
From the Desk of The National President



Dear Professionals,

Season's Greetings from National President!!!

At the outset, I wish you all a very happy festive season and hope you with your family have celebrated Dussehra, Diwali and Bhaidooj with joy and happiness.

Winters have started setting in and so is the pollution level across various metro cities. Please take care of your good health. Since, we, being materials and supply chain professionals, should promote green and sustainable practices to achieve greener and cleaner environment.

Coming back to IIMM, We have taken several important decisions in the past month i.e. October. IIMM has signed MoU with Steel Authority of India Ltd. for training their officials through customised Program on Contract Management. A similar arrangement has been carried out for Coal India Ltd. and by the time you receive this journal, a MoU with Coal India Ltd. would have been signed.

Course Coordinator meet was organized at IIMM NHQ to deliberate on the recent policy changes by Regulatory Authorities and how to improve our quality of education besides enhancing admissions.

Our National Mega Event. NATCOM 2018 at Aurangabad is approaching fast on November 22 & 23 November 2018. I look forward and request all of you to join and support this memorable event.

My best wishes for the Branch Chairman and Convenor NATCOM 2018 for the grand success of the event.

Yours

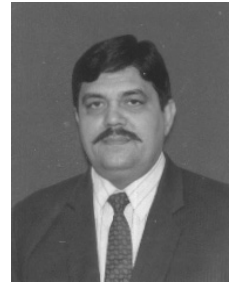


G. K. SINGH

National President - IIMM

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From the Desk of Chief Editor



Dear Members,

The manufacturing industry is currently undergoing frequent adaptive changes driven by the buying behaviour, technological advancements and competitive pressures. How companies choose to evolve, explore new avenues for growth, and better engage their customers can make the difference between thriving and extinction.

The 'traditional manufacturers', in the emerging 'new world of manufacturing', need to align their business models to be responsive to their consumers by implying latest technological innovations. Besides the need to adapt to the emerging manufacturing environment, modern supply chains also provide the opportunity of achieving next horizon of operational effectiveness, to leverage emerging digital supply chain business models, and to transform the company into a digital supply chain.

As we are talking of Industry 4.0, manufacturing systems and the objects they create are not just connected but also draw information from the physical world converted into the digital domain, which is then analysed and used to drive further intelligent action in the physical world, completing a physical-to-digital-to-physical loop of action and informed reaction. This loop of intelligent, autonomous digital activity affects the ways in which companies engage with their customers and meet customers' ever-changing preferences.

A next generation supply chain which is scalable, agile and can provide accessibility from vendor to the consumer, is absolutely essential in collaborating the entire process, spanning from demand planning to co-innovation and product development. Industry 4.0 creates a disruption and requires companies to re-strategize & re-design their supply chain. Several technologies like Internet of Things (IOT), the use of advanced robotics, advanced networking and the application of advanced analysis of big data in supply chain management have significantly improved performance and customer satisfaction for manufacturing industries.

Manufacturing Industry should look out for next gen materials that are high on performance, low on cost, and even lower on carbon footprint. Application of next generation material science technologies on these breakthrough materials enables organizations to create significantly differentiated products.

It would not be strange to expect a different next gen manufacturer in coming decades i.e. expect to see a much more customer-focused and agile set of organizations, as they leverage the new innovations in business and information technology. The basic concept of manufacturing will not change, however, convergence of innovative technologies to change business process and models will bring in greater agility. Therefore, firms must prepare themselves today to remain relevant tomorrow. Firms that will adapt faster, embrace the digital wave better, and clearly identify the end consumer's center of gravity, will remain at the forefront of the industry.

A handwritten signature in black ink, consisting of stylized, overlapping loops and lines.

(DR. M.K. BHARDWAJ)



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MATERIALS MANAGEMENT REVIEW

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VENDOR MANAGED INVENTORY - A TOOL FOR COST CUTTING

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Introduction : Vendor Managed Inventory (VMI) is a method which facilitates efficient processes in inventory management. The aim of VMI is to ensure product availability and freshness at the point of sale with the lowest possible logistics costs while maintaining the lowest possible inventory level across the entire supply chain.

Alternatively, VMI is an inventory management process where the traditional ordering model is eliminated and the vendor has the right and responsibility to make stock replenishment decisions based on agreed targets and regular automatic inventory and/or sales data from buyer.

Successful VMI projects are based on a number of key success factors: the commitment of senior management—from both buyer and vendor organisations; well-defined agreements on goals, service levels, and risks; and tight integration with systems. With these elements in place, good communication and change management practices can greatly contribute to the overall success of VMI implementation.

In order to illustrate, Vendor Managed Inventory (VMI) concept, a framework has been attempted based on the processes in the Officers' Mess at National Academy of Indian Railways (NAIR).

Methodology Adopted : A field visit was conducted to study the different sections of the Officer's Mess and interacted with the Mess Captain. Data regarding number of GOs present at different times, procurement procedures in vogue, menu adoption and various financial data were obtained.

The figures thus received were analysed and discussed internally. Based on the above, some concrete recommendations were proposed which are brought out at the relevant paragraphs.

System in vogue : As mentioned above, various data were collected regarding the present working of the Officers' Mess at NAIR. The relevant portions are brought out as under:

1. The strength of officers dining in the mess daily varies from 100 to 350, with an average of 170.
2. The timetable of courses offered in NAIR, along with the expected strength of officers in each course, is provided to the mess well in advance.

3. Menu is prepared on a biweekly basis.
4. Details of local suppliers for various items were collected
5. Details of staff strength on roll of the mess were also collected
6. Financial data regarding the mess were used to work out annual revenue and annual expenditure.
7. Payments are made to all vendors on monthly basis, through cheques.
8. Products are procured either at MRP or at the prevailing market rates on the day of purchase.

Critical Analysis : The present system is working quite well and has not generated any significant number of complaints from the stakeholders. The entire scheme is managed in-house with bare-minimum administrative costs. The system has the potential of absorbing small shocks, e.g. visit of a dignitary requiring change of menu at short notice, sudden outflow of officers on account of unannounced holiday, etc.

The system, however, has a vast potential for development on account of the following aspects:

1. In spite of bulk purchases, items are procured on MRP basis and the economy of scale is forfeited.
2. Inventory, particularly of groceries, is being carried for up to a period of one week. This exposes such items to seepage, rodent attack, etc.
3. Since the items are procured from local vendors, the quality and quantity, both remain doubtful.
4. Since many products are purchased on a very small notice (and from small vendors), there remains an issue regarding their availability. In fact, it is often the case that the dessert ordered is not available with the vendor and some other substitute, as suggested by the vendor, is delivered as a compromise.
5. The system currently depends upon quite a few different vendors. This requires dealing with all of them and multiplicity in handling the delivery and accounting results.

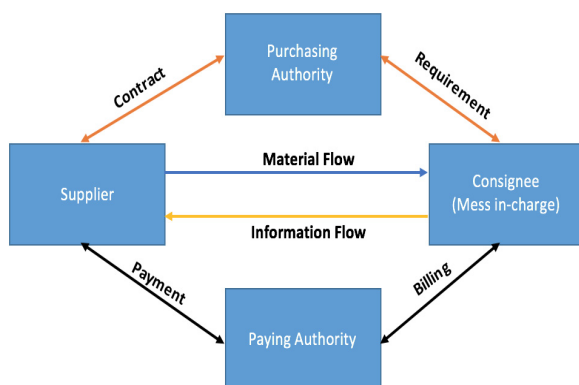
Recommendations : After analysing the present system, the Officers' Mess, NAIR can improve efficiency in

operations, with better food quality and profitability, if the system of Vendor Managed Inventory (VMI) is adopted.

The steps involved shall be:

1. Lay down criteria for identification of Retail Chain Vendor, based on
 - a. Annual Turnover of the vendor
 - b. Wide branded product range
 - c. Own system of procurement and distribution of supplies
 - d. Strong logistics and supply chain in place
 - e. IT framework in place, especially concerning billing and accounting
 - f. Availability of requisite registrations and other certificates
2. Identify at least four local Retail Chain Vendors, based on the criteria developed above
3. Prepare Tender Document taking the following into account:
 - a. Schedule of Requirements
 - b. Duration of the long-term contract, preferably 2-3 years
 - c. Payment system
 - d. Delivery requirements
 - e. Quality control and inspections
 - f. Any other terms and conditions
4. Call Limited Tenders from the identified vendors based on the Tender Document prepared
5. Examination of bids received and finalization of contract with the successful bidder.

Once the above steps have been performed, and the contract is operationalized, the following framework of VMI may be adopted for effective implementation of the scheme.



Framework of VMI Model for Officers' Mess, NAIR

The salient features of the scheme are brought out under:

- a) The Consignee (Mess in-charge) will be responsible for the assessment of daily requirements and placing the order (preferably online) on the Supplier (successful bidder).
- b) The Supplier shall provide the materials in the specified quantities on a daily basis, along with the bill and QC certificate to the mess in-charge. The Supplier will be responsible for maintaining inventory at his end.
- c) The Purchasing Authority will be the officer assigned as the Nodal officer for mess matters.
- d) The Supplier will raise the bills to the Consignee (Mess in-charge), who, after proper verification and certification, will forward the bills to the Paying Authority, who will arrange for online transfer of funds to the Supplier.

With the adoption of VMI, the shortcomings of the present system, as mentioned above, will be addressed in the following manner:

1. Economy of Scale is ensured as the Supplier is catering to the bulk requirement, known to him in advance, with a dedicated term of 2-3 years. This will ensure that the rates received are below the MRP as well as the prevalent market prices.
2. The inventory, under VMI, will be carried by the supplier and he will incur all risks relating to the same. Supply to the mess will be on a day-to-day basis.
3. Under this scheme, the supplier will be required to provide QC certificate along with each supply. Besides, since reputed brands will be encouraged, the quality and quantity of supplies can be ensured.
4. Since a retail chain will be involved for supplying the products, and the contract is long-term, it will be in the interest of supplier to ensure a certain amount of inventory at his end, which will ensure that shortages do not take place and required products are procured and supplied.
5. A single vendor will be involved at any point of time. Hence, the duplicity of efforts will be avoided and smooth flow of information and material between the supplier and the consignee will be ensured.

Conclusion : It is our firm belief that adoption of VMI in Officers' Mess, NAIR, will go a long way in enhancing the customer experience and transparency, which in turn, will have a positive impact on the morale of officers and probationers in particular. The probationers, who are tomorrow's leaders, will take away an enriching experience from the academy which shall be beneficial for Indian Railways in the long run.

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WAY FORWARD FUTURISTIC TECHNOLOGY ENABLED SUPPLY CHAIN – THE NEXT INDUSTRIAL REVOLUTION

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Abstract: Around the world, traditional manufacturing industry is in the throes of a digital transformation that is accelerated by exponentially growing technologies (e.g. intelligent robots, autonomous drones, sensors, 3D printing).

Disruptive **innovations** are currently changing the landscape of many industries and their business models. Because of increasingly **digitalized processes** and an exponential growth of sensible data, supply chains are also impacted by the **fourth industrial revolution**.

Behind the scenes of the world's leading industrial companies, a profound **digital transformation** is now underway. Industrial leaders are digitising essential functions and processes.

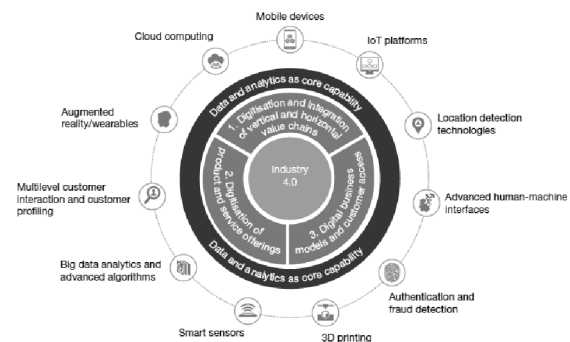
They are enhancing their product portfolio with digital functionalities and are investing in data analytics as a foundational capability to drive innovation and significant improvements in efficiency. In India as well, we see industrial companies planning to dramatically increase their overall level of digitisation.



The term 'Industry 4.0' stands for the **fourth industrial revolution**. Other related terms include '**Industrial Internet**' or '**digital factory**', although neither takes as complete a view. While **Industry 3.0** focussed on the automation of single machines and processes,

Industry 4.0 concentrates on the end-to-end **digitisation** of all physical assets and their integration into digital ecosystems with value chain partners. Generating, analysing and communicating data seamlessly underpins the gains promised by Industry 4.0, which networks a wide range of new technologies to create value.

Industry 4.0 framework and contributing digital technologies



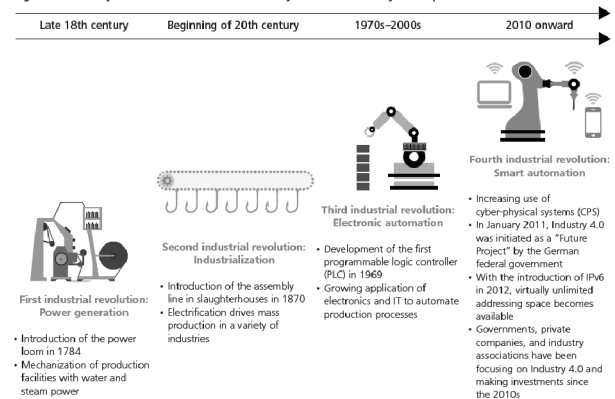
Keywords: (Industry 4.0, Supply Chain, Organizational Change, Innovation)

I.What is Industry 4.0?

"The question arises with industry 4.0 of whether it is an evolution or a revolution."

The concept of industry 4.0 is widely used across Europe, particularly in Germany's manufacturing sector. In the United States and the English-speaking world more generally, some commentators also use the terms the 'internet of things', the 'internet of everything' or the 'industrial internet'.

Figure 1. A history of industrial revolutions: Industry evolution with key developments



Sources: Germany Trade & Invest, "INDUSTRIE 4.0—Smart manufacturing for the future," July 1, 2014; National Academy of Science and Engineering, "Securing the future of German manufacturing industry: Recommendations for implementing the strategic initiative Industry 4.0," April 2013; Deloitte analysis.

Graphic: Deloitte University Press | DUPress.com

The concept of industry 4.0 is widely used across Europe, particularly in Germany's manufacturing sector. In the United States and the English-speaking world more generally, some commentators also use the terms the

'internet of things', the 'internet of everything' or the 'industrial internet'.

What all these terms and concepts have in common is the recognition that traditional manufacturing and production methods are in the throes of a digital transformation. For some time now, industrial processes have increasingly embraced modern information technology (IT), but the most recent trends go beyond simply the automation of production that has, since the early 1970s, been driven by developments in electronics and IT (see Chart 1).

II. Industry 4.0 is the current trend of **automation** and data exchange in manufacturing technologies. It includes **cyber-physical systems**, the **Internet of things** and **cloud computing**. Industry 4.0 creates what has been called a "smart factory". Within the modular structured smart factories, cyber-physical systems monitor physical processes, create a virtual copy of the physical world and make decentralized decisions. Over the Internet of Things, cyber-physical systems communicate and cooperate with each other and with humans in real time, and via the Internet of Services, both internal and cross-organizational services are offered and used by participants of the **value chain**



While terms like industrial **Internet and digital factory** are also used to describe these changes, Here, we use **Industry 4.0** to describe the journey industrial companies are taking towards a complete value chain transformation. At the end of this transformation process, successful industrial companies will become true digital enterprises, with physical products at the core, augmented by digital interfaces and data-based, innovative services. These digital enterprises will work together with customers and suppliers in industrial digital ecosystems. These developments will fundamentally change individual companies as well as transform market dynamics across a whole range of industries. And that is true in countries all around the world—in both developed and emerging markets.

Connected manufacturing as Industry 4.0, several other commonly known terms may point to the same phenomenon. These include:

- Industrial Internet
- Connected Enterprise
- SMART Manufacturing
- Smart Factory
- Manufacturing 4.0
- Internet of Everything
- Internet of Things for Manufacturing

Table 2. Industry 4.0 key business objectives, organized

 BUSINESS OPERATIONS	Productivity improvements	<ul style="list-style-type: none"> • Maximizing asset utilization and minimizing downtime • Driving direct and indirect labor efficiency • Managing supply network costs and synchronization • Ensuring schedule and plan stability and accuracy
	Risk reduction	<ul style="list-style-type: none"> • Ensuring raw material price and availability • Managing warranty and recalls effectively • Mitigating geographic risks
 BUSINESS GROWTH	Incremental revenue	<ul style="list-style-type: none"> • Finding sources of growth for the core business • Growing aftermarket revenue streams • Deepening customer understanding and insights • Strengthening customer integration and channels
	New revenue	<ul style="list-style-type: none"> • Creating new products and service offerings • Expanding internationally and in emerging markets • Identifying attractive M&A opportunities

The term "Industrie 4.0" originates from a project in the high-tech strategy of the **German government**, which promotes the **computerization** of manufacturing.

Design principles

There are 4 design principles in Industry 4.0. These principles support companies in identifying and implementing Industry 4.0 scenarios.^[1]

1. **Interoperability:** The ability of machines, devices, sensors, and people to connect and communicate with each other via the Internet of Things (IoT) or the Internet of People (IoP).
2. **Information transparency:** The ability of information systems to create a virtual copy of the physical world by enriching digital plant models with sensor data. This requires the aggregation of raw sensor data to higher-value context information.
3. **Technical assistance:** First, the ability of assistance systems to support humans by aggregating and visualizing information comprehensibly for making informed decisions and solving urgent problems on short notice. Second, the ability of cyber physical systems to physically support humans by conducting a range of tasks that are unpleasant, too exhausting, or unsafe for their human co-workers.
4. **Decentralized decisions:** The ability of cyber physical systems to make decisions on their own and to perform their tasks as autonomously as possible. Only in the case of exceptions, interferences, or conflicting goals, are tasks delegated to a higher level.

Digital Supply Chain

Where Virtual and Physical Converge



III.Challenges

Challenges which have been identified include

1. IT security issues, which are greatly aggravated by the inherent need to open up those previously closed production shops
2. Reliability and stability needed for critical machine-to-machine communication (M2M), including very short and stable latency times
3. Need to maintain the integrity of production processes
4. Need to avoid any IT snags, as those would cause expensive production outages
5. Need to protect industrial knowhow (contained also in the control files for the industrial automation gear)
6. Lack of adequate skill-sets to expedite the march towards fourth industrial revolution
7. Threat of redundancy of the corporate IT department
8. General reluctance to change by stakeholders
9. loss of many jobs to automatic processes and IT-controlled processes, especially for lower educated parts of society

IV.Impact of Industry 4.0

Proponents of the term claim Industrie 4.0 will affect many areas, most notably:

1. Services and business models
2. Reliability and continuous productivity
3. IT security

4. Machine safety
5. Product lifecycles
6. Industry value chain
7. Workers' education and skills
8. Socio-economic factors
9. Industry Demonstration: To help industry understand the impact of Industry 4.0, Cincinnati Mayor John Cranley, signed a proclamation to state "Cincinnati to be Industry 4.0 Demonstration City".
10. A article published in February 2016 suggests that Industry 4.0 may have a beneficial effects for emerging economies such as India.



V. "Emerging Supply Chain Markets and Revolutionary Technologies in India" 2018 has been quite the year for the Supply Chain Management industry. Having endured a number of challenges over the past days, we have lost some industry giants, gained some new players, and made some unusual collaborations. It is now time for the industry to look forward to the range of fresh approaches, emerging markets and revolutionary technologies that 2016 has in store.

1. **New Technologies:** Whether it concerns user interfaces, new devices or the potential effects of 3D Printing, 2018 has seen a range of new technology, which combined is likely to promote major changes in the operation of the global supply chain.
2. **A new approach to procurement:** Sustainable & Ethical Procurement is at the forefront of many Supply Chain Managers' minds following the consumer-led call for reform which has occurred over the last few months. With scorecard systems and industry accreditation for sustainable and

ethical practice on the rise, it is important to check your procurement methods are squeaky clean.

3. **Pay attention to life cycles:** If, for example, the product life cycle is in decline, it is necessary to add a whole new slant to demand planning.
4. **Couriers enjoy a rise in online ordering:** Couriers across the world are enjoying a rise in online shopping, leading to increased demand for next day delivery. With companies looking into more and more innovative ways to sate the next day demand, it is important to evolve your operations to respond to orders ASAP.
5. **The new dawn of outsourcing:** With the need for increased cost cutting and a focus on the most efficient processes, outsourcing is the future for supply chain companies, according to Ahmed Mazhari from Genpact. Make sure you look into the best ways to embrace your outsourcing opportunities.
6. **Green Transportation:** The focus is on green energy for 2016, with the shipping, trucking and aviation industries all racing to get ahead in the conversion to low CO² operations. Make sure you're up-to-speed with all the options available!
7. **Port Investment:** With a number of investments occurring in ports and distribution centers across the world, freight channels are increasingly connected across a range of vehicle options, it seems huge 'logistics districts' will be a development in the future, encouraging multi-location distribution.
8. **Arctic Shipping:** Whether you are pro or against Arctic Shipping, it is clear that new ocean freight routes through the Northern Sea will remain in the headlines for a while. Following the first Chinese ship to cross the Arctic just a few months ago, it is important to evaluate the environmental responsibility of crossing these challenging routes.
9. **Industry leaders:** Finally, as the industry evolves it is necessary to keep an eye on what the influential supply chain companies and associations are doing. No matter how the industry changes, staying knowledgeable about news, innovations, and experts' opinions will always be important.

VI. Conclusion : In this work on Industry 4.0 two methodological approaches have been used to explore the impact on the procurement function. A scoping study was used to better understand Industry 4.0 while in-depth explorative interviews with seven procurement managers should reveal insights from practice. Of course this study is limited

with regards to the number of participants in the explorative survey. However, the conceptual findings and empirical insights support the conceptual differentiation of "Procurement 4.0" from previous maturity levels of technology use in procurement. The observations have been collected in form of six fundamental observations. Obviously, Procurement 4.0 must support superior Industry 4.0 strategies of the company. In this role it shall assure the dynamic cooperation across organizations borders and the achievement of a collaboration productivity rent, while safeguarding the companies risk exposure within the Industry 4.0 supply chain. However, research on the topic is still in its infancy, while practice signaled a high demand for explanative knowledge. More conceptual and empirical work is needed to better understand the effects of Industry 4.0 on procurement in detail. With these considerations in mind, this work is an initial exploration of the phenomenon and further observations need to be taken.

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SUPPLIER ENGAGEMENT FOR IMPROVED VALUE PERFORMANCE : TECHNOLOGY FOSTERING FURTHER BOND

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Moving beyond the transactional dimensions of supply chain management into a deeper understanding of supplier relationships is critical. Effective supply chain management requires more than improving supplier performance and reducing costs. Good supplier engagement can help your organization meet their business objectives and improve performance.

Developing collaborative and mutually beneficial engagement with existing and potential supply partners delivers greater levels of innovation and competitive advantage than could be achieved through a traditional, transactional purchasing arrangement. It requires a major evolution in how companies approach taking insights of Technological Advancements. Strong performance is needed on both sides for the partnership to be successful and drive mutual benefits.

Supplier Engagement is recognized as a key factor in managing corporate risk, and companies must manage it positively and proactively, with an eye toward becoming a supplier's customer of choice. The supplier-customer Engagement drive a mutually beneficial relationship that creates value for both parties.

Supplier Engagement Relationships Develops Over a Time :

- Benefits of doing business together arise from ideas of sharing as well as exchanging
- Buying organisation seeks to develop a long-term relationship with supplier
- Both organisations share common interests, both benefit from adding value in the supply chain
- Supplier participates with buyer looking for improvements and innovations
- Both parties jointly set targets for improvements in cost and quality
- Meet regularly to discuss progress
- Proactive relationship looking for improvements
- Growing trust, length of relationship provides reassurance
- Customer Reducing the number of suppliers it deals with
- Supplier Assigning Specific Assets to the exclusive use of working on orders for that customer

Mutual Benefits of Supplier Engagement

- Ø Improved Planning
- Ø Focus on Quality
- Ø Improved Product Development
- Ø Greater Supplier Support & Value
- Ø Lower Costs
- Ø Continuous Improvement

Benefits of Supplier Engagement

To the Supplier

The buyer will appoint a vendor manager to develop the relationship. The supplier will always know who to deal with in the buyer organisation.

The vendor manager will introduce the supplier to the managers in the organisation responsible for buying decisions.

The supplier will be kept informed of the buyer's forward plans.

The supplier will gain a much better understanding of the buyer organisation and its needs.

The buyer and supplier will set up joint quality-improvement teams, that both parties will benefit from

To the Buying Organization

The buyer focuses attention on improving the relationship with key suppliers.

The supplier's awareness of the buyer's requirements will mean that the supplier is more likely to be successful in meeting them.

The supplier will be actively involved with the buyer in the quality improvement process.

The supplier should develop a high level of trust and confidence in the buyer.

The supplier is likely to get more business from the buyer, as a preferred supplier

Collaborative v Competitive Relationships

- Competitive approach squeezes the profit margins of the supplier, and by doing so the buying organisation obtains some of the value that the supplier would otherwise keep for himself
- Developing collaborative relationships takes time and

effort – unrealistic to try creating more of these relationships than a buyer can effectively manage

- Where a failure in supply would not be damaging it is not worth the time and effort to create a collaborative relationship

Technology is quickly reshaping just about every aspect

of the way business is done. It is a catalyst for change as well as an enabler across industries, and the procurement industry is no exception.

Technology has provided the ability to deploy Advanced Technological platforms that will help in automating or enable technology linked procurement activities and due to it, procurement organizations will find mundane supplier activities waning. This will provide procurement professionals with extra hands-on time to focus on higher value-add from suppliers.

New technology provides opportunities for procurement to boost market coordination, introduce new suppliers, enable better compliance, increase capacity and speed,

minimize risk and increase trust by removing human error. These advancements not only enhance the performance of the buyer's organization, but also enhance the performance of the suppliers—helping improve the buyer-supplier relationship, collaboration and innovation.

Procurement decision-makers feel that automation is the future for the function. Process enhancement, automation and talent development are the biggest investment priorities for procurement professionals to better engage with Suppliers.

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MDP Training Calendar 2018-2019 Indian Institute of Materials Management

102 & 104, Institutional Area, Sector 15, CBD Belapur, Navi Mumbai – 400 614

(Ph: 022: 27565592/ 2757 1022,) Telefax: 27565741,

E-mail: iimmnhq55@gmail.com. iimmedu@iimm.co.in Website: www.iimm.org



For Practicing Managers, Professionals, Executives and Administrators

Sl. N.	Courses	Duration (days)	Starting Date	Course Coordinator	Course Fees per Participant (Rs.)
1	International logistics & Inventory Management	2	12-10-18 to 13-10-18	L S Bisht	12000.00
2	E-Procurement in Government and Private Organizations	2	26-10-18 to 27-10-18	L S Bisht	12000.00
3	Cost Price Analysis - A System Rationale for Procurement	2	07-12-18 to 08-12-18	L S Bisht	12000.00
4	Logistics & Distribution Management	2	28-12-18 to 29-12-18	L S Bisht	12000.00
5	Introduction to Materials & Supply Chain Managements (A Foundation Course).	5	08-01-19 to 12-01-19	L S Bisht	25000.00
6	Operations Strategy for Effective SCM	2	24-01-19 to 25-01-19	L S Bisht	12000.00
7	ERP & Impact of ERP Implementation in Supply Chains	2	08-02-19 to 09-02-19	L S Bisht	12000.00
8	Stress Management	3	14-02-19 to 16-02-19	L S Bisht	18000.00
9	Contract Management	2	22-02-19 to 23-02-19	L S Bisht	12000.00
10	Negotiation Skills	2	01-03-19 to 02-03-19	L S Bisht	12000.00
11	Personality Development & Communication Skills	3	14-03-19 to 16-03-19	L S Bisht	18000.00

(Details about final Training Schedules & Faculty will be emailed to the participants on receipt of the applications.)

Venue :-Conference Hall, IIMM National Headquarter, Belapur, Navi Mumbai.

Course Fee :- Rs. 5000/- per day for Fundamental Course & Rs.6000/- per day for other courses+ 18% GST, as applicable - Includes Tuition Fee, Course Material, Participation Certificate, Break Fast, Working Lunch & Tea/Coffee.

Boarding & Lodging Charges (Optional) :- Rs.3000/- per day per participants + 18% GST (AC Twin Occupancy. Single Occupancy may be made available on request)

Discounts :-

1. 10% to IIMM members
2. 5% for early birds (to individual participants, on receipt of nomination, before 20 days of the commencement of course)

Group Discounts:-

1. 10% for 4 to 10 participants from the same organization
2. 15% for more than 10 participants from the same organization

Refund Rules:-

1. Fees once paid can be adjusted towards future nominations up to 2 years
2. In case of cancellation of course, due to inadequate participation or for any other unforeseeable reasons, the participants will be informed by e-mail or fax and the fee will be refunded.

Enrolment :- Personal details: Name, Designation, Mobile No & E-mail id, Age, Qualification, Experience, functions & Present Organization of the participants along with the fee through ECS/NEFT (BOIA/C No-011610100005741 & IFSC code :BKID0000116) or by Demand Draft drawn in favor of "Indian Institute of Materials Management" payable at Mumbai, may be sent to : Mr. Laxman Singh Bisht, Senior Faculty, (MM), IIMM National Head Quarters, Sector-15, Institutional Area, CBD Belapur, Navi Mumbai - 400614. (E-mail – iimmlsb@gmail.com Mobile No- 9769197851)

Faculty: Trainers are highly qualified professors/ Senior Practicing Managers/ SCM Professionals with over 15 years of rich industry experience in the relevant field.

Pedagogy: Presentations, Discussions, Audiovisuals, Case Studies, Role Play

CUSTOMER ENGAGEMENT: TECHNOLOGY ASPIRATION OF NEXT GENERATION SUPPLY CHAIN: MANUFACTURING

P. VISWANATHAN

EC MEMBER, IIMM BANGALORE BRANCH

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Supply chain in the application of Internet of Things, the use of Robotics, and the application of advanced analytics of big data the supply chain manufacturer with the introduction of sensors in every machine manufacturing, with creative network system in supply, and automation, planning shape in every object to analyze every aspect in supply chain has been able to bring significant improvement in the next generation of supply chain.

Logistic and supply chain has been undergoing tremendous changes from purely operational function that reported sales, and manufacturing, and ensuring a good focus on the supply of products and delivery to customers to an independent supply chain, management function. The focus of the supply chain management function has been shifted to advance planning process, such as analytic demand planning, to an integrated Sales and Operation Planning in every business in supply chain. Operational logistic is now being outsourced to third party logistic providers to improve supply chain process.

In today's globalization the supply chain function ensures integrated operations from customer to supplier. Trends in supply chain management 4.0 create disruption in supply chain, and require organization, to re-think the way to design, the supply chain objectives. Several of the originality has emerged, that are letting traditional ways of working to changes in supply chain. In supply chain the next generation trends is that customer expectation is the change, and the need for supply chain to create horizon of operational effectiveness to leverage, and come to the next emerging digital supply chain business, and transfer organization into digital supply chain.

Several mega trends have an heavy influence on the present supply chain management, and there is continuing presence of growth on the rural areas worldwide, with capital shifting into places wherever they are required, that not been served as done before. The supply chain pressure to reduce carbon emission as well as regulatory in transportation for socio-economic reasons which add to the challenge that logistic and supply chain are facing today, and the next generation in logistic and supply chain activities. Changes in geographical demographic is also a possibility to reduce labor availability in the supply chain, and the increasing requirement that arise as the work-force age increases in supply chain.

Customer expectation are growing to the end-to-end, as the years in logistic and supply chain are led to increasing expectation, combined with strong trend on orders. There is also a very definite trend towards further customerization that drives growth and constant change in stock keeping units. The on-line has individually gained transparency, and has been easy to assess to the multitude of suppliers regarding where to bring in supply chain activities, and this drives to greater competitive in supply chain process:

Vision: Digitization in supply chain has enabled to address the new requirements of the customers and the challenges in supply chain:

Faster approach of product distribution has been able to reduce delivery time, with better methods adopted in supply chain. The basis is the advanced forecasting, predictive analysis, both internally and externally in supply chain. In conclusion with market trends, forecast and this data provides the status for parts demand, spares, and provide a much more precise, need and forecast for customer demand.

Today forecast are not carried out on a monthly basis, and trend have changes to weekly or daily basis, and the reasons is that very fast moving products, that are required in the day to day requirements in supply chain. Future will be there also is a system of predictive analytics supply chain, and shipping will be done before the customer places the order, on the supplier, and the customer is later on matched with the shipment details available in the logistic network, and shipment is then routed to the exact customer.

Flexible: Planning in time allows flexible reactions to change in demand and supply. Planning life cycle, and the required periods are scrutinized, and planning become a continuous process to the changing requirement on constraints in supply chain. When products are dispatched the flexibility is increased in the delivery process, which subject to customs to the route shipment to most convenient destination in supply chain, as service is the next generation of planning functions or transport management which increase the flexibility in supply chain.

Supply can be brought as service, and tools after on the usage basis, instead it has their own resources, and capability in house. This specialization and focus of service provides, and allow then to create economies of scale, as well as economies of scope, and also an outgoing opportunity in supply chain.

Accuracy: The next generation of performance management provides real-time, end-to-end transparency in supply chain. The information reaches to level key performances, indicating such service level, process data, such as traction of trucks in the network in supply chain. The data provides information at all levels in the function of supply chain, according to the needs in supply chain. The integration of data of supply service providers is in a formation of supply chain cloud, and ensures the organization to decide on the basis of data factors.

In a digital performance management system for warehouse, transport, inventory, are set targets for automation. To keep the system targets, in case of supply chain disruption system will automatically adjust achieved to a more realistic aspiration level. Performance management system will automatically identify supply chain management in an appropriate way to mitigate them. This

enables performance management to control, and handle broad spectrum of exceptions within human involvement.

Digital waste is another concept which can be found to prevent the potential of supply chain, and to prevent it as the crucial the sources of waste which develop into a solution and is to avoided or reduced.

Data captivating management: Data is handled manually, data collection in system handling, and not updating the same regularly, by handling master data, supplier data lead time, that if not entered regularly or properly becomes an unwarranted, and remains unchanged. Warehouse, shipping details which are not updated will optimize in bound process in supply chain.

In the next generation of supply chain in digitization is the organization selling smart point of sale devices. QR codes are machine readable labels that can carry different kinds of information ranging from product information to account details to virtually anything. Think of QR codes as super bar codes which can read 10 times faster than bar codes are rapidly gaining the custom in an era of supply chain. The codes are made-up of black and white squares arranged on square grid, and with white background, it can store information such as numbers, alphabets bytes.

Physical execution of process of humans and machines: Warehouse replenishment of stocks, transport management, is based on the existing data, and this has to be proved by the real-time data, allocation of orders, dynamic routing in supply chain.

Planning – The future of supply chain in planning will benefit from data, and advance analytics, automation, and knowledge of the work in supply chain. Predictive analytics in demand planning, analyzing, items of internal and external data, deemed by demand influencing variable, sensor data, network, machine learning, approaches will uncover the complex relationship, and derive at an accurate and demand plan. The new technology will enable significant improvement of demand forecast accuracy, thus reducing forecasting errors in the next generation of supply chain.

For most manufactures in the next generation customer information, regarding one customer or possibly several customers, are data bases that contain interaction of information, history, customer relationship management, web interaction data, organization starts using offline, and online data to gain more complete information of the customer. The broader view can help to create a better view of from the beginning of sales cycle detecting patterns of purchase, patterns with intent and facilitating more product recommendation in supply chain.

Augmented reality and virtual reality motivate customers to ensure the product availability, or the location where the product is available in supply chain, and this can be challenging. Most organization in supply chain are finding ways how to enhance physical appearances in supply chain into braining, or making products available to customers. Augmented reality or virtual reality is a platform which enables customers to get the hands on the product in reality, and an experience rather than view it on a limited set of products in a more constrained environment supply chain.

Artificial intelligence drives aggrate information, across system to make recommendation based on broad idea of data regards customer, application offering, and make them

potentially intelligent and valuable.

Efficiency in supply chain is boosted by automation both physical talks and planning. Robotics will handle material, pallet boxes, and warehouse will change to automation from receiving unloading to stacking the way to pick, pack and ship. Automatic truck tracking with the network with Radio Frequency Identification, Global Positioning System, to optimize track utilization and increase transport facility.

Physical flow ; Logistic will take a huge change through better connectivity advanced analytics, additive manufacturing, advanced automation, warehouse, will be automated, and will make significant changes in smart vehicles, 3D printer will change in warehouse, and inventory management.

The next generation in supply chain will bring in tough voice users interfaces, and quick proliferation through customer devices, facilitating integration of machine in almost process in warehouse operation.

Order management in the next generation in supply chain is to be improved with real-time planning, which lead to lower cost, through automation, higher reliability, feedback, and good customer experience, through immediate, and reliable responses. Through proper integration ordering system will be linked to available to improve through order routes, with system being fully automated, the ordering process. Very strongest order rules will be electronically used, and the rules those have to be followed, and master data to be updated continuously.

Inventory is used to decouple demand supply chain, by implanting new planning algorithm methods, the uncertainty will be reduced which make and satisfy stock unnecessary in adding 3D printing which will reduce the required inventory.

Real time planning ,order date, confirmation of date, instantaneous memory planning of production planning schedule, and replenishment to be considered regarding contracts in supply chain, which leads to reliable date leading to reliable planning, faster lead time, so that custom will benefit from the feasibility of updated delivery schedule.

Collaboration : supply chain with cloud computing will jointly join platform between consumers, the organization and supplier providing shared together infrastructure with joint planning. The major field of collaboration is end-to-end and continuity, which take up automation, and will be collaborating the complete and entire value chain, allowing lower inventory through an exchange, of reliable planning date that will change lead time through information through entire supply chain.

Supply chain strategy will help in individualization, and customization, of supply chain and may adopt many segments, according to customer requirements with own capability setting up big data approach to customer requirements supply chain.

Supply chain costs: transportation, warehouse which set up overall network in supply chain will bring down costs, and thus improvement can be reached by applying advance methods of true cost of service, cost of transport, and warehouse by optimizing the network by touch points, and minimum kilometer driven.

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INDIRECT TAXES UPDATES

GST, CUSTOMS, EXCISE, SERVICE TAX AND VAT

MONTH – SEPTEMBER 2018

CMA RAKESH BHALLA
PAST CHAIRMAN NIRC OF ICAI (CMA)
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GST

- ❖ **GSTR-1 for July 2017 to September 2018 can be filed till 31-10-2018:** Form GSTR-1 for the months of July 2017 to September 2018 can now be filed till 31st of October 2018, both by persons having turnover up to Rs.1.5 crore and more (with certain exceptions). Taxpayers having turnover up to Rs.1.5 crore can file quarterly GSTR-1 for various quarters starting from October to March, 2019 by the last day of the subsequent month. Taxpayers having turnover more than Rs.1.5 crore are required to file monthly GSTR-1 returns by 11th of subsequent month, for the months from October 2018 to March 2019. Due date for filing quarterly GSTR-1 for July, 2018 to September, 2018 is 15-11-2018 in the case of registered persons in Kerala, or having principal place of business in Kodagu district in Karnataka or Mahe in Puducherry. **Further, taxpayers who have obtained GSTIN in terms of Notification No 31/2018-Central Tax, can file this return for the period July 2017 to September 2018, by 31st of December 2018. (Refer Notification No. 43, 44, 45, 46/2018-Central Tax dated 10/09/2018).**
- ❖ **TDS & TCS provisions to come into force from 1st October, 2018:** Provisions relating to Tax Deduction at Source (TDS) and Collection of Tax at Source (TCS), provided under Sec 51 and 52 of the Central GST Act, 2017 will come into effect from 1st of October 2018. TDS provisions provide for mandatory deduction of tax at the rate of 1% of value of supply (excluding GST) by the department or establishment of Central Govt. or State Govt., or local authority, or Governmental agencies. Notification No. 50/2018-Central Tax, dated 13-9-2018 has been issued in this regard in supersession of Notification No. 33/2017-Central Tax which though brought these provisions into effect from 18-9-2017 but stated that liability to deduct tax will come into effect from a date to be notified subsequently. It also notifies public sector undertakings and authority or a board or any other body set up by an Act of Parliament or a State Legislature, and certain other entities, as liable to deduct tax at source **(Refer Not. No. 50, 51/2018-Central Tax dated 13/09/2018).**
- ❖ **Every electronic commerce operator, not being an agent, shall collect an amount calculated at a rate of half per cent of the net value of intra-State taxable supplies made through it by other suppliers where the consideration with respect to such supplies is to be collected by the said operator. (Refer Notification No. 52/2018-Central Tax dated 20/09/2018).**
- ❖ **Invoice procedure for goods transportation in batches and lots:** Procedure for transportation of goods in semi-knocked down or completely knocked down condition, without invoice, will be applicable also for transportation of goods in batches and lots as well. Sub-rule 55(5) of the Central Goods & Services Tax Rules, 2017 (CGST Rules) has been amended for this purpose by Notification No. 39/2018-Central Tax, dated 4-9-2018. Accordingly, the supplier has to issue complete invoice before dispatch of the 1st consignment and delivery challans for each consignment, containing reference to the invoice. Consignment must be accompanied by copies of delivery challan along with a certified copy of invoice. **(Refer Notification No. 39/2018-Central Tax dated 04/09/2018).**
- ❖ **Audit –Reconciliation statement and certification –Form GSTR-9C notified:** CBIC has notified Form GSTR-9C for the reconciliation statement and the certification which must be furnished along with the audited annual accounts, electronically through the common portal. Central GST Rules, 2017 have been amended for the tenth time this year, by Notification No. 49/2018-Central Tax, dated 13-9-2018. **(Refer Notification No. 49/2018-Central Tax dated 13/09/2018).**
- ❖ **Extension of time limit for submitting the declaration in FORM GST TRAN – 1 under rule 117(1A) of the Central Goods and Service Tax Rules, 2017 in certain cases-** Submission of declaration in FORM GST TRAN -1 extended till 31st Jan., 2019, for the class of registered persons who could not submit said declaration by the due date on account of technical difficulties on the common portal and whose cases have been recommended by the Council. **(Refer Order No. 4/2018-GST dated 17th Sept. 2018)**

- ❖ **Supply or construction of solar power plant is composite supply:** Agreement included engineering, design, procurement, supply, development, testing and commissioning, and was a composite supply, as supplies of goods and services were naturally bundled inasmuch as it is natural and also a practice to expect that the contractor who will supply the goods will also supply the services along with it. Applicant-appellant was however held to be providing works contract under Section 2(119) of the CGST Act, since the project fulfilled all conditions of immovable property. It was noted that the machines were embedded with no visible intention to dismantle them and they were intended to be used for a fairly long period of time. [In RE: Giriraj Renewables –Order No.MAH/AAAR/SS-RJ/08/2018-19, dated 5-9-2018, AAAR Maharashtra]
- ❖ **GST liability on activities of Charitable Trust:** Deliberating on various meanings of the words 'trade' and 'commerce', Maharashtra AAR for GST has held that a charitable trust with object of advancement of religion, spirituality and yoga can be said to be in the business and be liable to be registered under the GST provisions. It was also held that sale of spiritual material was 'supply' under Section 7 of the Central GST Act. On claim of exemption under GST as charitable trust, it was held that activities of arranging satsang/shibir/yoga camps by applicant were not covered under 'charitable activities' and particularly under advancement of religion, spirituality and yoga, although registration was obtained under Section 12AA of the Income Tax Act. [In RE: ShrimadRamchandraAdhyatmicSatsangSadhana Kendra –Order No. GST-ARA-41/2017-18/B-48, dated 14-6-2018, AAR Maharashtra.
- ❖ **Supply of spares, consumables take service out of 'pure service':** Assessee was also supplying spares, materials and consumables to municipalities under contract for operation and maintenance of sewage treatment plants, AAR Maharashtra has held that the service is not covered as 'pure service' under Sl. No. 3 of Notification No. 12/2017-Central Tax till 24-1-2018 when Sl. No. 3A was inserted for 'composite supplies'. The Authority however noted that exemption from 25th January 2018 is available if the value of goods does not exceed 25% of the value of the composite supply. The applicant was held as eligible for availing ITC of the purchases made against such work orders. [In RE:Khilari Infrastructure Private Limited –2018-VIL-134-AAR]

Customs

- ❖ **EPCG –Shifting of capital goods, and EO fulfilment intimation:**EPCG authorisation holders have been permitted to shift capital goods, imported during entire export obligation period, to their other units mentioned in their IEC and RCMC. Fresh installation certificate however would be required within 6 months. Further, Regional Authority can be intimated on fulfilment of export obligation as well as average exports, without using digital signatures. Amendments in this regard have been made in Paragraphs 5.04(a) and 5.14(b) of Handbook of Procedures Vol.1 by Public Notice Nos. 31 and 32/2015-20, both dated 29-8-2018.
- ❖ **Bio-fuels –Export Policy revised from 'free' to 'restricted':**Ministry of Commerce and Industry has, on 28-8-2018, amended export policy of biofuels from 'Free' to 'Restricted', in line with the National Policy on Biofuels 2018. New entries at Sl. No. 115A, 115B and 115C have been inserted in Schedule 2 of ITC (HS) to cover Tariff Items 2207 20 00, 2710 20 00 and 3826 00 00. Export of bio-fuels enumerated in said entries will now be permitted under license only for non-fuel purposes. Notification No. 29/2015-2020 has been issued for this purpose. It may be noted that Import Policy for such products, with similar conditions, was notified on 21-8-2018.
- ❖ **Export of SCOMET items for repair/display - Procedure:**DGFT has laid down elaborate procedure for export of imported or re-imported (indigenous) SCOMET items for repair or replacement purposes and for export of SCOMET items for display, exhibition, tenders, etc. Public Notices Nos. 33 and 34/2015-20, both dated 4-9-2018 insert Paras 2.79C and 2.79D in the FTP Handbook of Procedures Vol. I. The paragraphs specifically mention that end user certificate will not be insisted in such cases.
- ❖ **System Driven approval of MEIS for exports from EDI ports –Guidelines:** DGFT will, from 13-9-2018, start a process of system driven approval of MEIS claim applications for exports through EDI shipping bills. The online module will not accept application if it is not made in one jurisdictional regional office for one financial year. Shipping bills, already attached in earlier applications and disallowed, will not be accepted again under new module, unless re-activated.According to Trade Notice No. 30/2018-19,dated 11-9-2018, all shipping bills meeting specified requirements like having Let Export date on or after 1-1-2017, total claim value of less than Rs.2 Crore, etc., would be approved by the system automatically.
- ❖ **Import by EOU –Excess imports when not relevant to deny exemption:**In a case involving imports by EOU, CESTAT Mumbai has held that even if the goods are found to be in excess of that declared for import, benefit of exemption notification should not be denied. It observed that to the extent that the imported goods are utilized for export, the quantity imported is irrelevant. It stated that the same is not

relevant also in the context of manufactured goods cleared in DTA. The Tribunal in this regard noted that imported goods are required to be bonded and the utilization thereon is under the supervisory, and documentary, control of customs bond personnel as well as the Development Commissioner concerned. It further rejected enhancement of value to encompass the gross weight. [Micro Inks Ltd v. Commissioner -Order Nos. A/87088-87089/2018, dated 14-8-2018, CESTAT Mumbai]

- ❖ **Freezing of bank account must comply with Customs Sections 105 and 110:** Delhi High Court has held that communication by DRI to freeze bank account of the assessee for having connection in an alleged export fraud case is not sustainable as the same was without authority of law and not in accordance with Section 105 and Section 110 of the Customs Act, 1962 which provides for provisions related to search, seizure and arrest. The High Court in this regard observed that any seizure under Section 110 is to be followed by adjudication under Section 122 which requires prior SCN under Section 124, and that these required proceedings were not initiated in the case before it. [R K Impex v. UOI-W.P.(C) 7367/2016, decided on 29-8-2018, Delhi High Court].
- ❖ **No Customs duty payable during redemption when no such demand made in SCN:** Delhi High Court has held that the department is not entitled to recover customs duty under Section 125(2) of the Customs Act on goods which are confiscated under Section 111(d) and allowed redemption under Section 125(1), if no specific demand is made in SCN issued under Section 124. The High Court observed that if primary obligation of assessing value and indicating duty payable is not discharged, it cannot be contended at a later stage that importer was under obligation to pay relevant duty which was never assessed at first instance. [Commissioner v. R.K. International -CUS. A.C. 9/2009, decided on 23-8-2018, Delhi High Court].
- ❖ **Project imports—No need of registration before imports:** CESTAT Kolkata has held that Regulation 5 of Project Import Regulation, 1986 is only a procedural requirement and not a condition determining eligibility of imported goods for the benefit of concessional rate of assessment. The Tribunal observed that a project can be registered before goods are cleared for home consumption, and that there was no prescribed time limit for obtaining clearance from sponsoring authority. The department had denied the benefit on the ground that registration was taken after imports and warehousing. [Eveready Industries v. Commissioner -Order No. FO/76541/2018, dated 13-6-2018, CESTAT Kolkata]

- ❖ **Pre-cooked and fried noodles can be considered as 'dried':** Taking note of the fact that the term 'dried' is not defined in respect of EU's CN sub-heading 1902 30 10, Court of Justice of European Union has held that pre-cooked and fried noodles which at the end of production stage are packaged in a dry state are dried pasta under said sub-heading. The Court in this regard rejected referring court's argument that goods are covered under 1902 30 90 as 'drying' constitutes a means of preservation by extracting moisture while cooking/frying besides eliminating water also causes numerous other chemical reactions. Further, considering the scheme of things in Heading 1902, the court was of the view that sub-heading 1902 30, within which 1902 30 10 ('dried' pasta) falls, necessarily covers cooked pasta or pasta, otherwise prepared, which is not stuffed. It was also held that scope of said sub-heading should not be limited to pasta whose dry state has been obtained by processes which are used solely for their preservation and which remove only water from the treated products, without changing them in any other way. [Kreyenhop & Kluge GmbH & Co. KG v. Hauptzollamt Hannover –Judgement dated 6-9-2018 in Case C-471/17, CJEU]

Central Excise and Service Tax

- ❖ **Cenvat credit admissible on mandatory CSR activities:** CESTAT Mumbai has allowed Cenvat credit on payments made to a trust for imparting training to students of underprivileged section of the society in discharge of obligations related to corporate social responsibility (CSR) of the company. Deliberating on definition of CSR by Confederation of Indian Industry, World Bank and UNIDO, it was held that CSR is not a charity anymore since it has a direct bearing on the manufacturing activity. The Tribunal, for this purpose, also held that CSR is an input service covered under 'activities relating to business, as company's image is enhanced thus increasing its credit rating. It noted that sustainability of the company is dependent on CSR without which it cannot operate smoothly for a long period. [Essel Propack v. Commissioner -Order No. A/87216/2018, dated 31-8-2018, CESTAT Mumbai].
- ❖ **Abatement under Excise Sec. 3A(2) –CESTAT refers issue to Larger Bench:** Hyderabad Bench of CESTAT has referred to Larger Bench the question as to whether the sub-section 3A(2) of Central Excise Act which only deals with powers of Government of India, can be treated as a provision for abatement of duty, and if so, how that abatement should be followed. The Tribunal in this regard disagreed with the order by Bangalore Bench and held that abatement was not available if benefit of concessional rate under Rule 96ZP(3) of Central Excise Rules, 1944 was availed. It held that assessee

who was availing the benefit of lower rate of tax under Rule 96ZP (3) was not entitled to the benefit of abatement under Section 3A(3) read with Rule 96ZP(2). [Commissioner v. Kamini Ispat Limited - Order No. A/30731/2018, dated 19-7-2018, CESTAT Hyderabad]

- ❖ **Valuation –Loss in final goods immaterial for captive consumption valuation:** CESTAT Mumbai has held that loss in respect of the product that is cleared finally using the goods which were captively consumed as an input is not relevant for determining the notional profit envisaged in Rule 6(b)(ii) of the erstwhile Central Excise (Valuation) Rules, 1975, in respect of those inputs. The Tribunal observed that assessee was not able to show that the assessable value adopted by the department did not reflect the cost of production and the profit. [Golden Tobacco Limited v. Commissioner -Order No. A/87196/2018, dated 29-8-2018, CESTAT Mumbai]
- ❖ **Valuation –Value of drawing received from buyer when not includible:** Observing that drawings supplied by customers were only dimensions of the components with no technical details, and therefore having no value, CESTAT Chennai has held that cost of such drawings is not required to be included in the assessable value of the final product. The Tribunal in this regard also noted that assessee was involved in cutting and welding of MS plates as per required specification which did not require any specialized drawings. It also observed that drawings were not shown as separate excisable goods. [Technoweld Alloys (I) Pvt. Ltd. v. Commissioner - Final Order No. 42263/2018, dated 7-8-2018, CESTAT Chennai]
- ❖ **Refund not barred by limitation when liability absent:** Delhi High Court has held that an assessee, in the absence of any liability, is entitled to refund of tax paid under a wrong impression and cannot be barred for a part of it on account of limitation under Section 11B of the Central Excise Act or Section 27(c) of the Customs Act. Supreme Court's decision in Krishna Carbon Paper was distinguished by the High Court. The assessee was a registered society set up by the Ministry of Finance and was not liable to service tax at relevant time for any work or function undertaken, as clarified by CBEC then. [National Institute of Public Finance and Policy v. Commissioner -SERTA 13/2018, decided on 23-8-2018, Delhi High Court]
- ❖ **Renting of immovable property service - Refundable security not liable:** CESTAT Bench at Delhi has held that the demand of service tax on the refundable security deposit in respect of Renting of Immovable Service, was erroneous because such refundable amount was not covered under 'consideration' under Section 67 of the Finance Act,

1994. The assessee had provided option to tenant according to which if they pay additional amount of security deposit then no rent was to be paid and full security was refundable on vacating of premises. The Tribunal, however, while setting aside the penalty, confirmed the service tax to the extent of annual rent. [Satya Prakash Builder v. Commissioner -Final Order No. 52663/2018, dated 24-7-2018, CESTAT Delhi]

- ❖ **Credit available on services from non-whole time director:** CESTAT Allahabad has held that service tax paid on services received from the on-whole time Director is admissible as Cenvat credit. The appellant had availed Cenvat credit of service tax paid under reverse charge mechanism on the remuneration paid to non-whole time director. The Tribunal observed that it is deemed by law that such directors have provided services to company and therefore, it cannot be held that such service was not input service. Notification No. 45/2012-S.T., dated 7-8-2012 was relied upon. [Mohan Steels v. Commissioner-Final Order No. 71957/2018, dated 13-8-2018, CESTAT Allahabad]
- ❖ **Cenvat credit –Failure to ascertain exclusion under Rule 9(1)(b) is not suppression:** CESTAT Delhi has allowed Cenvat credit on supplementary invoices holding that mere failure to ascertain about the exclusion part of Cenvat Rule 9(1)(b) cannot be held to be an act of suppression or collusion on the part of the assessee. The Tribunal noted that supplementary invoices were issued by coal companies which are undertakings of Government, hence, there was no presumption, unless rebutted, of alleged suppression or collusion. It noted that an element of confusion was present as connected matters are pending before the Supreme Court. [Ultratech Cement v. Commissioner -Final Order No. 52723/2018, dated 27-7-2018, CESTAT Delhi].
- ❖ **Cenvat credit on inputs lost in cyclone when not required to be reversed:** CESTAT Kolkata has held that credit availed on inputs destroyed in natural calamity including cyclone, need not be reversed as it did not amount to removal of input as such. The inputs including coal were issued and put for continuous production process. It was observed that inputs lost during the process of manufacture were not required to be considered for reversal of credit. The Tribunal also noted that there was no provision of reversal of credit availed on inputs which were destroyed. [Sundaram Steel Pvt. Ltd. v. Commissioner -Order No. FO/76523/2018, dated 14-8-2018, CESTAT Kolkata].
- ❖ **Cenvat credit on laying or maintenance of railway siding track, available:** Chennai Bench of the CESTAT has held that service of railway siding track laying/ maintenance work did not fall within the exclusion

clause of 'input service' and hence, credit availed in respect of the said service was eligible. The period in dispute was from September 2011 to August 2012 when definition of 'input service' in the Cenvat Credit Rules, 2004 excluded specified works contract services used for (a) construction of a building or a civil structure or a part thereof; or (b) laying of foundation or making of structures for support of capital goods, except for the provision of one or more of the specified services. The Tribunal observed that when works contract services were availed for painting, laying of floor tiles, etc., in the nature of completion of finishing services, these would generally be in the nature of modernization or repair/renovation of existing structures, and eligible for credit. [India Cements Ltd. v. Commissioner -2018-TIOL-2733-CESTAT-MAD].

- ❖ **Cenvat credit when part of amount payable to service provider withheld by recipient:** Cenvat credit of full service tax paid by service provider in respect of services provided would be available even if amount payable to service provider withheld by recipient-respondent, so long as there was no change in service tax paid by service provider. In terms of agreement entered into between the respondent and the contractors, a certain percentage of payment was to be withheld from the RA bills issued by the contractors and was required to be released after successful execution of the contract. The department had denied credit on the ground that as per Rule 4(7) of Cenvat Credit Rules, 2004, credit was allowed when full payment was made by the service recipient towards value of input service as well as service tax within three months of the date of invoice. Circular No. 122/3/2010 S.T., dated 30-4-2010 was argued by department as inapplicable on ground that said circular catered to only those situations where finally settled amount of service was less than the amount initially charged by the service provider. [Commissioner v. Hindustan Zinc Ltd. -2018-TIOL-2574-CESTAT-DEL]
- ❖ **Cenvat credit available on capital goods predominantly used in exempted goods except for a short period:** Cenvat credit allowed in a case where the assessee, for the first two years, used capital goods exclusively for manufacture of exempted goods but used them for manufacture of dutiable goods for total of 19 days in the subsequent year and thereafter never used for manufacture of dutiable products. The Tribunal observed that at the time of purchase of capital goods, the appellant had intimated his intention to use the subject capital goods for manufacture of both exempted and dutiable goods. It also noted that Rule 6(4) of Cenvat Credit Rules, 2004 entitled an assessee to avail Cenvat credit on capital goods even if the machinery was used to manufacture a single unit of dutiable

goods. The appellant was engaged in the manufacture of exempted (non-carbonated beverages) as well as dutiable goods (carbonated beverages). The department had issued SCN denying credit in terms of Rule 6(4). [Lakshmi Balaji Bottling Pvt. Ltd. v. Comm-2018 VIL 627 CESTAT-Hyd-CE]

VAT

- ❖ **Fashion show amounts to 'entertainment' and liable to entertainment tax:** Karnataka High Court has held that fashion show fall within the expression 'entertainment' under Section 2(e)(iii) of the Karnataka Entertainment Tax Act, 1958, and that sponsorship fees and advertisement charges received by organisers would amount to 'payment for admission' as per Section 2(i)(iv-a) of the said Act. The Court observed that even though the 'Bangalore fashion week' served the business interests of the sponsors, the element of amusement and entertainment naturally woven in it cannot be taken out. [Dream Merchants v. State of Karnataka -Writ Appeal No.843 of 2018 (T-ET), decided on 3-9-2018, Karnataka High Court]
- ❖ **Deemed sale –Provision of infrastructure under exclusive control:** Gujarat High Court has held that provision of passive telecommunication infrastructure under Master Service Agreement granted exclusive control to telecom operator by virtue of 'right to use goods' and hence, the transaction was not in the nature of service contract as contemplated by petitioner, but a 'deemed sale' taxable under the Gujarat VAT Act. The Court in this regard also rejected the contention that liability to pay Gujarat VAT would result in double taxation as petitioner had already paid service tax on said transaction. [Indus Towers Ltd. v.State of Gujarat - R/Special Civil Application No. 3358 of 2016, decided on 6-8-2018, Gujarat High Court]
- ❖ **Kerala VAT -Limitation under Section 25(1) concerns initiation of assessment of turnover:** In a case concerning interpretation of provisions providing for assessment of escaped turnover, Kerala High Court has held that the words 'proceed to determine' in Section 25(1) of the Kerala VAT Act were for initiation of proceedings with a notice and not for completion of assessment. Relying on Full Bench judgment in Tirur Medical Stores, it observed that the decision as to the timeframe required for completion of assessment is the task of the legislature. The High Court set aside the notice issued beyond limitation period under Section 25(1). [Cholayil v.Asst. Commissioner -WA. No.1184 of 2013 in WPC. 18143/2013, decided on 5-7-2018, Kerala High Court]

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18 DISRUPTIVE TECHNOLOGY TRENDS FOR 2018

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Over the coming year, what will be the most important developments in disruptive technology?

When we think about technology, we often think about physical devices that are electrical or digital. In fact technology encompasses far more than that. The dictionary definition refers to Technology as, “methods, systems, and devices which are the result of scientific knowledge being used for practical purposes.” As we look to the year ahead tech disruption will be driven as much by the methods and systems as it is by the devices we associate with tech disruption.

It's impossible to predict exactly which trends will become the most disruptive over the course of 2018. That being said, there are a number of developments that have and will continue to shape business strategies. From automation to sustainability, organisations are adapting to a whole new wave of consumer preferences. **So, this year, which themes can we expect to see influencing businesses and consumers alike?**

1. Mobile-first to AI-first : A major shift in business thinking has placed Artificial Intelligence at the very heart of business strategy. 2017 saw tech giants including Google and Microsoft focus on an “AI first” strategy, leading the way for other major corporates to follow suit. Companies are demonstrating a willingness to use AI and related tools like machine learning to automate processes, reduce administrative tasks, and collect and organise data. Understanding vast amounts of information is vital in the age of mass data, and AI is proving to be a highly effective solution. Whilst AI has been vilified in the media as the enemy of jobs, many businesses have undergone a transformation in mentalities, viewing AI as enhancing rather than threatening the human workforce.

2. Personalisation & Customisation : In consumer goods, life sciences, aviation and financial services in particular, businesses will continue to personalise products and services to satisfy individual consumer needs without unduly increasing costs or waste. This will positively impact end to end supply chains, data flows and encourage capital investments. Personalisation has become a key customer requirement that companies need to offer in order to remain competitive.

3. Meatless meats : Until recently, the options for plant based alternatives to meat have been pretty limited. For those following plant based diets, tofu and Quorn were often seen as the best options for protein substitutes. Now, a new wave of food producers are creating meat alternatives that look, feel, smell, and most importantly taste just like the real thing. Companies like Impossible Foods, Beyond Meat and Memphis Meats have attracted huge interest, not to mention investment from backers including Bill Gates and Richard Branson. The growth of

meatless meat companies reflects environmental concerns surrounding meat consumption, as well as consumer demand for greater choice

4. Personal data value platforms : Personal data has become an economic asset. However, a lack of consumer knowledge about exactly what it is used for and how much it is really worth could lead to a reluctance to share data. Personal data value platforms will help to inform individuals about the value of their data, driving a wave of new products and services aimed at helping consumers to take ownership of their personal information. The introduction of legislation like GDPR will also contribute to this goal as organisations will have to comply with strict data protection rules.

5. Huge growth in the as-a-service model : The growth of the as-a-service business model has resulted from changes in both corporate and consumer needs. Customer demand for resources has triggered innovation in the reuse and remanufacture of goods, reflecting the trend of environmental awareness and a preference for access over ownership. For businesses, as-a-service solutions cut costs by simplifying IT infrastructure. Between 2016 and 2020, the global XaaS (anything as-a-service) market is forecasted to grow by 40 per cent each year.

6. Sustainability becomes a major feature in innovation: According to a report by the Business and Sustainable Development Commission, sustainable business has the potential to unlock \$12 trillion in new market value. Companies have recognised the importance of pursuing sustainable development to create maintainable strategies, answering consumer demand for environmental awareness and supporting the implementation of the circular economy. This willingness has run alongside the efforts of official powers such as national governments and collective international bodies like the United Nations. The organisation's ambitious Sustainable Development Goals (SDGs) will increasingly feature on the innovation agendas of businesses.

7. Voice based virtual assistants become ubiquitous: The wide uptake of home based and virtual assistants like Alexa and Google Home have built confidence in conversational interfaces, familiarising consumers with a seamless way of interacting with tech. Amazon and Google have taken prime position between brand and customer, capitalising on conversational convenience. The further adoption of this technology will enhance personalised advertising and sales, creating a direct link between company and consumer.

8. Steps towards Industry 4.0 and the factory of the future : The installation of smart sensors and the application of data analytics will deliver further steps towards the factory of the future. The wider use of automated processes powered by AI, advanced robotics,

and IoT connectivity will contribute to realising the ambitions of Industry 4.0. Otherwise known as the Fourth Industrial Revolution, Industry 4.0 promises a more connected world in which machines carry out mundane tasks. Many companies, such as Amazon, have taken tangible steps to implement this in automated warehouses.

9. Blockchain comes of age : Organisations across a wide range of sectors are already experimenting with blockchain technology to establish trust networks, improve transparency, and reduce friction and costs. Despite fierce debate, interest in cryptocurrencies powered by blockchain remains strong. More commercial businesses are accepting cryptocurrency payments, starting of course with Bitcoin and Ethereum. Industrial applications will expand, encompassing the obvious financial uses as well as innovative solutions for energy, trade, marketing, healthcare, security and more.

10. Improved decision making with Prescriptive Analytics : The emergence of smart data discovery capabilities, machine learning, and the automation of the entire analytics workflow is enabling organisations to handle vast amounts of information. Smart data discovery capabilities in particular are driving huge advances in how we understand unstructured and dark data. Using this data organisations are able to predict market developments bringing greater depth to prognostics. Prescriptive analytics goes beyond knowing, providing recommended actions based on prior outcomes. A recommended course of action to achieve a specific outcome.

11. CRISPR : Growing interest and investment into gene editing technologies will allow research teams to precisely alter, delete, and rearrange the DNA of nearly any living organism. Synthego's 2017 Future of CRISPR Research survey found that 87 per cent of new CRISPR users were also new to gene editing, showing that CRISPR's simplicity has catalysed the further development of the scientific technique itself. We will see CRISPR's use cases expand, battling disease and world hunger.

12. Convergence : As emerging technology and new business models transform sectors, the lines are blurring between what were previously seen as distinctly different industries. The convergence of industries opens up huge opportunities for organisations to evolve, offering new products and services to their customer bases. Automotive companies, for example, are investing in ride sharing apps as they look to reinvent themselves as mobility solutions, and banks are working with FinTechs to evolve alongside consumer needs.

13. Commercial drones and UAVs : Moving beyond the hobbyist and warfare applications, commercial drone use has begun to grow across a wide range of industry sectors. Drones are a relatively cost effective solution for surveying physical processes, whether they are happening on a construction site, in a field, or to aid security control in urban centres. No longer a novelty, drone application is set to balloon – provided that suitable regulations can be made.

14. Diversity becomes a major boardroom issues : If 2017 was the year we woke up to the lack of diversity and equality across the world, 2018 will be the year that individuals and organisations begin to address the

problems leading to increased diversity within major organisations. Diverse teams have been shown to achieve greater productivity, and are naturally more innovative due to their varied backgrounds. Whilst scientists have shown that a lack of diversity has the potential to create AI programs exhibiting racial and gender biases. This, along with fulfilling a moral code of fairness and equal opportunity, will lead businesses to take steps to address the lack of diversity within their organisations. This includes (but is not limited to) a wide spectrum of age, education, gender, race, and sexuality.

15. Growing interest in digital twins : A digital twin is a simulation model that updates and changes in accordance with real world assets to enable better decision making and improve understanding of the state of systems. A digital twin could be used to simulate a piece of complex machinery, for example, predicting how it will respond in certain scenarios and how best to optimise performance. Digital twins will provide businesses with the ability to respond to changes, improve operations and add value to the Internet of Things.

16. Spatial Computing augments the real world : High quality Augmented and Mixed Reality is here, and it's not just for industrial workers wearing Google Glass. Notable steps by major companies – such as MagicLeap's long awaited headset release and Apple's commitment to mobile AR – are opening up previously unimaginable opportunities for corporations. Advances in Augmented and Mixed Reality technologies will see an explosion of commercial applications way beyond entertainment. We are on the cusp of a major shift in how we interact with the real world, with our smartphone or smart glasses as our gateway and guide.

17. Renewables and Clean Energy near tipping point: The cost of renewables is plunging faster than anticipated as the efficiencies of wind turbines and solar panels increase. This, coupled with huge advances in energy storage, will see the continued decline of fossil fuels. Incumbent businesses like Shell and BP are shifting their focus to renewable options as consumers gradually adopt clean energy options. One of the most notable triumphs of the renewable cause has been the manufacture of economically viable electric vehicles, and the implementation of an infrastructure to support them.

18. Increased cross sector innovation : Convergence, collaboration and the open source movement have all contributed to the encouragement of cross sector innovation. Companies are looking to businesses in other industries for insights and expertise that can enhance their own products and services. AgriTech and FinTech, for instance, are developing alongside each other to tackle financial issues within farming. As cross sector innovation becomes the norm, we will see the greater application of successful strategies and business models from one industry to another.

An exciting year ahead. . . Whatever happens in 2018, we can be sure of exponential growth in disruptive technologies and that the business landscape will shift faster than any year previous. To keep up to date with all these developments, sign up for the free D/SRUPTION newsletter for weekly insights.

Source: DISRUPTION



HOW DIGITIZATION IS TRANSFORMING LOGISTICS AND SUPPLY CHAIN MANAGEMENT

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With the aggressive pace of economic growth, India is on a fast track to development, powered by innovation and disruption across key sectors, encouraging government policies, and robust and aggressive growth in IT. Globally, as in India, the logistics sector is undergoing an unprecedented transformation, fuelled by innovations in IT and digitization.

Despite this, the Indian logistics sector, regarded as the backbone of a healthy economy, is highly fragmented and unorganised. As a result, the logistics spend in India currently amounts to 14-15 percent of GDP compared to the 5-6 percent of the GDP spend in developed economies. However, with focused initiatives on manufacturing, like the Make in India campaign, and thrust on digitisation with the Digital India campaign, the Indian logistics sector has slowly begun its disruptive transformation. According to a study by The Associated Chambers of Commerce and Industry of India (ASSOCHAM), the logistics market in India is expected to grow to USD 307 billion by the year 2020, recording a CAGR of 16 percent on an average. Some key areas where digitisation will play a major role in transforming logistics into a robust, IT-enabled, intelligent service, include:

Machine Learning and Data Analytics : Access to authentic and reliable data has been the biggest boon of digitisation. For the logistics sector as well, the intelligent analysis of data has helped create a massive transformation in not just managing client expectations but also to increase efficiency, cut costs, and drive growth. Some key areas where data analytics is helping shape logistics include:

- Improved operational efficiency due to data-enabled intelligence that enables effective decision making
- Efficient management and tracking of inventory due to real-time data updates, created through a data bank on routes and progression reports
- Improved customer experience due to optimised, timely, and effective execution and forecasting of logistics needs of clients.

IoT : Internet of things (IoT) can be explained as the ability for multiple physical objects to connect to the internet and share data, without human intervention. This has effectively transformed several businesses, including logistics. Many logistics experts are already using these new resources to improve systems and supply networks, reduce costs, and look for opportunities to generate more revenue too. Listed below are some practical applications of IoT in logistics:

- Safety in supply chain management by reducing human interactions and risk of accidents
- Implementation of sustainable processes through optimisation of resources, including energy consumption
- Seamless and end-to-end visibility of supply chain through digitally connected devices
- Effective and optimised warehousing and yard management by reducing human intervention and

enabling more machine-to-machine interaction

- Effective fleet management through digitally connected devices that can assist in tracking maintenance schedules, vehicle usage, and service routes, and cut fleet downtime.

Blockchain : Blockchain, a distributed database that maintains an ever-growing list of records called 'blocks', transfers information with a timestamp that is locked and cannot be altered. Modern logistics networks today cater to the expanding global markets, resulting in supply chains that span over hundreds of stages over months and multiple geographical (international) locations, including tonnes of shipping and customs paperwork and multi-level payments involving numerous stakeholders. Hence, logistics is an ideal sector where blockchain can be applied to:

- Improve supply chain security and reduce fraud since all data is maintained on a public ledger
- Facilitate seamless processes by reducing bottlenecks as there is no longer a requirement for certification by third parties
- Enhanced supply chain security and accuracy as hardcopy documents are replaced with digital copies
- Accurate recording of data and real-time tracking updates.

Artificial Intelligence (AI) : AI has been a buzzword in the supply chain world for a while. Worldwide, logistics and supply chains are undergoing a transformation as more "artificial intelligence" is being employed to manage both domestic and international movement of goods. Some key applications of AI include:

- Reduction in human intervention and workforce and increased efficiency in delivery and warehousing (including sorting and distribution centres)
- The efficient and intelligent harnessing of big data to drive cost-effective supply chain management
- Intelligent 'predictive analysis' that is based on an intelligent analysis of vast amounts of data collected, over a period of time, helps avert crisis/mismanagement.

While the industry is suddenly flooded with data unlike ever before, digitisation of processes continues to remain a challenge. Despite this, the industry is waking up to the potential transformation that it can undergo by leveraging the new-age technologies that can drive the sector in the near future. There are vast opportunities, from improving performance to creating customer satisfaction, and the Logistics Service Providers are increasingly seeing the benefits of being a part of a digitally integrated value chain that is truly global, scalable, agile, and cost-effective.

(Disclaimer: The views and opinions expressed in this article are those of the author and do not necessarily reflect the views of YourStory.)

Source: Your Story

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BLOCKCHAIN: THE END OF BANKING AS WE KNOW IT?

A look at how the technology-enabled mechanism of trust could impact all sorts of financial transactions

BOB VIOLINO

Blockchain has the potential to create upheaval in the way lots of day-to-day processes and transactions are conducted—and banking is one of them. While it's too early to say if blockchain will revolutionize the banking industry, it most certainly is having an impact.

BLOCKCHAIN'S IMPACT ON BANKING : Experts say blockchain will have a transformational impact on the banking industry. "I see banks adopting blockchain technology to improve efficiency, cost-effectiveness, and security throughout the entire spectrum of financial services," said ParamVir Singh, Carnegie Bosch associate professor of business technologies at the Tepper School of Business at Carnegie Mellon University.

Banks have already started moving in this space, Singh said. "Some of them have already started forming consortiums where they are testing out use of blockchain for inter-bank transfers," he says. "I think the key applications would be in space of payments, fraud reduction, know your customer, and loan processing. Banks realize that there are tremendous incentives to streamline and automate their processes through smart contracts."

PNC bank is collaborating with Carnegie Mellon through the PNC Center for Financial Services Innovation to figure out what solutions a bank could provide on a blockchain — through the CMU Coin initiative, a cryptocurrency test bed at CMU — and also what internal processes of a bank can be improved with blockchain technology.

For many, though, blockchain efforts are on hold. The banking industry is heavily regulated, Singh noted, and as a result banks are playing a waiting game for regulations to emerge before they make a big move.

For mainstream adoption in the industry and for blockchain to be a scalable solution for banks, it "has to be built with a critical mass of ecosystem players," said Kapil Bansal, a managing director with Deloitte Consulting's banking and capital markets sector. "It's unclear what benefits blockchain [can] deliver in a single bank environment. The nature of blockchain technology lends itself to be leveraged for solutions that are multi-party platforms." Therefore, it's critical that several market participants also agree on common standards before a blockchain solution can be implemented, Bansal said.

A REPLACEMENT FOR BANKS?

Although the impact of blockchain on banking could potentially be significant, experts don't expect it to replace traditional banking for transactions such as lending anytime soon — if ever.

"Blockchain technology still has a lot of limitations due to tradeoffs between scalability and security," Singh said. "The technology needs to evolve significantly before it starts making a serious impact." On the other hand, there is a lot of uncertainty regarding regulation related to blockchain technology.

"The regulation on blockchain technology, particularly in financial services, need to emerge before we see large-scale adoption by banks," Singh said.

How Blockchain Will Disrupt Business : Blockchain has the potential to rewrite the economy and change the balance of power across industries. It also has specific uses for the enterprise.

Read More : It's much too early to say whether blockchain will replace aspects of banking, said Rajesh Kandaswamy, research director at Gartner Inc.

"The technology has potential, but the adoption rate is so little worldwide," he said. "The hurdles are that the current systems — institutions, processes, culture, and technologies — have massive network effects and might not have the incentive for radical change."

ACCESS FOR FUNDS : The original hope of blockchain technology was that it would reduce transaction costs and make micropayments possible, and as a result bring under-banked or unbanked individuals into the system, Singh said.

"However, as we have started to understand blockchain technology better, we have also come to realize this would not happen," Singh said. "A blockchain is made secure through a consensus mechanism. As the computing power required to contribute to the consensus mechanism increases, the blockchain becomes more and more secure — unless the computing power required is so much that it may lead to centralization, in which case the blockchain would fail."

To compensate banks for devoting high levels of computing power, the blockchain needs to reward them with high transaction fees. "As a result, you will note that bitcoin transaction fees are not trivial," Singh said. "For low-value transactions, bitcoin would be very expensive. However, it will be quite lucrative for high-value transactions. I see blockchain technology giving a

huge boost to large-value transactions but potentially not helping small-value transactions much.”

IMPROVING INTEGRITY : Could blockchain prevent people from lying about their incomes on mortgage applications?

“A blockchain-based automated system that tracks all income and other financial information, yes,” Kandaswamy said. “But that could be done with other technologies as well.”

In an ideal world blockchain could prevent people from providing false information, Singh said. “If the employees and the employers were part of a blockchain and the mortgage lender is also part of the same blockchain as well, certainly it could prevent people from lying about their incomes on the mortgage applications,” he said.

CONTROLLING THE LEDGER : Another question that needs to be asked is if a bank decides to alter the ledger, who can stop it?

“There is no one answer to this,” Kandaswamy said. “It depends on the context of use of blockchain. If it is an industry consortium, they might not be able to unless it is validated by others.”

A blockchain is a decentralized system, Singh said. “The technology works because you do not need to trust any individual node in the network,” he said. “If a bank were to have a decentralized ledger and retain the rights with itself on making changes in the ledger, I would not say it is a decentralized system at all.”

In the end, a blockchain provides its code in public. “We trust a blockchain because we trust the code, which has all the checks and balances to ensure trust,” Singh said. “If a bank launches a blockchain where it holds all the power for updating the ledger, I don’t see people adopting it. In the end, regulators need to create clear guidelines for banks for using blockchain technology.”

BLOCKCHAIN VS. BLOCK LATTICE : Is block lattice — a technique used by digital cryptocurrency Nano aimed at providing a platform for instant transactions with no fee charges — better than blockchain?

It’s still an open question, Singh said. “Block lattice still needs to be tested out in terms of security,” he said. “Block lattice is more scalable than a bitcoin largely because it uses a proof-of-stake based consensus mechanism. However, there are blockchains that use proof-of-stake consensus mechanism as well and are scalable.”

The other key difference between a blockchain and a block lattice is that in block lattice, each user account has its own blockchain and they transact by interactions across blockchains, Singh said. “This is an interesting concept,” he said. “We will see how it performs once it is rigorously tested in the open like a bitcoin.”

Source: ZDNet August 31, 2018

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Indian Institute of Materials Management

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- 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.

BUILDING A DIGITAL SUPPLY CHAIN READY FOR THE FUTURE

SAM ISRAELIT, PETER HANBURY, RODRIGO MAYO
& THOMAS KWASNIOK

With the options that digital technologies provide to develop new business models and new strategies, companies that integrate digital technologies into their supply chain can quickly improve service levels while cutting costs up to 30%.

Complaints from frustrated customers were mounting at a major US retailer.

More than 20% said they could not find the company's branded products in shops because items were out of stock.

The problem was that efforts to improve service disrupted the company's low-cost distribution model. It had the right infrastructure but lacked the digital tools necessary to increase supply chain reliability. Moving quickly, the leadership team invested in digital tools to obtain real-time data, shorten replenishment cycle times, optimize deliveries and predict future demand.

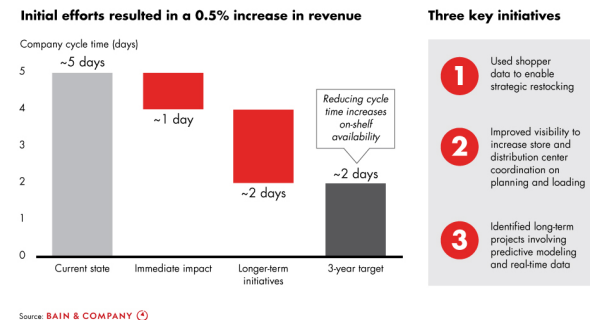
As data streamed in from stores the minute shoppers purchased goods, the company rapidly restocked hot-selling items to capture sales that it previously had lost. The shift cut retail cycle times by 20%, to four days, generating a 0.5% increase in sales (see Figure 1 below). And that was just the first wave of improvement.

Over the next 24 months, the company aims to reduce the time needed to fill store orders to two days, for a 60% total reduction in retail cycle time. Companies that integrate digital technologies into their supply chain can quickly improve service levels while cutting costs up to 30%. Just as important are the options that digital technologies provide to develop new business models and new strategies.

For instance, leading-edge companies such as Adidas are deploying 3D printing to move some production closer to customers, offering greater product customization and shorter lead times.

Despite those advantages, many companies are struggling to keep pace with an onslaught of digital trends that are disrupting traditional supply chain management, slashing response times and raising customers' expectations. The speed of change is overwhelming, especially for those that are not digital natives. Seventy percent of executives expect digital innovation to have a significant impact on their supply chains during the next five years, according to a recent Bain survey, up from just 63% in 2016.

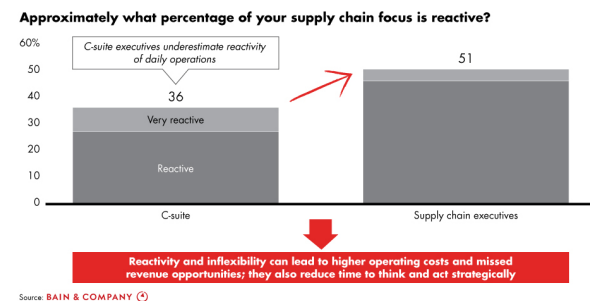
Figure 1
Digital tools help retailer increase supply chain velocity and sales



One of the biggest challenges is building a comprehensive view of how performance standards are changing and what customers really want. Without that knowledge, companies risk being outmaneuvered. Bain research shows more than one-third of CEOs are overly confident about the ability of their supply chains to anticipate swings in demand (see Figure 2).

And the risks of being blindsided are big: higher operating costs from expensive last-minute orders, a pileup of excess inventory, missed revenue opportunities and lost sales from ineffective new product rollouts.

Figure 2
Executives say supply chains are highly reactive and lack end-to-end visibility and flexibility



Four Steps to a Digital Supply Chain : A good place to start when shaping a digital strategy is understanding the industry context and the company's starting point. For example, many companies start with customized legacy IT systems. Replacing these with the latest off-the-shelf digital tools can generate new revenue, improve responsiveness, increase efficiencies and reduce the total cost of ownership for IT systems.

Leading companies develop the culture, data analytics, and IT systems to support their digital strategy and business objectives. They pursue specific goals with near-term value while adopting a clear view of their digital destination. And they remain ready to pivot as their industry evolves.

1. What's my Ideal Future State?

The key to building supply chains that will be competitive in 5 or even 10 years is anticipating change. Leaders evaluate where the industry is going and identify the supply chain capabilities they need to get there.

True, anticipating change is a strategic leap into the future. But most leadership teams can gauge what their business may look like in 3, 5 and 10 years. The 3-year vision is likely to be more concrete, while the 5-year and 10-year visions will be more conceptual. For many retailers and consumer products companies, for instance, it is clear that e-commerce has raised consumer expectations and that traditional retail distribution and replenishment models are unable to meet the needs of their customers who are demanding shorter lead times.

Successful companies avoid incremental moves by envisioning just how extreme the future might look. For example, what would happen if the entire business moved from high margin to low margin or if it shifted from standard products to custom products? These scenarios can help supply chain teams identify what the company would need to do differently and what new capabilities any such changes would demand.

2. Spot the Gaps

Figuring out the ideal future state for a supply chain allows leadership teams to identify missing capabilities and start building them. In our experience, companies that make the right short-term investments to improve supply chain performance generate significant savings to fund long-term investments.

A leading specialty retailer put that technique to good use when an aging supply chain created problems for its direct-to-customer business. The company had underinvested in its supply chain for years, and its basic infrastructure was in poor shape. As a result, service was far inferior to that of digital-savvy competitors. More than 15% of the company's orders arrived later than promised, and customer loyalty was eroding rapidly.

The leadership team realized it needed to replace more than half of its aging distribution centers with several high-performing ones, but it couldn't afford to make the entire investment at once. It started instead with the five largest distribution centers, investing in digital tools and establishing best-in-class distribution processes.

The initial pilot improved service levels by 20% while decreasing costs by 20%. The company now expects to turn around its performance in these facilities within nine months, resolving many of its late-delivery problems and its reputation for poor service. Over the next three years, the leadership team plans to close additional gaps, cutting supply chain costs by 20% to 30%. Achieving that

goal will create a war chest to fund future investments.

3. Design Options to Close the Gaps

Leading companies create a portfolio of near-term and longer-term options to help them close the gaps between their current supply chain and the future ideal state. For example, they may consider outsourcing elements of the supply chain to minimize the complexity of serving certain businesses or segments. Alternatively, they may consider closing multiple gaps through one common IT platform supporting multiple businesses, with additional specialized capabilities specific to certain business units supplementing this core shared system.

A national food manufacturer for groceries and convenience stores used this approach to turn around declining sales. The company's core problem was matching demand with its manufacturing plan. It lacked information about which products were selling quickly and which ones were sitting on the shelf. As a result, it was slow to produce and replace out-of-stock items. That led retailers to shrink the shelf space they allotted to the company - a vicious circle that was eroding sales.

The company contemplated several options to improve its ability to meet consumer demand. Investing in better forecasting tools and processes could improve accuracy but would not eliminate all uncertainties. Advanced manufacturing technology could reduce its cycle time, but the company would still need to forecast item sales. The leadership team decided to invest in digital tools to connect the salesforce and delivery team with central planning and manufacturing. The new system identified products that were selling nearly in real time, giving both teams greater visibility into store demand. That, in turn, helped it manufacture the right products to quickly fill empty store shelves and increase sales.

4. Build a Balanced Roadmap

One challenge for leadership teams contemplating a supply chain upgrade is identifying near-term steps that will help pay for future innovations. Successful companies build a short-term roadmap with concrete initiatives that will start delivering benefits quickly and provide flexibility in reaching long-term supply chain goals.

One global technology company faced enormous supply chain challenges when it suddenly had to support five new multibillion-dollar businesses. The shift was part of a new market strategy to accelerate growth, but it wreaked havoc on the company's highly customized supply chain.

Management had to make sure that the new supply chain could enable an array of new business models and balance their competing demands. That meant investing in basic IT capabilities and supporting new cross-functional business processes. For example, if the salesforce agreed to customize a product for a client, the supply chain would need to be able to validate the custom configuration with design, track the lead time of internal and external parts, follow this custom product through delivery, and forecast the resulting revenue and

cost.

The leadership team's roadmap met all these competing needs while generating quick wins and providing flexibility to accommodate future capabilities and evolving technologies. By shifting existing priorities, the roadmap helped the company fund the complex program with only a modest increase in spending beyond its baseline.

At the Next Executive Team Meeting

Companies eager to start down the path toward a digital supply chain can begin by debating three questions at the next executive team meeting.

- § **What will our business look like in five years, and what supply chain capabilities do we need?**
- § **How could digital tools help us create powerful new business models?**
- § **What two or three high-value digital moves should we get started on?**

The answers to those questions will provide valuable context for shaping a supply chain that will be competitive for years to come. Successful companies set the direction for the journey and remain nimble. Flexibility and adaptability are more important than precision.

After all, market conditions will change, and new competitors will emerge. Tomorrow's winners will be those that can turn disruption into opportunity.

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Source: Supply Chain 24/7

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COMMODITY INDEX

Commodities	Days's Index	Prev. Index	Week Ago	Month Ago
Index	2776.6	2760.6	2754.4	2729.3
Bullion	4771.9	4764.3	4748.6	4614.8
Cement	2021.5	2021.5	2021.5	2031.7
Chemicals	2391.0	2391.0	2391.0	2391.0
Edible Oil	1697.4	1702.3	1695.0	1692.8
Foodgrains	2340.5	2282.5	2276.2	2250.1
Fuel	3003.1	3003.1	2994.8	2973.9
Indl Metals	2135.9	2135.9	2123.2	2186.9
Other Agricom	2354.0	2354.0	2349.5	2320.0
Plastics	1932.0	1932.0	1932.0	1926.9

Source: ETIG Database dated 22nd October, 2018

THE 3R FRAMEWORK: A BUSINESS FIRST, TECHNOLOGY SECOND APPROACH TO DIGITIZATION PART 1: INTRODUCTION

AMITAVA SENGUPTA - PRACTICE HEAD, CS & LSH

The customer's no longer who she used to be, so why are you the same?

A large number of businesses have found themselves struggling to cope with customer expectations in the era of digitization. The primary issue has been their inability to reimagine their offerings and rethink their digital strategy in line with this new, hyper-connected breed of end users. Although business leaders often talk about how they need to change the way they serve the customer and emphasize their vision of placing the customer at the center of the value chain, it is easier said than done. The only thing we know for certain is that there is no denying or stalling digitization. The question that remains is: how do we really get there?

Survival of the most adaptable : We are at the crossroad of a technological epoch. An avalanche of technologies, like artificial intelligence machine learning computer vision and IoT have begun to converge and mutate to form hybrid solutions. The retail industry has led from the front in terms of disrupting business by adopting a digital strategy incorporating these technological mutations in its digitization journey. For example, Walmart's low-key acquisition of Spatialand, a specialist in VR tech, is testimony to the seriousness with which the retail behemoth takes the importance of a nascent technology. Walmart understands as part of its digital strategy that keeping up with the customer experience revolution requires cutting-edge technologies. And adopting any means of defining this transformation is a victory for traditional businesses looking for a digital makeover.

Consider Amazon Go and how this digital strategy addresses the specific pain point of long checkout queues. While the tech behind the endeavor is almost magical, it's incredible to see how the customer experience changes completely when a single step is skipped. In fact, a survey indicated that 70 percent of buyers prefer buying from a retailer who valued their time. Amazon gave these buyers exactly what they wanted.

And the ambivalence of the retail businesses wondering if they can wait out these trends could result in shortened shelf life. Warning examples include Circuit City, an erstwhile iconic electronic seller that went out of business thanks to an inability to respond to digital disruptions and launch a digitization process.

The product gets a digital makeover : The retail business is just one part of the tech invasion. The products themselves are changing as part of the digitization process. Take the wristwatch industry for instance. Since its inception, it has barely seen one or two major disruptions that were centuries apart. Today, with wearables becoming part of the technological singularity obsession, the once-ubiquitous wristwatch faces a struggle for its very existence. Tag Heuer, the Swiss watchmaker, realized this early and has collaborated with Intel and Google to come up with smart watches. In spite of Apple's first mover advantage in the smart watch category, Tag Heuer is likely to have takers for the brand loyalty its customers have shown over the years and its brand personality that is upmarket and fashionable. With niche players like Frederique Constant joining the race, wearable tech, already mainstream, may soon find itself the subject of fashion reviews.

The service transforms : Customer expectations from the service sector also transformed as we moved into the 'anytime, anywhere' ecosystem. With zero tolerance for delays and steadily diminishing attention spans, the modern, hyper-

connected customer expects experiences that are seamless across channels, instant, and intuitive. And while the internet and its spin-off technologies abet and enable these behavioral patterns, sectors such as telecom find themselves scrambling to adjust their pricing and operational models to this change.

And as yesteryear giants like Kodak, HMV, and Blockbuster make way for digital prodigies like Netflix, Amazon, and Uber, Jack Welch's words ring truer than ever: "If the rate of change on the outside exceeds the rate of change on the inside, the end is near." For the service industry, this digitalization of business brings with it worries on data security, privacy, and the need for hardware upgrades that create some serious cost pressures.

A bumpy ride for the large fish : With information at their fingertips, the modern customer is better informed than any customer has ever been in the past. And these digital natives demand not only the right product at the right time, marketed the right way, but for organizations to evolve and readjust the pace at which they change their minds and preferences.

For larger organizations, however, keeping up with this dynamic business environment can be challenging and sometimes impact the very foundations on which they were built. To adopt digital strategies that cater to a new generation of customers, established organizations need to confront internal and legacy hurdles that are a mix of human factors and technology. They may not always have a clear, holistic vision on their digital and GTM strategies for their offerings.

To adopt digital strategies that cater to a new generation of customers, established organizations need to confront internal and legacy hurdles that are a mix of human factors and technology

Despite having the right technologies to help capture the massive amounts of data generated by customers, a number of global corporations find themselves wanting when it comes to drawing meaningful insights from this data. This clear gap in gathering vs. leveraging data is almost synonymous with legacy technology stacks and outdated processes that continue to haunt large modern enterprises today. Unfortunately though, these organizations have traditionally suffered from a higher churn rate of CIOs and CTOs thanks to the lack of buy-ins from internal stakeholders and IT product failures.

Rethink, reimagine, reengineer : A lot has changed over the last decade but the fundamental challenges and aspirations of businesses aren't all that different from the past. While digitization gives us access to newer and more effective tools, its deployment is far from being a perfect science or having a proven approach. What's clear is that while technologies like IoT, AR/VR and AI are redefining the bedrocks of operations, marketing, and computing, the business of the future is expected to either imbibe these into their business models or run the risk of losing relevance in the present technology landscape.

The 3R Approach is a means of driving digitization in a way that addresses every growth dimension for modern enterprises. Each of its three aspects – rethinking products and services, reimagining customer experience, and reengineering the value chain will be elaborated individually in this four-part blog series. Watch out for the next post, where we'll dive straight into rethinking products and services as a means to digitization.

Source: www.hcltech.com

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THE 5 TECHNOLOGY TRENDS THAT MAY DISRUPT BUSINESS OVER THE NEXT 3 YEARS

STEVE OLENSKI, CONTRIBUTOR CMO NETWORK

Earlier this year, Accenture released “[Accenture Technology Vision 2018](#).” It’s the annual technology report from Accenture that predicts key technology trends likely to disrupt business over the next three years. I spoke to Michael Biltz, managing director of Accenture Technology Vision and co-author of the report, who shared insights on the five [technology trends](#) Accenture anticipates and what they mean for business.

1. Citizen AI: Raising AI to Benefit Business and Society :

As artificial intelligence (AI) grows in its capabilities, so does its impact on people’s lives. Businesses are looking to capitalize on AI’s potential; hence, they must acknowledge this impact. The report asked us, as businesspeople/marketers/advertisers, to think about it in terms of how “parents hope to raise children who act responsibly and communicate effectively.” It’s up to us to teach the AI systems to reflect societal norms such as fairness and transparency.

That means AI is much more than a tool, just like our children are much more than something we’ve merely reproduced. What AI systems do will ultimately impact people and their lives. Therefore, we need to teach, guide, and provide boundaries for the AI systems we use. The report stated, “These carefully raised AIs will not only be able to scale operations, but also adapt to new needs via feedback loops from other deployed models — similar to how continuing education enables employees to adapt to new tasks.”

It’s easy to think that’s the [responsibility of tech experts](#). However, the report defines the scope of the various types of learning that fall under the AI category. It’s on each of us in marketing to take the time to understand the various learning styles — they then become the basis for the parenting style we use with our AI children.

Talking Ads, a digital marketing agency specializing in mass-scale programmatic media buying, offers an example of raising AI to benefit business and society. As a marketing technology expert, Alon Braun, the CEO, developed a media BI AI system called 1NMAN. “Before deciding on the correct media buy channel, we trained the system with the company’s core values,” says Braun.

“We put emphasis on teaching the system to act with respect to the end customers, and we also taught the system the value of self-responsibility, which means prioritizing each action every few steps of operation. Most importantly, we have trained 1NMAN with our main core value, which is learning from mistakes, so the system and the company can evolve together.”

2. Extended Reality: The End of Distance : Virtual and augmented reality technologies are transforming the way people live and work. This technology is removing the distance between people, information, and experiences. Location is no longer as important — interesting, given how much time we’ve spent on geolocation and space in the past few years.

The report explained, “Through immersive experiences, businesses can tap expertise in thousands of skills from anywhere in the world. Across industries and applications, immersive experiences are pushing companies to not only think differently about what is possible, but also to create new solutions that bypass the distance-based challenges they face today.”

Already, brands are putting this technology to work. For example, the report noted BMW provides an AR-driven exploration of its models. This technology allows people to get “inside” the car to experience what it feels like to drive one. That provides an emotional connection that no other technology or marketing tactic has been able to deliver. There are endless applications for marketing with this technology.

3. Data Veracity: The Importance of Trust : By transforming themselves to run on data, businesses now face a new kind of vulnerability. This involves inaccurate, manipulated, and biased data. Using this data leads to corrupted business insights and skewed decisions. To address this challenge, companies must follow a dual mandate to maximize veracity and minimize incentives for data manipulation. This trend topped my list of key trends that CMOs are most likely already contemplating. It’s great that many brands are now data-driven.

Biltz stated: Maximizing data veracity is about making sure that you’ve verified the truth and context of the data. For example, SpaceX uses dual computers to make minute course corrections. United Airlines underwent an effort to consistently update seating demand forecasts to maximize profits. It’s not necessarily a matter of the data being wrong. It’s a matter of verifying that it’s as current and accurate as possible.” Pixmettle founder and fintech AI expert Kapil Dhingra, who has developed enterprise AI-based tools that will help detect frauds proactively, says, “AI helps in flagging duplicate expenses and expenses with corporate policy violations early on, even before they get added to the system. This saves time, reduces errors, and increases efficiency.”

In another example, researchers at the University of Warwick found some rideshare drivers organize simultaneous sign-offs. This creates a shortage of drivers and triggers surge pricing. They then log back in to take rides at the higher fares. Systems like this that are managed by algorithms need to be designed with this in mind. In customer service environments, the more a customer complains, the more he’s appeased. Therefore, companies should make sure they’re not rewarding bad behavior. Instead, it’s about exploring ways to promote good behavior.

4. Frictionless Business: Built to Partner at Scale : Businesses depend on technology-based partnerships for growth. However, their own legacy systems aren’t designed to support partnerships. To fully power the connected Intelligent Enterprise, companies must first redesign

themselves. As the report contended, “When these partnerships are technology-based, they can expand partner networks faster and into more ecosystems than ever before. Outdated, legacy systems are becoming a major hindrance to the relationships companies need to grow in order to innovate, compete, and win.”

The report cited what it referred to as the “cornerstones of technology partnerships.” These cornerstones include blockchains, smart contracts that are based on blockchain, and microservices architectures. These will develop powerful digital ecosystems. Companies can use them to evolve well into the future. One place to start change in this area is within your organization. The report explained, “Microservices is not a single piece of technology, but rather an approach to architecture. It uses a suite of tools like application programming interfaces (APIs), containers, and cloud to break applications into simple, discrete services.”

Starting in these areas could create the domino effect necessary to start pushing change into every aspect of a company’s architecture of processes. The report provided key examples of businesses like Walgreens, which has started altering itself in a stepwise fashion internally through specific technology-based partnerships that keep the change momentum going.

Konica Minolta, an information management company specializing in enterprise technology, offers an example of a brand partnering up to boost both technology and business performance. The company’s Business Innovation Center has partnered with a wide variety of companies to transform typical business processes and platforms to create what it calls the “workplace of the future.” Its partnerships have included everything from robot development to telemedicine solutions — the brand partners with other providers to bring innovations to life and strengthen the ecosystem of all involved.

5. Internet of Thinking: Creating Intelligent Distributed Systems

That internal change will spur this fifth technology trend. Businesses are making big bets on intelligent environments via robotics, AI, and immersive experiences. Yet it’s not all about changing legacy systems. Bringing these intelligent environments to life will require adding key skills and workforce capabilities. Also, it will mean modernizing current enterprise technology infrastructures.

The Internet of Thinking is starting to appear everywhere. As per the Accenture report:

Across industries, the next generation of intelligent solutions are moving into physical environments. Improving traffic flows in smart cities, telemedicine that continuously analyzes a patient’s condition, and disaster analysis that prevents oil field catastrophes before they start are all possible with intelligent solutions. IT Infrastructures need to be developed to reach into the dynamic physical environments they want to serve—and it needs to happen now.”

Seeing these examples and applications of Intelligent Distributed Systems will help us figure out how to adapt our thinking and shift to this perspective. We need to pay attention to these early adopters and incentivize our education system. Then, we can start providing the knowledge and skill-building content to fuel this technology trend. It’s definitely one we, as marketers, want to join now rather than be left behind by.

The Shift in Leadership

Accenture noted that this rapid advancement in technology is creating more intelligent enterprises. Therefore, there’s a need for a fundamental shift in leadership, helping leadership approaches align with these intelligent enterprises. Biltz noted, “In order for companies to create the next generation of products and services, they need to become more embedded in their customers’ lives and have tighter relationships with their employees and partners. The more embedded a company is, the more opportunity it has to become irreplaceable.”

He cited how consumers are easily granting Amazon access to their homes via its smart lock system so couriers can make deliveries when they’re not home. This indicates there’s significant value for Amazon to become a preferred retailer by offering this level of personal convenience. However, to maintain that trust, it must act responsibly. Biltz continued, “As companies make the shift and move into the center of people’s everyday lives, we’re increasingly seeing that they’re being held to a higher standard. Regulators are beginning to define these marketplaces, working with leading companies to determine how businesses and industries will work in the future.”

Ultimately, this leadership shift will be driven by either the carrot or the stick. It’s about whether companies are motivated by the value that results from being intrinsic to consumers’ lives or by the risk that will come from being left behind by competitors.

Leveraging Technology the Right Way for Marketing’s Sake

One of the key takeaways from the report is “84% of executives surveyed agree that through technology, companies are weaving themselves seamlessly into the fabric of how people live today.” I asked Biltz if we are at a tipping point or have passed that point when it comes to martech and the sheer number of options available.

Biltz believes it’s not just about using the right technology. He added, “I think the more important question is about what they are using the technology for. Instead of using technology to reach the right customer at the right time to convince them to buy a product or service, we’re seeing leading companies with the bigger objective of embedding the company, product, or service into their customers’ lives. It’s less about using technology to sell a product and more about using a suite of technologies that enables a company to partner with consumers on a daily basis to help them achieve their personal goals. That could be about saving for college or feeding a family on a budget.”

I wondered what the other 16% of executives were doing if not using technology. However, that’s another story for another time. Until then, there’s plenty to consider in these five technology trends and the disruption they will spur in all industries over the next three years.

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Source : www.forbes.com

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WILL BLOCKCHAIN ENHANCE PROCUREMENT EFFECTIVENESS.!!

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Blockchain is a revolutionary technology that is likely to become a major thread in the fabric of global B2B transactions. The implications of block chain for procurement, supply chain and supplier management may be highly significant.

The blockchain is a decentralized technology. A global network of computers uses blockchain technology to jointly manage the database that records Bitcoin transactions. That is, Bitcoin is managed by its network, and not any one central authority.

Blockchain itself is a database in the form of digital ledger. It combines the Internet and cryptography to cater information registration and distribution, thus, eliminating the need for a trusted party such as a bank in case of monetary transactions.

What is Block Chain?

Block chain has the potential to transform all kinds of digital transactions, including those involved in procurement and supply chain. A distributed database that holds tamper-proof records of digital transactions, block chain and its associated applications could usher in a new era of supply chain and source-to-pay process efficiency.

From payments and audits to tracking inventory and assets, block chain technology could deliver a new level of trust and transparency to supply chains while enabling the procure-to-pay process to realize huge operational benefits.

Describing block chain as a form of digital trust is more meaningful, and it gives a better idea of its true potential. It is because trust between partners is at the heart of making business. More trust makes making business easier, streamlines many processes, and creates transparency. Furthermore and more importantly, it means that **blockchain can serve as the backbone of new types of cooperation between machines (M2M) and between humans (H2H) that were, until now, limited by the cost of building trust or the lack thereof.**

M2M cooperation

As stated earlier, with blockchain you can:

- trust the data stored in it,
- create further data collection points,
- execute programs (smart contracts).

That creates a distributed system (data + process) that you can trust (completeness, accuracy, authenticity, resilience). So, you can automate further without being exposed to usual risks due to lack of data, poor/corrupted data, unreliable execution, interferences by 3rd party/intermediaries,... It opens the door to new “apps” that will run exactly as programmed.

So, blockchain is the ideal infrastructure for machine-based activities that the Internet of Things (IoT) has been lacking.

H2H cooperation : Blockchain can also enhance Human-to-Human cooperation because such collaboration also relies on trust. It is particularly the case when partners do not know each other which often happens with new business models (platform/gig economy).

Trust is built on two pillars: identity and reputation. Because of its cryptographic nature, blockchain embeds mechanisms that ensure that users are who they say they are. That covers a user’s identity and extends to other credentials:

“Using the blockchain and strong cryptography, it is now possible to create a certification infrastructure that puts us in control of the full record of our achievements and accomplishments. It will allow us to share a digital degree with an employer while giving the employer complete trust that the degree was in fact issued to the person presenting it.”

“Reputation measures how much the community trusts you, and is calculated on your previous transactions and interactions with the community. The greater your reputation, the more trustworthy you are seen to be on the network and, with a user’s reputation on the line, users choose to behave more honestly on the network.”

Blockchain, a form of digital trust

If you ever bought a house or apartment, you know too well the lengthy and costly process that goes with it. Without going into the details, the process is very paper based and involves a lot of different people hence costly and lengthy. It serves the purpose of creating trust by ensuring that:

- the seller is who he/she says he/she is,
- the buyer is who he/she says he/she is,
- the object of the transaction corresponds to what the purchaser thinks he is buying,
- the seller owns the object of the transaction,

- the buyer has the means to pay for the object of the transaction,

The process also records that the transaction happened. So, the next time that someone sells the house, the information of who owns it is up to date and undisputed.

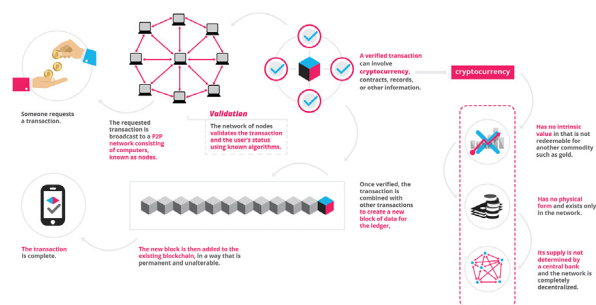
Whenever there is a transaction, there is a transfer of ownership. So, trust is an important factor to make a deal happen. It is precisely the challenge that the blockchain addresses. It is a form of digital trust that speeds up transactions and removes intermediaries. It is why it can have massive implications in the business world as supply/value chains are interconnected and complex.

In other words – Blockchain is a digital database that captures and aggregates records (or blocks) that can function as a ledger used to facilitate business processes that involve multiple parties. It is an open, internet-based, user-driven database that, for every new transaction or update that occurs, a new record or block is automatically added to the chain as a digital fingerprint. And each block becomes a living, breathing artefact for every widget at rest, in transit, or in use. As a result, Blockchains have the potential to increase the efficiency, fidelity, and security of transactional and logistical data exchanged between trading partners in a B2B or B2C environment.

What is Blockchain Technology?

“The blockchain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value.” Don & Alex Tapscott, authors Blockchain Revolution (2016)

Sample Transaction:



What makes blockchain so valuable is linked to how records are added to the database:

- a network of computers stores and verifies any new record, making the blockchain more robust than a single instance (like in most traditional databases),
- every transaction is linked to the previous one, creating a complete traceability and preventing any data alteration,
- it is decentralized (peer-to-peer), there is no authority deciding rules or with an interest to manipulate data in one way or another.

Because of the above, the history in the blockchain is immutable and impartial. Data is shared among parties (publicly or privately) and cannot be changed by anyone.

“Protected from deletion, tampering, and revision. In this world every agreement, every process, every task, and every payment would have a digital record and signature that could be identified, validated, stored, and shared. Intermediaries like lawyers, brokers, and bankers might no longer be necessary. Individuals, organizations, machines, and algorithms would freely transact and interact with one another with little friction. This is the immense potential of blockchain.

What is Blockchain for Procurement?

Blockchain-based innovations hold enormous promise, with a wide array of applications possible for procurement and supply chain:

Smart Contracts:

- For legal and procurement teams, it could be a “smart contract” between two trading partners – a digital, automated record of what goods were bought, sold, and delivered, that is updated in real-time by end users across the line-of-business;
- For human resources and procurement teams, Blockchain would allow an organization to perfectly map business requirements to external workers and create an untouchable system of record that captures payment, project, and contract information

Blockchain could enable the creation of tamper-proof smart contracts that automatically implement terms of multiparty agreements. Smart contracts can self-verify their own conditions and self-execute by releasing payment to the appropriate party. Contracts could be originated to include multiple parties across an entire supply chain with the value and terms fully integrated from end to end, and with the execution of the conditions at each stage recorded against the contract and fully visible to the onward chain.

Enhanced Purchase Order Management: Order validation and approval, invoice processing, multi-way matching and the entire request-to-receipt process could be radically enhanced through the application of blockchain. Any change at any part of the process will automatically create an exception reducing the total time to completion and permitting much greater automation of transactions.

Supply Chain Visibility and Traceability:

- For sourcing and procurement teams, it could be a new due diligence and “track-and-trace” tool that allows them to quickly determine a commodity’s or good’s point of origin, which would help drive visibility, control, and risk management into the supply chain and achieve enterprise or regulatory compliance;

Beyond serving the purpose of transacting more securely and efficiently, blockchain technology can also increase transparency in the supply chain.

At each step of the value chain, from the extraction of raw materials to the customer, the blockchain technology can be used to store and record all the transactions and exchanges of ownership. It is no wonder then that this application is one of the most comment mentioned use cases by organizations investigating blockchain.

Block chain will empower the buyer with the means to ensure authenticity and traceability of all goods throughout the purchasing cycle. Verifiable audit trails of suppliers' goods will be established. Critical supplier credentials, certificates and qualification statuses will remain immune from forgery and other compromise.

Real-Time Settlement: Smart blockchain-based contracts and orders could automatically trigger pre-agreed payments on completion of the transaction cycle.

- For accounts payable (AP) departments, Blockchain could be an all-in-one purchase order (PO), requisition, and invoice that links upstream sourcing and procurement processes with downstream payment remittance; and it can create an auditable report
- For suppliers, it could be a work order and a track-and-trace tool, in addition to a contract and invoice, and allow suppliers to conduct their own due diligence farther down the supply chain.

The benefits from blockchain extend beyond just streamlining payments. It applies to a lot of other areas and processes that are currently still very paper based and that, as payments, are about trust between business partners in the value/supply chain.

Some examples:

- Clause makes contracts connected to the real world by relying on the blockchain
- WAVE connects all members of the supply chain to a decentralized network and allows them a direct exchange of documents via the blockchain eliminating disputes, forgeries, and unnecessary risks.
- Freight tracking and the associated import/export paperwork as tested by Maersk (see here)

The Maersk example also gives a glimpse of the larger potential of blockchain. A possible extension of the application mentioned in the article is "to optimize freight flows by publicly identifying empty containers and finding takers for the extra capacity." This optimization of free capacity/surplus is very similar to the business concepts of the Uber, Airbnb, and the likes. Blockchain can serve as a basis and pillar of the platform economy!

Conclusion:

Blockchain represents a step forward that Procurement organizations should not ignore because it opens the door to further improvements from streamlining paper-based

processes to enhancing cooperation. However, organizations should make an informed decision about testing blockchain. Doing it because others are doing it or because of the hype are not good reasons and could lead to regrets in the future.

Blockchain is certainly one of the most exciting and emerging of potentially disrupting technologies and it could "come of age" in the near future. It has significant potential for B2B commerce, and Accounts Payables (AP), Procurement, and Supply Chain Management teams, in particular. Up and down the source-to-settle process, Blockchain could increase efficiencies, visibility, ad agility for end users, and deliver greater fidelity, value, and performance to the enterprise by way of the supply chain. Technology developers have to further build out Blockchain's proof of concept to "human proof" it, which will be a Great task.

- A request to the readers of this Article: To please forward your views and suggestions to the Author and Editor of MMR, to improve on the future articles.

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CUSTOM EXCHANGE RATES

(All rates per unit) w.e.f. 19th October, 2018

CURRENCY	IMPORT	EXPORT
Australian Dollar	53.70	51.35
Bahraini Dinar	201.20	188.70
Canadian Dollar	57.70	55.75
Chinese Yuan	10.75	10.45
Danish Kroner	11.60	11.15
Euro	86.35	83.30
Hong Kong Dollar	9.55	9.20
Kuwait Dinar	250.35	234.60
Newzealand Dollar	49.60	47.35
Norwegian Kroner	9.15	8.85
Pound Sterling	98.45	95.10
Qatari Riyal	20.85	19.55
South Arabian Riyal	20.20	18.95
Singapore Dollar	54.35	52.50
South African Rand	5.35	5.00
Swedish Kroner	8.40	8.10
Swiss Franc	75.60	72.60
UAE Dirham	20.65	19.35
US Dollar	74.30	72.60
Japanese Yen (100)	66.60	64.15

Source : www.dailyshippingtimes.com/custom-exchange-rates.php

PROSPECTS OF SMES IN EMERGING MARKETS : MANAGEMENT CHALLENGES

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SMES are universally accepted as major contributors to Gross Domestic Product (GDP) and even larger contributors to export earnings and much needed job creation for emerging economies. SMEs play a crucial role in the economic and social development of emerging markets by creating livelihood and generating purchasing capacity for lower and middle income strata. This fosters the vital socio-economic development and growth in the long-run and also usher in the development of a dynamic private sector and entrepreneurship. Even in cases where nations have large private enterprises such as United States and Western economies, SMEs contribute a very significant percentage to the employment creation and spending power.

Various studies indicate that SMEs in the formal sector alone contribute up to 45 percent of employment and almost 35 to 40 percent of GDP in emerging economies. These numbers would be significantly higher when taking into account the contributions of SMEs operating in the informal and unaccounted sectors of the economy, that unfortunately always go unreported in our systems of GDP accounting.

According to the World Bank estimates, about 600 million jobs are required in the next 15 years to absorb the ever growing global workforce, more so in Asia and Sub-Saharan African economies. As various studies show, evidently in emerging economies most formal jobs are generated by SMEs which also contribute a whopping 4 out of 5 new additions to the job payrolls.

OECD, APEC, Emerging Markets & MSMEs : Recent studies by McKinsey and International Finance Corporation (IFC) show that there are about 365 to 445 million MSMEs in emerging markets, of which 25 to 30 million are formally classified as SMEs. In Organization of Economic Cooperation and Development (OECD) economies, MSMEs account for over 95 percent of firms, 60 to 70 percent of job creation, 55 percent of GDP and a major chunk of new additions to job payrolls. In the Asia Pacific Economic cooperation (APEC) region, SMEs

account for about 90 percent of the all business organizations and provide jobs to as much as 60 percent of the workforce, apart from significant export earnings. In developing economies, more than 90 percent of all businesses outside the farm sectors are MSMEs, contributing a significant portion of GDP.

Growing Importance of India - The MSME Advantage :

In the Indian market scenario the defining role played by MSMEs is very much evident in terms of massive contributions to job creation, Gross Value Added (GVA) to GDP, export earnings and economic empowerment of vast sections of the society. As per the Ministry of MSMEs Annual Report (2018) the contribution of manufacturing MSMEs accounted for 33 percent of the country's total manufacturing production consistently for the last five consecutive years. As per the ministry sources, there are about 26 million enterprises in this sector. The sector is the biggest employer after farm sector, despite farm sector contribution to GDP being less than that of MSMEs¹. While the sector contributes about 45 percent to export earnings it forms the highest share of job creation in the country contributing to almost 70 percent of overall employment. Comparatively, in China this sector provides around 75 percent of the total employment and accounts for about 97 percent of the total enterprises and contributes to 60 percent of Chinese GDP.

In the Indian market scenario the role played by MSMEs is very much evident in terms of massive contributions to job creation, Gross Value (GVA) to GDP, export earnings and economic empowerment of vast sections of the society.

However, India's MSME sector has emerged as a highly vibrant and dynamic sector over a period by fostering entrepreneurship and creating productive job opportunities at relatively lower capital cost next only to the over-burdened farm sector with excess workforce. As India leapfrogged from the farm sector to services without seeing proportionately broad-based industrial base, MSMEs indeed become a great interconnect as this

sector play a vital complementary role to large industries as ancillary units, this sector has a great potential to absorb the unwanted excess workers on India's farm sector. That way SMEs poised to play a much bigger role in reaping the benefits of India's demographic dividend as in the case of China in 90s and early 2000s and even meeting the essential assumptions of Goldman Sack's Dreaming with BRICS: The Path to 2050 (October, 2050) for a bigger leap forward. Globally, Indian MSMEs are widening their reach across sectors of the economy, producing diverse variety of goods and services to cater to domestic as well as international markets.

New Frontiers of Opportunities for Emerging Markets:

In a recent report McKinsey Global Institute argues that the manufacturing seems to be reaching maturity phase earlier than it used to be in developing markets especially so after the 2008 global financial meltdown. Obvious reasons here being reduced cross-border trade flows, intensifying trade wars and impending threats to the world trade system as anchored by World Trade Organization (WTO). The report further advocates that these changes pose not only challenges but also create new horizons of opportunities for emerging markets in both manufacturing and services.

There are three broad fundamental changes on a global scale giving rise to new frontiers of opportunities that all emerging markets proactively respond to, initiate actions and manage to their advantage:

Impending and Impacting Demographic Changes : In most of the advanced world a decline in the working-age population has actually become a drag on those economies, even China relaxed the one-child policy to sustain the macroeconomic tempo. At the same time, we see a powerful reverse trend in the form of urbanization and ever growing consumerism in emerging markets. The \$ 2.5 trillion Indian economy is poised to grow around 8% during 2017-19, backed by strong macroeconomic fundamentals, robust domestic demand, favorable demographics, ample resources and proactive government. The policy has become proactive and initiated more than 30 reforms, breaking the era of policy inactiveness and boosting investor confidence. According to McKinsey, emerging markets account for 62 percent of total consumption between 2015 and 2030 amounting to US\$ 15.5 trillion. Undoubtedly, India and China are accounting for a lion's share in this additional and still flourishing market demand.

Dramatic Shift in Global Trade Patterns : Emerging markets are participating in more than half of the global cross-border merchandise, meaning a relatively better comparative advantage in the range of goods and product value chains that they produce and trade.

Significantly, more and more trade taking place within emerging markets as compared to the pace of trade within developed markets and also between developed industrialized economies and emerging markets. So emerging market advantages increase, fuel trade and trigger demand for their goods and services.

Expanding Digital Revolution driven by Productivity and Proactive Policy :

Digitization has opened the doors for emerging markets allowing MSMEs and individual owner-managers to directly participate in globalization of production, distribution and marketing. Digital platforms like Facebook, WhatsApp, Instagram, Alibaba, and WeChat are connecting millions of people around the world.

As policy become proactive, recently India has launched a digital platform for Indian MSMEs exporters to reap the advantages of growing internationalization and convergence of tastes across markets. The idea has come from the Federation of Indian Export Organizations (FIEO). The FIEO Global Linker will help MSME exporters to digitize their business transactions.

Such global access once a choice by the world's governments, large global corporations and major financial institutions. But by now due to digital platforms with global reach - small scale entrepreneurs, artisans, freelancers, small businesses, and even individuals can participate directly. Also, such connect has significant productivity improvements too. According to various reports, such digitization has the potential to enhance productivity in emerging markets by 0.8 to 1.2 percentage points a year over 2015 to 2030. This implies more production and healthy bottom-lines for MSMEs.

There are few MSME examples to reckon with as below:

- India in recent times has emerged as a mobile-first, digitally-influenced economy moving progressively towards mobile devices, 4G networks, and online payments. With an increasing urbanized consumer base of about 481 million people online in 2017, the country has the third largest users globally.
- Last two years alone India has seen over 200 million accessing internet, and over 5000 start-ups have been created, consolidating India's position as the world's third largest start-up hub.
- The Estonian start-up coModule's technology has brought internet to electric bikes and scooters and seed funding came from Germany. The company sources components from China and eyeing on markets across Europe and Asia.

- A Taiwanese online market place called Pinkoi has become a platform for over 20,000 designers and artists to showcase their work.
- Dr. Chibuzo Anaso, Cape Town, South Africa has developed an app that helps diabetes patients to take control of their condition. He started developing this platform, working at the same time to support the development. Today more than two thirds of its subscriber come across the border from African continent and middle-east. Later the start-up moved to Washington B.C. for a strategic partnership.
- These are only few instances of how digital revolution is expanding the horizons of opportunities for MSMEs.
- Remarkably, as opportunities increase for small businesses globally there are other positive but much wanted spill-over benefits. Apart from creating most of the new jobs and help diversifying the country's economic base, SMEs promote innovation, help deliver goods and services and can be a powerful source integrating women and youth into the mainstream economy.

The Managerial Challenges : Despite all the positives and the potential, SMEs remain significantly underserved by the financial institutions. Access to finance is a key constraint to SME growth and without access to reliable financial capital many SMEs languish and stagnate.

This year June 27, the world celebrated United Nations MSME day for the first time to pay its respects to the small companies and the global body identified access to finance as one of the primary obstacles to their growth. Of the 200 to 245 million informal enterprises that need credit but can't avail it, more than 90 percent account for MSMEs. Research shows that the credit gap that formal SMEs confront is about US\$ 1 trillion. Most of these MSMEs bound to be Indian, given that India's 51 million MSMEs are facing a credit crunch of staggering US\$400 billion.

The challenges-Financial exclusion & Technology adoption : The two important reasons for the financial exclusion of MSMEs were mainly their lack of comprehensive credit scores and the complicated application process to get the loan. The policy efforts at the Government level to mobilize funds for MSMEs only proved that the formal banking system is not really cut to this targeted task. However, agile and new-age start-ups saw the existing gaps in the market and smartly resorted to a technology-driven solution which has helped India's MSMEs access legitimate credit to some extent.

Another important area that SMEs need to overcome is technology adoption and innovation in tune with feasibility and market needs. Here again investing in technology and access to capital are very much interdependent. Also, huge investment in developing technology is often dicey for SMEs and its support to help growth is doubtful. As evident from studies, there is plenty of readily available technology which SMEs can bought from the outside such as process manuals and software packages. Those SMEs that are proactive and smart grow using such technologies in ingenious ways, yet times better than the very purpose of such technology applications that makers could foresee.

Moving Forward -Strengthening SMEs competitiveness is the only way forward : The broader macroeconomic and policy environment is of paramount importance for development and growth of SMEs. SMEs development requires an integrating approach i.e. its success depends on the ability of governments to formulate and execute sound policies, the capability of the stakeholders to develop conducive microeconomic ecosystem and the ability of SMEs to implement competitive business policies.

Also, a continuous dialogue and partnership between the main stakeholders, say public sector, private sector and the society, is very much essential. As often rightly pointed out in various discussions and forums, investments in physical infrastructure and business services go a long way in supporting the sector.

In tune with the contribution of the sector and inter-sectorial linkages, MSMEs role needs to be strengthened in view of their ability to foster a relatively equitable growth and job creation. It becomes imperative to strengthen SMEs competitiveness that requires the enabling legal, regulatory and bureaucratic support, access to finance, and capable institutions and most importantly development of human capital.

In times of volatile global market scenario such as the present, a conscious policy coupled with pragmatism on the part of the policy makers is very much needed to really reap the benefits of this prominent sector of the emerging market world. The next level of growth in emerging markets such as India will have to necessarily come from the MSMEs, which can propel India's market growth rate from levels 7 to 8 to a desirable 9 to 10 percent which in any case we need to accommodate the new additions to the job market every year, else languish with joblessness and despair making ourselves too susceptible to uncertainties of global markets.

Source : SME World, October 2018





LEVERAGING THE POWER OF BLOCKCHAIN TECHNOLOGY FOR LOGISTICS

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1.0 Introduction: Blockchain technology is considered as one of the revolutionary innovations in recent times and has been gaining attention steadily. Though known to be the technology behind Bit Coin and other crypto-currencies, its reach and influence are not limited to peer-to-peer electronic cash system, but beyond this segment, encompassing all the other business areas also.

One of the Business areas where Blockchain Technology benefits can be leveraged is Logistics. Logistics involves many complex processes with high uncertainties and requires a high involvement of different groups to coordinate and communicate. The information flow in logistics is mostly fragmented, inaccurate and not real-time based. It is also an area where it heavily relies on physical documents, tracking and tracing issues and ever-increasing costs. Since different parties are involved, there is always a possibility of an element of mistrust.

This paper discusses about how excellence in logistics can be improved by using Blockchain Technology. The next section will provide an overview of Blockchain technology, followed by the issues in logistics, how Blockchain can help in overcoming these issues, what are the use cases in logistics, what are the challenges of Blockchain technology and finally the conclusion.

2.0 Overview of Blockchain Technology: A Blockchain is basically a digital distributed ledger containing a difficult-to-hack records of transactions across a peer-to-peer network. This distributed ledger is shared and synchronized across multiple computers and locations.

Every participant in the network has the visibility of the data to verify or reject it using consensus algorithms. The approved data that is entered in the ledger will be a collection of “blocks” and each new block is linked to previous blocks and tampering of data is virtually not possible.

The main features are:

- Consensus: All parties should agree to network and verified transactions
- Immutability: Anything written on ledger cannot be modified or deleted.
- Provenance: Records that can be tracked to original source.
- Privacy: Permissions and identity ensure appropriate visibility of transactions

Apart from the above capability features, Blockchain has

an important feature called ‘Smart Contracts’. A Smart Contract is an executable code that runs on the Blockchain which can enforce automatically, the pre-defined conditions. There are exiting uses of Small Contracts in association with Internet of Things. Each sensor forms its own node on a Blockchain and Smart Contract can record Assets and track Material issues from the shelf in the Warehouse, flying on a delivery drone to the receipt of Material at the project site. Smart Contract can broadcast the location of the Material to all the participants in a Blockchain.

2.1 Types of Blockchains: There are currently four types of Blockchain networks. Which type of blockchain is to be selected is part of decision making process, involving weighing of different options to suite the business need. Below are the details of application suitability are given below:

Type	Usage
Consortium blockchains	These are permissioned Blockchains where a selected group controls consensus process with the right to read the blockchain and submit transactions. This type is best suited for Business
Semi-private blockchains	These blockchains are run by a single company and access is given to any user who satisfies pre-established criteria. Although not truly decentralized, this type of permissioned blockchain is appealing for business-to-business use cases and government applications
Private blockchains	These are 100% centralized and controlled by a single organization. Useful as a sandbox environment and not for production
Public blockchains	Anyone can read a public blockchain, send transactions to it, or participate in the consensus process. They are considered to be “permission less.” Every transaction is public, and users can remain

anonymous. Bitcoin and Ethereum are prominent examples of public blockchains.

Now that the concept and capabilities of Blockchain are discussed, the later section will highlight some of the issues in Logistics being faced currently.

3.0 Issues in Logistics: Among the many varied challenges that are encountered in logistics, following are the main issues which Blockchain Technology can directly address.

3.1 Lack of transparency: A product journey from the source of origin to the destination will have many touch points involving many stakeholders. Because of this complexity, getting a single version of the truth at any point of time is difficult. There is low visibility of the process from end-to-end to manage, resulting in lot of coordination and accessing different modes of communication to get the right information. There is always a possibility to distort the information and the challenge of mining the data for the history of a record.

3.2 Extensive Physical Documentation: Historically, Supply Chain is identified with extensive documentation. Lot of physical documents are to be generated and handled which also incur handling costs. Frequent misplacement of documents and delays in receiving documents are very common and pose a serious challenge to Supply Chain and to its cost.

3.3 Difficulty in tracking and tracing Material: Tracking of a material or a container from dispatch point to receiving point is very difficult. A lot of coordination is required to track the consignment. The reconciliation activity is also cumbersome because of non-availability of data at one place.

3.4 Fragmented Information: In supply chain cycle, the data is captured by different stakeholders at different stages on different systems. For any information need, all these different chunks of data are to be consolidated and validated. This leads to delay and sometimes mistrust.

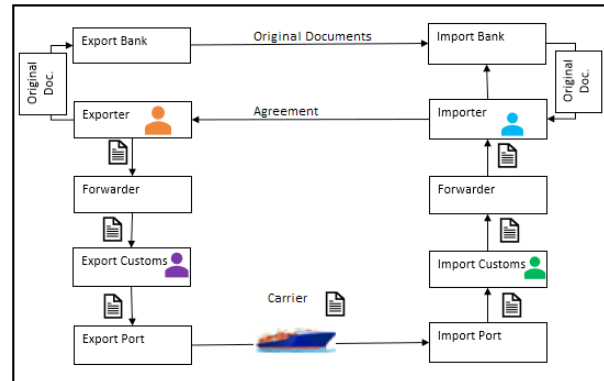
3.5 High degree of coordination: Lot of efforts are needed for tracking material, document follow up and other information. This becomes necessity as different groups will be working at different stages. This sometimes leads to delays and mistrust. There is no common tool for all the participants in supply chain to monitor the progress and there is no alert mechanism in case something goes wrong.

3.6 Blockchain solution to Supply Chain Issues: One of the main features of Blockchain is distributed ledger. A distributed ledger is shared, replicated and synchronized among the members of Blockchain. Every record created by the members of the group in the distributed ledger is time-stamped and cryptographically signed, making the record immutable. Blockchain acts as a single truth to all the members of the blockchain network and provides in this way, transparency and security. Entire group can contribute and validate data. There is no fragmentation

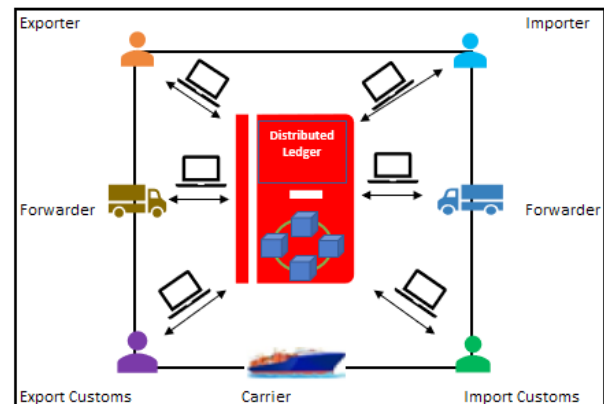
of data.

Above concept can be pictorially depicted with a comparison between the existing logistic cycle and the Blockchain powered logistics cycle as shown below:

Current Logistics Cycle:



Blockchain Powered Logistics Cycle:



As can be seen from above, digitalization of documents has eliminated the necessity of handling physical documents, availability of real-time immutable records of from distributed ledger. Functionality of Cryptocurrency will also eliminate the presence of financial institutes.

There is another feature of Blockchain, called 'Smart Contract'. A smart contract is a self-execution task, coded when a pre-defined condition is met. This functionality can automate many processes in supply chain like tracking and activating workflows like purchase order changes, receipts, shipping notifications and automatic payments to vendors when materials are received, or services are completed.

Blockchain decentralized network can also hold necessary records and certificates to prevent falsification and ensuring verification. For example, blockchain can validate the driver record of a cargo, vehicle condition, capacity of the vehicle etc., to prevent any possible risks.

Another important feature of Blockchain is that it can be linked with new technological innovations like Internet of Things (IOT) and AI. By using IOT sensors,

movement of material/assets can be tracked, available storage spaces can be tracked and loading costs based on weight or volume can also be ascertained.

There is another advantage in the form of reducing internal audit costs. Blockchain can ensure compliance with transaction recording and disclosures as per the financial reporting framework. Data analytics based on real-time information will help continuous auditing. Because of the technical possibility of automation and elimination of reconciliation of records, audit costs will be less. With real-time information with immutable consensus records available, routine tasks can be eliminated which will enable auditors to focus more on value maximizing activities

4.0 Use Cases in Logistics:

Maersk and IBM Project: In January 2018, Maersk and IBM announced the intention to establish a new blockchain platform to provide more efficient and secure methods for conducting global trade using blockchain technology. The two main capabilities are (1) To provide end-to-end supply chain visibility that enables all actors involved in a global shipping transaction to securely and seamlessly exchange shipment events in real time. (2) To digitize and automate paperwork filings for the import and export of goods by enabling end users to securely submit, stamp and approve documents across national and organizational boundaries.

SmartLog Project: Kouvola Innovation Oy along with five other organizations is working on SmartLog project to create a platform on blockchain with IoT application for Cargo logistics that can store all logistics data, down to the level of individual containers, and then process the data in a secure fashion which allows the relevant parties to see the data, while hiding it from other parties who it is not relevant to. The messages which get updated into the blockchain will primarily focus on the movement and status of the transport containers as they pass along the supply chain. Messages will be encrypted before the writing process initiates, with decryption restricted to only the relevant stakeholders for each part of the process. The approach is to utilize all the existing logistic infrastructure such as GPS locators and RFID sensors. The biggest potential benefit of the project is that users can access real-time trusted data and will be able to create smart contracts, where once certain conditions have been met, then other predetermined actions can be triggered automatically to speed up the process.

BP, Eni Trading & Shipping, and Wien Energie - Blockchain Energy Trading Platform: Canadian blockchain startup BTL completed a pilot program in which blockchain technology is tested to streamline cross-border trading and back-office processes such as confirmations, actualizations, invoice generation, settlement, auditing, reporting, and regulatory compliance across the energy trade lifecycle. BTL Group now in the process of creating a live, commercial version of an energy trading solution that will ensure cost savings applicable to numerous areas of the energy sector.

Groupe Renault Project: Groupe Renault run a prototype in collaboration with Microsoft and VISEO using Blockchain technology to connect each new vehicle's maintenance events to the vehicle's digital twin. A digital twin is a dynamic, digital representation of a physical asset which enables companies to track its past, current and future performance throughout the asset's lifecycle. As the digital twin is fully transferable on the blockchain-based system, each vehicle's maintenance history remains connected to the vehicle even when there is a change of vehicle ownership – a very useful and practical data management service that automotive companies can provide to their customers.

Others: There are currently around 50 consortiums working on Blockchain Technology to explore business benefits across sectors.

5.0 Challenges to Blockchain Technology:

- The technology is still in testing stage. Though there are many use cases across the industry, most of them are in pilot/testing stage. Gaining industry adoption is very crucial for success of this technology
- Viable Blockchain standards are yet to be evolved
- Governance and legal frameworks have yet to be evolved.
- Security aspects are to be reviewed.
- As technology is new, technical expertise is limited.

6.0 Conclusion: Blockchain Technology with its core strengths of transparency, immutability, security and ensuring trust among the participants can make a significant impact across the industries. It can also be combined with the other complementary technologies like IoT, RFID, AI etc., This combination can have enormous potential in resolving many complex issues faced in Logistics. Tracing, tracking, information security, elimination of intermediaries, digitalization of documents and automation can enhance the performance of overall supply chain. Success depends on the collaboration of different groups within the network apart from the support of legal and governmental agencies.

Though there are significant challenges, the benefits of this technology tilt the scale towards the exploration of the opportunities it provides. The need now is to embrace new way of thinking and new way of performing.

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Blockchain Powered Imports Process by Ramesh Babu Karanam 2018 JETIR May 2018, Volume 5, Issue 5





WTO UPDATE :

INDIA - TRADE BARRIERS



INDIA - TRADE BARRIER : Includes the barriers (tariff and non-tariff) that U.S. companies face when exporting to this country

Trade Barriers : Any restriction imposed on the free flow of trade is a trade barrier. Trade barriers can either be tariff barriers (the levy of ordinary negotiated customs duties in accordance with Article II of the GATT) or non-tariff barriers, which are any trade barriers other than tariff barriers. For more information visit: For more information

Import Licensing : One of the most common non-tariff barriers is the prohibition or restrictions on imports maintained through import licensing requirements. Though India has eliminated its import licensing requirements for most consumer goods, certain products face licensing related trade barriers. For example, the Indian government requires a special import license for motorcycles and vehicles that is very restrictive. Import licenses for motorcycles are provided to only foreign nationals permanently residing in India, working in India for foreign firms that hold greater than 30% equity or to foreign nations working at embassies and foreign missions. Some domestic importers can import vehicles without a license provided the imports are counterbalanced by exports attributable to the same importer.

India maintains a “negative list” of imported products subject to various forms of nontariff regulation. The negative list is currently divided into three categories: banned or prohibited items (e.g., tallow, fat, and oils of animal origin); restricted items that require an import license (e.g., livestock products and certain chemicals); and “canalized” items (e.g., some pharmaceuticals) importable only by government trading monopolies and subject to cabinet approval regarding import timing and quantity. India, however, often fails to observe transparency requirements, such as publication of timing and quantity restrictions in its Official Gazette or notification to WTO committees.

For purposes of entry requirements, India has distinguished between goods that are new, and those that are secondhand, remanufactured, refurbished, or reconditioned. India allows imports of secondhand capital goods by the end users without an import license, provided the goods have a residual life of five years. India’s official Foreign Trade Policy categorizes remanufactured goods in a similar manner to secondhand products, without recognizing that remanufactured goods have typically been restored to original working condition and meet the technical and safety specifications applied to products made from new

materials. Refurbished computer spare parts can only be imported if an Indian chartered engineer certifies that the equipment retains at least 80 percent of its life, while refurbished computer parts from domestic sources are not subject to this requirement. India requires import licenses for all remanufactured goods. U.S. stakeholders report that meeting this requirement, like other Indian import licensing requirements, has been onerous. Problems that stakeholders report include: excessive details required in the license application; quantity limitations set on specific part numbers; and long delays between application and grant of the license.

India treats boric acid imports to stringent restrictions, including arbitrary import quantity approval requirements and conditions applicable only to imports used as insecticide. Traders (i.e., wholesalers) of boric acid for non-insecticidal use cannot import boric acid for resale because they are not end-users of the product and consequently cannot obtain “no objection certificates” (NOCs) from the relevant Indian government ministries and departments or import permit from the Ministry of Agriculture. NOCs are required before applying for import permits from the Ministry of Agriculture’s Central Insecticides Board & Registration Committee. Meanwhile, local refiners continue to be able to produce and sell boric acid for non-insecticidal use subject only to a requirement to maintain records showing they are not selling to end users who will use the product as an insecticide. The United States urged India to eliminate its import licensing requirements on boric acid in meetings of the WTO Import Licensing Committee and at the 2016 TPF. United States has actively sought bilateral and multilateral opportunities to open India’s market, and the government of India has pursued ongoing economic reform efforts. Nevertheless, U.S. exporters continue to encounter tariff and nontariff barriers that impede imports of U.S. products into India.

Standards, testing, labeling & certification

The Indian government has identified 109 commodities that must be certified by its National Standards body, the Bureau of Indian Standards (BIS). Another agency, the Food Safety and Standards Authority of India established under the Food Safety and Standards Act, 2006 as a statutory body for laying down standards for articles of food and regulating manufacturing, processing, distribution, sale and import of food. The idea behind these certifications is to ensure the quality of goods seeking access into the market, but many countries use them as protectionist measures. For more on how this relates to labeling requirements, please see the section on Labeling and Marking Requirements in

this chapter.

Anti-dumping and countervailing measures

Anti-dumping and countervailing measures are permitted by the WTO Agreements in specified situations to protect the domestic industry from serious injury arising from dumped or subsidized imports. India imposes these from time-to-time to protect domestic manufacturers from dumping. India's implementation of its antidumping policy has, in some cases, raised concerns regarding transparency and due process. In recent years, India seems to have aggressively increased its application of the antidumping law.

Export subsidies and domestic support

Several export subsidies and other domestic support is provided to several industries to make them competitive internationally. Export earnings are exempt from taxes and exporters are not subject to local manufacturing tax. While export subsidies tend to displace exports from other countries into third country markets, the domestic support acts as a direct barrier against access to the domestic market.

The Indian government's Foreign Trade Policy (FTP) 2015-2020 announced on April 1, 2015 is primarily focused on increasing India's exports of goods and services to raise India's share in world exports from 2 to 3.5 percent. The FTP consolidated most of India's existing export subsidies and other incentives into two main export incentive schemes, namely the Manufactured Goods Exports Incentive Scheme (MEIS) and the Service Exports Incentive Scheme (SEIS).

India maintains several export subsidy programs, including exemptions from taxes for certain export-oriented enterprises and for exporters in Special Economic Zones. Numerous sectors (e.g., textiles and apparel, paper, rubber, toys, leather goods, and wood products) receive various forms of subsidies, including exemptions from customs duties and internal taxes, which are tied to export performance. India not only continues to offer subsidies to its textiles and apparel sector to promote exports, but it has also extended or expanded such programs and even implemented new export subsidy programs. As a result, the Indian textiles sector remains a beneficiary of many export promotion measures (e.g., Export-Oriented Units, Special Economic Zones, Export Promotion Capital Goods, Interest Credit Schemes, Focus Product, and Focused Market Schemes). The GOI in July 2016 further increased the subsidy for the garment sector to boost employment generation in addition to providing for refund of state levies.

In 2017, India graduated from Annex VII of the WTO's Subsidies and Countervailing Measures Agreement. Consequently, it should now eliminate all its export subsidies in all sectors of its economy without exception. Despite its graduation from Annex VII, India has not publicly articulated a timeline for elimination of any export subsidy programs.

India maintains a large and complex series of programs that form the basis of India's public food stockholding program. India maintains stocks of food grains not only

for distribution to poor and needy consumers but also to stabilize prices through open market sales. India uses export subsidies to reduce stocks and has permitted exports of certain agricultural commodities from government public-stockholding reserves at below the government's costs. For example, the government authorized the exportation of 66.5 million tons of wheat from government-held stocks during August 2012 to May 2014 at varying minimum export prices significantly below the government's acquisition cost of \$306 per ton, plus storage, handling, inland transportation cost, and other charges for exports. In February 2014, the Indian Cabinet Committee on Economic Affairs made 4 million metric tons of raw sugar eligible to receive export subsidies under a new, two-year subsidy program. The United States, along with other interested Member countries, has raised this issue in the WTO Committee on Agriculture.

Procurement

The Indian government allows a price preference for local suppliers in government contracts and generally discriminates against foreign suppliers. In international purchases and International Competitive Bids (ICB's) domestic companies gets a price preference in government contract and purchases.

India lacks an overarching government procurement policy and, as a result, its government procurement practices and procedures vary among the states, between the states and the central government, and among different ministries within the central government. Multiple procurement rules, guidelines, and procedures issued by multiple bodies have resulted in problems with transparency, accountability, competition, and efficiency in public procurement. A World Bank report stated that there are over 150 different contract formats used by the state owned Public Sector Units, each with different qualification criteria, selection processes, and financial requirements. The government also provides preferences to Indian micro, small, and medium enterprises and to state owned enterprises. Moreover, India's defense offsets program requires companies to invest 30 percent or more of the value of contracts above 3 billion rupees (approximately \$56 million) in Indian produced parts, equipment, or services.

In 2015, the government mandated that 20 percent of its public procurements be awarded to Indian based micro, small, and medium enterprises, and in 2017, the Indian cabinet approved a public procurement policy encouraging preferences for Indian manufactured goods with a view to promote the "Make in India" initiative. The move is aimed at facilitating local manufacturing and boosting domestic demand for locally manufactured products. India's National Manufacturing Policy calls for increased use of local content requirements in government procurement in certain sectors (e.g., information communications technology and clean energy). Consistent with this approach, India issued the Preferential Market Access notification, which requires government entities to meet their needs for electronic products in part by purchasing domestically

manufactured goods. Subsequently, in June 2017, the Department of Industry Policy and Promotion (DIPP) issued two notifications under the Public Procurement “Preferential Electronics Order” and “Cyber Notification,” which require local content for all state and central government procurements mandating preferences for domestically manufactured electronic goods (including medical devices) and cyber-security software products. This notification is the culmination of similar Indian policy proposals over the past year that have outlined discriminatory government procurement policies designed to stimulate domestic manufacturing of electronics and telecommunications equipment.

Service barriers : Services in which there are restrictions include: insurance, banking, securities, motion pictures, accounting, construction, architecture and engineering, retailing, legal services, express delivery services and telecommunication. The Indian government has a strong ownership presence in major services industries such as banking and insurance. Foreign investment in businesses in certain major services sectors, including financial services and retail, is subject to limitations on foreign equity. Foreign participation in professional services is significantly restricted, and in the case of legal services, prohibited entirely.

Other barriers : Equity restrictions and other trade-related investment measures are perceived give an unfair advantage to domestic companies. The GOI continues to limit or prohibit FDI in sensitive sectors such as retail trade and agriculture. Additionally, there is an unpublished policy that favors counter trade (barter or non-cash transactions). Several Indian companies, both government-owned and private, conduct a small amount of counter trade.

In 2010, India initiated the Jawaharlal Nehru National Solar Mission (JNNSM), which currently aims to bring 100,000 megawatts of solar-based power generation online by 2022 as well as promote solar module manufacturing in India. Under the JNNSM, India imposes certain local content requirements (LCRs) for solar cells and modules and requires participating solar power developers to use solar cells and modules made in India to enter into long-term power supply contracts and receive other benefits from the Indian government. The United States challenged these requirements through the World Trade Organization (WTO) dispute settlement system. In February 2016, a WTO panel found India’s LCRs inconsistent with multiple WTO requirements. In November 2016, India provided formal notice that it would bring the challenged measures into WTO compliance within a “reasonable period.” Subsequently, India and the United States agreed that the reasonable period 14 months.

On January 23, 2018, India requested the establishment of a WTO compliance panel to determine whether India has brought the challenged measures into WTO compliance. The WTO has yet to take any action on India’s request.

In response to pressure from local stakeholders, India has steadily increased export duties on iron ore and its derivatives. This includes export duty of 30 percent, ad

valorem export duty on iron ore pellets of five percent, an export duty on iron ore containing less than 58 percent iron of 10 percent, and an export duty on chromium ore of 30 percent ad valorem. In recent years certain Indian states and stakeholders have increasingly pressed the central government to ban exports of iron ore. To improve availability of iron ore for the local steel producers, the GOI in March 2016 enhanced and unified the rate of export duty for all types of iron ore (other than pellets) at 20 percent; earlier a 15 percent export tax was applicable on lumps and 5 percent on fines. India’s export duties impact international markets for raw materials used in steel production.

Lack of transparency with respect to new and proposed laws and regulations affecting traders remains a problem due to a lack of uniform notice and comment procedures and inconsistent notification of these measures to the WTO. This in turn inhibits the ability of traders and foreign governments to provide input on new proposals or to adjust to new requirements. In 2014, India’s Ministry of Law and Justice issued a policy on pre-legislative consultation, which was to be applied by all Ministries and Departments of the Central Government before any legislative proposal was to be submitted to the Cabinet for its consideration and approval. The policy also required the central government entities to publish draft legislation or a summary of information concerning the proposed legislation for a minimum period of 30 days. Issuance through electronic media was also encouraged in the policy, as were public consultations. However, despite U.S. requests, the Indian government has provided no information on the implementation of the policy, other than to clarify it is only intended to apply to draft legislation, not regulations or tariff-setting not. U.S. stakeholders continue to report new requirements that are issued with no or inadequate public notice and consultation or without WTO notification. This lack of transparency imparts a lack of predictability in the Indian marketplace, negatively affecting the ability of U.S. companies to enter or operate in the Indian market. The United States continues to raise our concerns regarding uniform notice and comment procedures with the government of India both bilaterally in the Trade Policy Forum (TPF) and multilaterally in the WTO and other fora.

Prepared by our U.S. Embassies abroad. With its network of 108 offices across the United States and in more than 75 countries, the U.S. Commercial Service of the U.S. Department of Commerce utilizes its global presence and international marketing expertise to help U.S. companies sell their products and services worldwide. Locate the U.S. Commercial Service trade specialist in the U.S. nearest you by visiting <http://export.gov/usoffices>.

For more information and help with trade barriers please contact:

International Trade Administration
Enforcement and Compliance
(202) 482-0063 ECCcommunications@trade.gov
Source: export.gov

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BRANCH NEWS

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|--------------------|---------------------|---------------------------|
| ■ ALWAR BRANCH | ■ LUCKNOW BRANCH | ■ ROURKELA BRANCH |
| ■ BANGALORE BRANCH | ■ MUMBAI BRANCH | ■ TIRUVANANTAPURAM BRANCH |
| ■ COCHIN BRANCH | ■ NALCONAGAR BRANCH | ■ VAPI BRANCH |
| ■ KANPUR BRANCH | ■ PUNE BRANCH | ■ VADODARA BRANCH |
| ■ KOLKATA BRANCH | | |

ALWAR BRANCH

Indian Institute of Materials Management, Alwar branch organized a Seminar to “Stores and Inventory Management” at Government Polytechnic college, Alwar. About 80 students and faculty members of the college attended the program. Prof. Anil Agarwal welcomed Mr. L R Meena National Secretary and Treasurer of IIMM and speaker of the Seminar.



Mr. Meena described about importance of Stores and Inventory in day to day use as well as in Industry. The importance of supply chain, it's use in each step of procurement, storage, manufacturing and marketing of the finished product. How lot of saving can be made by effective and efficient use of inventory tools to make drastic change in manufacturing process and increase in the profitability of Industry

Whether it's manufacturing, trading, service or any industry . It helps in efficient manufacturing process to increase the profitability. Inventory tools like ABC analysis,VED,GOLF, FSN,XYZ,HML, inventory carrying cost were discussed during the seminar

The program was well appreciated by the Faculties and the students. Finally Vote of thanks was proposed by The college principal Mr. Anil Agarwal.

BANGALORE BRANCH

21.09.2018 – Evening Lecture Program : Indian Institute of Materials Management, Bangalore was organised Monthly Lecture Program on “Lean Manufacturing in Industries” on 21.09.2018 at Woodlands Hotel, Bangalore By Mr. Udaya Shankar C N, Lean Consultant and Trainer. Mr. Srinivas V. Rao, Branch Chairman welcomed the dignitaries and gathering. Mr. C.S. Subash, MC, Introduced Speaker to the gathering . On this occasion Certificates have been awarded to the passed out candidates of CSCM course by Mr. C.L. Kapoor, Past National President and participation certificates of Quiz - SCALE 2018, issued to Students who have participated from Colleges – Management Studies. Certificates issued by Mr. H.M. Bhat, Past Chairman of IIMM Baroda Branch. Mr. K.V. Sudheendra, Vice Chairman Proposed vote of thanks. Lecture was very interesting and Members more interacted with the speaker and exchange their Views.



Mr. K.V. Sudheendra, Vice Chairman, proposing Vote of Thanks on 21.09.2018

27th and 28th September 2018 – Two days Workshop: IIMM – Bangalore branch was organized two days workshop on “Vendor Management and Negotiation Skills” on 27th and 28th September 2018 at Hotel Ramanashree Branton, Bangalore. Twenty seven participants were attended from Various reputed organization. Sessions handled by Senior Faculty Mr. Mr. Udaya Shankar C N, Mr. K.S. Mohan Kumar, Dr. C. Subbakrishna and Mr. P. Srinivas Rao. Faculty also involved participants with role play and case studies discussion. Mr. H.M. Bhat, Sr. Faculty and Past Chairman of IIMM Baroda Branch handed over Certificate of participation. The Workshops was very interesting with good interaction from the participants and speakers. Very good feed back was received from the participants.



A view of Participants for the Two Days workshop



Dr. C. Subbakrishna, Former National President and Sr Faculty handling session for Two Days workshop on 28th September 2018

12th October 2018 – One day Workshop : One day workshop on “Contract Management and Supplier Relationship” was organized by IIMM Bangalore Branch on 12th October 2018 at IIMM conference Hall. Ten participants from various reputed organization were attended to the workshop. Senior Faculty Mr. M.S. Shankar Narayanan handled the sessions. He also involved participants in Case Studies discussions. Participation certifications were issued to the participants by Mr. M.S. Shankar Narayanan.

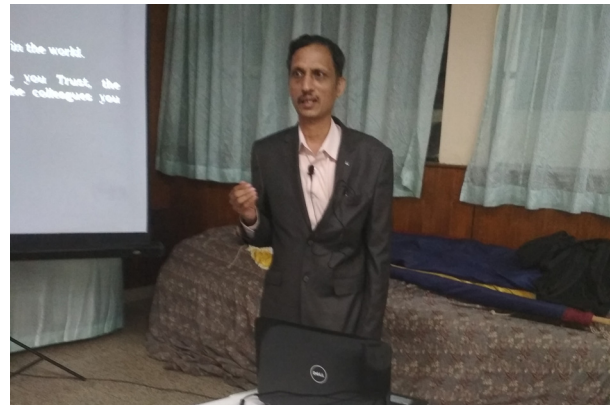


A View of Participants on 12th October 2018



Mr. A.V. Sham Sundar, Honorary Treasurer welcoming Gathering on 12th October 2018

12.10.2018 – Evening Lecture Program : Indian Institute of Materials Management, Bangalore was organised Monthly Lecture Program on “Procurement Frauds and Its Deterrence as a part of Fraud Awareness of MM / SCM” by Mr. Guruprasad V. Chartered Accountant. Mr. A.V. Sham Sundar, Honorary Treasure –IIMM, welcomed the speaker and gathering. The session was very informative and well received by the members and students. Speaker also given lot of examples, presented case studies on Procurement Frauds and Its Deterrence. Lecture was very interesting and Members more interacted with the speaker and exchange their Views



Mr. Guruprasad V, Chartered Accountant handling session on 12th October 2018



Mr. H.M. Bhat, Past Chairman Vadodara Branch issuing participation Certificate, Session speaker was Mr. P. Srinivas Rao, Sr. Faculty



Mr. M.S. Shankar Narayanan handling session for One day workshop on Contract Management on 12th October 2018

COCHIN BRANCH

Cochin branch has arranged a one day seminar on “Next Gen. Industry 4.0 Supply Chain Management and Resource Optimization” on 28th Sept 2018 at Cochin. The program was attended by working professionals from Public and private sector industries around Cochin and was appreciated by all. Twenty five participants have taken advantage of the program. The Program was inaugurated by Shri. B.R Menon, General Manager Materials from Anna Group Of Companies.

Chairman Shri. Roby TA took the sessions on “Industry 4.0 supply chain, ERP and supply chain Integration, Innovative supply chain and global trends and supply chain modeling and performance metrics. The seminar was conducted with active Management games and case studies.



Mr. Roby Branch Chairman conducting the seminar sessions

KANPUR BRANCH

The Annual General Meeting of IIMM Kanpur branch was conducted in Malik complex Banquet hall on 30/08/2018 at 6.00 PM with an advance notice of 21 days to all members of branch on 08/8/2018



Shri G. K. Agnihotri, National Councillor is giving vote of thank in AGM

The proceeding of AGM was started at 6:00 PM by Mr. Prashant Suri. The Governing body of IIMM Kanpur branch was called to come on dais one by one and they were honored by presenting bouquet.



Shri Kailash Nath, Chairman, addressing branch activities in AGM



Shri Prashant Suri, Treasurer is presenting Balance Sheet for the 2017-18 in AGM



Office bearers of IIMM Kanpur branch on dais during AGM

Mr Kailash Nath, Chairman of Kanpur branch briefed on Kanpur branch activities and future plan for development of branch.

Mr. Prashant Suri, Treasurer of branch presented the account balance Sheet for the year 2017-18 which was audited by our National auditors M/s Chandabhoy & Jassoobhoy Mumbai. Mr. Laxmi Narain, Life member and Executive Member of branch, proposed first to pass the balance sheet which was seconded by Mr. Abhisek Kandpal, life member of branch and finally passed by all present members by clapping sound.

During AGM, few Senior Members mainly Shri S.R. Suri, Shri C.N. Mukhopadhyay, Shri Laxmi Narain and Shri D.C. Mishra were honoured by giving mementos. The vote of thanks was given by Shri G. K. Agnihotri, National Councillor. The AGM was concluded followed by high tea and refreshment.

KOLKATA BRANCH

Evening Talk on “Automation & Digitisation” : The disruptive force of automation has left many industry to reconsider their business model and employees working in those industries at various positions now face an uncertain future.



View of Members

Companies such as Kodak, HMT, Nokia, Ambassador Car (Hindmotor works) closed down as they could not foresee the future and failed to recast their business model at the nick of time. As a result, employees of those firms were worst affected. Had they been alerted at least 10 years ago, they could have prevented such mishap in their career.

Automation Forum, the latest initiative of IIMM Kolkata Branch, has made ambitious plan to pre-inform their members who are linked with various industries, how they should gear up to face the future challenge. Under the able leadership of Branch Chairman Animesh Chattopadhyay and Vice Chairman Koushik Roy, the first forum meet was held on July 20, 2018 with Joydeep Ghosh, Partner, Deloitte as speaker and around 25 participants from various industries as audience.

How automation would impact current job of individual is not predictable and therefore the only best solution is to have an open mind in the workplace. This came out from the renowned industry speaker Joydeep Ghosh in the 1st Automation Forum meet on July 20. “Even Audit function may be entirely automated,” said Ghosh, though he represents one of the largest Audit firm in the globe.

Procurement of indirect items are voluminous and industries are gearing up to make contracts to speed up procurement of spares item, informed Sajal Das, head procurement, Linde India. This was in response to speaker’s query that in next 10 year time, how his work environment is being envisaged.

As per Ghosh, machines may itself requisition for its spares and instruct the vendors when the time for replenishment is. This may make the indenter and purchasers role redundant. A refrigerator may even advice the B2C providers such as Flipkart or Amazon that milk is running low in stock and subsequently place an order for replenishment, Ghosh predicted.

In retail space, bar code may soon be obsolete as they may be replaced with a smarter device. A mere scan of the eye or thumb impression may be sufficient for deducting the savings account with the value just purchased in a shopping mall. “This would reduce the queue and save time of the shoppers,” Ghosh predicted.

HR department might see a drastic change as interactions with employees might get fully automated, suggested Kaushik Mukherjee, regional head of DTDC Courier from audience seat. The speaker agreed and said this would be the future as technology would learn faster than human do and may make human interference redundant. So one has to “work to learn and not learn to work”.

Mere intelligence may be replaced by artistic intelligence in future which unfortunately is presently not recognized by the industry. The speaker emphasized that knowledge may be soon commoditized as they are all available on the internet with a click of mouse. Skill would soon be not so important. One has to enhance ability in order to remain relevant. While working in the organisation, two important questions need to be answered to have a secured future, commented Ghosh. Which part of my organisation would be affected most for automation? For automation, what are my major opportunities and risk?

The convenor of the session, Rajkumar Mitra, informed the audience at closing that the present session was just a tip of iceberg and the Automation Forum would organise such regular sessions to guide the participants for improving their ability and achieve success in future job market.

LUCKNOW BRANCH

On 7th October 2018 IIMM LKO Branch conducted one day programme for officer of National Thermal Power Corpn. Northern Region Headquarters Gomtinagar, LKO at hotel Vivanta Taj. Programme Inaugurated by Mr. Srjit Kumar Addl. General Manager (Contracts & Materials).

Two speakers from various fields shared their experiences. Mr. Rajendra Sharma, Addl. General Manager. Hindustan Aeronautics Limited, Helicopter Divn. Bangalore gave a power point presentation in supply chain management in new paradigm.



Mr. Rajender Sharma deliver the lecture



A view of audience

Next to speak was Dr. Pawan Kr. Agarwal famous Mumbai Dabbawala for their thoughts & in supply chain management. The lecture though in general was appreciated by everyone present. The attendance was 35-40 officer of WTPC Northern region.

The programme concluded with vote of thanks by Mr. Ritesh Kumar, Dy General Manager, NTPC & omr life member of LKO Branch.

MUMBAI BRANCH

GUEST LECTURE BY REAR ADMIRAL PRADEEP JOSHI ON 30TH SEPTEMBER 2018 : A free guest lecture by Rear Admiral Pradeep Joshi was organised by IIMM Goregaon branch, Mumbai on the 30th September 2018 (Sunday) for GDM students as well as Members. The topic of the lecture was Logistics & Supply Chain in Defence Industry. The lecture was very well received by the participants and the feedback was very good.



Verbatim feedback: -Superb, Comprehensive, Passionate and Inspirational.

NALCO NAGAR

INAUGURATION OF BHUBANESWAR CHAPTER OF "INDIAN INSTITUTE OF MATERIALS MANAGEMENT (IIMM)" AT BHUBANESWAR ON 29 JULY'2018 : The Bhubaneswar Chapter of "Indian Institute of Materials Management (IIMM)" has been inaugurated on 29th July, 2018 at Bhartiya Vidya Bhawan, Bhubaneswar. This chapter will remain affiliated to IIMM, Nalco Nagar Branch, Angul.



Sri G.K. Singh, National President, IIMM addressing the Audience.



Dr. S.K. Tamotia, Former CMD, Nalco addressing the gathering



Sri P.K.Mishra, Director (Com) Nalco addressing



Prof. (Dr.) TAS Vijayaraghevan, Professor XLRI addressing.



Smt. Bhanu Kumar, Director (Com) MSTC Ltd., addressing the assembly.



Mr. P.P.Sengupta, Former CGM (MM), CIL addressing



Dr. (Er.) Dibaker Swain, Chairman, IIMM Nalco Nagar Branch addressing the audience.



Sri B. Diwedy, Vice Chairman of the Branch is addressing



Lighting of the Lamp event.



Sri. S.N.Beghar, Secy, IIMM, Nalco nagar Branch addressing



Sri Amal Chakraborty, National Councillor, Kolkata Branch addressing



Sri Ansuman Das, Member, Executive Committee of the branch offered vote of thanks.



Audience in the Inaugural Ceremony.

The Chapter was inaugurated and opened by Sri G.K.Singh, National President, IIMM by lighting the lamp. This inaugural Ceremony was presided over by Dr. S.K.Tamotia, Chief Patron of the chapter and former CMD of NALCO. Dr. Tamotia welcomed and introduced the National President to elite audience. While Sri P.K.Mishra, Director (Commercial), NALCO graced the occasion as Chief Guest, Eminent professionals and distinguished speakers from industry and academic spoke on the occasion.

National President, Sri G.K.Singh in his both inaugural and presidential address nicely presented chronologically the biography of this National Institute, entire domain of its professional activities across the Country, academic and research curriculum and AICTE approved courses viz PGDMM and PGDSCM&L. He also wished the same momentum in Odisha and hoped this Bhubaneswar

chapter has potential to be elevated to branch shortly.

Smt. Bhanu Kumar, Director (Commercial); MSTC Limited addressed the programme as Chief Speaker and deliberated on "E-Commerce and Reverse Auction". The other most distinguished speaker Prof (Dr) T.A.S. Vijayaraghavan, Professor and Chairperson, Centre for Logistics and Supply Chain Management, XLRI, Jamshedpur highlighted on value chain and challenges of supply chain in India in his speech. Another eminent distinguished speaker Mr.P.P.Sengupta, Former Chief General Manager (Materials Management). Coal India Limited outlined on future of supply chain management in India.

Dr.(Er) Dibakar Swain, Chairman, Indian Institute of Materials Management, Nalconagar Branch, Odisha briefed on the journey to form this chapter today. He also placed the activities and the mission of this Professional body. Sri S.N.Bagha Secretary of the branch briefly detailed the history of the branch from the inception of the branch as chapter till date besides the professional including academic activities of the branch.

Sri Biswajeet Diwedy, Vice Chairman of the Branch welcomed a introduced the guests.

Professionals from different Industries, Private and Public Sectors/State and Central such as namely NALCO, IOCLJMTPC, MCL PPT, IRE, OMC, OHPC, OCL, JK PAPER, BRPL, JSL, Dhamara Port, VISA Steel, PPL, ESSAR Steel etc. to mention few and many other industries besides members from other Professional Bodies and Members of this Professional Body joined this programme and participated in the deliberations.

The objective of this Profession and Professional Body is to augment and accelerate professionalism in the domain of Purchase, Stores, Contract, Commerce, Trade, Logistics etc. across industry and business. Shri Ansuman Das, Member, Executive Committee proposed Vote of Thanks.

PUNE BRANCH

IIMM, Pune branch conducted a One Week Certification Program on Logistics, SCM & Operations Management for one of the renowned colleges of Pune Indira Institute of Management for its first year MBA students.





The program was conducted from 21st to 26th September, 2018 at their campus in Wakad, Pune. The Certification Program was inaugurated by the hands of the Hon. Treasurer of Pune Branch, Mr. Shashikant Kulkarni & National Councillor of IIMM, Mr. Mohan Nair.

It was attended by about 55 first year MBA students of Indira Institute of Management. The following topics were covered in the program by some of the most experienced faculties, who have been working in the particular areas for quite a few years.

The faculties shared their experiences with the students by one to one interaction with them & also by sharing some case studies which they have faced in their daily routine work.

The students felt this interaction session would help them a lot in their future. IIMM Pune Branch is trying to tie up with some more colleges in Pune to conduct such programs in future.

Sr.No	Topic	Faculty
1	Facilities Planning	Mr. Sujit Edlabadkar
	Financial perspective in operations & SCM Mgmt.	Mr. Shrivardhan Gadgil
2	Business Process Re-engineering	Mr. Amit Borkar
	Supply Chain Practices I & II	Mr. Shripad Kadam
3	Technology Management	Mr. Manish Deoghare
	Maintenance Management	Mr. Narhari Wagh
4	Green Logistics & Supply Chains	Mr. Mukund Dattawadkar
	Designing Operations Systems	Mr. Nitin Athavle
5	Supply Chain Performance Measurement	Mr. M.K. Banerjee
	Lean Operations / Lean Mfg.	Mr. Aman Sinha

ROURKELA BRANCH

Indian Institute of Materials Management Rourkela Branch organized a seminar on "Supply Chain Integration In Steel Industry" on 22nd Oct 2018 at Indo German Club Rourkela. Shri V.K Mathur (GM, MM & Marketing) was Chief Guest of the occasion. Shri Suneet Mathur, faculty of Supply Chain & International Business of R.I.M.S and BPUT, was Chief Speaker of the seminar. members of IIMM, Rourkela Branch, MM professional of Rourkela Steel Plant and other industries attained the program.



THIRUVANANTHAPURAM BRANCH

The Annual General Meeting of IIMM Thiruvannthapuram Branch for the year 2017-18 was held on 28-09-2018 (Friday) at 6.30 PM at the IIMM Office Hall, Sasthamangalam, Thiruvananthapuram.

After ascertaining the quorum, Chairman Dr. Koshy M George declared the meeting open. The meeting started with a silent prayer. The AGM observed one minute silence in memory of Shri S. Gopalakrishnan Nair, Former Chairman of the Branch who expired during the reporting year and also for the hundreds of Keralites who lost their lives during the floods happened in Kerala in August 2018.

Chairman in his presidential address briefed the details of the activities conducted during the report period. The major event organized during the year was the National Seminar on June 15, 2017 on the topic "GST Regime - Opportunities and Challenges in various sectors". About 100 delegates participated in the seminar actively. He reported that the Chairman and NC Members M/ s.K.G.Nair and MJanardhanan attended and actively participated in NATCOM-2017 held in Bangalore on 16th & 17th November 2017. He also highlighted that IIMMJrivandrum Branch bagged the Best Branch Award - 2017 in the Non - Metro category for the overall excellent performance and achievements during the year 2017. The contribution of UMM amounting to Rs. 1 lakh for Kerala Chief Minister's Distress Relief Fund could be handed over directly to the Chief Minister Sri. Pinarayi Vijayan along with Sri. D.D. Reddy, NC Member, IIMM, Hyderabad on 23rd September 2018. Further, he gave an account of the programmes proposed for the current year including talks by eminent personnel on Materials Management and related subjects, Seminar on a subject of current relevance to materials management, etc. and requested all past Chairmen, NC Members and other members to actively participate in hosting the functions as well as on our plan to enhance membership.

Shri M.G.Narayanan Nair, Branch Secretry presented the working report for 2017-18, which was discussed and unanimously approved by the AGM. Shri S.Ananda Sivan, Treasurer presented the audited Statement of Accounts 2017-18 of the Branch . After detailed discussion the AGM unanimously approved the accounts. Chairman handed over the Membership Kits issued by NHQ to the newly enrolled members at this function. Sri. S. Lakshmanan, one of the senior members of the Branch recited a Meera Bhajan.

During the discussions members expressed satisfaction on the success of the programmes held during the year and specifically the National Seminar on "GST Regime: Opportunities and Challenges in various sectors" held in June, 2017 with wide participation from industries and organizations all over India. The AGM also gave approval to go ahead with the planned activities for the coming year. Some of the members expressed concern over the declining trend of enrolment for our courses.

Vice Chairman, Shri K.Raveendraprasad proposed vote of thanks. The meeting was followed by dinner.



Dr. Koshy M. George, Chairman, Thiruvananthapuram Branch delivering the presidential address



Sri. M.G. Narayanan Nair, Secretary presenting the Annual Report (2017-18)



Sri. S. Ananda Sivan, Treasurer presenting the audited statement of accounts (2017-18)



Vote of Thanks by Sri. K.R. Prasad, Vice President.



A view of the audience.

VAPI BRANCH

The Annual General Meeting of Indian Institute of Materials Management (IIMM), Vapi Branch was conducted in the evening on 09th August 2018 at Vapi Branch -Chips & Bytes. Mr. Rakesh Nandre Hon. Secretary, confirmed the Coram.

Branch Chairman- Mr. Parthiv Mehta welcomed the members and he gave details of achievement /activities during the year and programs planned for the future. He highlighted various activities of the Branch and future activities scheduled. Branch Chairman thanked all members and Executive Committee team for supporting and participating in conducting of Professional and Educational Activities of IIMM – Vapi Branch



Mr. Parthiv Mehta - Chairman 2017-2019 Thanking and addressing the members on AGM 19.08.2017



A View of Members present AGM held on 09.08.2018

Hon. Secretary read last annual General meeting and requested for confirmation. The Minutes of meeting was unanimously adopted. Mr. Rakesh Nandre, Hon. Secretary presented Report on the progress and achievements of Vapi Branch. Mr. Mukesh Patel, Hon. Treasurer presented the Income & Expenditure and Balance Sheet for the year 2017-18, which was proposed for adoption

It was resolved to appoint the Statutory Auditors nominated for the year 2018-2019. Members suggested to continue service of existing Internal Auditor – Karthik Joshi & Associates as Internal Auditor of IIMM Vapi Branch. Mr. Anant Kapadia, Vice Chairman proposed vote of thanks.

The Key Note Speaker was Mr. Sushil Deshpande . He is a Sr. General Manager at Blue Star, Dadra. He spoke on the “Inventory Management”, Logistics and Supply Chain Challenges in India.

He said that more agile supply chain management is needed in the coming future to be successful. The AGM concluded with dinner

VADODARA BRANCH

Annual General Meeting in August 2018 : The 55th AGM of Vadodara branch was organised on 18th Aug '18 at Hotel Grand Mercure Surya Palace wherein statement of Accounts to consider audited Income / Expenditure Account & Balance Sheet for 2017-18 had been presented with no queries related to balance sheet received in time from members. More than 275 members along with their spouse attended AGM & the Balance Sheet was approved by members present. Also, the Auditors Chandabhoy & Jassoobhoy had been finalised for next year (2018-19). Moreover, It was decided to honour **children of our members only**, who performed well in 10th, 12th Board & Graduate, Post Graduate Examinations held in academic years **2016 & 2017**.

Also, the children who excelled in Sports & received recognition at State, National, International level had been honoured. After AGM and Members' Children Felicitation, Mr. Nisarg Devanand Trivedi-Director (Middle East), SCHRODER Investment Management Ltd., DUBAI delivered talk on 'Investment Ideas in Current Markets' which was appreciated by members. Then, students of final year BE(Mech, Engg.) from BITS Education Campus presented their project i.e. TECHSOL Bike which would operate on Battery as well as Solar energy. They shared details about their project which was very much appreciated by members & their children. The photos shown below depict the highlights of AGM –



Mr. S. Nair-Vice Chairman delivering Welcome Address at AGM Prog.



Mr.Malay Mazumdar-Sr.VP welcoming Mr.Nisarg Trivedi with Flower Bouquet.



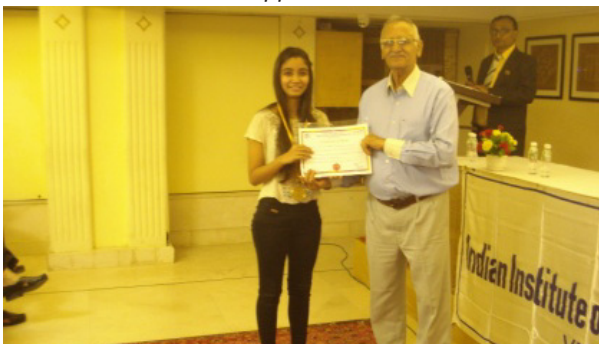
Mr.Rakesh Desai-Hon. Treasurer honouring member's child with Appreciation Medal.



Mr.S.Nair felicitating Mr.Nisarg Trivedi with Memento.



Mr.Lalbhai Patel-Director, IFPSM honouring member's child with Appreciation Medal.



Mr.K.C.Joshi-Sr. Member honouring member's child with Appreciation Medal



The students of BITS Edu. Campus with their project of TECHSOL Bike alongwith our Committee Members at AGM.

MEMBERSHIP FORM

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Enrol in Centre for Research in Materials Management (CRIMM)



IIMM has set up CRIMM in Kolkata jointly with the Techno India University, West Bengal, a leading Private University, with an aim to promote research and consultancy in Materials Management discipline.

Applications are invited from intending candidates across the country to enrol for the research programme leading to certificate of fellowship.

The candidate should possess:

- Graduation in any discipline with minimum 50% marks, and
- GDMM/PGDMM/PGDSCM&L from IIMM with at least 55% marks, or
- Masters degree in any discipline or equivalent post graduate professional qualification with 50% marks.
- Experience in working in Materials Management or allied area in any industry/organization.

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For enrolment and further details, please contact :

**Ms Paramita Sen (M : 9433530975) / Mr. Partha Sen (M : 9674794042)
or visit Vice Chancellor's office at Salt Lake campus of Techno India University, Kolkata.**

EXECUTIVE HEALTH

AIR POLLUTION LEADS TO MILLIONS OF ASTHMA ATTACKS ANNUALLY WORLDWIDE: STUDY

Asthma is the most prevalent chronic respiratory disease worldwide, affecting about 358 million people, said researchers, including those from the University of York in the UK.

Air pollution may be to blame for up to 33 million emergency asthma attack visits to hospital every year, with half of the visits estimated to occur in South and East Asian countries, notably India and China, a global study has found.

Asthma is the most prevalent chronic respiratory disease worldwide, affecting about 358 million people, said researchers, including those from the University of York in the UK.

Countries like India and China may be harder hit by the asthma burden because they have large populations and tend to have fewer restrictions on factories belching smoke and other sources of pollution, they said. The findings, published in the journal *Environmental Health Perspectives*, suggests car emissions and other types of pollution may be a significant source of serious asthma attacks.

“This is the first global study of the potential impacts of air pollution on serious asthma attacks that cause people to visit emergency rooms in hospitals around the world,” said Johan Kuylensstierna, Policy Director of the Stockholm Environment Institute (SEI) based at York.

The study found that nine to 23 million annual asthma emergency room (ER) visits globally (8 to 20 per cent of total global asthma ER visits) may be triggered by ozone, a pollutant generated when car, power plant and other types of emissions interact with sunlight. Five to 10 million asthma emergency room visits every year (4 to 9 per cent of total global asthma ER visits) were linked to fine particulate matter, small particles of pollution that can lodge deep in the lung’s airway tubes.

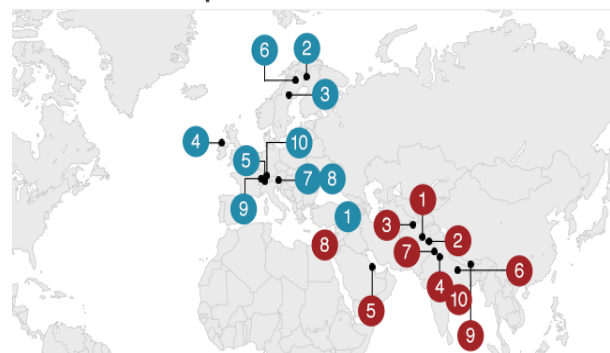
About half of the asthma emergency room visits attributed to dirty air were estimated to occur in South and East Asian countries, notably India and China, researchers said. Although the air in the US is relatively clean compared to South and East Asian countries, ozone and particulate matter were estimated to contribute 8

to 21 per cent and 3 to 11 per cent of asthma ER visits in the US, respectively, they said.

To estimate the global levels of pollution, the researchers turned to atmospheric models, ground monitors and satellites equipped with remote-sensing devices. The researchers, including those from the University of Colorado Boulder and NASA in the US, said one way to reduce pollutants quickly would be to target emissions from cars, especially in big cities. Such policies would not only help people with asthma and other respiratory diseases, but it would help everyone breathe a little easier, they said.

Source : PTI | London | Updated: October 29, 2018

Most and least polluted cities



Most polluted

- 1 Peshawar, Pakistan
- 2 Rawalpindi, Pakistan
- 3 Mazar-E Sharif, Afghanistan
- 4 Gwalior, India
- 5 Hamad Town, Bahrain
- 6 Allahabad, India
- 7 Delhi, India
- 8 Cairo, Egypt
- 9 Pasakha, Bhutan
- 10 Raipur, India

Least polluted

- 1 Simak, Turkey
- 2 Muonio, Finland
- 3 Bredkalen, Sweden
- 4 Enniskillen, UK
- 5 Alpe Devero, Italy
- 6 Malmberget, Sweden
- 7 Hermagor, Austria
- 8 Kreuth, Austria
- 9 Chaumont, Switzerland
- 10 Kussnacht, Switzerland.

Pollution measured by concentration of particulate matter of 10 micrometres or less in diameter

Source: WHO Air Quality Database 2018



Possible Remedies :

Uses of Air Purifier, Mask, Indoor Plants which releases Oxygen in night time, morning/evening Walk restricted.



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