

MATERIALS MANAGEMENT REVIEW



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**Special
Issue
on Budget &
Logistics**

BUDGET AT A GLANCE



■ 2018-19 (Actuals) ■ 2019-20 (BE) ■ 2019-20 (RE) ■ 2020-21 (BE)

RECEIPTS

in ₹ crore

Revenue



Capital



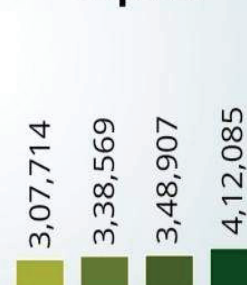
EXPENDITURE

in ₹ crore

Revenue

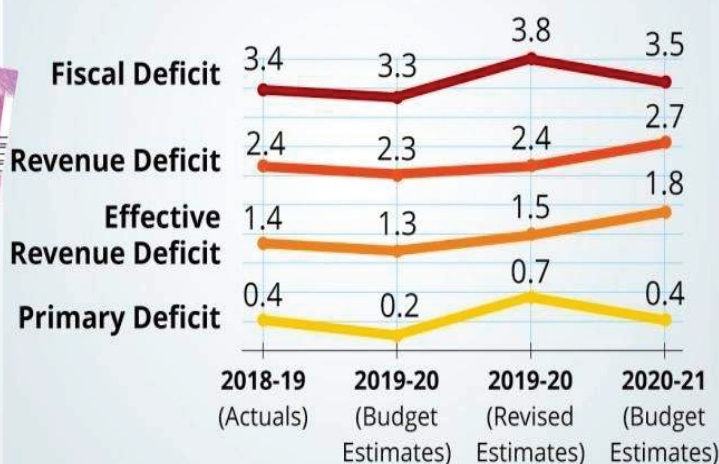


Capital



DEFICIT TRENDS

% of GDP



SPECTRUM 2020 - CHENNAI BRANCH



Ceremonial Inauguration by lighting lamp



Welcoming Mr. Malay Mazumdar, National President by Mr. J Ravishankar, Chairman IIMM Chennai Branch



Mr. Malay Mazumdar- National President IIMM delivering presidential address



Chief Guest Mr. Kaniappan, MD, WABCO addressing



Mr. H.K. Sharma, Sr. Vice President addressing the gathering



Panel Speakers Felicitation

From the Desk of The National President



Dear Members,

Greeting from National President!!

Since January 2020 the effect of novel Coronavirus epidemic has created fear psychosis all over the world. As of mid-February 2020, the outbreak has already claimed the lives of 1368 people, with over 60,000 cases being reported worldwide. Since this is a highly contagious disease and no specific remedy is available to cure the disease caused by this virus as on date, Countries are restricting their interface with China from where the virus has originated. China being the hub of low cost mass scale manufacturing, every business in different countries which are dependent on Chinese inputs are getting affected. SCM and logistics is the area which is hard hit by the happenings in China. This has posed an immediate challenge to the SCM professionals to find out alternative ways to make supplies available to their organizations. Since SCM interface has become global, it is the responsibility of the SCM professionals to mitigate the risk by spreading their sourcing across different geographical locations.

On the IIMM front, Chennai Branch is hosting their annual signature event 'Spectrum 2020' on 21st February 2020 on the theme "Smart Logistics Enables SCM 4.0. 177th National Council(NC) meeting under the new NEC is scheduled to be held in NHQ on 23rd February 2020. NC being the apex decision making body of IIMM, various policy and administrative matters will be decided which will provide a new vision and direction towards functioning of IIMM.

Wishing all IIMMites and their family members Á very colorful and joyous festival of colors – Holi.

With Warm Personal Regards

A handwritten signature in black ink, appearing to read 'Malay Mazumdar'.

Malay Mazumdar

National President, IIMM

Email: Malay_mazumdar@yahoo.co.in

From the Desk of Chief Editor



Dear Members,

Budget reflects the activities which are likely to happen during the forthcoming Academic year and accordingly resources are planned in such a way to keep an eye on long term goals, boost Employment Generation and overall Individual & Economic Development.

The first budget of India was presented on 18 February 1860 by Scotsman James Wilson. The first Union Budget of Independent India was presented by RK Shanmukham Chetty on November 26, 1947. Budget 2020-21, was presented by Finance Minister, Smt. Nirmala Sitharaman on 1st February 2020 with central ideas of - Aspirational India, Economic development, A Caring Society, Corruption free Governance and sound Financial System. This year more emphasis has been laid down on Agriculture Sector (Rs 2.83 Lakh Crore), Education Sector (Rs 99,300 crore) besides other important sectors of Economy like Infrastructure (Rs 100 Lakh Crore). Around Rs 22,000 crore have been allocated for equity to fund certain specified infrastructure finance companies.

Global economic slowdown and challenges in the domestic financial sector revised the GDP growth to 5.0 % in 2019-20 against the predicted 7% growth rate and compared to 6.8 % in 2018-19. This slump has had its impact on Fiscal deficit which was revised on higher side to 3.8% as against budget estimate of 3.5% of the GDP for 2019-20. For year 2020-21, the GDP growth is estimated at 6-6.5%.

Finance Minister, Nirmala Sitharaman also gave reasons to cheer for individuals who falls in the income tax bracket of Rs 5 lakh to 15 Lakh. Under the new regime, taxpayers will pay 10%, 15%, 20% and 25% for incomes between ¹ 5-7.5 lakh, ¹ 7.5-10 lakh, ¹ 10-12.5 lakh and ¹ 12.5-15 lakh, respectively. However, to avail this scheme, which is optional and co-exist with old existing Tax Scheme, taxpayers will have to forego exemptions. The new proposed Tax Scheme is for those, who, does not claim any exemptions and deduction and go for simplified Tax Scheme.

Start-ups are allowed to get a full tax waiver on profits for any three consecutive years out of their first seven years, if they are incorporated between April 1, 2016 and March 31, 2021, and their turnover does not exceed Rs 25 crore. In addition, the turnover threshold has been increased from Rs 25 crore to Rs 100 crore.

A scheme focused on encouraging manufacturing of mobile phones, electronic equipment, and semi-conductor packaging has been proposed. The National Technical Textiles Mission will be implemented from 2020-21 to 2023-24 with an outlay of Rs 1,480 crore. Another scheme for refund of duties and taxes on exported products, which are not getting exempted under any other existing mechanism will be launched. Govt. has also eased Tax Compliance for MSMEs i.e. no tax audit for MSMEs with turnover up to INR 5 crore and if they do business less than 5% in cash.

To achieve the GDP of \$5 trillion by 2024-25, India needs to spend about \$1.4 trillion (Rs. 100 lakh crore) over these years on infrastructure. India invested about \$1.1 trillion on infrastructure in the past decade (2008-2017). The government will build 6,500 projects under the National Infrastructure Pipeline. These projects will include housing, safe drinking water, and healthcare, among others.

The challenge is to step-up annual infrastructure investment so that lack of infrastructure does not hamper the growth of Indian economy. Hon'ble Finance Minister also stated to formulate a policy for Data Centre Construction. Budget 2020-21 also has a provision of National Logistics Policy which will clarify the roles of the central government, state governments, and key regulators. Further, it will create a single window e-logistics market which will focus on employment generation, skills and making MSMEs more competitive.

A handwritten signature in black ink, appearing to read 'M.K. Bhardwaj'.

(DR. M.K. BHARDWAJ)



*IIMM is a charter member of
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Chief Editor & Publisher:

Dr. M. K. Bhardwaj

Past President, IIMM &
Former Director Ministry of Defence

Core Committee :

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Mr. H.K.Sharma, Sr. VP
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Prof.(Dr.) V. K. Gupta - IMT, Ghaziabad

Correspondence :

MATERIALS MANAGEMENT REVIEW

**Indian Institute of Materials
Management**

4598/12 B, 1st Floor, Ansari Road,
Darya Ganj, New Delhi - 110 002.

Phones : 011-43615373

Fax: 91-11-43575373

E-mail: iimmdelhimmr@gmail.com &
iimm2delhi@gmail.com

Website : www.iimm.org

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INDIAN INSTITUTE OF MATERIALS MANAGEMENT

4598/12 B, 1st Floor, Ansari Road, Darya Ganj, New Delhi - 110 002.

Phones : 011-43615373 Fax: 91-11-43575373

E-mail: iimmdelhimmr@gmail.com & iimm2delhi@gmail.com

Website : www.iimm.org

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KEY HIGHLIGHTS OF UNION BUDGET 2020-21

Presenting the first Union Budget of the third decade of 21st century, Finance Minister Smt. Nirmala Sitharaman, today unveiled a series of far-reaching reforms, aimed at energizing the Indian economy through a combination of short-term, medium-term, and long-term measures.

The Key Highlights of Union Budget 2020-21 are as follows:

THREE PROMINENT THEMES OF THE BUDGET

Aspirational India - better standards of living with access to health, education and better jobs for all sections of the society

Economic Development for all - "Sabka Saath, Sabka Vikas, Sabka Vishwas".

Caring Society - both humane and compassionate; Antyodaya as an article of faith. Three broad themes are held together by:

Corruption free, policy-driven Good Governance.

Clean and sound financial sector.

Ease of Living underlined by the three themes of Union Budget 2020-21.

THREE COMPONENTS OF ASPIRATIONAL INDIA

Agriculture, Irrigation, and Rural Development Wellness, Water, and Sanitation Education and Skills

Sixteen Action Points for Agriculture, Irrigation and Rural Development

Rs. 2.83 lakh crore to be allocated for the following 16 Action Points: Rs. 1.60 lakh crore for Agriculture, Irrigation & allied activities.

Rs. 1.23 lakh crore for Rural development & Panchayati Raj.

- Agriculture credit:

Rs. 15 lakh crore target set for the year 2020-21.

PM-KISAN beneficiaries to be covered under the KCC scheme. NABARD Re-finance Scheme to be further expanded.

Comprehensive measures for 100 water-stressed districts proposed.

BLUE ECONOMY:

Rs. 1 lakh crore fisheries' exports to be achieved by 2024-25. 200 lakh tonnes fish production targeted by 2022-23.

3477 Sagar Mitras and 500 Fish Farmer Producer

Organisations to involve youth in fisheries extension. Growing of algae, sea-weed and cage culture to be promoted.

Framework for development, management and conservation of marine fishery resources.

Kisan Rail to be setup by Indian Railways through PPP:

To build a seamless national cold supply chain for perishables (milk, meat, fish, etc. Express and Freight trains to have refrigerated coaches.

Krishi Udaan to be launched by the Ministry of Civil Aviation: Both international and national routes to be covered.

North-East and tribal districts to realize Improved value of agri-products.

One-Product One-District for better marketing and export in the Horticulture sector. Balanced use of all kinds of fertilizers - traditional organic and innovative fertilizers. Measures for organic, natural, and integrated farming:

Jaivik Kheti Portal – online national organic products market to be strengthened.

Zero-Budget Natural Farming (mentioned in July 2019 Budget) to be included.

- o Integrated Farming Systems in rain-fed areas to be expanded.
- o Multi-tier cropping, bee-keeping, solar pumps, solar energy production in non-cropping season to be added.

PM-KUSUM to be expanded:

20 lakh farmers to be provided for setting up stand-alone solar pumps.

Another 15 lakh farmers to be helped to solarise their grid-connected pump sets.

Scheme to enable farmers to set up solar power generation capacity on their fallow/barren lands and to sell it to the grid.

Village Storage Scheme:

To be run by the SHGs to provide farmers a good holding capacity and reduce their logistics cost. Women, SHGs to regain their position as Dhaanya Lakshmi.

NABARD to map and geo-tag agri-warehouses, cold storages, reefer van facilities, etc.

Warehousing in line with Warehouse Development and Regulatory Authority (WDRA) norms: Viability Gap Funding for setting up such efficient warehouses at the block/taluk level.

Food Corporation of India (FCI) and Central Warehousing Corporation (CWC) to undertake such warehouse building.

Financing on Negotiable Warehousing Receipts (e-NWR) to be integrated with e-NAM.

State governments who undertake implementation of model laws (issued by the Central government) to be encouraged.

Livestock:

Doubling of milk processing capacity to 108 million MT from 53.5 million MT by 2025. Artificial insemination to be increased to 70% from the present 30%.

MNREGS to be dovetailed to develop fodder farms.

Foot and Mouth Disease, Brucellosis in cattle and Peste Des Petits ruminants (PPR) in sheep and goat to be eliminated by 2025.

Deen Dayal Antyodaya Yojana – 0.5 crore households mobilized with 58 lakh SHGs for poverty alleviation.

Wellness, Water and Sanitation

Rs. 69,000 crore allocated for overall Healthcare sector.

Rs. 6400 crore (out of Rs. 69,000 crore) for **PM Jan Arogya Yojana** (PMJAY):

More than 20,000 hospitals already empanelled under PM Jan Arogya Yojana (PMJAY). Viability Gap Funding window proposed for setting up hospitals in the PPP mode.

Aspirational Districts with no Ayushman empanelled hospitals to be covered in the first phase.

Targeting diseases with an appropriately designed preventive regime using Machine Learning and AI.

Jan Aushadhi Kendra Scheme to offer 2000 medicines and 300 surgicals in all districts by 2024.

TB Harega Desh Jeetega campaign launched - commitment to end Tuberculosis by 2025.

Rs. 3.60 lakh crore approved for **Jal Jeevan Mission**: Rs. 11,500 crore for the year 2020-21.

Augmenting local water sources, recharging existing sources, and promoting water harvesting and desalination. Cities with million-plus population to be encouraged to achieve the objective during the current year itself.

Rs.12, 300 crore allocation for **Swachh Bharat Mission** in 2020-21: Commitment to **ODF-Plus** in order to sustain ODF behaviour. Emphasis on liquid and grey water management.

- o Focus also on Solid-waste collection, source segregation, and processing.

EDUCATION AND SKILLS

Rs. 99,300 crore for education sector and Rs. 3000 crore for skill development in 2020-21. New Education Policy to be announced soon.

National Police University and **National Forensic Science University** proposed for policing science, forensic science, and cyber-forensics.

Degree level full-fledged online education program by Top-100 institutions in the National Institutional Ranking Framework.

Up to 1-year internship to fresh engineers to be provided by Urban Local Bodies.

Budget proposes to attach a medical college to an existing district hospital in PPP mode. Special bridge courses to be designed by the Ministries of Health, and Skill Development:

To fulfill the demand for teachers, nurses, para-medical staff and care-givers abroad. To bring in equivalence in the skill sets of the workforce and employers' standards.

150 higher educational institutions to start apprenticeship embedded degree/diploma courses by March 2021. External Commercial Borrowings and FDI to be enabled for education sector.

Ind-SAT proposed for Asian and African countries as a part of **Study in India** program.

ECONOMIC DEVELOPMENT

Industry, Commerce and Investment

Rs. 27,300 crore allocated for 2020-21 for development and promotion of Industry and Commerce.

Investment Clearance Cell proposed to be set up:

- o To provide "end to end" facilitation and support.
- o To work through a portal.

Five new smart cities proposed to be developed.

Scheme to encourage manufacture of mobile phones, electronic equipment and semi-conductor packaging proposed.

National Technical Textiles Mission to be set up:

- o With four-year implementation period from 2020-21 to 2023-24.
- o At an estimated outlay of Rs 1480 crore.
- o To position India as a global leader in Technical Textiles.

New scheme **NIRVIK** to be launched to achieve higher export credit disbursement, which provides for: o Higher insurance coverage

- o Reduction in premium for small exporters
- o Simplified procedure for claim settlements.

Turnover of Government e-Marketplace (GeM) proposed to be taken to Rs 3 lakh crore. Scheme for Revision of duties and taxes on exported products to be launched.

- o Exporters to be digitally refunded duties and taxes

levied at the Central, State and local levels, which are otherwise not exempted or refunded.

All Ministries to issue quality standard orders as per PM's vision of "Zero Defect-Zero Effect" manufacturing.

INFRASTRUCTURE : Rs.100 lakh crore to be invested on infrastructure over the next 5 years. National Infrastructure Pipeline:

- o Rs. 103 lakh crore worth projects; launched on 31st December 2019.
- o More than 6500 projects across sectors, to be classified as per their size and stage of development.

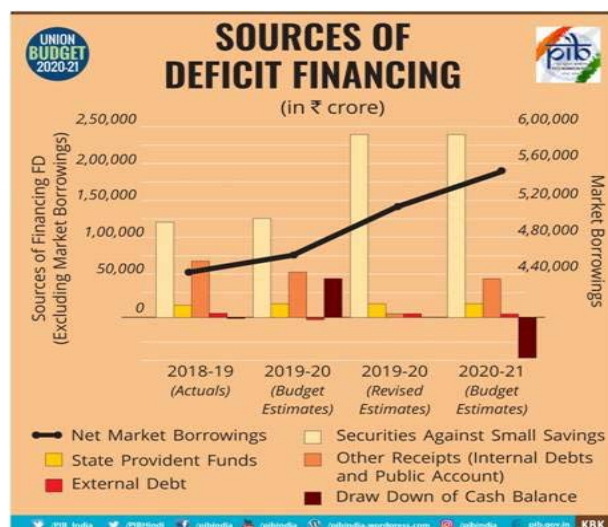
A National Logistics Policy to be released soon:

- o To clarify roles of the Union Government, State Governments and key regulators.
- o A single window e-logistics market to be created
- o Focus to be on generation of employment, skills and making MSMEs competitive.

National Skill Development Agency to give special thrust to infrastructure-focused skill development opportunities. Project preparation facility for infrastructure projects proposed.

- o To actively involve young engineers, management graduates and economists from Universities.

Infrastructure agencies of the government to involve youth-power in start-ups. Rs.1.7 lakh crore proposed for transport infrastructure in 2020-21.



HIGHWAYS:

Accelerated development of highways to be undertaken, including: o 2500 Km access control highways.

- o 9000 Km of economic corridors.
- o 2000 Km of coastal and land port roads.
- o 2000 Km of strategic highways.

Delhi-Mumbai Expressway and two other packages to be completed by 2023. Chennai-Bengaluru Expressway to be started.

Proposed to monetise at least 12 lots of highway bundles of over 6000 Km before 2024.

INDIAN RAILWAYS:

Five measures:

- o Large solar power capacity to be set up alongside rail tracks, on land owned by railways.
- o Four station re-development projects and operation of 150 passenger trains through PPP.
- o More Tejas type trains to connect iconic tourist destinations.
- o High speed train between Mumbai and Ahmedabad to be actively pursued.
- o 148 km long Bengaluru Suburban transport project at a cost of Rs 18600 crore, to have fares on metro model. Central Government to provide 20% of equity and facilitate external assistance up to 60% of the project cost.

Indian Railways' achievements:

- o 550 Wi-fi facilities commissioned in as many stations.
- o Zero unmanned crossings.
- o 27000 Km of tracks to be electrified.

PORTS & WATER-WAYS: Corporatizing at least one major port and its listing on stock exchanges to be considered.

Governance framework keeping with global benchmarks needed for more efficient sea-ports. Economic activity along river banks to be energised as per Prime Minister's **Arth Ganga** concept.

AIRPORTS: 100 more airports to be developed by 2024 to support Udaan scheme.

Air fleet number expected to go up from present 600 to 1200 during this time.

ELECTRICITY:

"Smart" metering to be promoted.

More measures to reform DISCOMs to be taken.

Power: Rs.22, 000 crore proposed for power and renewable energy sector in 2020-21. Expansion of national gas grid from the present 16200 km to 27000 km proposed. Further reforms to facilitate transparent price discovery and ease of transactions.

NEW ECONOMY

To take advantage of new technologies:

- o Policy to enable private sector to build Data Centre parks throughout the country to be brought out soon.
- o Fibre to the Home (FTTH) connections through Bharatnet to link 100,000 gram panchayats this year.
- o Rs.6000 crore proposed for Bharatnet programme in 2020-21.

Measures proposed to benefit Start-ups:

- o A digital platform to be promoted to facilitate seamless application and capture of IPRs.
- o Knowledge Translation Clusters to be set up across different technology sectors including new and emerging areas.

- o For designing, fabrication and validation of proof of concept, and further scaling up Technology Clusters, harbouring test beds and small scale manufacturing facilities to be established.
- o Mapping of India's genetic landscape- Two new national level Science Schemes to be initiated to create a comprehensive database.
- o Early life funding proposed, including a seed fund to support ideation and development of early stage Start-ups.

Rs.8000 crore proposed over five years for National Mission on Quantum Technologies and Applications.

CARING SOCIETY

Focus on:

- o Women & child,
- o Social Welfare;
- o Culture and Tourism

Allocation of Rs. 35,600 crore for nutrition-related programmes proposed for the FY2020-21. Rs.28, 600 crore proposed for women specific programs.

Issue about age of a girl entering motherhood - proposed to appoint a task force to present its recommendations in six months' time.

Financial support for wider acceptance of technologies, identified by Ministry of Housing and Urban Affairs to ensure no manual cleaning of sewer systems or septic tanks, to be provided.

Rs. 85, 000 crore proposed for 2020-21 for welfare of Scheduled Castes and Other Backward Classes. Rs. 53, 700 crore provided to further development and welfare of Scheduled Tribes.

Enhanced allocation of Rs. 9,500 crore provided for 2020-21 for senior citizens and Divyang.

CULTURE & TOURISM

Allocation of Rs. 2500 crore for 2020-21 for tourism promotion. Rs.3150 crore proposed for Ministry of Culture for 2020-21.

An Indian Institute of Heritage and Conservation under Ministry of Culture proposed; with the status of a deemed University.

5 archaeological sites to be developed as iconic sites with on-site Museums: o Rakhigarhi (Haryana)

- o Hastinapur (Uttar Pradesh)
- o Shivsagar (Assam)
- o Dholavira (Gujarat)
- o Adichanallur (Tamil Nadu)

Re-curation of the Indian Museum in Kolkata, announced by Prime Minister in January 2020. Museum on Numismatics and Trade to be located in the historic Old Mint building in Kolkata. 4 more museums from across the country to be taken up for renovation and re-curation.

Support for setting up of a Tribal Museum in Ranchi (Jharkhand).

Maritime museum to be set up at Lothal- the Harappan age maritime site near Ahmedabad, by Ministry of Shipping. State governments expected to develop a

roadmap for certain identified destinations and formulate financial plans during 2021 against which specified grants to be made available to the States in 2020-21.

ENVIRONMENT & CLIMATE CHANGE

Allocation for this purpose to be Rs.4400 crore for 2020-21.

Proposed to advise the utilities to close the running old thermal power plants with carbon emission above the pre-set norms.

States that are formulating and implementing plans for ensuring **cleaner air in cities** above one million to be encouraged.

PM launched Coalition for Disaster Resilient Infrastructure (CDRI) with Secretariat in Delhi. Second such international initiative after International Solar Alliance.

GOVERNANCE

Clean, corruption-free, policy driven, good in intent and most importantly trusting in faith.

Taxpayer Charter to be enshrined in the Statute will bring fairness and efficiency in tax administration.

Companies Act to be amended to build into statutes, criminal liability for certain acts that are civil in nature.

Other laws with such provisions are to be corrected after examination.

Major reforms in recruitment to Non-Gazetted posts in Government and Public sector banks:

An independent, professional and specialist **National Recruitment Agency (NRA)** for conducting a computer-based online Common Eligibility Test for recruitment.

A test-centre in every district, particularly in the Aspirational Districts.

A robust mechanism to be evolved for appointment including direct recruitment to various Tribunals and specialised bodies to attract best talents and professional experts.

Contract Act to be strengthened.

New **National Policy on Official Statistics** to: Promote use of latest technologies including AI.

Lay down a road-map towards modernised data collection, integrated information portal and timely dissemination of information.

A sum of Rs. 100 crore allocated to begin the preparations for G20 presidency to be hosted in India in the year 2022. Development of North East region:

Improved flow of funds using online portal by the Government.

Greater access to financial assistance of Multilateral and Bilateral funding agencies.

Development of Union Territories of J&K and Ladakh:

An amount of Rs. 30,757 crore provided for the financial year 2020-21. o The Union Territory of Ladakh has been provided with Rs. 5,958.

FINANCIAL SECTOR

Reforms accomplished in PSBs : 10 banks consolidated into 4.

Rs. 3,50,000 crore capital infused.

Governance reforms to be carried out to bring in transparency and greater professionalism in PSBs. Few PSBs to be encouraged to approach the capital market to raise additional capital

Deposit Insurance and Credit Guarantee Corporation (DICGC) permitted to increase Deposit Insurance Coverage to Rs. 5 lakh from Rs.1 lakh per depositor.

Scheduled Commercial Bank's health under monitoring through a robust mechanism, keeping depositors' money safe. Cooperative Banks to be strengthened by amending Banking Regulation Act for:

Increasing professionalism. Enabling access to capital.

Improving governance and oversight for sound banking through the RBI. NBFCs eligibility limit for debt recovery reduced from:

Rs. 500 crore to Rs 100 crore asset size. Rs 1 crore to Rs 50 lakh loan size.

Private capital in Banking system:

Government to sell its balance holding in IDBI Bank to private, retail and institutional investors through the stock exchange.

Easier mobility in jobs:

Auto-enrolment in Universal Pension coverage.

Inter-operability mechanism to safeguard the accumulated corpus.

Pension Fund Regulatory Development Authority of India Act to be amended to: Strengthen regulating role of PFRDAI.

Facilitate separation of NPS trust for government employees from PFRDAI. Enable establishment of a Pension Trust by the employees other than Government.

Factor Regulation Act 2011 to be amended to:

Enable NBFCs to extend invoice financing to the MSMEs through TReDS

New scheme to provide subordinate debt for entrepreneurs of MSMEs by the banks Would be counted as quasi-equity.

Would be fully guaranteed through the Credit Guarantee Trust for Medium and Small Entrepreneurs (CGTMSE).

The corpus of the CGTMSE would accordingly be augmented by the government.

Window for MSME's debt restructuring by RBI to be extended by one year till March 31, 2021.

More than five lakh MSMEs have already been benefitted.

An app-based invoice financing loans product for MSMEs to be launched.

To prevent the problem of delayed payments and

consequential cash flows mismatches.

Export promotion of MSMEs:

For selected sector such as pharmaceuticals, auto components and others. An Rs 1000 crore scheme anchored by EXIM Bank together with SIDBI.

- o Hand holding support for technology upgradations, R&D, business strategy etc.

Financial Market

Deepening Bond Market.

Certain specified categories of Government securities to be opened fully for non -resident investors also. FPI limit in corporate bonds increased to 15% from 9% of its outstanding stock.

New legislation to be formulated for laying down a mechanism for netting of financial contracts.

Scope of credit default swaps to expand.

Debt Based Exchange Traded Fund expanded by a new Debt-ETF consisting primarily of Government Securities.

To give attractive access to retail investors, pension funds and long-term investors.

A Partial Credit Guarantee scheme for the NBFCs formulated post the Union budget 2019-20 to address their liquidity constraints.

New mechanism to be devised to further this.

- o Government support to securities so floated.

Infrastructure Financing

Rs.103 lakh crore National Infrastructure Pipeline projects earlier announced.

Rs 22,000 crore to cater to the equity support to Infrastructure Finance Companies such as IIFCL and a subsidiary of NIIF.

IFSC, GIFT city: full of potential to become a centre of international finance as well as a centre for high end data processing:

- o An International Bullion exchange(s) to be set up as an additional option for trade by global market participants with the approval of regulator.

Disinvestment

Government to sell a part of its holding in LIC by way of Initial Public Offer (IPO).

Fiscal Management

XV Finance Commission (FC):

- o XV Finance Commission has given its first report for FY2020-21
- o Recommendations accepted in substantial measure
- o Its final report for five years beginning 2021-22 to be submitted during the latter part of the year.

GST Compensation Fund:

- o Balances due out of collection of the years 2016-17 and 2017-18 to be transferred to the Fund, in two instalments.

- o Hereinafter, transfers to the fund to be limited only to collection by way of GST compensation cess.

Overhaul of Centrally Sponsored Schemes and Central Sector Schemes necessary: o To align them with emerging social and economic needs of tomorrow

- o **To ensure that scarce public resources are spent optimally**

On the recent debate over transparency and credibility of projected fiscal numbers, it is assured that procedure adopted is compliant with the FRBM Act.

For the FY 2019-20:

- o Revised Estimates of Expenditure: at Rs.26.99 lakh crore
- o Revised Estimates of Receipts: estimated at Rs.19.32 lakh crore.

For year 2020-21:

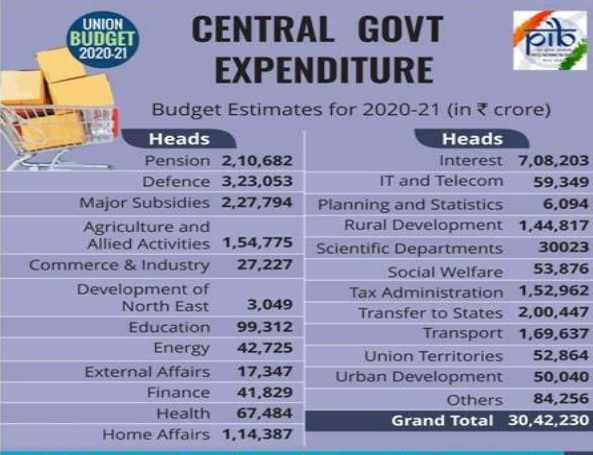
- o Nominal growth of GDP estimated at 10%.
- o Receipts: estimated at Rs.22.46 lakh cr
- o Expenditure: at Rs.30.42 lakh cr.

Significant tax reforms for boosting investments recently undertaken. However, expected tax buoyancy expected to take time.

Fiscal deficit of 3.8% estimated in RE 2019-20 and 3.5% for BE 2020-21. It comprises two ingredients; o 3.3% for year 2019-20 and 3% for the 2020-21 budget estimate.

- o Deviation of 0.5%, consistent with Section 4(3) of FRBM Act, both for RE 2019-20 and BE 2020-21. (Section 4 (2) of the FRBM Act provides for a trigger mechanism for a deviation from the estimated fiscal deficit on account of structural reforms in the economy with unanticipated fiscal implications.)
- o Return path, committing to fiscal consolidation without compromising needs of investment out of public funds, is laid in Medium Term Fiscal Policy cum Strategy Statement.
- o Market borrowings: Net market borrowings: Rs.4.99 lakh crore for 2019-20 and Rs.5.36 lakh crore for 2020-21.

A good part of the borrowings for the financial year 2020-21 to go towards Capital expenditure that has been scaled up by more than 21%.



CENTRAL GOVT EXPENDITURE
Budget Estimates for 2020-21 (in ₹ crore)

Heads	Amount (₹ crore)	Heads	Amount (₹ crore)
Pension	2,10,682	Interest	7,08,203
Defence	3,23,053	IT and Telecom	59,349
Major Subsidies	2,27,794	Planning and Statistics	6,094
Agriculture and Allied Activities	1,54,775	Rural Development	1,44,817
Commerce & Industry	27,227	Scientific Departments	30,023
Development of North East	3,049	Social Welfare	53,876
Education	99,312	Tax Administration	1,52,962
Energy	42,725	Transfer to States	2,00,447
External Affairs	17,347	Transport	1,69,637
Finance	41,829	Union Territories	52,864
Health	67,484	Urban Development	50,040
Home Affairs	1,14,387	Others	84,256
		Grand Total	30,42,230

Direct Tax Proposals - To stimulate growth, simplify tax structure, bring ease of compliance, and reduce litigations.

Personal Income Tax:

Significant relief to middle class taxpayers.

New and simplified personal income tax regime proposed:

Taxable Income Slab (Rs.) Existing tax rates New tax rates

Taxable Income Slab (Rs.)	Existing tax rates	New tax rates
0-2.5 Lakh	Exempt	Exempt
2.5-5 Lakh	5%	5%
5-7.5 Lakh	20%	10%
7.5-10 Lakh	20%	15%
10-12.5 Lakh	30%	20%
12.5-15 Lakh	30%	25%
Above 15 Lakh	30%	30%

Around 70 of the existing exemptions and deductions (more than 100) to be removed in the new simplified regime.

Remaining exemptions and deductions to be reviewed and rationalised in coming years.

New tax regime to be optional - an individual may continue to pay tax as per the old regime and avail deductions and exemptions.

Measures to pre-fill the income tax return initiated so that an individual who opts for the new regime gets pre-filled income tax returns and would need no assistance from an expert to pay income tax.

New regime to entail estimated revenue forgone of Rs. 40,000 crore per year.

Corporate Tax: Tax rate of 15% extended to new electricity generation companies. Indian corporate tax rates now amongst the lowest in the world.

Dividend Distribution Tax (DDT):

DDT removed making India a more attractive investment destination.

Deduction to be allowed for dividend received by holding company from its subsidiary. Rs. 25,000 crore estimated annual revenue forgone.

START-UPS:

Start-ups with turnover **up to Rs. 100 crore to enjoy 100% deduction** for 3 consecutive assessment years out of 10 years.

Tax payment on ESOPs deferred.

MSMEs to boost less-cash economy:

Turnover threshold for audit increased to Rs. 5 crore from Rs. 1 crore for businesses carrying out less than 5% business transactions in cash.

Cooperatives:

Parity brought between cooperatives and corporate sector.

Option to cooperative societies to be taxed at 22% + 10% surcharge and 4% cess with no exemption/ deductions. Cooperative societies exempted from Alternate Minimum Tax (AMT) just like Companies are exempted from the Minimum Alternate Tax (MAT).

Tax concession for foreign investments:

100% tax exemption to the interest, dividend and capital gains income on investment made in infrastructure and priority sectors before 31st March, 2024 with a minimum lock-in period of 3 years by the Sovereign Wealth Fund of foreign governments.

Affordable housing:

Additional deduction up to Rs. 1.5 lakhs for interest paid on loans taken for an affordable house extended till 31st March, 2021.

Date of approval of affordable housing projects for availing tax holiday on profits earned by developers extended till 31st March, 2021.

Tax Facilitation Measures

Instant PAN to be allotted online through Aadhaar.

'Vivad Se Vishwas' scheme, with a deadline of 30th June, 2020, to reduce litigations in direct taxes:

Waiver of interest and penalty - only disputed taxes to be paid for payments till 31st March, 2020. Additional amount to be paid if availed after 31st March, 2020.

Benefits to taxpayers in whose cases appeals are pending at any level.

Faceless appeals to be enabled by amending the Income Tax Act.

FOR CHARITY INSTITUTIONS:

Pre-filling in return through information of donations furnished by the done. Process of registration to be made completely electronic.

Unique registration number (URN) to be issued to all new and existing charity institutions. Provisional registration to be allowed for new charity institutions for three years.

CBDT to adopt a Taxpayers' Charter.

Losses of merged banks:

Amendments proposed to the Income-tax Act to ensure that entities benefit from unabsorbed losses and depreciation of the amalgamating entities.

Indirect Tax

GST:

Cash reward system envisaged to incentivise customers to seek invoice.

Simplified return with features like SMS based filing for nil return and improved input tax credit flow to be implemented from 1st April, 2020 as a pilot run.

Dynamic QR-code capturing GST parameters proposed for consumer invoices.

Electronic invoice to capture critical information in a centralized system to be implemented in a phased

manner.

Aadhaar based verification of taxpayers being introduced to weed out dummy or non-existent units. GST rate structure being deliberated to address inverted duty structure.

Customs Duties:

Customs duty raised on footwear to 35% from 25% and on furniture goods to 25% from 20%.

Basic customs duty on imports of news print and light-weight coated paper reduced from 10% to 5%. Customs duty rates revised on electric vehicles and parts of mobiles.

5% health cess to be imposed on the imports of medical devices, except those exempt from BCD. Lower customs duty on certain inputs and raw materials like fuse, chemicals, and plastics.

Higher customs duty on certain goods like auto-parts, chemicals, etc. which are also being made domestically.

Trade Policy Measures

Customs Act being amended to enable proper checks of imports under FTAs. Rules of Origin requirements to be reviewed for certain sensitive items.

Provisions relating to safeguard duties to be strengthened to enable regulating such surge in imports in a systematic way.

Provisions for checking dumping of goods and imports of subsidized goods being strengthened. Suggestions for reviews of exemptions from customs duty to be crowd-sourced.

Excise duty proposed to be raised on Cigarettes and other tobacco products, no change made in the duty rates of bidis.

Anti-dumping duty on PTA abolished to benefit the textile sector.

Unprecedented Milestones and Achievements of Indian Economy

India now the fifth largest economy of the world.

7.4% average growth clocked during 2014-19 with inflation averaging around 4.5%. 271 million people raised out of poverty during 2006-16.

India's Foreign Direct Investment elevated to US\$ 284 billion during 2014-19 from US\$ 190 billion during 2009-14. Central Government debt reduced to 48.7% of GDP (March 2019) from 52.2% (March 2014).

Two cross-cutting developments:

Proliferation of technologies (Analytics, Machine Learning, robotics, Bio-informatics and Artificial Intelligence).

Highest ever number of people in the productive age group (15-65 years) in India.

GST removed many bottlenecks in the system.

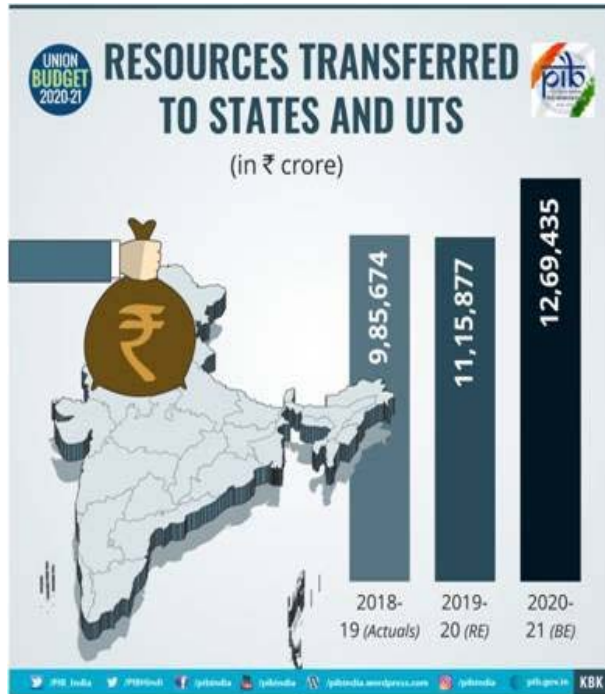
Future Aim for sustaining India's unique global leadership, driven by Digital Revolution

Seamless delivery of services through Digital

Governance.

Improvement in physical quality of life through National Infrastructure Pipeline. Risk mitigation through Disaster Resilience.

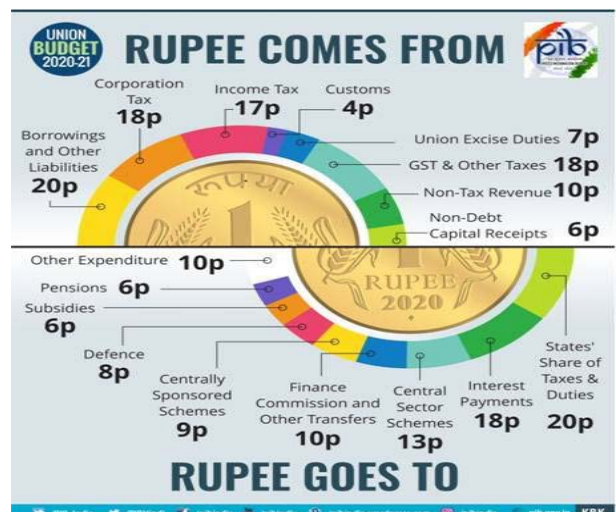
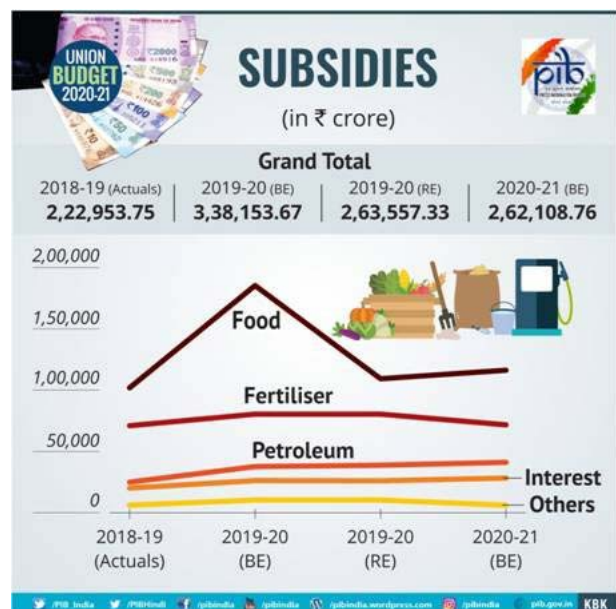
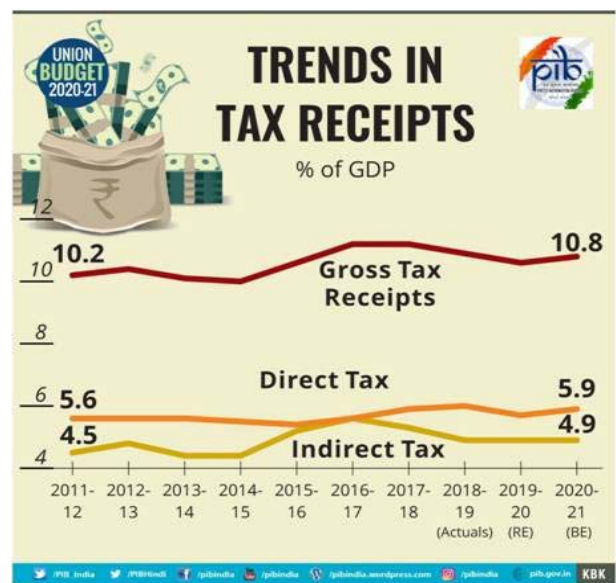
Social security through Pension and Insurance penetration.



KEY NUMBERS

(in ₹ crore)

	2018-19 (Actuals)	2019-20 (Budget Estimates)	2019-20 (Revised Estimates)	2020-21 (Budget Estimates)
Revenue Receipts	15,52,916	19,62,761	18,50,101	20,20,926
Capital Receipts	7,62,197	8,23,588	8,48,451	10,21,304
Total Receipts	23,15,113	27,86,349	26,98,552	30,42,230
Total Expenditure	23,15,113	27,86,349	26,98,552	30,42,230
Revenue Deficit	4,54,483	4,85,019	4,99,544	6,09,219
Effective Revenue Deficit	2,62,702	2,77,686	3,07,807	4,02,719
Fiscal Deficit	6,49,418	7,03,760	7,66,846	7,96,337
Primary Deficit	66,770	43,289	1,41,741	88,134



Source : PIB

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COMPETITIVE ADVANTAGE THROUGH SUPPLIER VALUE MAPPING

S N PANIGRAHI

GST CONSULTANT & CORPORATE TRAINER

sn panigrahi1963@gmail.com

Competitive advantage is the leverage that a business has over its competitors. It is the ability to stay ahead of present or potential competition. This can be gained by offering clients better and greater value. A competitive advantage may include access to natural resources, such as high-grade ores or a low-cost power source, highly skilled labor, geographic location, high entry barriers, and access to new technology. Target markets recognize these unique products or services. This is the reason behind brand loyalty, or why customers prefer one particular product or service over another.

Value proposition is important when understanding competitive advantage. If the value proposition is effective, that is, that the value proposition offers clients better and greater value, it can produce a competitive advantage in either the product or service. The value proposition can increase customer expectations and choices. Therefore, **while discussing Competitive Advantage, Value Mapping is Conjointly done to understand waste in the system and enhance the value thereby achieve value proposition.**

Here in this article let us discuss on Supplier Value Mapping and how it enhances the Competitive Advantage for the organization.

Supplier Value Mapping : Supplier Value Mapping allows corporations to analyze processes from origin Sourcing; Supplier Compliance; Value Performance and Standardization. This technique used to document, analyze, design, manage and improve the flow of information or materials required to produce a product or service for a customer. Since supplier is an important link in value chain contributing to value enhancement of any organization, Supplier Value Mapping is done for competitive advantage.

Value Stream Mapping (VSM) is a Toyota lean manufacturing visualization tool for recording all the processes that are required to bring a product to market. An **important goal of value stream mapping** is to identify processes that do not provide **value** so they can be improved. It is a method for analyzing the current state and designing a future state for the series of events that take a product or service from its beginning through to the customer with reduced lean

wastes as compared to current map.

Ways of Competitive Advantage : Companies develop a competitive advantage when they produce attributes that allow them to outperform their competitors. Here are Eight Ways companies and individuals can create an edge.

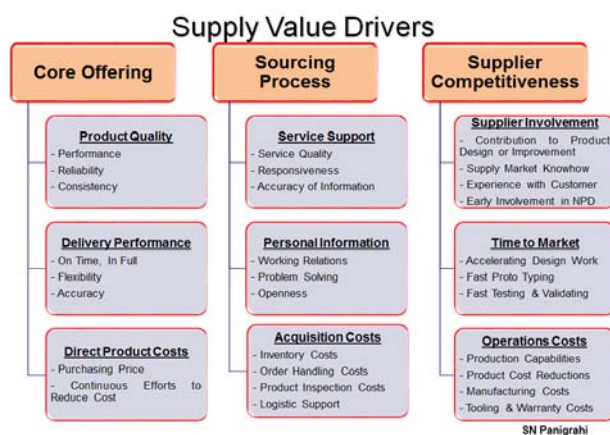


Suppliers are often a procurement organization's backend competitive weapon, their hidden resource, their competitive edge. These competitive gains can manifest themselves in a wide range of areas, from better prices and delivery times to increased opportunities to consider and implement innovative practices, value creation, support in revenue growth, and cost competitiveness. Supplier are catalysts in maximizing company's product / brand competitiveness in many means, going beyond the narrow focus of cost reduction. Some of these Value Drivers for Competitiveness are discussed here.

Supply Value Drivers : Supply Capabilities are guided by the decisions made regarding the key supply drivers. Each of these drivers can be developed and managed to emphasize **responsiveness** or **efficiency** depending on changing business requirements. Several techniques are used by companies to evaluate suppliers and measure performance. The first step in implementing any of the techniques being discussed is to determine the attributes that should be considered. A firm should

focus on the attributes that it finds most important. These matrices should be Measurable, Actionable, Trackable over time, Maintained and updated regularly, Tied to business goals. Some attributes are easy to measure while others are not, however some relationship may be established with subjective judgement. Measuring suppliers is a process of combining different measurements of “quality” into one single measurement of overall performance by assigning “weighted” values to each key element (or **KPI**) performed by the supplier and calculating a weighted score that can be used to track the supplier’s performance.

Some of the attributes are opportunities to improve the supply chain, to reduce stock on hand, speed up deliveries, respond more effectively to queries; opportunities to enhance tangible goods by providing a rich supply of intangible, knowledge-based supplements that might have strong customer appeal; and opportunities to create a uniqueness in the supply arrangement, to differentiate the products and services, through some distinctive combination, that allows your company to enjoy a competitive advantage in the markets you serve. Some of the metrics that can be considered and opportunities to enhance the range of products and services being offered by the Supplier are:



Core Offerings:

Product Quality: Opportunities to Improve Performance - quality level, service level, correct quantity; Reliability, Consistency. Some types of Quality Metrics are used to measure performance. **Quality metrics** are a key component of an effective **quality** management plan and are the measurements used in ensuring customers receive acceptable products or deliverables. **Quality metrics** are used to directly translate customer needs into acceptable performance measures in both products and processes.

Delivery Performance: Delivery performance can be defined as the level up to which products and services

supplied by an organization meet the customer expectation. It provides an indication of the potentiality of the supply chain in providing products and services to the customer. Examples: Delivery On Time, In Full (OTIF), Flexibility, Accuracy

Direct Product Cost: A **direct cost** is a price that can be completely attributed to the production of specific goods or services. Opportunities to improve the cost per unit of goods provided, to improve the terms of trading, to improve cash flows etc which may result in Reduction in Purchasing Price & Continuous Efforts to Reduce Cost.

Sourcing Process : A sourcing process is used to select the best product or service for a certain category of expenditure. Lots of these processes are resulting in of large saving opportunities, delivery of quality products, or favorable terms, generating value to the business by securing that all goods and services are sourced professionally.

Finding good suppliers and maintaining solid relations with them can be an invaluable tool in the quest for business success and expansion and in turn developing sustainable competitive advantage. In fact, a business can only be as good as are the suppliers with whom it works.

Building strong and long term partnerships with key suppliers ensures continuous improvement and increase the mutual dialogue, in alignment with the organizational strategy by building an effective Sourcing Network. Some of the Supporting Aspects of suppliers are :

Sourcing Support in terms of Technical support, Product Specifications, Service Quality, Responsiveness, Accuracy of Information etc.

Personal Information: Cordial Working Relations with the suppliers, Problem Solving, Openness proves to be intangible support for competitiveness.

Supply Acquisition Costs include all costs associated with supplier sourcing, contract tendering, negotiations and finalization, preparing and tracking the purchase orders from various suppliers, etc. Standardization of these processes enhance value proposition.

Some of the Cost Factors are : Inventory Costs, Order Handling Costs, Product Inspection Costs. Evaluation of Inventory consideration is dependent somewhat on the supplier’s business - inventory accessibility, avoid stock-outs are factors to look into.

Logistics / Location Support—Supplier capabilities in this area include transportation capacity, sourcing capabilities, and ‘just-in-time’ performance.

Reductions in total product cost, either through

streamlining of work processes (inventory management, new product design, scheduling, etc.) or replacement of costly components with less expensive—but still effective—ones prove to reduce cost substantially.

Supplier Competitiveness : Suppliers can be an important source of information on ways in which both small and large businesses can improve performance and productivity.

Supplier Involvement: Supplier involvement can help buyers compete in the marketplace in many ways – Improvement of products through contributions to product design, technology, or ideas for producing new products. In most such instances, suppliers help buyers by pointing out ways in which designs can be improved or more desirable materials can be used.

Early Involvement in NPD (New Product Design) proves to be very beneficial for the company. Suppliers are often sources of suggestions that allow buyers to hold consistent tolerances in production.

Suppliers are also good source of Supply Market Knowhow, Finished Goods Market Information, Competitors Strategic Approaches etc. Suppliers with extensive knowledge of market conditions and mastery of contemporary issues impacting your business can be immensely valuable in helping companies chart a course to sustained competitive success. Suppliers Experience is one more asset for developing Company's Competitive Advantage.

Ability to Provide Technical Assistance—Suppliers with

top research and development capacities can be quite valuable to buyers, providing them with significant savings in both price and quality. **Buyer-seller alliances unleash a capacity for innovation that far outweighs the short-term cost savings offered by arm's-length competitive bidding.**

Time to Market : Improvements in “speed to market” - Businesses’ strategies are predicated on schedules, which in turn are based on Accelerating Design Work, Fast Proto Typing, Fast Testing & Validating, receiving shipments at agreed-upon times etc are most significant contributions to competitive gains to the company.

Operations Costs : Purchasers need to know a great deal more about suppliers’ capabilities, otherwise that prove to be costly with non-delivery or wrong delivery. The supplier’s capacity for production should be considered, including its ability to integrate design and manufacturing functions, its approach to design changes, and its measurement features.

Proper assessing and managing these also lead to Product Cost Reductions, Manufacturing Costs, Tooling & Warranty Costs. These ultimately translate into Improvements in customer satisfaction and competitive advantage.

Since there are innumerable benefits resulting into competitive advantage, Supplier Value Mapping exercise need to be undertaken which provide meaningful inputs into a structured process of methodical assessment of value propositions and innovations for improvements and mutual benefits.

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COMMODITY INDEX

Commodities	Days's Index	Prev. Index	Week Ago	Month Ago
Index	2841.4	2834.6	2818.7	2865.2
Bullion	5918.1	5868.4	5786.4	5809.2
Cement	2431.1	2431.1	2364.7	2364.7
Chemicals	1827.9	1827.9	1827.9	1918.7
Edible Oil	1953.0	1968.0	2045.9	2079.3
Foodgrains	2498.4	2501.0	2480.8	2534.0
Fuel	2581.9	2581.9	2587.1	2715.3
Indl Metals	1918.9	1918.9	1918.9	1918.9
Other Agricom	2262.9	2262.9	2262.8	2315.2
Plastics	1731.3	1731.3	1731.3	1731.3

Source: ETIG Database dated 20th February, 2020



PRODUCT RECALLS AND ITS IMPLICATIONS ON SCM

DR.C.SENGOTTUVELU, CPM(ISM-USA)

PROFESSOR, DEPT. OF PG MANAGEMENT STUDIES

ACHARYA BANGALORE B-SCHOOL, BENGALURU

sengottuvelu138@gmail.com

Abstract : This paper emphasises the importance of product return / recalls. SCOR model was taken along with its process components such as plan, source, make, deliver and return / recall. The scope of earth component is also highlighted. In this paper, the last and important component product recall has been taken for discussion. Secondary data were considered for analysis. Three important product verticals like household- kitchenware item, automobile recalls and packaged food products were considered. Most important product recalls by IKEA, General Motors, Toyota Motors, Honda Motors & Ford Motors and Nestle companies and its implications on their business performance were emphasised. Most important implications are financial losses, brand equity / degradation, short-term & long-term effects, pre and post-recall effects, stock value erosion and opinion of shareholders are highlighted. The causes and effects of product recalls, and remedial action are also discussed.

Keywords: Product recall, SCOR model, business results, supply chain challenges.

Introduction : The Supply Chain Operations Reference (SCOR) model is unique in that it links business processes, performance metrics, practices and people skills into a unified structure. It is hierarchical in nature, interactive and interlinked (www.apics.org). Figure 1 depicts SCOR Model. SCOR is based 5 distinctive management process components. The process components includes: plan, source, make, deliver and return. SCOR is a process reference model that provide a language for communicating among supply chain partners. SCOR contains 3 levels of process details. viz i. Top Level (Process Types), ii. Configuration Level (Process categories and iii. Process Element Level (Decompose Processes). Each basic supply chain is 'Chain of Source, Make, Deliver and Return execution process.

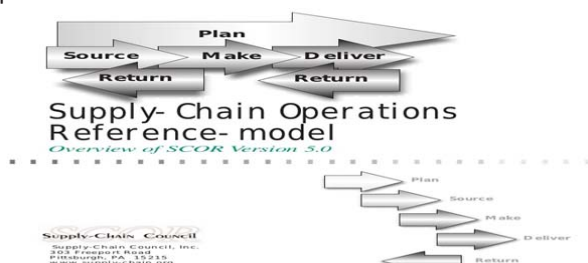


Figure 1 SCOR Model

Table 1 Scope of SCOR Processes

Process Components	Scope
Plan	Demand / Supply Planning and Management.
Source	Sourcing Stocked, Make-to-Order and Engineer – to- Order product.
Make	Make-to-Stock, Make-to- Order, and Engineer- to- Order production execution.
Deliver	Order, warehouse, Transportation and Installation management for stocked, Make-to-order and Engineer-to- Order product.
Return / Recall	Return of Raw Materials (to supplier), and Receipt of Return of finished goods(from customer) including defective products, MRO products and Excess products.

Table 1 describes the scope of SCOR Processes.

The process component 'Product Return/ Recall has been taken for analysis. The meaning of product recalls, types of recalls, case studies, and business implications are discussed. Three case studies including household item, food product and automobile cars are taken for discussion.

Meaning of Product Recall : A product is the process of retrieving and replacing defective goods for consumers. When a company issues a recall, the company or manufacturer absorbs the cost of replacing and fixing defective product. For big companies, the costs of repairing faulty merchandize can accumulate to multi-billion dollar losses. Product recalls, generally affects the cash flow and brand recognition- generally cannot sustain the financial losses and brand degradation associated with a product recall (NADA, 2019).

Types of Product Recall : Product recalls are classified into three important types: They are i. Voluntary recall, ii. Involuntary recall and iii. After investigation of Regulator / Agency (NHTSA, FSSAI etc).

- Voluntary Recall / Proactive Recall: Includes recalling products for wrong colour painting, plating etc which are minor in nature. This recall will have least/ lowest financial impact to company's business results. Example: Travel mugs by IKEA.

- ii. Involuntary Recall: As a result of an agency (NHTSA in USA). The agency after their investigation will file a lawsuit to drive the product recall. Example: Automobile cars recall by GM, Honda Motors, Toyota Motors, and Ford Motors etc.
- iii. After Investigation of Agency, commencing the product. This results huge fine / loss on the OEM. Example: MAGGI Two Minutes Noodle by Nestle

Now, let us examine three case studies covering household item, automobile cars and packaged food product.

Case Study: Travel mugs (TROLIGTVIS) by IKEA : IKEA has recalled millions of its 'Make in India' – Troligtvis travel mugs from 400 stores across the world. The company said that it has recalled the product due to excessive levels of chemicals. It is a proactive initiative for the safety of its customers. Product safety is one of the biggest priority for IKEA. IKEA urges all customers who have a Troligtvis travel mug marked 'Made in India' to stop using it. The company also said that customers who bought the travel mugs online get a full refund @ Rs. 129 per mug and those who bought from stores can return it and get a full refund.

Case Study: Automobile Cars by OEMs : Recently, car manufacturers Toyota Motors(TM), General Motors (GM), Honda Motors (HM), and Ford Motors have suffered the embarrassing consequence of product recalls.

Toyota recent stream of gas pedal recalls resulted in a \$ 2 billion loss consisting of repair expenses and lost sale. In conjunction with the financial crisis, Toyota's stock prices dropped more than 20% or \$ 35 billion (event based performance). Both Honda and Toyota have both issued recall over three different Airbags (Takata Airbags) affecting more than 6 lakh vehicles worldwide. In Canada alone, the recalls affect more than 7 lakh cars. The affected models are Acura CL, Acura EL, Acura TL, Acura MDx, Honda Accord, Honda Civic, CR-Vs and Honda Odyssey models from 1997 to 2003 (Voluntary Recall).

Meanwhile, Toyota has also issued two separate recalls of its own. The first one involves Takata Airbags and the second recall also related to Airbags issue. More than 4.24 lakh vehicles are involved in Canada. Collision Repair Magazine reported that United States regulator have been investigating this particular issue , as reports claim that as many as eight people have died when their airbags failed to inflate. Ford Motors is recalling a total of about 50,000 vehicles in Canada due to electrical issue. Ford also recalled the same vehicles in the United States for switch issues.

General Motors has issued recall during 2016 for more than 4 lakh cars. The company has also spent more than \$300 million against the subject product recalls. The company also disbursed millions towards the insurance claims for death / major injuries (Sengottuvelu, 2015).

Case Study: MAGGI 2 Minutes Noodle by Nestle : Food Safety & Standards Authority of India (FSSAI) asked Nestle to recall Maggi noodles as the Maggi sample contained high level of lead and monosodium glutamate (MSG) beyond its prescribed limits. Quality issue

started span out of control. Finally, Nestle left with little choice but to recall the popular noodles from the market. The Executive Vice President (Supply Chain), at Nestle India, to lead the recall process. The team collected 38,000 tons of Maggi noodles from retail stores and destroyed them by first crushing the noodles and then mixing them with fuel and burning in incinerators at 11 cement plants across the country (worth of \$50 millions) . The entire recall process is huge and complex. All their plants were closed for 6 months, suppliers keeping large volume of Work-in-Process Inventory (Maida etc) could not be used. More number of people become jobless in their plants as well as their supply side. Huge loss to the Nestle in terms of business & profit loss, decline in market share, degradation of brand value and shift in customers loyalty.

Implications on Business Results : The financial and reputation impact of a product recall are numerous. Many small companies have declared bankruptcy as a result of defective merchandise. Product recalls can also affect the shareholders' confidence to greater extent.

The effects of a product recall may be determined in the short run, but there is no evidence to support long-lasting decreases in sales or stock prices. The settlement claims and lawsuits may cost millions or sometimes billions. Global supply chain brings more challenges like complying with regulations in the country in which it is sold.

As a result of consumer protection laws, manufacturers and supplier must bear the costs of a product recall. Though insurance may cover minimal amount to replace defective products, a majority of product recalls result in lawsuits. Between sales loss and profit loss, replacement costs, government regulations and law related matters, a significant can become a multi- billion dollar ordeal. All recalls have a key pre and post-event consequences consisting of consumer opinion of a brand's quality (encompassing both reliability and safety) before and after recall (Heechang, Richardson & Oredola, 2010).

Researchers estimated that Toyota's market share was reduced by 0.007% each time the media covered the automobiles recalls in the past (YouTube). Firm generated information & user generated information and information overloading are affecting brand equity. In the case of food products, Twitter plays important role. In the case of electronic goods / house hold items, Facebook plays important role in brand building and purchase.

Tracking the products that are already available with customers place is a huge task and complex in nature. Getting the products back is not that easy due to non-availability of data base. People related issues can add further fuel to the problem. i.e production stoppages, underutilization of installed capacity, pile up of inventory etc. Compliance to the laws of the country, where the products are sold. This further brings logistical challenges to OEMs.

Conclusion : Product recalls, generally affects the cash flow and brand equity. Small firms can sustain the financial losses and brand degradation associated with

a product recall. Most of product recalls are related to poor design, wrong material usage, not compliance to standards / specifications, wrong process including under processing or over processing. So, it is connected to quality of the final product. It is found that total quality cost consisting of appraisal costs, prevention costs, failure costs including internal failure and external failure. Total quality cost amounts to 100%, out of which appraisal costs constitutes 15 -20%, prevention costs 25 – 30% and failure costs works out to 50-60%. Therefore, it is important that OEMs should move from 'fire fighting' to total quality management approach (prevention in quality management). All entities in the supply chain should focus on total quality management principles.

References

1. Heechang Shin, Robert Richardson & Oredola (2012). Analytic Framework for Assessing Automobile Sales Loss from Recalls: Toyota Case Study, Hagon School of Business, Iona College.
2. Sengottuvelu, C (2015). A Study on Automobile Recalls and Its impact on Supply Chains. ARC 2015-III International Conference on Applied Research in Business, Management, Economics and Finance-Colombo, Sri Lanka.
3. The impact of vehicle recalls on the Automobile Market: At a Glance. NADA Used car Guide, 2019.
4. Retrieved from www.apics.org on 02th February, 2020.



5 EASY WAYS COMPANIES CAN BOOST THEIR CSR IN 2020

KIANA MONTGOMERY

A new year, a new decade. In 2020, involved consumers are focused on reaching their personal, health, and professional goals. Similarly, while they do so, more and more of them are aligning with companies or brands that prioritize corporate social responsibility (CSR). Nearly 90 percent of Americans will purchase from a company because it advocated for an issue they care about, according to a study. In addition, 76 percent will refuse to buy a company's products or services if they learn the company supported an issue contrary to their beliefs.

As your business does some first-of-the-year reflecting, it's important to ensure that its brand model reflects issues important to you and your audience. Company goals must consider more than economic metrics, they must also benefit stakeholders and the public. Here are five ways to do so.

Volunteer: Companies are seeing benefits in offering volunteer days to their employees. This not only builds camaraderie within the company, it also spreads your company's visibility among the supporters of the charity. TransUnion, for example, provides employees with a Volunteer Time Off day each year and matches donations up to \$2,000 each for a cause close to their associates.

Invest in Social and Environmental Initiatives : Companies can support local and national organizations by donating directly or holding events in honor of a cause. You can also use your voice to help educate your audience on the issue and ways they can help. Some organizations encourage employees to donate a portion of their paycheck to particular causes in education, income, and health.

Practice Ethical Labor : The job market change constantly. Potential job applicants and current employees are looking for companies that practice what they preach in and out of the office. To ensure that your company attracts the best talent and maintains high

morale, find opportunities to improve brand confidence. Offer competitive perks, provide a comfortable workspace, and look for ways to engage employees. Netflix provides employees with 52 weeks of paid parental leave. In addition, team members are able to take advantage of this perk at any point during their new child's life.

Promote Philanthropy : Establish an in-house mission to create change. Form a social responsibility team and encourage it to lead your company in giving back to the community. For instance, Patagonia works in multiple ways to inspire its team members to give back. In addition, it partners with companies to bolster economic and environmental change.

Be Environmentally Conscious : Increasingly consumers are looking for ways to lessen their environmental impact. In many cases, they are supporting brands and businesses that are doing the same. With 30+ years of working to reduce its environmental impact on the planet, Johnson & Johnson looks to produce 35 percent of its energy from renewable sources through the purchase of private energy suppliers and other initiatives.

Carbon Footprint Tips : Businesses can make seamless changes within their structures to reduce their carbon footprint. A slew of companies are doing so. The airlines and Microsoft, for example. Ways your business can make a difference include: increasing recycling, decreasing energy and water use, enhancing waste management practices by going paperless, composting, eliminating bottled water, reducing plastic, and embracing eco-friendly travel policies. These policies include flying nonstop to reduce emissions, taking public transportation, carpooling, offering benefits for hybrid cars and staying at green hotels.

(Source: <https://www.prnewsonline.com/csr-2020-examples/>)



BUDGET 2020: WHAT DOES IT MEAN FOR TRANSPORTATION & LOGISTICS?

The budget allocated Rs 1.7 lakh crore for the transportation sector in 2020-21, Rs 19.6 lakh crore for roads, Rs 13.69 lakh crore for railways, Rs 1.43 lakh crore for airports and Rs 1.01 lakh crore for ports.

February 3, 2020: Finance minister Nirmala Sitharaman delivered her Union Budget 2020-21 speech on February 1 which received a negative response from investors as nations both equity benchmarks BSE and Nifty crashed over 2.5 percent. While BSE crashed around 1,100 points, Nifty went down the crucial 11,650 mark.

Budget 2020 for logistics in capsule : The budget allocated Rs 1.7 lakh crore for the transportation sector in 2020-21, Rs 19.6 lakh crore for roads, Rs 13.69 lakh crore for railways, Rs 1.43 lakh crore for airports and Rs 1.01 lakh crore for ports, promised 100 new airports by 2024, flight & railway cold chain for farmers to transport perishables, electrification of 27,000 railway tracks, more private trains to tourist destinations, corporatization and listing of at least one port, completion of National Waterway- 1 and announced the launch e-logistics market.

“This year’s budget has come with a number of positive updates for the logistics and transport sector. A fund allocation of INR 1.7 lakh crores for transport and infrastructure including railway infrastructure enhancement, and investments in warehousing and logistics, is a constructive step that will help boost growth across industry-verticals including manufacturing and help improve last-mile delivery, especially in rural geographies. We are hopeful that the port infrastructure will also get the much-needed improvement to bring them to a level where they are competitive in the global scenario,” said Steve Felder, managing director, Maersk South Asia.

Rizwan Soomar, MD & CEO, DP World Subcontinent said “The government’s efforts on encouraging more modes of transport such as rail and Inland Waterways will help bring down the cost of logistics, making Indian goods competitive globally. We welcome the FM’s decision to set up Kisan Rail for transportation of perishable goods in special reefer containers, through the PPP model. This will further increase the share of railways in the multi-modal transport mix, which is skewed towards

road, at present.”

Prime Minister’s review : Prime Minister Narendra Modi in a video message after the budget said “Modern infrastructure is crucial for modern India. The infrastructure sector is also a large employment generator. The 65 hundred projects at a cost of 100 lakh crore rupees will increase employment opportunities on a massive scale. The National Logistics Policy will also benefit the three sectors of trade, business and employment. The target of developing 100 airports in the country will give a new height to the flying experience of ordinary citizens, and a new impetus to India’s tourism sector. We will boost the youth energy through start-ups and project development in the field of infrastructure.”

“New arrangements will be made through Kisan Rail and Krishi Udaan schemes so that the farmers can easily market and transport their products. I believe that this budget will increase income, investment, Demand and Consumption, as well as will reinvigorate the Financial System and Credit Flow. This budget will meet the current needs of the country as well as the future expectations in this decade,” he added.

Logistics Policy : Though the much waited Logistics Policy wasn’t released along with the budget as expected, finance minister promised that it will be released soon and will have clear distinction about the regulatory roles of state and the central governments.

“A National Logistics Policy will be released soon. It will clarify the roles of the Union Government, State Governments and key regulators. It will create a single-window e-logistics market and focus on the generation of employment, skills and making MSMEs competitive,” said Nirmala Sitharaman.

Road Transport : The budget has earmarked Rs 19.6 lakh crore to build and improve roads across the country. Finance minister promised a fast-tracked development of 2500 kilometres of controlled-access highways, 9,000 economic corridors.

“Prime Minister had highlighted that Rs 100 lakh crore would be invested on infrastructure over the next 5 years. As a follow-up measure, I had launched the National Infrastructure Pipeline on December 31, 2019,

of Rs 103 lakh crore. I propose to provide about Rs 1.70 lakh crore for transport Infrastructure in 2020-21," the minister noted.

"Accelerated development of highways will be undertaken. This will include the development of 2,500 kilometres access control highways, 9,000 kilometres of economic corridors, 2,000 kilometres of coastal and land port roads and 2,000 kilometres of strategic highways. Delhi-Mumbai Expressway and two other packages would be completed by 2023. Chennai-Bengaluru Expressway would also be started," she added.

Rajesh Neelakanta, ED & CEO of BVC Logistics said "The focus on logistics through the development of 9,000 kilometres of economic corridors is a welcome move. It will encourage economic transformation and seek to improve connectivity that is much needed for the growing economy. We look forward to the National Logistics Policy which will clarify the roles of the Union Government, State Governments and key regulators. We are keen to know about the e-logistics market as mentioned by FM. It will be interesting to see the thrust on agri-warehousing and proposal of running Self Help Groups (SHG) in the villages to reduce logistics costs. We are hoping that the local economy will revive through the SHG. The initiative to invest 100 lakh crores in infrastructure will definitely have a positive impact on the nation's logistics and transportation industry both from a business and connectivity perspective."

Air transport : The 2020-21 budget of India has separated Rs 3797 crore to civil aviation with a particular focus on improving regional connectivity by building 100 new airports and formulating a cold chain for farmer produce.

"Air traffic has been growing rapidly in the country as compared to the global average. One hundred more airports would be developed by 2024 to support Udaan scheme. It is expected that the air fleet number shall go up from the present 600 to 1200 during this time," said the finance minister.

"KrishiUdaan will be launched by the Ministry of Civil Aviation on international and national routes. This will immensely help improve value realisation especially in North-East and tribal districts," she added.

Railways : Rs 13.69 lakh crore has been allocated for railways with focus on electrification of 27,000 railway tracks, building cold chain on the rail, more private trains and solar power capacity to be set up alongside rail tracks.

"To build a seamless national cold supply chain for perishables, inclusive of milk, meat and fish, the Indian Railways will set up a "Kisan Rail" - through PPP

arrangements. There shall be refrigerated coaches in Express and Freight trains as well," says finance minister.

"More Tejas type trains will connect iconic tourist destinations. High-speed train between Mumbai to Ahmedabad would be actively pursued. 148 kilometres long Bengaluru Suburban transport project at a cost of 18600 crore, would have fares on the metro model. Central Government would provide 20 percent of equity and facilitate external assistance up to 60 percent of the project cost," she added.

Seaports : The budget allocated Rs 1.01 lakh crore for seaports along the Indian coasts. The central government wants to make a framework keeping with global benchmarks needed for more efficient sea-ports.

"Our sea-ports need to be more efficient. Technology has to be used to improve performance. A governance framework keeping with global benchmarks needs to be put in place. This government would consider corporatizing at least one major port and subsequently its listing on the stock exchanges," said Nirmala.

Inland Waterways : Inland Waterways has found a space in the budget, due to the central government's push for freight to move through waterways.

"Inland Waterways received a boost in the last five years. The Jal Vikas Marg on National Waterway-1 will be completed. Further, the 890 kilometres Dhubri-Sadiya connectivity will be done by 2022," she said.

Felder said, "The government aims to complete the National Waterway-1 in this year to effectively leverage inland waterways for freight transportation which is welcome news for domestic hinterland trade especially for refrigerated agro-commodities."

Warehouses at block/taluk level : With a focus on perishables, the budget envisions to build warehouses at block and taluk level and improve warehousing efficiency.

"India has an estimated capacity of 162 million MT of agri-warehousing, cold storage, reefer van facilities etc. NABARD will undertake an exercise to map and geo-tag them. In addition, we propose creating warehousing, in line with the Warehouse Development and Regulatory Authority (WDRA) norms. Our government will provide Viability Gap Funding for setting up such efficient warehouses at the block/taluk level. This can be achieved, where States can facilitate land and are on a PPP model. Food Corporation of India (FCI) and Central Warehousing Corporation (CWC) shall undertake such warehouse building on their land too," said Nirmala Sitharaman.

Source: <https://www.itln.in/>

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VUCA - VOLATILITY UNCERTAINTY COMPLEXITY AMBIGUITY THE BASICS OF DYNAMIC GLOBAL MINDSET

CHIRAG KALARIA, PROCUREMENT PROFESSIONAL - AMUL INDIA

chiragkalaria@live.com

"Glorious Past is no longer any guarantee for Future Success. A new world is demanding Agility, Speed of Response, Innovation with calculated risk and Adaptability in any system."



Introduction : Throughout the past decades, we find numerous terms in the popular business and social world that refer to an increasing inability to grasp the world and deal with the things happening around us. Examples include uncertainty, turbulence, rapid change, dynamism, disruption, complexity, hyper-competition, high-velocity markets and flux. For a couple of years, the notion of "VUCA" is gaining popularity as a term to cover the various dimensions of this 'uncontrollable' environment. Do you aware what the VUCA means?

History of VUCA : VUCA is an acronym – first used in 1987, to describe or to reflect on the accelerating rate of change (volatility), the lack of predictability (uncertainty), the interconnectedness, of cause-and-effect forces (complexity) and the strong potential for misreads (ambiguity) of general conditions and situations. Thereafter, VUCA was coined by the U.S. Army in the 1990s to describe the post-Cold War world.

The deeper meaning of each element of VUCA helps to foresee the behaviour of groups or individuals in organizations. It explains systemic failures and behavioural failures, which are characteristic of organisational failure.

- V = Volatility reflects the nature and dynamics of change, the speed and turbulence of change.
- U = Uncertainty means the lack of predictability, the prospects for surprise, and the sense of awareness and understanding of issues and events.
- C = Complexity indicates the multiplex of forces and vastness of interdependencies in globally connected economies and societies.
- A = Ambiguity conveys the multitude of options and potential outcomes resulting from them.

The idea of VUCA has since been embraced by leaders in all sectors of society to describe the nature of the world in which they operate. The particular meaning and relevance of VUCA often relate to how people view

the conditions under which they make decisions, plan forward, manage risks, foster change and solve problems. In general, the premises of VUCA tend to shape an organization's capacity to:

1. Anticipate the Issues that Shape
2. Understand the Consequences of Issues and Actions
3. Appreciate the Interdependence of Variables
4. Prepare for Alternative Realities and Challenges
5. Interpret and Address Relevant Opportunities

For most organizations – a business, the military, education, government and others – VUCA is a practical code for awareness and readiness. Beyond the simple acronym is a body of knowledge that deals with learning models for VUCA preparedness, anticipation, evolution and intervention.

However, VUCA types of factors are not new. They have always been integral to scenario planning and in PESTLE analysis (Political, Economic, Social, Technological, Legal and Environmental) of the external environment in issue management.

Volatility : Volatility is the "V" component of VUCA. It refers to the speed of the change in an industry, market or the world. It is associated with fluctuations in demand and turbulence in the market. The more volatile the world is, the more and faster things change. Everybody is aware of the same, but the question is what leads to such volatility in the demand even though markets/buyers/people/socio-economic conditions are almost same which were there while such marketing plan/production plan/social plan designed by an organization/company/society or Government?

It is due to the tendency of human which acts differently in different situations. People respond differently to different social or environmental situations. The same way people perceive such acts differently and respond differently which generates Volatility. The dynamics can change due to any shift in a situation, whether it is social, technical, biological or anything of the like.

Let's understand Volatility at the personal level. So, what does volatility look like in your life? I am giving my real-life example. I went to work with a well-thought-out list of ten things which I had to accomplish. The emails and phone calls I received prior finishing my first cup of tea that morning were so urgent and so unconnected, yet influential on each other, that I struggled to find five minutes to eat "lunch" and had to seat late night in the office. When I left my office near 09.00 pm, I had accomplished no tasks accomplished from the list I made and accumulated 5 additional ones. Volatility can leave us feeling

overwhelmed, alone, and utterly unprepared to lead effectively. In today's economy, that makes your volatility as severe as mine.

Characteristics : Relatively unstable change. The challenge is unexpected and may be of unknown duration, but it is not necessarily hard to understand; knowledge about it is often available.

Business example : Prices fluctuate after a natural disaster, such as when a fire, high water tide or drought affect the entire supply chain.

Business approach : Conduct risk analysis, build in spare capacity and allocate resources to preparedness – for instance, stockpile inventory or overbuy talent. These steps are typically costly and therefore management should only commit where the cost is justified by the downside.

Uncertainty : Uncertainty is the “U” component of VUCA. Uncertainty is a grey area when the availability or predictability of information in events is unknown. Uncertainty often occurs in volatile environments that are complex in structure involving unanticipated interactions that are significant in uncertainty. It happens when people don't have clear information and their predictions are based on assumptions and opinions. It is also known as social categorization and it may be for gender (A Nurse always assumed as female and not male) and race (A Basketball player assumed to be black and golf player assumed to be white due origination and popularity of the particular game in particular region/race). But, in reality, is not the case, it is just a lack of proper information which leads to assumption and its outcome is uncertain.

Such uncertainty hinders our ability to conceptualize the threats and challenges facing the organizations we lead. A typical mistake during uncertainty is we thought we had a lot more time than we actually have and mitigation plan fails due to the same.

It is human nature to see every challenge as something similar to what we've encountered before. That's how our brains work and for good reason; if we had to assess every situation as the novel we wouldn't be as efficient as we need to be. However, relying too heavily on them might lead to the faulty assumption that yesterday's solution to a seemingly similar challenge today is appropriate.

Characteristics : Lack of knowledge. Nevertheless, the situation's basic cause and effect are known.

Business example : A competitor's expected product launch can change the future of the business and the market.

Business approach : Increase business intelligence activities. Collect, interpret and share relevant information. Engage in serious boundary-spanning collaboration.

Complexity : Complexity is the “C” component of VUCA **framework** that refers to the number of factors that needs to take into account, their variety and the relationships between them. The more factors, the greater their variety and the more they are interconnected, the more complex an environment is.

Under high complexity, it is impossible to fully analyse the environment and come to rational conclusions. The more complex the world is, the harder it is to analyse.

Complexity refers to the conditions which demand a perspective to analyse the situation as a whole and beyond the viewing threats and opportunities as a collectively and interactively. It required joint efforts of entire organizational infrastructure and outside environment to get the desired outcomes. In complex environments, actions and results are interlinked and affect each other that required a detailed action plan and work allocation. It is like Rubik's cube, wherein if you focus on a single colour and single side to match all yellow colours squares on one side, you cannot solve the same forever. One has to see all aspects and dimensions at the same time to solve the same.

Complexity can leave us frustrated, feeling solely responsible for success or failure, while at the same time feeling alive in the critical moment.

Characteristics : Complexity variables are the easiest of the 4 factors to understand, but managers or leaders can't know what they don't know, which compounds the complexity of the situation. Managers may know the likely outcomes but not the unintended consequences of complexity factors. For instance, writing a new computer code may open up the further complexity of unforeseen security risks. Some information is available or can be predicted, but the volume or nature of it can be overwhelming.

Business example : The company operates in many countries, each of which has its own regulatory environment, tariffs and cultural values.

Business approach : Restructure, bring in or develop specialists and increase resources adequate to address the complexity.

Ambiguity : A lack of clarity to interpret something is called Ambiguity. A piece of incomplete information which sounds contradicting or too inaccurate to draw clear conclusions leads to an ambiguous situation. It is also called as vagueness in ideas. The more ambiguous the world is, the harder it is to interpret.

Ambiguity is the “A” component of VUCA. Ambiguity is different than Uncertainty, however many people cannot differentiate both clearly. Uncertainty is when relevant information is unavailable and unknown, and ambiguity where relevant information is available but the overall meaning is still unknown.

Ambiguity provokes one to assume answers based on available information and complete the link. For example, unless a person is open about their own sexual orientation, people will automatically assume that they are heterosexual. But if a man possesses feminine qualities or a female possesses masculine qualities then they might be portrayed as either gay or lesbian. Ambiguity leads to the categorization of people without further important details that could lead to untrue conclusions. Ambiguity cannot diagnose from a single perspective and cause inability to accurately conceptualize threats and opportunities before they become lethal.

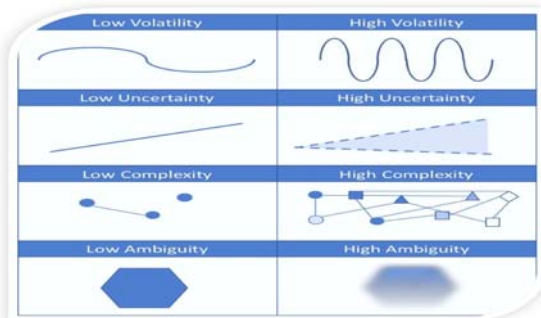
Leaders must provide clarity so that work assignments and goals are not as ambiguous as the environment. Ambiguity doesn't paralyze workers; it makes them insecure and stirs them up. Competent employees, when faced with ambiguity, will do what they are most comfortable doing in order to feel as if they are contributing something appropriate. Doing something, whether it's helpful or not, makes us feel good. A leader must provide clear direction and synchronize the efforts of others while continually communicating any adjustments. On a positive note, ambiguity boosts learning opportunities and employees become more vigilant, active and efficient.

Characteristics : Causal relationships are completely unclear. No precedents exist; management faces "unknown unknowns."

Business example : The company decides to move into developing markets or to launch new types of products that are outside its previous experience.

Business approach : Companies need to be prepared to take on risk, perhaps initially in trial markets, to evaluate outcomes. Lessons learnt can be applied progressively over time to other markets.

All 4 elements details : We have understood all 4 terms individually along with what measures are required in the individual condition. But, the division in the individual element is just for the sake of understanding the concept. In practice, the four terms are inter-related and shall be considered and applied at the same time. The more complex and volatile an industry is, the harder to predict and therefore more uncertain it will be that creates more ambiguity. Yet, all four represent distinct elements that make our environment - the world, a market, an industry – which is difficult to understand and to deal with. The distinct nature of these four elements can be further clarified by visualizing them:



Although the leadership challenges in an increasingly VUCA world are significant, they're not impossible to achieve for those who are willing to look beyond old thinking and approaches. Here's some pragmatic guidance to craft a strategy:

VUCA doesn't mean that everything is unpredictable. Following are the major predictions in the VUCA world to be taken care of by all leaders.

- **Urban concentrations:** Population concentration in the cities is the trend of the last century and the same will continue to increase in this century as well. Developing world's big cities are growing at a very fast pace whereas the developed world's largest cities are already developed and no more

scope of development. Hence, by mid of the century, most of the top 10 mega-cities in the world will be in the developing world. With urbanization generally come longer life expectancies, lower birth rates, and greater economic prospects.

- **Climate changes:** While the debate continues over the exact timing and consequences of climate change, but the truth is human activity has already started altering the climate. We are already witnessing rising sea levels, extreme weather conditions and natural calamities, raining and water resources are depleting and agricultural production will be less reliable.
- **Demographic shifts:** Globally, the North and West are getting older, and the greatest concentrations of youth will be in the South and East. Tensions are likely to rise as the bulk of economic wealth and opportunity remain beyond the reach of many people.
- **Technology advances:** 21st Century is indeed the era of Technology and with the inventions of Artificial Intelligence (AI), Internet of Things (IoT), Industry 4.0, Smart Factories, we will be ever-more connected by devices that are smaller, faster, and less expensive. Hence this era would be surely of Technology disruption.

Conclusion : Thus, we live in a VUCA world wherein Business has a very challenging landscape wherein

- 1) Technology is changing at a pace which was there never before i.e. Rise of Android OS fails the Cell phone giant Nokia who stitches to Symbian OS and later on shifted to Window OS, but measurably failed. Rise of AI, IoT and Industry 4.0 has changed all rules of the games.
- 2) Redefining Business models i.e. AirBNB is the largest hotel providing company without owning any property and Uber is the largest taxi provider without owning a single taxi at a global level. Such out of box ideas and their implementation may help to stand your company growing in this VUCA world.
- 3) Change in the perspective to measure the value of the product i.e. Customer's conscience has been shifted from cost-effective value for money family cars to luxurious premium sedans and SUVs.
- 4) Cutting Edge innovation: More and more players are coming with innovative technology and solutions by changing the complete span and horizons of the particular sector. The automotive sector has never thought of the launch of "Cybertruck" by Elon Musk's Tesla which has started a very new competition of innovation with a premium tag.

VUCA can be conquered with VUCA only. Confused?

Volatility, Uncertainty, Complexity and Ambiguity can be conquered with Vision, Understanding, Courage and Adaptability.

What's your VUCA (Vision, Understanding, Courage and Adaptability) to conquer the VUCA world?

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THE STORY OF CASH LOGISTICS:

P.VISWANATHAN, N.C. MEMBER OF IIMM BANGALORE BRANCH
vid_shy@yahoo.com

Cash management and logistic planning, that is required during the day is to be planned, and is to ensure is in clockwise precision, that cash is available during the requirement, and thus working in an creative, secretive guarded environment, and cash management has always remained in the back ground even though sufficient cash may not be available during the period of stringent measures.

The secrecy of management of cash is that it should have sufficient requirement, of cash available during any time of emergency.

The transportation of cash is mainly divided into different requirements. The first requirement is that cash is transported from mints, where currency, is printed by the Reserve Bank of India, offices, and chests, of the banks situated in different cities. A tier I city is normally have around 15-30 chests. The cash logistics have companies to transport these chests in phases, as these trucks carry full cash, and they are normally guarded by the Central and State security as they move around the country. It is so happens the secrecy is kept to the maximum as that the driver of the logistic vehicle will not be able to know the contents of the vehicle, much of the secrecy is kept on the movement of the vehicle.

In the second phase that are in second and third parts, in which private logistics companies are engaged to move cash-transit it is that chests are shifted to bank branches, and bank replenishment that is the bank branches to Automatic Teller Machines. For cash-in-transit, the logistic company conveying cash rents out armored cars, along with the drivers, handlers, and security personnel, to the banks. The logistic vans carry cash from chests to various branches, as well as from the branches to the chests completing the day, and it is in the chests that cash is sorted into three categories: cash which have to put Automatic Teller Machines, and next cash which can be used for the counter, and the cash which is soiled and cannot be put to use, and put back for circulation, the logistic company takes the responsibility of the complete supply chain.

The cash which have to be replenishment, the logistic company are not hired, or taken by the banks, but by

usually Management Service Providers, which manage and maintain Automatic Teller Machines in the confined areas, with logistic support in supply chain, on behalf of the banks and other financial services companies. There are requests to load huge amount of cash by banks, to solve the logistic problems in supply chain, and for this purpose an indent is issued to the logistic company to distribute the cash to the designated bank as per the requirement.

The employees in the bank or concerned check their indent, against the logistic company, and the high value cash , and they loaded in logistic vans, which transports the cash to the several Automatic Teller Machines, where the operations of cash transaction are bound to be taken as per requirement for the public.

A typical logistic built in van, which has a well built vault, and is covered with basic armor, which can carry, basically five working personnel, a set of handlers for handling the movement, and a set of security guards are part in logistic personnel team. The security personnel are hired as per requirement, and are hired as fresh personnel, and trained as per requirement, with use of necessary firearms, it is a rare phenomenon that ex-police, e-military personnel are employed as a form cost reduction for the logistic company or banks.

On an average daily basis the cash logistic company transports high value of cash worth nationwide, as the logistic company also has its own chests in various locations, as some of the foreign banks which do not have such facilities prefer to part their money in these chests available.

It may not be surprising; that logistic companies transporting cash is a high technology affair. A huge central control room has large Liquid Crystal Display screens, covering the entire network within the wall, and normally that there are row personnel of the logistic company monitoring the movement of each and every logistic van the company operates, with huge logistic maps of the places, the company operates, with dots spread and splashed on the screen available on the supply chain.

The logistic vehicles are geo-fenced in order to maintain

the safety and the logistic follow the pre-determined routes and if any deviation will result in the driver getting attention from the control room for any deviation in routes.

The Reserve Bank of India or the Central Bank of the country, chalks out the requirement of the currency of currency notes before the start of the financial year, and the requirement is communicated to the government. When government gives permission to Reserve Bank of India, which is called the Central Bank meant for cash management in supply chain, raises an indent for printing the requirement of specific bank notes in its four presses in the country.

Earlier the printing of banknotes the requirement of paper procurement was done from overseas, but the paper material is sourced locally, and necessary security features are installed by paper mills, and the papers for printing are sent printing press using security type logistic system in supply chain. The printed notes with additional security features are logistically sent to Reserve Bank of India or Central Bank, and its regional offices, and there are currency chests where the currencies are notes are stored. Reserve Bank of India or the Central Bank then raises a voucher for the currency or notes that are needed.

Banks raise their demand for cash with Reserve Bank of India or the Central Bank, for their requirement from their regional offices, and Reserve Bank of India or Central Bank, sends the money to the banks as per requirement, and thus the respective banks keeps the currency or cash in their respective chests, and thus engage Cash Management logistic firms to fill their Automatic Teller Machines, Automatic Teller Machines providers do a daily requirement of cash at the end of the day for the next day's transaction and indent.

Banks validate the indent and the cash transferred to the bank branch which are linked to that Automatic Teller Machine, and if there is shortage of cash in the banks they generate their own cash or currency, or borrow currency or cash from the chest. Cash management firms transfer cash from branches to Automatic Teller Machines. The firms will also fill up the Automatic Teller Machines which holds the notes of different denomination, and the cash or money is dispensed when the customer require the currency or cash when the card is used at Automatic Teller Machines.

It is not advisable to draw an inference on monthly income velocity on the currency, as first high denomination notes are substituted with lower denomination, likely the circulation velocity should

increase, and it is also advisable to compute velocity of the currency or cash on a monthly basis, as the measure of aggregate income is not available on the monthly frequency.

In a cash logistics the Central Bank role is to see that cash crunch is sorted out and it is not logistic issue, and business of logistic transport company. The Central Bank had the conception the shortage of some Automatic Teller Machines, is largely due to shortage of largest schedules, and replenishing Automatic Teller Machines frequently, and the re-cal liberation of Automatic Teller Machine which is still a problem in supply chain.

Cash in transit or cash or valuables in transit in logistic management is the physical transfer of bank notes, coins, credit cards, and items of value from one location, to another through logistic. The main location, in logistic include cash centre, or bank practices, Automatic Teller Machine points.

The increasing brand toward re-cycling at Automatic Teller Machines is likely to ascertain the market, economic size, and population density to have a positive impact on the financial sector. The densely populated areas have a higher Automatic Teller Machines penetration and higher geographic approach to logistics in supply chain cash management.

The logistic companies operating indent to increasing financial challenges, including fuel cost, and risk management, and transport companies are experiencing low profit in transporting cash from chest, banks, with repeated effect to satisfy bank or customers, and they lack appropriate security personnel coupled with good training and delay in the detection of stolen currency or cash in logistics of supply chain.

Cash replenishment, the normal procedure for replacement of currency, takes about 2 to 3 weeks, in a normal course of time, and also being pulled out which is under circulation, and dispensing smaller denomination, of cash, and replenishment in Automatic Teller Machines with multiple currency, at different time is a mammoth task, for a logistic company. As per cash management a huge amount of sufficient cash should be transferred, and the numbers of physical trips count is higher and thus increase it will the cost of operation for logistic companies. An intelligent logistic technology can perform, and add greater value to automations, and optimize the decision making for optimum use of supply chain and deliver the task in the lowest possible time even in cash collection.



UNION BUDGET 2020 SPEAKS OF NATIONAL LOGISTICS POLICY WITH E-LOGISTICS MARKET

PRABHATESH TRIPATHI

In a first, Kisan Rail to be launched for backing agri based cold chain

Finance Minister Nirmala Sitharaman finally announced for the roll-out of much-awaited National Logistics Policy with single window e-logistics market in the country for faster movement of goods in her Budget speech.

Sitharaman assured that the National Logistics Policy has been drafted to pivot and clarify the role of the union government, state governments, government regulators and providing the best possible solution for the booming industry of logistics.

The Finance Minister said: "The policy will clarify the roles of the Union Government, State Governments and key regulators and create a single-window e-logistics market and focus on generation of employment, skills and making MSMEs competitive."

In a first the minister announced dedicated "Krishi Rail" to build a seamless national cold supply chain for 'perishables', the minister also proposed that the Indian Railways will set up a "Krishi Rail"- through PPP arrangements. The rail system will include refrigerated coaches in express and freight trains as well.

The Finance Minister also announced that 100 more airports would be developed by 2024 to support Udaan scheme. She also remarked in her Budget presentation that India's Air traffic has grown rapidly as compared to the global average and the Air fleet number was expected to go up from the present 600 to 1200 during this time.

Finance Minister also announced that the "Jal Vikas Marg" on National Waterway-1 will be completed and further the 890 Km Dhubri-Sadiya connectivity will be done by 2022".

T.A. Krishnan, CEO & Co-founder, Ecom Express said: "The government's focus on logistics is highly appreciated. The National Logistics Policy is a constructive move and will bring a positive shift in the logistics industry's current position. Creation of single-window clearances and rolling out more favourable policies is another step as logistics is important and will act as a catalyst in driving economic growth."

Monetisation of Roads

Realising the roadways dependence of the logistics industry, the government has proposed to monetise at least 12 lots of highway bundles of over 6000 Km before 2024.

Pressing the need for infrastructure for the logistics industry she reiterated that the government will invest Rs. 100 lakh Crore on infrastructure over the next 5 years.

Mr Rajesh Neelakanta, ED & CEO of BVC Logistics commented: "The focus on logistics through the development of 9000 km of economic corridors is a welcome move. It will encourage economic transformation and seek to improve connectivity that is much needed for the growing economy. We look forward to the National Logistics Policy which will clarify the roles of the Union Government, State Governments and key regulators. We are keen to know about the e-logistics market as mentioned by FM."

To thrust the development of roadways she said the development of 2500 km access control highways, 9000 km of economic corridors, 2000 km of coastal and land port roads and 2000 km of strategic highways. Work on Chennai-Bengaluru Expressway will also be started with Delhi-Mumbai Expressway and two other packages to be completed by 2023.

Mr Shashi Kiran Shetty – Chairman – Allcargo Logistics Ltd said: "The proposed roll-out of the National Logistics Policy was one of the hallmarks of the budget. A single window e-logistics market will lead to the integrated development of Indian logistics and help reduce logistics cost. The NLP will also boost value chain efficiencies and generate employment across the supply chain spectrum."

Mr Shetty further added, "The Krishi Udan scheme is a key initiative by the government to help farmers boost their income by expanding markets for their products on national and international routes. The setting up of a Kisan Rail via the PPP mode will help build a robust cold supply chain infrastructure, increase the shelf-life of perishable goods and reduce food loss in the global cold chain. The government will need to continue with its policy of fiscal consolidation, spur job creation and

revitalize the credit cycle to propel the economy on the recovery path”

Railway means Money

To mint more revenue from the national transporter, the government has decided to set up large solar power capacity alongside the rail tracks, on the land owned by the railways. Four station re-development projects and operation of 150 passenger trains would be done through PPP model. More Tejas type trains will connect iconic tourist destinations.

High-speed train between Mumbai to Ahmedabad would be actively pursued. 48 km long Bengaluru Suburban transport project at a cost of Rs 18600 crore, would have fare on the metro model.

Central Government would provide 20% of equity and facilitate external assistance up to 60% of the project cost.

Krishi Udaan to be launched by the Ministry of Civil Aviation

International and national routes both will be covered under Krishi Udaan scheme. Union government has called North-East and tribal districts to realize the improved value of agri-products. A strategy of One-Product One-District for better marketing and export in the Horticulture sector will be worked on.

Mr Steve Felder, Managing Director, Maersk South Asia commented: “This year’s budget has come with a number of positive updates for the logistics and transport sector. A fund allocation of INR 1.7 lakh crores for transport and infrastructure including railway infrastructure enhancement, and investments in warehousing and logistics, is a constructive step that will help boost growth across industry-verticals including manufacturing and help improve last-mile delivery especially in rural geographies.”

We are hopeful that the port infrastructure will also get the much-needed improvement to bring them to a level where they are competitive in the global scenario. The government aims to complete the National Waterway-1 in this year to effectively leverage inland waterways for freight transportation which is welcome news for domestic hinterland trade especially for refrigerated agro-commodities.

Mr. Rizwan Soomar, MD & CEO, DP World Subcontinent said, “I welcome the steps taken by the government in the Union Budget toward growing export and rejuvenating manufacturing. To realize India’s vision of a \$5 trillion economy, growth in both exports and domestic trade is critical. The decision to set up an investment clearance cell, a scheme to

encourage manufacturing of electronics and ‘networked products’, allocation of INR 27,300 crore for industry and commerce, all this will propel the economy in the right direction.

“The government’s efforts on encouraging more modes of transport such as rail and Inland Waterways will help bring down the cost of logistics, making Indian goods competitive globally. We welcome the FM’s decision to set up Kisan Rail for transportation of perishable goods in special reefer containers, through the PPP model. This will further increase the share of railways in the multi-modal transport mix, which is skewed towards the road, at present,” he added.

Source: logisticsinsider.in

DID YOU KNOW?

- **Jet Airways** had **16% market share** in domestic air cargo market of India when the airline ceased its operations. Sudden collapse of the airline had caused serious capacity crunch in the cargo market of India. Three leading domestic airlines Indigo, SpiceJet and Go Air have filled the vacuum left in the market by Jet Airways. **Indigo** registered **10.6% Y-o-Y growth** in its freight volume in August 2019 as compared to the same month in 2018. On the same lines, **SpiceJet** registered **6.1%** and **Go Air** grew by **4.2%** on Y-o-Y in the month of August 2019.
- **Industry-wide air freight tonne kilometers fell by 3.9% year-on-year in August – a faster speed of decline compared to the previous month.** As argued before, the industry continues to face headwinds from weakening global trade and softness in a number of key economic indicators.
- **IATA** downgraded its forecast for growth of global freight tonne kilometers flown over the next 5 years to an average of **4.4%** a year, down from the 4.9% average which the association forecasted a year ago.
- Ministry of Civil Aviation in its report titled **‘Vision 2040’** has stated that cargo movement is expected to quadruple and achieve the figure of 17 million tons by the year 2040.
- India aiming spot in top 5 **Global Air Freight Market** by the year 2025.

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THE BIRTH OF A SPARE PART OF AN EQUIPMENT

CL ROY, B. SC(ENG).; MBA; CSCP [LIFE TIME DESIGNATION], LIFE MEMBER - IIMM
(BANGALORE BRANCH), CHIEF CONSULTANT, RA CONSULTING, BANGALORE
roycl@raconsulting.co.in.

Introduction : It is only apt to begin this article with clear understanding of what are meant by an Equipment and its Parts. Oxford Dictionary defines Equipment as “The necessary items for a particular purpose” and Machine as “An apparatus using mechanical power and having several parts, each with a definite function and together performing a particular task”. Hence it is only logical to use Equipment and Machine interchangeably as both are designed and built to perform particular tasks or for particular purposes. In this article, Equipment stands for both Equipment and Machine. Part is described as “A manufactured object assembled with others to make a machine; a component” by Oxford Dictionary. Again Oxford Dictionary explains Component as “A part or element of a larger whole, especially a part of a machine or vehicle”. The above statements make it appropriate to use Part and Component as synonyms and hence Part or Component represents both of them in this article.

An Equipment is made by assembling different Parts. In this context, it is only proper to mention about System also. System means “A set of things working together as parts of a mechanism or an interconnecting network; a complex whole”(Oxford Dictionary). Businessdictionary.com defines System as “An organized, purposeful structure that consists of interrelated and interdependent elements (components, entities, factors, members, parts etc.)”. Another definition is “System: Purposefully organized set of components whose interconnections and inner workings are known or apparent”. So it is established that Parts are constituents of a physical System also. In this article, a Part of a physical System (production facility for example) is treated at par with that of an Equipment. In other words, **Part** stands for Part of an Equipment as well as that of a System.

2. Classification of Part Types : According to provenance, Equipment Parts can be classified into three categories, namely Captive Parts, Standard Parts and Commercial Parts. Generally both the Equipment and the System are made up of any combination of these three types of Parts as required by the particular design parameters.

2.1. Captive Part (Manufacturer-Specific Part – OEM Part) : We will define Captive Part as that part of an equipment, designed, developed and manufactured by the Equipment Manufacturer itself for **the sole use** of making it as an integral part of the various types of

Equipment designed, developed and manufactured by the organization. Nowadays Razor blade is a Captive Part of the specially designed Razor set (in this case an equipment) and both are made by the same Manufacturer. No substitute product is created or offered for Captive Part by the Equipment manufacturer. Captive Parts are occasionally protected by patent or other rights by the manufacturer.

In a very rare case, the Equipment Manufacturer may give license to third party under special agreement to make the Captive part, for want of specialized production facility and manufacturing expertise. Economic consideration is also a major criterion, in this case. The special agreement shall include clauses such as Non-disclosure of design to third parties and Prevention of sale of the Part directly to any third parties. An example is a modified unique Mechanical Seal manufactured by the Seal Manufacturer on behalf of the Pump Manufacturer for a particular type and model of Pump to be used for a special application.

Thus Captive part is an unique one as it is Manufacturer-specific and can be used to form an integral part of any equipment made by the particular Equipment Manufacturer. In this context it is a Non-standard part (refer 2.2. for Standard Part). In this condition, the Equipment Manufacturer is “One and only one source that possesses an unique product having singular characteristics or performance capability” (businessdictionary.com). Hence the Part is also known as a **sole-source item**. So it is only judicious for the End User to purchase the replacement part for the damaged Captive one, solely from the Equipment Manufacturer or from its authorized resellers. Hence, it is best known as an **OEM Part** (refer 3.1.).

2.2. Standard Part (OCM Part) : Standard Part is the one that is made according to a STANDARD. Douglas K. Orsburn and Joseph D. Patton Jr. define it as “Part, component, material, subassembly, assembly, or equipment that is identified or described accurately by a company, industry, or federal or military standard document or drawing”.

In this context it is only befitting to describe the word Standard. Oxford Dictionary gives the meaning as “something used as a measure, norm, or model in comparative evaluations.” Cambridge Dictionary states that in Business English usage it means “a level of quality that people expect and generally accept as

normal". "Universally or widely accepted, agreed upon, or established means of determining what something should be" is part of the definition given by businessdictionary.com.

Based on FAA (Federal Aviation Administration, USA) documents, Standard Part is defined as a part manufactured in complete compliance with an established industry or Government specification which includes design, manufacturing, test and acceptance criteria, and uniform identification requirements; or for a type of part which the Administrator has found demonstrates conformity based solely on meeting performance criteria, is in complete compliance with an established industry or Government specification which contains performance criteria, test and acceptance criteria, and uniform identification requirements. The specification must include all information necessary to produce and conform the part and be published so that **any party may manufacture the part**. Examples of recognized bodies publishing Standards include, but are not limited to, Society of Automotive Engineers (SAE), American National Standards Institute (ANSI), International Standards Organization (ISO) etc.

The above definition of the Standard Part can well be applied across industries in general. And a good example of a Standard Part is a common anti friction ball bearing denoted by ISO designation – say 6205. This particular standard part will carry the same identification marking engraved on it, irrespective of its manufacturer. Thus it is termed as **multi-source item**. And the ISO marking ensures the quality prescribed by the standard in toto. The End User can purchase the standard part from any manufacturer or its authorized vendors selected as per the company policy. Also it may be supplied with a Certificate of Conformity by the Manufacturer, a Mark indicating that it has been produced in accordance with the Specification requirements and also to facilitate traceability. And it can be rightly termed **OCM Part** (refer 3.1).

2.3. Commercial Part (OCM Part): The third type of Equipment Part is called Commercial Part. The failure of the commercial part as installed in the equipment, would not degrade the level of safety of the equipment's operation. Therefore, the part must not be critical, required, or essential to the safe operation of the equipment and the plant. And in general, the commercial part cannot fail, in a manner that would cause damage to the equipment or cause injury to Operators and or Environment. Businessdictionary.com defines it as "Non-essential component or peripheral item not subject to any particular standard or quality control (other than the manufacturer's unique specifications) and offered for sale with other similar items".

FAA based definition: Commercial part is defined as an article (part, component or possibly appliance

depending on appliance, but not a material or process) manufactured under Manufacturer's Unique specifications only and is marked only with the manufacturer's markings. Thus it is not regulated by any Government agency or any other Professional or recognized body. Also the part is not subject to any particular quality control beyond the manufacturer's voluntary internal control system.

General Hardware items, Electrical accessories etc. are examples of Commercial Parts. Also a Commercial Part is a **multi-source item** and thus it can be purchased from any reputed and reliable manufacturer or its authorized resellers as per End User policy. This also can be termed **OCM Part** (refer 3.1.).

3. Definitions of Some Terms Used in this Article: Definitions of a few terms are given in ensuing sections for easy understanding.

3.1. Original Equipment Manufacturer (OEM) and Original Component Manufacturer (OCM) : The Manufacturer who designs, develops and makes an equipment using Captive Parts and Bought-in Parts (Standard Parts and Commercial Parts) and markets under its own name and Markings is known as Original Equipment Manufacturer (OEM). OEM purchases the Standard and Commercial Parts from the manufacturers of these parts and assembles them to form integral parts of its equipment. The Captive Parts manufactured by OEM are known as **OEM Parts**.

Original Component Manufacturer (OCM) is the one who manufactures Components (Parts) which are purchased by OEMs to form integral parts of Equipment manufactured by OEMs. Components are items which collectively make up equipment or system. They can be in the form of individual Part, Assembly, Subassembly, accessories etc. They can be sold to OEMs, Resellers and actual End Users by the OCMs. Parts manufactured by OCM and used to manufacture Equipment by OEM, are known as **OCM Parts**.

The Manufacturing organization gets the name OEM or OCM depending on the product being produced. If Equipment is produced it is known as OEM. If the product is Component (Part), it will be called OCM. So the same organization can be classified as both OEM and OCM based on individual products being produced and marketed.

3.2. End User (EU) : End User is the actual user of the Equipment or System. EU can buy Equipment and Components from OEMs, OCMs and or their authorized resellers.

3.3. BOUGHT-IN GOODS (BG) : "Goods from an outside supplier. Also components and sub-assemblies that are purchased from an outside supplier rather than being made within the organization" (business dictionary.com). Standard and Commercial Parts are thus Bought-in Goods (BG) with respect to OEMs.

3.4. Prime Part : Any Part (Captive or Standard or Commercial) installed in an Equipment or a System **in Service**, is termed **Prime Part**, the replacement of which is done by a **Spare Part** (refer 4.4. & 5.).

4. Journey of Parts of an Equipment from OEM / OCM to End User

4.1. Routes of the Journey : The figure 4.1.a. below shows the routes taken by a typical Equipment Part from OEM / OCM to the End User. In the context of this article, Part stands for any part which forms an integral part of the equipment such as Captive Part (OEM Part), Standard Part (OCM Part) or Commercial Part (OCM Part) as the case may be.

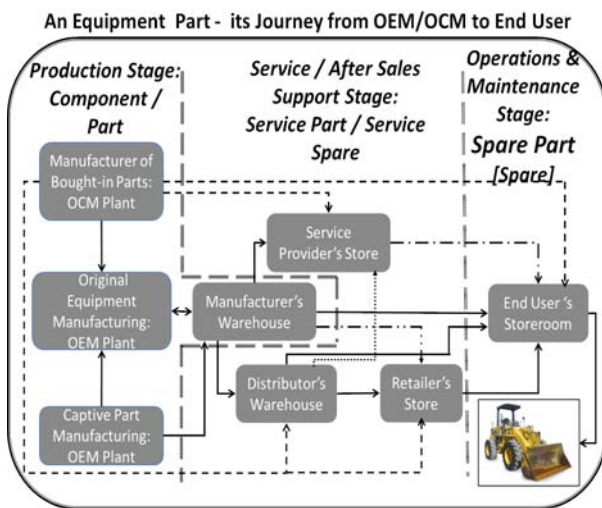


Figure 4.1.a.

There are three distinct stages in this journey and several organizations are involved in the process.

4.2. Production Stage : There are four organizations in this stage:

- Equipment Manufacturing Plant! In this plant various types of Equipment are made / assembled as per the required quantities which include Forecast and Actual requirements. These are stocked in Manufacturer's Warehouse. Selling of Equipment is not included in this article.
- Captive Part Manufacturing Plant ! Captive Parts are made in this plant. The quantity of a Part is determined based on the forecast quantity of Equipment (MRP Processing) plus the individual forecast quantity and confirmed order quantity of the Part for captive use and selling as Service / Spare Part.
- Manufacturer of Bought-in Parts ! Bought-in Parts include both the Standard and Commercial Parts. These may be purchased from relevant Manufacturers or their authorized Distributors or Retailers for captive use as well as for sales as

required.

- Manufacturer's Warehouse ! Captive Parts as well as Bought-in Parts are stored in Manufacturer's Warehouse. These Parts are issued to Production and Sales as per demand.

The movement of Parts are shown in figure 4.1.a. In this stage, the Part is called Component or Part itself.

4.3. After Sales Support Stage (After Market Support Stage) : The three organizations involved in this stage are Service Provider, Distributor and Retailer. Service providers buy and stock the Parts for providing Maintenance Service including Parts, to End Users as per contracts. Distributors and Retailers are stocking the Parts for Sales to their customers. The Parts' travel paths are drawn in figure 4.1.a. Here the Part is known as **Service Part** or **Service Spare**.

4.4. Operations and Maintenance Stage : In this last stage, End User of the Equipment buys and stocks the Parts for replacing the damaged Prime Parts of the Equipment or System in service. Now the **Stocked Part** gets the name **Spare Part** and thus, the journey of the Equipment Part from OEM / OCM culminates in the birth of a **Spare Part**.

5. Spare Part - a Definition : Oxford Dictionary defines **Spare Part** as: "A duplicate part to replace a lost or damaged part of a machine". However the author proposes the following as a comprehensive definition: **Spare Part** is an End User stocked Equipment Part that is **Identical** to and **Form, Fit and Function** interchangeable with the corresponding Prime Part for direct replacement without any modification, on account of Prime Part's random failure (breakdown) and or owing to the requirement of Time based or Operation based or Condition based scheduled replacement of Prime Part. In this context, Spare Part can be a component or subassembly or assembly or any functional unit of the equipment or the equipment itself. Once the Spare Part is installed in the equipment during maintenance for the restoration of the equipment, its name is automatically changed to Prime Part (3.4.).

References

- Spares Management Handbook by Douglas K. Osburn
- Service Parts Management by Joseph D. Patton, Jr.
- Spare Parts Inventory Management by Philip Slater.
- Toyota Supply Chain Management by Ananth V. Iyer et al.
- businessdictionary.com.

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IMPACT OF UNION BUDGET 2020 ON LOGISTICS SUPPLY CHAIN IN INDIA

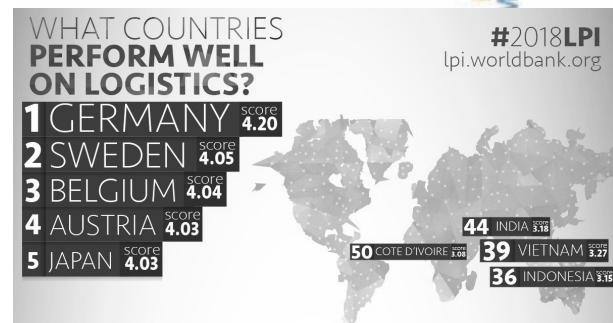
RABI NARAYAN PADHI
VICE PRESIDENT (SOUTH) - IIMM
rabin.padhi@gmail.com

Abstract : The Union Budget 2020 is stated to be centered around **three significant themes** – **Aspirational India, Economic Development and Caring Society** – all of which are directed towards **ease of living**. **Global pessimism** on growth which broadly aligned with Indian sentiments, an increased fiscal deficit on account **lower GST collections** and an unprecedented **corporate tax rate cut**, and the continuing credit issues was certainly not a comfortable backdrop for **Union Budget 2020**. The fiscal deficit was, expectedly, allowed to increase to 3.8%. While a perceived lack of fiscal stimulus probably saw the markets reacting the way they have done so far, And to spur both private and Government investment to get back to **double-digit growth** in the medium-term was not going to be easy.

Key Words : (Budget, Global, Market, Tax, Growth)

I.Highlights of Union Budget 2020 announcements in Logistics Supply Chain

Union Budget 2020 has proposed to accelerate the development of highways, including the development of 2500 km access control **highways**, 9000 km of **economic corridors**, 2000 km of **coastal and land port roads** and 2000 km of **strategic highways**.



1. A **National Logistics Policy** will be released soon. Inter alia, it will clarify the roles of the Union Government, State Governments and key regulators. It will create a single window **e-logistics market** and focus on the generation of employment, skills and making **MSMEs** competitive.
2. The NSAD will give special impetus to infrastructure-focused skill development opportunities. Budget 2020 proposes to set up a project preparation facility for infrastructure projects.
3. To support the **Udaan scheme**, **Union Budget 2020** has announced **100 more airports** to be developed by 2024. It is expected that air fleet size shall increase from 600 to 1,200 during this period.
4. It is proposed to provide about INR 1700 billion for **transport infrastructure** in 2020-21.
5. **Withholding tax rate** of 5% extended in respect of money borrowed by an Indian company/ business trust in foreign currency under loan agreement, or

issue of long-term bonds or rupee-denominated bonds prior to 1 July 2023 (earlier, 1 July 2020).

6. Interest payable in foreign currency to non-residents on long-term bonds or rupee-denominated bonds listed only on IFSC exchanges between 1 April 2020 and 30 June 2023 will enjoy a lower tax rate of 4%.

II. Implication:

1. The proposed **Kisan Rail and Krishi Udaan** are good initiatives to improve **connectivity and accessibility** to help bridge the gap between **farms and the agri-produce markets**. It would be important to concurrently address gaps in first and last-mile infrastructure and connectivity to **ensure end-to-end supply chain**.
2. Acknowledging the potential in the sector for employment, the Finance Minister has emphasized that the **NSAD** will give special impetus to infrastructure focused skill development opportunities.
3. The proposed setting up of a project preparation facility for infrastructure projects will help address a critical capacity issue for **infrastructure sector**, as projects often fail to move from concept to implementation because of poor project preparation, resulting in failure to attract funding and project developers. However, these project preparation facilities will need to draw upon experienced manpower resources to help prepare projects, or it could result in sub-optimal realization of objectives.
4. The augmentation of **airport capacity** under the **Udaan Scheme**, through the proposed **development of 100 new airports by 2024**, is a **big positive for the aviation sector**.
5. The **National Logistics Policy**, which will be released soon, is expected to help create a single window **e-logistics market** that focuses on driving efficiencies and reducing the overall **logistics cost**.

III. Union Budget 2020 speaks of National Logistics Policy with E-Logistics Market :



In a first, Kisan Rail to be launched for backing agri based cold chain Finance Minister Nirmala Sitharaman finally announced for the roll-out of much-awaited National Logistics Policy with single window e-logistics market in the country for faster movement of goods in her Budget speech. Finance Minister assured that the National Logistics Policy has been drafted to pivot and clarify the role of the union government, state governments, government regulators and providing the best possible solution for the booming industry of logistics.

The Finance Minister said: “The policy will clarify the roles of the Union Government, State Governments and key regulators and create a single-window e-logistics market and focus on generation of employment, skills and making MSMEs competitive.”

In a first the minister announced dedicated “**Krishi Rail**” to build a seamless **national cold supply chain for ‘perishables’**, the minister also proposed that the Indian Railways will set up a “**Krishi Rail**”- through PPP arrangements. The rail system will include refrigerated coaches in express and **freight trains** as well.

The Finance Minister also announced that 100 more airports would be developed by 2024 to support **Udaan** scheme. She also remarked in her Budget presentation that **India’s Air traffic** has grown rapidly as compared to the global average and the Air fleet number was expected to go up from the present 600 to 1200 during this time.

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IV. Monetisation of Roads : Realising the roadways dependence of the logistics industry, the government has proposed to monetise at least 12 lots of highway bundles of over 6000 Km before 2024.

Pressing the need for infrastructure for the logistics industry she reiterated that the government will invest Rs. 100 lakh Crore on **infrastructure** over the next 5 years.

To thrust the development of roadways she said the development of 2500 km access control highways, 9000 km of economic corridors, 2000 km of coastal and land port roads and 2000 km of strategic highways. **Work on Chennai-Bengaluru Expressway will also be**

started with Delhi-Mumbai Expressway and two other packages to be completed by 2023.

- V. “The **Krishi Udan** scheme is a key initiative by the government to help farmers boost their income by expanding markets for their products on national and international routes. The setting up of a **Kisan Rail via the PPP mode** will help build a robust **cold supply chain infrastructure**, increase the **shelf-life** of perishable goods and reduce food loss in the global cold chain. The government will need to continue with its policy of fiscal consolidation, spur job creation and revitalize the credit cycle to propel the economy on the recovery path.



VI. Railway means Money :

To mint more revenue from the **national transporter**, the government has decided to set up large **solar power** capacity alongside the rail tracks, on the land owned by the railways. Four station re-development projects and operation of 150 passenger trains would be done through PPP model. **More Tejas type trains will connect iconic tourist destinations**. High-speed train between **Mumbai to Ahmedabad** would be actively pursued. 48 km long **Bengaluru Suburban transport** project at a cost of Rs 18600 crore, **would have fare on**

the metro model. Central Government would provide 20% of equity and facilitate external assistance up to 60% of the project cost.

- VII. **Krishi Udaan** to be launched by the Ministry of Civil Aviation: International and national routes both will be covered under Krishi Udaan scheme. Union government has called North-East and tribal districts to realize the improved value of agri-products. A strategy of One-Product One-District for better marketing and export in the Horticulture sector will be worked on.

This year's budget has come with a number of positive updates for the logistics and transport sector. A fund allocation of INR 1.7 lakh crores for transport and infrastructure including railway infrastructure enhancement, and investments in warehousing and logistics, is a constructive step that will help boost growth across industry-verticals including manufacturing and help improve last-mile delivery especially in rural geographies.

We are hopeful that the port infrastructure will also get the much-needed improvement to bring them to a level where they are competitive in the global scenario. The government aims to complete the **National Waterway-1** in this year to effectively leverage **inland waterways** for freight transportation which is welcome news for domestic hinterland trade especially for refrigerated **agro-commodities**. The government's efforts on encouraging more **modes of transport such as rail and Inland Waterways** will help bring down the cost of logistics, making Indian goods competitive globally.

VIII. **Conclusion** : I also feel that some of the other factors that can contribute to the growth of the logistics industry are the penetration of e-commerce giants into the hyper- local delivery segment. The budget has been extremely positive for logistics sector since it puts huge emphasis on infrastructure segments such as highways, railways, ports and aviation. Any expansion or enhancement of transportation infrastructure or even increase in consumption directly benefits the logistics sector.

IX. References

1. <http://www.google.co.in>.
2. <https://en.wikipedia.org/>
3. Mycii.in
4. The Hindu
5. www.pwc.com

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GREEN SUPPLY CHAIN AND LOGISTICS MANAGEMENT PRACTICES IN THE INDIAN INDUSTRIES

RAJEEV KUMAR, rajeevkumar@iimmjamsjedpur.ac.in

Abstraction:- Green Supply Chain Management (GSCM) is one of the recent innovations for the enhancement of capabilities of Supply Chain Management. In this research, my objective is to study the various activities of the Supply Chain processes of the steel industry “TATA STEEL” i.e. both small production area and & Large production area & finds how much eco-friendly they are (i.e. how much % of the green factor are involved in their supply chain activities from the procurement of the raw material to the transportation of the final product) for the purpose of metering the performance of the manufacturing sectors has been studied.

The major six activities of the supply chain:-

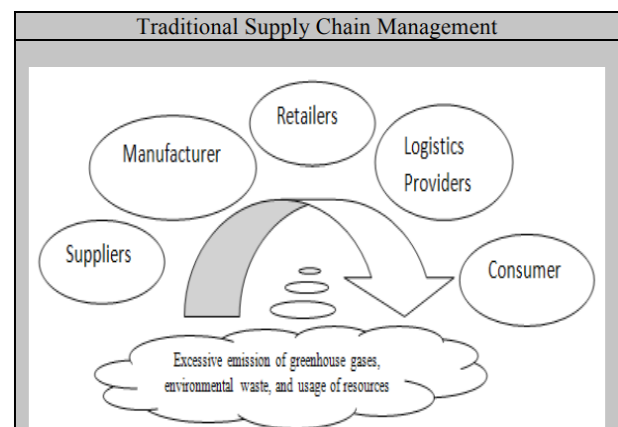
1. Green Sourcing & Procurement,
2. Green Manufacturing
3. Green Warehousing
4. Green Distribution
5. Green Packaging
6. Green Transportation

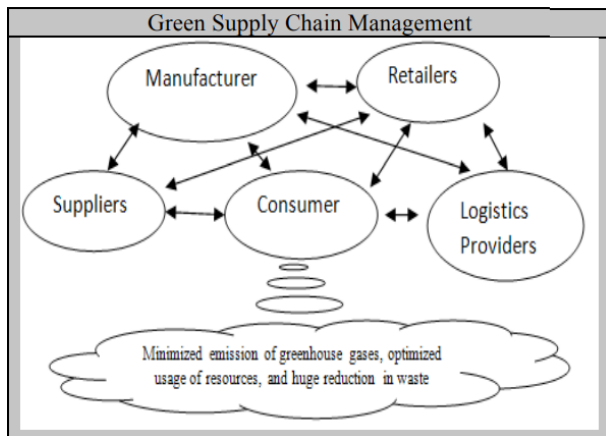
All are being try to covered throughout the research. From these above process activities we measured the performance of the Tata Steel manufacturing process with the help of various performance indicators & their sub-indicator's. The research outcome based on the survey in this research paper identifies the important results that are causes impact on the environment caused by the manufacturing sectors based upon the appropriate methodology I applied for research purpose. In this research paper, we discussed the various environment factors affecting in the manufacturing sectors while greening the supply chain as identified from the literature review. This survey questionnaire was being filled by the various manufacturing unit inside the Tata Steel in order to find out the sustainability performance of various manufacturing sectors towards Green future.

Introduction & Literature review:-An environmentally conscious supply chain, also called a green supply chain, is a new concept appearing in recent literatures. This environmental issue has been realized very important for business, its introduction to supply chain management has only been developed recently. The literature about environmentally conscious supply chain is very limited. Environmentally-responsible consumption and production is seen as an essential part of the strategy to improve environmental quality, reduce poverty and bring about economic growth, with resultant improvements in health, working conditions,

and sustainability, and is today's highlighted Agenda. In particular, organizations were called upon to exercise leadership in the promotion of environmentally sound goods and services.

Traditional versus Green Supply:- In a traditional supply chain, the flow of materials and information is linear and from one end to the other. There is a limited collaboration and visibility. Each supply chain partner has limited information regarding, for example, the carbon footprint and greenhouse gas emission of the other partners. Hence, each player may be concerned about his own footprint and may try to reduce this, irrespective of the impact on upstream and downstream supply chain. There may be some focus on end-to-end supply chain costs but due to limitations of information sharing, the costs are far from optimized in most cases. An example follows in Figure 1-1 self-constructed. In contrast, Green Supply Chains consider the environmental effects of all processes of supply chain from the extraction of raw materials to the final disposal of goods. Within the Green Supply Chain each player motivates other players to go Green and provides the necessary information, support, and guidance, for example, through supplier's development programmes or customer support. Environment objectives and performance measurement are then integrated with financial and operational objectives. As consumers have become more aware of environmental issues, such as global warming, they have now started asking questions about the products they are purchasing. Nowadays, organizations routinely face queries about how Green their manufacturing processes and supply chain are, how wide the carbon footprint is, how wasteful their packaging is, and how they will recycle.



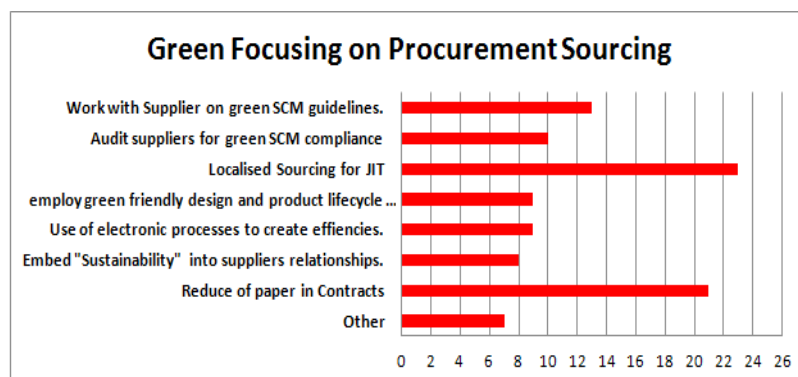


Methodology:- A survey questionnaire designed with four main factors affecting the sustainable supply chain further having various Indicators & Sub-Indicators. This survey questionnaire was being filled by the various multiple manufacturing sectors in order to find out the sustainability performance of various manufacturing sectors towards Green future. More than 100 respondents have enthusiastically taken part in this research study covering Micro, Small, and Medium, Large Enterprises IV.

Important Findings & Results:- Sample target of the 100 various multiple manufacturing industries with a total of more 200 respondents, out of which 35 % of respondents indicates them self as a top priority of the organisation & rest of the percentage value are like supervisors & various other's co-workers of the manufacturing unit. We collect the data from all forms of the sectors like small manufacturing unit & large manufacturing unit scale are of [45%] and [55%].

1. Green sourcing & procurement focused initiatives:
- Reducing paper in contract and auditing suppliers were the least commonly implemented initiatives (both cited by less than a 3rd of respondents). The indicators here are positive and suggest that as technology improves and supply chains become more efficient, green practices will become more prevalent. 40% of companies Use electronic processes to create efficiencies in sourcing & procurement. Graph 1-2 is shown below

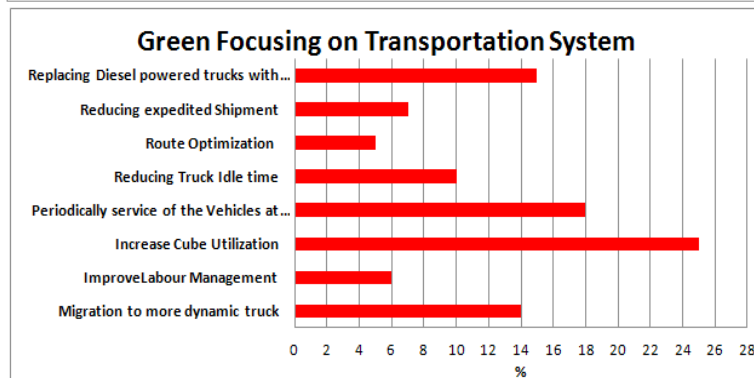
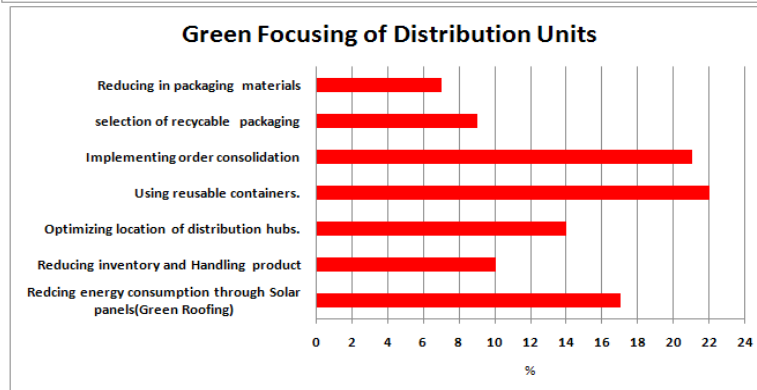
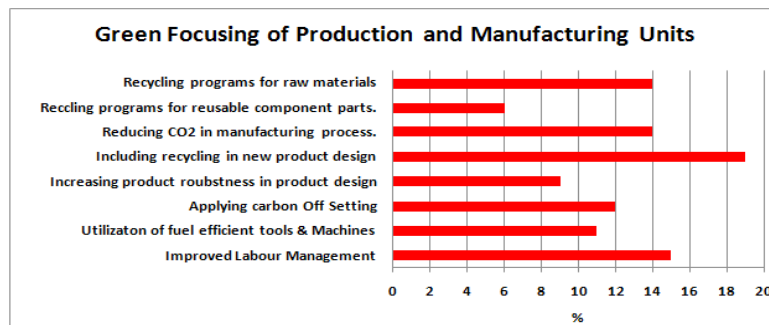
Data Analysis:



2. Green productions & manufacturing focused initiatives: - Applying carbon off-setting was a distant priority. Carbon offsetting is a relatively new and abstract concept which will take time to adopt. Other green production and manufacturing initiatives that Indian manufacturing companies are implementing include the introduction of "returnable and reusable" packaging, reducing the usage of solvent based chemicals and choosing compliant factory and supplier partners.

3. Green warehousing & distribution focused initiatives: - Most manufacturing unit seem to be quite advanced in the implementation of green warehousing and distribution initiatives, most likely because these initiatives often also mean added efficiency. Companies appear to be most ahead in green practices in their inventory reduction and product handling [53%] have already implemented initiatives; and their ability to consolidate orders [44%] have already implemented these initiatives; and usage of reusable containers and storage equipment , where [57%] have already implemented these initiatives. When it comes to reducing energy consumption through the use of solar panels or green roofing options, surprisingly [14 %] of companies have already adopted such initiatives.

4. Green transportation focused initiatives: - Manufacturing Unit in Tata Steel are also fairly well advanced in the types of green transportation focused initiatives they have adopted. Similar to their production and warehousing initiatives, there is a crossover between implementation of green and levels of efficiency. Almost half of companies surveyed are already periodically services of the vehicles at service stations along reducing empty miles, truck idle time and increasing cube utilization to create efficiency. Adoption of more sophisticated green transportation measures which have less direct relation to efficiency and cost savings are not in wide practice. These more advanced green transportation measure such as using more aerodynamic trucks [9%] and more alternative fuel powered trucks are all adopted by [11%] or less of companies.



Overall Status of performance result summary of manufacturing sectors of India

1. 7 % out of 100 survey industries lies in the lagging category towards the sustainability capability
2. 16 % out of 100 survey industries i.e. 1/6 ratio lies slightly above the lagging sectors category towards the sustainability capability
3. 25 % out of 100 survey industries lies i.e. nearly 1/4 the ratio lies in the middle range category towards the sustainability capability
4. Results of 10 % out of 100 survey industries very much better than the middle range lies in the slightly above performer category towards the sustainability
5. Only 4 % out of 100 survey industries lies in the leading category towards the sustainability capability
6. [44%] of Indian manufacturing sectors Use electronic processes to create efficiencies in sourcing and procurement
7. Cost and complexity are perceived as the biggest barriers to implementing Green SCM, which highlights the need for cost effective and easy to implement solutions.
8. Brand building is one of the top incentives for green SCM, highlighting the importance of public perception of how companies operate.
9. Recycling of raw materials and component parts are the top green manufacturing and production focused initiatives
10. Adoption of green practices is highest in those areas of the supply chain where there is a direct relation to cost savings and efficiency, for example in inventory reduction, recycling of raw materials.
11. Almost a third of respondents are not collaborating with their extended supply chain on green practices.
12. 64 % of companies are not using e-tools extensively to support their supply chain operations, suggesting an opportunity to explore greater usage of electronic tools to facilitate green practices among the other half.

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SKILL DEVELOPMENT: CHALLENGES AND OPPORTUNITIES

DR. MANISH KUMAR
MD & CEO - NATIONAL SKILL DEVELOPMENT CORPORATION

India is driving unique initiatives under the Skill India mission to create an employable workforce. About 7 crore additional individuals in the working age (15-59 years) are expected to enter the country's labour force by 2023. This will include 5.9 crore youth (persons aged 15-30 years)¹. Reinforcing efforts to develop the skills of the country's youth is therefore of essence. There is also a need to build on strategies for upskilling and reskilling the workforce and for formal recognition of informally acquired skills.

In India, there are a variety of skill development models - government-funded programs that fully or partially subsidise training/apprenticeship, market-led trainings (where trainees pay for the course), market-led apprenticeships, industry-led/on-the-job training. The National Skill Development Corporation (NSDC), a not-for-profit public limited company (with 51% share capital owned by industry associations and 49% by the government), was set up as a Public Private Partnership (PPP) model, to catalyse private sector participation in the Indian skill development sector. A core role of NSDC is providing long-term development finance to organizations for building for-profit vocational training initiatives. We also work closely with the Ministry of Skill Development and Entrepreneurship (MSDE) to implement government grants-based vocational training programs, where infrastructure is set up by private providers and training costs are subsidized by the government. Our focus is also on creating and strengthening enabling systems for the provision of skills training - covering elements such as standards, content and curricula.

This article highlights some of our challenges and strategies to respond to the skill development imperative. Our efforts hinge critically on collaboration with industry and the private sector. Demonstrating the impact of skill development interventions is another challenge and is needed not only to increase the aspirational value of skills, but to encourage greater participation by industry. An understanding the supply-side of skills in India is also needed, especially given the prevalence of informality in the country's labour market.

Driving industry participation Through partnership models...

Collaboration with industry is fundamental for ensuring relevance and quality of skills training and for building the institutional structures required to achieve envisaged outcomes. 37 Sector Skill Councils (SSCs) are currently operational, with over 600 corporate representatives in their Governing Councils, to foster industry connect and develop industry-relevant course and curriculum. We also encourage innovative industry partnership models to drive reskilling and upskilling

initiatives and develop collaborations with employers to prepare their workforce for new technologies and the future of work. To understand the upskilling and reskilling imperative, consider the following figures: India's labour force above 30 years of age is 26.2 crore in size, of which 25.9 crore individuals are currently employed.² They may need to upgrade their skills and/or acquire new ones.

One challenge is that skills are often difficult to observe or measure and therefore proxies such as educational attainment are used. But these may not be adequate proxies. People in specialized occupations (for example plumber, automotive mechanic) may be highly skilled even if they do not have a formal educational qualification. At the other end, an aeronautical engineer has both high skill and high level of formal education. Years of education or level of formal education may be an especially imperfect proxy in an economy such as India's, where there is a vast segment of informal workers in India, many of whom possess skills that have not been formally recognized.

In such a scenario, employers may not know which skills a potential employee possesses, and therefore may not be willing to pay a premium for the skills. Formal certification can improve an individual's bargaining power, and there is some evidence for this. A third-party evaluation³ of the RPL component of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) found that on average, RPL-certified individuals earn 25% more after certification and their monthly income is 19% higher than that of similar individuals who have not undergone the program.

An NSDC analysis of a unique dataset based on a household survey conducted by the Centre of Monitoring Indian Economy (CMIE) has shown us that there are over 39 crore individuals who have acquired skills informally - through self-learning, on-the-job learning, hereditary or other sources. Of these, a majority (38.4 crore) are working. This points to the scope for RPL interventions.

Both RPL interventions and apprenticeship-related ones typically involve collaboration with industry and the private sector, even when they are part of publicly-funded programs. For instance, the RPL program under PMKVY includes an industry-led model that involves partnership with large employers. The apprenticeship intervention under the National Apprenticeship Promotion Scheme requires industry to take on apprentices who are trained while working in the enterprise.

... and in the operationalization of training delivery

'Skill' is a complex concept and a variety of definitions

are used. The Macquarie Dictionary defines skill as 'the ability that comes from knowledge, practice, aptitude, etc., to do something well'. The ILO defines skill as the ability to carry out a given job⁴. It has two dimensions: skill level (which depends on the complexity and range of the tasks) and skill specialization (field of knowledge, tools/machinery/materials used, goods & services produced). Operationally, the ILO uses educational attainment to define skill level, which only partially reflect that skills can also be acquired through informal learning and experience.

According to ILO (2017)⁵, there are three types of skills: generic / soft skills (ICT, problem-solving, communication, decision-making skills); basic (literacy and numeracy); job-specific / technical (specialist knowledge, knowledge of products or services produced, ability of operating specialized technical tools and machinery, knowledge of materials worked on or with). The World Bank⁶ finds that three types of skills are increasingly important: advanced cognitive skills such as complex problem-solving; socio-behavioural skills such as teamwork; and skill combinations that are predictive of adaptability such as reasoning and self-efficacy. Espesto (2008)⁷ suggests that skills are those generalizable attributes of individuals that confer advantage in the labour market. The following definition of skills stated by the NSSO also specifies that skills have market value: Any marketable expertise, however acquired, irrespective of whether marketed or not, and whether the intention is to market it or not, is considered as skill. Thus, a person holding a certificate/ diploma on an appropriate subject will be considered to possess the specified skill along with persons who have acquired the said skill without any such certificate/ diploma or even without attending any institution.

A central theme that emerges from these definitions is that skills are related to 'competence' and the ability to do a job well, may be formally or informally acquired, and have a market value. Vocational programs play a critical role in imparting such skills. The NSSO notes that the primary objective of vocational education and training is to 'prepare persons, especially the youth, for the world of work and make them employable for a broad range of occupations in various industries and economic sectors or enable access opportunities of self-employment'. Vocational education and training courses enable students to acquire skills which are traditionally non-academic and related to specific trade, occupation or vocation.

In India, the National Skills Qualifications Framework (NSQF) is the competency-based national framework to which many training programs, including the government-funded ones, are aligned. Across countries, such qualification frameworks emphasize objectives such as relevance and flexibility of education and training programs, recognition of prior learning, enhancing lifelong learning, developing quality assurance systems. Accordingly, through the National Policy on Skill Development 2009, India had also recognized the need for a national qualification framework to stimulate and support reforms in skills development.

The NSQF describes each of its ten levels in terms of

competency levels that would need to be achieved. Under this framework, 'skill' is interpreted as the ability to apply knowledge and use know-how to complete tasks and solve problems. A distinction is drawn between cognitive (involving the use of logical, intuitive, creative and critical thinking) and practical skills (involving manual dexterity and the use of methods, materials, tools and instruments). Each NSQF level specifies learning outcomes - which may be achieved through formal or informal learning - in terms of process, professional knowledge, professional skill (which includes cognitive skills; communication and interpersonal skills and generic skills), core skill and responsibility.

In the NSDC ecosystem, the NSQF framework is operationalized through the creation of National Occupation Standards (NOS) and Qualification Packs (QP). A NOS defines measurable performance outcomes required from an individual engaged in a given task and states what he or she should know and do. A QP corresponding to a job role is defined as a combination of the relevant NOSs. NOSs and QPs are formulated by SSCs, which drive industry participation in the process through expert committees, stakeholder workshops and validations from organizations. Over 2200 QPs and 6600 NOS' have been created so far.

The next step is curriculum development. The curriculum presents the plan for instruction and contains the objective of the content in terms of the skills and knowledge to be imparted. It defines the target audience, the content, teaching tools and equipment, and assessment. The curriculum simplifies and breaks down the NOSs into specific learning objectives.

The curricula and content include components of soft skills, employability skills and entrepreneurship. For instance, under PMKVY, the duration of the soft skills training module has been increased from 40 hours to 150 hours depending on the job role, with 20 hours dedicated for entrepreneurial training.

There is a recognition that effective and qualified trainers and assessors are critical for high training standards and robust assessment processes. Systems that provide continuous professional development training and certification to eligible trainers covering domain and platform skills have therefore been put in place and are being strengthened. While National Skill Training Institutes (NSTIs) under Directorate General of Training (DGT) prepare trainers and assessors for long term training programmes, SSCs/NSDC develop trainer and assessor capacity for short term training programmes through an industry-driven process.

Measuring and amplifying impact of skill development interventions

The systems and processes that have been developed and strengthened over the years have enabled scale in imparting skills training. With an annual training capacity of 5 million, NSDC has over 500 training partners that run 11,000-plus training centers across India. Training under government programs has been conducted in more than 8,000 training centers. The NSDC-supported ecosystem has skilled over 2 crore

candidates through its partners, who run training programs that may or may not be part of government schemes.

Additionally, we have observed impact on the ground. In a third-party evaluation of PMKVY 2016-2020,⁸ it was seen that STT training and certification leads to an increase of nine percentage points in the proportion of employed respondents (32% vs 23% in comparison group) and training by itself leads to an increase of eight percentage points (31% vs 23%). 30% of PMKVY-STT respondents were not looking for jobs at the time of the survey due to interest in education or other reasons. Out of the individuals looking for employment, 45% were found to be employed. The evaluation also found that the average monthly income of STT trained and certified individuals was 15% higher than that of similar individuals. Training per se led to an increase of 9 percentage points in average monthly income.

In addition to the quantitative benefits mentioned above, RPL-certification was found to have various qualitative benefits. 61% of the respondents acknowledged that they have benefitted from the RPL program, wherein the most stated benefit was 'increase in self-confidence' (79%). Also, 75% of employed RPL-certified respondents said that PMKVY training has helped them to be more prepared for their current employment.

This evaluation study is in line with the literature that uses quasi experimental designs to identify an intervention's impact. Comparison groups are created by matching on observable attributes such as demographic factors. Examples of such studies include: a study of the skill training and employment placement services of projects under Employment Fund (EF) in Nepal, which found a positive and significant effect on employment rates and earnings; an evaluation of a training program targeted at poor youth in Argentina, which found evidence of formalization of employment; and a World Bank study of Skill Development Programs in five States in India (Assam, Andhra Pradesh, Madhya Pradesh, Odisha and Rajasthan), which found that the programs on average have contributed to increasing the employment and earnings of the trainees.

To understand whether participants perceive any benefits of undergoing formal vocational training courses (long- or short-term), we studied data from a household survey conducted by the Centre for Monitoring Indian Economy (CMIE). Among those who were working and have completed a formal training program, over 71% said that the training was helpful, of which 76% of them said the training helped them to get work. Among those who were not working at the time of the survey but had worked post training, nearly three-quarters stated that the training was helpful, with the most cited benefit being that it helped them in getting work.

Efforts to address various challenges faced by India's labour market can help to amplify the impact of skill development interventions. One such challenge is low female labour force participation. Out of the country's estimated labour force of 39.52 crore individuals, only 9.16 crore are women.⁹ Skilling initiatives - complemented by a wider push towards empowerment

through gender sensitization, creation of economic opportunities, economic and social support - can be leveraged to raise this number. Measures such as providing residential facilities for women trainees, embedding mentoring and coaching in skilling programs, providing social support through mechanisms such as local workshops, have been explored. Enabling women for forms of employment that are more attractive for them, such as gig economy jobs that offer flexible work models, is especially relevant, given that 22.92 crore women (out of the 30.15 crore who are not in the labour force) report their status as 'Attending domestic duties'.¹⁰

Encouragingly, our progress so far in terms of creating access to skill development for women has shown positive outcomes. Over 50% of the candidates trained under PMKVY are women. Significant number of women have also been trained in unconventional roles such as those in electronics and hardware sectors. In our paid courses, women account for 40% of the total trained candidates. Here too women are increasingly enrolling for unconventional job roles, such as field technician, organic grower and automation specialist. Several training providers in our ecosystem focus exclusively on women and are promoting skill training in areas such as digital and financial literacy, entrepreneurial skills, website designing, 2D and 3D designing, hardware repair technician and farm management. Partnerships with industry to support women-centric projects for training women in non-traditional trades such as Computer Numerically Controlled (CNC) operator and Quality Control (QC) inspector in the automotive sector have also been explored.

There are many organizations that are stakeholders in the skill development sector and have gained rich experience and knowledge from their work in the space. The learnings and insights from skills training provision and implementation of innovative models must be leveraged to drive the sector to the next level of performance. Platforms for stakeholders and practitioners to share and disseminate knowledge, to learn from each other's systems, practices and experiences, and to bring on board diverse perspectives, are the need of the hour to encourage new initiatives and collaborations, strengthen institutional knowledge and capability, and research and analytics to deepen the knowledge pool on skills.

- 4 <https://www.ilo.org/public/english/bureau/stat/iscofisco88lpubl2.htm>
- 5 Qualification and Skill Mismatch: Concepts and Measurement, ILO, 2017
- 6 World Bank. 2019. World Development Report 2019: The Changing Nature of Work.
- 7 Skill: An Elusive and Ambiguous Concept in Labour Market Studies, Alexis Esposto, 2008
- 8 Conducted by Sambodhi Research and Communications Pvt. Ltd
- 9 NSDC Analysis of data from Periodic Labour Force Survey (PLFS) 2017-2018
- 10 Ibid

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SPECTRUM 2020 ANNUAL SCM CONVENTION ON 21ST FEBRUARY 2020 - IIMM CHENNAI BRANCH

The Programme started with the lighting of Kuthuvilakku by Mr Malay Chandan Majumdar, National President IIMM, Mr.Kaniappan, President WABCO India and Chief guest for the event, Dr. Arvind Bharadwaj, CTO Mahindra & Mahindra Ltd Farm Equipment Sector and keynote speaker, Mr. B.Ramesh Spectrum 2020 event Chairman (12th edition) and Mr. J.Ravishankar Chairman IIMM Chennai.

The invocation song was rendered by Ms. Harini student from MOP Vaishnav college. Mr J.Ravishankar welcomed all participants and highlighted briefly the activities of Chennai branch. It was highlighted that among all the 45 branches and 20 chapters in India, Chennai branch is leading in a number of professional development initiatives such as running a diploma course in supply chain management for working professionals. Briefly he stressed the need for supply chain professionals to get networked and participate in all professional activities initiated by IIMM and thanked all for joining in the event.

Mr S.Subramanaian (Subbu) who provided the opening remark was introduced by Mr.Sivaraman MOC as the Content Committee chairman for the event. As a person who had pioneered IRCTC online booking website, he had been developing the contents for the events in the last years. He briefly highlighted the theme of Spectrum 2020, i.e Smart logistics enables SCM 4.0 and the impact of technology in various aspects of day to day life and in the supply chain domain.

The next speaker Mr M.C.Majumdar, National President-IIMM stressed that the industry in which he works i.e oil industry is highly dependent on logistics. Because of logistics improvement, the turnaround has increased and more urban space is released. He also mentioned that improvements in logistics have also reduced the demand for commercial vehicles, as the turnaround time has reduced and more vehicles are moving on road than waiting.

Mr Kaniappan, President of WABCO India who holds M.Tech in Mech Engg and has done Wharton Business school Executive development programme, provided his address as Chief Guest. He had earlier started career in TVS Motors. The focus was on SMART Fleet management solutions. Briefly narrating the evolution of vehicle industry, he stressed that the entry of global players really made the change towards development. The recent push by the Govt on emission regulations from 2015 has really made the major changes in the vehicle design and production. He stressed that vehicle intelligence is emerging as a new concern and with entry

of global players and recent developments in E-commerce had created major changes. The need to enhance technology in logistics sector was highlighted as the need to compete internationally. The need for having more intelligence in vehicles was mentioned as the transformant step. With electronic engine management, the data analysis has created improvements. Need to equip young people to these developments in autonomous connected electric vehicles and driver management system and such new developments. In load and cargo management, the monitoring of trailer trucks, such a real time monitoring of temperature systems as it improves efficiency, were stressed.

Dr Arvind Bharadwaj provided the keynote address. He is a mechanical engineer with Ph.D and MBA with distinction Michigan state university focussed on Smart logistics and its impact with emerging mobility technologies

His introduction to mobility in logistics has listed the following key drivers

- Transportation efficiency
- Cost optimization
- Safe and consistent services
- Technology convergence

He elaborated how these drivers lead to the following challenge to make these technologies accessible.

- Improved operating economics and efficiency that
- Emission and environment
- Infrastructure constraints
- Energy security

He narrated further how the potential impact of technology across sized applications in 2025 will lead to a \$ trillion business annually. Some of the areas highlighted include macro trends impacting mobility connected electric vehicles, shared mobility and autonomous vehicles in business. In the farm and agricultural sectors, in which he is working, its impact on the full ecosystem and what we can do with this type of mobility on Improved jobsite productivity and operator performance, financing network partner, location, availability, proof of work were highlighted. He added further that multi application, multi product, multi customer open architecture have enabled flexible, scalable, third party enabled.

He also presented briefly Digisense technology from Mahindra Renting out tractor using technology. He shared a video presentation on Shared mobility Porter

and TRRINGO as tractor call kard. The Porter mobility sharing ensures vehicle tracking and delivery. The Tringgo app for farmers does intelligent match making on tractor rentals. It also showed how electric and sustainable mobility e- Supro for urban mobility – is developed by Mahindra Group i.e for example, power and cargo van for high value goods as safe carriage, having zero emission advantage. Besides, efforts to creating waste from wealth, using all waste from old city and converting waste into auto grade CNG. The by-product is organic fertilizer. In this way, food waste is converted into more than 90% methane organic CNG. First and only gas driven tractor and Mahindra jeep.

Further video clippings on autonomous vehicle trials in Europe in US i.e UPS self-driving delivery trucks, having completely autonomous driver functions. The Indian experiment with driverless tractors i.e hands free, piloting in Punjab and UP of driverless tractors was shown. This has resulted in uniform crop pattern and increased yield.

He concluded the session with following remarks

- Penetration will happen much faster than matured economies
- Affordability and applications will be the key factors
- Skilled labour dependency

The inauguration function closed with award ceremony. Mr.T.N.Srinivasan who is an active member from IIMM Chennai branch was awarded the distinguished member from IIMM by the Chief Guest.

The Best Chairman award among all branches was awarded to Mr Swayambhu by Mr Kaniappan. It was also highlighted that so far, 14 distinguished members from IIMM Chennai branch have received distinguished member awards. All speakers were presented mementos and vote of thanks provided by Mr Sethu Venkataraman-Secretary.

Technical session 1

1. Dr.M. Arumugam Managing Director Broadline Technologies Pvt Ltd. Provided the facilitation for this session. The focus of the session technology advancement in logistics was on AI, ML, BC & DRONE.sThe advances in AI/ML were briefly presented. The current competition is truly between supply chains. The history of supply chain and logistics was narrated -From TOC to Forrester Effect to 3PL to Operation Desert Storm to Green supply chain to bullwhip e Development of autonomous logistics effect to secure systems.

5 disruption stages in logistics sector was highlighted

1. The kodak moment
2. The internet infrastructure (fibre optics)
3. Disruptive biz models
4. IOT and AI
5. The adaptation curves

Future of logistics Evolution of industry to Industry 4.0 will be driven by the following key drivers

2. Interplay of operation and information technology
3. Connectivity and robotics
4. New breed of technology players entered providing logistics services.
5. The delivery capability is enhanced using shared logistics. Development of autonomous logistics Shyp and Zipments are new logistics companies in that move towards a circular economy which also needs to be green. Examples of other companies are Matternet, Amazon,Barracle Shippo ,Shyp Flexport and Shiphawk.

Autonomous cranes is another development Kone cranes and Potain power cranes. Also an example on drugs shows various distribution of drugs in Africa using drones. Initially help was taken from Coke distribution channel. Mobile robots can manage warehouse operations, more efficiently and effectively.

Autonomous ships and autonomous fleet are another area. Autonomous AI are operating in Italy. For this competitive supply chain and fleet management are required. IOT can be applied over a range of areas. It can be an intelligent enterprise. Big data in logistics leads to accuracy.

He narrated the journey of technology in SCM from year 1700 to year 2020. The impact of each of Block chain, Artificial intelligence, Machine learning, and Internet of Things was summarized in the beginning.

Machine learning ensures using data with sensors

Technical Session 2

Mr. Mr.G.Vipin Shankar Director Regional Operations (ILS) South Asia. APL Logistics India Pvt Ltd. INTELLIGENT INTERMODAL transportation services focussed on development of logistics over the last 300 years. The main disruptors of logistics are Block chain, Machine learning and Artificial Intelligence and Internet of things. Each of them have led to clear disruptions. The block chain helps to move towards a transaction which is already authenticated and quicker interface. The machine learning algorithms such as what we see in Google are good examples. He further illustrated through videos and visuals on the emergence of logistics to Industry 4.0 level and further into 2030's.

Technical session 3

Future proof reverse logistics MrN.Swayambhu, former Chairman of Chennai branch was the session chairman. Mr Nagappan former GM Materials Management-Apollo Hospital Group facilitated the session on “ Reverse logistics and return logistics.

Complete reverse logistics in a layman's language was provided. He highlighted how in the day to day life of our having medicines and dealing with medical shops the issue of expiry date becomes a key factor. He further highlighted how the expired medicines, waste hospital material both medical and non- medical waste are disposed. On the key area of regulatory frameworks

including Drug Control Order the core issues relevant for return logistics were highlighted. E pharmacies emergence and issues related to their logistics were also highlighted.

He answered how medical waste is returned and used. How the expiration of medicine is known to a pharmacy was clearly explained.

Technical session 4

Mr Ratnakar AVP- Sourcing & Associate Vice President -Sourcing & Commercial Hatsun Agro Product Ltd. Facilitated the session. The session was chaired by Mr.T.A.B.Barathi Director-Education. This was illustrated as a case study on Hatsun Agro Products Ltd. He heads procurement and commercial functions. He is an MBA from IRMA Anand in rural management. Hatsun Agro Products Ltd, which started 50 years back. It is exported to 38 countries. From ice cream business they have diversified into dairy business. Right now milk is regulated for selling in domestic market only. Ice cream, fresh liquid milk, curd, long life products like milk powder chocolate ghee etc.

HAP has diversified into chocolates also. In Tamil Nadu and southern states it has at 19 locations manufacturing facilities. Operations in India cover Tn, AP, Karnataka, Telenghara and Maharashtra and has grown over 50 times. To Rs.5000 crores to selling in southern states only. The growth of HAP has moved from 1 MLPD in 2005 to 3 MLD in 2018. Milk sourcing villages cover about 13,000 in numbers from 4 lakhs farmers covering 7.63 lakhs cows.

HAP takes from small farmers the buying of milk from one two cow owners. 3.5 million litres per day is the handling capacity. During summer production of milk from cows come down by 40%. We can test for any chemical or any hazard. Basic aims of sourcing – traceability. Milk is bought from farmers. HAP has a system to reach to any animal. Can trace out any antibiotic to any animal. Milk tested for paying the price. The price is determined and farmer gets an SMS and the price details are given to him. Vehicle allotted to logistics team collects milk from ABC to plant. Within an hour and 1.5 hours the milk is chilled.

Checking the stock availability of RM/PM in ERP system and availability of milk collection. The challenge is how to reduce the chilling time to milking time to 3 hours. After chilling it is not a challenge.

4 lakh farmers 7.63 animals. 9385 collection centres. Milk sample test for FAT and SNF. Milk undergoes 45 tests. 30 lakhs litres are collected per day. Snapshot of SMS sent to farmers 7 lakhs SMS sent every day.

100% direct transfer to bank accounts every 10 days he is paid. Also cattle feed business is done by us. 1496 vehicles travel 2.75 lakh kms every day. For milk procurement. Electronic milk testing and use village level chilling and Bulk Milk chilling. No bulk vendors from 2015. Boston cooling technology used and HAP is the first to buy 500 machines. Now it is computerised. Information on what place what temperature in village

and how much milk is procured on daily basis.

Payment is made thro bank account to 4 lakhs farmers, 9385 HMB in charges and Building owner at 85, is the full map.

In terms of production HAP distributes 50 lakhs pouches and 14 lakhs packs a day. 49.7 lakh litres of milk. 20 tonne truck to 3 w auto are used for transport. HAP has 3000 own shops for distribution. 57,000 chillers are kept in the market. Selling milk and solid products separately. Refrigerated trucks are used for transport of ice creams Ibaco ice-creams premium ice-creams. Varieties of small batches of chocolates made at Salem plant.

165 8 states & UTs to sell 36 ice cream flavours ice creams, toppings etc. Ice cream cake unique challenges. Moving into pizza 40% of pizza is cheese. 1000 MT cattle feed every month. 20 ingredients from all over world to make cattle feed manufactured. Subsidized rate to farmers. Tracking every animal of farmer vaccination, insemination etc. Get animal pregnant every year is the responsibility of HAP

Non milk sourcing

- RM,
- Packing materials
- Capitals
- Import and export
- Consumables

ARIBA supplier life cycle system fully implemented. RFP advantages full transparency.

Technical session 5

This session was facilitated by NTC Logistics India Pvt Ltd. Mr.Balaji CEO specialist in logistics turnaround. The theme of session is 'End to End logistics'. Mr.B.Ramesh the Spectrum chairman anchored the session. Company Scienntc Supply Chain synchronized on Topic End 2 End logistics solution for better tomorrow. As a travelling salesperson of FMCG company, taking orders from stockists to deliver the products in time. Either the delivery was delayed or condition was not good. 7 Rs for efficient logistics. Right product right customer, right time, right place, right quantity, right quality and right price

Logistics evolution can be mapped as

Industry 1.0 1800, Industry 1900 Industry 2.0, Industry 3.0 1970's, Industry 4.0 2018 plus, Digital ecosystem 2030 plus

Digital ecosystem, Flexible and integrated value chain networks, Virtualized processes, Virtualized customer interfaces, Digital supply network, Data driven digital supply network which is analytically powered.

Consumer Experience, Increased and real time visibility, Better options both product and service, Buying decision tools are many Cost transparency and Low Service Tolerance

Impact to logistics, Predictive analytics to study buying

behaviour, Service innovation, cost effective, effective and efficient delivery, Necessity to break silos and make it collaborative.

End to end SC should deliver C2C efficiency.

3 steps connect co create and collaborate - Case study
2 Co-creation Synchronized logistics - Returnable packaging solutions- Real time monitor and tracking-digital weight confirmation.

PPC centre- processing centre. - PPC storage can be ambient or cold - Use of standardized pallets increases turnaround. Pay by use engagement model.

Recognition of support by sponsors

The NTC group representative received the title sponsorship

Mr H.K.Sharma Sr. Vice President, IIMM and Additional Director General DGS&D gave award to NTC group and Bharani hydraulics, the Gold sponsor. Silver sponsor was received by Raj Petro, Nerolac, JK Auto engineering and Representative from Motor India was recognized for media sponsorship

Report on panel discussion

Influence of E commerce trends in Logistics 21 Feb 2020

Panel members- 1.Debashish Mohanty Chief financial officer Ych logistics. He has held senior positions in logistics field. 2.G.Raghu Shankar ED- International Shipping and Clearing agency . He has 35 years experience in logistics service and active in MCC and HCC. And Prof D.N.Chandrasekhar a professor from KREA university Certified supply chain management professional. He has published a number of papers and books (Oxford University Press) 4. The chairman of session Mr.S.Subramanian- Content committee chairman

The panel chairman narrowed the areas of discussion to the following

- Ø How does online and brick and mortar co-exist
- Ø 3 PL and 4PL advances
- Ø Increase in online retail
- Ø Integration of delivery in online delivery
- Ø Reorganization of warehouse.

Prof Chandrasekhar highlighted his academic experience and the depth knowledge he has in supply chain field and wanted Mr Raghu Shankar to initiate the discussions.

Mr. Raghu Shankar started the history of digitalization in the last 25 years. The bill of materials was the first to be taken up for electronic data interface in 1996. In 1997, the clients were requested to file from their own office. They equipped electronic filing of all documents, related to testing. Being a signatory to world trade organization, Indian Govt started using SWIFT, electronic submission of documents and testing. This led to avoidance of human intervention. RFID was used for physical goods tracking. From warehouse to port the reading is done in RFID mode and it is reported

electronically to custom's system. RFID ensures tamper proofing. By making electronic document similar to GST, the documents can be seen anywhere in India electronically. This is an E initiative of Govt of India. This removes human intervention. Customs do not know how to market. No one visits customs house, these days as all work is in electronic mode. PCS system will link all players and ports in the international supply chain. This is targeted for 2021. Govt is moving faster than industry.

Reg the carrier part he suggested that it can be done electronically. Main reason will be less errors. Import and export documents in future if they match, you can even pay custom duty based on the document without custom certification. Facilities available and there may not be a case to complain.

Mr Debashish Mohanty, while sharing the experience of his own family members like old ladies discussing what to purchase from website. Traditional effort may not be wrong. Still we have newspapers. Our requirements do not end with that. He narrated the traditional newspaper distribution- a simple supply chain. Change or evolution in last mile delivery, is happening in all businesses. 25% customers want same day delivery. 25% of industrial and consumer products need to be delivered in the same day. A comparison between a traditional and modern DCs is shown. Instead of person going to rack, rack comes to him. Palletizing is essential. He highlighted the following practices

- Ø Route optimization
- Ø Auto dispatch
- Ø Real time status update
- Ø Use of sensors
- Ø Delivery by drones, self-driving cars and robots.

India is getting ready for \$ 5 trillion economic size. 60% of workforce will be taken by robotics. He also briefly touched upon the following.

- Ø Blockchain revolution
- Ø Use of decentralized digital ledgers will help
- Ø Traditional versus technology driven model
- Ø Logistics industry handles consolidated last mile delivery thro' various applications
- Ø Hyper markets and ecommerce players
- Ø Cross border movement is made easy
- Ø Technology driven fulfilment centre
- Ø Automation for efficiency
- Ø Reverse logistics has gained importance.
- Ø Benefits of modern LMD to Industry

The program ended with a vote of thanks provided by Mr. Sethu Venkataraman Secretary IIMM Chennai branch.

Report by Mr. V Ramachandran, Member IIMM Chennai

● ● ●



Mr. V Hariharan, First National President arrival



Master of Ceremony Mr. N S Sivaraman



Invocation song by Ms. Harini Rangan



Felicitation by Mr. V Hariharan



Welcoming Chief Guest Mr. Kaniappan, MD WABCO Ltd by Mr. B Ramesh Spectrum 2020 Chairman



Welcoming Dr. Aravind Bharadwaj, CTO, M&M Farm Equipment division by Mr. Sethu Venkataraman, Secretar IIMM chennai



09. Welcom Address by Mr. J Ravishankar, Chairman IIMM chennai



Mr. B Ramesh addressing about the event Spectrum 2020



Mr. S Subramanian, Chairman Content Committee speaking on Spectrum 2020 theme



Key Note speaker Mr. Aravind Bharadwaj address to the gathering



Distinguished Member award to Mr. TN Srinivasan



Best Chairman Award to Mr. N Swayambhu, Immi. Past Chairman, IIMM chennai



Guest Felicitation



Vote of Thanks by Mr. Sethu Venkataraman, Hony. Scretary, IIMM chennai



19. Dr. Arumugam addressing on Technology Advancement in Logistics



Mr. G Vipin Shankar addressing on Intelligent Multimodal transportation services



22. Mr. K Nagappan, addressing on Future-proof - Reverse Logistics



24. Mr. D Ramesh, Faculty Member, IIMM Chennai addressing



25. Mr. Ratnakar, AVP - Sourcing & Commercial, Hatsun Agro speaking on Case study, Hatsun Agro



26. Mr. V Balaji, CoFounder and CEO on End to End logistics Solutions



27. Mr. Raghu Shankar Panel speaker - Influence of e-commerce Trends in Logistics



28. Mr. Debasish Mohanty, Chief financial officer, YCH Logistics Pvt Ltd - Panel Speaker



29. TAB Barathi, Spectrum 2020 Advisor and Director Education, IIMM Chennai



30. Mr. M Sundaram Spectrum 2020 Advisor and Chairman Corporate Training



Spectrum Team 2020



Indian Institute of Materials Management

MISSION

- To promote professional excellence in Materials Management towards National Prosperity through sustainable development.

OBJECTIVE

- To secure a wider recognition of and promote the importance of efficient materials management in commercial and industrial undertakings.
- To safe guard and elevate the professional status of individuals engaged in materials management faculty.
- To constantly impart advanced professional knowledge and thus improve the skill of the person engaged in the materials management function.
- Propagate and promote among the members strict adherence to IIMM code and ethics.

CODE OF ETHICS

- To consider first the total interest of one's organisation in all transactions without impairing the dignity and responsibility of one's office :
- To buy without prejudice, seeking to obtain the maximum ultimate value for each rupee of expenditure.
- To subscribe and work for honesty and truth in buying and selling; to denounce all forms and manifestations of commercial bribery and to eschew anti-social practices.
- To accord a prompt and courteous reception so far as conditions will permit, to all who call up on legitimate business mission.
- To respect one's obligations and those of one's organisation consistent with good business practices.

BRANCH NEWS

- ALWAR BRANCH
- BANGALORE BRANCH
- COCHIN BRANCH
- JAMSHEDPUR BRANCH

- MUMBAI BRANCH
- PUNE BRANCH
- VADODARA BRANCH

ALWAR BRANCH

Indian Institute of Materials Management , Alwar Branch Organized a Seminar on “Impact of Artificial Intelligence on Supply Chain Management “ on 7/2/2020 at Hotgel Moti Dungri Palace, Alwar Rajasthan. Mr. Rajesh Luthra Plant Head EICHER ENGINES Alwar plant, Mr. V K Jain Former National President IIMM, Mr. Rakesh Kumar Rastogy were the speakers in the Seminar. Dr. Harender Kumar Vice President North IIMM Presided over the program . The Program was attended by more than 40 delegates across the country. From Rajasthan delegates were from Jaipur, Dausa, Sawai Madhopur, Bhilwara, Neemarana, Bhiwadi and MNCR town Gurgaon , Rewari and Ghaziabad

Mr. Lalit Raj Meena Founder Chairman of the Alwar Branch all the delegates, Former national President and Vice President (North) IIMM. The Conversen started with wide spectrum of activities of IIMM through out the Country and its Objectives. Mr. Meena mentioned in his address that Alwar Branch has 91 members at present in the branch. Out of 91 Members , 78 are Life Member. Every Month Branch is conducting one or More Programs and the Industry Visits. Mr. Meena Further explained that soon we may have additional Branches at Bhilwara, Makarana and Bhiwadi.

Dr. Samar Roy Choudhury Conducted the program as moderator.

In the opening session Mr. V K Jain spoke about the Journey of Digital India with specific reference to the Journey & Impact of artificial Intelligence On Industries in with specific reference to the supply Chain Management. Mr. Jain Specifically pointed out about Co-Ordination,,Integration,and Joint Ventures which will be more effective and will be more effective for the branchThe FNP Mr. Jain also advised Dr. Harender Kumar to co-ordinate with all the branches for inclusive growth of IIMM activities in North India.

Dr. Harender Kumar enlightened the delegates with the activities of IIMM in Northern India with specific reference to the recent activities at Raibareli, Chandigarh, Jaipur, Udaipur and the Alwar Branch. Dr. Harender Kumar also requested Mr. Meena to use his contacts to strengthen the branches with by enrolling members from CSIR Institutions and also to Organize some Joint Program. Mr. Meena explained the they are already in touch with Udaipur and Jaipur branch for the joint programs.



Mr. Rajesh Luthra One of the founder Member of the branch and Plant Head (EICHER) Alwar plant , who was also the Materials Management Department of EICHER made an Impressive presentation on Artificial Intelligence being used by Eicher. The atomization of the plant, use of digital technology were presented with specific reference to supply chain in production. Mr. Luthra also presented that by use of digital technology and artificial intelligence there was some surplus staff,The surplus staff because of upgraded technology

is being given the alternate assignment in the plant to increase the production by which profitability of company is increased

Mr. Rakesh Kumar Rastogy the National Council Member and a successful entrepreneur spoke on Importance of Supply Chain for a successful Industry and because of effective SCM he is able to run more than ten Industries with its branches in twelve countries.

BANGALORE BRANCH

15th February 2020 – Evening Lecture Program: Indian Institute of Materials Management, Bangalore, organized the Monthly Lecture Program for February 2020 on “**Union Budget 2020 - Key Highlights**” by **Mr. Guruprasad V, President, IMA, Bangalore Chapter** at Hotel Ajantha, M.G. Road Bangalore. Around 45 SCM professionals attended the program. Speaker has discussed key highlights of Union Budget 2020 and covered on Understanding of present state of Indian Economy, proposed key changes in Income Tax Laws & Procedures, GST & Customs. He also presented the Sectoral Analysis of the Impact that the proposed changes could bring in for Key Sectors of the economy. At the end the Speaker provided detailed clarifications on various queries of the participants. We received good feed back from the members.



Mr. Guruprasad V. President, IMA, Handling Evening Lecture session -Key Highlights of Union Budget 2020

22nd February 2020 – One Day workshop: Indian Institute of Materials Management (IIMM), Bangalore Branch organized One-Day Workshop on “**Financial Management International Trade**” at Seminar Hall, World Trade Centre, Bangalore jointly with the World Trade Centre, Bengaluru. The Workshop was handled by Mr. Murugesan, Senior Faculty and an ex- Banking professional and Faculty on International Financing with for various Banking Colleges, B Schools.

The Workshop covered four important areas of International Finance - **FEMA, Exchange Control Mechanism – Exchange Rates for Exporters, Importers, Letter of Credit, Incoterms 2020**. The sessions were highly informative and interactive as the Faculty kept the participants fully engaged through the day with his simple and humorous style.

Mr. Murugesan displayed great passion for the subject

as he maintained the same high energy levels the end of the day as he began the day with. He kept the 62 delegates fully active right through.



Inaugural Session - Workshop on 22.02.2020 - Lighting the Lamp by Mr. Murugesan, Sr. Faculty



Mr. Murugesan, Senior Faculty handling session on International Trade - Workshop on 22.02.2020



A view of Delegates Group photo - On the occasion of Workshop on International Trade on 22.02.2020

The **highlight of each session was a Rapid-fire Quiz** on the topic of the session. The effectiveness of the knowledge was evident as almost all questions were answered correctly by the participants, and on most occasions in chorus. We have received an excellent feedback on this workshop and that the take-aways are very useful in their day-to-day work.

COCHIN BRANCH

A seminar on “**Working Capital Optimization through Strategic Inventory Management**” was conducted on 29th Jan at the Renai Hotel Cochin. The faculty was Mr. Jacob Mathew, Chairman of IIMM Cochin Branch.

Working capital is an important measure of a company's liquidity and can be managed through 3 key areas of the business: accounts receivables, accounts payable and inventory levels. When tied up in working capital, cash is trapped and cannot be used for investments. This will result in the need for outside financing through asset sales, debt financing or public offerings.

In the current economic environment, it is essential to optimize working capital to ensure cash is available to organizations for upcoming opportunities. The procurement & inventory function is highly influential in impacting working capital and cash through its involvement in accounts payable and in inventory management. In addition, the procurement function must also work closely with the finance function to set targets for optimizing working capital and for improving cash levels.

The Seminar highlighted the point that in order to properly optimize working capital, there are 3 areas procurement & inventory can directly impact to deliver results like Optimize terms and set working capital targets, Align procurement cycles with supply and demand and Partner with finance to drive sustainable change.

The seminar was well attended by representatives from various industrial organisations. IIMM Cochin Branch also accorded a warm welcome to our Sr National Vice President Mr Harish k Sharma, on his official visit to our Branch. Branch Chairman Mr Jacob Mathew presided over the meeting. Our past Branch Chairmen Mr Oommen Johnson, Mr N N Menon, Mr B R Menon and Mr T A Roby felicitated the new office bearers of National team. Mr H K Sharma conducted a short study class on "Public Procurement", its legal side and procedures, which was well appreciated by the audience.

Branch Secretary Mr K S Shaji gave a brief report on the Branch activities. Branch Treasurer Mr Vipin Babu gave a report on the financial position of the branch. Course Coordinator Dr David Moraise briefed on the various educational activities of the Branch. Vice president Mr M C C Sekaran proposed a vote of thanks. The meeting concluded with a dinner in honour of Mr H K Sharma.



Mr.H.K. Sharma taking class on Public Procurement on the occasion



Captain Alexander Francis our senior life member lighting the lamp for seminar



Sr. VP and Chairman jointly cutting a cake on the occasion



A Partial view of Audience



JAMSHEDPUR BRANCH

Launch New Year (2020) Calendar and Diary : On 20-Jan-2020 IIMM Jamshedpur launch calendar and diary for the year 2020 by the Past Vice President of Eastern Region and NC of IIMM Jamshedpur branch IIMM Mr. K. M. Bhardwaj and Branch Chairman Mr. Shambhu Shekhar at Golmuri Club Jamshedpur. This diary contains all information about IIMM Branches, Past and Current NEC Members, Executive committee Members of Jamshedpur Branch and all achievement of IIMM by all branches. The main focus of this Dairy and Calendar is to inform about IIMM courses and all other consultancy services conducted by the IIMM Branch to all industry and colleges of different location. And the calendar contains all information about upcoming activity of IIMM Jamshedpur like GDMM and PDGMM classes, Month wise lecturer meeting, project training time table, Guest visiting time table by NEC of IIMM and other industrialist.

During inauguration of Dairy and Calendar EC Members of Jamshedpur Mr. K M Bhardwaj, Mr. Shambhu Shekhar, Mr. Rajeev Kumar, Mr. Neelesh Kr. Mishra, Mr. Naveen Kr. Singh, Mr. R K Kullar, Mr. G D Penda, Mr. D N Jha and Mr. S Das were present.



Inauguration of New Session Classes : On 25-Jan-2020 IIMM Jamshedpur inaugurate the classes for new session of GDMM, PGDMM and PGDSCM & L by EC members of Jamshedpur Mr. S. Das, Mr. G D Penda, Mr. S H Vazifdar, Mr. Rajeev Kumar and Mr. Neelesh Kr. Mishra.

Program started with lighting of Lamp by the members and after that Course Co-Ordinator Mr G D Pandey explains IIMM rules like GDMM students required min 60% attendance for appearing in semester exam and time table of the classes. He also introduces all faculties to students. Faculty are:- Mr C Khan, Mr. G D Pandey, Mr. Rajeev Kumar and Miss Snigdha Giri. In new session student registered from various company like TATA STEEL, TATA POWER, TATA MOTORS, ASL MOTORS, RSB, RKF, JUSCO, TIMKEN, STEEL STRIP, INDIAN RAILWAY.



LtoR- Mr. S H Vazifdar, Mr. Rajeev Kumar, Mr. G D Penda, Mr. S. Das, Mr. Neelesh Kr. Mishra



Lecturer Meeting on Topic : On 12-Feb-2020 Indian Institute of Materials Management, Jamshedpur had organised a lecturer program at Centre for Excellence on topic “Ethical Leadership”. Program started by welcoming of speaker Mr. Sidharth Das and all audience through Branch Chairman Mr Shambhu Shekhar. During program other guest Mr K M Bhardweij, Mr Rajeev Kumar, Mr G D Pandey, Mr Nilesh Mishra, Mr Sanjeev Raman was also present.

Mr. Sidharth Das is a chief Procurement Officer in TSPDL Jamshedpur Branch and operate various projects in Jamshedpur and other location of TSPDL.



Audience



LtoR- Mr. S H Vazifdar, Mr. G R Murti, Mr. S. Das, Mr. G D Pendar, Mr. A K Srivastava, Mr. N K Mishra



Speaker Mr. S Das

Mr. Sidharth Das says on his lecturer that “Ethics cannot be viewed as static. We are particularly challenged today as we confront new technologies that are often unpredictable in their impact.”. He also focus on Today employees, consumers and stakeholders value companies that show both a commitment to business

integrity, and also have the organizational humility to never stop seeking improvement. The World’s Most Ethical Companies honorees understand that this approach has a profound impact on communities. He also said that Ethisphere’s long-standing belief that financial performance and ethics go hand-in-hand continues to be validated by the “Ethics Premium.” Ethisphere’s annual practice of tracking how the stock prices of publicly traded honorees compare to the Large Cap Index found that listed World’s Most Ethical Companies outperformed.

As per him in this time of super connectedness, when the ends overpower the means, it is worthwhile to take a step back and introspect if tomorrow exists?? Ethical Leadership is the only way to sustain the tomorrows. And at the end of his lecturer he said Ethical leadership is leadership that is directed by respect for ethical beliefs & values and for the dignity and rights of others. It is thus related to concepts such as trust, honesty, consideration, charisma and fairness. Ethics is concerned with the kinds of values and morals an individual or a society finds desirable or appropriate. Furthermore, ethics is concerned with the virtuousness of individuals and their motives. A leader’s choices and decisions are also influenced by their integral values which in turn effect the whole organization, society or even the Cosmos. At the end of program Mr. Rajeev Kumar deliver Vote of thanks.

MUMBAI BRANCH

Indian Institute of Materials Management. Mumbai Branch organised a two day in house training program at Material Organisation on 22nd and 23rd January 2020 at their training cell at Ghatkopar, Mumbai on the topic “Materials Management and Soft Skills “. The training covered the following topics on day one were Warehouse Management, Preservation of Stores, Materials Management and Material Handling. The topics covered on day two were Supervisory skills, Behavioural Skills, Time Management and Human Values and Ethics.

The faculty for day one was Mr. Alok Ranjan Sarkar, Advisor - IIMM (Ex GM - Materials & GM Engineering & Projects BPCL). The faculty for the second day was Dr. Neil Sequeira, Vice President – HR and Admin Kokilaben Dhirubhai Ambani Hospital. The program was highly interactive and the feedback obtained at the end of the program was very encouraging. The Program was co - ordinated by Dy. Director IIMM Mumbai Branch, Mr. R. B . Menon and his team at Mumbai Branch Office.

PUNE BRANCH

An Evening Symposium on “**Leading your Team to Thrive** “was held on Friday, 10th January 2020 at the Branch Office.

Mr. Krishnamurthy K, the Guest Speaker carry 27 years of experience across diverse Industries like Engineering, Automotive, Energy/Power Industry and expertise in

Strategic Planning, Business Growth, Operational efficiency, Supply chain, Product Innovation.



The Chairman, Mr. Terrence Fernandes welcomed all the members for the session & discussed about upcoming activities of the branch. He also encouraged on membership growth and its benefits & collaborating for new activities to create some value addition which will pave the way to achieve growth and success.

The lecture gave more insights about leadership skills and its attributes to implement the best practices in changing times at different levels for all the organizations. He also emphasized on leadership

strengths giving relevant examples of influencers to help us understand those concepts. Further, he said, it is important to use emotional intelligence effectively to handle complex situations. There are various ways using power strategy and influencing people to achieve the goals but at the end trust element is the most important factor above all. A leader needs to have a global approach and sound business building acumen to drive the organization. Also, he should create more leaders around him so that they are well equipped and dynamic to lead and handle the challenging times for the organization. At the end few useful tips were discussed which are necessary and important for all the leaders in changing times.

The program was attended by more than 30 members. After the presentation, followed a session of questions & answers to clear the doubts and share the thoughts.

The Chairman, Mr. Terrence Fernandes felicitated the speaker Mr. Krishnamurthy K as a token of appreciation.

The National Councillor, Mr. K.R. Nair concluded the session with a vote of thanks.

VADODARA BRANCH

An Evening Talk on 'Product Safety and its Benefits to Supply Chain Management' topic was held on **23/11/2019** from 6.30 PM onwards at our Conf. Hall by **Mr.Malhar Bhatt** which was attended by about 30 members. Mr.Malhar Bhatt is leading Product Safety Section (under SCM Dept.) in Deepak Phenolics Ltd. He is Chemistry Graduate and PGD in Safety & Environment. He is having vast experience in Chemical, Petrochemical, Power, Logistics, Engineering & Construction Industries.

He is Lead Auditor for ISO 45001 (OHS) & ISO 14001 (EMS). He is trained Investigator for Incident Management by DuPont. He is member of PDRT – Program Development & Review Team of Gujarat Institute of Disaster Management. He actively peruses life transformation coaching as his hobby & is Graduate in Landmark and chose listening as his interest. During the Talk, he informed that Supply Chain industry is in revolutionary phase & present time requires us to dedicate ourselves for improving our society by being responsible to our products and its Logistics. The Product Safety is a new vertical which is often referred as Distribution Safety or Transportation Safety. There is ample scope to explore and understand the requirement from Legislation and Environment perspective. The purpose of this talk is to share the information related to the subject and urge Industries to take charge of their Business activities. It involves interplay of Vehicle, People, Product and of course Management. By taking sincere small steps, companies can completely transform their Logistics network to be Safe, Healthy & Eco-friendly.

The talk rekindled thought process for product safety to form a safer society. The photos given below display the glimpses of Evening Talk –



Mr.Lalbhai Patel welcoming Mr.Malhar Bhatt with Flower



Mr.Malay Mazumdar felicitated Mr.Malhar Bhatt with Memento.



The Audience engrossed in Even. Talk

An Evening Talk on '**Practical Spirituality**' topic was held on **9/12/2019** from 6.30 PM onwards at our Conf. Hall by **Mr.Parimal Gandhi** which was attended by about 50 members. In Learning & Development profession since more than 44 years, Mr.Parimal Gandhi is Result-Oriented, Innovative, Gifted, Acclaimed International Facilitator, Consultant, Speaker & Author. By now, he has trained over 1,00,000 participants & 1000 trainers. His abiding interest lies in the application of timeless philosophies to Human Life for Holistic Learning, Development, Performance & Happiness. With Academic backgrounds in Chemical Engineering, Literature & International Certifications, he orchestrates heart-felt learning experiences in his areas of interest like Leadership, Spirituality, Teams, Customer

Service, Innovation, Time Management and Trainer Training. His client list ranges from Fortune 500 companies to small & tiny industries & families. He has spoken at several International Conferences & works in India, Mexico, USA. He has received Lifetime Achievement Award from Indian Society for Training & Development and V-Care Foundation Award for 'Facing Cancer Four Times with Indomitable Courage & Resilience'. The Talk focussed on Spiritual Education wherein 'Sampurna Jeevan Trust' has collected Morals from Holy Books, Scriptures of World's All Religions, Cults to prepare Contents, Books & Teachers for Soul Education with Timely Planning. The Trust specialises in Spiritual Education Arrangement, Help Service, Workshops, Seminars, Lectures, Camps & Books Publication with emphasis on Minimum Financial Transaction, No Bank Account, No Ownership of Resources, Usage of Free Available Resources from Society, Acceptance of Unconditional and Essential Collaboration for Publications & Activities, Spiritual Education whose Commercialisation & Sectarianism is not possible, Negligible Celebration/GetTogethers, Avoiding Honoring Ceremony, Honorary Teachers without Expectation of Post / Status, Respect for all Religions, Castes, Sects, Languages, Countries, etc. Spiritual Education decreases Physical & increases Soul requirements, Enhances Belief in God, Creates Salvation Paths, Matures Individual Personality with Kindness, etc. The following photos display the highlights of Evening Talk –



Mr.Devanand Trivedi welcoming Mr.Parimal Gandhi with Flower Bouquet.



Mr.Bharat Sodha felicitated Mr.Parimal Gandhi with Memento.

EXECUTIVE HEALTH

WINTER DIET TIPS: HOW TO BUILD IMMUNITY NATURALLY - EXPERT REVEALS (WATCH)

RUPALI DATTA

Our body performs various kinds of processes and it is important to take care of our body for it to perform properly.

The human immune system is a remarkable set of functions and processes that keeps disease-causing organisms under control. Our body has two defence systems: non-specific innate immunity and specific acquired immunity. The former attacks all kinds of intruders while the latter targets specific ones. They work in tandem and keep us secure from infections and diseases. Our body's defence system starts with physical barriers like the skin, and includes antimicrobial proteins that destroy infectious invaders. Another line of defence is our cells themselves that attack other cells carrying infectious agents.

Highlights

- A healthy body is essential for our systems to function optimally
- Healthy food rich in nutrients nourish the immune system
- Include these foods in your diet to boost immunity and enjoy healthy life

A healthy body is essential for our systems to function optimally and keep our body healthy. The immune system is not one entity but a healthy environment that ensures our body works in a sound state. We can strengthen our immune system by following a healthy lifestyle.

Here are some tips to maintain healthy immune system:

- Eat healthy
- Exercise daily
- Maintain a healthy weight
- Sleep well
- Maintain good hygiene
- Minimise stress

Healthy food rich in nutrients nourish the immune system. Certain micronutrients have been associated with the health of our immunity. These include:

1. **Zinc:** The nutrient is involved in activating enzymes that make DNA. Best dietary sources are - yogurt,

meat, fish, nuts, sesame and pumpkin seeds, mushrooms, lentils.

2. **Selenium:** protects from oxidative damage, and is involved in DNA synthesis. Sea food, mushroom, barley, cow's milk, egg, sesame seeds, sunflower seeds, flax seeds, walnuts, cabbage, spinach, broccoli, garlic are good sources.
3. **Iron:** It carries oxygen throughout our body. It is found in organ meats, spinach and other green leafy vegetables, legumes, pumpkin seeds, dried fruits like figs, quinoa.
4. **Copper:** This works with iron to form red blood cells. Whole grains, beans, nuts, leafy green vegetables, prunes, and organ meats are good sources.
5. **Folic acid:** helps form DNA and RNA. Sources are green leafy vegetables, beans, peanuts, sunflower seeds, whole grains and egg.
6. **Vitamin A:** supports the immune and inflammatory systems. Richest sources are sweet potato, red orange fruits and vegetables, green leafy vegetables, bell peppers and papaya.
7. **Vitamin C:** the best antioxidant that protects against free radicals. Good sources- Citrus fruits, papaya, strawberries, pineapple.
8. **Vitamin E:** another important antioxidant scavenging free radicals in our body. Sources- sunflower seeds, almonds, peanut, mustard greens, spinach.
9. **Spices** like haldi, black pepper, ginger, and tulsi are used by Ayurvedic practitioners for enhancing immunity.

Include these foods in your diet to enjoy strong immunity and healthy life.

About author: Rupali Datta is a Clinical Nutritionist and has worked in leading corporate hospitals. She is a member of the Indian Dietetic Association and Indian Association of Parenteral and Enteral Nutrition.

Disclaimer: The opinions expressed within this article are the personal opinions of the author. NDTV is not responsible for the accuracy, completeness, suitability, or validity of any information on this article. All

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Reducing 'Ugly Cholesterol' May Help Prevent Stroke: Home Remedies To Manage Cholesterol Levels

Written by Shubham Bhatnagar (with inputs from IANS)

Reducing high levels of remnant cholesterol or 'ugly cholesterol' can significantly cut the risk of stroke and myocardial infarction, say researchers.

Our sedentary lifestyle and dependency on processed and packaged food has made high cholesterol a common problem these days. And it's not just our diet, but even obesity and stress may also increase the chances of high cholesterol. According to a study, published in *Atherosclerosis journal*, the researchers from University of Copenhagen found that levels of remnant cholesterol in the blood of adults are just as high as the amount of the "bad" LDL cholesterol.

There are three types of cholesterol found in the blood — remnant cholesterol or 'ugly cholesterol', LDL cholesterol or 'bad cholesterol' and HDL cholesterol or 'good cholesterol'. "Our results show that the amount of remnant cholesterol in the blood of adult Danes is just as high as the amount of the bad LDL cholesterol. We have previously shown that remnant cholesterol is at least as critical as LDL cholesterol in relation to an increased risk of myocardial infarction and stroke, and it is, therefore, a disturbing development," said a Professor at the University of Copenhagen, Denmark.

The study's findings are based on data from people from the Copenhagen General Population Study, a Danish population survey with a total of 140,000 participants. This study shows that remnant cholesterol may be more responsible than LDL cholesterol, the so-called 'bad' cholesterol, for cardiovascular diseases. The researchers discovered that from the age of 20 until the age of 60, the amount of remnant cholesterol in the blood constantly increases, and for many people it remains at a high level for the rest of their lives. "Previous studies from the Copenhagen General Population Study show that overweight and obesity are the main cause of the very high amount of remnant cholesterol in the blood of adult Danes. In addition, diabetes, hereditary genes and lack of exercise play a part," said MD Mie Balling, one of the authors of the study.

The study's findings point to the fact that prevention of myocardial infarction and stroke should not just focus on reducing the bad LDL cholesterol, but also on reducing remnant cholesterol and triglycerides, a type of fat.

Home Remedies To Manage Cholesterol Levels

1. Garlic

Commonly used in Indian cooking, garlic has been known for its health enhancing properties. Garlic is made up of amino acids, vitamins, minerals, and organosulfur compounds such as allicin, ajoene, s-allylcysteine, s-ethylcysteine, and diallylsulfide. These sulphur compounds are said to be the active ingredients that lend therapeutic properties to garlic. A number of scientific studies have proven garlic to be effective in reducing remnant and LDL cholesterol significantly. Consuming 1/2 to 1 garlic clove daily could reduce your cholesterol level by up to 9%.

2. Green Tea

The most consumed liquid after water is green tea, which is a rich source of polyphenols. These compounds provide immense health benefits to the human body. Green tea has the highest concentration of polyphenols associated with not only lowering remnant and LDL Cholesterol but also increasing HDL cholesterol. A population based study showed that men who drank green tea had lower cholesterol levels as compared to those who didn't. Two to three cups of green tea is all you need.

3. Coriander Seeds

The humble dhaniya seeds have been used in Ayurveda for a number of ailments. Among the long list, lowering bad cholesterol is one of them. Coriander seeds have numerous key vitamins like folic acid, vitamin A and beta-carotene, and most importantly, vitamin C.

4. Fenugreek Seeds

Methi seeds, as they are known to us, have been used as a popular culinary spice, flavouring agent and a medicinal plant since time immemorial. Methi seeds are rich in vitamin E and possess antidiabetic, anti-inflammatory, and antioxidant properties. Saponins found in fenugreek help remove cholesterol from the body and its fibre helps reduce the synthesis in the liver. Half to 1 teaspoon of fenugreek seeds daily is recommended.

5. Amla

It is one of the richest sources of vitamin C and phenolic compounds in addition to minerals and amino acids. The fruit of amla has been used in Ayurveda as a rasayan for the treatment of various diseases. A study published in the Indian journal of Pharmacology, compared the effect of cholesterol lowering drugs against amla. Daily intake of amla not only reduces remnant and bad cholesterol levels but also reduces the damage due to oxidation. One to two amla fruits can be consumed daily.

Source: <https://food.ndtv.com/>

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IIMM HEADQUARTERS AND BRANCHES

IIMM NHQ : Plot No. 102 & 104, Sector-15, Instl. Area, CBD Belapur, Navi Mumbai-400614. Tel.: 27561754 / 2756 5831, Fax : 022-27571022
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AHMEDABAD BRANCH

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C/o SaRaa Group of Companies
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Ghaliodia, Ahmedabad-380061, Gujarat
Cell: 91-9909996711
iimmahmedabad@gmail.com

ALWAR BRANCH

Indian Institute of Materials Management
15, Shopping Centre, Shanti Kunj,
Alwar - 301001 (Rajasthan)
Ph.: 09731245655/ 07877745655
Email: iimmalw@gmail.com

AURANGABAD BRANCH

Indian Institute of Materials Management
C/o. Training & Placement Cell
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Aurangabad - 431001. Ph : 0240-2473339
E-mail : iimmahu@rediffmail.com

BANGALORE BRANCH

Indian Institute of Materials Management
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M G Road, Bangalore - 560001
Ph.: 080-2532751/52
E-mail : iimmbg@airtelmail.in

BHARUCH BRANCH

Indian Institute of Materials Management
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Ph.: 02642-283223
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BHILAI BRANCH

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E-mail : chn.iimm@gmail.com
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E-mail : iimmdhanbad@gmail.com

DURGAPUR BRANCH

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Durgapur - 713203
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GANDHIDHAM BRANCH

Indian Institute of Materials Management
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Gandhidham -370201 (Kutch) Gujarat
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E-mail : iimm_gim@rediffmail.com

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HOSUR BRANCH

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Indian Institute of Materials Management
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JAMSHEDPUR BRANCH

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JAMNAGAR BRANCH

Indian Institute of Materials Management
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Riddhi Engineering Works
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KANPUR BRANCH

Indian Institute of Materials Management
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KOLKATA BRANCH

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LUCKNOW BRANCH

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MANAGALORE BRANCH

Indian Institute of Materials Management
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MRPL, Materials Dept., PO: Kuthethur
Via: Katipallia, Mangalore - 575030. DK
Tel # 0824-2882203
Email: bsnaik@mrpl.co.in

NAGPUR BRANCH

Indian Institute of Materials Management
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Thiruvananthapuram - 695010
Ph. : 0471-2724952
E-mail : iimmtvpm@gmail.com

UDAIPUR BRANCH

Indian Institute of Materials Management
2nd Floor, Above Manohar Furniture
Ashwini Marg, Udaipur - 313001
Ph.: 0294-2411969/2421530
E-mail : iimmudpr@sancharnet.in
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VADODARA BRANCH

Indian Institute of Materials Management
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Colony, B/h Alkapuri Shopping Centre,
Alkapuri, Vadodara - 390007
Ph.:0265-2359060/2353410/M: 7043959060
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VAPI BRANCH

Indian Institute of Materials Management
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VISAKHAPATNAM BRANCH

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Muralinagar, Visakhapatnam - 530007
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V U NAGAR BRANCH

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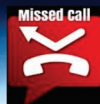
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Contact Us
Ph: 022-27571022,
www.iimm.org
iimmedu@iimm.co.in

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