent of GDP in developed economies. Integration of transport systems is vital for reduction of logistic costs and strengthening economic growth. The efficiency of logistic system will also help in proper and timely distribution of agricultural produce to the market. Integrated or multi modal transport system enables to achieve efficient, faster, safer, cost effective and pollution free mobility and will create employment opportunities in local and rural areas.

National Electric Mobility Mission 2020 (NEMM) encourages the industry to produce efficient electric and hybrid vehicles in India. The automobile industry can focus on green technologies like hybrid vehicles, low emission and fuel efficient engines and frugal engineering for clean transport. Participation of different sectors will boost the integration of transport system and clean transport. FDI inflows can be directed towards India with multi-modal and integrated transport as it will lead to ease of doing business. Mobility and integration of transport is a key element of 'ease of living'.

The Sustainable Transportation Ecosystem report examines the question of how to develop a more holistic approach towards environmental issues facing the global transportation sector. It outlines a framework of how the transportation sector as a whole can achieve environmentally sustainable growth and reach its carbon emissions reduction targets and how different stakeholders in the system can take action to support this goal. Sustainable transportation is the capacity to support the mobility needs of a society in a manner that is the least damageable to the environment and does not impair the mobility needs of future generations.

Rapid urbanization has made sustainable urban transport an urgent development priority. Indian cities are expected to grow from 377 million in 2011 to 600 million by 2030. With cities poised to invest in infrastructure that will last for decades, huge opportunities lie to develop sustainable transport systems. This can avoid a lock-in of emission and energy intensive development patterns.

For the sustainable environment and maintenance of environmental balance, for the cleaner & greener mobility and pollution free atmosphere, almost all the global countries including India have been trying in every possible way to take on Electric Vehicle system so that green, clean and eco-friendly environment can be regained.

Transport plays a vital role in Tourism sector and it is a key determinant of destination development. Development of transportation, transportation vehicles, infrastructure and using new technologies also speed up the development of tourism.

Integrated transport ecosystem is a concept made in tune with sustainable development mechanism. So the CMAs have to act dynamically in these circumstances. Cost and benefit analysis is the key weapon in the hands of CMAs and they will be able to take powerful decisions having far reaching effects in near future.

This issue presents a good number of articles on the cover story theme *'Integrated Transport Ecosystem: the Way Ahead'* by distinguished experts and authors. We look forward to constructive feedback from our readers on the articles and overall development of the journal. Please send your mails at *editor@icmai.in*. We thank all the contributors to this important issue and hope our readers enjoy the articles.

THE JOURNAL FOR CMAs

THE MANAGEMENT ACCOUNTANT

-: PAPERS INVITED :-

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

Theme: August 2019
GST Audit: Emerging Scope for CMAs

Subtopics
- GST Audit - An Overview
- GST Audit and Annual Return - Issues, Approach and Challenges
- GSTR 9C: Enhancement of scope for Professionals like CMAs
- Input Tax Credit Utilization Rules
- Special Audit in GST: Role of CMAs
- GST Audit and its impact on Ease of Doing Business

Theme: September 2019
Cost Governance

Subtopics
- Concept of Cost Governance
- Cost Governance in Education Sector
- Cost Governance in Society & Economy
- Cost Governance in Industry & Corporate
- Cost Synergy and Cost Consciousness
- Embrace Technology for effective Cost Governance
- Sustainability of Business and Economy through Cost Consciousness
- Role of CMAs

Theme: October 2019
Financial Technology (Fintech) – Changing landscape in Financial Services

Subtopics
- FinTech and its Role in the Future of Financial Services
- Fintech: Capturing the Benefits, Avoiding the Risks
- Advent of Financial technology: a boon for investors
- Impact of Financial Technology on Accounting & Auditing
- Potential of Financial Technology to unleash a new era of competition, innovation and job creation
- Application of Fintech on Small and medium sized enterprises (SMEs)
- Embracing of Fintech: widening scope for professionals like CMAs

Theme: November 2019
Real Estate Investment and Capital Markets

Subtopics
- Real Estate Asset Pricing
- Risk factors of real estate returns
- Volatility measures for real estate portfolios
- Integration of stocks, bonds and real estate
- Debt Capital Markets: Risks & Opportunities
- Institutional Investors: Creating Value & Managing Risk in a Mature Market
- Real estate investment trusts (REITS) v/s Private Equity market
- Innovation and Disruption: Investing in the Future of the Real Estate Industry
- Global Real Estate Capital Markets
- Role of CMAs

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

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

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PRESIDENT'S COMMUNIQUÉ

"All our dreams can come true if we have the courage to pursue them."

-- Walt Disney

CMA AMIT ANAND APTE
President
The Institute of Cost Accountants of India

My Dear Professional Colleagues,

Namaskaar!!!

I am happy that I had the opportunity to serve as the 61st President of the Institute of Cost Accountants of India, for the council year 2018-19. Although, this is my last communication as President of this great Institution, I will remain dedicated to the welfare of the profession and keep contributing to its cause as a proactive member. I stand committed to my vision for the Institute. I will continue to support the future Councils of the Institute in all the endeavors. I feel overwhelmed by the love and affection showered on me and the confidence reposed in me by all of you. We tried to the best of our ability to address various issues and also promote and enhance the brand CMA. Let me also thank all my Council colleagues for their support in my tenure as Council Member and then President of this Great Institute.

I would like to offer my best wishes with the expectations that the newly elected Central Council Members and Regional Council Members for the term 2019-23 will surpass the benchmark set by the existing Council and enable the profession to reach greater heights. Through various initiatives and measures, we have to keep on making collective sincere efforts to take our alma mater's status to new heights and achieve Vision 2023 of the Institute. I have a vision for our Institute over the next 4 years of the new council.

Vision 2023 of the Institute

Formulating Effective Standards for Cost Accounting & Auditing in line with Global Benchmarks and establish our Institute as a Global Leader in the Process of Cost Benchmarking

- Formulating effective standards for cost accounting in line with Global Benchmarks;
- Upgrading Indian Cost Accounting Standards to suit Indian industry environment with a Global approach;
- Simplify and implement the Cost Auditing standards so as to ensure highest quality professional services of our members;
- Implement the peer review system for all our practitioners.

Promoting Cost Consciousness, Cost Synergy and Cost Governance in the Society and Economy

- Creating Cost Awareness and Cost Consciousness in the Economy and Society at large;

- Propagating the concepts of "Cost Governance" and "Cost Synergy" widely.
- Aiming for acclamations in a Global order through: Cost Awareness and Cost Consciousness, Cost Governance, Cost Competency and Cost Leadership.

Becoming a Leading Professional Body in the Country producing High Quality Cost and Management Accounting Professionals

- To become a leading professional body and preferred Institution in the country producing high quality Cost and Management Accounting Professionals;
- Ensure that CMAs enable to create value to the organization instead of just measuring it;
- Develop, upbring, uplift and position Indian CMAs across the globe.
- Attract the best talent to the CMA course;
- Offer multiple courses under the advanced studies directorate;
- Offer high end courses in collaboration with premium Institutions of the country.

Promoting Research Study on Important Social Sectors in the Country particularly in the area of Environmental Management Accounting and Developing Global Standards thereof

- Socio-economic development through Capacity Building, Resource Mapping, Project Risk Mapping, Social Cost-Benefit Analysis (SCBA), Conversion of SHG to SME, Agriculture development and health care on affordable cost etc.;
- Develop Cost Accounting standard for Health Industry, agricultural sector as well as Education sector keeping India's Social fabric at the helm;
- Develop Cost accounting standard for Subsidy schemes;
- Formulation of an efficient environmental cost strategy.

Developing Road Map for Result-Oriented CSR Activities in the Country

- To contribute on CSR for Socio-economic Development of the organizations and the country;
- Forge tie ups with Institutions for implementation of CSR projects;
- Ensure Cost of CSR projects is in line with benefits it brings to the society.

Identifying, Propagating and Expanding the Role being played by the Institute in Promoting the Entrepreneurship and Skill Development Movement in India

- To groom and train budding Entrepreneurs through vibrant Entrepreneurship and Skill Development Program mainly in the MSME Sector throughout India;
- To build network with prospective students through selected Colleges, Universities, and Institutions in India;
- To Build successful entrepreneurship and skill development models through cost competitive strategies;
- To contribute significantly to the overall skill development target of the Nation, reduce skill gap in the target sectors and help employment generation.

Promoting International Federation of Management Accountants as a Global Leader in Management Accounting and Entering Strategic Collaboration with Various International Accounting Bodies to explore Global Opportunities for Cost and Management Accountants

- To add global dimension to the Institute's functions in the regulation and administration of the profession of Accounting and Cost & Management Accounting and exploring global opportunities for the profession;

- To be the global leader in promoting the values; ideals and professional image of Cost & Management Accountancy profession by unifying the diverse views of the participating countries in the discipline of Management Accountancy;
- Forge new tie ups with global Institutions for recognition of Indian CMAs globally.

Vision for the Institute and its members

- Engage a full time independent secretary for the Institute.
- Conduct a detailed department wise manpower assessment and employ the best talent at various levels of the Institute hierarchy.
- Implement a robust ERP and student life cycle tracking system in the Institute Head Office to begin with and then engage all regions and Chapters for its use over a period of time.
- Ensure that the name of the Institute is aligned with the global standard "Institute of Cost & Management Accountants".
- Ensure that Cost Accountants are at par with any other professional in the DTC to be introduced including the definition of "Accountant".
- Enhance the industries covered under the Cost Audit regime.
- Include Cost Accountants as authorized professionals to certify cost statements under RERA.
- Ensure that Cost Accountants play an important role in timely identifying stressed assets of banks by inclusion as authorized professionals for conducting concurrent audits and stock audits of all banks.

To apprise all the members of the activities / initiatives undertaken by the Departments/ Directorates of the Institute during last month, I now present a brief summary of the activities.

GST Day Celebration

It is said, "Celebrate what you've accomplished but raise the bar a little higher each time you succeed". Similarly, working on the path of GST, we successfully completed two years of implementation of **"Goods and Services Tax"** in our country on the 1st of July, 2019. We have learnt and re-learnt lot many things in these two years and we are striving to achieve perfection.

The Institute, like the earlier years, observed 1st July, as "GST Day". The Regional Councils and Chapters of the Institute organized various befitting programs / seminars / discussion sessions on GST on 1st July 2019 to commemorate the "GST Day".

Srinagar Extension Centre

I am happy to share that the Srinagar Extension Centre of the Institute in collaboration with the Gandhi Memorial College, Srinagar organized a seminar on "Role of CMAs in Banking Industry" on 10th June 2019 in Srinagar. During the program, our Institute also officially launched its CMA support center in Srinagar. The response received by the center has been stupendous. We are hopeful that we will get over 600 admissions in the first batch. I thank CMA Bashir Masoodi who is wholeheartedly contributing for this center.

Insolvency Professional Agency (IPA) of Institute of Cost Accountants of India

The Insolvency Professional Agency of the Institute organized various Round table Interactions, workshops and webinars during the month on:

- 5th batch of Preparatory Education Classes from 1st June 2019
- Roundtable on "Fraudulent Transactions" on 3rd June, 2019
- Knowledge forum on IBC in association with NeSL at Hyderabad from 14th June 2019
- 20th Batch of Pre- registration Educational Course jointly conducted by 3 IPA at Delhi from 17th June 2019- 23rd June 2019.

I am pleased to share that I attended the Insolvency

Law Committee Meeting called by Ministry of Corporate Affairs to discuss the important comments/suggestions regarding CIRP / Fresh Start process on 12th June 2019 at New Delhi.

Professional Development and CPD Committee

I am pleased to inform you that on the Institute's representation, Punjab National Bank has included Cost Accountants for Stock Audit and Rail Tel Corporation of India Ltd. issued Corrigendum and included Cost Accountants Firm for appointment as Tax Consultant.

Representation with Government, PSUs, Banks and Other Organizations:

PD Directorate is sending representation letters to various organizations for inclusion of cost accountants for providing professional services. Odisha State Health & Family Welfare Society, Andhra Pradesh Industrial Infrastructure Corporation Limited, Airport Authority of India, Jharkhand Bijli Vitran Nigam Limited, The Tamil Nadu State Health Society , Central Electronics Limited, Chhattisgarh State Power Transmission Co. Ltd., Chhattisgarh State Power Generation Company Limited (CSPGCL), Sail-Rites Bengal Wagon Industry Private Limited, Rail Tel Corporation of India Ltd., Hutti Gold Mines Co. Ltd., Gujarat State Police Housing Corporation Ltd., National Textile Corporation Limited, Mahatma Jyotiba Phule Rohilkhand University, Bareilly, Punjab National Bank etc., have included Cost Accountants in their Tenders/EOIs during the month of June 2019.

The Institute was associated with PHD Chamber of Commerce & Industry for conducting Conclave on "Conclave on GST Annual Return (GSTR-9) & GST Audit Report (GSTR-9C)-Outward Supply & Input Tax Credit-Understanding Issues & Compliances Clause by Clause" on 7th June 2019 respectively.

Regional Councils and Chapters organized 25 programs, seminars and discussions on the topics of professional relevance and importance for the members such as, Annual Return (GSTR-9) and Audit (GSTR-9C), Role of CMAs in FEMA, Workshop on Input Tax Credit, Ind AS 115 & 116, and so on. I hope our members have been immensely benefited with these programmes.

Taxation Committee

The Tax Research Department is striving to impart knowledge to our stake holders and hence conducting various knowledge enhancement courses successfully. A Crash Course on GST has been successfully completed in ASC Degree College, Bangalore with Exam being conducted on 7th June 2019. Various courses like Certificate Course on GST 4th Batch is running PAN India basis, Advanced Certificate Course on GST is also running successfully, Certificate Course on TDS is being conducted all over India and Certificate Course on Direct Tax Return Filling is also continuing. The department has submitted representation to the Government on E-Invoicing System under GST -19th June 2019. A Pre Budget Suggestion on Union Budget for 2019-20 was also submitted. The Taxation Portal is also being updated from time to time with Direct and Indirect Tax Notifications. The 41st and 42nd Tax Bulletin has also been released.

I wish prosperity and happiness to members, students and their families and pray for the success in all of their endeavors. I once again wish the newly elected council of the Institute for the year 2019-23 all the success. I am sure that they will not only carry on with the various initiatives taken by the current council but also have their own fresh thoughts and ideas to take our Institute to new heights.

Thanking you!!!

Warm Regards,

CMA Amit A. Apte
1st July 2019

ENSURING SAFETY AND SECURITY OF WOMEN WHILE AVAILING TRANSPORT

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Research Scholar, IGNOU
New Delhi

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KIET, Group of Institutions
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Abstract

India's railway is the largest network of transportation in India. But we have a largest network of a man also who are responsible for doing the things like gruesome incidents such as rape, gender violence also includes visual, verbal and physical abuse such as groping, molestation, staring, stalking, stealing and cat calling; making transportation unsecured and unsafe place for women to travel. This paper is an attempt to highlight how we can ensure transportation safety and security for the women in India.

According to French *sauf* Safety is the state of being safe. The condition of being protected from harm or other non-desirable outcomes. Safety can also refer to the control of recognized hazards in order to achieve an acceptable level of risk.

In order to carry out each and everything in a proper manner, safety must be ensured. Human being life today is completely dependent on transport. With the change in time, so many things have been changed, and the use of transportation is also changed, and it is very widely used on a large scale. Thing that we need to understand here is transportation safe. The objective of the article is to know the steps taken by the government for the safety and security in transportation for women.

As per the report of the transport research wing under Ministry of Road Transport & Highways, Government of India, on Road Accidents in India 2016, more people died on roads accidents in India in 2016, as compared to the number of deaths in 2015. The data has further revealed that the states of Uttar Pradesh and Tamil Nadu have accounted for maximum number of deaths this year.

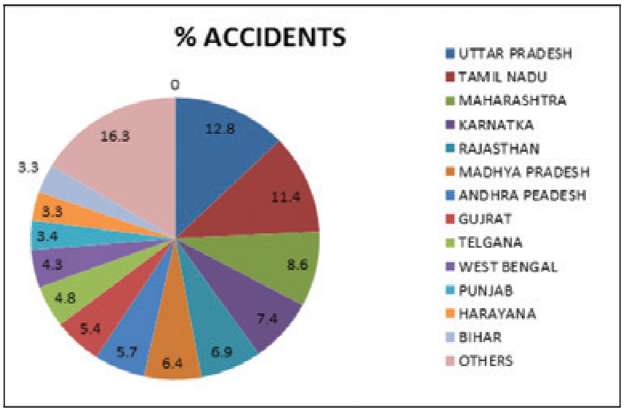
As per the report of survey conducted by the Thomson Reuters Foundation, India has ranked as the world's most dangerous country for women. They cover the 6 parameters to ensure the safety for the women. One of the important parameter that was covered was human trafficking, and we all know that transportation is widely used when we are doing human trafficking.

Condition of Road Accidents in India

As per the data mentioned in the report, the country recorded at least 4,80,652 accidents in 2016, leading to 1,50,785 deaths. The number also explained that at least 413 people died everyday in 1,317 road accidents. Further evaluating down the statistics, the data reveals that at least 17 deaths occurred in road accidents in 55 accidents every hour in the given time period. Comparing the new recordings with data from previous year shows that in spite of recording fewer accidents in 2016, more deaths have occurred this year as in 2015. In 2015, 1,46,133 people had died in 5,01,423 accidents. The accident severity, which is measured as the number of persons killed per 100 accidents, was recorded at 29.1 in 2015 which is lower than 31.4 in 2016 as shown in the below table.

TITTLE	2015	2016	Change
ACCIDENTS	50143	48062	-4.1
KILLED	14613	15075	3.2
INJURY	50029	49464	-1.1
SEVERITY	29.1	31.4	7.9
ACCIDENTS SEVERITY IS THE NO OF PERSON KILLED PER 100 ACCIDENTS.			

Pie chart showing the number of accidents in 2016



Cities with the Most Dangerous Roads

CITIES	NO OF ACCIDENTS
Chennai	7486
Delhi	7375
Bengalaru	5323
Indore	4104
Kolkata	4104
Mumbai	3379

Source: Road Accidents in India Published By Transport Wing Ministry (Data Taken From Indian Ministry, 2017)

Horrendous incident happen with women in the transportation?

- As per the Times of India dated June 6, 2018, 7:59 IST, Woman allegedly forced to strip, pose for pics by Ola driver.
- As per the Times of India dated Apr 27, 2018, Woman raped by Ola driver's friend in Greater Noida.
- As many as 315 cases of "insult to modesty of women" (under section 509 of the Indian Penal Code) in public transport were reported in 2015, an increase of 160% over the preceding year, according to government data
- Over two years to 2015, 436 such cases, which included sexual harassment in taxis–were registered nationwide. Up to 57% of these cases were registered in the southern state of Telangana, followed by Maharashtra (28), Andhra Pradesh (24), Delhi (19) and Assam (14).
- An Uber driver was arrested on October 21, 2017, for allegedly conducting wrong action while carrying a 25-year-old woman in Hyderabad; the incident occurred on October 19, 2017, *Hindustan Times* reported on October 21, 2017.
- On December 16, 2012, an incident happen which has awaken the whole nation ,A 23-year-old paramedical

student–Nirbhaya–was raped by a group of men in a moving bus in Delhi.

Reasons to Ensure Transport Safety and Security for Women.

✷ *To make women independent*

Today a woman is so talented, capable and they are far better than as compared to men. But their talent does not get right direction because many of the women and their family members think that it's not safe for women to travel. So to make women dependent we should ensure safety and security for the women.

✷ *To boost the Indian economy*

As it said by The Economist, the contribution of men and women both are equal to contribute towards the Indian economy, and to take it into the Boom period. For this we need to allow women to go to office, workplaces and roam around safely. This can be done only then we can provide them complete safety and security in transportation.

✷ *To make world a better place for women*

This situation is not good for any country where it is not safe for women to travel from one place to another. Time has come to take initiative and take necessary step that ensures safety and security for the women in transportation, so that we can make world a better place for the women.

✷ *To initiate women empowerment*

Women empowerment can be initiated if we ensure women safety and security in transportation. Because they will open the channel for the women. Where they will have no **barriers** that can stop them on the way to success.

✷ *To protect cultural value*

India is a place where so many religions are followed. The thing which we need to understand here is that are morals and principles say that, according to our culture, that we should make ensure and make all our efforts to ensure safety and security for the women.

Various Challenges and steps taken for women safety in transportation in India

✷ *Unauthorized drivers*

Many newspapers, reports have shown that in India, all the drivers who were providing the transportation facilities are not authorized by the government body. One era is such that there is a huge demand for public transportation which resulted in, that number of cab drivers have increased, but on the other hand it is also found that these drivers are unauthorized, they are not register under particular body and they were found guilty, as they were responsible for doing harassment, sexual assault against a women. In India many women are working, so they are dependent on using this cab facilities, we must ensure all these driver should have a good character, and they should drop women safely to their places. It is very important to make these driver authorized and ensure that driver is reliable or not.

✓ *step taken*

To overcome this problem, government and cab providing facilities have taken the various responsibilities to ensure that a driver with whom a woman is travelling is safe. It is mandatory for all the drivers to get register themselves with the government body and their respective companies with all their proper documents and with their proper verification. And a woman is also allowed to share whole information about driver to their relative friends and family. And on the basis of their experience with the driver, she can also rate that driver, if found guilty a serious action by the government and the company is taken, like fine, jail, dismissal etc.

✷ *Unwanted touch in public transport*

As we all know the population of India is very large. Normal means of transport like bus, Railways and local transportation means are used to travel from one place to another place by women. Since these means of transport are overcrowded, making women uncomfortable to travel, as that particular place is overcrowded with number of men who have wrong intentions. As per the report of NDTV Monday February 12, 2018. A man in Delhi public transport was caught red handed for doing inappropriate action, resulting in one more case of sexual harassment. Moreover the physical condition of a woman makes it more challenging travel in overcrowded transport.

✓ *step taken*

Government of India has taken a special initiative to design app called Himmat, which were designed with the purpose to ensure the safety and security for the women. Moreover in Metro, buses , Railway a separate coaches have been designed for the women, where there are no man, and they can travel safely. Special helpline number especially for women has been launched by various state ensure your safety. Moreover the reservation seat has been made for the women in all types of transport. And these rules should be strictly followed by the private and the government transport service provider, otherwise serious action is taken.

✷ ***laws breaker***

There are many rules that are made to ensure the safety and security for women in transportation, but negative side of the story is that, these rules and regulations are not properly followed and implemented, which in result in no stoppage on the sexual harassment against women in the transportation. The reason that exits behind this is, lack of knowledge about law, lack of implementation of law, no initiative by common public, taking undue advantages of government fund and no monitoring of these laws and regulations. The harassment case in transportation will keep on increasing a lesson until these laws are strictly followed and implemented. government has made it very clear to make some seats reserved for the women but it is hardly followed in the transportation.

✓***step taken***

Government has started monitoring that laws are strictly followed or not. Random inspections are done that reserve seat are used by women or used by someone else. Special monitoring through CCTV cameras is also done which ensures that laws are followed or not.

Other Steps taken to ensure safety and security for women in transportation

✷ By the government of India it was made mandatory, to provide cab facilities to women for night shift. moreover, an individual should escort a female employee safely to their home.

✷ Live GPS system concept was introduced to you safely ensure the safety and security of women in the transportation. It was made mandatory by the government of India to track live location of the driver and to share it with authorize cab service provider and the respective family member.

✷ CCTV camera was installed at a crowded place like Railways, busy roads, airports to monitor the safety and security for women in transportation.

✷ Initiatives like she taxi, special helpline numbers, Himmat app has been introduced to ensure safety and security for women.

✷ Government of India made it mandatory for all the metros to reserve first coach for women in India.

Steps taken by the Karnataka Government to ensure the safety and security in the transportation for the working women:

The Karnataka Government has amended the Karnataka Shops and Establishments Act, 1961, where IT establishments have been allowed to employ women to work in night shifts subject to fulfilling the following conditions:

✷ Transport facilities from the residence to workplace and back must be provided free of cost and with adequate security.

✷ Employment of women employees must be on rotation basis.

✷ Adequate number of security guards must be posted during night shift.

✷ Sufficient rest rooms, latrines and washing facilities with adequate water supply must be provided separately for women employees to secure privacy.

✷ The employer must obtain bio-data of each driver conduct a pre-employment screening of all drivers employed on their own. With regard to the drivers employed though sourcing, the employer must be satisfied that the screening has been carried out by the service provider.

✷ The schedule of route of the pickup and drop must be decided by the supervisory office of the company only.

✷ Women must be provided escorts from drops starting at 6:45 pm to pickups till 6 am.

✷ The employer must have a control room/travel desk for monitoring the vehicle movements.

Conclusion

Efforts of the all members of the country must be integrated to ensure transport safety and security for women. And its overall impact will be scene when India will be women driven country not a men driven country. MA

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A STUDY ON TRANSPORTATION ASSETS HELD BY COMPANIES IN MANUFACTURING SECTOR IN INDIA

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Abstract

Transportation is an important for every business irrespective of size of the business. It plays vital role whether it is Small scale or Medium scale or Large scale and it is very important specially for manufacturing sector where transportation lead significant responsibility. In India, from the pre independence to post independence, it was great involvement for the movement of goods from one place to another place and transportation is the only way to distribute necessities from the surplus areas to scary places. Many companies are holding its own transportation and others are giving out sourcing. Here considered major industries in Manufacturing sector of India like Chemical products, Consumer Goods, Food and agro based, Metal and Metal products etc.., there is crucial involvement of transportation in every industry which are included in Manufacturing sector. Significant growth from the period starting with 2009 to 2018 and these growth is not enough to boost the transportation. Government as well as private sector have to concentrate more to develop the transportation of each industry in Manufacturing sector.

Transportation is a key infrastructure for the growth of business operations. In Indian sub-continent, many of the goods are produced in one place and consumed in other place. So, some states are manufacturing states and some states are consuming states. Even within a state, few districts are developed and some are under developed with manufacturing facilities. This type of gap raises the importance of transportation. Business entities may have three different options to transport their goods viz., to take the transportation vehicles on lease, to outsource the transportation of goods or owning the transportation vehicles etc., Large size business organization may find it beneficial to own the transportation vehicles. On the other hand, other business organizations outsource the transportation or take the transportation vehicles on lease.

Owing the transportation assets will have multi-fold advantages to the firms in terms having flexibility and convenience in transportation. It also enables the firms to show depreciation on transportation assets as a business expenditure. At the same time, it will create a burden in the form of fixed operating costs leading to increase in operating leverage of the firm. Acquiring transportation assets comes under capital budgeting decisions and well planning and analysis is required before taking a decision. The firms should take into account factors like the opportunity cost of the funds required to acquire the transportation assets; future demand for the goods in the industry; scope for expanding the market share in geographical terms.

In pre-GST regime, firms used to engage in maintaining warehousing in various states, because stock transfer is exempt from tax. However, in post-GST regime, stock transfer also attracts GST. Hence, hitherto, there will be no any tax advantage in stock transfer. Besides, firms have to incur maintenance costs to run the outlets or warehousing in other states. Hence, firms prefer to sell the goods directly from the home state. It accelerates the demand for inter-state transportation.

Objectives of the Study

To Study the historical trends in the growth of Transportation Infrastructure, Equipment and Vehicles.

To compare the growth rates of various industries in the manufacturing sector.

Methodology of the Study

Data

The data required for the study has been collected from CMIE Prowess database.

Period of the Study

The period of the present study is ten years from the year 2009 to 2018.

Sample Selection

The present study considers all the companies in Prowess Database which are belonging to manufacturing Sector. The Manufacturing sector is further sub-divided into various industries based on the classification followed by Centre for Monitoring Indian Economy (CMIE).

Results of the Analysis

The following section discusses the results of the data analysis.

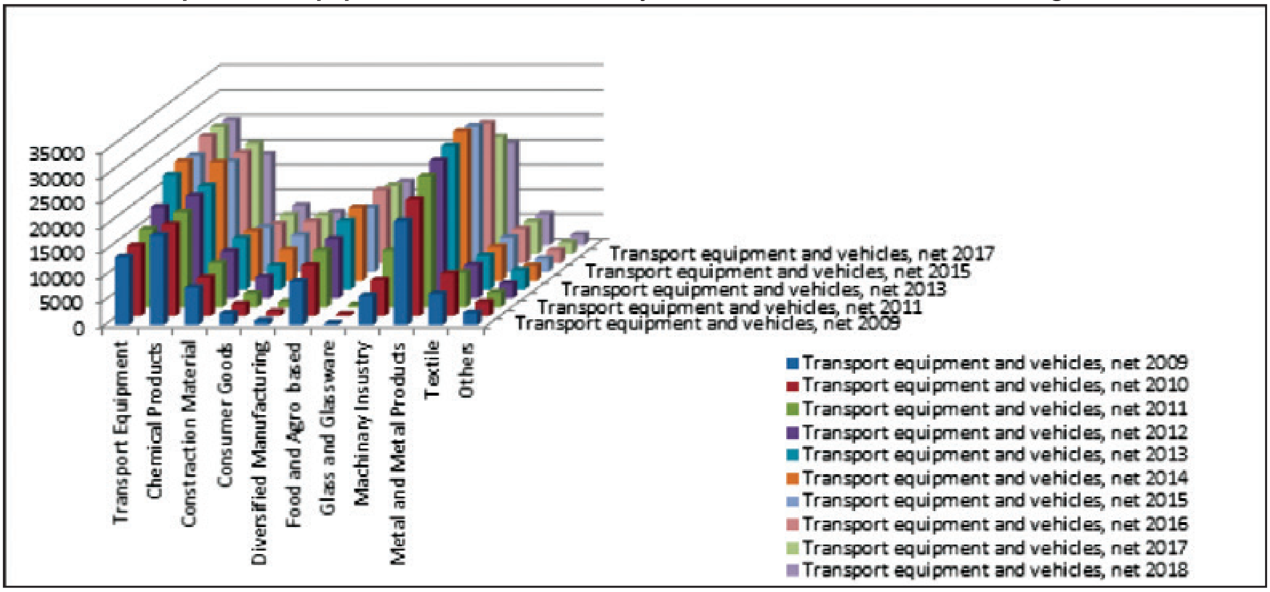
Table 1: Transportation Equipment and Vehicles Held by Various Industries in Manufacturing Sector(in Rupees Millions)

Industry	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Transport Equipment	13686.7	14171.6	15645.5	18361.9	22993.4	23962.4	23395.6	25423.6	25608.3	25084
Chemical Products	18090.2	18447.9	19103.6	20586	20769.5	23782.2	22191.8	22124.6	22218.2	18278.7
Construction Material	7537.7	7726.7	8908.1	9508.8	10311.5	9944.6	8966.2	7796.4	7821.7	7945.2
Consumer Goods	2359.4	2423.5	2838.9	4321.4	4832.4	6213.8	7367.1	8339.7	7767.2	6624
Diversified Manufacturing	936.1	917.8	1046.9	1169.6	1216.5	1262.2	1161.7	1188.4	1196.2	912.5
Food and Agro based	8795.2	10228.6	11405.6	11933.7	13794.8	14686	12912.7	14573.5	13693	12747.5
Glass and Glassware	328.8	356.4	451.4	527.5	499.9	485.2	425.4	375.5	296.2	242.5

Industry	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Machinery Industry	5863.2	7293.6	11400.5	10398.5	10318.3	11108.2	10733.4	10658.3	11348.2	6796.9
Metal and Metal Products	20919.8	23437.3	26328.8	27714.9	28898.2	30028.8	29304	28047.5	23504.9	20488
Textile	6265.7	8579.6	6949.3	6771.2	6831.1	6818.7	6910	6788.6	6514.9	6168.7
Others	2494.1	2781	3000.6	3035.4	3891.4	3038.6	2639.3	2565	2288	2094.4

Source: Secondary Data Collected from CMIE Prowess Database

Chart 1: Transportation Equipment and Vehicles Held by Various Industries in Manufacturing Sector



Source: Secondary Data Collected from CMIE Prowess Database

The table 1 and chart 1 show the trends in transportation equipment and vehicles held by different industries in manufacturing sector in India for the last ten years from 2009 to 2018. The descriptive analysis reveals that comparatively larger value of transportation assets are held by the industries which are producing transportation equipment like Cranes, Industrial trucks and vehicles, chemical products like salt, chlorine, caustic soda, soda ash and acids and metal and metal products like Metals, Metal Sheets and Metal plates industry. The data also reveals that the value of the transportation assets has been increasing year after year in case of the industry which is producing transportation equipment. The value of the assets was Rs. 13,686 Millions in the year 2009 and it was Rs.25,084 Millions in the year 2018 representing 6.25% of Compounded Annual Growth Rate (CAGR). In case of the industry producing chemical and chemical products, the linear growth in the transportation asset value was reported till the year 2018 and thereafter marginal fluctuations in the value of the transportation assets was witnessed. The CAGR for this industry is 0.10. In case of metal and metal products industry linear growth in the transportation assets value was recorded till the year 2018 and the CAGR for the overall period is -0.21. In the same way, the value of assets relates to glass and glassware assets was Rs. 329 Millions in the year 2009 and it was Rs. 243 Millions in the year 2018 whereas the CAGR representing -3.00.

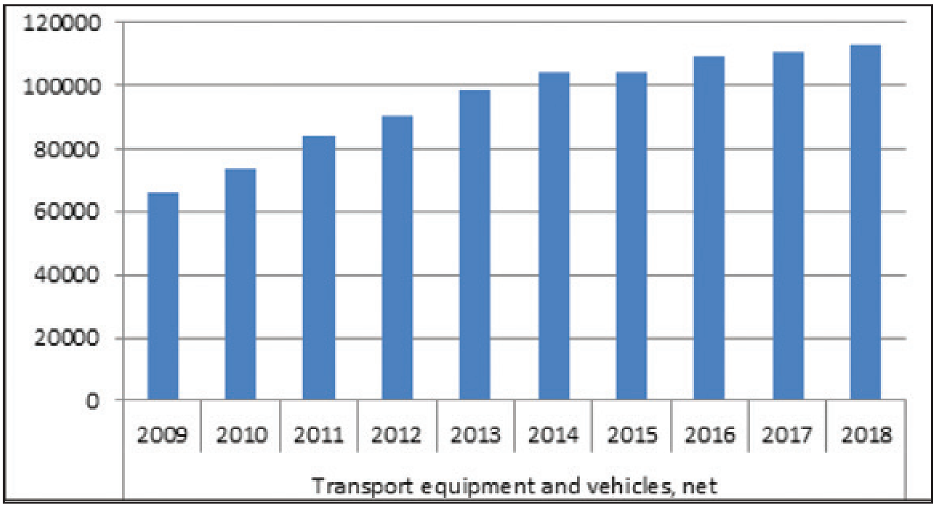
Similarly, assets relate to Consumer Goods Industry were Rs. 2,359 Millions in the year 2009 and that was Rs. 6624 Millions in the year 2018 and CAGR representing the 10.87. For Consumer goods industry, though, the value of transportation assets was marginal in the initial three years, thereafter, considerable increase in the transportation assets can be observed. On the other hand, industries manufacturing construction material and textile industry have not experienced considerable growth in the value of transportation assets.

Table 2: Transportation Equipment and Vehicles Held by all the Companies in Manufacturing Sector(in Rupees Millions)

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Manufacturing	65832.4	73289.1	84091.3	90491.1	98787.5	104331.1	104045.7	109119.2	110566.6	113170.6

Source: Secondary Data Collected from CMIE Prowess Database

Chart 2: Transportation Equipment and Vehicles Held by all the Companies in Manufacturing Sector (in Rupees Millions)



Source: Secondary Data Collected from CMIE Prowess Database

The table 2 and Chart 2 show the trends in the value of transportation equipment and vehicles held by overall manufacturing sector in India for the last ten years from 2009 to 2018. The value of the assets was Rs.65,832 Millions in the year 2009 and it was Rs.113,171 Millions in the year 2018 representing 5.57 % of Compounded Annual Growth Rate (CAGR). There was steady growth in the value of transportation assets held by the overall manufacturing sector in India.

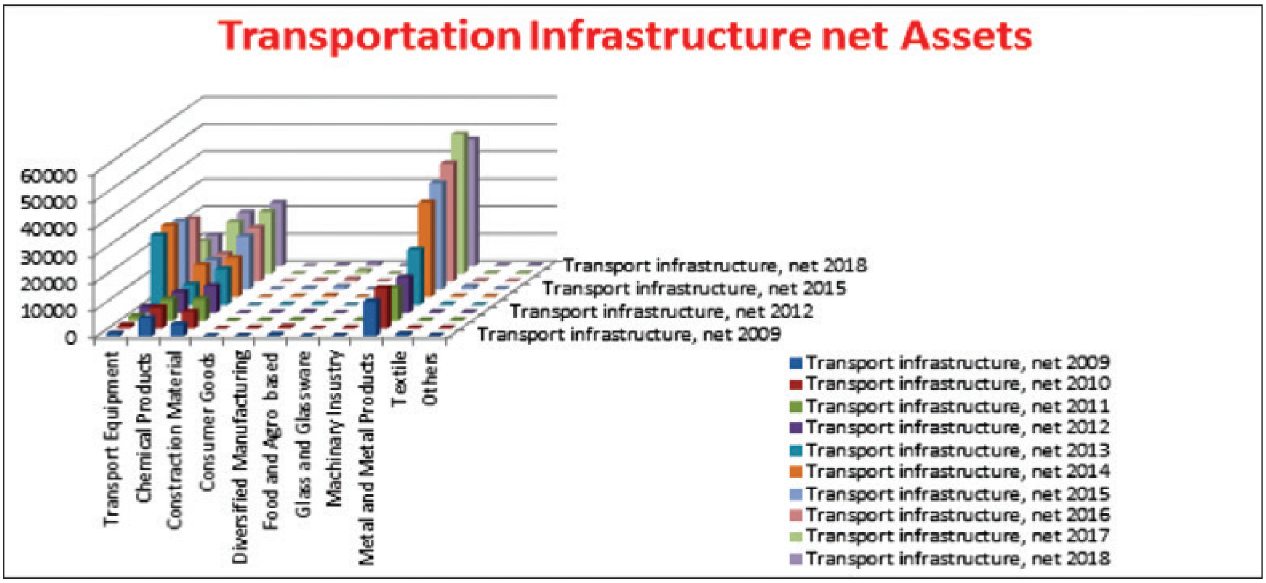
Table 3: Transportation Infrastructure Held by Various Industries in Manufacturing Sector (in Rupees Millions)

Industry	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Transport Equipment	1079.1	1179	1671.8	2208.3	25511.3	26204.3	25056.5	23004.9	11902.7	11273.2
Chemical Products	6761.3	7686.3	7792.5	7565	7381.2	11799	10807.9	10069.2	18984.3	19619.1
Construction Material	4398.5	6144.1	7846.3	9764.4	13118	14378.3	19445.3	19774.9	22761.5	23225.6
Consumer Goods	12.6	16	12.6	9.5	20.5	26.4	46.1	41.8	31.1	0.4
Diversified Manufacturing	255.9	270.8	228	235.8	248.1	254.6	431.4	336	325.5	305.8
Food and Agro based	641.6	584.3	399.6	411.2	471.6	572.3	1020.2	898.5	1058.1	999.2
Glass and Glassware	0.9	0.3	0	2.6	15.2	2.4	1.7	0.7	32.3	0

Industry	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Machinery Industry	179.4	230	240.3	337.4	385.5	546.3	575.6	517.6	505.3	441.2
Metal and Metal Products	12783.7	14729.1	11939.3	12930.7	20264	34701.7	38940	43283.9	51008.6	46361.7
Textile	862.5	250.9	203.2	292.5	345.5	335	1067.2	308	274.1	288.1
Others	263.6	277.4	248.6	193.4	122.5	187.4	147.7	93.2	301.3	309.2

Source: Secondary Data Collected from CMIE Prowess Database

Chart 3: Transportation Infrastructure Held by Various Industries in Manufacturing Sector (in Rupees Millions)



Source: Secondary Data Collected from CMIE Prowess Database

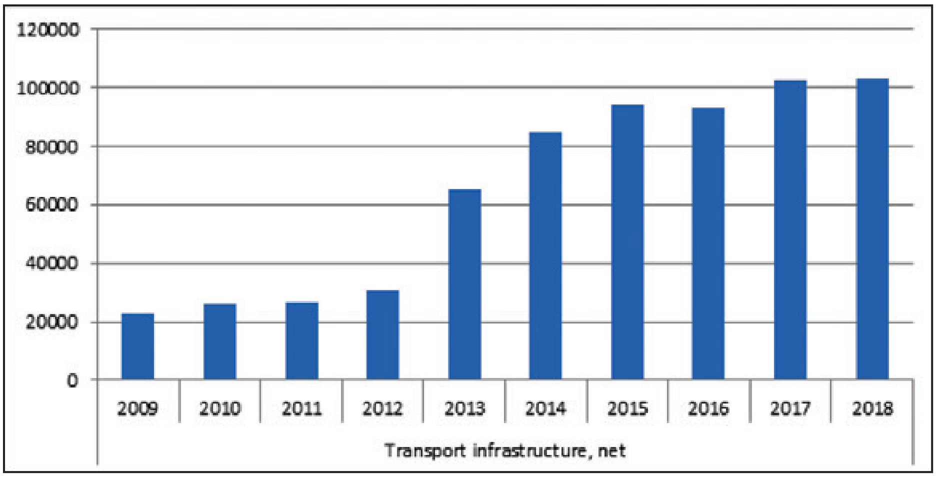
The table 3 and Chart 3 show the trends in transportation Infrastructure held by different industries in manufacturing sector in India for the last ten years from 2009 to 2018. Transportation infrastructure includes railway sidings, bridges, jetties, pipelines, tube well / bore well, transmission lines, cable network, water works drainage sewerage, reservoirs, dams, barrage, etc. The descriptive analysis reveals that comparatively larger value of transportation infrastructure like private roads etc., was held by the industries which were producing Metal and Metal Products like Metal, Metal sheets and Metal plates, chemical products like salt, chlorine, caustic soda, soda ash and acids and Construction Material like Sand, Rocks, Clay and wood industry. The data also reveals that the value of the transportation infrastructure has been increasing year after year in case of the industry which is producing Metal and Metal Products The value of the assets was Rs. 12,784 Millions in the year 2009 and it was Rs. 46,361 Millions in the year 2018 representing 13.75 % of Compounded Annual Growth Rate (CAGR). In case of the industry producing chemical and chemical products, the linear growth in the transportation asset value was reported till the year 2018 and thereafter, marginal fluctuations in the value of the transportation assets was witnessed. The CAGR for this industry is 11.24. In case of Chemical products industry, linear growth in the transportation assets value was recorded till the year 2018 and the CAGR for the overall period is 11.24.

Table 4: Transportation Infrastructure Held by All Companies in Manufacturing Sector(in Rupees Millions)

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Transportation Infrastructure	23000.1	26114.3	26823.2	30412.3	65176.6	84627	94153.8	93193.5	102632.9	103150.8

Source: Secondary Data Collected from CMIE Prowess Database

Table 4: Transportation Infrastructure Held by All Companies in Manufacturing Sector (in Rupees Millions)



Source: Secondary Data Collected from CMIE Prowess Database

The table 4 and Chart 4 show the trends in transportation Infrastructure held by overall manufacturing sector in India for the last ten years from 2009 to 2018. The value of the assets was Rs.23,000 Millions in the year 2009 and it was Rs.103,151 Millions in the year 2018 representing 16.19 % of Compounded Annual Growth Rate (CAGR). Till the year 2012, there was marginal growth in the transportation infrastructure. However, the year 2013, witnessed remarkable growth in the transportation infrastructure held by the manufacturing sector.

Findings and Conclusions

The analysis of the data reveals that value of transportations vehicles and equipments held by the manufacturing sector in India has reported a CAGR of 5.57% while the growth in transportation infrastructure is CAGR of 16.19. It indicates that the companies in India are showing more interest in constructing their own transportation infrastructure in the form of railway sidings, pipelines, transmission lines, cable network etc., Consumer goods industry has reported comparatively more CAGR at 10.87% in transportation equipment and vehicle; while the industries producing transportation equipment and construction material have reported comparatively more growth in transportation infrastructure at a CAGR of 26.44% and 18.10% respectively. The Sectors which are considered for the study play significant role in economic development of the nation. Transportation assets are occupying small percentage of total assets of the companies in any sectors, but they play key role in survival and smooth running of regular course of business, specially manufacturing firms. Significant growth in the transportation assets can be witnessed in case of many of the industries during the study period. It is concluded that majority of industries have been allocating the fund to develop the service of the transportation assets which are essential for manufacturing sector in India. Still some of the sectors need to focus on transportation assets like Food and Agro based industry, as the inputs required for those industries come from the rural India. Government has to provide some facilities to boost rural transportation. With this, various products can be easily moved from rural to urban and urban to rural. MA

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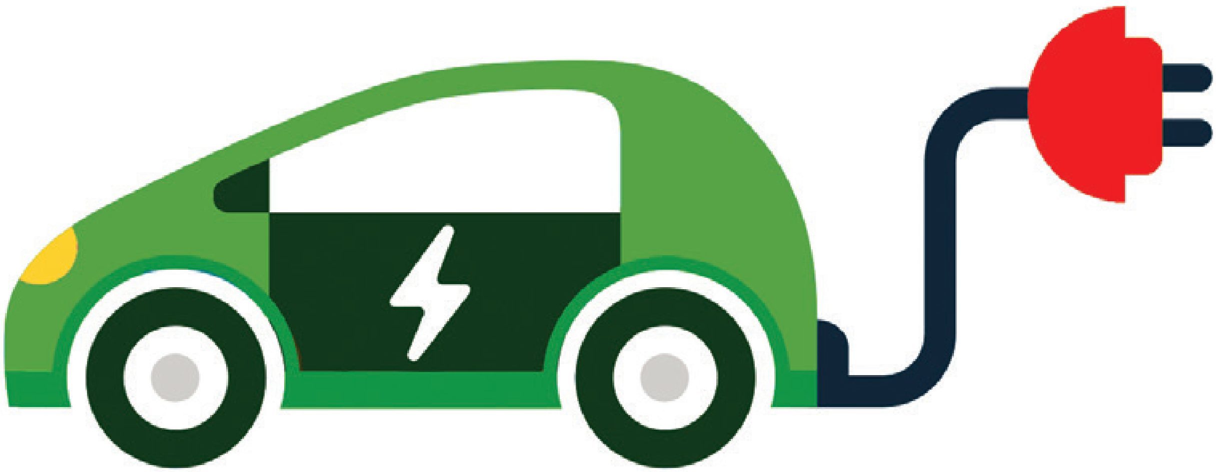
ELECTRIC VEHICLE –
A KEY FOR CLEAN AND GREEN MOBILITY IN INDIA



Abstract

In order to get rid of various environmental, social and economic costs because of heavy traffic congestion, air and noise pollution and accident created by customary fuel based mobility, it has become a burning question to say good bye to so called orthodox transport system. At the same time, for the sustainable environment and maintenance of environmental balance and along with, for the cleaner & greener mobility and pollution--- free atmosphere, almost all the global countries have been trying in every possible way to take on Electric Vehicle system. India also cannot but follow the same mobility system so that green, clean and eco-friendly environment can be regained. In this article, efforts have been made to show how the Indian mobility transformation is helpful for the creation of greener and clean eco-friendly environment. Various initiatives taken by The Government of India for encouraging the creation of future mobility in India, the 7Cs i.e. common, connected, convenient, congestion-free, charged, clean, cutting edge and benefits, challenges & opportunities of future mobility in India have also been brought up in this article.

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Modification or Transformation is regarded as the soul of whole universe since the very wake of civilization. With the invocation of those changes the face of the globe has been taking new ambiences. Application of sophisticated and delicate technology has brought about a new era in all spheres of life and environment-in the fields of agronomy, industry, conveyance, education and above all in life style.Unquestionably,all these achievements have been cutting new vistas to make life speedier and happier, but at the same time they have been posing a decisive threat to life and civilization and that is various types of pollutions liable to diminish ecological balance as well as to create hazards for eco-friendly atmosphere. Above all, it must have to be considered that in past ages i.e. from stone age to iron age all sorts of human efforts are being made and intricate technologies are being introduced as well as implemented just to make the world a happier place to live in so that life can maintain its existence in a cleaner and greener atmosphere. That is why exercise of newer technologies is being taken to get rid of those menaces for the survival of environment and Artificial Intelligence (AI) is one of those endeavours.

Unfortunately, misuse and misorientation of exquisite technologies have been causing environmental contaminations leading human life to at stake which has already been surveyed by The WHO that near about 7 million people are on the verge of death per year due to air pollution as a result of conventional vehicles. But such a dismal situation can never be the nemesis of the environment and life in the long run. That is why human talents, energy and life are being laid down to enjoy the green smile of nature and to inhale pure air. Such sacrifices have given birth to different types of cutting-edge technologies and enabled us to step into the era of Artificial Intelligence or so called Robotic Age.

Worldwide automobile industry is on the verge of impediment, digitization,developing automation and the latest business paradigms have given rise an epoch making change in different industries along with automobile industry. Indian automobile enterprise has begun to come into contact with the impacts of such global interruption. Transport is considered to be a major contributor to green house gas emissions and health specialists have been emphasizing its effect on air quality for a long time. It is expected that transport activity will go on to swell making it pivotal to enter a clean, green, sustainable and health-friendly mobility system.

Background

First of all it is to be mentioned that dream of green mobility is not a new one. Since the first decade of 21st century different initiatives are being taken to turn the dream into reality. In 2006, **National Urban Transport Policy** which was revised in 2014 was organised to bring about a revolutionary change in urban mobility framework, applicable to the geographical, social and economic requirements of Indian cities and citizens. In addition **Atal Mission for Rejuvenation and Urban Transformation** was set in motion for ability construction, refinement execution, and provisions of water, sway the systems of sewers and seepage management, drainage system to clear rain water caused by storm, urban transport and development of green spaces and parks.

Automotive Mission Plan 2016-2026, Prepared by the Ministry of Heavy Industries and Public Enterprise in consultation with ACMA and SIAM was introduced for its proper implementation so that automotive industry may emerge as a vehicle for growth of Indian economy. Then appeared **Smart Cities Mission**. It was planned 48000 crore. would be spent over the next five years. In the first phase of such challenge concluded in February 2016 names of top, smart 20 cities were finalised for investment. The mission Make in India boosted up the domestic vehicle sales of Indian Automobile industry to grow at a great extent.

The most important output of latest device to get rid of contaminated air is electric vehicles. Because of rapid growth of population &wealth, transport demand also has been growing day by day causing different health hazards, air pollution &congestion. So conversion to Electric Vehicle from conventional fuelled Vehicles is being given the top priority for pollution free environment leading to clean air, better health and living standards.

Initiatives

Along with, for free mobilization of the citizens, congestionlevel must have to be kept down. With reference to green & clean environment let us throw a gush of searching light on India. Because of mushrooming of population & affluence India has been suffering from the most two pressing problems~-lack of green environment & creating air pollution resulting in health menaces especially respiratory troubles and the problem of congestion giving rise to different impediments for free mobility. In order to cope with the problems ,the Government Of India has been leaving no plan untried like modification of fuelled vehicles to electric transportation, execution of Electric Vehicle policy on commercial vehicles, installation of electric chargers every 25 km on the road,upgradation of Electric Vehicle comprising e-trains,e-buses,e-cars & e-bikes.Besides,notification for retro-fitment of hybrid electric system, registration mark with green background for battery operated vehicles, motivation for consumption of e-two-wheelers of up to 4.0 KWmotor, allowance of licence to age group of 16-18 years to operate gearless e-scooters, will boost up green and clean environment programme. Inaddition, lithium-ion battery technology, developed by Indian Space Research Organisation for the conversion of technology has brought about a radical change in this context.

Considering the ElectricVehicle (EV) programme a beneficial one for green & clean environment, several State Governmentshave come forward in collaboration with reputedelectric bus manufactures to replace their public transport to Electric Vehicle so that outpouring of carbon monoxide from prevailing Public transport vehicles can be checked. Ashok Leyland, Tata Motors, JBM Auto, Goldstone Infratech are among those manufacturers to stand by different State Governments in order to make the cities like Lucknow, Delhi, Hyderabad etc. clean and green.

Initiation of FAME Phase-I with effect from April 1, 2015 has been allowing impetus to all electric & hybrid vehicles comprising public transport, registered under the scheme. In the second phase of FAME it has been planned to make road tax, registrationfee, parking charges for different categories of electric & strong hybrid vehicles free. Along with these, demandincentives, a network of charging stations, pilot projects for original proposals, technology, technology platform for e-mobility and its administration will be rotated out.

The most notable achievement in this respect goes to the Indian Railways for its modification of a diesel locomotive into an electric one. So far the objectives of future mobility are concerned, common public transportation and new digital business models, connected mobility for the integration of geographies including models of transport and internet – based connected sharing economy, convenient mobility for safe, affordable and accessible for all section of the society, congestion free mobility and lower levels of stress for commuters as well as growth of economic efficiency, charged mobility and to drive investments for smart charging to Electric Vehicle manufacturing instead of battery technology, clean mobility to fight against climatic change for clean energy and better living standard, mobility as a cutting-edge with immense opportunity for innovation and growth have been treated as the basic aims of future mobility.

In order to reach all the targetssuccessfully, related measures like Connect Bharat, Optimization of travel footprint, promotion of seamless, co-operative transport and approval of green modes and technologies must have to be exercised accordingly with skills and employment,intelligent transport systems,public awareness,governance and financing.

As for Connect Bharat, an acceptable infrastructure is needed for all Indian citizens and such infrastructure network is expected to solve all sorts of connectivity i.e. urban-to-urban, urban-to-rural, rural-to-rural. Alongwith, numerous current schemes **like Pradhan Mantri Gram Sadak Yojana, Pradhan Mantri Jal Marg Yojana** and **Ude Deshka Aam Naagrik** are to be taken in consideration and continuous efforts are to be carried on to enhance emphasis on safety and accessibility, anchorage various modes of transport......road, rail, coastal and inland waterways, small regional airports, ropeways etc., utilise the data for holistic mobility -needs at a greater weight.

Regarding optimization of travel footprint, congestion created by commuters and movement of commodities is to be minimized to cleanse air. In the highest peak hours, the citizens of four metro cities of India are forced to while away 1.3-1.6x extra time, in comparison to 0.6x for Singapore and Hongkong. Integrated land use, focused policy based measures and data based procedures can minimize such a situation.

To solve both the problems of pollution & congestion, seamless, efficient and convenient public transport system is to be developed maintaining unity with the global shared mobility reorganisation.

As regards to the approval of green modes & technologies, electric vehicles & non-motorized transport system must have to be improved through planned routes, paths& exclusive traffic signals. At the same time,development of ecosystem including domestic manufacturing, placement of charging infrastructure must have to be treated as the crying need in this respect.

Initiable keys for future green mobility in India

For the proper implementation of future mobility in India, integrated system with mobility as a service & interoperable transport data is to be considered. Mobility-oriented expansion along with Vehicle-grid integration as shared infrastructure and product producing as well as installation of clean vehicle as scaled manufacturing are to be taken into account.

Unified Metropolitan planning authority, Metropolitan planning councils and Networked city-level innovation and incubation centres will have to be organised for proper management. At the same time, mobilityas service-encouraging policies, non fiscal incentives like easier registration are to be appraised and electricity tariffs are to be preferred.

To have satisfactory success of future mobility mission in India, several supporting strategies like Make in India, Digital India, FAME providing incentives for purchase of Electric &Hybrid Vehicles, Green Mobility Fund for cities throughout the country making them citizen friendly and sustainable, Renewable Energy Program--175 GW by 2022 and setting up of a learning platform to co-ordinate and prioritize actions are to be given much importance.

Benefits of future green and clean mobility

Future mobility in India has been designed in such a way so that it can offer a handful of conveniences like improvement of air quality and asset usage, better approach to public transit, decongestion in roads and highways, minimization of traffic death dealings, downsizing of direct & indirect costs of transportation for citizens, development and manufacturing of provocative technology and can gain momentum of India's renewable energy goals.Furthermore, initiation of future mobility in India is expected to impart knowledge about the range and capacity of XEVs(EV,HEV,FCEVs), performance competence, operation and utilization, interaction with electric energy supply system etc , specially for commercial operations; bring about change for cost effective battery solutions and unfavourable components; give rise to local manufacturing eco system for future technologies,consciousness and perception about the impact of the future mobility on the environment and energy management and put up charging infrastructure with renewable energy.

As for Auto-Industry, transformation to Electric Vehicle will cause electronics hardware industry in India, jobs for batteries as well as Energy Storage Industry, expansion of aluminium & chemical industries, millions of lines of software code for jobs in software. Proper implementation of 'Make in India' Programme will make India as the second largest Electric Vehicle market globally and turn India to an attractive destination for manufacture of Electric Vehicles, Electric Vehicle components and software.

Conclusion

Almost in all the global developed countries,an urge for smart transportation with the help of electric cars has become amazingly noticeable not only for reducing cost and improving quality but also to save the environment as well as to create a cleaner and greener atmosphere and mobility for the survival of humanity getting rid of environmental pollution especially air impurity, mostlycaused by conventional fuelled vehicles. It is the normal expectation that Indiacan never be an exception in this regard. Considering a mounting up imposition for green and clean mobility in India, different steps are being initiatedon behalf of Central Government and FAME (Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles conceiving of a contribution of 795 crore for hybrid vehicles and augmentation of such allotment is necessary for the fulfilment of the green and clean mobility programme. At the same time, a suitable combination of strong policies; directives, public and private sector financing and above all public consciousness can bring about the expected transformation to put the smart, clean and green mobility into effect. It is also should be mentioned that green and clean mobility applies to any means of transportation with stubby consequences on the environment, fuel efficient and one that maintains a balance between mankind and environmental necessity. MA

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ROLE OF CMAs IN INTEGRATED TRANSPORT ECOSYSTEM

Abstract

Cost and management accountants are the backbone of the new millennium business organizations. They act as a game changer factor. They advice business and guide their operations. Now they have got decision making power also. So CMAs are the final word in many business matters. In integrated transport ecosystem concept also they have a crucial role. They are recognized as Key managerial personnel. They are at the helm of affairs of the present business scenario. The key weapon available for them is cost and benefits analysis.

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The message of 21st century is to stay connected. Connectivity is the objective behind many of human efforts like the invention of wheel and telephone. The basic nature of human beings is to stay connected. Actually human beings were first connected with nature. Then they started to connect each other. That's the history of man. But people started betraying the nature. The connection with the nature became loose. Nature started to counteract. It acted as a spoiling factor. Because flood and drought like uncertainties steal the profits of business. Business is operating on the mercy of nature and the society. That's why now business is considered more as a social activity rather than a pure economic activity. It may be detrimental to the traditional schools of thought. Satisfied customers are the real profits of any business. Because loyal customers contribute more to the long term and create wealth. Traditionally success of a business was measured by the scale of profits, but now that yardstick is replaced by the scale of number of loyal customers. Actually the transition of economic concept of business into social concept of business boosted the demand for CMAs instead of traditional accountants who plays with numbers only. Accounting also got a qualitative perspective by the evolution of cost and management accountants.

So it is essential to examine the role of them in the light of integrated transport eco system. Actually the present era calls for sustainable development. Sustainable development is nothing but utilizing resources efficiently and preserve them for the future generations also. Integrated transport ecosystem is a concept made in tune with sustainable development idea. So the CMAs have to act dynamically in these circumstances. Cost and benefit analysis is the key weapon in the hands of a cost and management accountant. In fact, social cost and environment cost are more serious than economic cost. Because economic cost can be covered by generating adequate profits again. But you can't recover social cost or environment cost in that manner. So cost and benefit analysis must include all perspectives of cost rather confined into economic cost. So using the tool like cost and benefit analysis, a CMA will be able to take powerful decisions which has far reaching benefits.

Decisions areas available for CMAs

As it is said earlier, CMAs are backbone of the present organizations. They have got the power to take decisions in the organizations. They are also recognized as key managerial personnel. So the following are the areas in which they can take decisions in tune with integrated transport ecosystem.

1. Common transport medium

It may be stupid to say avoid private cars in the organizations and arrange common or public transport options. But if it is possible to implement to even a small extent, it will have striking benefits. Normally it is considered as a utopian idea. It should be introduced as an option, not a compulsory one. Gradually make it compulsory. Then it will be a big step towards controlling the pollution, making a sustainable environment and cutting down costs.

2. Electric cars

Automobile concerns should invest more on research and development and boost the production of electric cars. The industry should welcome these efforts wholeheartedly. They should include these electric cars in their own organizations also. CMAs should take these decisions because they are recognized as key managerial personnel.

3. Concentration of projects

Concentrate projects into a certain area in the city rather than invade into every nook and corner of the city. So business can reduce its operating cost and at the same time, environment will get unscathed. They can avail the benefits of economies of scale also.

4. Building business in tune with pulse of nature

Protect the ecosystem and build the business in tune with the pulse of nature. Business should be build in accordance with the features of the environment. So environment friendly business operations and buildings should be made.

5. Supply chain design

Ensure the best available supply chain system is in operation. The supply chain should be ensured in a manner that will help to connect between the firms themselves and with customers. Supply chain should be designed at minimum cost and maximum connectivity.

6. Virtual mobility

Rewrite the concept of transport from physical mobility to virtual mobility. Information and communication technology allows moving online without moving physically from one place to another. Virtual mobility helps in reducing the pollution and better access to the information.

7. Data storage

Establish the fact that the nature can't afford the green house gases which emerge from physical transportation. But still nature can afford electronic data. Huge data can be stored without invading into the natural ecosystems. So the CMAs should ensure the availability of data storage infrastructure in the concern.

8. E waste management

E waste is an issue arises when we move to the concept of virtual mobility. So the CMAs can have a cost benefit analysis on this in the light of integrated transport ecosystems. Then they should think about minimizing the e waste and also examine ways to recycle it.

9. Cost reduction policy

The main objective of cost and management accounting is cost reduction and maximize profits. So the CMAs should take a cost reduction policy and implement the transition of physical mobility into virtual mobility as part of this policy. Common transportation facility is an example for this.

10. Location decisions

The business concern should be located in a proper area where it can stay connected with themselves and with customers. This allows mobility for the business concerns in that particular area. They can avail shared mutual benefits.

Conclusion

Mobility and connectivity are keystones of integrated transport ecosystem.

Business operates on an environment. There is a separate division of business to examine its environment. So without having a harmony with the nature, they can't survive for a long. So the business must take a cautious approach while dealing with environment sensitive issues. CMAs are the key players in this scenario. They are equipped with a wide variety of theoretical and practical knowledge. So they can lead the new millennium organizations into new heights without compromising the interest of society and nature. MA

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ROLE OF LOGISTICS IN ECONOMIC DEVELOPMENT

Abstract

The advancement of transportation frameworks happens in a financial setting. While in the earlier decades, improvement approaches and methodologies would in general spotlight on physical capital, ongoing years has seen a superior equalization by including human capital issues. Regardless of the overall significance of physical versus human capital, advancement can't happen without both collaborating as frameworks can't stay viable without legitimate tasks and support while financial exercises can't occur without a foundation base. The development of compartment transportation has deliberately been multiple times the rate of GDP development, underlining a huge multiplier impact between monetary development and holder exchange. Notwithstanding, this increasing impact has considerably subsided since 2009, underlining a development of the dissemination of containerization and its separation from monetary development.

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The advancement of transportation frameworks happens in a financial setting. While in the earlier decades, improvement approaches and methodologies would in general spotlight on physical capital, ongoing years has seen a superior equalization by including human capital issues. Regardless of the overall significance of physical versus human capital, advancement can't happen without both collaborating as frameworks can't stay viable without legitimate tasks and support while financial exercises can't occur without a foundation base. The exceedingly value-based and administration situated elements of many transport exercises underline the unpredictable connection between its physical and human capital needs. For example, viable coordination both depends on frameworks and administrative ability.

In light of its escalated utilization of frameworks, the vehicle segment is a significant segment of the economy and a typical device utilized for improvement. This is significantly more so in a worldwide economy where monetary open doors have been progressively identified with the portability of individuals, products and data. A connection between the amount and nature of transport foundation and the dimension of financial advancement is clear. High thickness transport foundation and profoundly associated systems are generally connected with abnormal amounts of advancement. At the point when transport frameworks are proficient, they give monetary and social chances and advantages that outcome in positive multipliers impacts, for example, better availability to business sectors, work and extra speculations. At the point when transport frameworks are inadequate as far as limit or dependability, they can have a financial cost, for example, diminished or botched chances and lower personal satisfaction.

At the total dimension, proficient transportation diminishes costs in numerous financial segments, while wasteful transportation expands these expenses. Also, the effects of transportation are not constantly proposed and can have unanticipated or unintended outcomes. For example, blockage is frequently a unintended result in the arrangement of free or minimal effort transport foundation to the clients. In any case, blockage is additionally the sign of a developing economy where limit and foundation experience issues staying aware of the rising versatility requests. Transport conveys a significant social and natural burden, which can't be ignored. Evaluating the monetary significance of transportation requires a classification of the sorts of effects it passes on. These include center (the physical qualities of transportation), operational and geological measurements:

Center. The most principal effects of transportation identify with the physical ability to pass on travelers and products and the related expenses to help this portability. This includes the setting of courses empowering new or existing connections between financial elements.

Operational. Improvement in the time execution, strikingly regarding dependability, just as decreased misfortune or harm. This suggests a superior use dimension of existing transportation resources profiting its clients as travelers and cargo are passed on more quickly and with less deferrals.

Land. Access to a more extensive market base where economies of scale underway, dissemination and utilization can be improved. Increments in efficiency from the entrance to a bigger and increasingly assorted base of sources of info (crude materials, parts, vitality or work) and more extensive markets for different yields (halfway and completed products). Another significant topographical effects concerns the impact of transport on the area of exercises and its effects ashore values.

The monetary significance of the transportation business would thus be able to be surveyed from a macroeconomic and microeconomic viewpoint:

At the macroeconomic dimension (the significance of transportation for an entire economy), transportation and the versatility it gives are connected to a dimension of yield, business and pay inside a national economy. In many created nations, transportation accounts somewhere in the range of 6% and 12% of the GDP. Taking a gander at an increasingly complete dimension to incorporate coordinations costs, such expenses can account somewhere in the range of 6% and 25% of the GDP. Further, the estimation of all transportation resources, including frameworks and vehicles, can undoubtedly represent a large portion of the GDP of a propelled economy.

At the microeconomic dimension (the significance of transportation for explicit pieces of the economy) transportation is connected to maker, buyer and generation costs. The significance of explicit transport exercises and framework would thus be able to be surveyed for every area of the economy. Generally, higher salary levels are related with a more prominent offer of transportation in utilization costs. Transportation accounts by and large somewhere in the range of 10% and 15% of family unit consumptions, while it accounts around 4% of the expenses of every unit of yield in assembling, however this figure differs enormously as indicated by sub divisions.

In spite of the fact that not all transportation activities produce such advantages, a few speculations are viewed as key drivers of improvement. The monetary effect of transportation tasks can be estimated in the advantages they bring to financial development, work creation, exchange assistance, and the economies of scale made. Perceiving this the truth is vital in light of the fact that the present transportation needs far surpass accessible financing. As needs be, transportation offices at all dimensions of government look to boost their speculations

Transportation and Economic Opportunities

Transportation advancements that have occurred since the start of the modern transformation have been connected to developing financial chances. At each phase of societal advancement, a specific transport innovation has been created or adjusted with a variety of effects. Transportation impacts the financial chances of creation and utilization. Verifiably, five noteworthy floods of monetary advancement where a particular transport innovation made new financial, market and social open doors can be recommended:

Seaports. Mechanical and business advancements have instigated a more noteworthy dependence on the seas as a monetary and course space. Seaports were related with the beginning periods of European extension from the sixteenth to the eighteenth hundreds of years, usually known as the time of investigation. They bolstered the early advancement of worldwide exchange through pioneer realms, however were obliged by constrained inland access. Later in the mechanical transformation, numerous ports wound up significant substantial modern stages. With globalization and containerization, seaports expanded their significance as a help to worldwide exchange and worldwide supply chains. Basic economies are typically connected with mass cargoes while complex economies produce more containerized streams.

Streams and waterways. Waterway exchange has won through history and even trenches were constructed where no huge elevation change existed, since lock innovation was simple. The principal phase of the mechanical upheaval in the late eighteenth and mid nineteenth hundreds of years was connected with the improvement of waterway frameworks with secures Western Europe and North America, fundamentally to transport overwhelming merchandise. This allowed the improvement of simple and compelled inland appropriation frameworks, a considerable lot of which are as yet utilized today.

Railroads. The second phase of modern unrest in the nineteenth century was connected with the advancement and execution of rail frameworks empowering increasingly adaptable and high limit inland transportation frameworks. This opened up generous financial and social open doors through the extraction of assets, the settlement of districts and the developing portability of cargo and travelers.

Streets. The twentieth century saw the fast advancement of thorough street transportation frameworks, for example, national roadway frameworks, and of vehicle fabricating as a noteworthy monetary part. Singular transportation turned out to be generally accessible to mid pay social classes, especially after the Second World War. This was related with huge monetary chances to support mechanical and business markets with solid way to-entryway conveyances. The vehicle additionally allowed new types of social chances, especially with suburbanization.

Aviation routes and data innovations. The second 50% of the twentieth century saw the improvement of worldwide air and media transmission organizes related to financial globalization. New authoritative and administrative structures wound up conceivable, particularly in the quickly creating domain of coordination and production network the board. Albeit oceanic transportation is the physical linchpin of globalization, air transportation and IT bolster the quickened portability of travelers, particular cargoes and their related data streams.

No single transport mode has been exclusively in charge of financial development. Rather, modes have been connected with the monetary capacities they support and the geology in which development was occurring. The principal exchange courses built up a simple arrangement of conveyance and exchanges that would in the end be extended by long separation oceanic transportation systems and the setting of the main global enterprises dealing with these streams. Significant progressions of universal movement that happened since the eighteenth century were connected with the development of global and mainland transport frameworks that drastically molded rising economies, for example, in North America and Australia. Transport assumed a synergist job in these relocations, changing the monetary and social topography of numerous countries.

Transportation has been an instrument of regional control and abuse, especially during the pilgrim time where asset based transport frameworks bolstered the extraction of items in the creating scene and sent them to the industrializing countries of the time. The objective to catch asset and market openings was a solid driving force in the setting and structure of transport systems. All the more as of late, port advancement, especially compartment ports, has been of key enthusiasm as an apparatus of reconciliation to the worldwide economy as the instance of China delineates. There is an immediate relationship, or coordination, between outside exchange and holder port volumes, so compartment port advancement is generally observed as an instrument to catch the open doors brought by globalization. The development of compartment transportation has deliberately been 3 to multiple times the rate of GDP development, underlining a huge multiplier impact between monetary development and holder exchange. Notwithstanding, this increasing impact has considerably subsided since 2009, underlining a development of the dissemination of containerization and its separation from monetary development.

Monetary Returns of Transport Investments

A typical desire is that vehicle speculations will produce monetary returns, which on the long run ought to legitimize the underlying capital duty. Like most of foundation ventures, transportation framework can produce 5 to 20% yearly profit for the capital contributed, with such figures regularly used to advance and legitimize interests in transportation foundation. Nonetheless, transport speculations will in general have declining negligible returns (consistent losses). While starting framework speculations will in general have an exceptional yield since they give a completely new scope of versatility alternatives, the more the framework is built up, the more probable extra venture would result in lower returns. Sooner or later, the peripheral returns can be near zero or even negative. A typical paradox is expecting that extra transport speculations will have a comparable increasing impact than the underlying ventures had, which can prompt capital misallocation. The most widely recognized purposes behind the declining negligible returns of transport speculations are:

High gathering of existing framework. In a setting of abnormal state of availability and transportation arranges that are as of now broad, further speculations normally result in negligible enhancements. This implies the financial effects of transport speculations will in general be noteworthy when foundations were formerly missing and will in general be negligible when a broad system is available. Extra speculations would thus be able to have constrained effect outside comfort.

Monetary changes. As economies build up, their capacity will in general move from the essential (asset extraction) and auxiliary (producing) divisions towards cutting edge assembling, conveyance and administrations. These parts depend on various transport frameworks and abilities. While an economy relying upon assembling will depend on street, rail and port foundations, an administration economy is increasingly situated towards the productivity of coordinations and urban transportation. In all cases transport framework are significant, however their relative significance in supporting the economy may move.

Bunching. Because of bunching and agglomeration, a few areas create points of interest that can't be promptly turned around through upgrades in openness. Transportation can be a factor of fixation and scattering relying upon the specific situation and the dimension of improvement. Less available locales along these lines don't really profit by transport speculations on the off chance that they are installed in an arrangement of unequal relations.

In this way, each vehicle advancement task must be considered freely and logically. Since transport frameworks are capital serious fixed resources, they are especially helpless against misallocations and investments. The standard supposition that will be that transportation ventures will in general be more riches delivering rather than riches devouring speculations, for example, administrations. In any case, a few transportation ventures can be riches devouring in the event that they only give comfort, for example, stopping and walkways, or administration a market size well underneath any conceivable monetary return, with for example undertakings named "extensions to no place". In such a specific situation, transport speculation tasks can be counterproductive by depleting the assets of an economy rather making riches and extra chances.

Since many transport frameworks are given through open assets, they can be liable to the weights of particular vested parties, which can result in poor financial returns, regardless of whether those tasks are frequently sold to the general population as solid impetuses for development. Further, huge transportation ventures, for example, open travel, can have poor cost control components, suggesting methodical spending invades. Foundation extends in the United States are especially inclined to these built errors. Proficient and maintainable transport markets and frameworks assume a key job in local advancement in spite of the fact that the causality among transport and riches age isn't in every case clear. To all the more likely report and screen the financial returns of transport ventures, a progression of pointers can be utilized, such transportation costs and profitability. Interest in transport frameworks is in this manner seen as an instrument of territorial improvement, especially in creating nations. MA

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TELEMATICS TECHNOLOGY IN MOTOR INSURANCE FOR EFFECTIVE RISK MANAGEMENT

Abstract

Financial Technology (FinTech) is a latest innovative and cutting-edge technology to offer various digitalized financial services to its customers and assumes greater significance in the global competitive environment. As part of FinTech, insurance companies are using InsurTech innovations for providing cost saving efficient services to its clients in an urge to avoid disruption within the insurance industry. One such innovation is 'Telematics', which is being used across motor insurance segment in non-life insurance industry. The present study makes a modest attempt to understand the need and relevance of telematics in motor insurance amidst rising incurred claims ratios in motor insurance. Besides, it would discuss the mechanism of telematics and concludes with the challenges faced for its successful implementation in India.

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With the increased digitalization, it has become imperative to integrate financial services of all kinds' viz., banking and insurance with the lives of the ardent and sophisticated customers. In this regard, FinTech helps companies, business owners and customers to manage their financial operations and processes through specialized computer software and algorithms. InsurTech, being a part of FinTech, is a technology designed to increase the efficiency and efficacy of insurance companies. The applications which fall in the ambit of InsurTech are InsurTech–Digital platforms, Internet of Things (IoT), Big Data Comparators, Robo Adviser, Machine Learning (ML), Artificial Intelligence (AI) and Blockchain. These applications can process huge data and enable the insurers' better decision making in the areas of product pricing and design, fixation of premium and claim management to serve tech-savvy customers in the insurance industry.

Need and Importance of the Study

As a matter of fact, the dominant share of premium in non life insurance industry comes from motor insurance in India. Motor or vehicle insurance is an insurance policy that protects the owner of the vehicle against any financial loss arising out of damage or theft of vehicle. Motor vehicle coverage also includes damage caused to third party or property. Third Party Insurance (TPI) is a statutory requirement. Broadly there are two types of motor insurances policies in India. They are Liability Only Policy (Statutory requirement) and Package/ Comprehensive Policy (Liability Only Policy + Damage to owner's Vehicle usually called O.D Cover. The risk coverage of a packaged policy is more than that of the Liability Only Policy. Despite considering the mandatory nature of motor/vehicle insurance, it is found that, *the motor insurance segment's losses are significantly growing every year and the losses are expected to increase by 230% in FY19, from the current 140%*. Consequently, implementation of an application like telematics in motor insurance is of utmost importance.

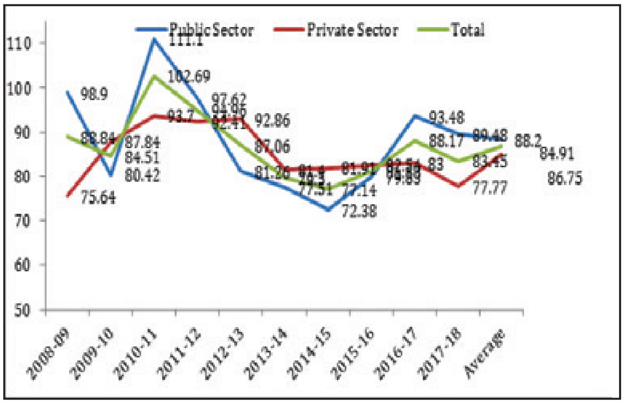
Objectives and Methodology of the Study

Being a novel concept, there is no much research carried out by the previous researchers on telematics. The main objective of the study is to understand the need and relevance of telematics in motor insurance in the back drop of rising incurred claims ratios in motor insurance. The paper throws light on the mechanism of telematics and addresses several challenges for its practical implementation in the Indian context. For this purpose, the study takes into account, a brief overview of incurred claims ratio in motor insurance segment in India over the last ten years, i.e., during the financial period 2009-18.

Performance of Incurred Claims Ratio in Motor Insurance Segment in India

Incurred Claims Ratio is the ratio of the claims settled to the premium received. Gross incurred claims ratio is Gross incurred claims (Direct claims + outstanding claims at end of the year - outstanding claims at the beginning of the year) to Gross premium while Net incurred claims ratio is at net basis (after reinsurance) to net earned premium. A higher claims ratio indicates poor financial strength of the insurer in conjunction with the premiums received and claims paid. On the contrary, a lower ratio indicates higher profit margin to the insurers. Chart 1 depicts the Net incurred claims ratio of both public and private sector insurers during the financial year 2009-18.

Chart 1 Net incurred claims ratio of public and private sector insurers during the financial period 2009-18



Source:IRDAI

It can be seen that the percentage of total incurred claims ratio is ranging between 83.45 and 102.69 during the period under study. The ratio is recorded highest during the period 2010-11. The ratio has been showing a declining trend from the financial period 2012 onwards (except during the financial period 2016 and 2017). It is quite evident that compared to the private insurers, the ratio of public insurers is more in the beginning years i.e., during the financial period 2009-12 (except in 2009-10) and also in the last two years, i.e, for the financial period 2017 and 2018. A fluctuating trend is observed in the ratios of both the insurers for the study period. The average ratio of public sector insurance companies is more than the private sector insurance companies during the period under study. Besides, the ratios of both gross and net incurred claims in motor own damage as well as third party insurance are presented in Table 1.

Table 1: Table showing the Gross& Net Incurred Claims Ratio of Motor Own Damage and Motor Third party during the financial period 2009-18

Year	Motor Own Damage		Motor Third Party	
	Gross Incurred claims ratio	Net Incurred claims ratio	Gross Incurred claims ratio	Net Incurred claims ratio
2008-09	66.0	65.2	128.0	132.1
2009-10	60.6	64.0	123.6	120.2
2010-11	59.3	64.7	166.7	172.8
2011-12	55.6	60.6	206.1	153.6
2012-13	53.5	57.2	109.7	135.1

2013-14	56.8	56.6	114.6	110.4
2014-15	59.9	60.8	98.9	96.8
2015-16	67.3	69.4	87.7	93.0
2016-17	70.1	72.5	94.2	103.6
2017-18	63.8	67.0	96.5	98.0
Average	**61.29**	**63.80**	**122.60**	**121.56**

Source: General Insurance Council Yearbook 2017-18

It can be observed that the claims ratio of motor third party is higher than that of the motor own damage during the financial period 2009-18. The average gross and net incurred claims ratios are 122.60 and 121.56 respectively. Thus, these ratios showed above 100% for almost all the years, affecting the profitability of insurers. Correspondingly, the average ratios for own damage are 61.29 and 63.80.

Few reasons attributable with the higher claims ratio are charging lower premiums, severity of the accidents caused and also increased compensation for the accident victims resulting in more settlement of claim amount in Third Party insurance, fraud claims, poor risk management and imprudent underwriting practices. Thus, there is an obvious need to adopt a system which can not only curb the losses but also facilitate application of fair methods for the overall development of the insurance industry.

Application of Telematics in Motor Insurance

The concept of InsurTech is in a very nascent stage in India. However, realising the importance of InsurTech, the insurance regulator in India, IRDAI (Insurance Regulatory Development Authority of India) has set up the working group to examine innovations in insurance involving wearable/portable devices in relation to the risk assessment and product design in the areas of Life, Health and Non-life insurance respectively. The findings and recommendations of the report took the shape on 31st July 2018. Further, on 5th February 2019, the IRDAI committee has drafted a final report on introducing a "regulatory sandbox approach". The focus of the approach is not only to provide affordable and relevant innovative products as an impetus to insurance penetration but also bringing flexibility in regulatory requirements for the protection of policyholders.

Telematics as an application of InsurTech, is a branch of information technology, deals with the long-distance transmission of computerized information. This technology was introduced in the USA and UK for the first time in early 2000s and later spread to Italy and South Africa.

A telematics box (also called as Blackbox insurance/ GPS car insurance/Smart box insurance/ Pay-as-you-drive insurance and Usage based insurance) is installed in a car to measures various aspects of how, when and where you drive. It takes into account the number of hard braking events, speed of the driver and the extent of hardness/ softness with which the vehicle is turning. Besides, it also displays the driving data relating to braking, cornering, latitude/longitude, elevation, G-force (impact detection), idle time, and number of other cars on the road, weather circumstances, engine and battery health alert, breakdown call, crash alert. So, there is a paradigm shift among car Insurers 'Pay As You Drive' Insurance to 'Pay How You Drive' Insurance.

The black box consists has four main elements fit to the vehicle. They are GPS system (indicating the place and time of the drive along with the type of road on which the vehicle is running), Motion sensor (or accelerometer), which provides information about impacts on the car, SIM card, which sends the information to insurer's database and Computer software, which controls how the information is analysed and transmitted. The data from a black box during the drive represents the time of day/night, the rate of speed on different types of roads, driving habits, breaks during long journeys, motorway miles, total mileage and the total number of journeys made. An alternative to the black box is 'Dongle' on the On Board Diagnostic (OBD) or car socket, which is an intermediate solution—between the Black Box and a mobile app. A sensor is connected automatically with the smart phone through the App installed via Bluetooth. These devices can synchronize well with the mobile app and the central servicer and the person driving can see the vehicle driving diagnostics data on his/her mobile phone.

Benefits of Telematics in Motor Insurance

According to the Report of Transport Research Wing, Government of India, 2016, it is found that more than 80% of accidental injuries and deaths are caused due to the fault of driver. Such faulty drivers can be charged higher premia to make them morally responsible for the losses of the insured. The information so collected from black box offers several advantages to both insurers and the insured. A more meaningful risk assessment of the motor insurance is possible to the insurers. It helps to calculate individual-specific accurate cost of premium, settlement of claim in case of an accident, prevention of frauds in claim management. Also, the policyholders may be shared the savings arising out of reduced operational costs.

Telematics helps to customize insurance policies based on the efficiency and skills of one's drive so as to aid the insurers with better customer segmentation, new product offerings, and improving underwriting arrangements. Above all, the insurers can control their Loss Ratios and overall Combined Ratios, whereby, capital is freed up for innovation resulting in higher customer loyalty.

On the other hand, the insured would benefit from telematics in the form of getting bonus miles to safe drivers, guiding drivers on efficient routes, saving in fuel and maintenance cost, extending emergency services, medical support or towing in case of an accident, track the location of vehicle if stolen, trigger alerts for timely servicing and repairs, and also help him/her recover money from the person responsible during an accident. Telematics is one of the ways to motivate the efficient drivers.

Challenges of Telematics in Motor Insurance Insurance in India

Currently, the basis for charging the premium in motor insurance in India is 'make and model', age of the vehicle, its capacity and geographical use. But, use of Telematics gives a complete understanding of vehicle usage in collecting the comprehensive data for multiple uses.

In spite of numerous advantages of telematics insurance, the success of its implementation comes with many challenges particularly in a country like India. Fixed premium charge, costly tracking devices and issues related to the data protection in sharing the sensitive personal information would impede the implementation of telematics.

Nevertheless, it may be pointed out that the advantages of telematics in motor insurance certainly outweigh the disadvantages. For an insurer, while it is perceived as a strategy in managing the motor risks and liabilities, for the insured, it is an instant solution arrived by way of reduction premium payments. Hence, undoubtedly, telematics in motor insurance would go a long way in creating a win-win situation both to the insurer and insured. MA

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ROAD SAFETY IN INDIA: ISSUES AND GOVERNMENT INITIATIVES

Abstract

Road Transport is the dominant mode both in terms of share of passenger and freight carried and in terms of contribution to the national economy. Present study focuses on road traffic scenario i.e. road accidents in India and counter measures from the Government against road accidents. Total no. of registered motor vehicles in India, All the States and Union territories has increased over the years 2007 to 2016 which is an alarming sign for road accidents in India. Present study also shows that fatality rate in India, all States and UTs for road accidents have been increasing over the years. Moreover, we have seen that more road accidents take place on National Highways and on State Highways. Government of India through Ministry of Road Transport & Highways and State Governments have already implemented road safety initiatives like National Road Safety Policy, Safe Drive Save life for reducing road accidents.

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Road transport is the dominant mode both in terms of share in passenger and freight carried and in terms of contribution to the national economy. In terms of contribution to the economy, road transport contributes about 3.3% of Gross Value Addition (GVA) against total transport sector contribution of 5% in GVA. Present study focuses on the total no. of road accidents, persons killed and injured in India, all the States and Union territories over the years 2007-2016. This study shows the initiatives taken by the Government for reducing road accident.

Probable causes for Road Accident in India

We have selected six areas which are responsible for road accidents in India. These are as follows;

- Pedestrian, bicyclists, and other non-motorists in urban areas.

- Pedestrians, other non-motorists, and slow vehicles on national highways.

- Motorcycles and small cars in urban areas.

- Over-involvement of trucks and buses in fatal crashes.

- Nighttime driving: Visibility, alcohol, and fatigue.

- Wrong-way drivers on divided highways.

Objectives of the study

1. To show the total number of Registered Motor Vehicles in India, all the States and Union Territories over the years 2007 to 2016.

2. To highlight the total number of road accidents, persons killed and injured, in India, all the States and Union Territories over the years 2007 to 2016.

3. To show the trend of relative share of Road categories in Road Accidents, Persons Killed and Injured over the years 2007 to 2016.

4. To highlight the different Government initiatives for Road Safety in India.

Methodology

This study is empirical in nature. Data has been collected from the Department of Road, Transport and Highways, Govt. of India, NCRB and various reports regarding the status of road accidents and Govt. initiatives for road safety in India.

Data analysis, Presentation and Findings

1. To show the total number of Registered Motor Vehicles in India, all the States and Union territories over the years 2007 to 2016.

There has been a continuous increase of registered motor vehicles in India which causes more road accidents. Here, trend of number of registered motor vehicles in India, all the States and Union territories has been shown.

Table 1: Total No. of Registered Motor Vehicles and its composition in India over the years 2007 to 2016

Year As on 31st March	Two Wheeler	Cars, Jeeps & Taxis	Buses	Goods Vehicles	Other Vehicles	Total (in Millions)
	% of Total Vehicle Population					
2007	71.5	13.1	1.4	5.3	8.7	96.71
2008	71.5	13.2	1.4	5.3	8.6	105.35
2009	71.7	13.3	1.3	5.3	8.4	114.95
2010	71.7	13.5	1.2	5.0	8.6	127.75
2011	71.8	13.6	1.1	5.0	8.5	141.87
2012	72.4	13.5	1.0	4.8	8.3	159.49
2013	72.7	13.6	1.0	4.7	8.0	176.04
2014	73.1	13.6	1.0	4.6	7.7	190.70
2015	73.5	13.6	1.0	4.4	7.5	210.02
2016	73.5	13.1	0.8	4.6	8.1	230.03

Source: Road Transport Year Book, 2015-16, Ministry of Road Transport & Highways, Government of India.

The share of two wheelers in total registered motor vehicles in India stands at 73.5% in 2016 as compared to 71.5% in 2007. Similarly, the combined share of cars, jeeps and taxis in total registered motor vehicles is 13.1% in March, 2007 to 13.1% in March, 2016. On the other hand, share of buses in total registered motor vehicles contributes marginal share of 1.4% in 2007 to 0.8% in 2016. The share of goods vehicles in total registered motor vehicles declines from 5.3% in 2007 to 4.6% in 2016. Share of other vehicles also decreases from 8.7% in 2007 to 8.1% in 2016.

Table 2: Total number of Registered Motor Vehicles in all the States and Union Territories over the years 2007 to 2016

States/UTs	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
	Total No. of Registered Motor Vehicles (in Thousands)									
Lakshadweep	7	7	7	8	9	10	11	13	14	16
Sikkim	25	26	29	34	39	43	36	40	43	49
Dadra & Nagar Haveli	51	58	63	69	76	85	93	103	112	105
Daman & Diu	62	68	70	72	78	85	92	95	100	106
A & I Island	48	53	60	62	69	77	85	94	102	111
Mizoram	61	66	70	80	93	102	121	137	151	171
Arunachal Pradesh	22	22	22	22	145	151	151	151	151	265
Manipur	133	147	147	194	207	215	296	315	307	306
Tripura	120	131	144	160	188	204	245	256	282	319
Nagaland	210	226	240	254	273	291	311	318	334	380
Meghalaya	117	128	142	158	176	198	220	248	267	558
Chandigarh	678	712	747	949	1008	1058	1106	631	676	837
Puducherry	432	484	538	599	673	755	700	751	803	863
Goa	579	624	674	727	790	866	938	1009	1084	1158
Himachal Pradesh	342	371	494	538	622	737	876	974	1077	1176
Jammu & Kashmir	570	620	668	739	927	917	1021	1133	1244	1366
Uttarakhand	643	731	787	831	997	1244	1460	1640	1827	1888
Jharkhand	1686	1850	2038	2767	3113	3158	3417	1719	2066	2477
Assam	1021	1116	1235	1384	1582	1807	1878	2217	2510	2817
Bihar	1577	1739	1960	2357	2673	3113	3617	4163	4778	5482
Odisha	2148	2370	2607	2932	3338	3759	4216	4702	5219	5833
West Bengal	3198	2762	3044	2747	3261	3861	6111	6745	7403	6488
Haryana	3528	3973	4425	4752	5377	5978	6600	7239	7239	8633
Telangana	-	-	-	-	-	-	6376	7073	7845	8709
Andhra Pradesh	6367	7208	8059	8923	10189	12124	6286	7002	7882	8728
Punjab	4294	4573	4832	5274	5274	6263	6263	6263	6263	9064
Delhi	5492	5899	6302	6747	7228	7350	7785	8293	8851	9705
Kerala	3957	4430	4860	5398	6072	6893	7858	8775	9648	10172
Madhya Pradesh	5047	5523	6011	6591	7356	8144	8760	9722	11141	11141

Rajasthan	5336	5902	6490	7166	7986	8985	10072	11131	12379	13632
Karnataka	5466	6217	6953	9044	9930	10910	12264	13335	14785	16292
Gujarat	9497	10289	10999	11873	12993	14414	15772	17092	18721	20361
Uttar Pradesh	9086	9826	10779	11988	13287	15445	17048	19115	21636	23936
Maharashtra	12171	13335	14451	15768	17434	19432	21488	23394	25562	27870
Chhattisgarh	1734	1935	2115	2436	2766	3104	3437	3871	4314	4810
Tamilnadu	10981	11930	12891	14062	15638	17412	19232	20864	22519	24203

Source: Offices of the State Transport Commissioners/UT Administrations.

The distribution of total registered motor vehicles over the years 2007 to 2016 among 31 States and 5 Union Territories has been shown. Among the States, it has been seen that registered vehicles in 5 States of Maharashtra, Tamilnadu, UP, Gujarat and Karnataka account for 48.80% in 2007 to 49% in 2016 of the total registered motor vehicles in India over the years 2007 to 2016 whereas 10 small States/UTs of Nagaland, Tripura, Manipur, Mizoram, Arunachal Pradesh, A&N Island, Daman &Diu, D & N Haveli, Sikkim and Lakshadweep together account for 0.7% in 2007 to 0.79% in 2016 of total registered motor vehicles over the years 2007 to 2016.

2. To highlight the total number of road accidents, persons killed and injured, in India, all the States and Union Territories over the years 2007 to 2016.

Total number of road accidents, persons killed and injured in India, all the States and Union Territories has been shown over the years 2007 to 2016.

Table 3: Total No. of Road Accidents, Persons Killed and Injured in India over the years 2007 to 2016

Year	Total No. of Road Accidents	No. of Persons Killed	No. of Persons Injured
2007	479216	114444	513340
2008	484704	119860	523193
2009	486384	125660	515458
2010	499628	134513	527512
2011	497686	142485	511394
2012	490383	138258	509667
2013	486486	137572	494893
2014	489400	139671	493474
2015	501423	146133	500279
2016	480652	150785	494624

Source: Road Accidents in India - 2017, Ministry of Road Transport & Highways, Govt. of India

Major parameters of road accidents statistics in India from 2007 to 2016 are given on Table 3 where we have seen that total no. of road accidents increases over the years 2007 to 2010 but it declines from 2011 to 2013. Total no. of road accidents has been gradually reduced in 2016. Similarly we have seen that initially total no. of persons killed and no. of persons injured have been gradually increasing but later it decreases over the years 2010 to 2016.

Table 4: Total No. of Road Accidents, Persons Killed and Injured in States and Union Territories over the years 2007 to 2016

States/UTs	Total No. of Road Accidents									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Andhra Pradesh	44325	42657	43600	44599	44165	42524	43482	24440	24258	24888
Arunachal Pradesh	240	280	306	293	263	251	308	205	284	249
Assam	4403	4683	4869	5828	6569	6535	7211	7144	6959	7435
Bihar	7774	8991	10065	11033	10673	10320	10200	9556	9555	8222
Chhattisgarh	12296	12945	12888	13664	14108	13511	13657	13821	14446	13580
Goa	4020	4178	4165	4572	4506	4312	4294	4229	4338	4304
Gujarat	33623	33671	31034	30114	30205	27949	25391	23712	23183	21859
Haryana	11998	11596	11915	11195	11128	10065	10482	10676	11174	11234
Himachal Pradesh	2955	2756	3051	3069	3099	2899	2981	3058	3010	3168
Jammu & Kashmir	5864	5326	5945	6134	6655	6709	6457	5861	5836	5501
Jharkhand	5285	4985	4996	5521	5451	5711	5569	5201	5162	4932
Karnataka	46363	46269	45190	46250	44731	44448	44020	43713	44011	44403
Kerala	39917	37263	35433	35082	35216	36174	35215	36282	39014	39420
Madhya Pradesh	41981	43852	47267	50023	49406	51210	51810	53472	54947	53972
Maharashtra	73661	75527	71996	71289	68438	66316	63019	61627	63805	39878
Manipur	538	573	578	602	692	771	671	743	671	538
Meghalaya	300	294	398	474	599	483	525	542	606	620
Mizoram	77	110	86	125	97	110	114	132	70	83
Nagaland	239	76	63	35	39	42	71	305	54	75
Odisha	8213	8181	8887	9413	9398	9285	9680	9648	10542	10532
Punjab	5208	5115	5570	5507	6513	6341	6323	6391	6702	6952
Rajasthan	23885	23704	25114	24302	23245	22969	23592	24628	24072	23066
Sikkim	150	196	564	186	406	158	244	203	219	210
Tamilnadu	59140	60409	60794	64996	65873	67757	66238	67250	69059	71431
Telangana	NA	NA	NA	NA	NA	NA	NA	20078	21252	22811
Tripura	801	767	865	901	834	888	818	716	647	557
Uttarakhand	1529	1417	1401	1493	1508	1472	1297	1410	1523	1591
Uttar Pradesh	21522	25684	28155	28362	29285	29972	30615	31034	32385	35612
West Bengal	11606	12206	11134	14888	14945	12290	12414	12875	13208	13580
A & N Island	173	191	271	285	234	236	200	218	258	238
Dadra & Nagar Haveli	116	116	79	96	103	85	91	87	69	70
Daman & Diu	60	50	63	48	50	50	59	39	70	71
Delhi	8620	8435	7516	7260	7281	6937	7566	8623	8085	7375
Lakshadweep	2	12	4	4	0	3	1	1	3	1
Puducherry	1744	1697	1698	1529	1480	1181	1451	1111	1530	1766

Source: States/UTs wise Road Accidents in India, Ministry of Road Transport & Highways, Government of India.

Table 4: Total No. of Road Accidents, Persons Killed and Injured in States and Union Territories over the years 2007 to 2016

States/UTs	Total No. of Persons Killed									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Andhra Pradesh	13549	13812	14770	15684	15165	14964	14171	7908	8297	8541
Arunachal Pradesh	95	134	158	148	126	138	141	119	127	149
Assam	1604	1807	1991	2256	2342	2291	2441	2522	2397	2572
Bihar	3482	3970	4390	5137	5090	5056	5061	4913	5421	4901
Chhattisgarh	2607	2966	2865	2956	2983	3167	3477	4022	4082	3908
Goa	322	318	321	327	333	292	266	290	311	336
Gujarat	6915	7070	6983	7506	8008	7817	7613	7955	8119	8136
Haryana	4415	4494	4603	4719	4762	4446	4517	4483	4879	5024
Himachal Pradesh	979	848	1140	1102	1072	1109	1054	1199	1096	1271
Jammu & Kashmir	958	950	1100	1045	1116	1165	990	992	917	958
Jharkhand	2081	1979	2170	2540	2572	2818	2706	2628	2893	3027
Karnataka	8777	8814	8714	9590	8971	9448	10046	10452	10856	11133
Kerala	3778	3901	3830	3950	4145	4286	4258	4049	4196	4287
Madhya Pradesh	6671	6670	7365	8085	7869	8175	8588	8569	9314	9646
Maharashtra	11212	12397	11396	12340	13057	13333	13029	12803	13212	12935
Manipur	114	151	125	154	158	158	165	168	139	81
Meghalaya	127	123	145	163	212	219	130	141	183	150
Mizoram	50	63	60	62	81	77	97	103	72	70
Nagaland	89	70	55	40	25	56	30	81	30	46
Odisha	3000	3079	3527	3837	3802	3701	4062	3931	4304	4463
Punjab	3363	3206	3668	3542	4931	4820	4588	4621	4893	5077
Rajasthan	8145	8388	9045	9163	9232	9528	9724	10289	10510	10465
Sikkim	52	79	87	71	106	55	68	59	70	85
Tamilnadu	12036	12784	13746	15409	15422	16175	15523	15190	15642	17218
Telangana					NA	NA	NA	6906	7110	7219
Tripura	223	221	229	231	245	272	226	188	158	173
Uttarakhand	992	1073	852	931	937	844	766	878	913	962
Uttar Pradesh	11398	13165	14638	15175	21512	16149	16004	16287	17666	19320
West Bengal	4745	4789	4860	5680	5664	5397	5504	5875	6234	6544
A & N Island	23	22	33	27	17	25	40	23	23	17
Dadra & Nagar Haveli	66	65	45	62	63	53	49	59	42	36
Daman & Diu	29	29	33	31	33	29	31	15	42	38
Delhi	2141	2093	2325	2153	2065	1866	1820	1671	1622	1591
Lakshadweep	0	0	2	0	0	0	0	0	0	1
Puducherry	255	212	218	239	233	193	228	151	235	244

Source: States/UTs wise Road Accidents in India, Ministry of Road Transport & Highways, Government of India.

Total no. of road accidents and persons killed over 2007 to 2016 in all the States and Union Territories has been shown in Table 4. It has been seen that large States like Maharashtra, Andhra Pradesh, Uttar Pradesh, Tamilnadu, Madhya Pradesh, Karnataka, Kerala, and Rajasthan have faced more no. of road accidents over the years and no. of persons killed has been increasing over the years. Whereas small States like Sikkim, Nagaland, Arunachal Pradesh, Mizoram, Manipur, Tripura have faced few road accidents and less persons are killed over the years.

3. To show the trend of relative share of Road categories in Road Accidents, Persons Killed and Injured over the years 2007 to 2016.

The total road length in India is 56 Lakh km (as on 31st March, 2016) consisting of 1.01 Lakh km of National Highway, 1.76 km of State Highway and remaining 53.26 Lakh km of district road, rural roads, urban roads and project roads. Trend of relative share of road categories, persons killed and injured has been shown over the years 2007 to 2016.

Table 5: Trend of relative share of Road categories in road accidents, persons killed and injured

Year	National Highways			State Highways			Other Roads		
	Road Accidents (%)	Persons Killed (%)	Persons Injured (%)	Road Accidents (%)	Persons Killed (%)	Persons Injured (%)	Road Accidents (%)	Persons Killed (%)	Persons Injured (%)
2007	29	35.5	30.2	24.4	27.7	26.2	46.6	36.8	43.6
2008	28.5	35.6	28.6	25.6	28.4	27.5	45.9	36.0	43.9
2009	29.3	36.0	29.6	23.8	27.1	25.5	46.9	36.9	44.9
2010	30.0	36.1	31.3	24.5	27.3	26.0	45.5	36.6	42.7
2011	30.1	37.1	35.3	24.6	27.4	26.1	45.3	35.5	43.4
2012	29.1	35.3	33.2	24.2	27.3	25.9	46.7	37.4	44.0
2013	28.1	33.2	34.1	25.6	29.6	27.6	46.3	37.2	43.5
2014	28.2	34.1	35.0	25.2	29.1	26.8	46.6	36.8	43.3
2015	28.4	35	34.5	24.0	28	26.3	47.6	37.0	44.6
2016	29.6	34.5	36.0	25.3	27.9	25.8	45.1	37.6	44.6

Source: Road Accidents in India, 2017, Ministry of Road Transport & Highways, Government of India.

The share of different categories of roads in number of road accidents, persons killed and injured has remained largely stable over the years 2007 to 2016. Share of road accidents, persons killed and injured have been increasing over the years on National Highways. Similarly share of road accidents, persons killed and injured increase on State Highways and on other roads also. So we can say that National Highways and State Highways are the most accident prone areas over the years.

4. To highlight the different Government Initiatives for Road Safety in India

The Government has approved Road safety policy which outlines various measures such as promoting awareness, establishing road safety data base, encouraging safer road infrastructure including application of intelligent transport, enforcement of safety laws etc. The Government has taken the following initiatives;

➤ The Government has constituted the National Road Safety Council as the apex body to take policy decisions in matters of road safety in pursuance of section 215 of Motor vehicles Act, 1988.

➤ The ministry has requested all States/UTs for setting up of State Road Safety Council and District Road Safety committees, and to hold their meeting regularly.

➤ The Ministry has formulated a multipronged strategy to address the issues of Road Safety based on 4 'E's Viz. Education, Engineering, Enforcement and Emergency care.

- Road Safety Audit of selected stretches of National Highways has been taken up.

- High priority has been accorded and rectification of black spots (accident prone spots) on National Highways.

- Advocacy/Publicity campaign like Safe Drive Save Life by Govt. of West Bengal on Road Safety through electronic and print media.

- Tightening of safety standards for vehicles like seat belts, anti lock breaking system, child restraint, Bus Body code, Ambulance code etc.

- So far, the Ministry has sanctioned 29 I & C Centre out of which 6 Centres are likely to be functional in another 3 months.

Conclusion

Current study focuses on the road traffic scenario in India over the years 2007 to 2016. From the Study, we can say that no. of Road accidents in India as well as all the State and Union Territories have been increasing over the years. Similarly, the rate of fatality and person's injury has been increased over the years. Total no. of registered motor vehicles in India has been increasing over the years in India, all the States and UTs which is an alarming sign for road accidents and increase of fatality rate. The study also concludes that more no. of accidents, persons killed and injured take place on National Highways and on State Highways. So, Government should implement more road safety initiatives for reducing the no. of road accidents in India. State Government should implement proper road safety initiatives like Safe Drive Save Life by Government of West Bengal, Transport Department. MA

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PPP: A CATALYST FOR SUSTAINABLE INFRASTRUCTURE DEVELOPMENT IN INDIA

Abstract

This article analyzes the microeconomic outlook on the benefits of a strong infrastructure base to the Indian economy and how PPP can act as a catalyst to achieve that. It delves deep into finding how PPP projects are taking shape in India not only in core sector areas like roads, ports, and electricity but also in its contribution to social sector projects. It provides an informed perceptive on the economic impact on infrastructure development and how PPPs are helping in achieving sustainable development goals in India through its implementation at municipal and state level projects.

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In 2015, World leaders came together with a commitment that seeks to put an end to poverty, protection of the planet and ensuring peace and prosperity. The ambitious commitment towards sustainable development goals (SDGs) that are to be achieved by 2030 will heavily depend upon developing sustainable infrastructure. According to OECD report, more than 80 percent of the goals are linked directly or indirectly and/or rely on development of infrastructure of one form or the other. However, trillions of dollars are required in terms of new investment across the globe to meet these goals that too in the time when development assistance across the world are declining and global growth is on a declining slope.

The lack of sufficient investments due to scarce financial resources, combined with a lack of capacity within the infrastructure sector has its negative impact on the overall competitive index of a country like India. Realizing the situation, governments across the globe are now turning towards the private sector for new sourcing new investment to finance infrastructure development projects. Thus, PPPs needs to play a promising role in the Indian market as a solution to overcome investment challenges and provide effective service delivery with overall value for money.

Infrastructure status in India

India's widespread infrastructure needs are well known. Dire deficits in crucial areas such as roads, airports, railways, IT and telecommunication, and power generation are expanding year on year due to decades of underinvestment. In the World Economic Forum's Global Competitiveness Report for 2016-2017, India ranked 68th out of 138 countries for its infrastructure. Indeed, the nation's infrastructure challenges are a major drag on economic growth (Schwab, 2017).

Strong infrastructure as base to the Indian economy

India's ambition to sustain high economic growth depends on one important factor: developing sustainable infrastructure. However, currently India is swamped with a scrawny infrastructure, which is not sufficient for meeting the ever-growing needs of a developing Indian economy accompanied by an exponential growing population. Poor infrastructure is among the biggest hurdles facing the Indian government ambitious for achieving SDGs. Corporate growth and investments can be hampered if the government fails to close the infrastructure deficit, which some experts estimate costs about 4 percent to 5 percent of GDP due to inefficiencies. Infrastructure development can not only help remove some of these inefficiencies contributing immediately to economic expansion but also support stronger long-term growth (Dangra, 2016). Investments in infrastructure equal to 1 percent of GDP will result in GDP growth of at least 2 percent, as infrastructure has a "multiplier effect" on economic growth across sectors. The effects of an increase in spending of 1 percent of GDP can be seen in various countries - listed out in table 1.

Table 1: Multiplier effect of increased infrastructure spending

Country	Multiplier Effect (2015-2017)	Projected Job Gains
U.K.	2.5	343,000
Brazil	2.5	418,000
China	2.2	2,400,000
India	2	1,360,000
Argentina	1.8	68,000
U.S.	1.7	730,000
Japan	1.5	211,000
Canada	1.4	61,000
Eurozone	1.4	627,000
Italy	1.4	136,000
France	1.3	109,000
Mexico	1.3	193,000
South Korea	1.3	95,400
Germany	1.2	157,000

(Source: The Missing Piece in India's Economic Growth Story: Robust Infrastructure, S&P Global Ratings, 2016)

Higher infrastructure development will have a long-term positive impact on all sectors. However, in the short to medium term, the impact will vary for different sectors as shown in table 2.

Table 1: Multiplier effect of increased infrastructure spending

Sector	Impact	Probable Change in Sector Outlook	Rationale
Cement	Very high	Stable to positive	Growth comes from direct input in infrastructure
Steel	Very high	Negative to stable	Absorb excess capacity and generate growth from direct input in infrastructure

Automobiles-commercial vehicles	High	Stable to positive	Generates growth from direct use in construction and transportation activities
Real estate	Medium	Negative to stable	Helps generate demand for unsold inventories, improves connectivity, and supports land prices
Capital goods	Medium	Negative to stable	Results in new capital orders (but with a lag), if manufacturing demand picks up due to infrastructure improvements
Automobiles-passenger vehicles	Medium	Stable	Decongestion of roads to support car demand, infrastructure development will still be inadequate to replace private transport
Consumers	Low	Stable	Higher economic activity likely to result from uptick in consumer spending
Utilities	Low	Stable	Higher economic growth would support demand
Oil and gas	Low	Stable	Growth from higher industrial demand
Metals and mining	Low	Negative	Growth from higher industrial demand

(Source: The Missing Piece in India's Economic Growth Story: Robust Infrastructure, S&P Global Ratings, 2016)

India's infrastructure requirements

India will requires USD 1.5 trillion over the next decade to fill in the infrastructure gap. However, even this would likely only help bridge the infrastructure deficit rather than create room for future growth. India also aims to achieve 40% cumulative electric power installed capacity from renewable energy resources by 2030. In one estimate, the country would entail an investment of USD 2.5 trillion by 2030 to fund its targets for climate change mitigation with an additional investment of about USD 1 trillion in infrastructure every five years to satisfy demand (Tyagi & Datta, 2017). Table 3 indicates the infrastructure requirements for achieving inclusive sustainable growth.

Table 3: Infrastructure requirements for achieving SDGs

SDG	Description	Infrastructure Requirement
Goal 3	Good Health and Well-Being for people	Building hospital and other supportive infrastructure
Goal 4	Quality Education	Building new schools and improving the existing
Goal 6	Clean Water and Sanitation	Building the infrastructure for water supply, treatment and waste water disposal and treatment
Goal 7	Affordable and Clean Energy	Increasing the capacity of renewable energy production but building new plants
Goal 8	Decent Work and Economic Growth	Setting up new industries
Goal 9	Industry, Innovation and Infrastructure	Building resilient infrastructure for sustainable industrialization
Goal 11	Sustainable Cities and Communities	Building smart cities

(Source: Author's contribution)

Why private sector investments are needed?

Looking at the details of current Outstanding Gross Loans & Advances by Scheduled Commercial Banks (SCBs) the amount that is reveled is over 84 Lakhs Crores (as on 31st Mar 2017). Out of this 69 percent is accounted for public sector banks (PSBs). The main exposure or higher impairment of PSBs is in industries like Infrastructure, Textile and Steel. Although RBI is taking certain step to revive Indian banking sector and designing tools to tackle stress, however banks are already trying to re-balance their loan portfolios and are shying away from sectors mentioned above. Hence, the goals and ambitions of the government cannot be fulfilled unless a sufficient amount of private sector investment flows in. Some of the initiatives taken by Indian government to attract more private sector investment are as below in Table 4.

Table 4: Initiatives taken by Indian government to boost the private sector investment

Initiative	Aim
Make in India	To make India a manufacturing hub and to create large number of jobs
Startup India	Nurturing innovation and Startups Drive sustainable economic growth and generate large scale employment
Comprehensive FDI policy regime	Making India more attractive for investment by easing conditionalities
Building industrial corridors amongst the dedicated freight corridors along with strengthening the existing infrastructure – including roads, railways, ports and waterways	Availability of state of art infrastructure for industry
SWIFT (Single Window Interface for Facilitating Trade)	To ease the business environment
Integrated parks – textile, food, leather etc...	To increase employment generation

(Source: Government of India and CIRC Research)

Involving private sector through PPPs

As mentioned above; developing a sustainable infrastructure forms the base for at-least seven other SDGs which are captured in the table below. Goal 17: Partnerships for the Goals may provide an answer for the infrastructure requirements for achieving other goals. One way to involve private sector is through PPP. PPPs are growing globally and are looked as an effective method for developing infrastructure (both core and social) by pouring in the much needed private investments.

Figure 1: Linking SDG Goal 17 with other SDG goals

(Source: Author's contribution)

Role of PPP in infrastructure development

A public private partnership (PPPs) for developing public infrastructure continues to draw considerable attention from governments in many countries across the world. In India, PPP deployment started in the early 2000's. Since then, Indian government is actively seeking private sector participation for various PPP projects on a long-term basis.

Table 5: Sector wise PPP penetration in India (2007-2017)

Sector	Total projects	Total cost (INR crore)
Railways	606	3948359.52
Water& Sanitation	1318	4028865.05
Electricity	1351	4013151.26
Renewable energy	1296	4057274.15
Roads	2713	4086229.69
Tourism	42	3648817.98
Social infra	48	3929999.97
Airports	71	3974088.77
Transport	110	3892439.18
Ports	125	3939490.45
Oil/Gas/LNG	137	3950714.94
Commercial infra-structure	215	4020254.5
Total	8032	**47489685.46**

(Source: CIRC Research (CIRC, 2018))

Developing Social Infrastructure via PPP: Indian Success Stories

Education and healthcare are twin most important areas of social infrastructure in India. The development of these infrastructures especially in rural areas directly or indirectly affects their wellbeing and livelihood. Some of the case studies pertaining to these sectors in India are given below which are developed through PPP mode of intervention.

Case 1: Industrial Training Institutes (ITI) - Revitalisation Programme for Industrial Training Institutes Under a PPP Framework

Director General of Education &Training in 2005, took up a scheme for upgrading 500 existing ITIs by converting them to Centres of Excellence (CoE) under a PPP structure. Out of the 500 selected ITIs, World Bank supported revamping of 400 ITIs under Vocational Training Improvement Projects (VTIP). Based on the positive outcome of the VTIP project, the process for the up-gradation of the remaining 1396 Government ITIs was started in 2007-08.

The results of the PPP programe in education clearly highlights its benefit in achieving larger SDG goals through providing employment and increased monthly earning. The outcomes of the programe can be directly linked to SDG1, SDG 3 and SDG 4.

Case 2: Public-Private Partnership in Emergency Response Service (ERS) in the State of Tamil Nadu

Through this initiative, Government of Tamil Nadu has targeted healthcare services improvement in the state. The incidence of Road Traffic Accidents (RTA) handled by EMRI increased from 1,895 in 2008 to 215,928 in 2016 indicating the existence of a wide network of the service in a state with highest RTAs. The actual reported figures of RTA from the state crime bureau of Tamil Nadu for the year 2008 is 83,035 and for 2016 is 99,361. EMRI services have been successful in enabling better healthcare due to rapid response, predictable time and state-wide logistics, delivering patients in dire need to appropriate hospitals. It has also been very effective and efficient in using the funds provided by the state. Having a PPP helped them overcame the difficulties associated with both big and small NGOs pertaining to varying financial and differing abilities.

Discussion

SDG outcomes are directly or indirectly linked with infrastructure development, though there is hardly any example available, which will directly link these outcomes to particular projects. This is only after the UN resolution; governments in all forms (Central/state/local) try to establish the direct and indirect benefits of any project to such outcomes. This helps in better monitoring of the project and simultaneously improve the benchmark set on various parameters. Governments are very keen on doing so, as these would help them track the progress of the project and know the overall coverage of beneficiaries.

SDG linked and SDG monitored PPP projects have the dual advantage of establishing the baseline and continuously work towards achieving that and project the success to community so as to have a greater community involvement in the project. Thus, integration of related programs to SDG becomes vital as earlier any projects limits itself to its bankability in terms of finance related matters. Some costs not related to infrastructure creation and operations are not loaded to project costs which may render the project unviable but the nature of those costs are having direct impact to SDG outcomes. So, it becomes necessary for the government to integrate SDG outcomes with the project SPV before handing the project to any PPP partner for implementation.

Outcome measurement cannot always be measured through continuous project monitoring. While continuous project monitoring establishes the project related parameters to that of benchmarks and find the deviations if any, the larger impact to the people or society at large can only be measured in long-term. Therefore, there should be provision for alternative measurement through surveys for these development outcome of the project.

The outcomes of any project need to be stated as project goals and mandatorily linked to SDG outcomes. This would enable the authority to converge other government programs and specify measurements in tandem with infrastructure PPP. In this process, there will be higher level of commitment from the government departments. This should percolate downwards to state and local administrative bodies as a necessary measure and thus, there should be clear direction for a top bottom approach for implementation of the SDG programs. Any measurements which require statistical intervention in medium to large scale should be budgeted for as part of the project or linked to the projects. These studies feed into government's larger developmental agenda and form the basis for gaining community participation an acceptance of future projects. MA

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LOGISTICS SECTOR IN INDIA-CURRENT SCENARIO AND FINANCIAL OUTLOOK

Abstract

The article looks into the status of logistics sector in India. The article highlights the impediments to the growth of the sector in India and the potential benefits the Industry is likely to receive post the conferment of Infrastructure status to this sector. To substantiate the study, the paper investigates the financial performance of logistics companies listed in BSE for a period of five years between 2013 and 2017. A select set of ratios viz., current ratio, long term debt ratio, fixed assets turnover ratio and return on capital employed were analysed and it was found that the performance of the companies was found to be satisfactory. The study concludes that the logistics sector is poised for a growth with the advent of infrastructure status, the financial performance of the companies is expected to improve in the days to come.

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Logistics is regarded as the backbone of the economy as it ensures efficient and cost-effective flow of goods to the end user. All the commercial sectors depend upon logistics industry to complete the sales process. Of late, Logistics industry in India has been evolving rapidly. It is the interplay of infrastructure, technology and new types of service providers, which defines whether the logistics industry will be able to help its customers reduce their costs and provide effective services. Despite poor response from various quarters, the logistics industry continues to witness growth owing to the progress in retail, e-commerce and manufacturing sectors. The Global Logistics sector was expected to grow 10 to 15 per cent in 2013-14. Logistics industry is expected to reach over $ 2 billion by 2019. Rise of e-commerce logistics and increased domestic consumption will pave the way for the industry to grow further in future. With the promise of steady growth and improvement, the service-oriented logistics industry is ready to expand beyond the horizons in the latter half of this decade.

Status of Logistics Industry in India

The biggest bottleneck experienced by the industry today is poor integration of transport networks, information technology and warehouse & distribution facilities. Regulations exists at different levels such as regional and local authorities. Because of this inherent difference, there is hindrance in the creation of national networks. The need of the hour is trained manpower is for the third-party logistics sector and the manufacturing and retailing sectors. It is lacking at the IT, driving and warehouse as well as at the higher strategic level. The sector is in not organised in India. The logistics is perceived to be manpower-driven industry and lack of adequate training institutions have created crisis of skilled management and client service personnel. Poor facilities and management are the fundamental reasons behind high levels of loss, damage of stock, mainly in the perishable sector. The problem arises mainly because of the absence of specialist equipment, like proper refrigerators. Lack of quality training is another reason. Though practitioners and academicians are slowly becoming aware of the importance of logistics and supply chain, however, the field is still not adequately explored as far as research is concerned. It is essential to prioritize research and development so that the weaknesses in the industry can be taken care of and improved.

Industry Status to Logistics Industry- Benefits and Implications

In a bid to boost the logistics sector in the country, the Government has granted it an infrastructure status. This grant of status is a positive move by the Government and is an acknowledgement of the growing dependency of the success of other industries on logistics. The sector is associated with number of benefits and concessions. The grant of infrastructure status enables an industry to raise money from insurance companies, pension funds, and international lenders with a longer tenure and on easier terms. Infrastructure status gives industries access to cheaper foreign currency funding through the external commercial borrowing route. In the infrastructure category, a logistics company is entitled for credit at competitive rates and on long-term basis with enhanced limits. Furthermore, the logistics sector will be also be eligible to borrow from India Infrastructure Financing Company (IIFCL). These benefits coupled with the consequences of implementation of good and services tax, will decrease the overall costs of logistics, in turn boosting the demand for Indian goods. Additionally, this will also contribute towards furthering the objective of the "Make in India" initiative.

In addition to the benefits that would accrue to the companies engaged in the logistics sector, this move of the government will also be instrumental in the expansion of other sectors that are dependent on logistics, such as pharmaceuticals, textiles, cement, etc. The changed status will enhance the viability of opening businesses in different regions, thus translating into more demand and growth, a possibility that was not previously considered viable.

The potential benefit of the Infrastructure status would be job creation. In view of the benefits mentioned above, the sector would attract a huge number of investors, both Indian and foreign thereby creating employment opportunities in the country. In fact, the creation of the Sagarmala and Bharatmala Projects have already generated jobs for around 3 crore individuals.

The logistics sector is highly fragmented, unstructured and lacks regulation. This results in different players in a given sector adopting different practices, leaving no room for uniformity. The efforts to minimize losses is to improve road infrastructure. A significant improvement in the right scale will help logistics sector achieve ideal growth. Lastly, the task force employed in the sector is not adequately trained thus reducing the possibility of reaching its actual potential. The grant of infrastructure change is a welcome move, but the road ahead is not devoid of impediments.

Financial Performance of Logistics companies listed in BSE

There are around 17 logistics companies listed in BSE. The following tables present an overview of the financial performance of these companies which are into divergent activities with in the ambit of logistics sector. A select set of ratios are used to analyse and interpret the financial performance of the companies.

Ratios selected for the study

Current Ratio	Current Assets/Current Liabilities
Long term debt ratio	Long term debt/ Shareholders funds
Fixed assets turnover ratio	Total fixed assets/ Total Income
Return on Capital Employed	Profit before tax/Capital Employed*100

Data and Period of Study

The data has been extracted from secondary sources. The financials of companies have been sourced from Capital Line database. An online data base which has a compiled data of around 30000 companies(listed/unlisted). The period of study is for five years, i.e, 2013-2017

Table I
Current Ratio of Logistics Companies

Companies	Mar 13	Mar 14	Mar 15	Mar 16	Mar 17
Allcargo Industries ltd	0.46	0.48	0.65	0.93	0.97
Autoriders International Ltd	0.24	0.34	0.51	0.75	0.71
Blue Dart Express Ltd	1.4	1.43	1.57	1.81	1.59
Container Corporation Of India Ltd	3.75	3.43	3.03	2.07	1.24
Future Supply Chain Solutions Ltd	1.43	1.3	1.37	1.53	1.81
Gati Ltd	2.81	2.1	1.36	1.33	1.43
Gateway Distriparks Ltd	1.87	1.05	0.97	1.27	1.26
Kesar Terminals & Infrastructure Ltd	0.58	0.61	0.39	0.28	0.36
Mahindra Logistics Ltd	1.34	1.38	1.48	1.63	1.58
MFL India Ltd	1.67	1.55	1.59	1.52	1.63
North Eastern Carrying Corporation Ltd	1.5	1.48	1.53	1.59	1.65
Orissa Bengal Carrier Ltd	2.91	2.59	2.15	1.91	1.87
Sical Logistics Ltd	1.49	1.37	1.9	2.03	1.76
Snowman Logistics Ltd	1.43	1.12	1.41	1.53	1.36
Shreeji Translogistics Ltd	1.18	1.13	1.13	1.21	1.21
VRL Logistics Ltd	0.61	0.42	0.36	0.53	0.75
Mean	1.541875	1.36125	1.3375	1.37	1.32375
SD	0.913785	0.785508	0.671375	0.506791	0.422668
CV	0.592645	0.577049	0.501962	0.3699231	0.319296

Figure I

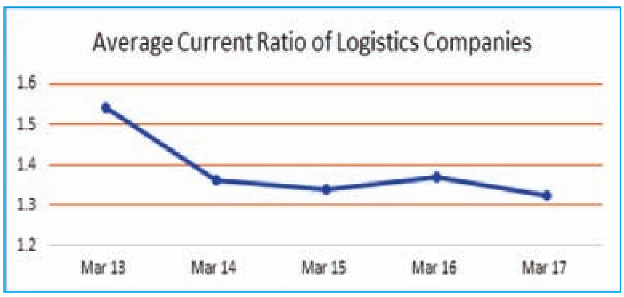


Table I shows the short-term liquidity of the logistics companies selected for the study. Current ratio measures the ability of the companies to meet its short-term obligations from the short-term assets. The average current ratio is 1.384 during the period of study. This shows that companies have current assets of 1.384 times of current liabilities. From the table, it can be inferred that the average current ratio of the companies according to year have come down from 1.54 to 1.32 respectively. Based on CV (Coefficient of Variation) results, in the year 2017 the companies have been consistently maintaining the current ratio level closer to the mean value. The CV is the lowest in 2017 when compared to the preceding years.

Table II
Long Term Debt Equity Ratio of Logistics Companies

Companies	Mar 13	Mar 14	Mar 15	Mar 16	Mar 17
Allcargo Industries ltd	0.1	0.16	0.15	0.07	0.07
Autoriders International Ltd	0	0	0	0.7	0.66
Blue Dart Express Ltd	0	0	0.36	0.87	0.5
Container Corporation Of India Ltd	0	0	0	0	0

Future Supply Chain Solutions Ltd	0.19	0.15	0.09	0.12	0.22
Gati Ltd	0.29	0.24	0.3	0.35	0.35
Gateway Distriparks Ltd	0.01	0.03	0.04	0.03	0.06
Kesar Terminals & Infrastructure Ltd	0.18	0.25	0.23	0.17	0.13
Mahindra Logistics Ltd	0	0	0	0	0
MFL India Ltd	0.06	0.02	0.22	0.5	0.81
North Eastern Carrying Corporation Ltd	0.04	0.02	0.04	0.06	0.08
Orissa Bengal Carrier Ltd	0.79	0.78	0.64	0.54	0.56
Sical Logistics Ltd	0.36	0.54	0.68	0.84	1.04
Snowman Logistics Ltd	0.38	0.52	0.25	0.21	0.25
Shreeji Translogistics Ltd	0.78	0.7	0.61	0.51	0.51
VRL Logistics Ltd	1.97	1.11	0.67	0.46	0.32
Mean	0.321875	0.2825	0.2675	0.339375	0.3475
SD	0.493561	0.334057	0.245624	0.289644	0.299218
CV	1.533394	1.182501	0.918221	0.853462	0.861058

Table II shows the long-term debt equity ratio of the logistics companies selected for the study. Long term debt equity ratio measures the proportion of debt used in the capital structure in relation to equity. The average current ratio is .306 during the period of study. This shows that companies 30.6% in the form of long term borrowings in the capital structure. From the table, it can be inferred that the average long-term debt equity ratio of the companies according to years have gradually increased from 0.32 to 0.34 respectively. Based on CV (Coefficient of Variation) results, in the year 2016 the companies have been consistently maintaining the current ratio level closer to the mean value. The CV is the lowest in 2016 when compared to the preceding years.

Figure II

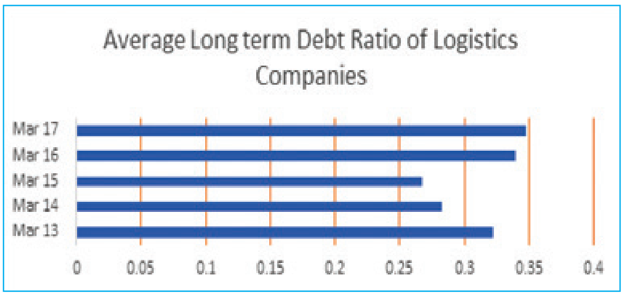


Table III
Fixed Assets Turnover Ratio of Logistics Companies

Companies	Mar 13	Mar 14	Mar 15	Mar 16	Mar 17
Allcargo Industries ltd	0.82	0.73	0.81	1.04	1.18
Autoriders International Ltd	1.94	1.95	1.89	1.89	1.56
Blue Dart Express Ltd	4.4	5.13	6.1	7.64	8.91
Container Corporation Of India Ltd	1.18	1.16	1.16	1.44	1.57
Future Supply Chain Solutions Ltd	1.69	1.53	2.29	3.38	3.42
Gati Ltd	2.21	4.69	4.32	3.56	3.62
Gateway Distriparks Ltd	0.74	0.68	0.91	1.35	1.66
Kesar Terminals & Infrastructure Ltd	0.54	0.61	0.69	0.71	0.69
Mahindra Logistics Ltd	50.6	49.08	47.7	46.84	48.61
MFL India Ltd	2.4	3.32	3.64	2.82	2.38

North Eastern Carrying Corporation Ltd	16.88	16.81	14.63	14.8	15.33
Orissa Bengal Carrier Ltd	15.51	21.53	27.35	26.01	17.92
Sical Logistics Ltd	2.28	2.29	2.06	1.79	1.68
Snowman Logistics Ltd	0.72	0.6	0.55	0.5	0.38
Shreeji Translogistics Ltd	2.21	2.42	2.24	2.06	0.51
VRL Logistics Ltd	1.26	1.29	1.36	1.68	2.15
Mean	6.58625	7.11375	7.35625	7.344375	6.973125
SD	12.35797	12.31511	12.41012	12.08434	11.90667
CV	1.876329	1.731171	1.687017	1.645388	1.707509

Table III shows the fixed assets turnover of the logistics companies selected for the study. Fixed assets turnover ratio measures the efficiency of fixed assets in churning out sales. It measures whether the companies fixed assets are put into use to generate sales. Ideally, a ratio of more than one is considered adequate for a company. The average fixed assets turnover ratio is 7.07 times during the period of study. This shows that companies are using their fixed assets efficiently to generate revenue. From the table, it can be inferred that the average interest coverage ratio has gradually increased 6.58 to 6.97 respectively. Based on CV (Coefficient of Variation) results, in the year 2016 the companies have been consistently maintaining the current ratio level closer to the mean value. The CV is the lowest in 2016 when compared to the preceding years.

Figure III

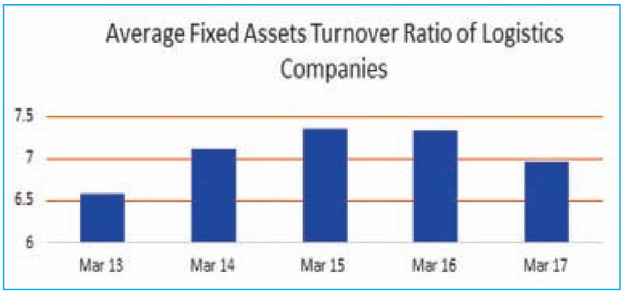


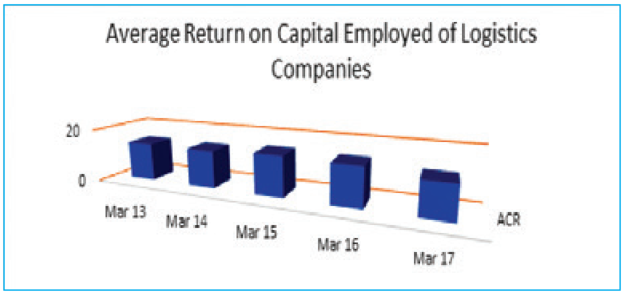
Table IV
Return on Capital Employed (RoCE) of Logistics Companies

Companies	Mar 13	Mar 14	Mar 15	Mar 16	Mar 17
Allcargo Industries Ltd	9.26	5.49	10.19	11	9.86
Autoriders International Ltd	5.9	7.9	15.51	16.16	13.11
Blue Dart Express Ltd	32.73	28.75	31.79	43.85	29.22
Container Corporation Of India Ltd	20.25	19.24	17.59	16.23	13.65
Future Supply Chain Solutions Ltd	0	6.75	16.68	18.8	20
Gati Ltd	2.86	2.22	4.76	4.26	5.21
Gateway Distriparks Ltd	12.35	8.72	16.5	11.7	8.29
Kesar Terminals & Infrastructure Ltd	35.95	35.6	34.13	29.47	26.86
Mahindra Logistics Ltd	45.08	48.17	29.95	19.41	20.01
MFL India Ltd	0.25	0.61	0.67	0.58	0.1
North Eastern Carrying Corporation Ltd	13.87	14.27	12.08	12.9	11.21
Orissa Bengal Carrier Ltd	-0.12	-0.07	0.26	0.42	1.4
Sical Logistics Ltd	7.06	6.6	8.76	10.03	12.55
Snowman Logistics Ltd	10.55	8.37	6.15	3.81	-0.23
Shreeji Translogistics Ltd	8.63	6.88	8	9.01	10.8

VRL Logistics Ltd	22.66	23.49	27.53	23.96	13.36
Mean	14.205	13.93688	15.03438	14.47438	12.2125
SD	13.22929	13.25822	10.5053	10.91807	8.370137
CV	0.931312	0.951305	0.698752	0.754303	0.685375

Table IV shows the Return on Capital Employed (RoCE) of the logistics companies selected for the study. RoCE is the operating income earned on the capital employed by various stakeholders of a company. Ideally, higher the ratio better is the income earned to the stakeholders of the companies. The average net profit ratio is 13.96 % during the period of study. This shows that companies on an average earn 13.96% on the capital employed. From the table, it can be inferred that the average net profit ratio has gradually decreased from 14.2% to 12.21 % respectively. Based on CV (Coefficient of Variation) results, in the year 2017 the companies have been consistently maintaining the current ratio level closer to the mean value. The CV is the lowest in 2017 when compared to the preceding years.

Figure IV



Future of Logistics Industry

The logistics firms are transforming from a conventional set-up to a modern system with the integration of IT and technology to their operations to reduce costs and to meet the service demands. The growth and success of the Indian logistics sector depends much upon its soft infrastructure like education, training and policy framework as much as the hard infrastructure like road, air and sea. To support India's fast-paced economy growth logistics industry is very essential. It is estimated that the industry will continue to grow at a robust rate of 10-15 per cent annually. With a lot of impetus given to Micro and Small Medium Enterprises (MSMEs), the demand for logistics sector is only expected to grow. The growth is backed by the boom in the e-commerce sector and expansionary policies of the FMCG firms.

Conclusion

The study concludes that awarding infrastructure status to the Logistics Sector is a much-needed move. The paper also has highlighted the potential benefits in terms of raising funds by companies at competitive rates, accessing funds across the globe, generating employment opportunities etc. But the biggest challenge is the lack of uniformity in operations among the companies and a regulatory authority to reduce the fragmented level. Development of infrastructure (hard and soft) is a challenge and overcoming the same will find this sector in the lime light. The financial analysis of the logistics companies also indicate that certain parameters such as current ratio, RoCE, Interest coverage ratio are getting stabilized between 2016 and 2017. Their performance has been satisfactory in terms of efficiency and profitability. With this status, the financial performance of these companies is only expected to improve in the future. The add on benefits will improve the financial health of all the companies in terms of efficiency and profitability. MA

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CROSS BORDER TRADE BETWEEN INDIA AND BHUTAN
&
THE GOLDEN PROSPECTS OF CMA

Abstract

India and Bhutan share a very peaceful and healthy relationship in terms of political and economic cooperation. Both the countries share a long border, and since Bhutan is a landlocked nation, they depend on India on many aspects. Cross border trade including tourism gives a major boost to the Bhutanese economy. Also, since, there is no central accounting body in Bhutan, The Institute of Cost Accountants of India can approach the Royal Bhutanese Government, to render professional services and opening up new avenues for the members of the Institute.

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Bhutan is a small Himalayan kingdom, landlocked between India and China. It maintains a very cordial relation with India. Despite being a very poor country, in terms of overall economic development, Bhutan has always emphasised more on the physical and emotional well-being of her subjects, rather than exploiting natural resources for economic gains. Bhutan gives Gross National Happiness (GNH) more importance than Gross Domestic Product (GDP). *The GDP of Bhutan in 2018 was around 2.7 bn USD.*

India-Bhutan relation

India and Bhutan shares a very healthy relation. Indian citizens do not require any Passport or Visa to enter Bhutan and vice versa. Indian Voter Card is sufficient to claim a travel permit at the border towns, which is provided free of cost. India has assisted Bhutan with all sorts of development needs and military advice. The roads in Bhutan are maintained by Border Roads Organization (BRO) of India.

In the current scenario, India and Bhutan has a trade treaty, which came into being in 1972, and has been recently amended in 2017.

Trade between India and Bhutan

Indian rupees are pegged at same value with the Bhutanese Ngultrum. It means that the valuation of the currencies is same. Indian rupees are legally accepted in Bhutan.

Bhutan has a geographical advantage of being situated in the Himalayas. There are many steep flowing rivers in the region and Bhutan has effectively constructed Hydro electrical power stations there. Majority of the electricity generated is exported to India. The border states of West Bengal, Sikkim and Assam gets a big chunk of their electricity from Bhutan.

Apart from electricity, Bhutan also exports ferrosilicon, cement, cardamom, calcium carbide, steel rods/bars, dolomite, and gypsum to India. India accounts for nearly 81.1% of the total export of Bhutan.

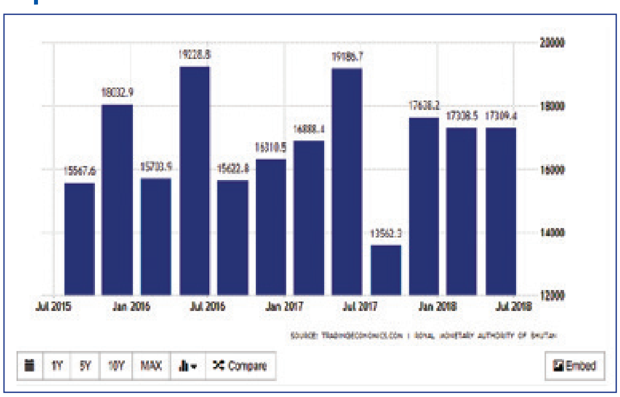
Bhutan imports rice, pulses, meat, fuel and lubricants, airplanes, aviation turbine fuels, machine parts, motor vehicles and electrical and electronic items from India. India accounts for nearly 78.3% of the total import of Bhutan.

In addition to the above, the stores and spares for the Hydroelectricity power stations in Bhutan are mostly supplied from India.

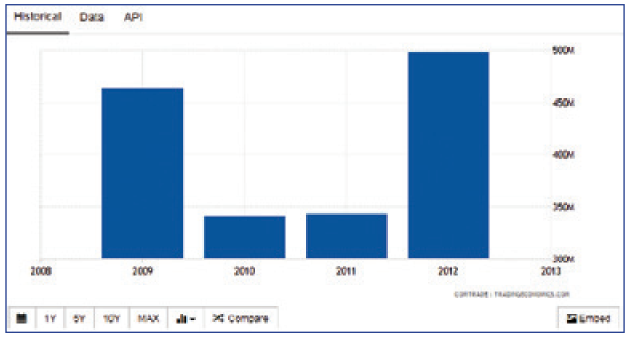
Banking sector:

The banking and financial sector in Bhutan is monitored by Royal Monetary Authority of Bhutan. Punjab National Bank has registered their Bhutanese subsidiary there and is providing Banking facilities, which is still taking baby steps in this mountain kingdom.

Import of Bhutan:



Exports from Bhutan:



Overall Import & Exports of Bhutan to & fro India:

Particulars	2013	2014	2015	2016	2017	Jan-Sept 2018
Exports to Bhutan (Imports from India) (Rs. Cr)	4389	4785	5374	5529	5397	4470
Exports to Bhutan from India as a % to total Bhutanese import	82.4%	84.1%	79%	82.09%	80.56%	85.39%
Imports from Bhutan(Exports to India) (Rs. Cr)	2898	3180	3180	3205	3162	2589
Imports from Bhutan to India as a % to total Bhutanese export	91%	89.4%	90.3%	90.90%	84.77%	78.6%

Source: https://indembthimphu.gov.in/pages.php?id=42

Mode of transport of Goods:

Goods make their way to Bhutan through roads as Bhutan has no railways. Big trucks and Lorries carrying goods, enters Bhutan through two checkpoints, Phuntsholing (Bhutan-WB) and Gelephu (Bhutan-Assam). The border town in West Bengal, Jaigaon is a bustling economic hub due to its proximity with Phuntsholing.

Internally, Bhutan has 8,000 kms of roadways and essential goods are reached to remote villages and towns by truck. Transportation is another business that harbours between Bhutan and India.

Cross Border Trade Ecosystem:

Cross border trade between these two nations not only consists of supply of goods, it covers the whole aspect of an ecosystem created as a result of this trade. Due to the free VISA regime between the two nations, tourism flourishes.

Tourism in Bhutan is supported by the Royal patronage as a part of cultural promotion, religious reasons and the beauty of the Himalayan range.

Another reason of patronising tourism is that it is one of the most environment friendly ways of revenue generation. Bhutan, due to its environmental friendly policies, is one of the carbon negative countries in the world.

Tourism in Bhutan:

India is the biggest contributor to the tourism industry in Bhutan. Huge number of Indian visitor's arriving at Bhutan, either through Paro International Airport or through the border town of Phuntsholing.

The major tourist hubs are Thimphu (capital), Punakha (cultural capital), Paro and Haa Valley. The economy of these towns thrives as a result of the flow of tourists from India. Hotels, Restaurants and shopping centres are bustling with Indian tourists. Restaurants also serve vegetarian food to cater the vegetarian population from India.

Many young men in Bhutan depend solely on the income generated from tourism. Private taxis serve the tourists and take them for a tour across the country. *All of the above are part of the cross border trade ecosystem.*

Tourism from India can be treated as part of cross border trade, since Bhutan received 56,210 visitors from India in 2016 alone, contributing a major role in the development of economy of Bhutan.

Scope of Indian Cost & Management Accountants in Bhutan:

It is observed that despite being an upcoming economy, Bhutan does not have a centralised body of Accountants. The author has not been successful in identifying any individual tax consultant or auditor who performs the task in Bhutan. The area is operated & controlled by The Royal Audit Authority (RAA). The Institute of Cost Accountants of India (ICoAI) can approach the Royal Bhutanese Government, and explore the opportunities of providing taxation, accounting, audit and financial management services to the corporations incorporated in Bhutan. This will open up new professional avenues for the members of the Institute.

Conclusion

As the two nations have a peaceful and cordial relation, the trade between the two nations are expected to improve in the coming years. The major industry in Bhutan, i.e. Hydroelectricity and Tourism receives huge boost from the cross border trade with India. Both the sectors still have huge potentiality to develop in the coming years. MA

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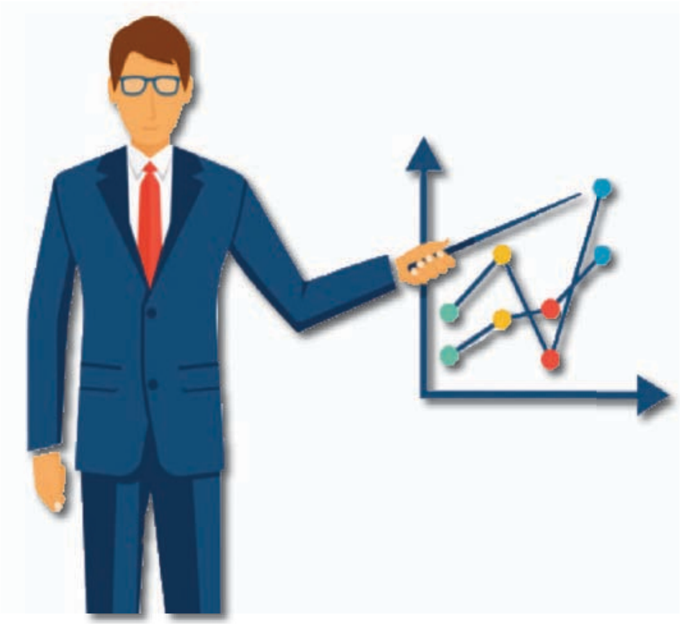
ENGAGING CONSULTANTS? DONE YOUR HOMEWORK - RIGHT?



Abstract

An advice whether related to our health or wealth, is always welcome. Similarly businesses have their share of issues which need to be dealt with aptly. However when such advices are to be received on payment of fees, you as a leader, need to be absolutely sure that things and processes which are under your control are first exhausted. It is always better to have our homework done.

Spending so many years in corporate life and being associated with so many consultants over the years, helped me to see things more objectively.

Thus the artical was witten.

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Today's businesses operate in a highly Volatile, Uncertain, Complex and Ambiguous (VUCA) environment. Challenges faced by the organisations are far too many to keep its managers at peace. To deal with intricacies of the business effectively and meet ever-rising expectations of various stakeholders, every now and then, managers are compelled to look beyond the organization for some external help. In fact, to benchmark activities and processes within the organization, management must have an outward looking approach. It must keep itself updated with path breaking developments both within the industry and the world at large. Only basis such endeavour, an organisation can guarantee its top performance and maintain superior pole position.

To overcome specific business challenges, appointment of external advisors, commonly referred to as Management Consultants, becomes the need of the hour. These Business Messiahs help provide novel, customized and innovative solutions. They restructure various activities and processes, realign organization's resources and wipe out snags, agonies and pains. They provide vital support to ailing businesses and help them negotiate through seemingly gigantic concerns and reach their desired destination. Higher the competency required to provide reliable yet futuristic solutions, bigger is the demand for these consulting firms. Depending upon the complexity of the problem, tenure required to formulate a revival plan and most importantly the reputation of these consulting firms, that their fees gets determined. These messiahs come with a price tag which could range anywhere between a few thousands of rupees to even several crores.

Since timely appointment of these business doctors prevents organization from going downhill, their engagement ought to be flawless. However, selecting the right consultant (horses for courses) and at optimum price, is often found to be quite daunting. Shortlisting and engaging the most suitable consultants, among so many learned ones, call for meticulous planning. In my current narrative, a conscious attempt has been made to dwell on some of the key aspects that every organization needs to keep in mind, while entering into such arrangement. As consultants are outsiders to any organization (some of my friends say aliens), I wish to consider a seven point reality check - something similar to litmus tests that are carried out in scientific experiments.

Any renowned consultant understands their assignment clearly well. They recommend best possible solution, without making changes either with the scope or with agreed timelines of delivery. So, any client organization needs to remain watchful of consultants who after accepting the assignment in its entirety, attempt to fiddle with agreed parameters. Once detailed discussions with stakeholders are completed and scope gets frozen, consultant should not be allowed to influence management with mysterious issues and their potential threats, else they may highlight negative consequences that organization might experience, if their new findings are not given due importance; thereby the purpose and objectivity of all previous discussions become pointless. If the consultant is successful in such manipulation, they will continue to work, work and work, multiply and proliferate. Try to milk the cow until it gets dried up. Thus, it is mandatory for any organization to define the problem as clearly as possible, outline the results that are expected post consultant's involvement and timelines that need to be met for prescribing remedial measures. Preferably these discussions should be recorded in granular details including individual timelines for deployment of different resource persons. This will guarantee completion of the assignment within stipulated time.

Renowned consultants operate with exceptional work ethos. During their assignment in client organization, they develop a cohesive and collaborative relationship with various employees. However, management of any client organization needs to be careful of some wily consultants who have a tendency to make the clients' employees work at cross purposes. They thrive on creating divisive groups. Each and every group is narrated a different story – often creating a hot air of confusion. In this process, consultants make their position enormously significant. This helps them to bulldoze their opinion without facing any resistance from client's employees. Thus periodical review with concerned stakeholders and consultant becomes absolutely necessary to iron out many of the differences and align varying perspectives towards an unified goal.

As consultants are expected to maintain strict delivery schedules, a good consultant plans their work in such a way that their priorities like discussions, briefings or meeting schedules do not clash with others' priorities in client organization. They remain accommodative while fixing their appointments with resource persons. They attach enough value to individual priorities and stick to agreed timeslots. On the contrary, a self-seeking consultant compels employees of its clients, to address their (consultant's) priorities first. In case they sense that their priorities are given lesser importance, they make hue and cry. Sometimes, even simple request for change in meeting schedule is promptly escalated to higher management, slightest delay in furnishing required data for discussion, is reported as uncooperative response by client's employees.

All reputed consultants chalk out every plans i.e project schedules, deliverables, briefings and progress updates, in consultation with the Single Point of Contact (SPOC). In day to day operation, consultants hardly interact or wish to influence higher management. Sometimes, whenever any special update is sought by top management, they are furnished in deliberation with the said SPOC. But there are many shrewd consultants, who are adept in establishing alternate channels of communication with the top honchos in client organization. They circumvent the SPOC or the said Project Lead. Such ambiguous and unpleasant work philosophy creates enough tension in minds of people working in the project.

Once the consulting assignment gets over, any good consultant ensures that they transfer their specialized skills and knowledge to the employees in client organization, so that no void is created, after they leave. On the contrary, some consultants do not give any importance to this facet and tend to remain extremely secretive. They end up providing some structured, eye soothing power point presentations, using some management jargons and catchy phrases. They reveal only the bright side of their recommendations and make lofty claims |(even for some half-baked prescriptions). Sadly, some of these observations are mediocre and lack an in-depth study. Sometime findings are nothing new than what is already known. This reinforces the popular belief that consultants borrow your watch and tell you the time. So before implementing any of their recommendations, management must evaluate them carefully so that the organization is insulated from embarrassing fallouts. Recommendations must be brainstormed with all stakeholders and tested in a controlled environment. Remember, any wrong judgment can have catastrophic impact and lead the organization to guaranteed failure.

Honestly speaking, consultant's fees are finalized at the beginning of the project and are rarely discussed thereafter. It is only in very exceptional circumstances that their remuneration gets renegotiated, basis additional resources that are required to be deployed for catering to supplementary work, which were not anticipated earlier. However, such events are very far and few. Nonetheless, management must oversee that supplementary resources are deployed for additional scope of work only and no other fringe activities. Tell me how often do one notice a programmer of a consulting firm running around within the client organization every week, submitting details of man-hours spent on duty, extra hours (overtime), conveyance arrangements, fly back hours and other logistic plans? Do they really justify their high hourly rate of compensation for such secondary activities? Are these not cases of camouflaged employment? It is better that an organization remains vigilant and preferably maintain a helpdesk to facilitate consultants carry out such peripheral activities. I am sure, such step will vastly benefit the organization.

The embedded risk in any project rests in two distinct aspects. First, its likelihood of failure and second the impact that such faulty decision may have on the organization. When a project fails to take off, selfish and irresponsible attitude of some clever consultants comes to the forefront. They are seen becoming more worried about their reputation and less on client's losses. Much to the annoyance of their clients, consultants conveniently remain muted. They walk away silently - showing no signs of remorse. At this point, the client is left high and dry and it becomes organization's responsibility to come out of the mess, so created through implementation of defective therapies of external consultants.

So, what should be the right strategy? Does it mean that when an organization faces serious crisis, it should keep away from deploying learned consultants? I do not agree al all. In fact, whenever any challenge arises, I expect managers to make use of their value judgement. Prepare a blue print to deal with these adversities and concentrate on problem solving as a process. Let me clarify.

It's inevitable that during some point of time every organization will require help of these learned and analytical minds (consultants). Considering the specialized knowledge, global exposure and commendable acumen of these business doctors, their strategic prescriptions bring immense value to an organization. More often than not, recommendations are precise and impeccable. However, in any vibrant organization, involvement of consultants should follow a orderly procedure. Prudent way of addressing any challenge (no matter how big it might seem to be), is to exhaust all in-house options. The real courage of an inspiring leader rests on how he handles these crunch situations. It's essential that he has the complete insight of the problem and its enormity. He should aim at breaking down the bigger challenge into smaller sub-issues and then to sub-sub-issues. Identify key resource persons within the organization, discuss and deliberate and then chalk out individual action plans. He must seek active participation from core team members, examine estimated costs of all the options and then choose the right scheme for individual issue resolution. At the same time, he needs to make a strategic endeavour to stitch these smaller resolutions into an integrated forward path. So, planning, execution and timely course corrections must be in sync.

This inward-looking approach leaves a significant impact on organization's ecosystem. It creates a win-win opportunity, both for the organization and its employees. Any organization where active participation and collaborative role-play is valued, employees view challenges as opportunities. It encourages them to think out of the box, do something big and make a notable contribution. Such collective efforts results in huge success - way beyond sum of individual contributions. On the other hand, for any organization it is not only a cost-effective proposition but also aid groom its employees to expand their mental horizon and be ready to face tomorrow's challenges with grit and conviction. This participative approach can transform the organization into a happy and exciting work place. Organization that recognizes individual brilliance of employees and channelizes their competencies to overcome any crisis internally, shall come out victorious in the long run. It's worth the try. MA

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ARRESTING DETERIORATION - A CEO'S PRIORITY

Abstract

Great business organizations can deteriorate and deplete very fast if the early warning signals are not captured through an appropriate management and operational control system. Failure can be accidental and therefore may be pardonable. Deterioration is never accidental and hence cannot be pardoned. The visualizers and carriers of deterioration are normally the people, products and processes. Therefore, a business organization has to constantly review, revise and revitalize these three most important components of business performance. Deterioration can be arrested if the CEO empowers his team members to identify it and take timely decisions without any bureaucratic hurdles.

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The Romans and the Greeks deteriorated over a period of time as they didn't bother to look at the early warning signals. Even after they started working on these signals, they lacked vision & hard work. Business organizations also deteriorate either absolutely or relatively. The absolute deterioration is very obvious and could be seen & measured with 'absolute parameters'. Relative deterioration is a result of 'slow pace of growth &

change' compared with the competition & market. In other words, it is the relative stagnation which leads to inherent sickness. Many CEOs fail to notice or remain reluctant to accept the reality of relative deterioration.

The three most visible carriers (and also conductors) of deterioration are people, processes and products. Among these three, the foremost are 'people'. Therefore, capturing deterioration on these three fronts requires different monitoring parameters. We should also differentiate between deterioration and failure. Failure could be genuine and unexpected for reasons beyond control. It may be one time or accidental. This can't be said about deterioration as this process is gradual and it can be arrested if the symptoms are noticed. It is more 'organic' and hence has to be monitored meticulously.

There are six most important reasons of deterioration the CEO and his team should vouch for. The most common reason is 'arrogance of market position'. In my observation, at least ten Indian star companies seriously deteriorated during the last decade on account of mere negligence towards market dynamics. This was mainly a result of 'living with old laurels'. Arrogance gradually becomes the culture of the organization. People stop innovating and listening. Members of the entire value - chain develop a tendency of denying adverse feedback from the market. Stakeholders across the organization create a 'mutual praise club' and live in a fool's paradise. These people start indulging in blame game when deterioration starts surfacing and showing its obvious impact on the organization's performance. Those answerable for this deterioration, cunningly get away with it while those who attempt to bring notice to what's happening are side-tracked. Some such arrogant companies today are experiencing a serious deterioration in their brand value and entrepreneurial rigour. These have become mere 'vendors' to the market leaders in their own industry.

The second reason of deterioration is an organization trying to achieve too much in too little time. In a case like this, four things happen - not a single initiative is well executed, organization's ethos gets damaged, employees mostly make flashy PowerPoint presentations and resources are wasted. When the ethos or the cultural fabric is weakened, putting it back on track becomes a herculean task. I have observed only five percent companies succeed in such a hurried journey, mostly by default and not so much by design. Quite a few CEOs attempting to impress the owners, resort to such self - defeating 'growth approach'. They either believe in overnight miracles or do not mind putting the entire organization on a spree of uncertainties. Many a times, the ex-pat CEOs surrounded by the 'local senapatis', do not do proper homework and get trapped in a game of change at an unprecedented speed. They do that to impress the top management of the company who are located in the home country of the company so that they might be able to further their own career.

Third reason of deterioration is the inability to read the future. The owners and the CEO get excessively busy with day to day business agendas and do not spend enough time & resources to see the future, while some of them do not possess the ability to read the future. I find this evident in their strategic plan. In my opinion, reading the future need not be a tough task, if the owners and the CEO get constant feedback from various resources. Of course, this requires time and courage to believe that feedback is important. Very often, the top management gets engaged robotically with micro analysis and avoids looking at macro aspects. This happens mostly because we love to look at 'known certainties' than attempting to visualize the ' unknown uncertainties'! So, when the unseen future becomes the present and the organization is not ready to face it, the struggle of retaining present business and getting into a new, big orbit puts terrible pressure on all the performers. Unmanageable pressure and confusion further deteriorates the entire organogram.

Deterioration routinely occurs on account of 'systemic deficiency'. A weak 'management control system' compels a CEO to indulge in micro-management. Obviously, he is not left with time & energy to look at the macro picture which often enables him to assess the strategic deficiencies causing long term and deep deterioration. A CEO heavily depends on the signals provided by people surrounding him with selfish mottos. A good control system is expected to serve two purposes simultaneously viz. monitor ongoing performance in the light of competencies & resources available and constantly offer market benchmarks to improvise or correct these competencies & resources. The "Performance Management System" (PMS) must spell out and offer a mechanism that routinely points out factors causing deterioration. A simple but very useful exercise of an exit interview is very often conducted as a farce. An employee going out is most probably a vocal respondent and informant who offers useful feedback about deterioration. I observe that many CEOs & their colleagues very often do not love to hear criticism and therefore a pipeline offering feedback is tactically shut. (On couple of occasions I have lost business as a consultant when some of my clients found me alerting them about deterioration!) Alert organizations systemically gather benchmarks which compel them to perform better and avoid even a remote scope of deterioration.

Too many compliances and complications in a system kill the entrepreneurial spirit. There should be a fine balance between 'corporate governance & enterprise governance'. Entrepreneurial flexibility and systemic discipline should compliment each other and not contradict. Any limitless contradiction ultimately leads to deterioration. Many organizations in the name of excellence, unnecessarily complicate their business control system, which ultimately creates multiple bottlenecks within, delaying the entire chain of deliverables.

The fifth long-term reason of deterioration is an organizational disequilibrium which is mainly caused by a frequently changing business model, lack of inter-functional coordination, delayed succession planning and a complex organization structure. Companies excessively depending on 'old guards', mostly take the risk of rapid deterioration. Most of these loyalists possess experience but lack energy and entrepreneurial flexibility. They do not innovate as a result of accumulated intellectual fatigue. Therefore, neither they ignite the organic momentum nor do they think beyond the current scenario. Rather most of them prefer to become 'god fathers' & develop a culture of protectionism & escapism. By remaining at the helm of affairs, they deny vertical growth to the young successors. Obviously in a competitive market, if you do not grow, you deteriorate.

The sixth reason puts the onus of deterioration mostly on the owners. It is their apathy towards the business that makes the CEO helpless. This apathy could be a result of wrong choice of business made by the owner and realizing about it later. Some owners ruthlessly jump on better opportunities and leave the present business to its destiny. A CEO very often feels lonely without the owner's support while handling organizational deterioration in such a case. Owner's apathy very often makes the CEO clueless and hence he can't even execute obvious strategies to arrest visible deterioration.

A CEO should personally supervise the strategic efforts of arresting deterioration with the support of his core team. Along with his team he should start with a simple agenda of stopping further downfall in the product profitability, people productivity and process performance. The overall process of arresting deterioration should be conducted through four major steps - exact diagnosis based on pragmatic benchmarks, prioritization of corrections, defining innovative yet workable solutions and speedy execution with precision. Exact diagnosis is required to understand how deep the deterioration has taken place. This is essential to avoid just working cosmetically on the symptoms of the disease and not on the disease itself. The entire focus should be on arresting deterioration instead of conducting an inquiry into blame games and uncertainties. He must use a mechanism of bridging the gaps between doable and not done, accelerate productivity & profit reforms, innovate products & processes, ignite people to perform, eradicate non-value adding operations and complement the existing core competencies by building up new competencies.

The other positive name of arresting deterioration should be reinventing potentials. The CEO and his team must define visible, executable and measurable parameters of improvisation like volume & product portfolio growth, cost discipline, better employee capabilities, technological upgradation and profit optimization. Needless to say, that a fair combination of the experience of the seniors and the innovative energy of the juniors would be essential to wipe out all the tangible and intangible causes of deterioration. The CEO must make certain entrepreneurial commitments to himself and spell them out to all the concerned stakeholders, so that the efforts of arresting deterioration become serious, visible and participative. Undoubtedly, this is the primary responsibility of the CEO but the task can't be accomplished without the support of his team. MA

Reference

1. This article comprises of my views based on my 36 years of professional experience. I have not used any references directly or indirectly to write this article.

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WILL THE NEW LOAN PRICING NORMS ACHIEVE MONETARY POLICY TRANSMISSION

Abstract

A central bank depends on the financial system to ensure smooth and timely monetary transmission. India's financial system is dominated by banks and any failure of monetary policy signals to reach the economy at large becomes a matter of concern since it indicates that the Reserve bank of India (RBI) has failed to have a favourable impact on the business cycle. Apparently, there have been lopsided responses by banks to RBI's policy actions. When the monetary policy is tightened through a hike in policy rates, banks are quick to hike interest rates on loans given. When the monetary policy is eased through a reduction in policy rates, banks are slow in reducing interest rates on loans given. The RBI has made attempts to address this issue for quite some time now. It now wants banks to price their loans in kilter with external benchmarks.

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India's experience with internal benchmarks for loan pricing

In the early 1990s, the Narasimha Rao-led government embarked upon numerous financial reforms. In September 1990, the lending rate structure was rationalised wherein banks were permitted to determine interest rates on loans of the size exceeding Rs 2 Lakhs with due regard to RBI-prescribed minimum lending rates.

In October 1994, lending rates were deregulated for loans of the size exceeding Rs 2 Lakhs as the system of Prime Lending Rate (PLR) was put in place mandating banks to declare their PLRs. In about the decade that followed, the PLR system experienced modifications from a single PLR to multiple ones and tenure-linked ones. An internal determinant of the PLR is the bank's own policy. Accordingly, across banks and bank groups, the PLR varied widely. In fact, the chargeable spreads too varied widely. External determinants of the PLR are the RBI's policy rates – the Cash Reserve Ratio (CRR) and the repo rate. Thus, in a way, the supply of money along with the demand for retail and industrial credit also are expected to influence the PLR. The PLR happened to be unyielding relative to direction of interest rates in the economy.

In April 2003, the Benchmark PLR (BPLR) was introduced to usher in a greater degree of transparency in loan pricing. Since there was no rule prohibiting banks from lending below the BPLR, banks took advantage of the situation by keeping the BPLRs at artificially high levels and then lending to their privileged borrowers are interest rates below these high BPLRs. By doing so, they tried to improve their loan business and also ensured that the interest rates charged on loans do not fall so much that the banks' cost of funds also go unrecovered. All other borrowers were being charged higher interest on loans. This practice of giving out Sub-PLR loans had become very common until the economic slowdown of 2008 occurred. Later as conditions improved, this practice again gained so much traction that about two-thirds of loans were getting disbursed at Sub-PLR rates. The BPLR was supposed to give a true reflection of banks' actual cost of funds in loan pricing but it failed. Competition among banks ensured that loan pricing was not aligned with BPLRs (remember the Sub-PLR loans).

On 01 July 2010, the Base Rate system of loan pricing was introduced. Under this regime, the base rate was to be primarily determined using either average cost of funds or marginal cost of funds (deposits) even though banks were allowed to factor in loan tenures, administrative expenses, their own profitability, the negative carry on account of the Cash Reserve Ratio (since banks earn no interest on CRR balances), levels of bad loans (which bring no interest income to banks) and any customer-specific charges. Banks were allowed to fix the spread between the actual interest rates they would charge and the base rate as long as they could justify the spread. In December 2015, banks' discretion of choosing benchmark costs (average or marginal or blended) was done away with. Banks resorted to manipulations for "inflating" the base rate or for preventing the base rate from falling in line with the cost of funds. To add to this, new components were introduced in the base rate formula to bring it to the banks' desired levels. Existing borrowers ended up paying higher rates while new borrowers got the benefits of lower interest rates. As borrowers started complaining, a frustrated RBI issued directions to banks to arrive at the cost of funds based on the 'marginal' cost of funds. Banks were also asked to limit their chargeable spread to only two elements – credit risk and business strategy.

On 01 April 2016, with a view to speed up monetary transmission, the system of Marginal Cost of funds Lending Rate (MCLR) was introduced. Banks announce MCLR for at least five different tenures of loans – overnight, one-month, three-month, six-month and one-year and final lending rate is the MCLR + the chargeable spread. The MCLR prevailing on the date of first disbursement continues till the subsequent reset date, regardless of changes in the benchmark in the interim. Banks were mandated to review and publish their MCLR of different maturities, every month, on a pre-announced date. While existing loans and credit limits from the base rate regime and the BPLR regime were allowed to continue till renewal or repayment, it was expected that existing borrowers will get to move to the MCLR based interest rates at terms mutually acceptable to them and their lenders. Banks, however, responded by ensuring that pre-MCLR loans remain outstanding at their old base rates while limiting the benefits of the marginal cost pricing to new borrowers / fresh loans. A significant number of borrowers failed to get any monetary relief from introduction of the MCLR system.

Spreads charged over the MCLR varied across banks due to their unique factors. Besides, the variations in spreads were too large to be explained by business strategy and credit risks. Instead of playing a small role in deciding of overall lending rates, spreads became the key element in this.

In August 2017, the MCLR regime attracted flak from the then governor Urjit Patel and also from deputy governor Viral Acharya for its failure in improving monetary policy transmission despite being an advance over the base rate regime.

In October 2017, a Report of the Internal Study Group to Review the Working of the Marginal Cost of Funds-based lending Rate system, chaired by Dr. Janak Raj, recommended that market reference rates (external benchmarks) be introduced for floating rate loan pricing. This study group also advocated restrictions pertaining to chargeable spreads during a loan's tenure.

Now, in the past, banks had experimented with the Mumbai Inter-Bank Offered Rate (MIBOR) with the National Stock Exchange (NSE) launching in June 1998, the Mumbai Inter-Bank Bid (MIBID) rate and the MIBOR for the overnight money market. Banks, however, were unable to price their loans using these external benchmarks which are a function of liquidity conditions and remain out of sync with the banks' cost of funds from retail deposits. Banks as well as the Indian Banks' Association placed various representations back then and got permission to continue with their usage of the prevailing internal benchmarks for pricing their loans. This time around the banks sought more time for the MCLR regime to settle down. In response, the

RBI in February 2018 announced 'harmonisation' (clarifying that it is not 'equalisation') of base rate with MCLR with effect from April 2018. The shrewd banks, which had already raised interest rates offered on deposits, could foresee MCLRs rising and indicated their agreement to this harmonising exercise because rising deposit rates would bring down the discrimination between existing and new borrowers.

On 05 December, 2018, the RBI released its 'Statement on Development and Regulatory Policies' which proposed that from 01 April, 2019, floating rates on personal loans or retail loans (auto loans, home loans, etc) and Micro and Small Enterprises (MSEs) loans be linked to external benchmarks such as repo rate or treasury yields besides also declaring its intent to issue final guidelines by the end of 2019 for linking interest rates to external benchmarks.

External Benchmarks for loan pricing

In India, loans have so far been priced based on just an internal benchmark. Only Citibank uses external benchmarks for its home loans. Its home loans priced based on external benchmarks were introduced in March 2018.

The Internal Study Group initially shortlisted thirteen candidates to serve as external benchmark. Realising that none of these would meet all requirements of an ideal external benchmark, the Study Group zeroed in on a trio comprising (a) T-Bill Rates, (b) the CD Rates and (c) the RBI's policy repo rate. After evaluating these three, it was decided that from 01 April, 2019, either the RBI repo rate or the 91 days Treasury Bill yield or the 182 days Treasury Bill yield or such other suitable market interest rate will be used as external benchmarks to price new housing loans, auto loans and personal loans.

Implications of external benchmarks for borrowers and banks

A bank will be prohibited from using multiple external benchmarks within a loan category. Thus, a bank would have to adopt a uniform external benchmark within a loan category. This would serve to ensure transparency, standardisation and ease of understanding of loan products by borrowers. With the new system of external benchmarks promising to disallow banks from luring new customers with lower rates and then secretively hiking them, retail customers can expect to get more transparent and a fair pricing for loans.

With not-so-great interest rate swap markets, banks will find it difficult to hedge their interest rate risk. So, either profitability will suffer or spreads will go up to compensate for interest rate risk. With no reliable term money market, regardless of the external benchmark used, term premium decisions will remain with banks. Banks shall get to pick the spread over and above the external benchmark to arrive at the lending rate. But once they do that, they will have to keep it fixed for the tenure of the loan unless there is a substantial change in the borrower's credit assessment and as contracted. This means that even if a bank has decided to hike a lending rate in near-term future, the old borrowers interest rate will not be impacted and continue to be remain as it is. Banks may try to discourage long-term deposits as they would otherwise have to adjust rates with reference to benchmarks which change daily. In order to avoid significant asset-liability management mismatches, banks may push for a floating interest rate structure of deposits.

The way forward for RBI

The RBI must figure out whether the weak transmission is a structural issue with the banks and/or the result of a less integrated financial market or a failure of its own signalling mechanism. Apparently, RBI failed at foreseeing the distinctions that banks would make between the existing borrowers and the new borrowers post-MCLR. This happened despite the fact that banks have on their books, huge proportions of term deposits that entail higher interest outgo.

RBI has itself seen through its surveys of other countries that prime lending rates are highly elastic to deposit costs. The RBI must understand that loan rates may somewhat remain linked to cost of funds and that giving directions to banks on their determination of loan pricing could be counter-productive. With banks being under heightened scrutiny for their past actions, RBI must refrain from compelling banks into submission since banks will only end up distrusting RBI even more.

The RBI can think of ways it can help banks in changing the skewed preferences of savers and also shift to non-retail deposits as a source of funds. The RBI must understand that no matter what it dictates to banks, each bank will look at its funding structure and will consider its own costs and risks because each bank wants to stay in business.

Instead of blindly trying to match its peers worldwide, the RBI must pay attention to whether or not it can deliver market structures akin to those in developed nations so that monetary transmission and benchmarks that it desires can be similar to the ones we witness in those nations.

Conclusion

As RBI graduated from the use of 'average' cost of funds to 'marginal' cost of funds for loan pricing in an 'internal benchmarks' regime, the shift to the 'external benchmarks' regime will succeed only if the RBI takes a realistic approach toward the implementation of the new pricing norms. Any lackadaisical attitude on part of the RBI in considering the practical difficulties of banks or in foreseeing the implications of the new loan pricing regime on borrowers and lenders alike will serve to defeat the very purpose for which loans are mandated to be linked to external benchmarks. MA

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DEMONETIZATION EFFECT ON DIGITAL BANKING

Abstract

The adoption rate of digital modes of transactions was very low until in November 2016, the Government of India announces the biggest demonetization in the history of India, banning the use of Rs. 500 and Rs. 1000 currency notes from the midnight of 8th November 2016. Within a few days digital modes of transactions became inevitable due to extreme scarcity of new notes and reduced ATM withdrawal level. Digital transactions increased by lips and bounds which was one of the promulgated objectives of demonetization. But did demonetization cast a long term positive impact in changing the Indian economy from cash based to cash less? Did digital modes of transactions manage to attract more and more customers even when re-monetization process was over? Our study is a rigorous attempt to find out the answers to the above questions. We have used secondary data relating to number of transactions under various digital payment modes offered by banks to objectively verify whether there is any significant growth in digital payment instruments post demonetization using appropriate statistical tools. Our analysis confirms the claim of the Government that demonetization, indeed, has helped India to take a giant step towards a digital or cashless economy.

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1. Introduction

In any economy, increased use of digital payment modes for transactions brings important advantages including improved transparency, reduced settlement time, ease of access and use of financial markets. Realizing the importance of these benefits in an economy like India - where corruption is high, financial exclusion, perhaps, is the maximum and work culture in traditional banking channels is questionable - Indian regulators were constantly working towards creating a digital ecosystem for efficient financial transactions since 1990s. However, so far the adoption rate of digital modes of transactions was very low until in November 2016, the Government of India announced the biggest demonetization in the history of India, banning the use of Rs. 500 and Rs. 1000 currency notes from the midnight of 8th November 2016. Within a few days digital modes of transactions became inevitable due to extreme scarcity of new notes and reduced ATM withdrawal level. Digital transactions increased by lips and bounds which was one of the promulgated objectives of demonetization. But did demonetization cast a long term positive impact in changing the Indian economy from cash based to cash less? Did digital modes of transactions manage to attract more and more customers even when re-monetization process was over? Our study is a rigorous attempt to find out the answers to the above questions.

2. The November 2016 Demonetization Story

Though, demonetization was not new in India, the November 2016 Demonetization drive by the Government of India can surely be considered as the biggest ever such move considering its suddenness, far reaching impact and controversial character.

Scrapping of Rs.500 and Rs.1000 banknotes of the Mahatma Gandhi Series from 8th November, 2016 midnight was an announcement that Prime Minister Narendra Modi made abruptly to challenge mainly parallel economy, terror financing and counterfeit currency – the three malaises that were destroying Indian economy. The move was an unconsulted one and kept in absolute secrecy. As the legal tender status of the old notes was withdrawn, it was also announced that new notes of Rs.500 and Rs.2000 denominations would soon replace the old notes. Banks and ATMs were declared closed the next day (9th November 2016) to prepare themselves for this sudden blow. Banks started operation from 10th November 2016 itself, facing long queues of people who were rushing to the counters of the banks across India to exchange and deposit the demonetized notes. Though ATMs started operating from 11th November 2016, most people had to return empty-handed due to non-availability of Rs. 100 notes. The country faced further cash crunch as RBI set limit on cash withdrawals and exchange. Exchange of old annulled notes with the legal tenders was limited to the extent of Rs.4000/person from 8th November to 13th November 2016, Rs.4500/person from 14th November to 17th November 2016 and Rs.2000/person from 18th November to 25th November 2016. From 25th November 2016 onwards notes exchanging facility was available only at the RBI counters till 31st March 2017 for the Resident Indians and till 30th June 2017 for the Non-Resident Indians. To ensure that everyone gets the opportunity to exchange their notes to the maximum possible extent, government instructed the banks to put indelible ink on the finger of the persons exchanging the banned notes. Exchange of the banned notes (also called specified notes) was allowed through Business Correspondents to the extent of Rs.4000/person on presentation of valid identity proof and requisition slip. A ceiling was also attached to the withdrawal of currencies both from bank counters as well as ATMs. Cash withdrawal from respective bank accounts was restricted to Rs.10000/day to the extent of Rs.20000/week till 13th November 2016, after that the weekly limit was raised to Rs.24000/week and the restriction imposed on daily withdrawal of Rs.10000/day was removed. Current account holders and the Farmers were allowed to withdraw Rs.50000/week from 14th November 2016 and 17th November 2016 respectively and the government allowed people to withdraw Rs.250000 from their respective bank accounts for wedding ceremonial purpose only. People of the country could withdrew Rs.2000/day per card till 18th November 2016 and Rs.4000/day per card from 19th November 2016 onwards. However, no limit was imposed on deposit of money (in case of non-compliance with KYC norms, maximum allowable deposit was Rs.50000) in the respective bank accounts as well as on usage of non-cash method (viz. mobile wallets, demand drafts, cards, cheques, electronic fund transfer methods, etc.) of operating one's bank account. Apart from the exchanges and withdrawals, to reduce the pain that the common people was facing in their struggle to retain their hard-earned money, PM himself exempted few sectors considering the situation and allowed them to accept old Rs.500 and Rs.1000 notes. Exemptions for using the annulled notes was extended for Government hospitals and petrol pumps till 14th November 2016 midnight, for government bus stops allowance was for first 72 hours from midnight of 8th November 2016. Government also extended the acceptance of the specified notes for public utility payments till 24th November 2016. National Highway tolls were also exempted from the clauses of demonetization till 2nd December 2016 midnight. For air tickets and fuel companies it was extended till 2nd December 2016 but then withdrawn as they were observed to have a well-equipped digital transaction structure. Foreign tourists or those going to foreign nations could exchange their old notes in the International airports to the extent of Rs.5000. By 22nd November 2016, 82500 out of 2.2 lakhs ATMs was re-calibrated to dispense new Rs.500 and Rs.2000 notes and by 3rd December 2016 the number increased to 1.8 lakhs ATMs. As per the data provided by RBI, within 7th December 2016, almost 76% of junked notes came back to the system. The buzz of demonetization slowed down by the end of December 2016. The long queues shortened as the days passed, and cash crunch was appearing to be a long ago story. Withdrawal limit from banks got increased by 15th January 2017 and to the relief of the entire country the restriction on withdrawals from ATMs was removed completely with effect from 1st February 2017 (as announced by PMO on 30th January 2017).

3. Digital Payment Products Offered by Banks

The digital drive in banking transactions came to India soon after the liberalization in 1990s. Since then various technology enabled digital payment modes are being offered by the banks in India. Following are the most popular digital payment/transactions modes made available by the Indian banks.

- **Real Time Gross Settlement (RTGS):** RTGS is an electronic payment system maintained by RBI which enables individuals to transfer funds between banks. It is generally meant for high value transaction as the minimum amount for making RTGS is Rs.200000 with no upper limit of transaction.

- **National Electronic Fund Transfer (NEFT):** NEFT is a fund transfer system facilitating nation-wide transfer of funds to both account holders in NEFT enabled branches of a bank as well as walk in customers who do not have a bank account. Individuals, firms as well as corporate firms can avail this facility to transfer funds to any other party having a bank account with the same or different bank branch. Maximum fund transfer limit for NEFT is Rs.50000 per transaction.

- **Immediate Payment Service (IMPS):** IMPS, unlike NEFT and RTGS, is a 24x7 service (available in bank holidays as well) facilitating instant and secured electronic fund transfer using mobile phones or ATMs and is safe as well as economical. The service is available in between person (P) on one side and either another person or an account (A) or a merchant on the other side.

- **Electronic Clearing System (ECS):** ECS is mainly used for paying utility bills such as electricity, insurance premium, telephone, etc. It uses the service of a clearing house in order to transfer funds from one bank account to another. This system is useful for bulk transfers and transfers of repetitive nature. For example, in order to distribute dividend, salary or pension, the institutions use ECS (credit), on the other hand for making regular payments to firms or repayment of loans via EMI, individuals use ECS (Debit).

- **Point of Sale (POS):** This is an electronic device acting as a sales terminal for processing payments at different malls or retail outlets. It is the most common machine used for debit or credit card payments in which the machine reads the card punched or swiped and checks whether there is sufficient funds in the customer's account and then accordingly transfers funds from customer's account to seller's account.

- **Mobile Banking:** It is a service offered by a bank or any financial institution through which a customer conducts financial transactions remotely by using only a smartphone or a tab. Unlike internet banking which is conducted through bank's own website, it is done through a software, usually called an app. It is a 24×7 service and can be used for transactions other than fund transfer as well, such as obtaining balances, statements etc. However, the availability of other services may vary from bank to bank.

- **M-Wallets:** Digital or Mobile Wallet services are provided by many banks as well as other approved financial institutions like Paytm, Freecharge, Phonepe etc. Money can be added to the wallets using debit or credit cards or internet banking and then can be used for an array of transactions including payment of utility bills, shopping etc. However, an active mobile connection or e-mail id is a must.

- **United Payment Interface (UPI):** This digital platform came into existence on 11th April, 2016. It was developed by National Payment Corporation of India under the assistance and regulation of RBI and IBA (Indian Banks Association). UPI is a hassle-free digital interface for transferring fund without the need of entering the extensive details relating to bank account number, IFSC code, bank account type, bank name and so on. This is basically an advanced or modified version of IMPS (Immediate Payments Service). Presently 101 banks have adopted this technology (up to November 2018). Registration in UPI is a onetime process after which funds may be transferred using mobile devices. The BHIM (Bharat Interface for Money) app developed by NPCI is also an UPI based app which facilitates sending and receiving of money using VPA or global address or even through QR code scanning along with all other services of a UPI based app.

* **Unstructured Supplementary Service Data (USSD):** Unlike UPI, it does not require a smartphone and access to internet but use specified codes for transactions. This USSD interface (also called *99# service) was developed by NUUP (National Unified USSD Platform) to overcome the problem of poor internet connectivity in rural areas. It came up with the option of 12 regional languages in addition to English. Currently, this service is being offered by 51 banks. BHIM app as mentioned above can come up with USSD features as well.

* **Aadhar Enabled Payment System (AEPS):** AEPS is developed to bring the bank at the customers' places and also to enable interoperability among different systems of different banks. AEPS has thereby facilitated operations of Aadhar Enabled Bank Account (AEBA) for financial inclusion and direct benefit transfer to the eligible beneficiaries under different social security schemes.

4. Problem Identification

The November 2016 demonetization has been the most controversial decision of the Government of India in recent times that not only attracted the interest of the academicians but also placed it as a bone of contention in political warfare. While the Government is still continuing with their claims of black money recovery, checking terror financing, combating threat of parallel economy due to counterfeit notes etc., their claims are yet to be tested based on authentic data as most of the above can be realized in long term only. However, the claim of a positive shift towards a digital economy can surely be tested based on the data available so far. This is because, while demonetization as a temporary shock should increase the transactions through digital payment modes only for a limited short term period (say up to 2-3 months), a long term sustainable increase in those transactions after demonetization will prove a permanent change in usage of those modes due to demonetization experience. This gives us enough impetus to take up such an investigation as a research issue.

5. Literature Review

We have conducted a detail survey of existing literature on India's effort to move towards a digital economy and digital payment services in the backdrop of recent demonetization drive in India. The following studies are noteworthy in this respect.

Raja et al. (2008) opined that the success of electronic commerce depends to a great extent on the effectiveness of the digital payment system which in turn get support from the evolution and growth of technologies in this field.

Subramanian (2014) conducted a study on the effectiveness of various paper-free payment systems in India based on secondary data. He concluded that simplification of the operational process and constant encouragement by the banks are the key to the development of these instruments as an alternative to the cash based transaction system of the country.

Saini (2016) conducted a study on demonetization as a metamorphosis of cashless India. Using information related to increase in number of card users in various sectors, he found that ban of old notes has resulted in a boost towards cashless economy.

Rahmath Unnisa and Kumari (2017) attempted a descriptive study on India's journey from cash to cashless economy using both primary and secondary data with main focus on the trend of digital transactions in India after Demonetization. They concluded that government should adopt appropriate strategy by way of proper implementation and supervision of restrictions to ensure transition from cash to cashless economy.

Reddy and Jayalaxmi (2017) conducted a perception study of people on the transformation of India into a digital economy post demonetization applying factor analysis and other statistical tools on the responses collected. They found 'ease of use' and 'time saving' to be the most important factor for quick adoption of digital payments while 'security issues' as the prime obstacle.

Lokesh (2017) pointed out in his study that factors like controlling inflation, corruption and discouraging cash system are the main reasons behind the demonetization move and concluded that the positive effects of demonetization may not be sustainable.

Vij (2018) conducted a descriptive study on effects of demonetization on Indian economy based on authentic secondary data. She opined that demonetization proved to be a boon to digital transactions and e-wallets and the government must continue to provide proper infrastructure and cyber security to support this surge of digital transactions in the economy to ensure India's shift towards a digital economy.

6. Research Gap

Our survey of the recent literature on the present issue reveals certain important observations. These are:

- Studies conducted on the issue 'demonetization and digital banking' are really limited in number.
- Studies were mostly descriptive in nature and attempted to figure out the potential impact of demonetization rather than analysing its actual effect.
- A considerable number of studies conducted in this context are basically perception study based on primary data collected from the respondents. Studies based on authentic secondary data are only a few.
- The studies conducted based on secondary data considered the effect of demonetization on a part of the digital products i.e. mobile wallets only, rather than the entire array of digital payment products available.

Thus there is ample scope for an in-depth data driven research on the effect of demonetization on the digital products offered by the banks in India.

7. Objective of the Study:

The overall objective of the study is to assess the impact of recent demonetization in India on the digital banking system. However, to be more precise, the study will attempt –

(i) To determine the trends in various digital modes of transactions during the pre and post demonetization period.

(ii) To conduct an inter-temporal comparative analysis of various aspects of these digital channels offered by banks during the pre and post demonetization period.

8. Research Methodology:

(a) Type of Research: Our study is primarily empirical in nature and plans to compare certain quantitative indicators to assess the impact of demonetization on the digital banking channels offered by bank.

(b) Sample: For the purpose of this study we have selected all the digital banking products existing prior to demonetization in November 2016 excluding the ECS mode. Accordingly, transactions through NEFT, RTGS, IMPS, M-wallets, Mobile Banking, Debit and Credit Card usage at Point of Sale (POS) are included in our sample for analysis. The exclusion of ECS from the sample is justified by the fact that the channel is mostly used by the corporate organizations for multiple simultaneous transfers or by individuals for repeated monthly transactions like SIP or utility bill payment and demonetization is unlikely to bring any significant change in such practices. Non-retail (i.e. interbank) transactions through RTGS have also been kept outside the ambit of this analysis as they are settled through digital mode by compulsion. However, our sample includes m-wallets in spite of the fact that some non-bank institutions (Paytm, Freecharge etc.) also offer similar service. The reason behind such inclusion is that use of m-wallets of even these other institutions also necessitates using digital banking channels for loading money into the wallets. Additionally, we have also included the United Payment Interface (UPI) in our sample, though no inter-temporal comparative analysis was done with it as the same became popular mainly after the demonetization drive.

(c) Period of Study: For the purpose of comparing the trends in different digital modes of transactions offered by the banks, we have considered an 18 months period each prior and post demonetization excluding the month of November 2016, the month when demonetization was implemented. Thus the pre-demonetization period is defined as an eighteen months period from May 2015 to October 2016 while the post-demonetization period is defined as an eighteen months period from December 2016 to May 2018. The reason behind selecting such relatively longer period, especially post demonetization, is to capture the permanent impact of demonetization, if any, rather than to look into its short run impact. This is because, if demonetization had any short run impact on any mode of transaction, it would return to its previous level over a relatively longer period after demonetization. However, to capture the trend in UPI, we have considered transaction data since its inception up to May 2018.

(d) Source of Data: For the purpose of analysis, we have relied upon the data on the number of transactions of each digital mode offered by the banks during the sample period. The relevant data has been obtained from the official website of Reserve Bank of India under the 'Payment System Indicators' module. However, the data relating to UPI transactions has been compiled from the official website of National Payment Corporation of India.

(e) Research Methods Used: The study resorts to appropriate statistical tools including tabulation, compounded annual growth rate and line chart. Additionally, it also uses Independent Sample t test to compare the number transactions of various digital modes during pre and post demonetization period for any significant growth.

(f) Software Used: The study uses Excel 2007/2013 and

SPSS 19.0 for processing the data and conducting the tests.

9. Empirical Results:

9.1. Descriptive Statistics of Number of Transactions –

Pre and Post Demonetization: The descriptive statistics of the number of transactions of various digital modes offered by the banks are given in Table 1 and 2 as follows:

Table 1: Descriptive Statistics of Number of Transactions in Various Digital Modes (in million)

Particulars	RTGS - Customer Transactions		EFT/NEFT		IMPS		Mobile Banking	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Range	2.22	3.89	45.08	68.84	28.76	63.84	56.76	171.53
Minimum	7.26	8.47	88.13	143.17	13.32	52.78	21.36	95.41
Maximum	9.48	12.36	133.21	212.01	42.09	116.62	78.12	266.94
Sum	144.12	180.67	2003.00	2952.03	436.65	1478.33	833.29	2815.03
Mean	8.01	10.04	111.28	164.00	24.26	82.13	46.29	156.39
Standard Deviation	0.51	1.11	12.63	15.99	8.16	19.76	18.97	61.03
Standard Error	0.12	0.26	2.98	3.77	1.92	4.66	4.47	14.63
Kurtosis	2.97	-0.12	-0.61	4.02	-0.37	-1.26	-1.29	-1.34
Skewness	1.34	0.71	-0.30	1.65	0.58	0.31	0.25	0.64

Table 2: Descriptive Statistics of Number of Transactions in Various Digital Modes (in million)

Particulars	Credit Cards at POS		Debit Cards at POS		M-Wallets	
	Pre	Post	Pre	Post	Pre	Post
Range	28.73	42.74	53.95	163.71	59.63	139.62
Minimum	60.13	94.93	86.63	251.75	39.95	186.67
Maximum	88.86	137.66	140.59	415.46	99.57	326.30
Sum	1286.16	2106.57	1989.09	5296.29	999.64	4660.47
Mean	71.45	117.03	110.50	294.24	55.54	258.92
Standard Deviation	7.96	10.44	16.60	41.65	14.02	46.60
Standard Error	1.88	2.46	3.91	9.82	3.30	10.98
Kurtosis	-0.28	0.22	-1.08	3.06	5.21	-1.34
Skewness	0.62	0.15	0.25	1.69	2.13	0.09

It is clear from the above table that the total and average number of transactions of each and every digital modes offered by the banks have increased (though not in similar degree) during the eighteen months post demonetization as compared to the similar period prior to demonetization. This is an important indication of a positive shift towards digital modes by customers. However, a corresponding increase in the standard deviation and standard error of the number of monthly transactions indicate that month wise variation has also increased considerably. This necessitates application of appropriate statistical tests of significance which has been done in the following section.

9.2. Test of Normality of Data:

The values of Kurtosis (not equal to 3) and Skewness (not equal to 0) as reported in the previous section indicate that the data may not be normal, in which case application of non-parametric tests over parametric tests will be appropriate. We have applied Kolmogorov-Smirnov Goodness-of-Fit Test to investigate if the data relating to the number of transactions of various digital banking products during the pre and post demonetization period follows a normal distribution. The result of the Kolmogorov-Smirnov Goodness-of-Fit Test is given in Table 3 below:

Table 3: Results of Kolmogorov-Smirnov Goodness-of-Fit Test for Normality

	Pre- demonetization			Post- demonetization		
	N	Kolmogorov-Smirnov Z	P Value	N	Kolmogorov-Smirnov Z	P Value
RTGS	18	0.827696	0.499807	18	0.552539	0.920244
NEFT	18	0.565664	0.90623	18	0.773114	0.588438
IMPS	18	0.513593	0.954579	18	0.806434	0.53371
CREDIT	18	0.609565	0.851369	18	0.861077	0.448649
DEBIT	18	0.4963	0.966262	18	0.961241	0.313882
M-WALLET	18	1.163874	0.13314	18	0.547191	0.92561
M-BANKING	18	0.53197	0.939758	18	1.285277	0.073478

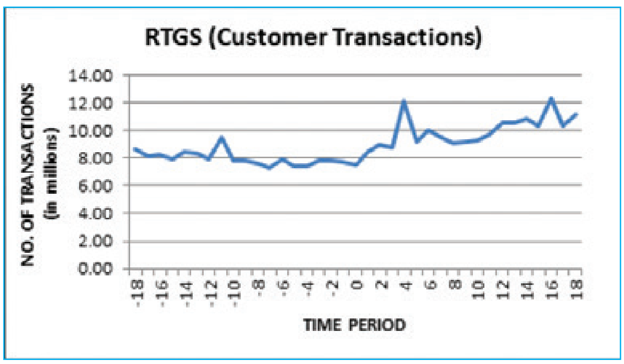
Note: Null Hypothesis: H_0 (Data follows Normal Distribution)

The results show that data corresponding to the number of transactions during the two time periods follows normal distribution as the p value of the K-S test statistic is more than 0.05 in all the cases. Thus parametric tests may be applied to determine if the number of transactions through digital modes offered by banks was significantly different during the post-demonetization period as against the pre-demonetization period.

9.3. Assessment of Channel-wise Performance:

(a) RTGS (Customer Transactions): Total customer transactions in RTGS shows an overall increase of 36.55 million during the post-demonetization period, an increase of 25.36% over the corresponding figure pre-demonetization. The graphical presentation (Figure 1) of the number of RTGS (Customer Transactions) shows that these transactions grew faster during post-demonetization period compared to the pre-demonetization period.

Figure 1: RTGS (Customer Transactions)



To determine the statistical significance of difference of mean number of transactions, we have applied Independent Sample Equality of Mean Test (t test for equality of two means). The result is given in Table 4 below:

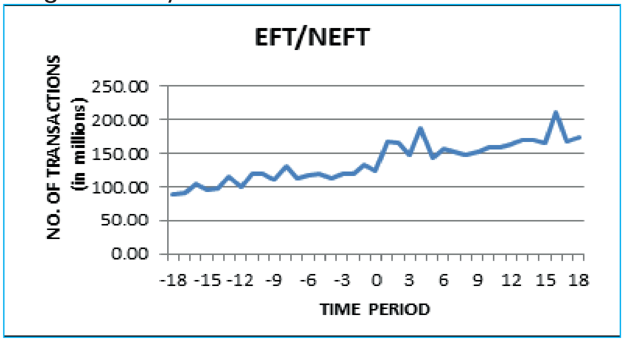
Table 4: Independent Sample Equality of Means Test (RTGS-Customer Transactions)

Null Hypothesis: H_0 (There is no significant difference in mean no. of RTGS transactions between pre and post demonetization period)	
Value of t statistic	7.052
P value	0.000
Result: Null Hypothesis is rejected	

The result confirms that the average number of RTGS transactions is significantly higher in post demonetization period than the pre demonetization period.

(b) EFT/NEFT: Total customer transactions through EFT/NEFT recorded an overall increase of 47.38% in post demonetization period. The graphical presentation (Figure 2) shows that there was a sharp jump in the monthly number of transactions just after demonetization. However, the momentum was not short lived but continued, indicating a positive shift in the usage.

Figure 2: EFT/NEFT Transactions



The result of t test for equality of means is given in Table 5 below:

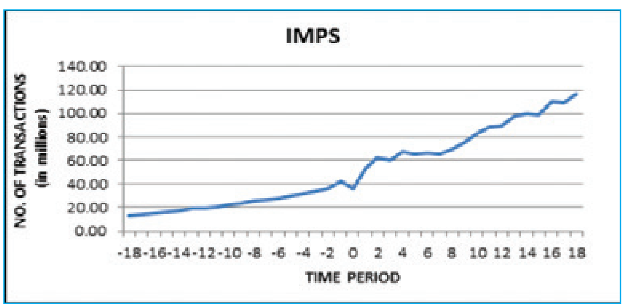
Table 5: Independent Sample Equality of Means Test (EFT/NEFT Transactions)

Null Hypothesis: H_0 (There is no significant difference in mean no. of EFT/NEFT transactions between pre and post demonetization period)	
Value of t statistic	10.979
P value	0.000
Result: Null Hypothesis is rejected	

The test result rejects equality in the mean number of transactions and hence confirms significant increase in EFT/NEFT transactions post demonetization.

(c) IMPS: Total number of IMPS transactions recorded an increase of 238.56% in post demonetization period, the second highest among all the digital products offered by banks after m-wallets. The average monthly number of transactions during post demonetization period was almost triple the corresponding average figure during pre demonetization. The graphical presentation (Figure 3) shows that just after demonetization the transactions under this mode started increasing exponentially.

Figure 3: IMPS Transactions



The result of t test for equality of mean number of IMPS transactions over pre and post demonetization period is summarized in Table 6 below:

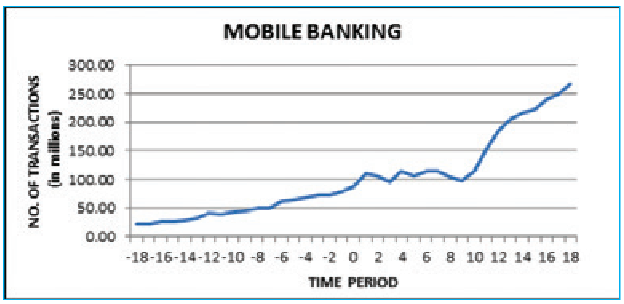
Table 6: Independent Sample Equality of Means Test (IMPS Transactions)

Null Hypothesis: H_0 (There is no significant difference in mean no. of IMPS transactions between pre and post demonetization period)	
Value of t statistic	11.483
P value	0.000
Result: Null Hypothesis is rejected	

Test result clearly indicates that there is significant growth in IMPS transactions post demonetization.

(d) Mobile Banking: Similar to IMPS, total number of Mobile Banking transactions also recorded an increase of 237.82% in post demonetization period than the corresponding pre demonetization period, supported by an almost 5% cumulative monthly growth rate. The line graph (Figure 4) below also exhibits a sudden spurt in these transactions just after the announcement of demonetization. However, the usage further improved remarkably after December 2017 indicating its improved acceptance.

Figure 4: Mobile Banking Transactions



The result of t test for equality of mean number of Mobile Banking transactions over pre and post demonetization period has been shown in Table 7 below:

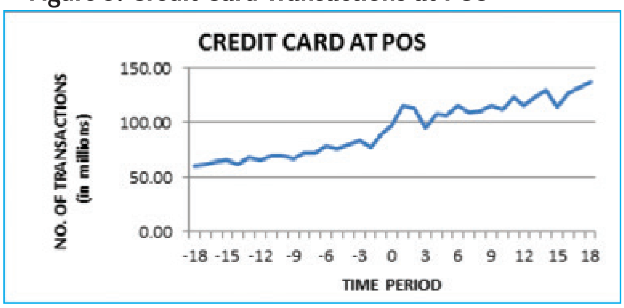
Table 7: Independent Sample Equality of Means Test (Mobile Banking Transactions)

Null Hypothesis: H_0 (There is no significant difference in mean no. of Mobile Banking transactions between pre and post demonetization period)	
Value of t statistic	7.309
P value	0.000
Result: Null Hypothesis is rejected	

Test result is no different from the earlier results and confirms significant improvement in the number of Mobile Banking transactions post demonetization.

(e) Credit Card Usage at POS: In our study we have consciously excluded credit card usage at ATMs because post demonetization, many restrictions were imposed on ATM withdrawals and new Rs. 2000 notes were also not available sufficiently over a long period of time. Thus, though withdrawals from ATMs assume the characteristics of digital transactions (at least partially as it replaces a traditional branch transaction), inclusion of the same would not capture the change due to demonetization. However, the same is not true for usage at POS as higher usage at POS may surely be viewed as more readiness for digital economy. Nevertheless, similar to all the other digital modes mentioned earlier, total number of credit card usages at POS increased by 63.78% in post demonetization period than the corresponding pre demonetization period. The line graph (Figure 5) shows that there is a sudden spurt of this usage just after November 2016 to accommodate the extreme scarcity of cash. As a result the usage declined considerably over the first three months after demonetization. However, a steady growth in this usage during the rest of the post demonetization period is also observable which implies growing acceptance of credit card usage at POS among the customers.

Figure 5: Credit Card Transactions at POS



The result of t test for equality of mean number of credit card transactions at POS over pre and post demonetization period has been shown in Table 8 below:

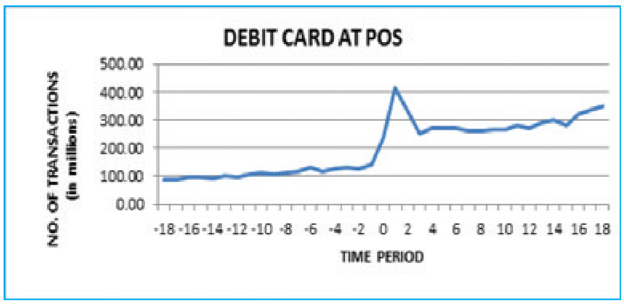
Table 8: Independent Sample Equality of Means Test (Credit Card POS Transactions)

Null Hypothesis: H_0 (There is no significant difference in mean no. of Credit Card POS Transactions between pre and post demonetization period)	
Value of t statistic	14.732
P value	0.000
Result: Null Hypothesis is rejected	

Here also the test result supports the belief that the number of credit card transactions at POS has increased considerably during the post demonetization eighteen months period.

(f) Debit Card Usage at POS: Our logic behind considering transactions at POS and not at ATMs also remains the same for debit cards. As expected, data confirms a 166% increase in the total number of debit card transactions at POS during post demonetization period defined by us. Similar to the POS usages of credit cards, here also we found almost 100% increase in the monthly POS usage just after demonetization, which eventually stabilized over two to three month period due to ease of withdrawals at ATMs. However the line graph (Figure 6) clearly shows that even ease of withdrawals at ATMs as well as increasing supply of re-monetized bank notes could not stop the growing usage of debit cards at POS indicating that people were more inclined to a change towards a digital economy.

Figure 6: Debit Card Transactions at POS



We have presented the result of t test for equality of mean number of debit card transactions at POS over pre and post demonetization period in Table 9 below:

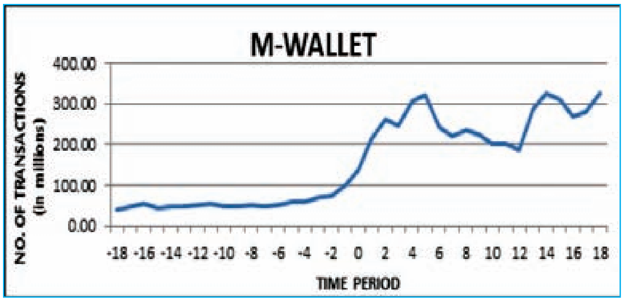
Table 9: Independent Sample Equality of Means Test (Debit Card POS Transactions)

Null Hypothesis: H_0 (There is no significant difference in mean no. of Debit Card POS Transactions between pre and post demonetization period)	
Value of t statistic	17.385
P value	0.000
Result: Null Hypothesis is rejected	

As expected, the test results confirm our primary observation of a significant increase in this mode of transactions post demonetization.

(g) M-wallets: We have already explained our argument regarding m-wallets being considered as a digital mode offered for transactions in the Research Methodology section of this article. Keeping the same in mind, we analysed the number of m-wallet transactions pre and post demonetization. Our analysis shows a 367% increase in the total number of m-wallet transactions (even central government was also partially promoting this mode of digital transactions initially after the demonetization). The line graph (Figure 7) attaining a sudden spike within 2 months of demonetization surely reminded us of those days when large malls to even roadside shops were using Paytm. Though, the usage declined after the ATM withdrawals became normal and re-monetization was sufficient, it never went back to the pre demonetization level indicating a permanent upward shift.

Figure 7: M-wallet Transactions at POS



The result of t test for equality of mean number of m-wallet transactions over pre and post demonetization period has been presented in Table 10 below:

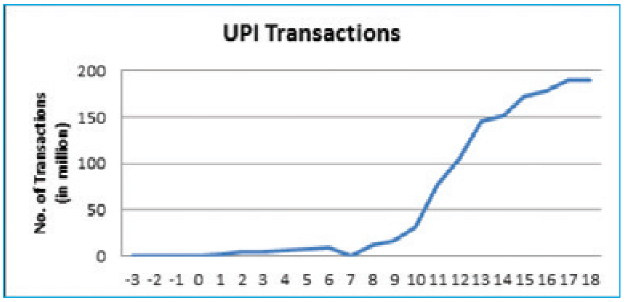
Table 10: Independent Sample Equality of Means Test (M-wallet Transactions)

Null Hypothesis: H_0 (There is no significant difference in mean no. of M-wallet Transactions between pre and post demonetization period)	
Value of t statistic	17.732
P value	0.000
Result: Null Hypothesis is rejected	

The test results clearly confirm that there is a significant increase in this mode of transactions post demonetization.

(h) UPI Transactions: As mentioned earlier, our study does not attempt an inter-temporal comparative analysis of UPI transactions as it was not introduced long before demonetization (UPI was introduced in 11th April 2016 only). However, the data relating to UPI transactions indicate that this digital mode was adopted by the users extensively only after the demonetization, thanks to the various promotional measures by the government during the initial period after demonetization. However, ease of operation and 24×7 availability was also the reasons for its wide adoption.

Figure 8: UPI Transactions



The line graph (Figure 8) shows that prior to demonetization transactions under this mode was almost negligible. It started attracting the users since November 2016 (month 0) only. Soon, more and more banks joined the race and make this service available in their platform which ensured its wide acceptance. However, it may be noted that demonetization as such did not play that influential role in the phenomenal growth of UPI transactions as the momentum picked up from 7th month since demonetization, when the traditional banking system was almost normalized.

10. Conclusion

One of the strong arguments put forward by the Government of India in favour of its demonetization initiative was to make India a cashless digital economy. Though we do not doubt such intention of the government, our study was a humble and unbiased attempt to investigate how far such claims are justifiable based on authentic data on various digital modes of transactions. Our analysis clearly identified that demonetization led to a sudden increase in the number of transactions of almost all the digital modes under our consideration during its initial phase (the period when ATM withdrawals were restricted, sufficient new currency notes were unavailable). However, such momentum were not neutralized but went on for all the different digital modes, though the growth was not similar in all cases. While M-wallet transactions increased the most followed by IMPS and Mobile Banking, other channels such as usage of cards at POS, EFT and NEFT and RTGS (Customer Transactions) did not lag far behind. To confirm further, we conducted statistical test to see whether the mean number of transactions significantly differs across the pre and post demonetization period. The test results revealed that the t statistic is significant in each and every case thereby indicating that the average number of transactions grew significantly post demonetization. Thus it will not be wrong to conclude that the recent demonetization drive in India has given the much needed push to the digital modes of transactions from where they received wide acceptance and increased customer participation. As a result, though achieving a state of absolute cashless economy may still be a far away dream, India is already striding strong on that path. MA

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DIGITAL MONEY: AN ANALYSIS OF USERS' PERCEPTION

Abstract

Now a days the country moves towards a cashless economy. The Government of India with a vision to transform India into a digitally empowered society and knowledge economy for that reason the government encourages people to use digital money. People are using digital modes of money, at same time many people hesitate to use the digital money because it has global reach and also has demerits. The present study emphasizes on perception about use of digital money and views about advantages and disadvantages of digital money. The study covers opinion about advantages and threats of use of digital money. To justify above mentioned objectives secondary and primary data has been used, and suitable statistical tools and techniques have been applied to draw finding and conclusions.

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Digital money is type of currency which is not a tangible like currencies such as rupee, dollar, and euro. It is a mode of payment that exists purely in electronic/digital modes. It is also called electronic payment. These are the different forms of digital money used in India Credit /Debit Cards, NEFT, RTGS, IMPS, UPI, E-Wallets, AEPS. All the transactions of digital payments are online so there is no need of hard cash. Now a day India moves in the direction of a cashless nation. India is one of the largest market opportunities for payments with objective of transforming cash economy into cash less economy. From the last decade there has been terrific growth in use of internet and mobile phone in India and it enable greater economic growth. Therefore the government promotes people to use digital money. People are using digital modes of money to the extent, at same time many people hesitate to use the digital money because it has advantages and some disadvantages.

Research Statement:

Does the users' perception about digital money and advantages and disadvantages of digital money is associated with the demographic parameters of the users (respondents), such as gender, age, education and annual income?

Objectives:

- To study users' perception about use of digital money in Solapur.

- To understands users' views about advantages and disadvantages of use of digital money.

- To suggest measures to enhance the use of digital money in Solapur.

Research Hypothesis

To test association between user' perception and demographic variables, it was assumed that perception about advantages and disadvantages of digital money is independent (not associated) of demographic variables of the respondents.

Literature Review:

- Shamsher Singh and Ravish Rana (2017), focus on "Study of Consumer Perception of Digital Payment Mode" (Journal of Internet Banking and Commerce, Vol. 22). The results of the study show that demographic factor except education does not have much impact on adoption of digital payment.

- Anjali Jacob (2018) in their study entitled 'A Study on Replacing Currency with Digital Cash among Students Pathanamthitta District' (International Journal of Scientific Engineering and Research, Vol.7) the study shows that majority of respondents are using and satisfied with digital currency because of its 24*7 service. But many respondents faced non co-operation from their banks.

- Vidyashree.D.V, Harshitha.J.S and Darshini.A (2018) in their article "A Study on People's Attitude towards Digital Money" (International Journal of Computer Engineering and Applications, Vol.12) observed that people are using services of digital money commonly for paying bills and money transfer. The awareness and practical usability of digital money is low.

Methodology of the Study:

This research paper is based on primary data and secondary data. This study employs descriptive research approach and has adopted survey method. In order to address the research problem, a primary survey was conducted in line with demographic variables of the respondents in different parts of Solapur city in Maharashtra with a total sample size of 150 who are using digital money and for this a structured questionnaire was developed covering a variety of interrelated aspects, such as respondent's gender, age, education and annual income. Data obtained through survey were analyzed using suitable statistical tools and techniques such as mean, rank correlation and testing of hypothesis (t-test).

Data analysis:

A. General Perception about Use of Digital Money:

To understand general perception about use of digital money, respondents' responses about statements regarding use of digital money have been analyzed and found that 90.67 percent users think that the use of digital money is safe, and to maintain safety only 50 percent respondents can change their password or pin frequently. 61.33 percent people believe that we have enough infrastructures for use of digital money. It is observed that 77.33 percent users think that uneducated people face difficulties in use digital money. Most of the respondents think that digital money can solve the problem of corruption through the use of digital money in India and India can achieve cashless society that will help to accomplish Digital India Mission.

B. Perception about Advantages and Disadvantages of Use of Digital Money:

To understand respondents' views about advantages and disadvantages of use of digital money selected statements are asked to express their responses and it has been recorded in five point scale and weighted average has been calculated and same has been analyzed as follows. Responses of users are recorded in five point liker's scale, to quantify the scale weight has been assigned following manner, the responses strongly agree assigned 1 weight, response agree have been given 2 weight, response neither agree nor disagree received 3 weight, disagree response assigned 4 weight and strongly disagree response 5 weight. The weights received by each response were multiplied with no. of respondents (frequency) and totaled to obtain the weighted total of those statements. Weighted total has been divided by total respondents to get weighted average of those statements. It is understood that weighted average is one or close to one implies average response is strongly agree, it is two of close to two average responses are agree with the statements. If it is three or close to three it average response is neither agree nor disagree. If it is four or close to four it shows that respondents are disagree and if it is five or close to five means respondents are strongly disagree with the statements.

1. Weighted Average of Responses about Advantages of Use of Digital Money:

Table No. 01 represents weighted average and average response about some of the statements, Majority of the responses are two or close to two, indicates average response is agree about the statements. All responses (weighted average) are in between 1.37 and 1.89. This means that respondents agree with the statements concerning advantages about the use of digital money.

Table No. 01

Weighted Average of Responses about Advantages of Use of Digital Money			
Sr. No.	**Statements**	**Weighted Average**	**Average Response**
1	Use of digital money is time saving	1.37	Strongly Agree
2	Digital money is easy mode of making payment	1.37	Strongly Agree
3	Digital money user can have discount / cash back benefit	1.8	Agree
4	Digital money users can reduce risk of loss of cash / money	1.89	Agree
5	Digital money is becoming economical day by day	1.89	Agree
6	Digital money is user friendly and Eco Friendly method	1.65	Agree
7	Digital money works speedy	1.42	Strongly Agree
8	Easy to maintain expenditure records	1.61	Agree
9	No requirement of change and cash	1.5	Strongly Agree
10	Use of digital money leads to increase in tax revenue	1.83	Agree
Source: Primary Data			

2. Weighted Average of Responses about Disadvantages of Use of Digital Money:

Weighted average and average response about the disadvantages of use of digital money statements, majority of the responses are two or close to two, indicates average response is agree about the statements. All responses (weighted average) are in between 1.84 and 3.29. Most of the respondents agree with the statements regarding disadvantages about the use of digital money. They feel that digital transactions result in lack of secrecy, there is possibility of misuse of personal information, Issues related cyber crimes, needs enough knowledge of banking and technology, require internet access and electricity in a place, fear in the mind of the people. Very few respondents are neither agree nor disagree with the statements that digital money is not safe in India, results into over spending, lack of adequate infrastructure.

Testing of Hypothesis:

T-statistics {t=R √n –2 /1– R2} has been used to test the significance of the obtained correlation coefficient of weighted average calculated based on responses of respondents profile.

Table No. 02

t-statistic of Correlation Coefficient and Its Results of Weighted Average of Responses about Advantages and Disadvantages of Use of Digital Money

Ho: There is no significant association exist between weighted averages calculated based on demographic variables of the respondents.
α: 0.05, **DF:** 09, **Table Value:** 2.26

Sr. No.	**Demographic Variables**	**Advantages**		**Disadvantages**	
		Calculated value of - t	**Result and Interpretation**	**Calculated value of - t**	**Result and Interpretation**
1	Gender	5.3989 (R)	Rejected: Significant association exist between weighted averages calculated based on responses of male and female respondents	0.0899 (A)	Accepted: No Significant association between weighted averages calculated based on responses of male and female respondents

2	Age Group (1-2) (1-3) (2-3)	0.7 (A) 3.50 (R) 1.91 (A)	Accepted: No Significant association between weighted averages of age groups..	6.74 (R) 5.93 (R) 10.46 (R)	Rejected: Significant association exist between weighted averages age groups.
3	Level of Education	4.7661 (R)	Rejected: Significant association exist between weighted averages of level of education of the respondents.	7.5238 (R)	Rejected: Significant association exist between weighted averages of level of education of the respondents.
4	Income Group (1-2) (1-3) (2-3)	4.37 (R) 3.98 (R) 2.04 (A)	Rejected: Significant association between weighted averages of income groups.	12.86 (R) 3.73 (R) 4.75 (R)	Rejected: Significant association between weighted averages of income groups.

Source: Primary Data

Conclusion

- Digital money is used by all people irrespective of gender, age, education and income group.
- People use digital money (90 percent) because it is time saving, user friendly, eco-friendly; reduce risk of loss of cash it help to trace expenditure records.
- Respondents (60 percent) think that use of digital money is not safe in India, they are also agree with that use of digital money result into over spending, it may lead to lack of secrecy, and internet access and power failure is major hurdle in use of digital money. Fear about digital frauds and Issues related to cyber-crime set limitations in the use of digital money.
- There is agreement in views of male and female, two education group and different income groups of the respondents about advantages of use of digital money. It has been observed that, there is disagreement in views of different age group about advantages of use of digital money.
- There is similarity in views of respondents belonging to different level of education and income group regarding the disadvantages of use of digital money.

Suggestions

- Initiative to organize awareness camps, workshops to enhance the use of digital money.
- Adequate infrastructure for digital money transaction should be provided.
- Government should improve safety measures and legal framework for digital money transaction. MA

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SHARE REPURCHASES -
A REVIEW OF LITERATURE STUDY

Abstract

The Share Repurchases or Buyback of shares is the repurchase of its own shares by a company. The buyback of shares is increasingly popular in countries such as the US, UK, Hong Kong, and India. The buyback of shares is allowed in India due to the Buyback of Securities Regulation Act 1998. From then on many listed Indian Private and Public companies made the announcement of different share buyback programs. In fact, these buyback programs have become very popular corporate action, especially in the last five years. This paper conducted the study to review the literature available on share buybacks for the period of 1998 - 2016.

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I. Introduction

"Cash-rich Indian companies should invest in their own company to add value to stakeholders and to stabilize the financial markets" – Forbes India by (M.Chandra Shekar, 2016)

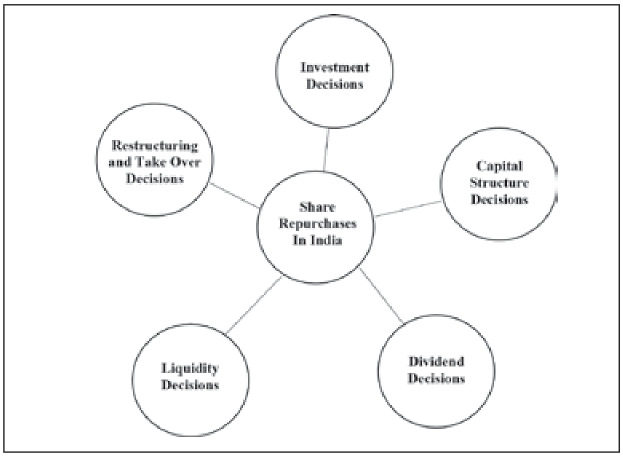
"Share Repurchases (Share Buybacks) is a corporate action in which a company buys back its own shares from the existing shareholders usually at a price higher than market price i.e. at Premium". In India the Buyback of Securities Regulations Act, 1998 introduced and the applicability of share buyback norms are commenced thereafter. The new Buyback of Securities Act (Amendment) 2013, is very stringent and also made it further complicated for the companies to announce buyback programs. Even then many companies in India are showing a keen interest in share buyback announcements now.

Also, there is a series of buyback announcements very recently by big Indian Information Technology giants such as TCS Ltd ₹16,000 crore, Infosys Ltd ₹13,000 crore, HCL Tech Ltd ₹4,000 crore, and Wipro Ltd ₹ 11,000 crore during the year 2017-2018. Even Dr.Reddys Limited made an announcement of share buybacks during 2016-2017 at a target price of share buyback for ₹.3500 per share, to result in the value creation for the shareholders even though the market price was moving in the range of ₹.2900 to₹3000.

Also, the Government of India has asked public sector firms to buy back shares worth about Rs 25,000 crore as part of disinvestment/ restructuring. As share buyback is a popular alternative to selling stake through public offers. It has asked big cash-rich companies such as Coal India Ltd, National Aluminum Co Ltd (NALCO), NMDC Ltd and MOIL Ltd among half a dozen PSUs to buyback shares. The firms identified for the share buybacks have a cumulative cash balance of over ₹78,000 crore during 2016-2017.

The Impact of Share Repurchase Announcements on various Corporate Financing Decisions:

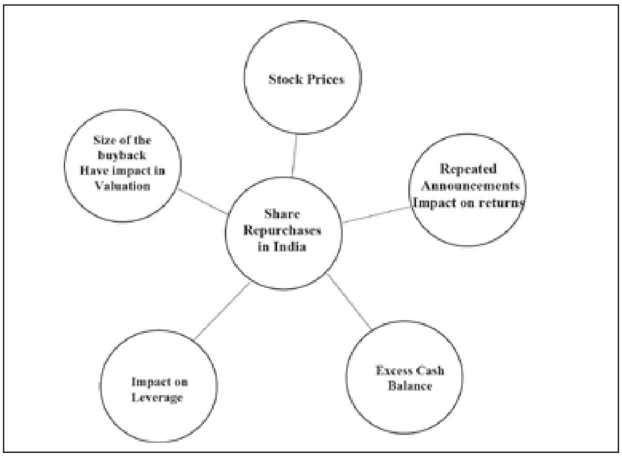
Figure – I



II. A Review of literature Study:

An extensive review of literature is available worldwide since the 1980s till today on the Stock Prices, Stock Options, Leverage, Anti-takeover strategy and impact on Valuation. This review of the study is focused and highlighted the most important and relevant papers from the 1980's to 2016 across the globe. The following figure summarizes the impact of Share Repurchases in India on various elements mentioned.

Figure - II



DATA: Share Buyback Offers from 2013 till Nov 2018:

Here are the last five years data appearing from Table-I, on buyback offers in India. During the last five year share repurchases significantly risen especially during the last three years. So the total amount of share repurchases in the last five years approximately 127,079 crores from corporate India to the investors from a total of 198 issues by different corporate entities.

Table: I

DATABASE COVERAGE: 2013-14 to 2018-19		
YEAR	AMOUNT (₹. cr)	NO. OF ISSUES
2013-14	11,380	32
2014-15	605	10
2015-16	1,834	16
2016-17	34,468	49
2017-18	53,307	59
2018-19 (as on 30/11/18)	25,485	32
Total	127,079	198

Source Table I - Prime Data Base & Author Calculation

Also, four out of six top buybacks announced companies are from exclusively from the Information technology sector as it mentioned in Table II below. They have announced significantly high share buyback announcements during the last year. The announcement of buybacks by Information Technology companies are almost 88% out of the top buyback announcement during the last year.

Table: II

Top Buyback Offers in 2017 - 2018	
Name of the Company	**Buyback Offer (₹ Cr.)**
TCS	16,000
Wipro	11,000
HCL TECH	3,500
NHPC	2,616
NLC	1,476
Mphasis	1,103
Total	35,695

Source Table II: Prime Data Base & Author Calculation

Also, six out of ten top buybacks announced companies are public sector enterprises from the following Table - III. It is due to the government of India made compulsory to cash-rich public sector enterprises must disinvest the stakes. It's due to this reason buyback announcements were more as well as high from the public sector enterprises during 2016-17. The announcement of buybacks by public sector enterprises are almost 73% out of the top 10 buyback announcement during the period 2016-17.

Table III

Top 10 Buyback Offers in 2016 – 2017

Name of the Company	Buyback Offer Amount in ₹Cr.
NMDC	7,527.75
Coal India	3650
National Aluminum	2,834.96
NHPC	2,616.59
Wipro	2,500.00
Bharat Electronics	2,171.15
Bosch	2,019.76
Bharti Infratel	2,000.00
MOIL	863.34
Vardhman Textiles	719.00
Total	26,902.55

Table III Source: The Big Story – Business Line – 20/3/2017.

The Review of Literature:

(Kim, Apr 2016) The author examined the daily returns which are associated with the share repurchases in the open market share repurchase firm by actively buying back its shares at the time of fall in the share price leads to a reduction in daily return volatility. The finding suggested that it is the subsequent actual buyback trading activity, not the announcement that is significantly negatively associated with changes in daily volatility returns.

(Sujata Kapoor, 2015) Conducted a survey with managers of the firms paying dividends which are listed on the NSE in order to know their views and factors which are influenced to change the dividend policy issues. The authors computed and obtained results for the list of buyback announced Indian companies and compared with the firms which are based out of Indonesia, Canada and the USA.

(Shachi Bhargava, Apr 2015) Examined the returns of the companies which are announced share repurchases from 2010 to 2014. This study revealed that 50% of the companies which has taken for the study resulted in an effect on share prices.

(Dutta, 2015) The study revealed the impact of share repurchase announcement on the returns of the Stocks traded in the BSE. The sample study period was 5 years i.e. 2009 to 2013. The findings of the study were abnormal returns were not generated by the India equity markets on share repurchase announcements.

(Chanchal Chatterjee, 2015) Investigated the share repurchases effect on Indian companies during the period of 2008-2012 by using a market model which is not widely used in the Indian context. And concluded by saying that this corporate action will not carry much of information to investors due to the reason family owned the ownership structure of Indian companies.

(Chhavi Mehta, Dec 2014) Theoretically Stock dividends will not have any impact on the financial position of the announcing company but in reality, markets react to the announcement. Authors have made a detailed study on the market reaction pertaining to stock dividend announcements related to the Indian context.

(Ajay Shah, May 2013) Explained the R package and its implementation of the event study methodology. Re-indexing the event time returns and bootstrap inference estimation was done in addition to converting physical dates to the event time frame.

(Jacob, 2013) compiled comprehensive international dividends and capital gains tax data and made a study for tax based explanations of corporate payout. And found that the penalty on dividends and capital gains are closely related to the company's propensity to pay dividends and share buyback.

(Kotapati Srinivasa Reddy, 2013) Conducted the event study method to analyze 64 share repurchases during the period 2008-2009 and found that in short term it assures return and lower P/E value is observed compared to pre buyback period.

(Raju, 2013) The author investigated the dividend substitution effect of share buyback in India. According to that effect, firms use dividend fund for share buyback. From the analysis, he has found that dividend was not less in the year share repurchase and moreover firms with surplus cash balance and undervalued stocks are engaging in the repurchase in India and not at the expense of dividends.

(Kaur, Oct 2012) Investigated India has a unique feature and it is desirable to know the motivation behind the companies announcing share buybacks. The results showed that improving financial performance and returning surplus cash are the significant factors behind Indian companies announcing share buybacks.

(Rob Dixon, 2008) In this paper, the author focused on the share repurchase in the UK. He says that Share buybacks in the UK have increased significantly. He focused on the practice in the UK, the motivation behind the share buybacks by UK companies and compared it with US companies.

(Warner, 2007) The author gives an overview of even study methodology. His study compared the short term horizon and long timer horizon methods. He feels that challenges in the long term horizon remain the same. He also presented the new evidence which illustrates the even study method is volatile in nature due to the calendar time period and it depends on even sample characteristics. They emphasized that this is a significant reason for using stratified samples to examine event study properties.

(Fairchild, 2006) In this paper, authors have provided a numerical example which shows the false view of people that share buyback will increase the share prices. He argued that this misconception will lead to value reduction of the firms because firms will be obsessed with using cash for repurchase rather than investing in positive NPV projects.

(Mishra, May-June 2005.) Examined the announcement period price reaction and whether management is acting in the best interest on non-tendering shareholders when it engages in targeted share buyback. As per the findings of the study, for Indian corporate, the long-term advantages of share buyback are not clear. Buyback process is generally used to improve the shareholding of promoters of the company, and with a view to impart short-term gains for the investors.

(Rehm, 2005) Authors say that companies can expect for the rise in their share price in the market when they announce share buybacks but it will not increase the company's value of interest. Authors saying that share buybacks are not useful in terms of EPS but for the messages, it passes to the market.

(Kaur K. a., 2003) Studied the stock price behavior of 77 repurchases from 60 firms that repurchased shares during 1999-2003 by way of open market or through a tender offer. They employed 'Comparison Period Return Approach' and found that buyback announcement and stock price have a significant relationship and it is demonstrated that buyback announcement is associated with positive returns.

(Mohanty, 2002) Studied 13 buyback announcement during the year 1999-2001 and found that buybacks have not been able to increase the shareholder's wealth perceptibly as argued by financial economists. He also found evidence of insider trading before the share buyback is announced. In concluding remarks the temporary increase in the stock prices in the period surrounding the buyback announcement has been observed.

(Puri, 2001) In a survey of 14 buybacks that have been announced in India till January 15, 2001, find a different result. However, she reports in investors on February 19, 2001that only 2 out of 13 companies which have come up with buyback offers have succeeded in having the desired effect-achieving superior share performance and returns for the shareholders.

(Saha, 1999) Reviewed buyback policy announced by the government, buyback of shares is a good financial strategy and have so many advantages but also suffers from some disadvantages. He suggested that this strategy should be used after analyzing the financial position of a firm. MA

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INSOLVENCY & BANKRUPTCY CODE, 2016 – JOURNEY SO FAR : A SURVEY

Abstract

It has been over two years since the Insolvency and Bankruptcy Code , 2016 was implemented in India .The Code has brought about a dramatic change in the manner in which the insolvency and bankruptcy proceedings in the country would be handled in a time bound manner . The Code is expected to resolve the non performing asset (NPA) crisis and the resultant slowdown in the availability of credit in the economy . An entirely new ecosystem has come into being as a result of which a host of opportunities have opened up for finance and legal professionals .Since the implementation of the code various applications initiating Corporate Insolvency Resolution Process (CIRP) have been filed by the corporate debtors , the financial creditors and the operational creditors . The CIRP's cases admitted, the number of resolution professionals registered , amount of recoveries made by the financial creditors in the cases resolved so far have been progressively increasing over the years whereas in certain cases the banks have had to take a sizeable haircut also. In order to understand the journey of the Insolvency and Bankruptcy Code, 2016 thus far a questionnaire based survey was carried out amongst the registered insolvency professionals in the country to ascertain their views on the various facets of the Code and the difficulties faced in it's implementation . A structured questionnaire was framed with 18 research questions , these questions were close ended and were a combination of Dichotomous , Multiple choice and on Likert scale . The responses were codified and analyzed . The research paper presents this analysis along with the interpretations for the benefit of the readers .

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The Insolvency and Bankruptcy Code , 2016 , implemented in December, 2016 has brought into effect an single insolvency and bankruptcy framework in India by consolidating multiple laws . The IBC , 2016 adopts a time bound resolution process of 180 days which may be extended up to 270 days . The Code also introduces and facilitates the creation of an entirely new ecosystem e.g. the regulator , the Insolvency and Bankruptcy Board of India (IBBI), Insolvency Professionals (IP's), Information Utilities (IU's) , Insolvency Professional Agencies (IPA's) and the adjudicating authorities (NCLT and NCLAT's).It brings in the shift of control from the shareholders and the promoters to the creditors with the test of insolvency moving from the erosion of net worth to payment default. On the one hand the Code has been considered a game changer and considerably improved India's Ease of Doing Business Rankings in the World Bank Report whereas on the other hand there have been concerns on the ground regarding the lack of awareness of the law amongst the stakeholders , effective establishment & smooth functioning of the infrastructure to support the implementation of the Code and the breaching of the 270 days threshold in most of the cases currently under resolution. It has been over 2 years since the IBC, 2016 was introduced and there was a need to ascertain its journey so far .

The Main Features of the Code are as follows :

(i) It amends and consolidates laws relating to the reorganization and liquidation of the corporations and bankruptcy of natural persons.

(ii) It seeks to achieve resolution of a corporate entity in financial distress and failing which its liquidation , in a time bound manner.

(iii) It introduces a shift to a " Creditor in Control" regime from " The Debtor in Possession" regime under SICA, 1985 .

(iv) The law introduces a new discipline of Insolvency Professionals.

(v) The insolvency professional is appointed as a resolution professional on commencement of insolvency proceedings thereby displacing the debtor from the management and control of assets .

(vi) The role of the courts has been reduced significantly with insolvency professionals serving as an extended arm of the NCLT.

(vii) Through creditors committee , the creditors have been provided a greater role in the corporate insolvency resolution process .

(viii) IBC is a shift to the cash flow test from that of the balance sheet test.

(ix) IBC provides for an objective test , that of payment default in respect of a debt.

(x) An application for commencement of insolvency resolution process can be filed upon a payment default of a debt of at least Rs. 1 Lac before the NCLT.

(xi) There is no interference from the promoters by way litigation due to moratorium on the borrower

(xii) IBC also promotes re-organization of the company in a systematic manner, failing which liquidation of the concerned entity is invited.

Objectives

The objective of this research paper is to present to the audience the findings of asurvey, carried out amongst the registered insolvency professionals in the country primarily to understand the journey so far of the Insolvency and Bankruptcy Code, 2016 from the day of its implementationwith reference to (a)the implementation of the IBC , 2016 (b) its ecosystem (c) its impact on the ease of doing business rankings of India (d) improvement in the business prospects of the ARC's (e)facilitation of the capital infusion in the ARC's through 100 % FDI Investment (f) the effectiveness of the components of the Ecosystem like the IBBI , Information Utilities , Insolvency Professionals (g) the need for Insolvency Professionals to constantly upgrade themselves (h) to explore the possibility of categorization of the Insolvency Processionals with respect to the value of the transactions to be handled by them (i) identifying the most preferred method of bidding(j)to ascertain the impact of the recent change in vote of COC to 66 % on decision making process of the COC (k) to comment on the ethics of acceptance of bids after the deadline to receive bids is over (l) the need to disallowthe promoters to participate in the bidding process (m)the scope and the need to increase the number of NCLT Benches in the country (n)the necessity to train the NCLT Judges (o)exploringthe creation of a BAD Bank (p)the scope of rating of NPA 's to set a uniform pricing formula and finally (q) the on - going resolution of the Big 12 cases in benefitting setting precedents for future resolutions.

Research Methodology

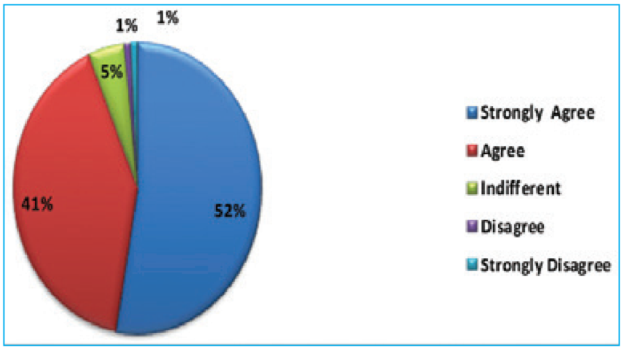
A survey was conducted amongst the various registered Insolvency Professionals of the three IPA's (CA , CS and the CMA Institutes) using the questionnaire methodology . A structured questionnaire was framed with 18 research questions covering the various facets of the Insolvency & Bankruptcy Code, 2016 .The questions framed were close ended and were a combination of Dichotomous , Multiple choice and on Likertscale .The survey questionnaire was designed through " Google Forms " and subsequently the survey questionnaire was e-mailed along with a covering letter to these Insolvency Professionals who eitherqualified Chartered Accountants , Cost Accountants , Company Secretaries , Legal Counsels , Financial Consultants in the practice of Stressed Assets Management , Credit Rating Analysts . These Questionnaireswere emailed to them over a periodof three months . Gentle reminders were also required to be sent to them on various weekends to elicit responses . 125 Survey Questionnaires were received which were complete in all respects. The responses in the questionnaires were then codified and entered into the SPSS software for data analysis purposes .

Data Analysis

For each survey question the frequency table was generated through the SPSS Software and respective pie charts were made to analyze and present the interpretation.

Q1) The Insolvency & Bankruptcy Code , 2016 has proven to be " GAME CHANGER ",which has consolidated the laws relating to Insolvency and Bankruptcy since it has the potential to improve the recovery rate due to better borrower discipline , greater creditor rights and faster resolution process

Chart No: 1 IBC , 2016 A Game Changer

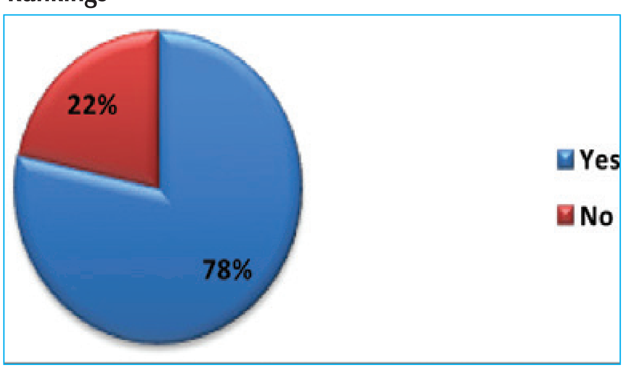


Interpretation

93.60% (117) of the respondents were firmly of the view that the Insolvency and Bankruptcy Code, 2016 has indeed been proven to be a GAME CHANGER , since it has helped consolidate the various laws and has certainly helped improve the recovery due to better borrower discipline , greater creditor rights and time bound resolution process .

Q2) The Insolvency & Bankruptcy Code, 2016 has improved India's Ease of Doing Business Rankings significantly.

Chart No: 2 India'sImproved Ease of Doing Business Rankings

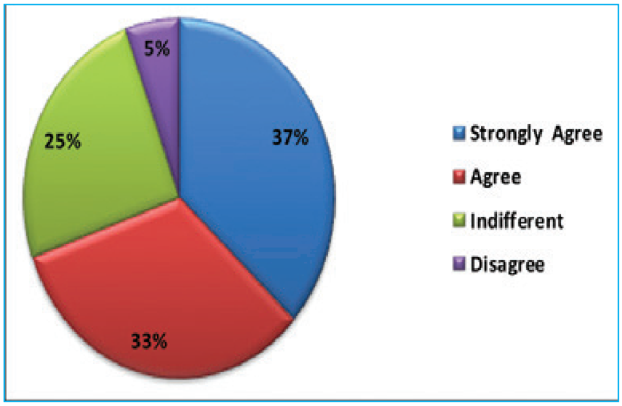


Interpretation

On being asked whether the Insolvency and Bankruptcy Code, 2016 had improved India 's Ease of Doing Business Rankings , 78 % (98) of the respondents were in agreement that it had definitely improved the rankings .

Q3) The ARC (Asset Reconstruction Companies) now have a great opportunity to invest in stressed assets after the implementation of the Insolvency and Bankruptcy Code, 2016.

Chart No: 3 A Great Opportunity for ARC's

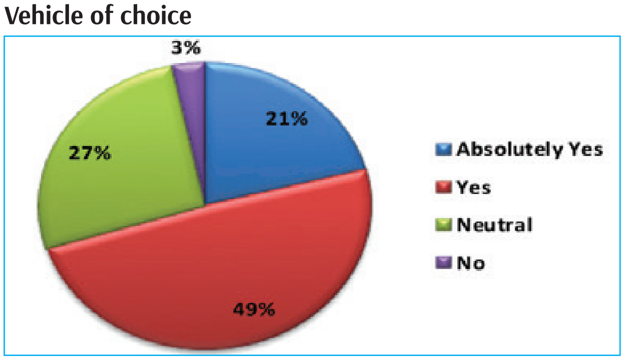


Interpretation

69.60 % (87) respondents felt that the ARC's post the implementation of the Insolvency and Bankruptcy Code, 2016 had a great opportunity to invest in stressed assets whereas 24.80% (31) respondents were un- decided and in - different to the thought .

Q4) With the GOI Notification of 100% FDI(Foreign Direct Investment) in ARC's in India through the Direct Route , the challenge of capital in the ARC's shall become a thing of the past and they shall become an Investment Vehicle of Choice.

Chart No: 4 100% FDI in ARC to make it an Investment Vehicle of choice

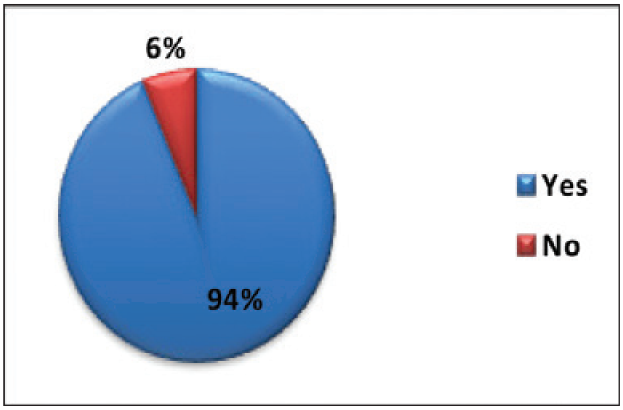


Interpretation

On enquiring whether the new notification of 100% FDI in ARC's in India would greatly ease the capital requirements of the ARC's and make ARC's an Investment Vehicle of Choice , 69.60 % (87) respondents were in agreement whereas 26.40 % (31) took a neutral position and were not able to decide .

Q5) Development of the Ecosystem (Establishment of the Regulator , Information Utilities , Insolvency Professionals , Procedural Modalities etc.) have been relatively smooth than expected. However certain areas like the NCLT benches , backlog of cases etc. need improvement since the Insolvency & Bankruptcy Code, 2016 is still evolving.

Chart No:5 The establishment of the Ecosystem under the IBC, 2016 has been smooth

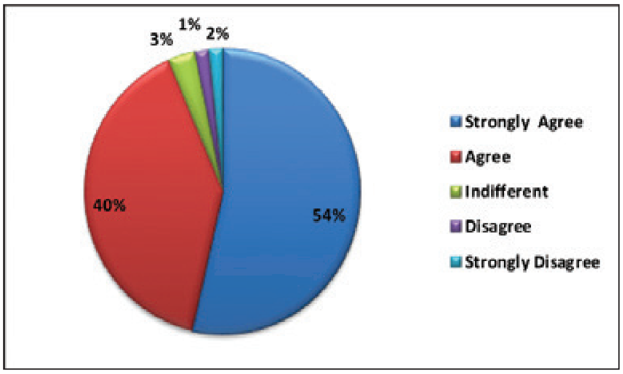


Interpretation

94% (117) of the Insolvency Professionals felt that the Eco System (Establishment of the Regulator , Information Utilities , Insolvency Professionals , Procedural Modalities) has definitely been relatively smooth than expected and wherever there was a scope of improvement the same was being looked into by the GOI on a real time basis .

Q6) Role of the Insolvency Resolution Professionals and their ability to handle day to day operations of the bankrupt companies is critical. Since the IBC , 2016 is a relatively new and evolving , the IP's need to upgrade themselves as regards awareness of the law , they need to seek support from the operational creditors and that they should also be able to hire technical support /experts to assist them with the approval of the Committee of Creditors .

Chart No: 6 Role of Insolvency Professionals and the need to upgrade themselves

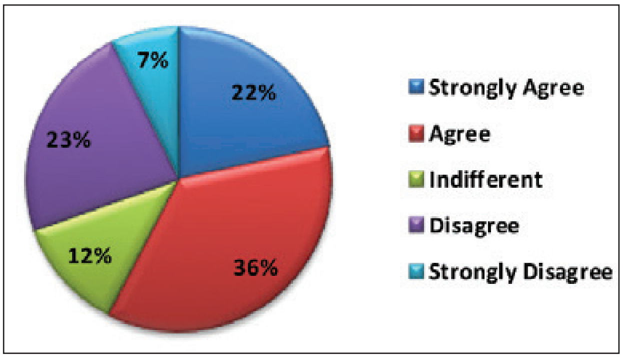


Interpretation

93.60% (117) of the respondents were very clear in the mind that the insolvency Professionals needed to continuously upgrade themselves , seek support from the operational creditors and seek the help of technical experts from outside sources.

Q7) Over a period of time after an initial round of resolution of companies under the IBC, 2016 is over , there should evolve a system of categorization of the Insolvency Professionals who should be allowed to handle a certain threshold of outstanding debts in stressed assets .

Chart No: 7 Need for the Categorization of Insolvency Professionals

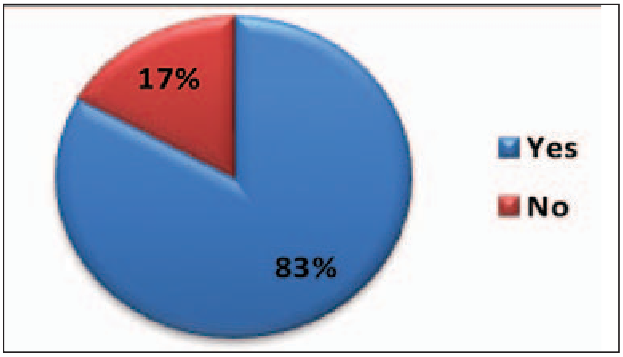


Interpretation

57.60% (72) of the Insolvency professionals were of the opinion that yes it would be appropriate to evolve a system of categorization wherein threshold limits would be finalized and they would be allowed to handle particular stressed assets . Since each Insolvency Professional would not possess the requisite experience and expertise to handle each and every case of insolvency and that the same would evolve over a period of time.

Q8)Insolvency and Bankruptcy Code , 2016 has turned out to be the most preferred mechanism of resolution of stressed assets for the lenders since it balances their twin objective of enhancing recovery and turnaround

Chart No: 8 IBC, 2016 the most preferred mechanism of resolution of stressed assets

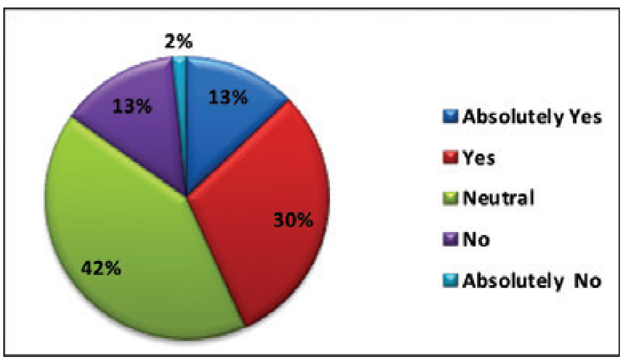


Interpretation

83.20% (104) of the respondents were in acknowledged that the Insolvency and Bankruptcy Code, 2016 since its implementation had now become the most preferred mechanism for the resolution of stressed assets for the lenders .

Q9)In the near future maximum numbers of filings before the NCLT shall relate to EPC and Power Sector companies amongst all other sectors.

Chart No: 9 Maximum number of filings in NCLT shall be for EPC& Power

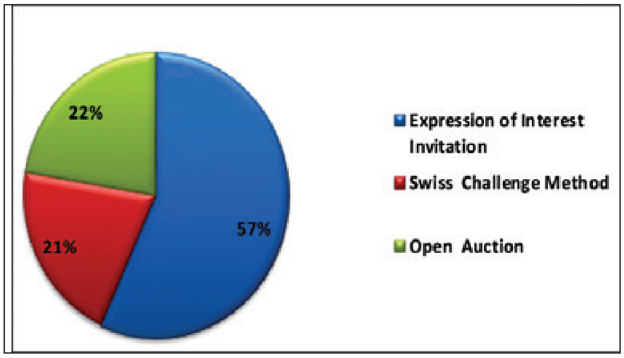


Interpretation

43.20 % (54) of the Insolvency Professionals were sure that in the near future the maximum number of filings in the NCLT would relate to EPC & Power whereas 41.62%(52) took a neutral position and were un- decided on the issue since they were not able to take a clear stand on the matter.

Q10) Which do you feel is the most preferred method of Bidding ?(a) Invitation of Expressions of Interest (b) Swiss Challenge Method and (c) Open Auction

Chart No; 10 The Most Preferred Method of Bidding

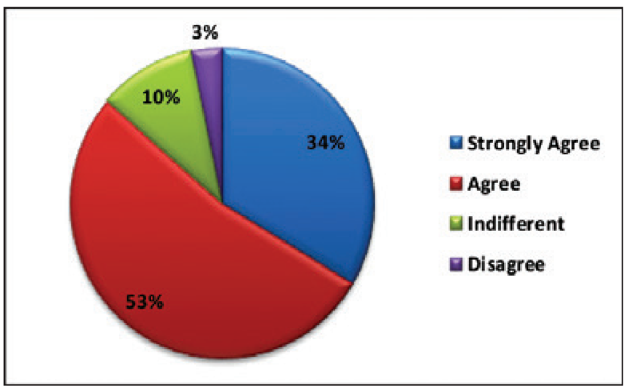


Interpretation

56.80% (71) respondents felt that Invitation of Expression of Interest was the most preferred method of bidding , whereas 22.40% (28) and 20.80% (26) were of the opinion that Open Auction and Swiss Challenge Methods were a better method of bidding process .

Q11)The recent amendment of 66% of the COC Vote in favour instead of the earlier 75% of the COC Vote in favour shall help in a faster Corporate Insolvency Resolution Process (CIRP)

Chart No 11 66% of the COC Vote in Favour to facilitate faster CIRP

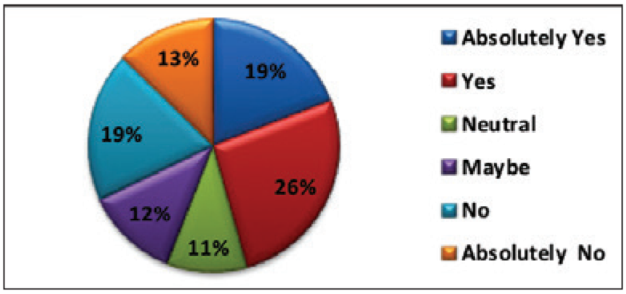


Interpretation

86.40% (108) of the Insolvency Professionals were confident that the recent amendment in the % of COC Vote in favour from 75% to 66% would help in a faster decision making and speedier corporate insolvency resolution process (CIRP)

Q12)Do you think it is ETHICAL on the part of the Resolution Professional (RP)/Committee of Creditors(COC) to accept bids after the deadline for submission as per the Process Document has expired even though the bid submitted after the deadline is on the higher side than those received so far

Chart No: 12 Is it ethical to accept Bids after the deadline is over

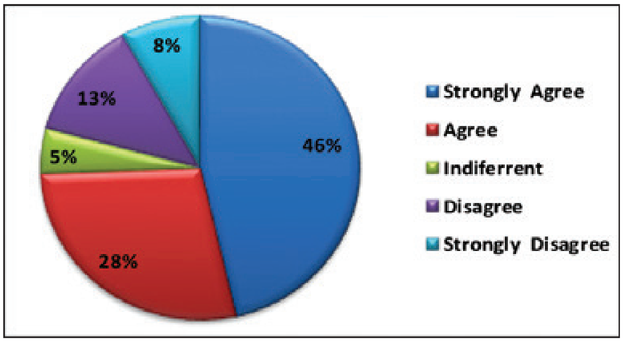


Interpretation

45.60 % (57) Respondents felt that it was nothing wrong on the part of the IRP or the COC to accept bids after the deadline had expired , whereas 22.40% (28) were un-sure about the matter , however 32%(40) respondents were certain that it was not ethical to do so .

Q13)Is it not appropriate to disallow the promoters of companies undergoing the resolution process from bidding for their own companies when they are auctioned as part of bankruptcy proceedings. If allowed then it would amount to allowing the management of the company to purchase its own asset at a steep discount while the lenders (bankers) would have to take a big haircut (loss).

Chart No:13 To allow or not to allow the promoters to participate in bidding process

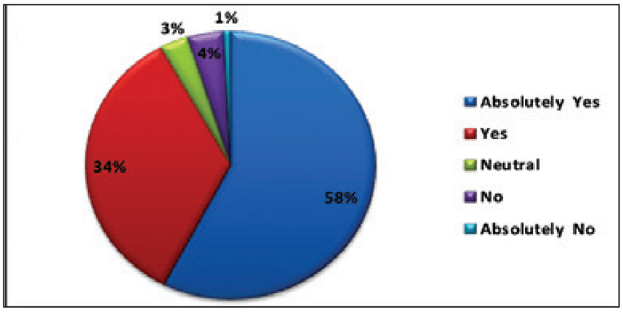


Interpretation

74.40% (93) Insolvency Professionals were firm in their belief that the promoters should never be allowed to participate in the bidding process since it would amount to allowing them to acquire their own assets at a steep discount since the essence of the CIRP would be lost if they were allowed to do so and it would be unfair to the lenders and the shareholders at large.

Q14)One of the major hurdles being faced in resolving cases under the Code is that here are not enough number of NCLT benches which can cater to such back log of large number of cases there by resulting in delays.

Chart No 14: Lack of adequate number of NCLT Benches

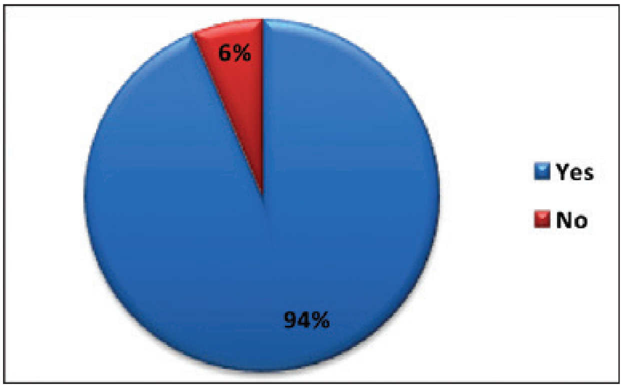


Interpretation

92% (114) of therespondents were in absolute agreement that there were not enough number of NCLT benches which could cater to the backlog of the large number of cases as a result of which there were delays and the assertion of the time bound resolution of cases within a period of 180days/270 days was getting defeated .

Q15)Do you agree that more NCLT Benches need to be set up and that the Judges need to be trained to overcome the huge back log of cases pending resolution, which are blocking valuable economic resources of the country.

Chart No:15 Need for more NCLT Benches to be set up

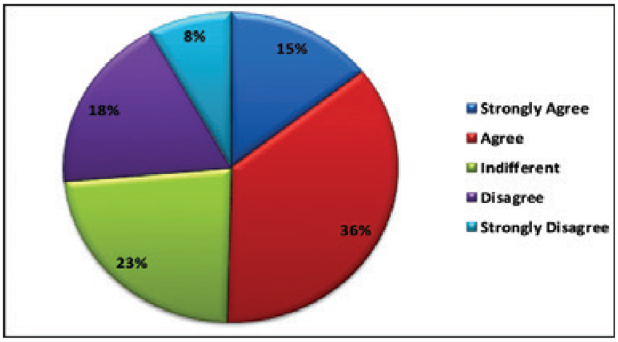


Interpretation

94% (117) of the Insolvency Professionals were certain that there was a need to increase the number of NCLT Benches in the country and that there was also a need to ensure that the NCLT Judges be trained .

Q16)Do you agree to the fact that the establishment of a BAD BANK or PARA (Public Sector Asset Reconstruction Agency) would be a good idea to tackle stressed Assets at banks in India ?

Chart No: 16 Establishment of a BAD BANK – Yes or No

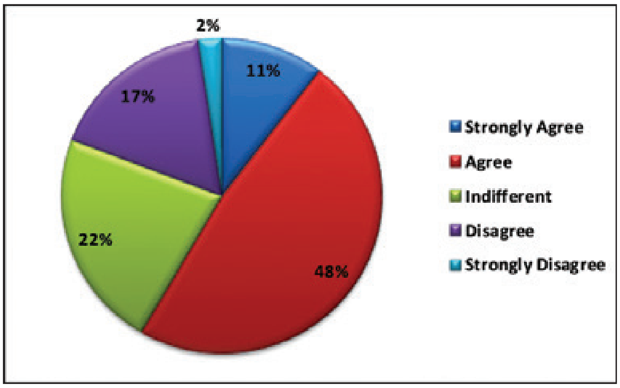


Interpretation

50.40 % (63) of the respondents were acceptable to the fact that a BAD BANK or a PARA should be set up , whereas 23.20% (29) were indifferent to the whole idea , however 26.40 % (33) respondents did not agree to the proposition .

Q17)In order to facilitate the sale of Bad Loans by banks , it would be a good idea again to " RATE ALL THE NPAs " so that a Uniform Pricing formula is created and accepted by all. What do you feel?

Chart No: 15 Rate all NPA's so as to establish a uniform rating formula

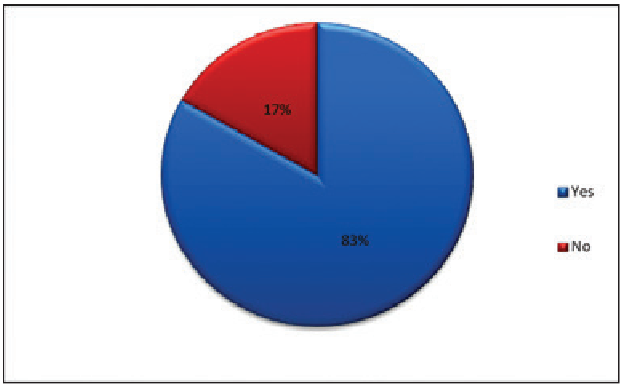


Interpretation

58.40 % (73) of the respondents felt that it was certainly a good idea to rate all the NPA's so that a uniform pricing formula could be created , 22.40% (28) were not clear about the idea and acted indifferent however 19.20% (24) of the respondents did not agree to the proposition that the NPA's should be rated .

Q18)Do you agree that the resolution of the BIG12 currently underway shall help set precedents for future resolutions and unlock value both for the lenders and the economy as a whole.

Chart No:18 Resolution of the BIG 12 to help set precedents



Interpretation

83.20% (104)Insolvency Professionals accepted that once the Resolution of the BIG - 12 was completed , it would help set precedents for all the forthcoming new cases .The experiences gained in the BIG 12 would help streamline IBC processes and procedures and help the Insolvency Professional fraternity in the forthcoming cases .

Findings:

Responses to the Survey Questionnaire clearly affirm thatthe implementation of the IBC , 2016 has been relatively smooth , the ecosystem has been established and become operational much faster than expected , India's ease of doing business rankings of India has improved considerably , there is definitely an improvement in the business prospects of the ARC's and 100 % FDI Investment in ARC's would greatly ease their capital constraints , there is an agreement amongst the Insolvency Professionals to continuously upgrade themselves and that there was the need to categorize them in terms of the value of the transactions to be handled by them , Expression of Interest was truly the most preferred method of bidding

,a change in vote of COC to 66 % would certainly help a faster decision making process in the COC ,however there a divided or more correctly an un decided view on the acceptance of bids after the deadline of receiving bids was over ,meanwhile there was a very strong view to disallow the promoters to participate in the bidding process , the conclusive need to increase the number of NCLT Benches in the country and train the NCLT Judges , a divided view prevailed on creation of a BAD Bank ,however all agreed that rating of NPA 's was a good idea and finally the on-going resolution of the Big 12 cases would certainly help set precedents for the future resolution cases.

Conclusion

There is no doubt that the IBC, 2016 has brought about a sea change in the manner in the promoter groups have become more than willing to go the extra mile to resolve outstanding issues with the banks . Even the Operational Creditors have become more active in raising the issue of payment defaults . The Resolution of the BIG 12 cases currently under resolution is also expected to bring closure to approxRs 2.7 Trillion of which only Rs 1.28 trillion is estimated to be recoverable., according to research and rating agency CLSA. This means on average the country's banks are taking a haircut of 52 per cent on the first list of over-indebted corporate . However since in most of the cases currently under resolution the threshold of 270 days had been breached ,the need is felt to increase the number of NCLT benches and NCLT Judges and to train the NCLT Judges to overcome the large backlog of cases .The scope of establishment of more information utilities to improve the quality of information flow amongst the various stakeholders , improvement in the alignment of the IBC , 2016 with other related laws like Companies Act, Income Tax Act, SEBI ,RBI for Resolution Plan approval , Implementation of Cross border insolvency and finally the active role of IPA's in training the IP's and knowledge sharing with the market participants. MA

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FACTORS CONTRIBUTING TO PROFITABILITY OF SELECT COMMERCIAL BANKS IN INDIA:

AN EMPIRICAL STUDY

Abstract

This paper investigates impact of internal factors on profitability of select PSU banks in India. The period of study is 2012–13 to 2016-17, and data are compiled from the published annual reports of commercial banks. It was found that liquidity risk, operational risk, capital efficiency, size and operational efficiency negatively affect profitability.

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1.0 Introduction

In the post-LPG period, reforms had been initiated to improve efficiency and financial soundness of the Indian banks. Notwithstanding this, there has been increase in NPA and decline in interest income in the Indian banks. During 2015-16, the commercial banks' interest earnings and non-interest incomes were adversely affected. Interest income was impacted by the continuing slowdown in credit growth; the growth in net interest income declined. NPA provisioning more than doubled due to deterioration in asset quality and improved recognition of NPAs. Net profits dropped by more than 60% for the entire banking sector and by 148 per cent for PSU Banks. So questions arise on the internal factors within banks' control that determine profitability of commercial banks in India. This paper attempts to answer the question.

1.1 Research Problem

The recent changes in banking industry are mostly due to technological and globalization resulting in opportunities as well as challenges for banks to remain profitable (Scott & Arias, 2011). Several PSU banks in India have reported losses in the previous years. Although several studies have been conducted on determinants of banks' profitability around the world, there are few in the Indian context.

1.2 Hypotheses:

Based on literature review, the present study seeks to test the following hypothesis

H01: There is no significant relationship bank specific internal factors and profitability.

H02: There is no significant effect of bank specific internal factors on profitability.

1.3 Objectives:

- To examine the relationship between bank-specific internal factors and profitability in select public sector banks of India.
- To measure the effect of these internal factors on profitability of public sector banks.

2.0 Literature Review

The summary of literature review on bank profitability is presented in Table-1:

Table-1: Literature Review

Study	Findings
Abreu and Mendes (2002); Kosmidau et al (2005); Flamini et al (2009); Voug and Hoi (2009)	Capital has positive impact on profitability.
Molyneux and Thornton (1992)	Performance was positively related to concentration, ownership, and macro-economic factors
Athanasoglou and Delis (2005)	Bank-specific determinants except size influence profitability.
Athanasoglou et al (2006)	Capital was negatively related to profitability. GDP and inflation had positive impact on profitability.
Camilleri (2005); Islam (2010)	Bank size was positively related to profitability.
Hefferman and Fu (2008)	Inflation had positive impact on bank profitability.
Samad (2008)	Efficiency Hypothesis is valid in explaining profitability of banks in Bangladesh. Internal factors are important determinants of profitability.
Sufiyan and Habibullah (2009)	Liquidity, credit risk, and capitalization had positive impact on the profitability while the impact of cost was negative.
Roman and Tomuleasa (2013)	Bank specific factors: capital adequacy, income and external factors: GDP growth rate and inflation affect profitability.
Zhang and Daly (2014)	Banks with lower credit risk, are more profitable. Higher expense preferences exert a negative impact.
Căpraru and Ihnatov (2015)	Banks' profitability is negatively influenced by cost to income ratio, size, credit risk and market concentration.

3.0 Research Methodology

3.1 Data Collection:

The study covers top ten PSU banks by market capitalization, as follows; State Bank of India (SBI), Bank of Baroda (BOB), Punjab National Bank, Canara Bank, Bank of India, Indian Bank, IDBI Bank, Central Bank of India, United Bank of India and Vijaya Bank. The period covered is from FY 2012-13 to 2016-17. The data are collected from the annual reports of banks and from www.moneycontrol.com.

3.2 Variables Used:

The details of variables used in the study are presented in Table-2.

Table-2: Variables Used

Variables	Measurement
Dependent Variable	
Return on Net Worth (RONW)	Net Profit / Net Worth
Net Profit Margin (NPM)	Net Profit / Total Revenues

Independent Variables: Internal Factors	
(A) **Liquidity Risk** (i) Loans as percentage of Assets (LPA) = Total Loans / Total Asset *100 (ii) Loans as a percentage of Deposits (LPD) = Total Loans / Total Deposits * 100	
(B) Credit Risk (i) Loan loss provision as a percentage of assets (LLPA) = Loan Loss Provisions/ Total Asset *100 (ii) Net NPA as a percentage of total loans (NPAL) = Net Non-Performing Asset/ Total Loans *100	
(C) Operational Efficiency (OEA)	Total Operating Expense / Total Assets
(D) Capital Efficiency (ETA)	Equity / Total Assets
(E) Bank Size (SIZE)	Ln(Total Loans)

3.5 Empirical Model

Correlation analysis is done to study the interrelationship between different sets of independent and dependent variables. Regression models have been used by the researchers to study the effect of bank specific internal actors on profitability of select PSU banks, as explained below:

$RONWi = \beta 0 + \beta 1(LPA)i + \beta 2(LPD)i + \beta 3(LLPA)i + \beta 4(NPAL)i + \beta 5(OEA)i + \beta 6\ (ETA)i + \beta 7(SIZE)i + \varepsilon i$ ....(1)

$NPMi = \beta 0 + \beta 1(LPA)i + \beta 2(LPD)i + \beta 3(LLPA)i + \beta 4(NPAL)i + \beta 5(OEA)i + \beta 6\ (ETA)i + \beta 7(SIZE)i + \varepsilon i$ ....(2)

4.0 Results and Discussion

Descriptive statistics of the variables are presented in Table-3.

Table-3: Descriptive Statistics of Variables Used

Variables	Range	Minimum	Maximum	Mean	Std. Deviation	Coefficient of Variation
IPA	4.8768	58.6079	63.4847	51.6112	25.3523	0.4912
LPD	6.4357	71.7370	78.1727	63.2568	31.0749	0.4913
LLPA	0.5537	0.3434	0.8971	0.4712	0.3092	0.6561
NPAL	4.1279	1.6707	5.7986	2.8499	2.2391	0.7856
OEA	0.4129	1.2533	1.6663	1.1931	0.6088	0.5102
ETA	0.0019	0.0508	0.0527	0.0514	0.0011	0.0214
SIZE	0.1974	11.3760	11.5734	11.4846	0.0724	0.0063
RONW	18.0070	-5.4550	12.5520	4.1268	7.2087	1.7468
NPM	13.3740	-4.2310	9.1430	3.1812	5.3070	1.6682

The coefficients of variation values indicate higher volatility of profitability measures compared to other factors. Size is the least variable of all. The variability of other factors lie in between. Table-4 shows the correlation matrix among the variables.

Table-4: Correlation Matrix

	IPA	LPD	LLPA	NPAL	OEA	ETA	SIZE	RONW	NPM
IPA	1								
LPD	0.680**	1							
LLPA	-0.646*	-0.678**	1						
NPAL	-0.534**	-0.494*	0.617*	1					

OEA	-0.638	-0.592	0.652	0.776**	1				
ETA	0.402	0.531	-0.448	-0.141	0.014	1			
SIZE	-0.655	-0.647	0.661	0.604	0.541	-0.620	1		
RONW	0.647	0.598	-0.658	-0.723*	-0.768**	-0.030	-0.641	1	
NPM	0.620	0.670	-0.643	-0.713*	-0.770**	-0.083	-0.610	0.797**	1

*** Correlation is significant at the 0.01 level (2-tailed), *Correlation is significant at the 0.05 level (2-tailed).*

The correlation values between few of the independent variables like LPA and LLPA, LPA and NPAL, LPD and LLPA, and LPD and NPAL were found to be negative but statistically significant whereas correlation between remaining independent variables found to be either positive or negative ranging from low to moderate correlation but not significant and hence reduces the possibility of existence of collinearity.

4.1 Effect of Bank Specific Internal Factors on Profitability of Public Sector Banks

The regression summary for the effect of bank specific internal factors on profitability (RONW) is presented in Table-5.

Table 5: Model Summary (Dependent Variable: RONW)

B		Coefficients		't' value	Significance
		Std. Error			
1	Constant	41.874	5.568	7.521	.005
	LPA	-.314	3.596	-1.437	.287
	LPD	-.267	2.324	-1.301	.323
	LLPA	.307	4.156	1.267	.333
	NPAL	.770	11.124	1.327	.316
	OEA	-27.026	3.862	-6.999	.006
	ETA	-.070	2.286	1.327	.316
	SIZE	.020	0.008	0.092	.935
R =.0.771, R Squared = 0.594, Adj. R Squared =0.523, F Value = 48.984 at p value = 0.006					

Table-5 shows that the variation caused by independent variables in the value of RONW is significant. F-statistic = 48.984 is significant at 5 per cent level. So there is a significant relationship between the RONW and independent variables. Adjusted R2 = 0.523, indicates that the independent variables explain 52.3 per cent of total variance in RONW; remaining 47.7 percent is due to other factors. Further there is a negative relationship between profitability (RONW) and liquidity risk (proxies: LPA and LPD); operational risk (proxy: OEA) and capital efficiency represented by ETA respectively.

The regression summary for the effect of the internal factors on profitability (NPM) is presented in Table-6.

Table-6: Model Summary (Dependent Variable: NPM)

B		Coefficients		't' value	Significance
		Std. Error			
1	Constant	40.520	4.544	7.277	.005
	LPA	-.285	2.416	-1.410	.253
	LPD	-.264	1.225	-1.439	.246
	LLPA	.337	3.168	1.595	.209
	NPAL	.762	10.224	1.411	.253
	OEA	-26.175	3.219	-6.870	.008
	ETA	-.080	1.288	-.555	.617
	SIZE	.075	0.007	.395	.719
R =.0. 765, R Squared = 0.585, Adj. R Squared =0.515, F Value = 66.133 at p value = 0.001					

F-statistic = 66.133 is significant at 5 per cent level. Hence there is a significant relationship between NPM and the internal factors. Adjusted R2 = 0.515, indicates that the independent variables explain about 51.5% of total variance in NPM; remaining 48.5 percent of the total variance is due to other factors. It is found that there is a negative relationship between profitability (NPM) and liquidity risk (LPA and LPD); operational risk (OEA) and capital efficiency (ETA).

5.0 Conclusions & Recommendations

The study concludes that liquidity risk negatively affects profitability. Also operational efficiency and capital efficiency negatively affect profitability. It is also concluded that an increase in nonperforming loans affects credit quality and adversely affects profitability. Bank size, operational efficiency and liquidity are found to negatively influence banks' profitability, although the relationship is statistically insignificant.

This study recommends developing effective policies to deal with NPAs. Regulatory authorities should closely supervise banks on compliance of norms for capital adequacy, liquidity and credit risk. Also banks should manage their operational expenses well. However there are other factors beyond those considered, which influence profitability of the commercial banks. A study of such factors might be considered in future. MA

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PERFORMANCE APPRAISAL THROUGH INVENTORY MANAGEMENT:

THE CASE OF CENTRAL PUBLIC SECTOR ENTERPRISES (CPSEs) IN INDIA

Abstract

Inventory implies the sum total of tangible assets which comprises of finished goods, work-in-progress and materials and supplies. In order to survive in the competitive market, a firm should have requisite level of inventories i.e., neither excessive nor inadequate. Thus, an efficient management of inventory is necessary for maintaining smooth operation of the business. In this backdrop, the present study is an attempt to examine the inventory management of CPSEs in India during the period 2000-01 to 2016-17.

The technique of linear regression equations are used in the study and the significance of deviation between actual values and trend values of inventory turnover ratio have been tested by Ch-square test. Simple statistical measures like average, standard deviation, and co-efficient of variation have also been applied in the study.

The study concluded that the overall inventory management of CPSEs in India is found to be satisfactory during the period under study.

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Inventory is a vital element of working capital. To a greater extent, the success or failure of an enterprise depends upon the performance of managing inventory. Efficient management of inventory not only ensures adequate liquidity but at the same time increase the profitability of a firm. The main objective of inventory management is to avoid excessive inventory as well as inadequate inventory so that continuous flow of production and sales with minimum holding costs and better customer's services may be achieved.

The term inventory implies the sum total of tangible assets which comprises of finished goods, work-in-progress and materials and supplies. Since inventories reflect a major part of investment of a firm's current assets, it plays a crucial role in the enhancement of competitiveness and efficiency of manufacturing enterprises. In order to survive in the global competitive market, a firm should have requisite level of inventories i.e., neither excessive nor inadequate. Thus, an efficient management of inventory is necessary for maintaining smooth operation of the business enterprise.

The Problem Focus

Inventory (i.e., stock) is an important component for companies to support their production process and at the same time fulfill customer requirements. The requirements of inventory of a company are based on customer demand and nature of business. Hence, inventory requirements vary from industry to industry and may vary from location to location. Moreover, efficient utilization of inventory helps to increase profitability of an enterprise.

In this backdrop, the present study attempts to examine the inventory management of Central Public Sector Enterprises (CPSEs) in India.

Prior Studies

Ghosh, Sudipta (2005) examined the performance of

Stewarts & Lloyds of India Ltd. through the technique of inventory management during the period 1996-97 to 2000-01. The study concluded that the company is efficient in the management of inventory and may required to maintain this level of efficiency in the future years.

Rajeev, N. (2008) attempted to provide a guideline for entrepreneurs in enhancing their inventory management performance of Small and Medium Enterprises (SMEs) in Bangalore. On the whole, the study found that SMEs which are efficient in managing their inventory are likely to perform better on the economic front.

Liyanage, H.L. (2010) conducted a study to investigate the inventory management practices of processed food supply chain in Sri Lanka. The study found inefficiency in the inventory management practices and therefore recommended for the enhancement of the same of the processed food supply chain.

Ng'ang'a, K.J. (2013) made an assessment of the factors influencing effectiveness of inventory control of the Ministry of State for Provincial Administration and Internal Security; Nairobi. The study revealed that: delays in procurement of goods, frequent stock-outs and uncertain change of prices were some of the effects of long bureaucratic procurement procedure. The study recommended that only qualified and adequate personnel should be involved in stock control while adequate funds should be dispatched on timely manner.

Kasisomayajula, S.R. (2014) evaluated the practices and performances in inventory management in the commercial vehicle industry in India. The study concluded that the overall performance of inventory of all the selected units in the Indian commercial vehicle industry was satisfactory during the study period.

Munyao, R.M. et al. (2015) examined the role of inventory management practices in the performance of the production department of manufacturing firms in Mombasa. The study found that despite the success of MRP 1, majority of the organizations used action level methods.

Mohamad, S.J.A.N.S. et al. (2016) examined the relationship between inventory management and company's performance of a textile chain store in Malaysia. The study found that the company had a few inventory problems. The study also revealed that there was a significant relationship between return on asset and inventory days.

Central Public Sector Enterprises in India: A Synoptic Overview

Public sector enterprises were established to fulfill the broad macro-economic objectives of higher economic growth, self-sufficiency in production of goods and services, long term equilibrium in balance of payments and low and stable prices besides meeting certain socio-economic obligations. At the time of the First Five Year Plan, there were only five Central Public Sector Enterprises (CPSEs) with a total investment of ₹29 crore, while there were 320 CPSEs (excluding 7 Insurance Companies) with a total investment of ₹11,71,844 crore as on 31st March, 2016.

The CPSEs plays an important role in the nation's economy by supplying essential goods and services and holding a significant market position in the critical sectors such as petroleum, mining, electricity and transportation. To achieve the targeted goals more effectively and efficiently, the CPSEs are increasingly under pressure by both the government and competition in the global market.

Research Objectives

The main objective of the study is to examine the inventory management of CPSEs in India. To attain this main objective, the following incidental objectives are sought to be achieved:

- To examine the size of inventory.
- To examine the inventory management performance through some important ratios.
- To examine the impact of inventory on profitability performance.

Hypotheses Development

The following testable null hypothesis has been formulated in accordance with the objectives of the study:

H_0 (1): There is no significant deviation in actual and trend values in inventory turnover ratio of CPSEs.

H_0 (2): There is no significant impact of inventory on profitability performance of CPSEs.

7. Research Design

7.1 Data

The study is analytical in nature. The data used for the study is secondary data which have been sourced from the published annual reports of Public Enterprises Survey.

7.2 Study Period

Based on the availability of data, the study has been carried out for a span of seventeen years i.e., from the financial year 2000-01 to the financial year 2016-17.

7.3 Sample Selection

The present study covers all the CPSEs except Food Corporation of India, Cotton Corporation of India Ltd. and Jute Corporation of India. Further, the public sector enterprises operating in Industrial Development and Technical Consultancy Services, Tourist Services, Financial Services have also been excluded from the sample size.

7.4 Tools and Techniques for Data Analysis

The performance variables used in the study are as follows:

Performance Drivers	*Performance Measures*
Inventory Turnover Ratio (ITR)	Cost of Production ÷ Value of Inventory
Inventory Holding Ratio (IHR)	365 ÷ Inventory Turnover Ratio
Return on Capital Employed (ROCE)	Net Profit ÷ Capital Employed
Return on Net Worth (RONW)	Net Profit ÷ Networth

To analyze the trends in Inventory Turnover Ratio (ITR) of CPSEs in India, linear regression model is employed in the study which is shown below:

ITR = a + b t + e.. eq. (1)

Where: ITR = Inventory Turnover Ratio

t = time.

a and b = parameters indicating intercept and co-efficient respectively.

e = error term of the equation.

The significance of the deviation between actual and estimated values of ITR has been tested by Chi-square test. The Chi-square statistic is computed as follows:

$\chi 2 = \Sigma\{(fo - fe)2 \div (fe)\}$..eq. (2)

To examine the impact of inventory on profitability performance of CPSEs in India, the technique of linear regression equation has been fitted to the time series data. For this purpose, inventory is represented by ITR and profitability performance is represented by two popular investment ratios, namely ROCE and RONW. The linear regression equations are shown below:

ROCE = a + b ITR + e...eq. (3)

RONW = a + b ITR + e...eq. (4)

Where: a and b = parameters indicating intercept and co-efficient respectively, ROCE = Return on Capital Employed, RONW= Return on Net Worth, ITR = Inventory Turnover Ratio, and e = error term of the equation.

The significance of beta coefficient (b) has been tested by the popular 't' test.

The study uses aggregate data in order to arrive at a meaningful conclusion. Simple statistical measures like average, standard deviation, and co-efficient of variation have also been applied in the study.

8. Empirical Findings and Analysis

8.1 Size of Inventory of CPSEs in India

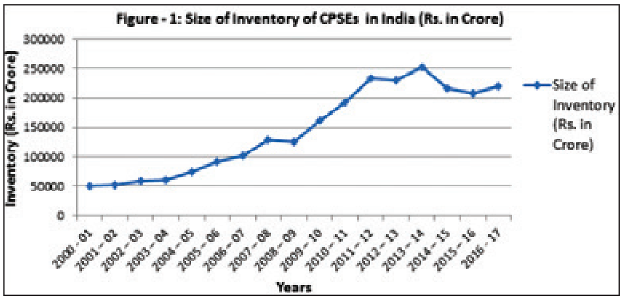
The value of inventories held by the CPSEs is shown in Table – I below:

Table – I: Size of Inventory of Central Public Sector Enterprises (CPSEs) in India

Year	Size of Inventory (Rs. in Crore)
2000 - 2001	50717
2001 – 2002	52175
2002 – 2003	58282
2003 – 2004	59705
2004 – 2005	73642
2005 – 2006	90885
2006 – 2007	101527
2007 – 2008	128688
2008 – 2009	126327
2009 – 2010	161798
2010 – 2011	191754
2011 – 2012	233974
2012 – 2013	230736
2013 – 2014	252119
2014 – 2015	216102

2015 – 2016	207506
2016 - 2017	219646
Average	144446.06
S.D.	73554.83
C.V.	50.92%

Source: Public Enterprises Survey & Computed by the Author



As per Table-I and Figure-1, the size of inventory varies from Rs.50717 crore in the year 2000-01 to Rs.252119 crore in the year 2013-14 with an average of Rs.144446.06 crore during the period under study. The C.V. of the size of inventory is observed to be at 50.92%. It is further observed that the size of inventory of CPSEs shows an increasing trend up to 2013-14 (except the years 2008-09 and 2012-13).

The above analysis based on the size of inventory is not sufficient to evaluate the qualitative efficiency of inventory management. With a view to avoid this bottleneck, the following ratios are calculated and studied in section 8.2 below.

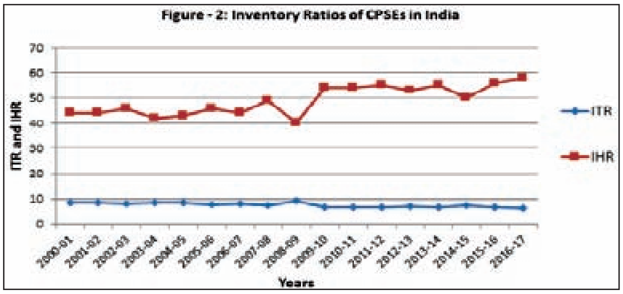
8.2 Inventory Performance of CPSEs in India

To analyze the inventory performance of CPSEs in India, two popular ratios namely ITR and IHR are employed in the study which are presented in Table – II below:

Table – II: Inventory Ratios of Central Public Sector Enterprises (CPSEs) in India

Year	Inventory Turnover Ratio (ITR) (in times)	Inventory Holding Ratio (IHR) (in days)
2000 - 2001	8.38	44
2001 – 2002	8.27	44
2002 – 2003	8.00	46
2003 – 2004	8.60	42
2004 – 2005	8.51	43
2005 – 2006	7.87	46
2006 – 2007	8.24	44
2007 – 2008	7.45	49
2008 – 2009	9.09	40
2009 – 2010	6.72	54
2010 – 2011	6.75	54
2011 – 2012	6.66	55
2012 – 2013	6.87	53
2013 – 2014	6.66	55
2014 – 2015	7.36	50
2015 – 2016	6.55	56
2016 - 2017	6.29	58
Average	7.55	49.00
S.D.	0.88	5.74
C.V.	11.66%	11.71%

Source: Public Enterprises Survey & Computed by the Author



According to Table-II and Figure-2, it is observed that ITR moves from 6.29 in the year 2016-17 to 9.09 in the year 2008-09 with an average of 7.55 and C.V. at 11.66%. On the other hand, IHR moves from 40 days in the year 2008-09 to 58 days in the year 2016-17 with an average of 49.00 days and C.V. at 11.71% during the study period.

Further, a closer look at Table-II indicates a fluctuating trend in both ITR and IHR during the period under study. Moreover, the first nine years (2000-01 to 2008-09) have shown better performance with respect to both the ratios as compared to the last eight years (2009-10 to 2016-17) under study. This might be due to the impact of financial recession that took place in the financial year 2007-08.

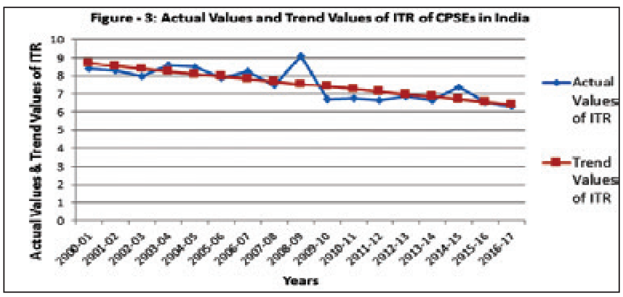
8.3 Trend Analysis of Inventory Turnover Ratio of CPSEs in India

A firm should have neither too high nor too low inventory turnover ratio. Therefore, to judge the reasonableness of this ratio, it is compared on the basis of trend analysis during the period under study.

Table – III: Actual Values and Trend Values of ITR of CPSEs in India

Year	Actual Values of ITR (in times)	Trend Values of ITR (Y = 7.55 – 0.14t)(in times)	Deviation in ITR (in times)
2000 - 2001	8.38	8.67	-0.29
2001 – 2002	8.27	8.53	-0.26
2002 – 2003	8.00	8.39	-0.39
2003 – 2004	8.60	8.25	0.35
2004 – 2005	8.51	8.11	0.40
2005 – 2006	7.87	7.97	-0.10
2006 – 2007	8.24	7.83	0.41
2007 – 2008	7.45	7.69	-0.24
2008 – 2009	9.09	7.55	1.54
2009 – 2010	6.72	7.41	-0.69
2010 – 2011	6.75	7.27	-0.52
2011 – 2012	6.66	7.13	-0.47
2012 – 2013	6.87	6.99	-0.12
2013 – 2014	6.66	6.85	-0.19
2014 – 2015	7.36	6.71	0.65
2015 – 2016	6.55	6.57	-0.02
2016 - 2017	6.29	6.43	-0.14

Source: Public Enterprises Survey & Computed by the Author



From Table-III and Figure-3, it is observed that the actual values of ITR lie above the trend values of ITR in the years 2003-04, 2004-05, 2006-07, 2008-09 and 2014-15, while in the remaining years under study, the actual values of ITR lie below the trend values of ITR. These results more or less corroborate to the results with respect to impact of financial recession on inventory performance in section 8.2 above (except the year 2014-15).

Further, to analyze whether the deviations between actual value and trend value of ITR are significant or not, the technique of Chi-square test has been applied and its result is presented in Table – IV below:

Table – IV: Result of Chi-square Test with respect to ITR of CPSEs in India

Degree of Freedom	Tabulated Value	Observed Value
16	$\chi^2_{c(0.025)} = 28.85$	$\chi^2 = 0.62$

Source: Computed by the Author

Table-IV reveals that the observed value of chi-square is less than that of the tabulated value of chi-square at 16 degrees of freedom. This implies that there is no significant deviation between the observed values and trend values of ITR, thereby leading to the acceptance of the first hypothesis of the study.

8.4 Impact of Inventory on Profitability Performance of CPSEs in India

Before examining the impact of inventory on profitability performance, let us first examine the profitability performance of CPSEs in India. In this respect, two investment ratios namely ROCE and RONW are calculated and presented in Table – V below:

Table – V: Profitability Ratios of CPSEs in India

Year	Return on Capital Employed (ROCE) (%)	Return on Net Worth (RONW) (%)
2000 – 2001	4.72	9.13
2001 – 2002	6.66	11.52
2002 – 2003	7.75	13.37
2003 – 2004	11.71	18.16
2004 – 2005	12.88	19.02
2005 – 2006	11.88	17.50
2006 – 2007	12.27	17.91
2007 – 2008	11.23	15.68
2008 – 2009	10.59	14.38
2009 – 2010	10.15	14.12
2010 – 2011	7.98	12.99
2011 – 2012	7.34	12.66
2012 – 2013	7.62	13.51
2013 – 2014	7.50	13.84
2014 – 2015	5.61	10.69
2015 – 2016	5.97	11.54
2016 - 2017	5.95	11.52
Average	8.70	13.97
S.D.	2.64	2.85
C.V.	30.34%	20.40%

Source: Public Enterprises Survey & Computed by the Author

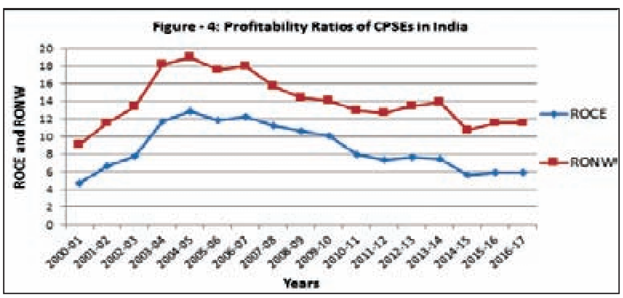


Table-V and Figure – 4 reveals that both ROCE and RONW shows an increasing trend during the first five years, thereafter a decreasing trend from 2007-08 to 2011-12, while in the remaining years, a fluctuating trend is observed during the study period. The decreasing trend in ROCE and RONW during the years 2007-08 to 2011-12 may be due to the impact of financial recession that took place in 2007-08. The average performance of ROCE and RONW is observed to be 8.70 and 13.97 respectively with C.V. at 30.34% and 20.40% respectively.

To examine the impact of ITR on profitability performance (represented by ROCE and RONW) of CPSEs in India, regression analysis has been carried out by fitting the relevant time series data. The results of regression analysis are presented in Table – VI

Table – VI: Regression Analysis of ITR on ROCE and RONW of CPSEs in India

Ratios	R^2	Regression coefficient (b)	t-value
ROCE	0.22	1.39**	2.03
RONW	0.16	1.28*	1.68

Note: ** marked value indicates significant at 6.1% level of significance.
 * marked value indicates significant at 11.5% level of significance.

Source: Computed by the Author

From regression analysis (Table - VI), it is evident that ITR has a positive impact on both ROCE (1.39) and RONW (1.28) which are found to be statistically significant at 6.1% and 11.5% level respectively, thereby leading to the rejection of the second hypothesis of the study.

9. Concluding Observations

➢ The size of inventory of CPSEs shows an increasing trend up to 2013-14 (except the years 2008-09 and 2012-13).

➢ Both ITR and IHR ratios have shown better performance in the first nine years (2000-01 to 2008-09) as compared to the last eight years (2009-10 to 2016-17) under study. This may be due to the impact of financial recession that took place in the year 2007-08.

➢ There is no significant deviation between actual values and trend values in ITR, which implies better management of inventory during the study period.

➢ Finally, ITR has a positive impact on profitability performances of CPSEs which are found to be statistically significant during the study period.

➢ In relation to the main objective of the study, it can be concluded that the overall inventory management of CPSEs in India is found to be satisfactory during the study period.

10. Limitation And Research Opportunities

The data used in this study have been taken only from secondary sources and as such it findings depends entirely on the accuracy of such data. In spite of this limitation, an in-depth study may be carried out at disaggregate level. MA

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EXPEDITION TO MT. KANCHENJUNGA

Our member CMA Prasad Joshi recently scaled Mt. Kanchenjunga the third highest peak in the world. Before this Prasad had successfully summited Mt. Everest, the pinnacle point of the world, Mt. Dhaulagiri, the seventh highest peak in the world.

Prasad is a practicing Cost Accountant from Pune. He is also the Managing Committee member of Pune Chapter. Over the years I have seen Prasad growing strength- to- strength as a Cost Accountant and a mountaineer as well. Prasad is the only Cost Accountant to have achieved this remarkable feat of climbing three of the top 14 peaks in the world. It is a great honor for the Cost Accountant community as we have such a talented member like Prasad amongst us. He has managed to balance professional life and passion perfectly. In my opinion, Prasad is a perfect role model for all of us. I congratulate him for his success and wish him luck for future endeavors.

CMA Amit Apte
President

On 15th May 2019 morning at 5:45 am, I was walking on the summit ridge of Mt. Kanchenjunga (8586m) which is the 3rd highest mountain in the world. While walking on the summit ridge, the top of the mountain began to appear. I was going to reach the summit in a few moments. I along with my other nine team members had successfully reached to the top of Mt. Kanchenjunga at 6.00 am. At that moment, there was different feeling in mind. It was happiest and emotional moment as it was really beautiful result of the efforts which we had been taking for last whole year. This was my 3rd expedition to 8000 meter mountain in last 7 years. Earlier, I had climbed Mt. Everest (highest mountain in the world - 8848m) during 2012, Mt. Dhaulagiri (7th highest mountain in the world - 8167m) during 2016. It was really unbelievable journey for me which I would like to share here.

CMA Prasad Joshi
Practicing Cost Accountant
Pune

The mountaineering club from Pune, called Giripremi, had organized Mt. Kanchenjunga Eco Expedition 2019. The club 'Giripremi' is a well-known

mountaineering club in India which has been consistently organizing Himalayan expeditions for last 3 decades. Giripremi aspires to climb all 14 eight thousand meter mountains in the world. The mission of 14 eight thousand meter expeditions started during the Mt. Everest Expedition organized by Giripremi. It is the dream of every mountaineer to climb Mt. Everest. Though I was selected only in the support team I was so happy because I was able to see the Mt Everest. The total team consists of 12 climbing members and 9 were support team members and the budget was very big i.e. Rs. 3 cr. Therefore, my entry in climbing team was only possible if the team could raise such huge budget. I had participated in all training sessions of physical fitness and mental fitness like other climbing members though I was not part of climbing team initially. Fortunately, I was selected in climbing team of Mt. Everest as the required funds were raised by the time expedition started. But the real test of endurance had only just begun. During climbing rotations on Mt. Everest, we faced various challenges like a big avalanche, continuous rockfall while climbing towards Camp 3 (7300m) and the temperature of -40° above 8000m. After climbing rotations, the body gets acclimatized and then final attempt can be made to reach the top of the mountain considering good weather conditions. This is called 'summit attempt'. During such summit attempt, I had stomach pain which was not a good sign to make summit attempt. After taking the doctor's opinion, I started the summit attempt. Despite all such odds I was able to reach to the top of Mt Everest on 19th May 2012.

The journey did not end here but it was new start for me. There is magic of Himalaya that if you visit Himalaya once then you get addicted to the mountains. However, it is not recommended to go to Himalayas for trekking or for climbing the mountains without preparations. The preparations must start one year before the expedition as it includes various aspects i.e. physical fitness, mental fitness, logistic planning, climbing equipments, food, photography, medication, oxygen cylinder management, Sherpa selection, communication equipments etc. Normally, the expedition period is 60 days. Therefore, any minor thing if missed out then it would lead to failure of expedition. The planning needs to be done at micro level then only the success and safety can be assured in such 8000 meter expeditions.

During the year 2016, I got the chance to climb another 8000 meter mountain. Giripremi had organized its 4th Expedition of 8000m to Mt. Dhaulagiri which is 7th highest mountain in the world and which is the most difficult mountain having highest death ratio with respect to number of climbers attempted to scale this mountain. In the year 2016, the conditions on the mountain were not good. Effect of that, many foreigners and other 3 climbers from Giripremi team had abandoned the expedition after failure of 1st summit attempt. I was also exhausted after making first summit attempt. It was hard time to decide further actions i.e. whether to climb once again or to wind up the expedition. Because, the physical fitness or readiness to climb once again were not the only things but I had to check logistic also which was available with me. It includes food, butane gas and oxygen cylinder etc. I had decided to climb once again i.e. to make 2nd summit attempt after ensuring the required things. After getting favorable weather forecast, I did the 2nd summit attempt and successfully reached to the top of Mt. Dhaulagiri on 19th May 2016 at 10:30 am. During this season, only 5 climbers from all over the world successfully summited Mt. Dhaulagiri where I was proud to be the only Indian. In this expedition, one of the climbers from West Bengal, India died due to over exertion & high altitude sickness. I strongly feel that, climbing the mountains not only requires good physical fitness but also strong mental fitness.

Giripremi successfully completed 6 expeditions to 8000 meter mountains out of 14 till the year 2017. I was excited to hear about next project. Giripremi announced its ambitious project i.e. expedition to Mt. Kanchenjunga (8586m) which is the 3rd highest mountain in the world and the only 8000 meter mountain in India. Mt. Kanchenjunga is technically very difficult mountain to climb. Till date, 4000 (approx.) climbers have summitted Mt. Everest from the year 1953 and just 330 climbers have been summitted Mt. Kanchenjunga from the year 1955. This numbers clearly shows the higher difficulty level of Mt. Kanchenjunga.

I had started preparations for Mt. Kanchenjunga in the year 2018. As I mentioned above, the expedition period is normally 60 days but one has to prepare himself for the whole year. Daily routine was really tough which included training sessions for physical & mental fitness, office work, meetings, expedition work, fund raising, family etc. I am fortunate to have 'Guru' CMA Avinash Foujdar who is from same profession and having same liking of mountaineering. He has been supporting and guiding force to me in the profession as well as in mountaineering. Also, the support from family is very important in such challenging expeditions which I got since beginning of my mountaineering career. The climber can perform at 100% level only if the family gives full support.

Mt. Kanchenjunga lies between Nepal and Sikkim, India, with three of the five peaks (Main, Central, and South) directly on the border and the remaining two (West and Kangbachen) in Nepal's Taplejung District. Kangchenjunga was first climbed on 25 May 1955 by Joe Brown and George Band, who were part of a British expedition. Local Lhopo people believe that the treasures are hidden but reveal to the devout when the world is in peril; the treasures comprise salt, gold, turquoise and precious stones, sacred scriptures, invincible armor or ammunition, grain, and medicine. There are four climbing routes to reach the summit of Kangchenjunga, three of which are in Nepal from the southwest, northwest, northeast and one from northeastern Sikkim in India. To date, the northeastern route from Sikkim has been successfully used only three times. The Indian government has banned expeditions to Kanchenjunga; therefore, this route has been closed since 2000.

Our expedition to Mt. Kanchenjunga started from Pune on 31st March 2019. We were 11 members in the team. We started from Kathmandu on auspicious day of 'Gudipadva'. The trek to reach at the Kanchenjunga Base Camp started from the village Hapukhola. The 12 days trek was very difficult. In Himalayan expeditions, the process of acclimatization is very important. The human body needs to adjust with higher altitude as the percentage of oxygen is low at high altitude. Therefore, the climbers start the trek from lower altitude and they go to higher altitude slowly so as to adjust with atmosphere, cold temperature, low oxygen etc.

Mt. Kanchenjunga is situated in a very remote place so there is no access to phone, emails, internet etc in the Kanchenjunga region. We were moving to next destinations day by day and were getting properly acclimatized with the atmosphere. Kanchenjunga region is very rich in biodiversity. One can see variety of flora fauna, glaciers, birds, animals, rivers, mountains etc. We had seen first glimpse of Mt. Kanchenjunga when we reached place Rameche (4400m). It was really exciting to march ahead towards base camp while looking at Mt. Kanchenjunga. The last part of trek was challenging as we had to set the camp on the glacier, the place called 'middle camp' (4700m). The trek for last day had to be done from 'middle camp' to 'Kanchenjunga Base Camp' which normally takes minimum 10-12 hours with 800 meters ascent. In the Himalaya, generally the weather is very clear in the morning till afternoon i.e. around 1 pm. In the late afternoon, the weather becomes cloudy, windy and sometimes there is snowfall and the weather gets clear in the night but sometimes it is windy in the night also. In the last part of the trek, the conditions were not favorable as heavy snowfall started since night and it did not stop during entire day. There was no option but to move ahead towards Kanchenjunga Base Camp because the food was limited and going back was not a good option. The team had completed the trek in the heavy snowfall and in windy conditions. It was a very tough day for us. Finally, we reached to the Kanchenjunga Base Camp on 17th April 2019.

The altitude of Kanchenjunga Base Camp is 5500 meters. The base camp works as a temporary home in the mountains as the climbers spend maximum days of expedition at base camp. There were total 32 climbers across the world who had come to climb Mt. Kanchenjunga and there were 35 sherpa guides who accompanied them. There was another Indian team from West Bengal having 5 climbers. All these 65-70 people were going to stay at the base camp for next 30-35 days. All the activities at the base camp have to be done in the tents. There are various tents viz. living tent, dining tent, communication tent, kitchen tent, toilet tent etc. The temperature at the base camp was -10° to -15°. The daily routine was like prayer, breakfast, walking around the base camp, lunch, study of weather conditions, discussions, rest, gossip, music & movies, meetings with Sherpas, dinner and sleep.

In every expedition, 'pooja' i.e. prayers to mountain god is performed at base camp before the actual climbing begins. After 'pooja', the climbing rotations start for better acclimatization. Special climbing equipment and clothing is used for high altitude mountaineering. The climbing equipments are harness, helmet, screw carabiner, jummar, descender for rappelling, climbing ropes, snow goggle, climbing shoes, crampons (it is an attachment to climbing shoes which is used for getting perfect grip on the snow or ice while climbing). The climbing clothing includes handgloves, feather jacket and down suit which is used for climbing above 7000 meters.

We had climbed upto Camp 1 having altitude of 6300 meters. The route was mix of snow and ice having 60° gradient. The route after 6000 meters was having hanging glacier. The team had crossed 2 ladders to move beyond the hanging glacier. The depth while crossing crevasse on ladder was approx 400-500 ft. While climbing in the mountain, one should keep the mind stable so that no mistake would happen. People are generally puzzled about why mountaineering duration is so long, particularly during 8000 meter expedition? The simple answer is 'acclimatization of human body at high altitude'. Therefore, before getting ready for final summit attempt, the climbers would go to higher altitude and then came back to base camp. Such acclimatization rotations need to be done for 2-3 times. Accordingly, we did total three climbing rotations for acclimatization and had reached upto the altitude of 6900 meters i.e. upto Camp 3.

After acclimatization, we took rest at the base camp for a week and were waiting for favorable weather window. The favorable weather window would mean that, lesser possibility of snowfall in higher altitude and low wind speed (20 kmph to 40 kmph). The team was taking weather reports daily from Pune team. After study of weather reports, it was concluded, there would be only 2-3 favorable days to reach on the top of the mountain. The probable summit days decided by our team leader was 14th May or 15th May 2019. We had to start summit attempt from base camp on 11th May 2019 so that we would be able to reach on the summit on said days. The summit attempt includes 4-5 days because climbing from base camp directly to the top of the mountain is not possible in one day. We had done final preparations for summit attempt on 9th May & 10th May. We had to keep minimum weight in the sacks because it would be comfortable while climbing. Accordingly, we had taken necessary things in the rucksack like high altitude food, hand gloves & warm socks, oxygen cylinder, thermos bottle, Indian flag, sponsor flags, medicines, cameras, walkie-talkie for communication etc. The total weight would be 10 kgs to 12 kgs.

We started the summit attempt on 11th May 2019 at 3.30 am in the morning. The plan was to climb directly till Camp 2 (6200m). The time required to reach Camp 2 (6200m) from the Base Camp (5500m) was 5-6 hours. The reason to start early was to pass the difficult terrains till Camp 2 i.e. snow field, hanging glacier, rock fall section etc. before strong sun light. The snow & ice starts melting during the day time, which creates difficult conditions during the climb. The most dangerous section was between Camp 1 to Camp 2 which was rock fall area. The rocks were continuously falling on the route after 11 am. Everyone had to walk for half hour below the rock fall route. Fortunately, we reached safely to Camp 2 well in time. On same day after 3 pm, the weather turned bad. Heavy snowfall started and clouds came in the valley. It was complete white out and no one could come out from the tents. In addition to that, there was high wind having speed of 80 kmph approx. The situation became very stressful for 2-3 hours as the probable summit days were less. The team had to extend the stay at Camp 2 for one more day due to unfavorable weather conditions. The re-planning of various aspects viz. tent pitching at Camp 3 & 4, logistic arrangement, oxygen cylinder load ferry etc. had been lined up properly. Any mistake, can cause failure of the entire expedition and it could also be life risk in adverse conditions at higher altitude. The mountaineering expedition teaches patience and planning at micro level.

Next day early morning at 5.30 am, we had a breakfast. The timings of breakfast, lunch, dinner, sleep are always odd above the base camp. The breakfast time above base camp was generally before 6 am in the morning, lunch time was around 12 pm to 1 pm, dinner time was at 6 pm and sleeping time was 7 pm to 5 am. This is because the climbing movement starts early in the morning to walk on the ice or hard snow instead of deep snow which melts after strong sunlight. Further, the chances of avalanche are less in the morning due to cold temperature. At higher camps, the climbers & Sherpa cook the food items which are ready to eat. It includes rice, upma, soup, noodles, black tea etc. However, it is recommended to have maximum liquid intake which is useful at high altitude which is better for blood circulation and gives oxygen etc. The water has to be generated by heating ice & snow. The low weight butane gas is used for cooking or for generating water. Due to cold temperature, one to two hours are required to make water from ice or snow. The climbers also eat some high calorie food like energy bars, chocolates, dry fruit etc. which doesn't have heavy weight, easy to carry and full of nutrition & energy.

The Sherpas told us that 5-6 hours would be required to reach at Camp 3 (6900m). Hence, we started the climbing from Camp 2 to the Camp 3 at 6.30 am. The height gain was 700 meters. The route was very tiring because it went from various glaciers, crossing the crevasses, climbing the ice walls etc. The lesser oxygen level and more gradient slows down the speed of climbing. The climber stops after every 4-5 steps to catch breath. The weather also changes frequently after 12 pm. It changes from clear sky, low wind to cloudy, high winds, snow fall, whiteout (clouds & snowfall at a same time). Many times, this process is frustrating and negative thoughts start creeping into the mind. One should keep his mind stable and should remain calm to avoid mistakes. Finally, we reached to Camp 3 at 1:00 pm. The tents at Camp 3 were pitched at a slope having gradient of 40° to 50°. At this altitude, we had started use of artificial oxygen cylinder for better blood circulation and to be comfortable at that height. The oxygen cylinders can be used for 8-10 hours. We had taken the dinner and went to the sleep. The sleep at such altitude does not have continuity & it breaks after every half or one hour.

Next morning, we started from Camp 3 (6900m) to Camp 4 (7300m). The team climbed for 5 hours and reached to the Camp 4 at 11:00 am. The Camp 4 is the last Camp on the mountain; it is also called 'summit camp' from where the summit attempt starts towards summit (top) of the mountain. The route till the summit is seen from Camp 4. In case of other 8000 meter mountains, the last stretch from last camp to summit is normally 800 meters approx but the climb from Camp 4 to the summit of Mt. Kanchenjunga is about 1200 meters. In addition to that, the most challenging part of Mt. Kanchenjunga is that mountaineers are required to do rock climbing above 8000 meter till the top. These challenges make Mt. Kanchenjunga the toughest mountain to climb. In the afternoon at 3:30 pm, we got good news from the summit of Mt. Kanchenjunga. The route opening Sherpas had opened the route by fixing the rope till the top of the mountain.

We started the summit attempt at 5:30 pm. There were mixed emotions in the mind; the nervousness, excitement, happiness etc. It was cloudy weather and little bit snowfall which was not a good sign. According to the weather reports, 14th& 15th May would be the perfect days for summit attempt. We were worried about further movement but continued the climbing towards summit. Some decisions are needed to be taken at conclusion stage and with calculated risks. The initial route was from the glacier and went from powder snow. While walking in the powder snow, the legs were going one foot deep in the snow which slowed down the speed of climbers. It was 8:00 pm. We reached at 7600 meters from where there was steep climb, having gradient of 70° to 80° till the summit. The clouds were gone, moon started appearing clearly and snowfall also stopped. It was good condition to climb. We met route opening Sherpa team who were descending and going to camp 4 after their successful summit. Such positive things motivate climbers during summit attempt considering adverse conditions. We started climbing further. The temperature in the night was about -40°. The head torches were on so the route could be seen at night. The oxygen cylinders were replaced at 11:00 pm at 7900 meters.

At 12.30 am, we reached at the altitude of 8000 meters where snowline ended. Now, the toughest part for climbing towards summit had started. There were various rock patches. The exposure of this rock climbing was almost 3000 feet. One had to be very careful while putting every step on the rock. The rocks were wet and it was getting difficult to climb further. We were enervated while climbing through the rocky section. The head torch lights were appearing from the base camp. Our leader Umesh Zirpe was keeping watch on the progress of summit attempt. At 4:00 a.m. in morning, little sunlight appeared on the horizon. We reached at 8300 meters. Here the route had turned left towards summit. The summit of the mountain was getting closer and closer with every step. It was expected, we would reach the top in next two hours. We kept climbing towards summit. Now, we reached at 8500 meters at 5.30 a.m. and started climbing the last 86 meters. The other mountains i.e. Mt. Pandim, Mt. Kabru, Mt. Janu, Mt. Jongsong etc. surrounding Mt. Kanchenjunga were now visible. The Mt. Everest (highest mountain in the world), Mt. Lohtse (4th highest mountain in the world) & Mt. Makalu (5th highest mountain in the world) were also visible in the northwest direction. We were experiencing a heavenly feeling. Just 30 meters below the Summit of Mt. Kanchenjunga, we had to cross the rock traverse of 10 feet long and very narrow. Only one climber could cross the traverse at a time. The front points of crampons had to be kept on edges of rock where one wrong step would have resulted in a drop of 10000 feet in the valley. Though the route was fixed by rope of 8mm, the climbers had to be very careful while crossing this traverse.

After crossing the traverse, we were climbing towards the summit. The summit was just 10 steps ahead and expected to reach in 5 minutes. At each step, the journey of expedition was going in front of the eye. The preparations and efforts during the year had gone through in the mind in just 5 minutes. Finally, the moment had come and we all ten members had reached to the top of Mt. Kanchenjunga at 6.00 am. The dream came true. The mountain had permitted us to reach the top. We had prayed and humbly bent down on the top as a gesture of respect towards mountain. We all the 10 team members of Giripremi unfurled the tricolor on the top of Mt. Kanchenjunga. It was very proud moment. We stood on the summit for 25 minutes only and decided to descend.

We started descending towards Camp 4 immediately and returned to the Camp 4 safely at 3.30 pm. The descending from the top is very difficult and sometimes dangerous also. The deaths or casualty usually happens at the time of descend. Naturally, the maximum energy is used while climbing. Hence while descending, the legs are fatigued and there are chances of accidents. Sometimes, due to exertion, the climber gets slowed down and is not able to descend to the summit camp. In this situation, the oxygen cylinders are limited and there is possibility of death because no one can live above 8000 meter without artificial oxygen supply. Therefore, the climber should be mentally strong so as to take necessary decisions at right time. We came to know in the night that two climbers from West Bengal, India had died while descending towards Camp 4 and other two climbers were badly hit by frostbite and high altitude sickness. The cause of deaths was over exertion and less fitness. In respect of other two climbers, one of them was totally exhausted near Camp 4. The Sherpas brought him in the Camp 4 and our team members helped both of them to survive at Camp 4 on 15th May night by providing them necessary medicines and oxygen cylinders. At high altitude, the decisions need to be taken by brain and not by heart because the "Summit is optional but coming back safely is mandatory". The mountains are always there. We have to decide till where to climb and when to return back. Further, such expeditions should be done with proper training only after undergoing mountaineering courses of basic & advance levels in the Himalayan Institutes in India. No one should attempt such hardcore expeditions without proper training. Age is not bar in this field. A fit person can do the mountaineering, trekking till he stays fit. According to me, mountaineering teaches many management skills i.e. planning, decision making, problem solving and leadership. Further, the mountaineering increases the risk taking capacity, increases the confidence level, and brings positivity, motivation and many more things. I would like to say that these mountaineering expeditions taught me that, the result is important but the journey is very important than the result which teaches what to do, what not to do, how to do etc. Lastly, I would say "stay fit and go to the mountains". MA

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DIRECT TAXATION

Compiled by CA Vikash Mundhra

Tax Audit Report: No need to report GAAR & GST details in clauses 30C & 44 of Tax audit Report for A.Y. 2019-20 – Circular 9/2019 dated 14-05-2019

Section 44AB of the Income-tax Act, 1961 read with rule 6G of the Income-tax Rules, 1962 requires specified persons to furnish the Tax Audit Report along with the prescribed particulars in Form No. 3CD. The existing Form No. 3CD was amended vide notification no. GSR 666(E) dated 20-07-2018 with effect from 20-08-2018. However, the reporting under clause 30C and clause 44 of the Tax Audit Report was kept in abeyance till 31st March, 2019 vide Circular No. 6/2018 dated 17-08-2018.

It is further decided that the reporting requirements under clause 30C (pertaining to General Anti-Avoidance Rules (GAAR)) and clause 44 (pertaining to Goods and Services Tax (GST) compliance) of the Form No. 3CD shall be kept in abeyance till 31st March, 2020.

Inter-Governmental Agreement for exchange of country by country reports between India and the United States of America notified - Notification No. 37/2019 dated 25-04-2019

On 27-03-2019, an Inter-Governmental Agreement for Exchange of Country-by-Country Reports was entered into by the Government of the Republic of India and the Government of the United States of America.

In exercise of the powers conferred by item (ii) of sec. 286(9)(b) of the Income-tax Act, 1961, the Central Government notifies the said Agreement, as set out in the Annexure and all the provision of the said Agreement shall be given effect to in the Union of India in accordance with paragraph (1) of Article 5 of the said Agreement.

Amendment to Notification No 36/2019 dated 12-04-2019 w.r.t Part B of Form 16 - Notification No. 38/2019 dated 03-05-2019

Part B of the Form 16 has been modified by Notification No 36/2019 dated 12-04-2019. In modified Part B, effect for deduction u/s 80C, 80CCC and 80CCD(1) has been considered twice, in Aggregate of deductible amount under Chapter VI-A [at S. No. 11].

This notification has been issued to rectify the format in this regard.

Procedure, format and standards for issuance of certificate for TDS in Part B of Form No. 16 in accordance with the provisions of sec. 203 through TRACES – Notification No. 09/2019 dated 06-05-2019

Section 203 read with the Rule 31 stipulates furnishing of certificate of tax deduction at source (TDS) by the deductor to the deductee specifying therein the prescribed particulars such as amount of TDS, valid permanent account number (PAN) of the deductee, tax deduction and collection account number (TAN) of the deductor, etc. The relevant form for TDS certificate in case of deduction u/s 192 of Chapter XVII-B of the Act is Form No. 16 which is to be issued annually. TDS Certificate in Form No 16 has two parts viz. Part A and Part B (Annexure). Part A contains details of tax deduction and deposit and Part B (Annexure) contains details of income.

Vide Central Board of Direct Taxes Notification No. 36/2019 dated 12.04.2019, 'Part B (Annexure) of Form 16' and 'Annexure II of Form no. 24Q' in Appendix II to the Income tax Rules, 1962 have been amended.

In exercise of the powers delegated by the Central Board of Direct Taxes, under rule 31(6A), the Principal Director General of Income-tax (Systems) hereby specifies the procedure, formats and standards for the purposes of generation and download of certificates from "TDS Reconciliation Analysis and Correction Enabling System" or (https://www.tdscpc.gov.in) (hereinafter called TRACES Portal), as below:

- All deductors (including Government deductors) shall be able to issue the TDS certificate in Part B of Form No. 16 (by generation and download through TRACES Portal) in respect of all sums deducted on or after 01-04-2018 under the provisions of sec. 192 provided that the relevant TDS statement for the 4th quarter i.e. Form 24Q is furnished alongwith duly filled in Annexure II of Form 24Q (as substituted).

- To ensure generation of accurate TDS certificate in Part B of Form No. 16, the deductor(s) need to report correct data in Annexure II of Form 24Q.

- The TRACES generated Form No. 16 shall have a unique TDS certificate number.

- The deductor, issuing the TDS certificate in Form No. 16 by downloading it from the TRACES Portal, shall, before issuing to the deductee authenticate the correctness of contents mentioned therein and verify the same either by using manual signature or by using digital signature in accordance with rule 31(6).

- The item nos. 2(f) and 10(k) in Part B (Annexure) of Form 16 required to be filled-in by the deductor manually shall be made available at the bottom of the TRACES generated Form 16 (Part B) and the deductor shall duly fill details, where available, in item numbers 2(f) and 10(k) before furnishing of Part B (Annexure) to the employee.

- The deductors who opt to authenticate Part B of Form No. 16manually will be provided with the download of the Part B of Form No. 16 alongwith these item nos. 2(f) and 10(k) appearing at the bottom of the Form. The deductor shall duly fill details, where applicable, in item numbers 2(f) and 10(k) before furnishing of Part B (Annexure) to the employee.

- The deductors who opt to authenticate Part B of Form No. 16 using DSC will be provided with the download of Part B of Form No. 16 without item nos. 2(f) and 10(k) and therefore these details shall be required to be prepared by the employer and issued to the employee, where applicable, before furnishing of Part B to the employee.

M/s. Rolls Royce Defense Services, Inc notified u/s 10(6C) - Notification No. 39/2019 dated 10-05-2019

Specified income of M/s. Rolls Royce Defense Services, Inc by way of royalty or fees for technical services received in pursuance of specified agreement shall be exempted u/s 10(6C). MA

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INDIRECT TAXATION

Compiled by CA Shubham Khaitan

Transition plan to the new GST Return

The GST Council in its 31st meeting decided that a new GST return system will be introduced to facilitate taxpayers. In order to ease transition to the new return system, a transition plan has been worked out. The details of the indicative transition plan are as follows: -

i. In May, 2019 a prototype of the offline tool has already been shared on the common portal to give the look and feel of the tool to the users. The look and feel of the offline tool would be same as that of the online portal. Taxpayers may be aware that there are three main components to the new return – one main return (FORM GST RET-1) and two annexures (FORM GST ANX-1 and FORM GST ANX-2).

ii. From July, 2019, users would be able to upload invoices using the FORM GST ANX1 offline tool on trial basis for familiarisation. Further, users would also be able to view and download, the inward supply of invoices using the FORM GST ANX-2 offline tool under the trial program. The summary of inward supply invoices would also be available for view on the common portal online. They would also be able to import their purchase register in the Offline Tool and match it with the downloaded inward supply invoices to find mismatches from August 2019.

iii. Between July to September, 2019 (for three months), the new return system (ANX-1 & ANX-2 only) would be available for trial for taxpayers to make themselves familiar. This trial would have no impact at the back end on the tax liability or input tax credit of the taxpayer. In this period, taxpayers shall continue to fulfil their compliances by filing FORM GSTR-1 and FORM GSTR-3B i.e. taxpayers would continue to file their outward supply details in FORM GSTR-1 on monthly / quarterly basis and return in FORM GSTR-3B on monthly basis. Non-filing of these returns shall attract penal provisions under the GST Act.

iv. From October, 2019 onwards, FORM GST ANX-1 shall be made compulsory and FORM GSTR-1 would be replaced by FORM GST ANX-1. The large taxpayers (i.e. those taxpayers whose aggregate annual turnover in the previous financial year was more than Rs. 5 Crore) would upload their monthly FORM GST ANX-1 from October, 2019 onwards. However, the first compulsory quarterly FORM GST ANX-1 to be uploaded by small taxpayers (with aggregate annual turnover in the previous financial year upto Rs. 5 Crore) would be due only in January, 2020 for the quarter October to December, 2019. It may be noted that invoices etc. can be uploaded in FORM GST ANX-1 on a continuous basis both by large and small taxpayers from October, 2019 onwards. FORM GST ANX2 may be viewed simultaneously during this period but no action shall be allowed on such FORM GST ANX-2.

v. For October and November, 2019, large taxpayers would continue to file FORM GSTR-3B on monthly basis. They would file their first FORM GST RET-01 for the month of December, 2019 by 20th January, 2020.

vi. The small taxpayers would stop filing FORM GSTR-3B and would start filing FORM GST PMT-08 from October, 2019 onwards. They would file their first FORM GST-RET-01 for the quarter October, 2019 to December, 2019 from 20th January, 2020.

vii. From January, 2020 onwards, all taxpayers shall be filing FORM GST RET-01 and FORM GSTR-3B shall be completely phased out.

(Press release dated 11th June 2019)

Clarifications on filing of Annual Return (FORM GSTR-9)

The trade and industry have raised certain queries with respect to filing of this Annual return which are being clarified as follows:

a) Information contained in FORM GSTR-2A as on 01.05.2019 shall be auto-populated in Table 8A of FORM GSTR-9.

b) Input tax credit on inward supplies shall be declared from April 2018 to March 2019 in Table 8C of FORM GSTR-9.

c) Particulars of the transactions for FY 2017-18 declared in returns between April 2018 to March 2019 shall be declared in Pt. V of FORM GSTR-9. Such particulars may contain details of amendments furnished in Table 10 and Table 11 of FORM GSTR-1.

d) It may be noted that irrespective of when the supply was declared in FORM GSTR-1, the principle of declaring a supply in Pt. II or Pt. V is essentially driven by when tax was paid through FORM GSTR-3B in respect of such supplies. If the tax on such supply was paid through FORM GSTR-3B during July 2017 to March 2018 then such supply shall be declared in Pt. II and if the tax was paid through FORM GSTR3B during April 2018 to March 2019 then such supply shall be declared in Pt. V of FORM GSTR-9.

e) Any additional outward supply which was not declared by the registered person in FORM GSTR-1 and FORM GSTR-3B shall be declared in Pt.II of the FORM GSTR-9. Such additional liability shall be computed in Pt.IV and the gap between the "tax payable" and "Paid through cash" column of FORM GSTR-9 shall be paid through FORM DRC-03.

f) Many taxpayers have reported a mismatch between auto-populated data and the actual entry in their books of accounts or returns. One common challenge reported by taxpayer is in Table 4 of FORM GSTR-9 where details may have been missed in FORM GSTR-1 but tax was already paid in FORM GSTR-3B and therefore taxpayers see a mismatch between auto-populated data and data in FORM GSTR-3B. It may be noted that auto-population is a functionality provided to taxpayers for facilitation purposes, taxpayers shall report the data as per their books of account or returns filed during the financial year.

g) Many taxpayers have represented that Table 8 has no row to fill in credit of IGST paid at the time of import of goods but availed in the return of April 2018 to March 2019. Due to this, there are apprehensions that credit which was availed during April 2018 to March 2019 but not reported in the annual return may lapse. For this particular entry, taxpayers are advised to fill in their entire credit availed on import of goods from July 2017 to March 2019 in Table 6(E) of FORM GSTR-9 itself.

h) Payments made through FORM DRC-03 for any supplies relating to period during July 2017 to March 2018 will not be accounted for in FORM GSTR-9 but shall be reported during reconciliation in FORM GSTR-9C.

(Press release dated 3rd June 2019)

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Benevolent Fund

FOR THE MEMBERS OF THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

CMA Bhawan, 12 Sudder Street, Kolkata - 700016

FOR ATTENTION OF THE MEMBERS

The Institute is maintaining **Benevolent Fund for the Members (MBF)** of the Institute to provide assistance to the members of the Fund in case of **financial help to the beneficiary** or to the dependants in **case of death of beneficiary.** Members whose names continue to exist in the Register of Members of the Institute can apply for Life Membership of the Fund.

Outright Grant not exceeding ₹**3,00,000/-*** in each case to the beneficiary in the event of death of the member.

Outright Grant not exceeding ₹**1,50,000/-**** in each case to the member/beneficiary for critical illness duly certified by the doctor under whom the treatment is continuing.

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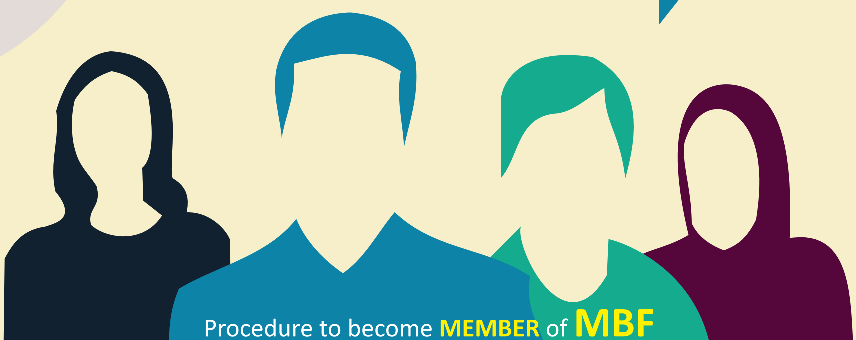

Procedure to become **MEMBER** of **MBF**

The prescribed fee for life membership is ₹7,500/-

The form can be downloaded from the link *https://eicmai.in/external/PublicPages/WebsiteDisplay/forms/mbf-form-Revised.pdf* which you may fill up and return to the Secretary – MBF along with a Demand Draft/Cheque for ₹7,500/- in favour of "ICWAI Members Benevolent Fund". You may apply online also by visiting this link *https://eicmai.in/MMS/Login.aspx?mode=EU*

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