
From the Desk of The National President



Dear Readers,

At the outset, let me congratulate the Chandigarh Branch for organising the mega event - NATCOM 2014. The Chandigarh Branch is continuing to do such great jobs for enhancing the professional standards of Supply Chain Management for the last so many years. Though the Chandigarh branch is comparatively smaller and non metro branch, they have accepted the challenge to host the NATCOM 2014. I am sure you must have liked the deliberations.

IIMM has a bigger role to play in this rapidly growing economy and we the Supply Chain professionals can do the wonders for increasing the profitability of the organisation and thereby enhancing the economy of our nation.

I take pride in informing you all that we have signed the MOU with Indian Institute of Coal Management (IICM) for conducting Diploma course in Contract Management. IIMM will be playing the leading role in imparting education and training to the executives working in various fields at M/s. Coal India Limited, A Public Sector undertaking. We are also going to sign the MOU with the Air Force for imparting education to their Officers and Airmen leading to for GDMM/PGDMM and DSM courses. We have number of meetings with officials of MSME Sector, Director Skill Development, Ministry of Labour and CMD Skill Development Corporation of India and we are hopeful that they will agree and approve the curriculum for skill development programme submitted by IIMM. IIMM is also launching the Professional Diploma in Public Procurement powered by World Bank from November 27, 2014. I would like to convey my thanks to Chairman - BOS Mr. M K Bhardwaj for taking sincere efforts for these new initiatives on educational front.

These new initiatives will give a great boost to our educational & training activities and enhance the image of IIMM among the industries besides providing the financial support.

At international level the IIMM delegation took part in the Seminar followed by IFPSM Board Meeting and Council Meeting held at Colombo, Sri Lanka. The workshop on Synergizing amongst IFPSM Members was organised by IIMM, India delegation.

As I have been informing you that our target is to touch 20000 members at the end of 2015, I am confident that you all will support me to achieve this target.

If you feel to give your suggestions, please feel free to reach me at any time.

LALBHAI PATEL

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From the Desk of Editor-in-Chief



Dear Members,

Logistics is the cost effective flow of goods from the point of inception to the point of consumption with high efficiency. Logistics is the backbone of any industry and undertakes the critical role of connecting production centers with consumption markets. Though, the logistics industry in India is growing rapidly and is expected to touch US 200 Billion by 2020, but it has not received much of the attention.

Globalization has changed the way companies look at their logistics operations to compete and gain market share. To do that, Global Companies are concentrating more on outsourcing of the logistics activities. However, lack of trust and awareness among Indian Industries for Logistics Service Providers has barred the growth of Logistics Service Providers (3PLs & 4 PLs)

Despite holding potential, Logistics sector in India remain hindered with one or other reason like poor infrastructure, inefficiencies in transportation, poor condition of Warehouses, complex tax structure, low rate of technology adoption, unorganized & fragmented logistics sector and scarcity of skilled professionals.

India's current transportation infrastructure is over burdened. Problems like bad road conditions, poor connectivity, high congestion rate has made road transportation inefficient and time consuming. Inadequate air and sea port capacities, High turnaround time is affecting the port efficiency, leading to higher material handling and Inventory cost. Rail network is deficient in terms of quality of service, speed and customer orientation. Due to the infrastructural bottlenecks India cost USD 45 Billion extra on logistics parts.

Warehousing cost account for 20-25% of the total logistics cost. Despite this the state of warehousing in India is very poor. Most of the warehouses are traditional with sizes of less than 10,000 square feet and owners are small to mid-sized entrepreneurs with limited investment capacity. Large warehousing owners are government agencies with focus on food grain storage. Some of the warehouses are not leak proof, not equipped with security systems, racking facilities and other miscellaneous facilities

Shortage of skilled labour in logistics industry is also an area of concern and requires immediate attention, so that Logistics operation can be performed efficiently and effectively. Creation of logistics training institutes and other certifying institutions will definitely be a help to cater the demand of skilled manpower in this sector.

Growing online retail industry has also added responsibility to Indian Logistics Sector by realizing the impact, Logistics sector would be having on Employment Generation, Cost Competitiveness and Economic Growth.

As per the ASSOCHAM Report released recently, Supply Chain and Logistics Industry has performed reasonably well amid cost escalation and economic slowdown in 2013. To support the industry further, government needs to take substantial measures which augment the current growth rate and bring about holistic development of our industry.

Government of India has taken several initiatives to enhance logistics infrastructure like increase in Logistics spend from 1.5% of GDP to 2.3% of GDP, Uniform Tax Structure (GST) is likely to get approval from cabinet in the coming parliamentary session, Implementation of the Port Regulatory Authority Bill to regulate tariff rates at all ports, dedicated freight corridor between Delhi and Mumbai, cold storage chains etc. Several logistics parks have been developed and some are currently under development across the country around the major logistics hubs of Mumbai, Bangalore, Chennai, Hyderabad and NCR.

(M.K.BHARDWAJ)



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MATERIALS MANAGEMENT REVIEW

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THE IMPORTANCE OF HUMAN RESOURCES IN REENGINEERING THE ORGANIZATION

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Abstract : The main aim of the paper is to present a model depicting the role of Human resources management with line extent of organizational competency, team working and, effective communication. Human resources are the most significant resources in implementing the reengineering efforts. In the absence of their valuable contribution, the business process reengineering efforts tend to be a failure. The article suggest that the use of HRM with the implementation of the BPR find the better results and support the organizational better performance.

Keywords: human Resources Management, business process Reengineering, Organizational performance

Introduction : Business process reengineering is the major concept in the era of 1990s. Better, cheaper, faster—business process reengineering (BPR) focuses on improving process. A BPR implementation fundamentally transforms the way work is performed by re-thinking old processes, procedures, practices, and policies. BPR helps meet organizational objectives by examining how work is performed and identifying opportunities to streamline efforts.

In world of rapid flux, organizations must change their traditional priorities from a traditional focus on planning and control to emphasize speed, innovation, flexibility, quality, service and cost. The HR team has to demonstrate their commitment to meet these key business drivers. A BPR project regarding an important process might take eight to twelve months. To contain the resistance, it will help if a significant amount of progress is shown in a reasonable time frame. The more difficult part of a BPR exercise may be its implementation.

People are apt to do things in a certain way for years together and suddenly they are expected to follow a new process that can be radically different from the older one. Management has to devise an incentive scheme and other creative ways to encourage staff to adhere to new processes. Communication is the key here – before anything else, the staff should be convinced that the new processes are an improvement over the older ones and they are meant to make their lives easier. BPR can mean a significant cultural change for many organizations.

BPR cover all the prospects and areas through which organization over come cost rate and make their organization more efficient the combination of the BPR and the HR gives the better results to the organization on behalf of their own performance and the competitive advantage.

Business process reengineering is the major concept in the era of 1990s, and specifically related to HR point of view. HR reengineering is the basic rethinking and fundamental redesign the business process to bring remarkable change or improvement in performance. Proper implementation of the BPR is quite difficult just because of lack of concern towards “Human issues”. The main purpose is to examine how to manage Human issues in the organization when applied BPR as a project.

Purpose of the study : The purpose of the study to make Human Resources Management more effective for the implementation of Business Process Reengineering and see the relationship of HR dimensions e.g. team working, management competence, organizational structure, IT and effective communication and get the beneficial results with reducing cost, time and increase productivity

Reengineering the Human Resource : Hammer and Champy recognize the importance of the human resource when they state “companies are not asset portfolios, but people working together to invent, sell and provide service.” However, they fail to demonstrate how to reengineer the human resource in conjunction with reengineering processes. Senior management should provide a constant flow of information throughout the company regarding reengineering expectations and successes, and revise the performance appraisal system to emphasize the new values of team work and cooperation. concepts like Total Quality Management (TQM), ISO 9000 (a quality standard set by the International Standards Organization), and Enterprise Resource Planning (ERP) also bring about positive changes at organizational level. They are all well-defined and formulated vehicles designed to implement BPR.

Human Reengineering Case Study: The Conquering Power of the Small : GTO Inc. is a small company which manufactures automatic gate openers based in

Tallahassee, Florida. When the founder died suddenly, the company was appeared to be in desperate need of reengineering: GTO was losing money on a monthly basis, it lacked a line of credit and suppliers shipped only on a COD basis. Employees were required to work twenty-four hour shifts to fill important orders and salesmen were reduced to writing minuscule orders to supplement their incomes. The new CEO, Chuck Mitchell, adopted "...a strategy made up of small gestures rather than sweeping moves." These gestures consisted of creating an atmosphere of trust and optimism among GTO's harried employees by listening to and adopting their suggestions and improving their health and disability insurance. When things started to turn around, pay was increased and bonuses distributed from a profit sharing plan. The salesman were put on salary with incentives. Acts such as fixing the leaky roof, allowing ten minute breaks, and keeping the coffee machine stocked convinced the employees that Mitchell was "genuine." The following year, GTO witnessed a cultural and company turnaround. Net profits moved from the red to nearly \$500,000. This was accomplished by a 9% increase in gross sales along with a 33% decrease in total operating and administrative costs. Employee turnover decreased equally dramatically. As employees began to seek outside education and were promoted from within, the number of returned goods fell.

GTO's dramatic turnaround was a result of many small steps which could be said to foster precisely the "culture of incrementalism" that Hammer and Champy warn against. The focus was on human resources rather than on processes.

BPR is wide-reaching valid procedure of business reorganization focusing point on business processes, provided that huge improvements in a short period. The implementation of organizational change on the foundation of a methodology for effective communication, team working organizational structure maintain by information technology.

Conceptual Model : A theoretical framework which makes logical sense of relationship among variables that are important for the successful implementation of BPR is given in figure 1

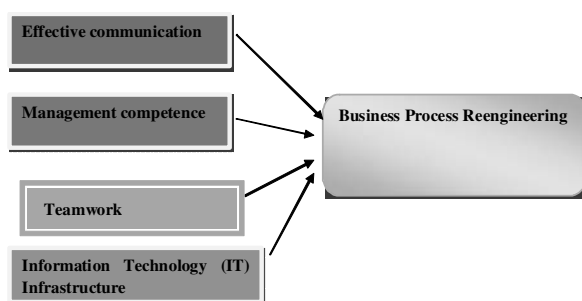


Fig 1: Variables important in successful implementation of BPR.

The above variables are essential for making the BPR successful. These variables are described as;

Effective communication : The literature review indicates that the successful implementation of BPR depends heavily on effective communication within the business from the very earliest stages. Many aspects of communication are important for successful implementation. The dissemination of information from the management to the employees is a preliminary factor and the principal purpose here is to measure the extent of the understanding of the aims and objectives of the BPR mechanism by the employees. Every developmental change in policies or process through which to achieve goals either there affect positive or negative it must be clear to the employees. Communication must be untie, direct and understandable (Davenport and Janson, 2000).

Management competence : In an organization top management should give confidence to progress competitive advantage and add to organizational performance (Hammer & Stanton, Holland & Kumar, (1995); Guimaraes & Bond. (1996). Management efficiency and competence is directly related to management commitment and it determines the area of top management plan of movement for customer satisfaction during process reengineering employee's assistance to the extraordinary performance realization. Management should give importance to leadership and the role of a leader has to be clear strong, effective and creative in understanding and provide the understandable idea of the future. Holland and Kumar, Zairi and Sinclair. (1995).

Teamwork : In literature on BPR, teams are measured an important ingredient to accomplish all the profit of a process orientated organization. A well-rounded team includes a mix of people and skills. Such a team may include individuals who thoroughly understand the current process, who actively use the process and also work closely with customers, technical experts, and consultants, if necessary. But the main criterion is that the entire team should work together for the project to succeed. Davenport (1993) stated team work leads to the enhancement of the worth of the work life.

Information Technology (IT) Infrastructure : Working together, BPR and IT have the potential to create more flexible, team-oriented, coordinative, and communication-based work capability . IT is more than a collection of tools for automating or mechanizing processes. It can fundamentally reshape the way business is done and enable the process design. IT related Factors as a vital role in successful of BPR efforts fine thought-out by many researchers (Brancheau., Malhotra, 1996; Ross, 1998). IT capabilities can provide good insight into the existing conditions. IT is one of several enablers,

including human resources and organizational change, that all must be considered together to bring about change in business processes.

Conclusion and Recommendation : Figure 1 gives a summary of the features discussed in this paper. It gives the information about the effect of BPR on HRM and the proper implementation of the change with minimum chance of failure. The figure above explains four factors that can be used for the successful implementation of the BPR with the help of HRM, and this work is proposed to be source for further research.

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COMMODITY INDEX

Commodities	Days's Index	Prev. Index	Week Ago	Month Ago
Index	2377.7	2379.2	2373.9	2464.2
Bullion	4220.5	4236.3	4129.5	4428.8
Cement	1741.6	1741.6	1768.1	1804.4
Chemicals	1861.4	1861.4	1873.8	1894.8
Edible Oil	1303.5	1307.0	1330.0	1339.0
Foodgrains	2194.1	2194.1	2192.3	2162.8
Fuel	2271.1	2271.1	2271.1	2468.2
Indl Metals	1693.8	1681.1	1749.1	1791.6
Other Agricom	1919.9	1924.7	1931.8	1953.5
Plastics	2309.5	2309.5	2290.8	2365.7

Source: ETIG Database dated 20th November, 2014

IMPACT OF CLOUD COMPUTING IN SUPPLY CHAIN MANAGEMENT

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Abstract: At present companies are searching ways to optimize cost and operational efficiency of supply chain such as planning and forecasting, sourcing and procurement, logistics and service and spare parts management. Supply chain management (SCM) can be defined as the “design, planning, execution, control, and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally.”

The developments in technologies enable the organization to avail information easily and are helpful to manage the supply chain. Supply chain management is the management of supply chain activities to maximize customer value and achieve a competitive advantage. It represents a conscious effort by the supply chain firms to develop, run supply chains in the most effective & efficient ways possible.

Keywords: SCM (Supply Chain Management), Cloud Computing, Optimization.

Cloud computing Technology: Cloud computing, a new technology used for optimization by providing infrastructure, platform and software solutions for the whole supply chain via internet. The cloud-based services are used in supply chain management which lead to financial and operational benefits. Lower cost in contrast to on-premises infrastructure cost, supply chain visibility, platform scalability and flexibility through supply chain partners' collaboration are some notable examples.

Cloud computing is defined as “A type of parallel and distributed system consisting of a collection of interconnected and virtualized computers that are dynamically provisioned and presented as one or more unified computing resources based on service-level agreements established through negotiation between the service provider and consumers.”

Cloud consists of several elements such as clients, data centre and distributed servers which also include fault tolerance, high availability, scalability, flexibility, reduced overhead for users, reduced cost of ownership, on demand services etc.

Advantage of cloud computing in SCM : Main advantage of cloud-based systems is visibility which provides timely connectivity among multiple supply chain participants. Therefore, visibility is a key issue for SCM as it is not

only helping companies to coordinate their operations, manage many different customers but also allows the customer network to have a transparent view of the entire system.

Cloud-based systems are able to provide real time visibility of inventory and shipments and improve logistics tracking. By using cloud computing, companies can control their system capacity more accurately. In periods where demand is high, companies need enough capacity in order to be able to face this increasing demand.

Consequently using common on-premises systems, they should own the necessary database for the whole year in order to respond to the demand for a short period. However, with the introduction of cloud technology, companies where given the opportunity to adjust their capacity automatically according to their needs and scale their computing power depending on demand fluctuations.

In cloud computing storage and resources are managed centrally. In logistics management of SCM where no of distribution centers scattered over different regions. The centralized system keeps track on delivery information as well as services using a centralize data center.

There is probability of network congestion and this problem depends because of load on datacenter. So various load balancing techniques are required. There will also chances to increment in latencies due to higher demand of any particular service.

Significance of cloud computing in Supply chain management : In cloud computing, the applications of supply chain are innovative and generate a new field of research. Two or more parties linked by cloud services in cloud supply chain to provision of cloud services, related information and funds.

A. Forecasting and planning : Cloud-based platforms are going to help companies improve their service levels by collaborating the chain's partners (retailers, suppliers and distributors) that are playing a major role in demand forecasting. These clouds based platforms get the data from internet and perform basic operation like analytics and perform more accurate demand forecast for all supply chain partners. This will help to aware the chain partners to if there is volatile of real demand, they can handle it with easily.

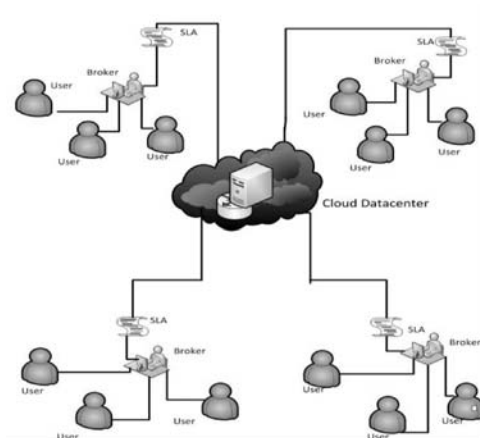


Fig 1: Architecture of Centralize Cloud Datacenter for SCM

B. Source and procurement : Sourcing includes acquisition, receipt and inspection of incoming materials as well as procurement process. Cloud based platform operate on database contains multiple data from different suppliers which provide efficient and different benefit for companies that handle thousands of them. On the other hand companies are able to select between supplier that which of them are able to provide appropriate martial as their specification and within time. Cloud based tools also enable companies and suppliers to mutually develop contracts and enhance contract management.

C. Inventory Management Using Wireless Devices : Inventory management enhanced by many organization using bar coding technologies and wireless services. RFID system integrates with the cloud based centralized data management sys-tem to deliver the global identification and tracking of any items or goods across the global supply chain management lifecycle.

D. Collaborative Design and Product Development : Along with the development of information technology, internet network transmission technology is mature gradually, its security, stability, compatibility is constantly improved, and all application range is expanding continually, become a kind of the making universal of transmission. Collaborative product development includes the use of product design and development techniques across multiple branches of same organization or between different organizations. All the developments process shared over secure network between different organizations. These processes include specific information, marketing firm, test result and design changes as well as customer feedback.

E. Logistics management : Logistics involve process of material acquisition, warehousing and transportation process. Logistics information management system keep track on inventory information. By using logistic management under cloud gives fallowing benefits

1) On demand self-service : Consumers parallel request and use computing capabilities without any human interaction with their service provider. Here internet

access allows users to consume computing capabilities by means of client's platforms like mobile phones, note books or PCs.

2) Resource Pooling : In order to fulfill the consumers demand from multiple consumers, the cloud computing service providers pooled their resources. The provider dynamically assigns or reassigns physical or virtual resources to consumers. Consumers on the other hand have no knowledge about the resource location which is assigned to consumers.

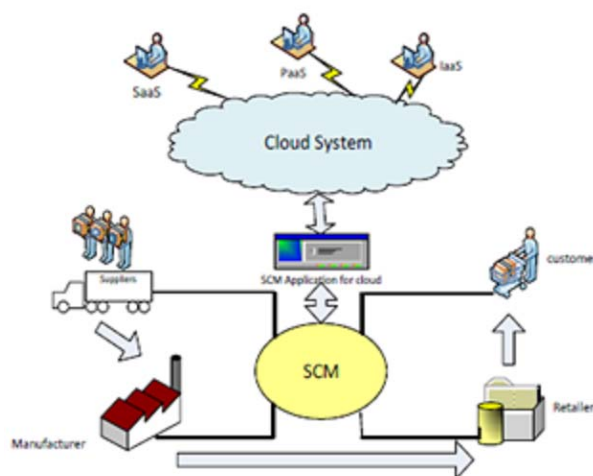


Fig 2 SCM architecture in Cloud

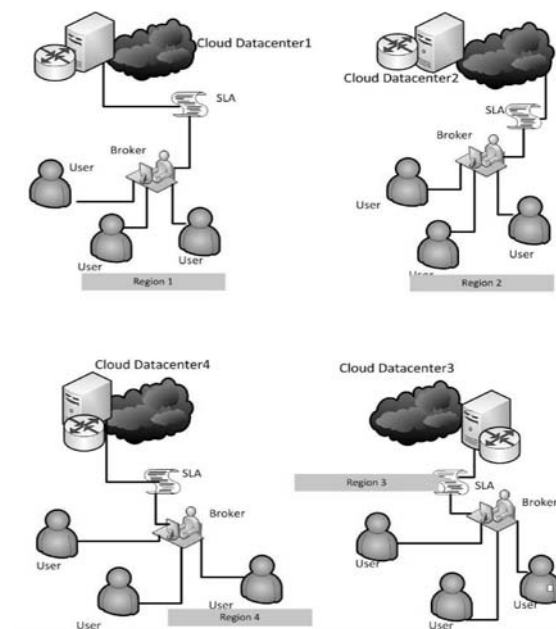
3) Elasticity : In cloud computing it is the ability of providers to quickly add and release the resources as soon as possible to match changes in consumers demand. This should be done in efficient manner.

4) Scalability : Scalability means that a system "maintains its performance goals/SLAs even when its workload increases (up to a certain workload bound)." Whereas an elastic system dynamically adds or release more resources when service demand increase or decreases respectively. So elasticity adds dynamic component to scalability.

Impact of cloud computing: Cloud computing system uses lot of technology like standardization technology, virtualization technology, data management technology and platform management technology in supply chain information collaboration. Flexibility is great power of cloud computing system. It has the ability to increase or decrease computing power as required by users. This term is referred as scalability. Scalability ensures that computing services available to the users at any point in time. Scalability is highly concern issue in supply chain management system. Because supply chain is distributed in nature and each firm wants to grow its supply and distribution, there should be need to scale IT services of supply chain at big level. Distributed datacenter provide better bandwidth and traffic for supply chain users in cloud.

Cloud provide on demand services by which a supply chain user use when required. The firm or company which is using supply chain has different branches in

different geographical regions like Asia, Europe and North America. If the supply chain of any firm distributed globally then it requires a distinct infrastructure of cloud for each of its branches. Information sharing must be reliable and secure between different supply chain users so there is need of its own private cloud system. In private cloud information sharing has done reliable and secure way. So besides using a centralized Cloud data center, a company or firm should use distributed data center under private cloud circumstances. Using distributed data center under private cloud has following benefits over centralized one.



A. Efficiency : Centralized system takes request from users globally which create more loads on servers. So there will be chance of increment in latency. This will create time delay between request and response. On the other hand local datacenter under distributed cloud environment gives more fast response to their users.

B. Scalability : A system would scalable if cloud gives least amount of latencies during information sharing and collaboration between two or more users.

C. Security : In private cloud the firm creates its security policy according to their own requirement. If it is distributed then policy has great effect due to their regional information sharing policy. A single supply chain company can use different security policy for different users in different regions.

Conclusion: Supply chain firms are initially start using cloud computing for their services and using cloud services supply chain efficiently utilized. The various architecture of cloud is available and need to explore fully utilized and scalable cloud infrastructure. In this paper we presented how supply chain can adopt the basic idea of cloud computing for its IT services and also presented an architecture of distributed cloud datacenter instead of centralize cloud datacenter which gives more efficient and scalable infrastructure for supply

chain users and partners which reside in different regions. Above architecture will best suit for where information tracing or sharing are highly used like forecasting and logistics management of supply chain. Therefore companies who are willing to improve their services of information collaboration and want to scale their services at large level can use distributed cloud datacenter.

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HOW EFFICIENT IS YOUR REVERSE SUPPLY CHAIN?

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MUMBAI

In today's business scenario, efficient supply chain is the key element of the company's success. Corporate have realized that when they spend more time and money in fine-tuning their forward supply chains they can no longer ignore their backward (reverse) supply chains. Efficient reverse supply chains bring many benefits to the organization. However, reverse supply chains are different from forward supply chains and the fact remains that quite a few of the existing forward supply chains are not designed to handle reverse supply chains.



Reverse supply chain stands for all operations related to the reuse of products and materials. It is the process of planning, implementing, and controlling the efficient, cost effective flow of raw materials - in-process, in inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing value or proper disposal. More precisely, reverse logistics is the process of moving goods from their typical final destination for the purpose of capturing value, or proper disposal. Remanufacturing and restoring or renovating activities also may be included in the definition of reverse logistics. The reverse logistics process includes the management and the sale of surplus as well as **returned goods**. In the case of reverse logistics, the resource goes at least one step back in the supply chain management; often a move from the customer to the distributor or to the manufacturer.

When a manufacturer's product normally moves through the supply chain network, it is to reach the distributor or customer. Any process or management after the sale of the product involves reverse logistics.

If the product is defective, faulty, dangerous, or when goods are not described properly, or in price disputes, or when goods are lost in transit and found later in any such circumstances the goods are returned. The manufacturing firm would then have to organize shipping of the defective product, testing the product, dismantling, repairing, recycling or disposing off the products. It is understood here, that the product would travel in reverse cycle through the supply chain network in order to retain any use from the flawed product. The logistics for such theme calls for entire reversing process. Reverse logistics is more than reusing containers and recycling packaging materials, or redesigning packaging to use less material, or reducing the energy and pollution from transportation.

It is important because it also includes processing of returned merchandise due to damage, seasonal inventory, restock, salvage, recalls, and excess inventory. It also includes recycling programs, hazardous material programs, obsolete equipment disposition, and asset recovery etc.

The elements of Reverse Logistics are as follows:

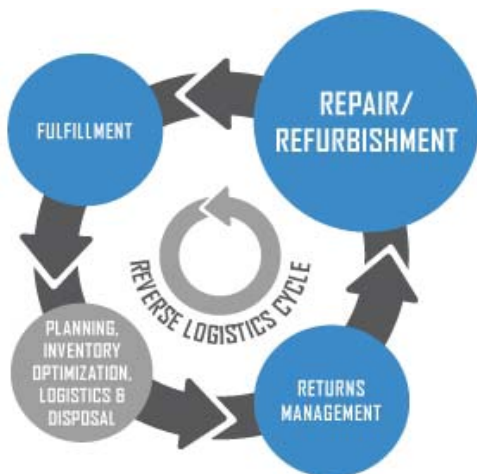
Physical Movement of Goods: Different businesses have different methods of handling reverse supply chain management. Usually customers return the goods from the place of purchase. It is the retail outlet most of the times where they go and return the goods. In the era of ecommerce a customer could be mailing the goods, or drop them off at designated locations. Some merchants will organize for a pickup of the goods from the customer's location.



Warehousing: The physical goods that are collected need to be tagged, tracked, and stored. This is the purpose of the warehousing process. A warehouse is typically a large storage space usually set up on the outskirts of towns or cities. In addition to storage space, these days the warehouses are well equipped with many devices and automated processes to tag and track the stored goods. An emerging technology, radio-frequency identification (**RFID**) holds substantial promise in the area of warehouse layout, receiving, order selection, and shipping. Because of the large number of different products processed and handled in a typical distribution center, RFID technology has great potential to improve operational efficiency.

Triage: Triage means sorting of goods based on their condition or quality. Some of the goods need to be repaired and sent back. Others have to be sold off as used defective goods. Some need to be sold as scrap. For making these vital decisions as to what can be done with returned goods, triage is the important step in reverse logistics.

Repair: Repairs are an important process as well in the reverse logistics supply chain. By repairing the goods, they can either be returned to the customer or they can be of use for reselling. Cost effective repairs can enable the reverse logistics centre to actually become a profit center. In fact, the business model of several third party reverse logistics providers depends upon selling refurbished products at high markups. Some even go ahead to actually provide warranties on the revamped goods.



After Sales Support: suppose customer 'A' returned goods; and these goods are repaired, repacked and sold to customer a new customer 'B', here the reverse logistics provider has become the new seller. In case the refurbished products are sold by the original manufacturer, all aspects of after sales support, such

as: servicing the product and supporting it with an annual maintenance contract (AMC) are required even in the case of goods sold second-hand.

Using a Third Party Reverse Logistics Provider: Just like the logistics of an ecommerce merchant can be outsourced to a third party logistics provider, there are specialist third party providers of reverse logistics too. These are organizations that specialize in receiving goods from customers, refurbishing them, and selling them at steep discounts.

The key reverse logistics activities are as follows:

Gate keeping: It is the process of screening unwarranted and defective commodities at the entry point. In the current economic climate, while it is not easy to manage the forward flow of products to customers, reverse flow becomes all the more difficult to handle. But not thinking about the reverse flow of products could mean missing imperative opportunities for guiding a company through tough times. Effective returns management can provide additional means of positively impacting a firm's financial performance as well as building stronger relationships with key customers. When the returned product is re-entered into the inventory ledger, it starts incurring inventory carrying costs, and takes up warehouse space. Each of this logistical activity is expensive and must be considered part of the total cost of returns, beyond the negative adjustment to sales. Therefore efficient gate keeping is a must.

Compacting the recycling time is essential: When returned products come back to the distribution centers, the disposition methods should be kept as simple as possible so as to save time and cost both. The returned items must be tracked and stored at a central repository, by the use of an information system in place. Centralized return centers system are better to put in order all the products of reverse logistics from sorting, processing, storing, and resending to the next destination level under strict scrutiny in documented time.

Making best use of reverse supply chain: Many firms use reverse supply chain in effective way to get the benefit out of it. It reduces their operating costs by reusing products or components. Instead of destroying the products entirely organizations are setting up reverse supply chain modules to reduce the volume of destroyed products by half. Companies have started realizing the importance of reusing products or components; as a result, reverse supply chains are becoming essential part of business models. By cleaning up or clearing the distribution channel more often, bringing back outmoded and outdated or

clearance items becomes easy. For example, Xerox replaces or upgrades hundreds of office printing machines every month. In India, Wipro is also using reverse supply chain to best use.

At IBM reverse supply chain process is explored systematically. The company conducts a lot of research for upgrading and refurbishing at this stage. In addition, when products are at the end of their useful life, it makes business sense to recover them for disassembly and component reuse. It also makes sense from an environmental perspective because electronics products, in many cases, include toxic materials that must be disposed of properly. Planning for these events upfront can help eliminate or reduce unacceptably high energy costs and environmental impact.

How products are designed, assembled, labeled and packaged can have a profound effect on the efficiency of any reverse supply chain. Reverse logistics is an area where IBM's history and legacy stands out. For most of this vital work, IBM leased out mainframe computers to companies instead of selling them; this because eventually, all equipment came back to IBM. As a result of its leading-edge experience in this area, IBM has a deep understanding of how to effectively design products for reuse and recycling.

In some part of world like EU, companies are setting up reverse supply chains because of environmental regulations. For example, from 2003, European Union has brought in a legislation that will require tire manufacturers operating in Europe to arrange for the recycling of one used tire for every new tire they sell. Some companies are using reverse supply chains as an integral part of new businesses.



For many large manufacturing and technology companies, after sales services forms a significant portion of their reverse logistics revenue. Also, providing timely and efficient service has become a

key competitive differentiator in many industries. Many automobile (2 wheelers and 4 wheelers) dealers have designed attractive revenue models in after sales servicing. Better management of the reverse supply chain transforms into higher customer service and consequently, higher customer satisfaction; and industries and the enterprises within them are realizing that management of the reverse supply chain is a revenue opportunity. For example, GE Aircraft engines makes more in servicing its aircraft engines than it did in initially selling them.

Some firms have also set up reverse supply chain capabilities for philanthropic reasons. Nike encourages consumers to bring their used shoes back to the store from where they were purchased. These shoes are shipped back to Nike, where they are shredded, which are then donated to make basketball courts and running tracks. The company also donates funds to help build and maintain those courts. By doing this, Nike has augmented the value of their brand and also promoted people to purchase their products.

An efficient reverse supply chain focuses on processing product returns generally at lower cost:



The computer and electronics industry is known for short product lifecycles. A big market has emerged for used PCs both in developing and developed countries. According to a research approximately 70 million secondhand PCs are refurbished and exported to emerging markets. Nearly 30 million second hand PCs are discarded worldwide. The need and opportunities for reuse of obsolete products does not need to be over emphasized.

The automobile industry is one of the biggest industries in the world and deals with the most expensive product. Therefore, it is not surprising that reverse logistics is an important subject for this industry. The three primary areas in which reverse logistics plays a significant role are: 1. Salvage of parts and materials from end-of-life vehicles, 2. Remanufacturing of used parts, and 3. Stock-balancing returns of new parts from dealers. The big three automakers in the U.S. have joined together to form the Vehicle Recycling Dive.

The estimated cost of reverse logistics in the Indian auto and auto components industry is around 0.5% to 1% of total sales. The reverse logistics segment has been growing at the same rate for both the auto and auto components industries during the same period.



In the pharmaceutical business its pressing problem of what do you do with the expired medication. About 3% of over-the-counter medications are not used before it expires people always have some or the other expired medication in their household. It ends up in drain and eventually the water supply; or it can make its way to landfills if thrown in the trash, essentially posing a health risk to people and wildlife.

Reverse logistics in this industry is considered a pellet in company's profits and an expensive process most times. Yet, it is an imperative process in modern times due to various reasons such as government regulations, growing environmental concerns, growing consumerism, and competitive advantage. An important consideration for companies is to perform the operations in reverse logistics effectively so that it reduces the cost involved.

The expired or unused pharma products need to be disposed off; they need to be reclaimed so that it can

be incinerated or otherwise disposed of safely. Collection is also being established at pharmacies, where people can bring in their old medication so that it can then be sent to a disposal center. Pharmaceutical companies and retailers who sell the medications can do some useful work in this area.

Some important considerations for the reverse logistics of returned medications include security of the medications, keeping costs down through technology and automation, and tracing the returns from the initial interception down to their final disposition.

Supply chain visibility is also essential for any pharmaceutical supply chain including reverse logistics, as counterfeiting and lost or stolen products continue to be a major concern for this industry.

Reverse logistics in pharma business should involve the use of barcode tracking and identification, as well as easy product identification. The reverse logistics of medicines need to be addressed on war footing to avoid any environmental issues and concerns of medication disposal.

Conclusion: Reverse supply chain is the last step in the supply chain, which needs to be addressed with accurate strategies; when companies give more attention to reverse supply chain, the product life cycle gets more and better. Cost reduction is not the only benefit that can be gained from reverse supply chain. It helps in understanding why products are returned. Was it returned due to quality problem?

Were the stores improperly stocked? Was there a labeling problem? Was the service of distributor or retailer not up to the mark? Are the price points ignored? Is the competitor playing foul game? Is the packaging aesthetics not working? Was there a problem in batch processing? These and many more dilemmas can be sorted out by going to the root cause. It helps the organization in return by resulting in better engineering, packaging, pricing, manufacturing or distribution. It assists to get slow-moving products off the shelf.

Companies have realized that they need to modify their forward supply chain by successfully coordinating it with reverse supply chain. How efficient is your reverse supply chain? Give it a thought right away.

Keywords: Supply chain, reverse supply chain, refurbishment, better environment, product returns, product lifecycle, and logistical activity.

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SCM IN HEALTH CARE SECTOR

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In ancient times, those who fell ill were taken care of in their own homes. If the patients had no one to look after them, they were lodged in a place arranged by the state and treated.

Fa Xian, the Chinese Buddhist monk who travelled across India ca. 400 CE, has recorded in his travelogue that philanthropic merchants had established and maintained in the cities houses for dispensing charity and medicine. He observed "All the poor and destitute in the country, orphans, widowers, and childless men, maimed people and cripples, and all who are diseased, go to those houses, and are provided with every kind of help; and doctors examine their diseases. They get the food and medicines which their cases require, and are made to feel at ease; and when they are better, they go away of themselves."

The earliest surviving encyclopaedia of medicine in Sanskrit, the Charaka Samhitha (Compendium of) describes the building of a hospital; the book is dated from the period between 100 BCE and CE150.

In the mid 19th century, hospitals and the medical profession became more professionalized, with a reorganization of hospital management along more bureaucratic and administrative lines.

INTRODUCTION : Healthcare is traditionally defined as the delivery of treatment and services to people in need of medical attention. The healthcare industry is of importance in both economic development and social welfare.

The global healthcare industry, comprising medical equipment and supplies, pharmaceuticals, health care services, biotechnology and alternative medicine, is one of the world's largest and fastest growing industries.

Healthcare in India today provides a unique opportunity to achieve innovation, differentiation and profits. In the next decade, increasing consumer awareness and demand for better facilities will redefine the country's second largest service sector employer. India's primary competitive advantage is that it has a large pool of well-trained medical professionals. It is also a significant fact that India has the cost advantage compared to the other countries in Asia as well as Western countries — cost of surgery in India is one-tenth of that in the US or Western Europe.

In India, the diagnostics sector has been acquiring greater innovative competencies and credibility.

Technological advancements and higher efficiency systems are taking the market to new heights.

Today, healthcare managers and industry experts have come to understand that the efficient management of materials will not only reduce operating cost, but increase the quality of care.

With extreme pricing pressures on today's healthcare providers, delivering high-quality medical care while reducing costs is a top strategic priority. To achieve this objective, healthcare service providers' efforts have been focused primarily on eliminating waste in clinical operations. While these are valid and important ways to reduce healthcare costs, one area that consumes nearly one-third of all hospital operating budgets often remains overlooked - THE HEALTHCARE SUPPLY CHAIN.

Although originating in the manufacturing industry, supply chain management is a concept that can be easily applied in the healthcare industry.

Healthcare supply chain involves the flow of many different product types and the participation of various stakeholders. The main purpose of the healthcare supply chain is to deliver products in a timely manner in order to fulfil the needs of providers.

SUPPLY CHAIN MANAGEMENT- A GENERAL OUTLINE : Supply chain management (SCM) is the management of all activities and processes related to tracking and managing demand, procurement and inventory and delivery management in coordination with vendors on the upstream side and customers on downstream side of the value chain. The scope of SCM covers the complete range from the supply of raw materials, through factories and warehouses, to demand for the finished product.

LOGISTICS : Logistics is the planning, execution and control of the movement of material and human resources for timely delivery of the required quantity/ numbers at specified locations.

WAREHOUSES : A warehouse is defined as a large building where raw materials or manufactured goods may be stored prior to their distribution for sale.

Warehouses can be classified as general warehouses and distribution warehouses.

PARTNERING WITH SUPPLIERS : This involves working together, developing trust, sharing information as well as risk and opportunity, establishing long-term mutually-

beneficial relationship, so as to reduce waste and inefficiency.

SUPPLIERS come under different “TIERS”:

Tier 1 supplier delivers the ordered goods services to the company directly.

Tier 2 supplier provides components or assembled parts and materials or services to Tier 1 suppliers.

Tier 3 supplier supplies raw material, consumables and other basic items to Tier 2 suppliers.

There will be more tiers of suppliers depending upon the complexity or volume of the ordered item.

SHARING OF INFORMATION AMONG SUPPLY CHAIN PARTNERS : Supply chain partners can benefit by sharing information on

- sales
- demand forecasts
- inventory levels and
- marketing campaigns

However, inaccurate or distorted information will lead to the Bullwhip Effect.

BULLWHIP EFFECT : Absence or inadequacy of shared information among supply chain partners gives room to following effects:

A partner has to guess downstream activities.

Inaccuracies in the guessing process will lead to stocking too much or too little inventory. In Health care sector, too little inventory will be disastrous since it involves health and life of patients.

ELECTRONIC DATA INTERCHANGE(EDI) : This is a common method of using computer-to-computer links to exchange data among supply chain partners in a standardized format.

EDI ensures quick transfer of information, reduced paperwork and involvement of administration and, more importantly, improved data accuracy and tracking capability.

HEALTHCARE INDUSTRY SUPPLY CHAIN : The SCM activities are totally different in the case of a healthcare provider such as a hospital. Here in addition to cost , the time of delivery and quality takes precedence over cost or profit. While SCM in other sector may play with money, in Health care sector, every activity is Patient specific and risk is higher in terms of health and life of patients.

Whereas a manufacturing/trading co. obtains goods/ services from its suppliers (vendors), adds value wherever applicable, and supplies the finished product to the customer, in hospital SCM the focal point is the hospital, i.e., the healthcare provider.

The producers and purchasers of medical equipment and other needs of the hospital- including the Grouped Purchasing Organizations (GPOs), meet the requirement

of the hospital.

The status and functions of the hospital are akin to those of retailers in the trading SCM. The retailer consolidates the demands from his customers or prepares a forecast based on the demand pattern. Purchase orders for the consolidated requirement are placed on the co.

In the case of a hospital, as and when requirements arise or are foreseen, the producers/purchasers of the goods/ services are contacted and the material is procured. Bills/ invoices for the supplies are sent to the hospital Finance dept for settlement. The demand forecast is most critical and highly unpredictable.

PRODUCERS include pharmaceutical companies and organizations that manufacture medical and surgical products, devices, capital equipment and information systems.

Manufacturer or Ordering Organization*

PURCHASERS include Grouped Purchasing Organizations (GPOs), pharmaceutical wholesalers, medical/surgical distributors, independent contracted distributors and product representatives from manufacturers.

The supply chain is managed by a manufacturer or trading organization*, with suppliers on one side and distributors, wholesalers and retailers on the other side. But everyone, from the supplier to the retailer, cater to the needs of the ultimate customer.

The supply chain is managed by the healthcare provider such as the hospital*. But the Producers, Purchasers and Providers have to strive to take care of the welfare of the patients, who are, so to say, the real customer.

A typical Healthcare Supply Chain (HSC) consists of the following:

- product manufacturers
- distributors
- third party logistics (3PL)
- GPOs, and
- the healthcare providers(hospital)

An extended version of HSC can include other stakeholders such as the providers of insurance, technology solutions and software and several intermediaries.

A representation of healthcare supply chain

Product flow is from Manufacturer to Distributor; and from Manufacturer and Distributor to Healthcare System Information flow is from Healthcare System to Distributor and Manufacturer. Service Provider is the Healthcare system such as a hospitals.

MANUFACTURER means product manufacturing firms that develop and commercialize various kinds of medical products and devices to be used by care givers in prophylaxis (treatment given to prevent disease) and surgical procedures towards disease prevention and cure.

DISTRIBUTOR is a wholesaler located between

manufacturer and providers.

GROUPED PURCHASING ORGANIZATION (GPO)

A GPO purchases from select vendors the combined requirement of several hospitals. GPOs have a global network of suppliers. Thus more suppliers can be accessed by the hospitals to procure the most beneficial equipment for their facilities and physicians.

Presently, in most hospitals, each department or clinical group has their own sourcing department and procedures. The sourcing process is fragmented. GPOs provide significant cost saving opportunities for hospitals by taking advantage of economies of scale. With the use of GPOs, hospitals can expect significant savings from better contract terms and from higher product utilization rates.

For a successful relationship between the hospital and GPO, it is essential to have in place a clear and distinct delineation of responsibilities, where the hospital provides the product selection and the GPO negotiates the price.

Healthcare providers can buy products

via a distributor using a GPO mandated contract or directly from the manufacturer without the involvement of a distributor or a GPO contract.

The logistics of sending products from distribution centres to providers is usually handled by distributors or outsourced to third party logistics providers (3PLs) and goods carriers.

Providers become members of a GPO by paying an annual membership fee. GPOs do not purchase or buy any products, but instead negotiate contracts for particular product or a group of products from several manufacturers on behalf of providers based on a commitment to purchase minimum volumes over the contract duration. Once a successful contract is awarded to a manufacturer, all members of the GPO can purchase items using the negotiated contract price and a distributor is assigned between the GPO, manufacturer and the provider to service the contracts. Members can purchase products by sending purchase orders (PO) to the distributor for product delivery at the negotiated contract price with due reference to the GPO contract price.

Distributors may also buy products from the manufacturer or distributor at a price which is significantly higher than the GPO contracted price. The difference between the distributor's price and contract price is claimed by the distributor from the manufacturer as rebate. The profit margin for distributors comes from the manufacturer rebates and markup as a percentage of contracted cost termed as delivery fees. GPO's operating expenses are serviced through Contract Administration Fees (CAF) from a manufacturer, which is a percentage of total transaction value of product purchased under the negotiated contract, and a membership fee paid by the providers to join a GPO. In

return to the provider's loyalty, GPOs usually award a small percentage of CAF to its members as loyalty rebates for future purchases.

PHYSICIAN BUY-IN : Doctors have their own specific preferences for supplies. It is estimated that, in an average hospital, the "Physician Preference Items (PPIs)" account for about 40% of total spending on medical supplies.

Hospitals are beginning to recognize the financial burden of allowing physicians the autonomy to order whatever supplies they choose.

The physician buy-in is one area where there is scope for supply chain savings.

While deciding the types of products to be purchased, the product cost assessment should take into consideration the total cost. Total cost is evaluated based on the type of raw materials used for making the product and how they will impact the cost of disposal. This approach will result in appreciable cost savings.

The decision to purchase and universally adopt cost-effective items for use within all hospitals should be by team consensus.

SOURCING AND STANDARDS TEAMS are formed with clinical experts and sourcing personnel to evaluate and determine the best and most cost-effective products.

The teams meet to prioritize the features that physicians prefer and utilize most of them. The procurement managers educate physicians on the financial impact of various supplier options.

The use of consensus, instead of majority rule, in the decision-making process minimizes any post-sourcing disagreement and results in high compliance rate and buy-ins from all physicians.

Another example of the approach is the procurement of surgical equipment: it is fully tested in a mock-style surgery room. In the mock test, the effectiveness and efficiency of the new equipment as to how it fits into the existing surgery infrastructure layout is evaluated. Only if the new equipment is deemed acceptable it is deployed in all hospitals.

This team consensus approach for selecting products and centralized testing rather than testing in individual hospitals help consolidate supplies and save costs.

INTEGRATED DELIVERY NETWORKS (IDNs) : IDNs are composed of multi-hospital systems, mergers and strategic alliances with neighbouring hospitals. IDNs provide services to the inpatients and outpatients of hospitals to help reduce its cost.

[Outpatients include those receiving care at their residence, as a follow-up after an inpatient episode or due to a chronic condition.]

(To be continued.)

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SUPPLY CHAIN CHALLENGES IN RAPIDLY CHANGING GLOBAL SCENARIO TRADITIONAL VS E-COMMERCE RETAIL IN INDIA

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Abstract : Recent success of 'One Billion Day Sale' by flipkart.com in October, 2104 in India has upset the traditional brick and mortar retailers and leading MNC consumer durable and electronics companies. Supply Chain Management is matching demand with supply of products and services to meet the service level requirements and minimize overall cost. Today, the demand is unpredictable and highly volatile, supply has also become less predictable due to information distortion, long lead times, multiple stages, uncertainty in supply due to geopolitical factors, quality issues, and operational issues such as breakdowns and defectives. Unforeseen delays at each stage in supply chain due to consolidation for economies of scale and local optimization are other factors leading to need for keeping high inventories at each stage. Ecommerce companies have been able to use technology effectively to reduce cost of logistics, improve lead time dramatically by promising same day delivery at a much lower cost than the conventional brick and mortar business. This article looks into the key learnings and the factors that need to be addressed by traditional brick and mortar retailers for their survival and growth.

On October 6, 2014, flipkart.com, a leading ecommerce company in India created a history by achieving a sales of US \$100 million in a 10 hour window. Most of the products that were put on sale were discounted heavily, not to the liking of the traditional retailers and even Global Consumer Durable and Electronics Companies as prices offered were much below the prevailing prices, with a promise of one day delivery. There were some glitches though, however, customers who could buy were satisfied. Persons who could not buy were naturally not happy. The founders of the company apologised to the customers who could not log in or complete the purchasing request due to the technical problems, and offered to make special discounted offers to them later.

Flipkart.com is using a market place model now, where a number of suppliers can showcase their products on flipkart.com portal and sell directly to the customers. Flipkart organizes delivery of the products to the customers and manages the collection of sales proceeds which it gives to the vendors after deducting an agreed fee.

However the backbone of the entire operation is the ability of flipkart.com to forecast demand as accurately as possible, have large warehouses in key locations where the suppliers can store their products depending on the expected demand and tie up with logistics company, in-house or a third party logistics partner to

pack the goods as per the orders received on flipkart.com portal and deliver to each customer within one day.

Traditional retailers, however are a part of a multi-level supply chain beginning from the manufacturer's warehouse and getting supplies through a series of intermediary's stockists, wholesalers and others, resulting in long lead times and higher costs. Naturally due to limitation of physical space and high uncertainty in demand, they cannot store all the items or variety in each store limiting choice offered to the customer as compared to an online portal like flipkart.com. Their cost structure too is also very high as compared to the online retailers, limiting their ability to offer discounts.

The impact of flipkart.com one day sale this year was so much that this Diwali, many retailers offered their prayers to laptops and smartphones, in addition to the Gods in India¹. More and more retailers are now planning to have a web presence and offer their product both online as well as in their store.

E-commerce retail in India : According to a study by PWC by 2017-2020, the size of the e-retail industry is poised to be 10 to 20 billion USD. This increase is expected to be led by growth in consumer-led purchases in electronics and durables, apparels and accessories, traditional products such as books and audio-visuals². The essence of e-retailing is in its ability to transcend physical boundaries and reach customers in a manner different from the traditional brick-and-mortar stores by delivering products to their very doorstep. The base of the e-retailing model, however, is solutions of technology and logistics that helps the customer acquisition and the final 'reach' process.

The Traditional Retail Business vs e-commerce Business Model : The conventional infrastructure model relies on the growing depth and breadth of coverage through many nodes of inventory, warehouses as well as stocking points connected, based on several other factors like production cycles, variety and nature of the SKUs, local taxation laws, etc. The conventional point of ordering takes place at the retail stores and static customer fronts present at the end of the chain, and predicting inventory requirements is done empirically based on past data of several months or years. In fact, sales channels that are competing may also start duplicating infrastructure, and thus indicating the logistics function's typical sub optimization within the overall process of sales and distribution.

E-commerce providers which operate through inventory-led or marketplace models, are starting to enter a

completely different paradigm of operations, where supply chain management is central to business creating more business. Real-time demand and tight delivery expectations from customers are leading to the need for supply chain to be built from the customer-end, with the basic difference being delivery points proliferation and the necessity to transport large number of orders of small parcels (one or two goods) across the country's length and breadth at an affordable cost.

Supply Chain Challenges : Customer-driven pressures for innovation, new markets and channels, and cost reduction – suggests a number of paradoxes facing manufacturers in the areas of global optimization, customer collaboration, innovation, flexibility, and risk³. As per findings of this study, the following factors emerged -

- persistently drive down supply chain costs (from product concept to delivery)
- Looking for new lucrative markets and channels
- Fast pace of product innovation

There are three major inescapable forces in the world of demanding customers – high cost pressures, new attractive markets, and increasing new product introductions and these have significantly increased the complexity of supply chain organisations of manufacturers with the most advanced supply chain maturity levels that will ultimately rise above their rivals to achieve competitive advantage and earn more revenues.

International supply chains companies must comply with the international requirements spread ranging from anti-corruption to controls of import and export.

Supply Chain Complexity : In supply chain the complexity resides in three main areas: the physical supply chain; the product and service portfolios supported by the supply chain and the systems that manage the supply chain. The bigger each of these groups is – for example the more warehouses in the physical supply chain or a broader product offering – the greater the complexity. The goal is to manage complexity in each of these areas to ensure that performance, rather than cost is increased. This requires thorough knowledge of cost base but most importantly a company needs to understand what the goals of the supply chain are and then manage processes and systems in a more ordered way to develop competitive advantage, derive value by simplifying or to eradicate those 'elements of complexity' that do not add to competitive advantage.

In global supply chain complexity is inherent since it generally supports multiple strategies for sourcing, manufacturing, outsourcing and a global need to decrease inventory. De stocking using a JIT mentality will need higher levels of service to meet more exacting needs of customers and to ensure the delivery of goods at the right price and time. The complexity can be managed to produce economically by outsourcing the manufacture of its component parts to different suppliers in locations around the world who can develop and manufacture the best and most economic components. To gain further competitive advantage the company, like other organisations, may

also wish to offer a broader product range and that will multiply the sources of supply, which invariably would involve more global locations.

It is therefore essential to have the right information systems to allow the organisation of all the suppliers to ensure the multitude of components can be brought together on the assembly line Just in Time on the assembly line. Therefore, in global supply chain management, the main area of complexity that should be addressed is in the system handling the supply chain and the most critical element of complexity to handle is the 'islands of automation' that might occur. In other words, where the information technology used to support the supply chain is different at the origin vs at the destination. This makes data movement about the goods being transported across the supply chain tougher to understand and it is here that complexity can be managed through simplification and standardisation, ie, using a standard technology set to develop competitive advantage.

Key features of today's supply chain

Customer segmentation – Market research to identify customer segments and their preferences in terms of brand preferences, products specifications, variety, quality and reliability, convenience and prices. In addition, customers are also concerned with product return, if not found acceptable for any reason and refund of the money paid, if paid in advance. Customers on India and China are more comfortable with paying after receiving delivery and also paying in cash.

Forecasting – Effective forecasting techniques to estimate demand more accurately to ensure high level of product availability.

Product range and low prices – Customers to day demand a high variety and expect lower prices. Wide publicity is needed for customer to know of the product offerings to make up their purchase decisions.

Convenience – Convenience is the key to acquiring and retaining customers. Web portals of e-commerce companies offer convenience to viewing the products on virtual showrooms, select, place order, choose payment option including Cash on Delivery and track order status till delivery.

Centralized inventory – Centralised inventory system allows demand aggregation and therefore requires lower safety stock to meet a desired service level. Inventory management costs are also reduced substantially due to economies of scale.

Order processing system – Interactive order processing system increases the ease of placing order and also allows tracking order status.

Fast delivery directly to customer doorstep – Most of the e-commerce companies have tied up with logistics partners to deliver individual orders directly to the customer's place within a very short time, many times same day delivery.

Ease of product returns – It is very important to ensure the reverse logistics function is well designed to ensure

smooth product returns.

Building the supply chain of the future : Many global supply chains are not equipped to cope with the changing world. Most supply chains were engineered to handle stable and high volume production after capitalization of labor-arbitrage opportunities that are available in China and other countries offering low-cost opportunities. But in days to come when the relative advantages of manufacturing locations changes fast—along with the ability to produce large volumes in cheaper ways—such standard approaches can lead to companies being dangerously exposed.

That future, spurred by an increasing tide of global uncertainty and business complexity, will arrive sooner than most companies expect. Some of the challenges (turbulent trade and capital flows, for example) represent yearly supply chain worries turbocharged by the recent economic downturn. Even so other shifts, such as those related with the rising wealth of the developing world and the emergence of suppliers that are credible from these markets, will have implications of supply chain for decades to come. The bottom line for future architects of strategies of manufacturing and supply chain is a greater risk of making key decisions that prove to be uneconomic due to forces beyond one's control.

A few pioneering supply chain organizations are preparing themselves in two ways. Firstly, they are "splintering" their traditional supply chains into smaller and nimbler supply chains that can manage higher levels of complexity better. Second, they are using their supply chains as hedges against uncertainty after reconfiguration of their manufacturing footprints to encompass a range of potential outcomes⁴.

Brick and mortar retail companies, such as Walmart, Tesco and many others are now opening up their web presence and give customers option to place orders online or at the physical stores. They provide option to customer to touch and feel the product before making a purchase decision, very important requirement in countries in emerging economies such as India and China. Success of e-commerce model and physical stores at Seven Eleven Japan with flexibility to a customer to place order online using their smartphones and pick up product ordered after a few hours at a physical store on the way home. Product returns are handled by the physical store, where a customer of fashion products can even try a product before taking a delivery or returning the product, if not found satisfactory. In UK, Amazon UK is offering customers to order online and collect their products from Tube stations on their way⁵.

Indian retailers need to take a leaf out of this and plan their web presence also to offer convenience to the customers for viewing their products, placing orders, making payments and also taking delivery as per their choice. Companies need to take advantage of risk pooling by centralising inventory and reducing the cost throughout the supply chain by eliminating the intermediaries and following a just in time model. Product returns, so far resisted by Indian retailers also need to be built into their culture and practice, if they have to weather the onslaught of e-retailers and survive and grow.

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SUPPLY CHAIN AND LOGISTICS FOR THE PRESENT DAY BUSINESS

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Abstract : We are living in an era of competition which is increasing day by day. Transportation comprises of key area where logistics companies can truly differentiate themselves and prove with, reduce costs, and build real competitive advantage. Logistics outsourcing can offer business men with measurable cost and efficiency advantages, yet often overlooked as a viable option due to the inherent difficulties in implementing the practice in a manageable, consistent manner. Third-party logistics (3PL) providers tend to apply the same approach to businesses of every type, oblivious to the unique needs – and opportunities – present in specific customer scenarios.

Logistics have existed since ancient time but not be called so where invention of wheel was a starting point of logistics which allowed people to move raw material as well as finished goods. Population began moving from rural to urban areas and to business centres. No longer did people live near production centres, the concept of starting business near to the raw material availability location was replaced due to the comfort of shifting the required material from one place to another with the help of research done on the logistics related problems, nor did production take place near residence centres. The geographical distance between the point of manufacturing and point of consumption increased, this is how logistics gained importance.

The present paper tries to highlight the importance of logistics in the present day business development. Here the author gives a briefing about the present logistics position in India and also the problems/hurdles for the slow growth of Indian logistics system. The author also want to highlight the scope of logistics in Indian business and how it can cope for better business development with other developed nations all over the globe.

1. Introduction : The present corporate job is very challenging. Every business has to face competitions from multiple dimensions and directions. As explained by Michael Porter the business in 21st century can survive and succeed only if it is able to fulfill the challenges of the present demands regarding logistics. History repeats where the business which is not able to provide proper logistics for its products and supply the product to ultimate consumer has lost its reputation in the business world. However good the product is if it would survive the competition and reaches the ultimate consumer in time it is demanded for.

Introduction to Logistics: Since the early 1990s, the business outlook has changed. Due to the globalization, the competition has demanded the customer should get the right material, at the right time, at the right point and in the right condition at the lowest cost. Outsourcing logistics functions enables a company to focus on its core competencies. By doing so, the companies can best utilise their resources, allowing a world class solution provider to professionally manage their logistics, leveraging their technology and staff infrastructure. Logistics has become a part and parcel for every business today. No business with marketing, manufacturing or project execution can succeed without logistics support.

2. Review of Literature : LOGISTICS is defined as “Planning implementing and controlling the physical flow of material and finished goods from point of origin to point of use to meet customer’s need at a profit” by “Philip Kotler” It is essentially a planning process and an information activity. So it is an integrative process that optimizes the flow of material and supplies through the organization and its operations to the customer. The word logistic has originated from Greek word ‘Logistikos’ and the Latin word ‘Logisticus’ which means science of computing & calculating. During World War II logistics gained importance in army operations covering the movement of food, medicines, men & equipment across the border. Today It has acquired a broader meaning and is used in the business for the movement of material from suppliers to the manufacturer and finally the finished goods to the consumers.

The Council of Logistics Management (CLM), now the Council of Supply Chain Management Professionals (CSCMP), defines logistics as ‘that part of the supply chain management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers’ requirements.

According to Stern and El-Ansary (1988), ‘the term Logistics Management encompasses the total flow of materials, from acquisition of raw materials to the delivery of the finished product to the ultimate consumer and the counter-flow of information that controls and records the material movement’.

3. Scope of Logistic : The logistics infrastructure has

received lot of attention both from business and industry as well as policy makers. However, the role of coordinating and organizing this infrastructure (or the logistics management regimen) to effectively compete has been slightly under-emphasized. The Indian logistics sector has typically been driven by the prime objective of reducing costs involved with transportation that were incredibly high due to regional concentration of manufacturing and geographically diversified distribution activities as well as inefficiencies in infrastructure and accompanying technology. The logistics management has a great scope for the development in the Indian market and can do wonders beyond the Indian borders if properly planned. To face the demand the country has to build the infrastructure, manage the requirements of a changing demands from various sectors of supply chain, change industrial policies to smooth the progress of efficient production and movement of goods and services, implement effective managerial practices and technology to enhance the competitiveness through better management of logistics networks, and develop new models for different sectors.

4. Analysis: Current Logistics Related Issues : There are several factors and costs that affect logistics. These issues may be listed as:

- **External:** Globalization, Technology, Workforce 2000, Challenging nature of the work force, Environmental concerns
 - **Internal:** Customer service and quality, Third party networks, Supply chain management Changes in management and organization style. Here are few steps that could be followed to mitigate the above mentioned issues:
 - **Performance:** Better service for customers, improved productivity, modify just in time and quick response needs as a process.
 - **System structure:** Better relationship with suppliers, customers and third parties to more manage well the supply chain, Better relationship within the organization in and out.
 - **Technology integration:** Better information systems that connect functions and organizations which would combine information and material handling systems for increased efficiency and effectiveness.
 - **Many more other expenses like : *Transportation Cost, Holding cost, Inventory cost, Order processing Cost and other etc.***
- 5. Survey carried out with many industry professionals around the world listed out the following reasons as Challenges faced by the Logistics industry in India**

Railways : India's rail network is an proof of British rule. Over 80 per cent of the current railway lines were built

before the country's independence in 1947 and therefore the governments has to research into the present infrastructure and re do the system to meet the demands of the present day business. The traffic on rail has grown more than 10-fold between 1951 and 2009, rail track length has only grown 1.4 times in the same period. Furthermore, traffic growth will continue at high rates, and demands for more perfect network of the railway system in India.

Indian Railways have few drawbacks in the system like :

- Poor maintenance of the tracks as the organization is highly influenced with politics .
- Improper tariff rates where there is no transparency for the cost charged while loading and unloading the products is high. If truck overloading is also taken into account then rail freight rates are higher than roadways in many instances and already to be highest in the world .
- Rail networks are oversaturated as the traffic has increased but no new lines were laid. Both passenger/goods transit has increased in multiphase but the infrastructure is not up to the mark.
- Transit times are long and uncertain due to the old infrastructure and over loaded traffic on the railway lines.
- Terminals at railway stations are very poor to loading and unloading the consignments.
- Less flexibility to carry different types of products as special wagons are not easily available for carrying specialized products.
- Though the transit of goods is safe for long distances it is not at the reach of all industries as few companies may not be able to book the complete wagon.

Road: Similar to the railways, investments in India's roadways are not kept up with growth at par with the need of the day. The infrastructure laid is not up to the mark to withstand the traffic after independence. Passenger and freight traffic have grown close to 200-fold since 1951. However, in the same period, road length has increased only 8-fold from 0.4 million km in 1951 to over 3.3 million km in 2007. Further, India's roads are not properly maintained. Though the government knows that 70% of the logistics people depend on the road way for transiting their products , but even then the condition of the roads is poor with over 30 per cent of the National Highway network constructed before independence. While the road network of over 3.3 million km seems extensive, only 15 per cent of these roads are supervised by the highways and only 0.5 per cent of roads are two or four-lane roads. The basic drawback of the road way may be listed as:

MODE	RELATIVE ADVANTAGES	RELATIVE DISADVANTAGES
Rail	<ul style="list-style-type: none"> • Full capability • Extensive routes • Low cost 	<ul style="list-style-type: none"> • Some reliability, damage problems • Not always complete pickup and delivery • Sometimes slow
Truck	<ul style="list-style-type: none"> • Complete pickup and delivery • Extensive routes • Fairly fast 	<ul style="list-style-type: none"> • Size and weight restrictions • Higher cost • More weather sensitive
Air	<ul style="list-style-type: none"> • Fast • Low damage • Frequent departures 	<ul style="list-style-type: none"> • High cost • Limited capabilities
Pipeline	<ul style="list-style-type: none"> • Low cost • Very reliable • Frequent departures 	<ul style="list-style-type: none"> • Limited routes (accessibility) • Slow
Water	<ul style="list-style-type: none"> • Low cost • Huge capacities 	<ul style="list-style-type: none"> • Slow • Limited routes and schedules • More weather sensitive

Figure 1: Integrating Supply Chain And Logistics Management ,2002,Tatamcgrawhill/Irwin

- Inadequate road network coverage as many roads do not properly connect the cities and most of the roads take the route within the cities. This causes delay in time and increase in cost.
- Poor road quality is another matter of concern. As soon as the rainy season starts 50% of the roads become unportable.
- Road lanes : Large stretches of National Highways are also two lined in many stretches reducing their capacity to handle large traffic loads and increasing the travelling time. This becomes a major problem for the perishable goods.
- Expressway network not available and outer ring roads are not yet implemented for all the major cities.
- Multiple check points: At places where there is a facility to move fast the traffic gets stuck due to the multiple checking points toll gates and other etc. ultimately increasing the travel time and restricting the movement of goods easily.

Waterways: Growth in waterways has been hampered by limited investments and the loss of key routes following partition. Prior to the Fifth Five-Year Plan, developing inland waterways was accorded low priority with a cumulative investment of under INR 35 crore. This was partly due to the prioritization of irrigation, and limited viability of inland waterways owing to deforestation and silting. Further, the partition of the

country rendered several routes unviable. Little is done for improving the conditions of the port.

Air Cargo: Air ways also has not received proper attention in India. With increased volumes of cargo major airports are getting congested resulting in long waiting time. The waiting time for exports in India is 50 hours compared to a World average of 12 hours while the waiting time for Imports in India is 182 hours compared to a World average of 24 hours. Waiting time is more or less same as other mode of transport. Airways charge high rate with the assumption of delivery of the product faster and the ultimate cost of the product increase twice before it reaches the ultimate consumer. The airfreight sector also suffers from high fuel costs and tariffs as well as several manpower issues.

State of cold storages is poor: Despite the significant requirement of cold storages from the retail sector, pharmaceutical industry, bio technology and chemical sector, where it is estimated that up to 40% of the fruits and vegetables grown in India are getting wasted because of unavailable technological support for proper storage. The sector needs to grow much faster to meet the needs. Estimates on cold chain facilities in India put the number of cold storages at around 5400 with a capacity of 24 million metric tons. However records tell nearly 60% of these facilities are meant for storing potato crop. Also with the poor electricity condition in the country the cost of operating such facilities is very high. With government intervention and various SOPs the situation is slowly improving but many challenges

remain.

Multimodal Logistics parks yet to take off: With emerging requirements of integrated logistics, provision of transportation hub, value addition etc large logistics parks were planned to be developed. However as with other components to support the system the number of such facilities continues to remain much less than the requirement. Other issues include the lack of recognition of the concept of Logistics Park by state government thereby obtaining permission for setting up one cumbersome.

Technology and Skills related challenges the logistics industry is also hampered by low level of adopting the latest technological tools in improving the speed and performance. On the technology front the industry now seems to be paying serious attention with use of RFID(Radio Frequency Identification) in vehicle tracking technologies, warehouse management systems etc.

However while acceptance is perhaps not an issue, the tie-up between IT and domain requirement are to be sorted out effectively for the benefit of the industry. Process of Automation is still only on its way. Further progress is dependent on a certain level of standardization which is made more difficult by the high level of fragmentation in the industry. This is a drawback that needs to be tackled early. In addition to technology-related issues the skill levels in the logistics industry also require to be upgraded urgently. A recent study has found that a variety of skills are required in the sector and very little is known to the present generation. Government should take measure to educate the present student group to solve the unsolved issue in the area of Supply Chain, Logistics, Warehouse Management and other demand areas. Area where there is a need for human potential skills include technology skills, driving skills including safety procedures, industry understanding and multi-operations skills.

6. Impact of challenges faced

The various challenges faced by the logistics industry lead to high logistics cost incurred by the Indian Economy despite the fact that the cost of labor is cheaper in India which is one of the most cost included in the logistics cost.

With regards to cost of spends on logistics, India's logistics sector accounts for 13% of the GDP of India. This is much higher than that in the US (9%), Europe (10%) and Japan (11%) but lower than in China (18%).

- a) Logistics cost is high in India due to the high cost involved in distribution across the country.
- b) The cost of logistics when looked separately from the point of view of the consumer may not be too high but unfortunately this is not meeting the expectation of the consumer. If the product meets the expectations then the consumer may be ready

to pay a little higher rate for the product.

- c) The rewards of reduction in logistics cost are many. As has been shown for other parts of the world, decrease in logistics cost leads to significant increase in employment opportunities in the economy.
- d) Logistic management helps in increasing the trade flows in a country by increasing the inherent competitiveness of the economy.
- e) Finally, and importantly for India, decrease in logistics costs leads to a decrease in poverty levels in the country. Therefore efforts are to be made to reduce the logistics cost.
- f) Transportation Inventories Warehousing Others (Including Losses)

7. Discussion: Steps to be taken to improve the system of Supply Chain & Logistics in India

- a) **Rail corridors:** Government should have a dual focus. First, accelerating the special purpose vehicles (SPVs) for the two planned DFCs (Dedicated Freight Corridor's)—Delhi- Kolkata, Delhi-Mumbai—and simultaneously incorporating SPVs for three additional DFCs. These are on the Kolkata-Mumbai, Delhi- Chennai, Mumbai-Chennai corridors.
- b) **Coastal corridors:** The objective of improving the logistics management must be to strengthen the West i.e., Kandla to Kochi and East i.e., Kolkata to Chennai coastal freight corridors through integrated projects that include last-mile rail and road programmes, transshipment hubs, proactive marketing and accelerated port development.
- c) **Road ways :** This includes constructing expressways of 100 to 300 km stretches that factor in expected increases in traffic by 2020. While currently 5 to 7 expressways are likely to be built by 2020 including the golden quadrilateral, ideally, the number of expressways should be increased to over 20 by 2020. Expressways should include high-traffic routes such as Nasik-Shirpur and Ghaziabad-Bareilly.
- d) **Last-mile roads:** measure should be taken to connect last-mile links to connect in particular port and railway terminals to production and distribution centres.
- e) **Last-mile rail:** This should ensure last mile rail infrastructure in many of the last 750 mile links. It will include development of tracks and trains head infrastructure to support 8 to 10 critical coal corridors in mineral rich states such as Jharkhand, Chattisgarh and Orissa.
- f) **Roads maintenance:** This comprises creating long (e.g. 10 years) annuity-based maintenance contracts for 400 km to 500 km stretches. The current practice has been to issue contracts for shorter distances of

50 km to 100 km. Clear commitment to maintenance could also encourage the participation of more private providers.

- g) **Technology adoption like national electronic tolling:** This entails standardizing technology for all toll centers on national highways (ETC) in future contracts and establishing a nationwide clearing house with set norms and service standards to facilitate transactions, thereby reducing waiting time and improving service levels.
- h) **Logistics skills development:** The student groups should be educated with the necessary skills required for the industry. This in turn would create demand for four types of personnel — warehouse managers, logistics managers, coastal seafarers and truck drivers. Which in turn will require upgrading the training infrastructure and collaborating with institutes of technology, engineering colleges, marine training institutes and driver training institutes to growing demand?
- i) **Enabling access to better equipment and setting common standards:** This refers to acquiring access to better equipment such as larger trucks and higher tare load railway wagons and developing common standards to aid inter-modal transport that ensures consistency in containers, pallets and cranes. Further, supporting research institutions like Road Research Institute could help develop better quality road construction material to bolster construction while simultaneously reducing costs.

8. Suggestions: The way forward

- The growth in the Indian economy in coming decade is likely to be driven by the increased activity in the manufacturing and retail sectors. To enable these sectors to contribute effectively to India's growth the logistics sector will have to step up to provide value-enabling solutions for these sectors. This would require action on three fronts:
- Creating an environment for graduating the Indian logistics market to provide value propositions in logistics solutions.
- Increasing the capability of the Indian Logistics Industry to provide such solutions
- Government should create necessary regulatory mechanisms in the country to provide an enabling environment for value propositions in logistics services
- Due to decades of growth and increasing globalization of the Indian economy Indian entrepreneurs become active participants in business strategy. However old habits die hard. Therefore we still see numerous instances where little premium is put on service delivery, quality and transparency in logistics services. Demand for logistics solutions still gets conditioned by an undemanding, quality-neutral client used to a non-standard product and service deliveries. Large logistics departments have come up within companies to manage this 'chaos' and lowest
- The Logistics industry assesses client needs in practical terms. **Most logistics companies do not have the financial wherewithal to put in world class facilities** upfront and wait for the returns to be realized at a later date through an 'education' of the customer.
- **Capabilities and skills are neither available nor do the customers currently demand them.** However the ray of hope is that the thinking of people is changing. The reason behind the changing perceptions appears to be mainly because logistics people are seriously probing for better alternatives to reduce the cost of logistics.
- **Increasing competition is forcing manufacturers and retailers to increasingly differentiate their products.**
- However this change may **still be discouraged in the bud** if no efforts are made by the Government and its associated regulatory mechanisms to provide an enabling environment to facilitate a paradigm shift in how logistics industry can grow unfettered. It is well recognized that government is making efforts to make improvements to bring out feasible solutions to meet the infrastructure deficit- be it in physical transport, warehousing and terminal infrastructure etc. These include:
- **Coordination in infrastructure planning:** Today there seems to be a very little or even to say no coordination amongst the various agencies of the government in creation of infrastructure. Due to this lack of coordination all the modes of transport are at stake. Every mode of transportation demands for immediate attention for the government regulatory bodies. To improve the situation it requires a change in our planning mindset. Coordination in infrastructure planning will need to happen not only to truly remove bottlenecks, but also to avoid overlap and attendant extra costs. Such resultant integration of facilities will help to reduce the high transaction costs prevalent in the economy.
- **Reforms in urban planning:** Urban planning today does not appear to factor in the enormous volumes of goods distribution catering to urban conglomerations in terms of road and peripheral infrastructure resulting in traffic restrictions and serious bottlenecks and logjams. This needs to be paid special attention by our planners.
- **Improving dialogue with industry:** Finally the regulatory agencies do not discuss the issues with

the industries. If the authorities discuss the bottle necks and problems faced by the industry taking them as a part of discussion then solutions can be arrived much easily and even better outcomes can be implemented. But unfortunately the blueprints and policy regulations today are a largely one-sided affair with some industry representations sought. This makes policies prone to avoidable trial and error events.

- The future Of the Indian Logistics Industry lies ultimately in value propositions for the customer. Value solutions can be engineered only if the complex strands of supply-chain mesh together seamlessly. These solutions are expected to command a premium but also come at a cost. The cost –conscious Indian Market first has to be made to appreciate the value of premium services. This would result a reduction in cost down the line, which can only happen when most of the deficiencies mentioned above are removed. Logistics can also provide economics of scale to the business which calls for collaboration among the industries which is mutually beneficial and results in the greater saving such as the auto-component companies in India are practicing. The future is bright for the logistics industry in India- the expectation is that tipping point for the industry will soon be reached which will propel it to greater heights.

9. Conclusion : Logistics infrastructure is a important yard stick to measure the India's economic development. Recognizing this pivotal role, logistics infrastructure spend has been tripled from around USD 10 billion in 2003 to a planned amount of around USD 30 billion in 2010. Despite this increase, the country's network of roads, rail and waterways will be insufficient as freight movement increases about 3 fold in the coming decade. This deficit in the planning for logistics infrastructure will put India's growth a question mark. This is because even at this point large part of India's future logistics network is still to be built, the country has a chance the old network and implement the new structure to meet the growing demand. Doing so requires an integrated and coordinated approach in which the development of each mode—railways, waterways and roads—is matched to the needs and existing assets are better utilized. Logistics is an important area where every company has to concentrate on and differentiate themselves with their competitors. With the growing demand for various varieties of products available all over the world people's expectations are changing for every product. If a company wants to survive in the long run it should pay special attention to the area of supply chain and logistics. Research is demanded to reduce the product cost and improve the quality with reduced delivery time.

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FREIGHTS RATES

(Trucks per 9 Tonnes)

Delhi - Lucknow	19,500
Delhi - Jaipur	12,000
Delhi - Ahmedabad	22,500
Delhi - Indore	26,500
Delhi - Patna	36,000
Delhi - Ranchi	50,000
Delhi - Panipat	8,000
Delhi - Chandigarh	15,000
Delhi - Jalandhar	14,500
Delhi - Ludhiana	15,500
Delhi - Mumbai	42,000
Delhi - Hyderabad	59,500
Delhi - Bangalore	64,000
Delhi - Kolkata	46,500
Delhi - Chennai	81,500

Source : NNS on 20.11.2014



GST TIMELINES

Final push to tax reform initiative

ARUN JAITLEY
Finance Minister of India

Last month, when Prime Minister Narendra Modi and finance minister Arun Jaitley along with top finance ministry officials discussed in detail the current status of the proposed indirect tax system, all that officially emerged from the discussions was that the Goods and Services Tax (GST) would be rolled out by April 2016. This led to speculation that the government was still factoring in the pros and cons and had no game plan in mind. Now, galvanised by the election results in Maharashtra and Haryana, the government is finalising the timetable for the rollout of the GST.

India's biggest tax reform initiative could see a staggered implementation, starting with a nationwide unified tax system for goods from April 2016 and extended to services later. A robust country-wide information technology (IT) network and infrastructure to make the implementation seamless across state boundaries is also expected to be ready by then. The government is likely to introduce in the forthcoming winter session of Parliament the Constitutional Amendment Bill that will lay out the roadmap for GST's implementation. The redrafted Constitutional Amendment Bill for GST is ready and as soon as Jaitley approves it, the process for getting Cabinet approval will start. Once Parliament gives its nod, it will require approval from at least half of the state Assemblies before the Act is implemented.

With the falling prices of crude stabilising the fiscal situation, the government is in a position to fork out the first instalment - ₹14,000 crore - of the new ₹35,000 crore Central Sales Tax (CST) compensation plan to the states this financial year itself, with the balance over the next two years. This will allay the fear of the states that they will lose revenues once the GST is introduced. Implementation of the tax reform has been politically contentious so far with states fearing GST could rob them of fiscal powers and tax revenue.

The Centre's plan involves phasing out CST - a proportion of which goes to the states - to compensate them for revenue losses. Over the last few years, the government has gradually brought down CST from 4 to 2 per cent as a precursor to rolling out GST.

Knocking down obstacles : The government's carrot-and-stick approach is evident from the fact that it is not

allowing states controlled by the BJP to act as obstacles to its plan. Recently, it turned down Gujarat's proposal to retain 2 per cent tax on inter-state movement of goods as and when GST kicks in. The reason for the rejection, according to an official close to the development, is that it would be "tantamount to collecting the Central Sales Tax in perpetuity. It would be not only distort the GST structure but also violate the Constitution," the official said.

Under the Constitution, taxes on inter-state movement of goods and services fall under the purview of Parliament. If states are to be given this power, the Constitution would have to undergo another amendment in addition to that establishing the GST. Gujarat was seeking 2 per cent of the integrated GST (IGST), which is levied on inter-state movement of goods and will replace the CST, currently levied on inter-state sales. In a meeting held on 11 September to discuss the modalities of IGST, the proposal was tabled before the Empowered Committee (EC) of state finance ministers. However, the EC is yet to take a call on the matter, while states like Bihar are not in agreement with the proposal.

According to the Centre's proposal, IGST, which comprises Central GST and state GST, would be collected by the Centre so that the input credit chain is not disrupted. It will then be transferred to the destination state where the goods are eventually to be consumed. Under the new system, the Centre and the states will tax goods at identical rates and split the revenue equally. For instance, if 20 per cent is the agreed rate on a certain product, the Centre and states will collect 10 per cent each. The same model will apply for services. Under current laws, only the Union government taxes services.

India is currently fragmented into several disjointed markets, with each state levying a different set of taxes on goods and services. Once implemented, the GST can dramatically alter the tax administration by replacing this string of Central and state levies such as excise, value-added tax and octroi with a single unified tax, thereby creating a common national market.

Source : *Business India*, Oct-Nov. 2014

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WASTE MINIMISATION : A SYSTEMATIC APPROACH

M.J.PERVEZ, GROUP HEAD (EM), NPC

Waste Minimisation (WM) apart from reducing pollution load, brings in many other benefits to the industry which include resource conservation, improvement in work environment, product quality improvement, to name a few. Successful implementation of a Waste Minimisation programme calls in for a methodical approach to be adopted by the industry. This will ensure that every possible area having potential & opportunity for Waste Minimisation is covered. A systematic step-by-step approach, to be followed while conducting WM programme in a unit, has been discussed in this article.

STEP 1: GETTING STARTED : The following preparatory activities are required to start the WM programme in a unit.

Task 1: Making a Waste Minimisation Team : The Waste Minimisation team should consist of members of different levels in the organisation which include worker, supervisory and the managerial levels. For different divisions in an industry, separate WM team can be formed. For successful & effective implementation of the programme, a close co-ordination amongst the team members is essential..

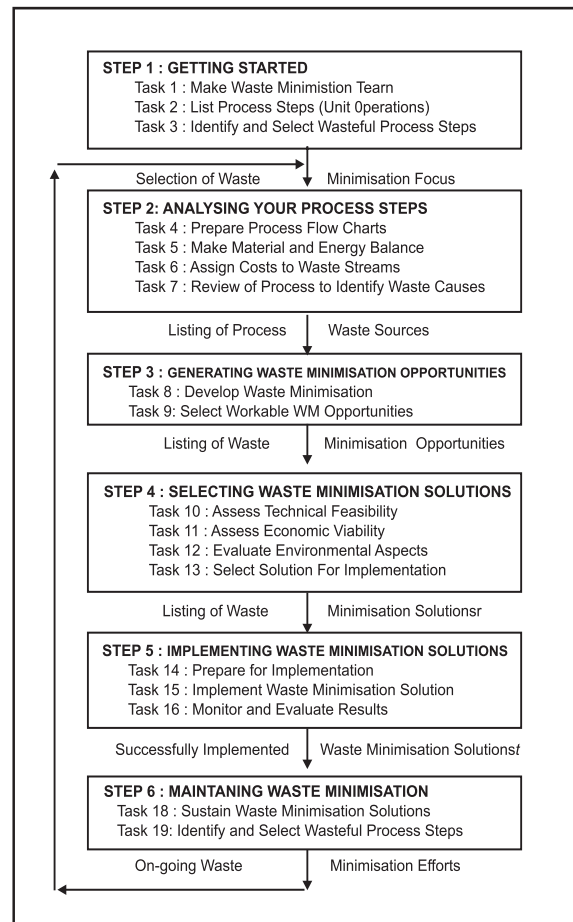
Task 2 : Listing of Process Steps : Once the team is formed, the members should list down the broad unit operations in the sequence in which they are being carried out in the production process.

Task 3 : Identification and Selection of Wasteful Process Steps : From the unit operations listed above, the process steps generating waste have to be identified. Out of these, one process step based on its greater impact on the entire production process and quantum of waste generated should be selected for conducting detailed assessment

STEP 2 : ANALYSING YOUR PROCESS STEPS : A detailed analysis of process step identified above should be carried out in order to identify the opportunities for waste minimisation. The step consists of the following activities:

Task 4 : Preparing Process Flow Charts : The process flow chart for the identified process step should be prepared. Each activity carried out should be listed down in the sequence in which it is followed. In the flow chart, the various input raw materials used, the output components and the waste streams generated should

be indicated against each activity as input and output streams respectively.



Task 5 : Making Material and Energy Balance : As a prerequisite for preparing material and energy balance, the input and output streams have to be quantified. This can be done on a batch basis. For quantification of input streams, the quality of different raw material consumed per batch should be noted down. Detailed analysis of waste streams should be carried out for quantification of output streams. This will include the air and water streams. The streams should be analysed for relevant parameters. On the basis of the analysis, the quantity of various input components going into the waste stream as well as their consumption in the process can be

estimated. In the material and energy balance sheet, against each activity, the quantity of each raw materials added, consumed and appearing as waste should be listed. For quantification of waste stream, major components which have the most significant impact should be taken into account.

Task 6: Assigning Costs to Waste Streams : Costs have to be assigned to different waste streams as per the quantity of different components appearing as waste. While assigning costs, care has to be taken to include the major raw materials -fuel, power and labour costs - which might go as waste. This is the most important task in the entire process as it gives the real insight of the waste stream and has to be carried out very carefully.

Task 7 : Reviewing of Process to Identify Waste Causes : The team should review the process and conduct brainstorming in order to find out the cause of waste generation. A detailed analysis with respect to WHY and HOW in the process should be carried out. This exercise will broaden the thinking process of the team members.

STEP 3 : GENERATING WASTE MINIMISATION OPPORTUNITIES : Once the causes of waste generation are identified, generating waste minimization opportunities is simple. It can be worked out as follows:

Task 8: Developing WM Opportunities : A brainstorming session should be conducted by the WM team to identify the WM opportunities in the unit. This will be in line with the results of the cause analysis carried out earlier. WM opportunities may cover better house keeping, reduction/ elimination of raw material, substitution of toxic input material by less harmful / toxic material, optimising process conditions, reuse of waste in the process/elsewhere and many others.

Task 9 : Selecting Workable WM Opportunities : The short listing of the workable options has to be carried out at this stage. Based on the best judgement after brainstorming, the workable WM options should be identified. Opportunities which are apparently not feasible will be rejected and detailed feasibility analysis will be conducted for the remaining opportunities.

STEP 4 : SELECTING WASTE MINIMISATION SOLUTIONS : The identified options should be subjected to techno-economic feasibility and environmental acceptability analysis.

Task 10 : Assessing Technical Feasibility : For assessing the technical feasibility of WM options, the various parameters viz, equipment, manpower, land, technology etc. required for implementing the option and their availability should be listed down. Also the impact of the option on production process, quality of product, maintenance, operational practices and energy consumption should be analysed. Based on the above assessment the overall technical feasibility of the options can be graded into low, medium or high.

Task 11: Assessing Economic Viability : The investment required for implementation, the increase in operating

cost and the resultant savings can be estimated for each option. Based on the above estimation, payback period for each option can be calculated. The overall economic viability of the option can be graded as low, medium and high depending upon the duration of the payback period.

Task 12: Evaluate Environmental Aspects : The impact of each option on various environmental parameters such as quantum and characteristics of waste being generated, water and energy consumption, impact on shop floor environment and the safety aspects will be assessed at this stage. The overall impact can be rated as very good, good, average or poor based on the assessment.

Task 13 : Select Solutions for Implementation : After selecting the feasible solutions, the same have to be taken up for implementation. Due to various constraints, it might not be possible for the unit to implement all the solutions simultaneously. In order to obtain better results, the options should be ranked in the order in which they can be implemented. Ranking can be done on the basis of their level of technical feasibility, economic viability and impact on the environment.

STEP 5 : IMPLEMENTING WASTE MINIMISATION SOLUTIONS : Based on the ranking, the options will be taken up for implementation. It will involve the following:

Task 14: Preparation for Implementation : The necessary infrastructure facilities required for implementing the options will be made available at this stage. This will include procurement of required equipment, raw material, making changes in production schedule etc.

Task 15 : Implementing Waste Minimisation solution : As planned, the WM solutions should be implemented.

Task 16 : Monitoring and Evaluating Results : After implementation, the results should be evaluated to assess the impact of the WM solution/option. This may cover the estimation of the following aspects: - Net savings Reduction in consumption of input components and -Reduction in generation of pollution load.

STEP 6 : MAINTAINING WASTE MINIMISATION : Waste Minimisation in an industry is a never ending process. After initiating the programme, it should be maintained and sustained. To achieve this, the following will have to be done:

Task 17 : Sustaining Waste Minimisation Solution : The implemented measures have to be sustained by way of continuous monitoring. The new areas have to be identified for further analysis.

Task 18 : Identify and Select Wasteful Process Steps : The next wasteful process step, in the priority, should be taken up for waste minimisation after successful implementation of WM solutions for the selected wasteful process step.

Source : Productivity News, July 2014

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WAREHOUSING IN INDIA: THE WAY FORWARD

VINAY R. SHARMA, MD,
OIL FIELD WAREHOUSE AND SERVICES LTD.

The 21st century witnessed the birth of warehousing revolution in India. Although Indian warehousing sector has grown from US\$ 20 billion in 2007-08 to about US\$55 billion by 2010-11, growing at a rate of 35-40 per cent every year (A report by real estate consultancy firm, Cushman and Wakefield), the nature of warehousing in India is mainly in the unorganized sector with average size of warehouses less than 10000 sq feet. The major players in the organized sector like FCI, CWC & STC hold the major chunk of warehouses in India.

With the intention of regulating and promoting the growth of warehousing in India, the Warehousing (Development & Regulation) Act, 2007 (hereinafter referred to as the "Act") was enacted. With the enactment of the said Act, the Warehousing Development and Regulatory Authority (hereinafter referred to as the WRDA) was established to monitor the functioning of all warehousing activities in a smooth and orderly manner.

According to a study carried out by Forbes India, India wastes almost 20% to 25% of its food grains due to improper or inadequate storage. That is roughly **60 million** tonnes of food grains each year, almost as much as what India **actually stores** in its official godowns. The degree of wastage is nearly double **in the case of** easily perishable commodities like fruits and vegetables. The **Act was intended** to mitigate the various issues faced by the warehousing sector. **However**, closer scrutiny of the Act shows that it itself has several **shortcomings as listed** below.

SHORTCOMINGS:

- The Warehousing Development and Regulatory Authority are based only in Delhi. For any disputes, the matter has to be referred to WRDA, Delhi. This is both time consuming and expensive as the aggrieved party has to travel to Delhi every time the case is heard.
- In terms of powers & functions of Authority under Section 2(1) of the Act, the Authority has to maintain a panel of arbitrators and to nominate arbitrators

from such panel in disputes between warehouses and warehouse receipt holders. However, it has not been indicated who would constitute in the arbitration panel indicating that a lot of discretionary power is vested with the Authority.

- There is no laid down guidelines as to who constitutes as an expert in Warehouse management. Further, there are no dedicated courses in mainstream educational institutes offering warehouse management. Thus, while all institutes offer under-graduate / post-graduate programs in history, political science, etc, there is no such courses for warehouse / warehousing.
- There is hardly any awareness among the users - mostly uneducated farmers about the benefits of storing their produce in warehouses. Consequently most farmers end up selling their produce to middle men at lower than selling price.
- The mechanism for the warehouse owner to recover his dues from abandoned goods need more clarity as there are many instances where customer do not take delivery when they feel it is not economical to take delivery by paying warehousing charges. This is more frequent in perishables.
- There is also hardly any awareness among the warehouse owners regarding the procedures to be carried out for storing goods- especially hazardous chemicals.

A case in point was the Chlorine Gas Leakage at the Mumbai Port Trust (MbPT) Warehouse in the year 2007. In fact, on the morning of 14 July 2010, at nearly 3:00 a.m., chlorine leak was reported from a gas cylinder corroding with time at the Haji Bunder Hazardous Cargo Warehouse in Mumbai Port Trust, Sewri, affecting over 120 people in the neighborhood, including students, laborers, port workers and fire fighters, of whom 70 were reported critical. These chlorine gas cylinders were deposited and abandoned almost 14 years back and the MbPT was unsuccessful in selling them. However, due to the general lack of awareness amongst the MbPT, no steps were taken to prevent any accidental leakage of

such hazardous gas.

SUGGESTIONS:

A regional Authority should be established in the capital of each state for quicker redressal of disputes. This would save time to the affected parties and also reduce cost of litigation

An Arbitration Panel should be constituted in the capital of each state. The members of the Arbitration Panel should be on a permanent basis and the members name should be in the public domain. This would convey transparency in the entire process.

A dedicated course in warehouse management & logistics should be introduced in all main stream educational institutes in both undergraduate and post graduate programs. This will produce a whole generations of students who have in depth knowledge of the warehouse management and not a rudimentary knowledge which is taught in some management institutes as part of supply chain management courses. More grants could be made available by the government for researches into such courses.

While the WRDA is carrying out various campaigns to create awareness, the same needs to be done on a war footing. This will help the farmers to get their just dues and pay off their debts to the banks and others.

In respect of the MbPT Chlorine leakage case, prima facie, it is a blatant case of ignorance and negligence as well as contraventions to the safety and environmental safeguard requirements under existing statues as well as non-maintenance of failsafe conditions at the site. Had the MbPT staff were aware of the rules of warehousing hazardous goods, the following steps would have been taken:

- (1) the imported cylinders which were lying in the open would have been accepted for delivery as empties;
- (2) the area of storage should have been provided with suction pipelines and suction hoods connected with neutralization tank, which should have been in continuous operations.
- (3) cylinders should have been imported with certification from competent authority on the residual life as well as present state of soundness

CONCLUSION:

There is tremendous prospect for growth of the warehousing sector. By 2018, it is estimated the need for warehouse in India will be around 3500. While it is

not a big task for a country for India, the cost of construction is a detriment.

To get a return on investment of 20% in five years, the warehouse needs a monthly income of 14 lakh, or a rent of 140 per tonne per sq ft. Current rents are around 60-70 per tonne per sqft (which is fixed by the big players like FCI). This obviously leaves a huge gap between income and cost. Even if subsidy is included the break even point is 10 years. Thus, because of the high opportunity cost, most companies do not show any inclination towards commercial warehousing.

The solution lies in providing faster break even points of say within 5 years. This can be done by increasing the rental rates. A generous hire terms would galvanize the infrastructure companies in investing and constructing more warehouses.

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CUSTOM EXCHANGE RATES

**CUSTOM EXCHANGE RATES (All rates per unit)
w.e.f. 21st November, 2014**

CURRENCY	IMPORT	EXPORT
Australian Dollar	54.50	53.00
Bahraini Dinar	167.55	158.40
Canadian Dollar	54.55	53.30
Danish Kroner	10.50	10.20
EURO	78.00	76.15
Hong Kong Dollar	8.00	7.85
Kuwaiti Dinar	218.05	205.65
Newzealand Dollar	48.75	47.50
Norwegian Kroner	9.10	8.85
Pound Sterling	99.50	97.30
Singapore Dollar	48.20	47.15
South African Rand	5.70	5.40
South Arabian Riyal	16.85	15.90
Swedish Kroner	8.45	8.20
Swiss Franc	64.85	63.30
UAE Dirham	17.20	16.25
US Dollar	61.90	60.90
Japanese Yen	54.65	53.40
Kenya Shilling	70.50	66.55

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

WAREHOUSING DEVELOPMENT AND REGULATORY AUTHORITY

The Government of India has introduced a negotiable warehouse receipt system in the country by enacting the Warehousing (Development and Regulation) Act 2007 which has come into force from the 25th October 2010. The Central Government has constituted Warehousing Development and Regulatory Authority (WDRA) on the 26th October 2010 for implementation of the provisions of the Act.

Main objectives of the Warehousing (Development and Regulation) Act 2007 are to make provisions for the development and regulation of warehouses, negotiability of warehouse receipts, establishment of a Warehousing Development and Regulatory Authority (WDRA) and related matters. The Negotiable Warehouse Receipts (NWRs) issued by the warehouses registered under this Act would help farmers in seeking loans from banks against NWRs to avoid distress sale of agricultural produce. It will also be beneficial for other stakeholders such as banks, financial Institutions, insurance companies, trade, commodity exchanges as well as consumers.

The negotiable warehouse receipts would result in providing considerable benefits, both at the macro as well as micro levels:

- (i) The system will allow banks to improve the quality of their lending services and enhance their interest in financing the negotiable warehouse receipt issued by the registered warehouses against the deposit of agricultural and other commodities.
- (ii) It will increase the liquidity in the rural areas.
- (m) It will encourage scientific warehousing of agricultural goods.
- (iv) It will lower the cost of financing by the banks.
- (v) It will improve supply chain.
- (vi) It will enhance rewards for grading and quality.
- (vif) The farmers will have better price risk management.
- (viii) Ultimately, all this will result in higher returns to farmers and better quality to the consumers.
- (ix) The small and marginal farmers having Kisan

Credit Cards (KCCs) will be able to avail the benefit of interest subvention scheme on NWR.

The warehouse should:

- be constructed as per Bureau of Indian Standards (BIS) specifications. Accreditation agencies have some discretion in relaxing the specifications without compromising storage worthiness of warehouses.
- be storage-worthy with fool proof security agreements and insurance of warehouse and commodities, as well.
- have adequate trained staff with expertise and knowledge for the scientific storage of goods.
- have requisite equipment for weighing and insect/pest management.
- have insurance of the building and the stock against fire, flood, theft, burglary, misappropriation, riots, strikes or terrorism.
- have positive net worth certified by a Chartered Accountant or creditworthiness certificate from a scheduled bank for individual warehouse or for its organisation.
- have a NOC/License from the Municipal Corporation or local body/or other authority for carrying out the business of warehousing.
- The warehouse should provide all the documents on matters listed above along with the application to the accreditation agency.
- The warehouse should apply for registration to the WDRA along with the accreditation certificate.
- The fee structure for registration with differential rates for State capitals, district headquarters and rural areas has been prescribed @Rs.2.50, Rs.1.50 and Rs.1.00 per MT respectively with a minimum amount of Rs.7500/-.
- A similar amount has been prescribed for the security deposit.

Special Provisions for Registration of warehouses of Primary Cooperative Societies (PCSs)

- In order to help farmers to avail themselves of the benefits under the interest subvention scheme, the WDRA has simplified the process of registration of warehouses belonging to Primary Cooperative Societies in close proximity to the farmers.
- The WDRA has approved less stringent norms for the accreditation of warehouses belonging to PCSs and also rationalized the fee structure by removing the minimum amount of Rs.7500/- for both registration and security deposit. That means if the PCSs godown's storage capacity is 200 MTs, they will have to pay Rs 200/- each for registration and for security deposit in the rural areas.
- A good beginning has been made with initial registration of warehouses in Andhra Pradesh and Tamil Nadu while proposals for other States are under process.

ACTIVITIES INITIATED BY WDRA

1. **Appointment of Accreditation Agencies:** The warehouses are accredited by the approved accreditation agencies prior to their registration with the WDRA to ensure that basic requirements of scientific storage of agricultural and other commodities are fully met by these warehouses. The WDRA has engaged 17 accreditation agencies.
2. **Notification of Agricultural Commodities:** The Authority had notified 115 agricultural commodities including cereals, pulses, oilseeds, vegetable oils, spices, edible nuts and miscellaneous items like rubber, tobacco, tea coffee and makhana for issuing NWRs. 26 horticultural commodities have also been approved for issuance of NWRs by cold storages. Additional 8 agricultural commodities are also being notified.
3. **Registration of Warehouses:** 428 warehouses of CWC, SWCs, PACSs and private organizations have been registered with the Authority. These includes 67 warehouses of PACSs in Andhra Pradesh, Tamil Nadu & Karnataka.
4. **Integration of PACSs with NWR:** The WDRA has taken initiative to integrate the Primary Agriculture Cooperative Societies (PACSs) warehouses under the negotiable warehouse receipt system so that small and marginal farmers may get benefited from this scheme. Beginning has been made from Nizamabad district of Andhra Pradesh and 67 warehouses of PACSs in Andhra Pradesh, Tamilnadu and Karnataka have been registered. NABARD and its consultancy organization NABCONS are playing very important role in accreditation of warehouses.
5. **Introduction of NWR System in cold storages:** The WDRA in consultation with the National Horticulture Mission (NHM) and National Horticulture Board (NHB) has introduced negotiable warehouse receipt system in cold storages so that the growers/farmers producing horticultural produce may store these commodities in cold storages and may avail the benefits of loan on NWRs issued by the registered cold storages. 26 horticulture commodities such as Potato, Dehydrated Onion, Garlic, Ginger, Turmeric, Apple and Resins etc. have also been notified for issuing NWRs. Basic requirements for accreditation of cold storages have been finalized by a Committee appointed by Govt. of India under the chairmanship of MD, National Horticulture Board.

6. **IT Platform:** The WDRA has initiated the process to put in place an IT platform for an end-to-end solution for the NWR system involving application, accreditation, registration of warehouses and issuance and discharge of receipts. The objective is to protect the integrity of the NWR system and safeguard interests of all stakeholders-farmers, depositors, beneficial owners, pledges, Banks/FIs, etc., and also to bring in transparency in the system. This system is designed to promote an environment of secured and easy financing for the farmer community of the country. The IT application will enable on-line registration of accreditation agencies and registration of warehouses, generation of warehouse registration certificates, user-defined MIS and reply to queries. The NWRs will be generated from the system for which robust security features shall be built in to prevent any malpractices or manipulations. It will enable online access by Banks to NWR, online pledge, delivery and discharge of receipts, system generated SMSs to stakeholders, and an online grievance redressal system.

7. Training and Awareness Programmes

- (a) **National conferences:** Regional conferences in association with FICCI, ASSOCHAM, PHD Chamber, GAIT and IFC have been organised by the WDRA at New Delhi, Bangalore, Thiruvananthapuram, Chandigarh, Mumbai, Bhopal, Kolkata, Nagpur, Gandhinagar, Lucknow and Chennai to create awareness among stakeholders about the negotiable warehouse receipt system in the country.
- (b) **Training and awareness programme for farmers:** Awareness programmes for farmers are also being organized by the WDRA. During 2012-13 and 2013-14, 96 and 138 awareness programmes respectively for the farmers have been organised in different States.
- (c) **Training for warehouse managers:** Nine (5-day) training programmes for warehouse managers of registered warehouses of the CWC, SWCs and private warehouses have been organised at Jaipur, Hyderabad and Hapur. Seven programmes for warehouse managers/secretaries of the PACSs godowns in Tamil Nadu have also been organised through NABCONS during 2013-14.

Source : Assocham Newsletter

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HYPE, HOPE, EXPECTATION

Given the new prime minister's track record in Gujarat, investors are looking forward to a business-friendly regime. The feeling is that this time it may, indeed, be different. It better be, because we have a lot riding on it

RAJESH PADMASHALI

What a difference a year makes. In fact, this time around last year, amid chest-beating about policy paralysis and an alarming current account deficit, the rupee was rebounding from its all-time low of about 70 against the dollar and the market was pinning its hopes on the new Reserve Bank of India governor Raghuram Rajan to work his magic. Like most things Indian, there was a twist. Rajan was the icing; the cake came later in the form of the decisive election victory of the BJP led-National Democratic Alliance.

With the hype around the historical mandate yet to die down, the hope now is that the Sensex will go even higher as the BJP government does what is expected of it. To gauge how much of it will come through, we have made our way to The Pierre Hotel in New York, which sits across the city's evergreen landmark, Central Park. The 85-year-old Pierre has a colourful history and among many things, has witnessed the Great Depression, an infamous heist, the filming of a classic tango and multiple changes in ownership. Once owned by billionaire tycoon Jean Paul Getty, whose formula for success, much like fellow mega-billionaire John Davison Rockefeller, was, "Rise early, work hard, strike oil", the Pierre was acquired by the Indian Hotels Company in 2005, a year when nothing could go wrong, not just in India but across the world. The late 2008 credit crisis, for many, was still undreamt fiction. Since then fiction did play out in its strangest form and many QEs later, investors still fondly recall the go-go years that lasted from 2003 to 2008.

Cut to the present. About 9,000 sq ft of unadulterated opulence awaited investors who had gathered at the Grand Ballroom for the 10th annual India Investment Forum organised by international finance publisher Institutional Investor. Given such an extremely over-auspicious build-up, the forum, in its 10th edition, was expected to be the most well-attended yet, but attendance thinned once it became known that finance minister Arun Jaitley would be skipping the event owing to health reasons. Surface transport minister Nitin Gadkari also failed to surface as campaigning for the Maharashtra assembly elections had gathered momentum; maybe he had an inkling of the impending break-up of the 25-year old BJP-Shiv Sena alliance in the state. Coal minister Piyush Goyal's absence was attributed to the upcoming Supreme Court judgement on coal block allocations. As it turned out, the next day, the apex court cancelled almost all the licences allocated since 1993.

Double jackpot

The rupee has appreciated 9% while Brent crude has fallen 21% over the past year



"There isn't any perceptible change in mood. It is more like, 'Let them [India] demonstrate change before I come in'"

— Raju Panjwani, chairman, Omega Capital

The ministers and bureaucrats playing hookey did act as a dampener. For the organisers, it must have felt like déjà vu. The same had happened during the last India Investment Forum in September 2012, when many UPA-II ministers pulled out at the last moment fearing a government collapse (the conference was not held last year, given the dismal sentiment).

Naturally, as the attendees gathered in the Garden Foyer, the early morning conversation centered on the need for more forthright communication on part of Indian ministers and bureaucrats, who take many things for granted. This informal chat about lack of protocol led to a fixed income investor recounting the temerity of a former RBI deputy governor, who arrived late for a meeting with a group of foreign investors. After he was seated, without apology, he boasted, "You know what is so great about India...we have the highest number of PhDs." One of the investors, clearly incensed by the delay, interjected, "Then why are your stats so bad?" Amid all-round guffawing, Oliver Fratzsche, who was among the panelists at this year's forum and whose company advises institutions investing in emerging markets, mentioned how there was not much difference between the recommendations made by the IMF in 1991 and 2014 with respect to improving India's fisc.

The more things change in India, the more they stay the same was a much-repeated refrain. Veteran India hand and Omega Capital chairman Raju Panjwani did not pull any punches either. "You need 16 licences for the simplest business that you want to set up in India. Why would somebody in America, who can set up a company online in 20 minutes for \$200, even think about India? In the few India conferences that have happened here recently, there hasn't been much attendance despite the change in government. There isn't any perceptible change in mood. It is more like, 'Here comes India again. Let them demonstrate change before I come in and listen to all these lectures again'."

Capital Account : India may not be the cynosure of all eyes yet but there is renewed interest as the policy and macro picture has improved dramatically over the past few months. (See: Double jackpot) The new prime minister is single-handedly responsible for this positive change in sentiment. Depending on how you look at it, this could either be a reason to celebrate or for concern. The force of his personality, which is reason for cheer, is also a cause of worry for a great many investors. In fact, one of the investors attending the forum did pose this question to Jayant Sinha, the ruling party's member of parliament from Hazaribagh, who spoke on behalf of his party at the forum (more on page 40). Sinha, a Harvard Business School alumnus who got elected from his father's — senior BJP leader Yashwant Sinha — constituency, contested the investor's fear that the BJP does not have a B-team beyond prime minister Modi.

Partly agreeing that there was, indeed, a keyman risk, Sinha went on to say, "Mr Modi is a phenomenal leader and if something were to happen to him, we would all be worried. As for the B-team: the BJP is a meritocratic organisation with tremendous bench strength; we have a number of fairly eminent leaders and a terrific group of people coming up who are currently in their 40s and 50s. BJP, unlike other political parties in India, is capable of institutional rejuvenation and generational change." As there was no follow-up query, it could either be that the audience might have found the answer satisfying or didn't want to be delayed for lunch at the Pierre's Cotillion Room. Despite hurrying along as fast as they could, they didn't find Al Pacino doing the tango there like he did in the 1992 classic *Scent of a Woman*.

"When someone asks me to give examples of five happy FIIs, I can't name any because they just don't exist"

—Pashupati Advani, founder, Global Foray

While the three-course lunch at the Cotillion did turn out to be appetising, investors still find the bureaucratic red tape in India hard to digest. And there are quite a few horror stories, says the New York-based Panjwani, some that he himself continues to endure. He pauses briefly as if to contain his anger at what he is being made to go through at his Indian software exports company. "We have been filing returns for the past seven years but have not got back the first assessment year's TDS (tax deducted at source) because the officer is saying today's rate is 25%. A 25% kickback for what? It is my own money and you

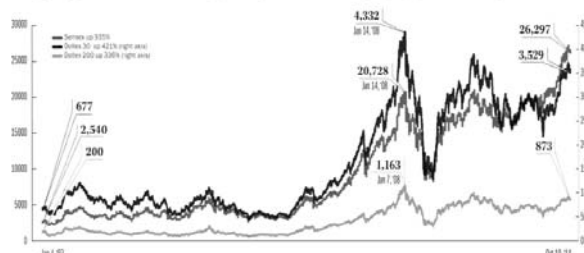
have sat on it for six years. When the guys in the US hear war stories like this, nobody wants to invest," he fumes.

Along with Panjwani's grouse about ridiculously excessive paperwork in both FDI and portfolio investments, Pashupati Advani attributes the geographic divide to be another contributing factor for the disinterest of US investors who have stayed away from Indian equities. "As a debt player, I am happy to get a 5-7% dollar-denominated return but as an equity investor, I may be doing better here, as the US market has done well over the past couple of years. Here, the process is easier; you just press a button and it is done. In India, you have to dance and get this paper and that paper done," says Advani, whose firm Global Foray advises institutional investors wanting to invest in India. "From the US, India seems very far. My experience is that in the US, the emerging market money tends to stay in this time zone, so it stays in South America rather than coming to the east. And a lot of money that comes to the east is driven by guys sitting in Hong Kong and Singapore, who work for US firms," he adds.

Fixing Terra Firma : The line between regulation and excessive control in India is a blur and it is control that enables you to seek rents. They may not know a paratha from a chapati or be able to differentiate between Hunan and Sichuan sauce, but for most foreign investors in India and China, baksheesh and huilù are familiar terms. Hence, while the macro picture does look good for now, there is a need for tweaking at the micro level; grassroots corruption is something that the prime minister will have to fix. "At the lower level, people do not have any taxing or spending authority. Their way of gaining power is to apply a personal tax on every transaction. The solution is to get incentives right at the bottom in a way that leads to economic growth. That is a much bigger transformation that needs to happen in India. Right now, the states are very powerful and the cities are incredibly weak," says William Antholis, managing director, The Brookings Institution.

Hitting where it hurts

The rupee depreciation has taken a healthy bite out of the return made by long only India-dedicated funds



Besides pushing through a mindset change at the ground level, the other major challenge for Modi is getting non-BJP states to realign with his vision of making India an economic power. Reform is going to be very difficult and it is very important that national reforms mirror at the state level. Antholis points out, "In India, power and water are handled at the state level. For now, the prime minister does not have a mandate in the upper house; his party controls only five states and is at loggerheads with the state governments in the south and the east. He is going

to face this tension as he goes about trying to transplant the Gujarat miracle.”

Not Much Legroom : Tax harassment is a hassle not only for investors like Panjwani but even for multinationals such as Vodafone. The telecom major might have recently got a favorable Bombay high court ruling in its FY10 transfer pricing dispute against the income tax department but, given the demand involved (#3,200 crore), it is unlikely that the department will not appeal the ruling in the Supreme Court. Incidentally, Vodafone has been a favorite whipping boy and the government is in multiple disputes with it as a result of its retrospective amendments.

Tax terrorism is a natural outcome when the state is fiscally challenged and the witticism that went round after retrograde retrospective amendments started taking place regularly was: “The future was always uncertain but now, in India, even the past has become uncertain.” Investors are edgy about the fact that there has been no clear commitment on withdrawal of retrospective or extra territorial amendments. They, however, continue to take solace in the fact that the finance minister himself is a lawyer and would possibly be sympathetic in the FY16 budget. That may seem rational but there is not much latitude on the fiscal deficit front as for FY15, government borrowing has already reached 75% of the Budget estimate. The market might well be discounting a fiscal deficit of 4.5% instead of 4.1% for FY15 but is equally eager to see a realistic revision of the FY16 target of 3.6%.

Investors are edgy as there has been no clear commitment on withdrawal of retrospective or extra territorial amendments

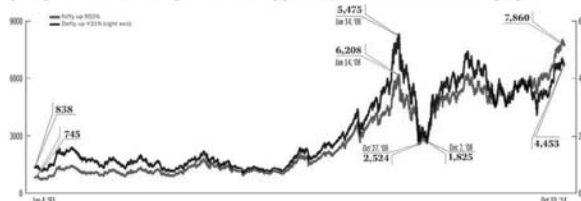
While the finance minister has started inviting suggestions and estimates for the FY16 Budget from various ministries, it is the final draft which the market is keenly waiting for. If the right commitments are made, the honeymoon period being enjoyed by the BJP government could well be extended for another year at least, assuming stability in the global market. But global stability is not a given, cautions Sarjeev Sidhu, head, emerging markets, Aegon USA Investment Management. “A combination of rising rates in the US (as happened in the 1990s) and rising leverage in the corporate sector (1997 in Asia) could derail emerging markets. There has been explosive issuance of corporate debt in emerging markets in recent years. As U.S. interest rates start rising that could cause refinancing challenges for the corporate sector, and a possible repeat of what happened in Asia in 1997,” says Sidhu.

The fall in the price of gold and crude reflects the fear of a rising interest rate in the US and an unwinding of carry trades. Brent crude is trading at its lowest over the past four years and that is making India’s current and fiscal account deficit look extraordinarily good. It may portend low global growth but, for now, investors are more focused on the improving macro. The argument goes thus: even if we lose out on exports to Europe or China, the net balance of payments still works in India’s favour. What is possibly getting ignored is the sentiment aspect or the fact that crude producers could taper their supply

as the current price of \$90 is not enough to support their expenditure budgets.

Broader ain’t much better

If one ignores dividends and changes in the broader Nifty index, dollar return has been decimated by half



Teresa Barger, managing director, Cartica Capital, which has 20% of its \$2.8 billion portfolio in India, feels that policymakers should feel lucky about what is happening and take advantage of it. “The geopolitical situation is on fire; what happens if Russian supply comes off? It is possibly a delayed reaction, as there was during the 1973 war between Egypt and Israel, when the price shock didn’t come in till months later. I think oil under \$100 a barrel is not something that we can count on.”

“Nobody really knows what the nature of debt is in China or if it is \$3 trillion or closer to \$7 trillion?”

**—William Antholis, Managing Director,
The Brookings Institution.**

The currency, too, has been relatively stable but, lately, the RBI has been experiencing strain on account of the dollar’s overall appreciation. In FY14, its net buying totaled nearly \$9 billion. Even in FY15 thus far, its net purchase has been just over \$15 billion. It is only in August this year that it has turned a net seller and, given that the dollar has been gathering steam for the past couple of months and FII flows have been slowing, the September data, too, might show that the central bank was a net dollar seller.

Though the RBI wants movement in the rupee to be orderly, during uncertainty, the currency market trades in anything but an orderly manner. Foreign investors are extremely sensitive to rupee depreciation, as it hits their absolute return (See: Broader ain’t much better). Advani thinks the volatility in the rupee holds the key to foreign institutional investors continuing to stay invested in the local market. “The question everyone is asking is where is the rupee going and what could happen that could make it fall off? Compared with the 8% that you get on an Indian bond, you get 2% in the US. If the rupee is stable, investors effectively make 6% in dollar terms. That is a critical component but so far we have lost that battle.”

Foreign investors feeling homesick in a climate where business confidence in the world’s major economies is declining is another worry. China’s central bankers, like the European Central Bank (ECB), are grappling with falling demand and high debt. “Over the past three years, fixed asset investment was fueled by direct fiscal transfers and state-owned banks lending to state-owned enterprises. Right now, the estimates of non-recoverable debt in inland China are about \$3 trillion. Nobody really knows what the nature of debt is in China or if it is \$3 trillion or closer to \$7 trillion? If you take into account all the debt that the Chinese are taking in other places, then

the number becomes even more risky," says Antholis.

"India has to lift 700 million out of poverty but you are not gonna do that by defying the physics of economics"

— Teresa Barger, Managing Director, Cartica Capital

On his part, ECB governor Mario Draghi is desperately trying to fend off deflation but whether he succeeds remains to be seen as he is only in charge of monetary, and not fiscal, policy for the region. Not that this situation has not played out before; we did have a Eurozone scare in 2010 and 2011 but that can was kicked down the road, and what happened in Cyprus in March 2013 stayed in Cyprus. Now, we are back to fretting about a slowdown in Europe and nowhere is the worry reflected more than in Germany, where the benchmark DAX has hit a one-year low. Even the Dow Jones Industrial Average has given up its gains for 2014 and the Fed, too, is coming up short in its attempt to shore up inflation. Oversupply in gas supplies is not helping either. Sticker prices at US gas stations are dropping and nothing succeeds in igniting inflation as higher fuel prices do. Clearly, historically low interest rates have not stoked inflation and a rising dollar is not helping. The Fed's only recourse in such a situation is verbal intervention, which it did through its latest Federal Open Market Committee statement. The other option is status quo on rates, which only fuels emerging markets.

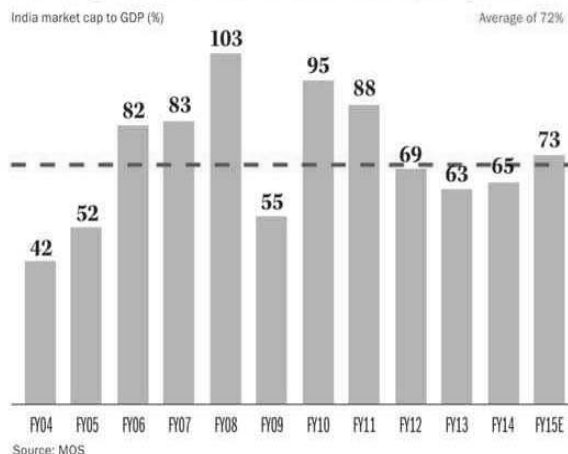
Russia is doing badly and so are Brazil and China, and that has gone in India's favour (See: Hot, Hotter). As jitters intensify, it is hard to see why all emerging markets will not see an outflow, as investors barter higher returns for liquidity. In times of crisis, illiquidity is a clear and present danger in emerging markets and despite India being a trillion-dollar economy, its stock market is treacherously

shallow. "You can't get out in size and that has actually prevented the size investors from coming in. After 60-70 stocks, you can't get out as there is no liquidity. Even for companies such as Hindalco, which is in the Nifty, you would have difficulty selling \$20-30 million worth of stock in a single day. You would have to spread the trade over two to three days. In the US, you might make a little less money, but the impact cost is not 5%," reminds Advani.

Heavy Lifting : At this point, it may seem like we are in a sweet spot but there is a big difference this time. Global growth was great between 2003 and 2008 but that is not the case anymore. Also, during the 2003-2008 period, a virtuous cycle of lower interest rates, higher investment and savings, higher GDP growth, robust tax collection, lower fiscal deficit leading to lower interest rates was in play.

Breaking out

The mcap to GDP discount is the lowest in four years



Hot, hotter, hottest

Among BRICS, India is the most expensive emerging market on all valuation parameters

	MKT CAP (\$T)	YTD CHG (%)		PE (x)		PREMIUM/DISCOUNT TO INDIA		PB (x)	RoE (%)
		LOCAL	IN USD	CY14/FY15	CY15/FY16	CY14/FY15	CY15/FY16		
INDIA	1.5	26	26	17.2	14.2			2.4	17.2
CHINA	4.1	12	10	9.4	8.3	-46	-41	1.1	13.8
BRAZIL	0.9	5	1	11.7	10.3	-32	-27	1.2	12.1
RUSSIA	0.6	-5	-21	4.7	4.6	-73	-68	0.5	11.2
KOREA	1.2	0	0	11.2	10.5	-35	-26	1	9.4
TAIWAN	1	4	2	14.1	12.9	-18	-9	1.6	12.7
INDONESIA	0.4	20	21	16.6	14.1	-3	-1	2.6	18.2
MSCI EM	8	0	0	11.6	10.4	-32	-27	1.3	12.5
US	23.4	7	7	16.5	14.9	-4	5	2.4	15.9
UK	3.8	-2	-4	13.8	12.8	-20	-10	1.7	13.4
JAPAN	4.6	-1	-5	18.1	16.1	5	13	1.5	9.1

Source: Bloomberg/MOS, price data till first week of October, 2014

This time, reviving animal spirits may not be as easy, though, as shown by the August IIP number which grew a measly 0.4%. More worrying is the fall in capital goods production. It only means that existing capacity is still not being fully utilised and companies are not feeling confident enough to add new capacity. Another red flag is that credit growth, too, has not shown any sign of picking up. The dismal August IIP number is more worrying because it is well after the new government was sworn in late May. If IIP growth continues to be weak, simmering tension between the government and the RBI regarding lower interest rates may again come to the fore. The RBI has been steadfast about bring CPI down to 6% (currently at 8%) by the end of 2015. Almost everybody, right from unscrupulous real estate developers to the occupants of North Block believe that lower interest rates will get demand moving. Even suggesting any kind of

demand satiation or overcapacity is blasphemy that flies in the face of the great Indian growth story. It is hard to reconcile or even think that a 4% to 6% GDP growth is the new normal for the kind of setup that we now have in terms of infrastructure and salary levels in the country.

The fall in cap goods production means that existing capacity is still not being fully utilised and companies are wary of adding fresh capacity

Panjwani recalls the difficulty of operating in a market like India. "I myself set up Morgan Stanley's asset management and investment banking business in India and it took them 12 or 14 years before they saw any break-even point. I was told that we should be in India for the long run. Now, is long term three or five or 20 years? When the long run is not clear, that is when it starts to get murky." Consumer product companies will continue to invest because they will otherwise miss out on a big market. Even with them, there is frustration about the price point because you are there in the hope that pricing will change someday, he adds.

Advani has been in the market for 25 years now but strains really hard when asked which legacy foreign institutional investors have consistently made money in the Indian market. "Success stories in India have been companies such as Morgan Stanley, Oppenheimer and Fidelity, who have held on doggedly despite five-10 years of losses. Again, compared with the 20 years that they have been here, they have not made a really spectacular return. So, when someone asks me to give examples of five happy FIIs, I can't name any because they just don't exist. Of the \$200 billion held by FIIs, I would say there is probably about not more than \$20-30 billion in profit that is unrealised. The 5% of the emerging markets allocation that is going to remain in India has most of the gain."

Clearly, any exponential jump from here would need a favorable global tailwind. Sidhu notes, "India is currently growing below potential by 1.5%. Lower energy prices and structural reforms should increase India's GDP growth. The question is, is it sustainable especially since global liquidity conditions are likely to tighten? Apart from uncertainty and turmoil, capital will likely flee due to concerns about emerging markets growth and high valuation. India's P/E is approximately 19, that is expensive. If India becomes relatively more expensive, foreign portfolio investors will take money out."

It is not just about vocalising shibboleths like Make in India; but also about being ready to facilitate such a transformation

Even if the status quo of ebullient sentiment and liquidity continues, the contradiction at this juncture is the inability of the country to absorb capital without resulting in a valuation bubble (private equity chasing e-commerce firms in search of an Indian Alibaba) or uncontrolled currency appreciation. The ability to absorb capital in many sectors is limited and sectors like banking, infrastructure, real estate which need capital are tightly

regulated and have delivered lousy return. Overnight, the government may have changed but individual companies' balance sheets have not. Then, there is the age-old issue of governance. For Barger, "All promoters in India are guilty until proven innocent. We want to be sure that the promoter will not steal from minority shareholders."

After India's about turn in July at the World Trade Organisation (WTO), Barger is also worried about an autarkic mindset. "Importing things into India is necessary to create a manufacturing industry. You import unfinished goods, work on them and re-export them, and that is where the WTO is quite helpful. The Chinese weren't caught up in autarky; they made 700 million people go from poverty to reasonable living. India's got 700 million left to go and you are not gonna do that by defying the physics of economics. And the most important function of economics is about making people less poor," she castigates.

"The government needs to create an environment to attract NRI capital, similar to what China has done"

— Sarvjeev Sidhu, Director EM,
Aegon USA Investment Management

Antholis contends that there is also a skill deficit that needs to be fixed. He explains, "The biggest difference in India and China with respect to being ready for manufacturing is that since the 1940s, China decided to invest in primary and secondary higher education. The population was technically proficient but intellectually starved. India was the exact opposite. Nehru's vision was to have Oxford-style universities all across India, so you had investment in IITs and IIMs but under-investment in primary education. The exception was south India, which now has 80% to 90% literacy, as opposed to north India which has 60% to 70%."

Evidently, it is not just about vocalising shibboleths like Make in India; it is also about being ready at the ground level to facilitate such a transformation. The market is now awaiting implementation specifics on Make in India, Clean India and direct cash transfers through Aadhar. Already there is some disquiet about delay in PSU bank restructuring and privatisation and there being no implementation time-frame despite the Nayak committee report.

"Structural reforms under the leadership of Narendra Modi are expected to raise India's growth rate and attract foreign investments, especially when China appears to be slowing down. The government also needs to create an environment to attract NRI capital, similar to what China has done successfully in the past," remarks Sidhu. Subject to the right things being done, there is more money waiting to be deployed than India has the capacity to absorb. Potential big-moneyed overseas investors don't want to see the prime minister sweeping, they want sweeping reforms, and this time around they are shooting for the moon but expect to land on Mars.

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HOW TO 'MAKE IN INDIA'

India must create many millions of manufacturing jobs for the country's economic, social and political stability

ARUN MAIRA

FORMER MEMBER PLANNING COMMISSION

Policymakers around the world in developed as well as developing countries, who want to increase job opportunities in manufacturing for young people, are concerned that automation in manufacturing (as well as services) will reduce the number of jobs. Fears have increased with the advent of 3D printing technology which enables complete products to be produced by a single, automated machine. A 3D printer can make almost anything it seems—a complete garment from raw material, or a complex turbine blade, or even a pistol that can fire bullets. No doubt 3D printing will change the shape of manufacturing processes and factories. The fear is that the role of human beings, and the number of jobs, in manufacturing will be further reduced with 3D printing technology.

A doomsday projection of a world in which everything is done by machines and computers is unrealistic. Because, to complete the picture, one must also imagine what human beings will be doing in such a world. And consider how they will earn to pay for all the products and services produced for them by machines. A completely robotized world, in which machines will make machines too, will require very few people. Perhaps the only people with incomes will be the capitalists who own the machines, their financial managers, and their lawyers to sort out property disputes amongst them! In this world, power will be entirely with owners of capital and machines and it is feared they will keep using their power to throw human beings (who can be troublesome) out of the production system, replacing them with more obedient machines.

Technology is only one force shaping the world. Human aspirations and, propelled by human aspirations, social and political forces shape the world too. These forces will create institutions and arrangements to protect human interests, including opportunities for work and sources of income for people, long before machines (and their owners) can eliminate them. No doubt the shape of production systems will change with technology. But people will not be eliminated. They will perform new tasks in enterprises which will take new forms. Technology will be used to shape new enterprises.

India, with its large population of young people, wanting good opportunities for work and incomes, must be at the forefront of the creation of new models of manufacturing. India's policymakers must envisage what shapes these new enterprises can have and should enable their formation to accelerate growth of more opportunities for jobs and livelihoods. The new models will be founded on new concepts of production and management. Whereas old concepts, difficult to challenge because they have been successful so far, will prevent the new models from emerging. An account of Mahatma Gandhi's visit to the mills of Manchester helps to explain the power of embedded concepts. Gandhi wanted to study India's competition—the factories with spinning machines—that were making his model of the hand-driven charkha in every household obsolete. He was impressed with the productivity of the machines he saw. However he was put off by the noisy, humid, factory environment with lines of machines and workers crammed together in one building. He asked the manager why all the machines and workers had to be put into one building? Why could they not be dispersed around in villages, he asked?

The manager pondered and replied that such machines were originally powered by steam which cannot be carried over long distances, so all the machines had to be crowded near the boiler. "But now they are being run with electricity which can be transferred long distances, so why are they still crammed in a factory?" Gandhi inquired. The design of the factory had persisted even though technology had changed. The manager could have added, if he had thought about it, that another purpose for co-locating many operations and many people within a small space is the need for coordination of many operations and the need to control the people performing them. However new technologies for computation and communications, which had not been developed when Gandhi inspected England's textile mills, can now enable coordination and control of widely dispersed operations. Though technologies are now available for this, mind-sets of management have not evolved in line with them. Vertical hierarchies for control, rather than systems for collaborative coordination, continue to dominate

decision-making structures.

Consolidation through ownership can make top down coordination easier no doubt. Because it is clear who the boss is. It is also easier for some to capture more financial value if they own all the parts. These are the logics for large, capitalist enterprises. But such monolithic enterprises have undesirable side-effects too. The inertia that comes with their size makes them difficult to turn when the environment changes with new technologies, new customer requirements, and new competition. Innovation within them and entrepreneurship is dampened when the internal producers of value become employees of the monolith rather than owners of their parts of a large enterprise.

Orienting policies to the future The over-arching goal of India's economic policies must be to improve the lives of all Indian citizens, and not merely to increase the gross domestic product (GDP). Consonant with this, the aim of its manufacturing strategy must be to increase jobs and opportunities for better livelihoods, not just increase the share of manufacturing output in overall GDP—which could very well be increased by large investments in capital-intensive factories. The overriding concern of policy must be the satisfaction of human beings rather than the satisfaction of capital. Humanistic values must drive the design and governance of manufacturing enterprises too, where the creation of financial value for shareholders must not override the needs of human beings in them.

New technologies are disrupting old concepts of manufacturing and old models of enterprises. They can enable new forms of manufacturing enterprises whose scale is increased by the aggregation of many dispersed activities rather than the sizes of their factories. The battle to keep technology out to preserve jobs, which the handlooms lobby has been fighting, is the wrong way to create sustainable livelihoods. The belief that generation of jobs in manufacturing must require large factories such as Foxconn's in China, which employ hundreds of thousands of workers on one site, and that Indian policymakers should change labour hire-and-fire laws to enable such factories to form, is also wrong. While the handloom fundamentalists are trapped in day-before-yesterday's world, proponents of large labour intensive factories are stuck in yesterday's world. With unstoppable changes in technologies, India's policymakers would do well to stimulate the growth of tomorrow's networked enterprises and not yesterday's monolithic factories.

Two forms of technologies are combining to disrupt old-style manufacturing monoliths. One is digital technologies that enable multiple operations to be done on one machine on a small scale, such as desk-top publishing and 3D printing of material objects. The other is

technologies that enable efficient connection of widely dispersed suppliers and customers which are creating new disruptive business models, such as Amazon, eBay, and Uber. The combinations of these technologies are enabling formations of large networks of many small enterprises.

India's policy agenda must create many millions of jobs in manufacturing for the country's economic, social and political stability. Employment must be dispersed around the country in many smaller enterprises whose formation and growth must be a principal objective of the policy. Their connection into larger clusters and networks must be facilitated, with which they will get the benefits of a scaled up enterprise, without losing their nimbleness, entrepreneurship, and innovativeness. Therefore the thrust of policies must be to drive the formation of more effective networks, clusters, and cooperative enterprises.

A vision of a networked and dynamically changing world has implications for skills too, as policymakers in many countries are realizing. In a dynamic world where new technologies will disrupt old forms of production, it is not possible to predict how many plumbers, machinists and carpenters will be required some years hence, and precisely what skills they will need. Assembly-line methods of skill development to ensure that large numbers of employable people are produced will fail. When it is not possible to predict what the content of the jobs will be five to 10 years in the future, skill development systems should develop in young people the orientation and the ability to learn and provide them opportunities to learn the requisite skills in the enterprises where the jobs are being created, rather than a large system that produces millions of sharply but narrowly skilled and certified persons who may not be employable any more.

In a dynamic world in which collaborative enterprises will be required, critical vocational skills that must be propagated are skills of collaboration across departmental and corporate silos. Above all, managers and supervisors will need skills to work with human beings within their enterprises. In a changing world the only resource within an enterprise whose value can increase over time is the human resource. The values of machines, and even patents, will reduce as new technologies are developed. Whereas human beings can learn and develop new capabilities if they are motivated to, and are enabled to by the design of the work, training, and incentive systems in their organizations. Human beings are the only appreciating assets any organization has. As more exotic technologies are developed, such as 3D printers, human beings will remain at the heart of new forms of sustainable, networked manufacturing systems.

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HOW TO MAKE THE DREAM OF 'MADE IN INDIA' TAG COME TRUE

ALOKE KHANNA
CHIEF EXECUTIVE OFFICER, LOK BHARTI GROUP

The government dreams of a 'Made in India' tag. However, one of the main resources that can help it achieve this dream would be a pool of highly skilled people that will fulfil the industry's demands. Let us look at some challenges and their possible solutions. For the individual, there are challenges at several levels. The individual does not understand the value of being skilled. The reality is that the end beneficiary does not perceive skill enhancement as a value-addition towards his profession. The challenge does not lie in the adaptation of the skill set, but in the notion of that particular enhanced skill actually providing a dignified livelihood.

The idea behind education and skill enhancement is to also receive a higher return on investment (ROI), as sustainable skill-enhancement models envisage candidates paying themselves for developing their skills. A positive ROI with a lower payback period would ensure a steady supply of candidates who will be willing to invest more into learning a trade. The issue raised by the corporate sector is essentially around high attrition rates even after they have invested heavily into skill enhancement. Agreed, this is an issue today. However, year-on-year, the incremental increase in the number of people being trained will eventually lead to cost savings for the companies. High-quality outcomes with lesser wastage of resources, in a shorter time span, are certain to result in an improved bottom line.

There is another scenario, that funds are not easily available to these companies to execute training programmes. Is the company expected to raise funds on its own? Drip feeding of funds to achieve a larger target of improving skills is then a disincentive for firms, especially in the small and medium-sized enterprises (SME) sector. And then, between the end beneficiary and the employer is the skill provider—the implementation agency. The main challenges faced by the agencies are two-pronged: one, they cannot find candidates to train; and two, the delay in reimbursement to be received from the government leads to issues of drained cash flow. It's a Catch-22 situation. As we see it, the incentives for the individual who needs to be trained, to the implementation agency for training and then to the

company that creates jobs, all need to be aligned for this training programme to be successful.

How can this be achieved? The training market can be broken up into three segments: candidates who need basic training, those who need to upgrade their skills, and those who need to be trained to match international standards.

BASIC TRAINING : The initial thrust of getting candidates for training is extremely challenging. Thus, in line with a focus on mobilisation of candidates, delivery must be a key driver. To drive scalability, training facilities need to be easily accessible across the country and for the initial five years good master trainers (retired army officers and skilled workers returning to India could be tapped) and then a subsequent creation of a pool of trainers on the ground would be key. Grant money and soft interest debt from the government could flow towards institutionalization. For better governance, the money should be released in tranches once the targets are met, but importantly released on time. Small, medium and large firms should compulsorily adopt a training programme in line with the current and future demand expected by them. Companies that come forward to support the training initiative should be lauded and incentivised. The government can also consider providing infrastructure support by facilitating venues like schools after their working hours to be used as training centres. Large, unused tracts of land and buildings which are currently not optimally utilised can also be used for training centres preferably given as incentives to the smaller firms that are upcoming in the field. Monitoring is key for such support.

UPGRADING SKILLS : This is done with a dual objective, one being standardisation that should be brought into assessing the quality and aptitude of the existing workforce. This will enable the companies to judge the quality of their manpower directly and in turn pay more for skilled labour. The increase in labour cost would be more than compensated by savings in material cost and improved quality. This would in time help firms improve their bottom line. The certification process could play an

important aspirational role for the workforce, and help create a resource pool of dedicated workers who could be organised to deliver targets for companies that today struggle for quality labour. The paradox of high unemployment and huge requirements by the corporates could then be finally matched.

DEVELOPING WORLD-CLASS SKILLS : To eventually be a manpower supplier to the world, we need to build multiple world-class training facilities in India. It would also be critical to understand the expected standards of quality in the recipient countries. This would play a crucial role in training the candidates and from among them creating a pool of trainers and master trainers for ensuring the scalability of the programme. Nations that have been through this curve, such as Germany or Australia, could provide the learnings and show us the mistakes to be avoided as our country tries to emulate what they have already achieved. The learning curve could be steeper for India, and the targets could be attained faster if we adapt the practices to what the Indian environment needs.

AUDIT MECHANISM : A robust accreditation system should be put in place. Quality check on the training imparted should be outsourced to independent agencies where the trainer would not participate in the audit mechanism. This should be standardised and easily replicable. The government should be held accountable for its initiatives. The accountability should be in terms of targets achieved rather than a litany of reasons on why the targets were not met.

STANDARDS : There should be a mandatory requirement for companies to hire certified manpower, especially for the ones that are at the forefront of promoting skill enhancement. The implementation of the national occupational standards would be a big step, as these standards have been developed and validated by the industry leaders. The real test will be the increase in wages and the overall development of the individual. The upgrading of skills will lead people to identify themselves as skilled or semi-skilled, rather than use guess work to ascertain their skill level, as is the current practice. For the international market, one super quality school should be created in every state. This school would impart training in the top five trades. The myriad pieces that make up the path that India needs to travel to have consistent gross domestic product growth must come together. This would show the remarkable picture that India could become in the next 10 years. If history is about to be written, it cannot be written with feeble thought and a half-hearted action plan. If it is to be, it is now.

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Indian Institute of Materials Management

MISSION

- To promote professional excellence in materials management towards National Prosperity through sustainable development.

OBJECTIVE

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

CODE OF ETHICS

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

'COMBATING CORRUPTION - TECHNOLOGY AS AN ENABLER'

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"THIS is my prayer to thee, my lord -Strike, strike at the root of penury in my heart."

— GITANJALI

Simply corruption means misuse of office for private gain. The office is a position of trust, where one receives authority in order to act on behalf of an institution. Corruption is anti-national, anti-poor and anti-economic development and by extension anti-good governance. Corruption is India's most dangerous enemy from within. It is misappropriation of public fund for private gains by the politicians-bureaucrats-businessmen nexus. The challenge is to turn corruption from a 'Low Risk-High-Return activity to a 'High Risk-Low Return' activity. A commitment to combat corruption leads strategy to establish Good Governance. Moreover, eradication of corruption from society is not only a legal obligation, but also a moral duty of every Indian.

Governance is interrelationship between four principal institutions of democracy - Legislature, Executive, Judiciary and Civil Society. Information & Communication Technology (ICT) has given rise to a networked society. e-Governance is contraction of 'electronic governance' that is, process of governance using ICT. An important tool of good governance is e-governance. While good governance is fundamental, e-governance is instrumental. They are the two sides of the same coin, reinforcing each other. e-Governance is a strategy for combating corruption enabling technology.

e-Governance matters for development and values for money and citizen's aspiration. It is the popular term meaning essentially 'administration'. e-Administration is open, transparent and people-centric. Technology in governance mandates higher public accountability, transparency, a consensus among stakeholders. e-Governance implies use of ICT to transform government by

more accessible effective and	accessing to requisite information	interacting directly with officials	making operation transparent	offering public service on-line
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accountable

e-Governance is undoubtedly of great help in achieving good governance. In making ICT happening, the following changes are required to combat corruption in public life:

- Government Process Re-engineering
 - Reducing Digital Division
 - Strong Political Will
- Active Participation of the Civil Society.

e-Governance's viability in fighting administrative corruption is of immense. The computerization of railway reservation system is a vibrant example of ICT initiative driving out corruption. Direct Benefit Transfer (DBT) to Bank Account through AADHAAR is another success story enabling technology. It is e-Procurement that can bring in economy, efficiency and faster in the procurement of goods, works and services curbing corruption and that was why mandatory e-Procurement was ruled w.e.f. 1.4.2007 for Public Sector Enterprises.

Knowledge is power and information is the key to knowledge. ICT facilitates information transmission, knowledge acquisition, dissemination and creates value chain. India needs not re-create costly knowledge. We have the advantage of acquiring and adapting knowledge already available with information superhighways. ICT ignites crusade against corruption as the sharpest weapon.

To conclude, we must strive for excellence and drive towards a SMARTER Administration that is Small, Moral, Accountable, Responsive, Transparent, Efficient and Resourceful. It is possible to reach goal with determined and inspiring leadership, which recognizes value of human capital and power of ICT which has abiding faith in Indian talent to raise mother India eradicating corruption.

VANDEMATARAM

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BLUEPRINTING BEST PRACTICES IN SUPPLY CHAIN MANAGEMENT



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ABSTRACT : The purpose of this article is to provide readers current and necessary elements on how to implement a best practice change initiative in area of supply chain management (SCM) within an organization. This article is intended to serve as a learning ground for organization and social systems of all sizes and types for good business results. Our exploratory study is based on secondary data. We have illustrated blueprinting best practices in SCM by capturing facts and indicative figures using spider chart. We focus on measures of resilient supply chains, like, partnership, policy, strategy and technology for blueprinting. We make implications on best practices in SCM, which can be extended for discerning emerging trends as well as areas of concern.

INTRODUCTION : Supply chain management (SCM) is the management of a network of interconnected businesses involved in the ultimate provision of product and service packages required by end customers (Harland, 1996). SCM extends logistics which spans all movement and storage of raw materials, work-in-process inventory, and finished goods from point-of-origin to point-of-consumption (Nuruzzaman et al., 2010; Rao, 2013; Xu, 2013). Another definition is provided by the APICS Dictionary when it defines SCM as the design, planning, execution, control, and monitoring of supply chain activities with the objective of creating net value, building a competitive infrastructure, leveraging worldwide logistics, synchronizing supply with demand and measuring performance globally (Felea and Albastroiu, 2013; Roy and Roy, 2013).

Although the prevalent view is that the term logistics comes from the late 19th century from French *logistique*, the term 'supply chain management' entered the public domain when Keith Oliver, a consultant at Booz Allen Hamilton, used it in an interview for the Financial Times in 1982 (Roy and Roy, 2013). The term was slow to take hold. It gained currency in the mid-1990s, when a flurry of articles and books came out on the subject. In the late 1990s it rose to prominence as a management buzzword, and operations managers began to use it in their titles with increasing regularity.

The practice of SCM is guided by some basic underlying concepts that have not changed much over the centuries. Several hundred years ago, Napoleon made the remark, "An army marches on its stomach" (Frostig and Spjes, 1940; Gray, 2000). Such remark was made by the master

strategist Napoleon as his army lost more soldiers because of spoiled food than from battle. In 1795, Napoleon offered a prize of 12,000 francs to anyone who could devise a reliable method of food preservation for his army (Featherstone, 2012). This effort resulted in the first attempts to store food for extended periods of time in cans and ultimately led to modern food canning methods. The remark of Napoleon shows that he clearly understood the importance of what we would now call an efficient supply chain. Unless the soldiers are fed, the army cannot move.

Like Napoleon, about 2000 years ago, Alexander the Great incorporated SCM and logistics into strategic planning, thereby making it possible for his 35,000-man army to march 19.5 miles a day with a maximum supply of 10 days of food (Engels, 1978). In the process, Alexander conquered every nation and city on which he set his sights. At the most basic level, he was able to perform his legendary feats because he included logistics and SCM into his strategic plans!

Even the present day military thrives for using best practices of SCM. The North Atlantic Treaty Organization (NATO), also called the North Atlantic Alliance, is an intergovernmental military alliance based on the North Atlantic Treaty which was signed on 4 April 1949. The best practices of SCM accepted by NATO are foresight, economy, flexibility, simplicity and co-operation (Strachan, 2005). They are just as true today as they were in the times of the Assyrians and Romans.

BACKGROUND : The purpose of this article is to provide the most current and necessary elements and practical "how-to" advice for implementing a best practice in supply chain management (SCM) within an organization. Putting the case of India, the de-regulation of the Indian economy in the 1990s has attracted global players and has unleashed a new competitive spirit; however, lack of government support, poor logistics infrastructure and poor supply chain efficiency are some major obstacles to competitiveness in India (Pedersen, 2000). The Indian infrastructure comprising roads, railways, airports, seaports, information & communications technology (ICT) and energy production is poorer as compared to many other countries. Still, things are not changing for the better at a fast pace. The Growth Competitiveness Index survey conducted by the Geneva-based World Economic Forum (WEF) for 2005-06 had put India at 50th position among 117 countries in its Global

Competitiveness Report, five places up from previous years ranking of 55, but survey for 2012-13 puts India at 60th position among 148 countries. (Available at: <http://www.weforum.org/>).

SCM has a lot of avenues to grow in India for the sake of survival and competitive advantage. As companies look at SCM strategically, they turn to specialized service providers to cut out non-core activities from within. The shift in service providers from just movers of material to logistics to supply chain services has quickened in the past few years. Truckers are moving up into integrated haulers; large Indian companies with multi-million spends on logistics are hiving off entire divisions into service providers who handle not just the parent's logistics but also of others; others are forming joint ventures to leverage skills. IT companies now provide not just the hardware and software, but consultancy for solutions, examples being Wipro, Infosys and TCS. Big players have started to invest millions in India for diversified operations.

LITERATURE REVIEW : Worldwide, best-in-class companies have invested in enabling infrastructure and technology to realize their supply chain vision into a reality (Sahay and Mohan, 2003). These include integrated supply chain cost models for decisive inventory management, technology for handling supply chain throughput and information systems capable of fostering visibility across organizational boundaries with greening intention (Mohanty and Prakash, 2013; 2014). Dell Computers and Wal-Mart were able to achieve leadership positions because of their efficient and effective supply chain management practices. Both of these have invested enormously in ICT to help them have continued focus on customer needs and supply chain efficiencies. Many instances of novel and innovative supply chain practices such as cross-docking, Collaborative Planning, Forecasting and Replenishment (CPFR), extensive use of bar-codes and radio-frequency identification (RFID), and direct-to-home delivery have been introduced by these firms. Wal-Mart had its own satellite communication system as early as 1983. Wal-Mart's point of sale (PoS) data is shared with its suppliers to reduce the dependence on forecasts.

Best practices in this article intend to aid the journey in building a better supply chain and, in turn, a better business. Literature portrays SCM practices from a variety of different perspectives with a common goal of ultimately improving performance and competitiveness. Based on literatures like, Christopher and Peck (2004); Ponomarov and Holcomb, 2009; Pettit et al., 2010), we find that the important supply chain practices concerns are mainly related to:

1. **Partnership:** SCM requires collaboration and partnership with various stakeholders such as the product developers, suppliers, channel partners and end-users for the sake of improved security, information sharing and knowledge exchange for long term in an era of outsourcing. Being into partnership as local, compliant, transparent,

integrated, and formalized are critical components in building supply chains that can be resilient even in the face of corruption.

2. **Policy:** SCM needs structure that includes facilities and their network design taking into account related transportation and logistics where tariffs are no longer the main deterrent to the trade. Incentivizing, adaptable, proven, scalable and greening policies are critical components in building supply chains that can be resilient even in the face of volatility.
3. **Strategy:** SCM needs to be reshaped for operation in an era of increased volatility. Rapid, prepared, tested, agile, and interchangeable strategies can help for forecasting and demand management to cope with supply chain complexity in a cost-effective and delivery-efficient way as the increased corruption and volatility is the new normal for globalized and interconnected supply chains.
4. **Technology:** The application of information & communication technology (ICT) within supply chains has increased dramatically. Configured correctly, ICT can provide significant resilience gains through four main channels: analytics, data and information sharing, scenario modelling, and pre-programmed responses. Re-usability, scalability, adaptability, cyber security, and accessibility are critical components in building supply chains that can be resilient even in the face of disruption.

While there is plenty of published literature that explains or espouses SCM, there is a dearth of empirical studies examining SCM best practices (Power, 2005; Ponomarov and Holcomb, 2009; Pettit et al., 2010). There is little literature on SCM best practices in India (Vrat, 2004); but Indian Institution of Industrial Engineering, a non-profit organization for the profession of Industrial Engineering in India, has recently organized the 3rd International Conference on Best Practices in Supply Chain Management (BPSCM-2013) during November 28-30, 2013 at Udaipur. The deliberations in such conferences help to identify important supply chain practices, which can build robustness into the supply chain. In the next section, we discuss a blueprinting mechanism for building robustness and resilience in the supply chain based on some identified best practices.

DISCUSSIONS : Usually executives and corporate boards are increasingly concerned about managing a variety of risks pertaining to plan, source, make, deliver and return for variety of challenges. Despite these challenges, a blueprint for resilient supply chains can assist in aligning and organizing priorities to address the most problematic global supply chain risks. Supply chains of all forms and functions can use the sample blueprint to structure targeted resilience building efforts (see Fig. 1). The lower scores towards the centre of spider charts below show, for an illustrative supply chain, that resilience building efforts should focus on building greening policies and agile strategies.

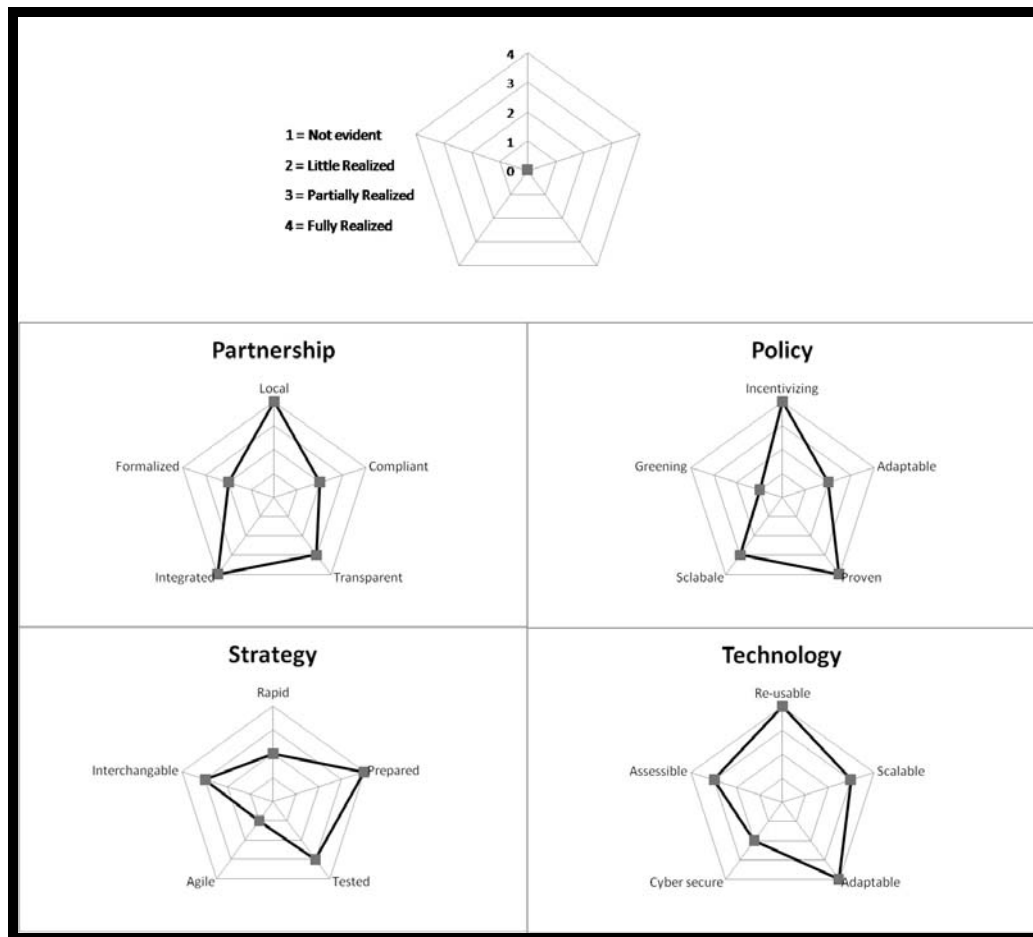


Fig. 1: The blueprint for resilient supply chains

To succeed today and to pave the way for a better future, firms particularly in India need to create strong linkages with their supply chain partners in order to institutionalize a multi-stakeholder supply chain risk assessment process rooted in a broad-based and neutral international body.

More and more of them today are realizing the importance of developing and implementing a comprehensive supply chain strategy like agile and adaptable strategies. Such strategies then need to be linked to the overall business policy goals. Such policy goals may call upon standard international bodies to further develop, harmonize and encourage the adoption of resilience standards towards best practices.

Adopting these initiatives requires taking a long-term view and having an extensive focus on all the channels in the total transformation process to create a resilient but productive supply chain. Technology, which was earlier taken to be a driver for doing business in a particular fashion, has become a necessary enabler for aligning business to consumer demand by aiming to expand the use of data sharing platforms for risk identification and response.

IMPLICATIONS : With India intending to become the factory of the world, establishment of hubs and spokes with quick international connections are bound to increase. Realizing the potential in the outsourced services for managing supply chains, the Indian service providers have started expanding their basket of services, looking beyond storing and transportation of products and raw materials and focusing on related services such as customs clearing and forwarding, labeling and packaging, fleet management, light assembly, kitting, repairs & reverse logistics, inventory management, and so on. Transporters are upgrading themselves too. Dynamic engagement is getting developed between stock and fulfillment in warehousing services.

The SCM managers now need to know the form and purpose of mathematical models and software before they apply them in era of major vulnerabilities, like, reliance on oil, availability of shared information, fragmentation along the value chain, and extensive subcontracting. Lack of this understanding may result in inferior use of models and analysis, and implementation of sub-optimal supply chain plans. They must also learn to appreciate the methodology of the blueprint

discussed in this article.

Successful SCM can depend heavily on application and understanding of blueprinting best practices in order to partially overcome the state of hampered infrastructure scenario and lag of economic performance in the country.

CONCLUSIONS : We have proposed an approach of blueprinting to examine the state of supply chain management best practices. Though SCM practices are influenced by contextual factors such as the type of industry, firm size, its position in the supply chain, supply chain length, the type of supply chain, regulation and economic environment; the identified best SCM practices discern various emerging trends as well as areas of concern. We have proposed areas of suggestive opportunities for improvements, namely, partnership, policy, strategy and technology.

Especially, Indian firms need to act fast to capitalize on these opportunities to be competitive with the world market. Indian firms are quite aware of the best logistics in SCM, but many of them are yet to practice them actively. They are generally adopting these practices piecemeal and supply chain full integration is yet to take place in most of the premises.

We have only presented a snap-shot view of the SCM best practices. Moreover, the concept of SCM is complex and involves a network of companies in the effort of producing and delivering a final product, its entire domain can not be covered in just one study. However, this article opens the way for in-depth studies of some of the areas of concern identified for SCM best practices. Research may be carried out using specific cases to study these practices at firm level in detail. It may be worthwhile to investigate how these practices differ across firm size. Finally, research should also focus on establishing actual performance improvements in SCM leading to cost-savings and customer satisfaction.

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BRANCH NEWS

- AHMEDABAD BRANCH
- BANGALORE BRANCH
- MUMBAI BRANCH

- NASIK BRANCH
- VADODARA BRANCH

AHMEDABAD BRANCH

Educational Visit : Ahmedabad Branch organized Visit of its Members and their Families to Asia's Largest Dairy Plant Popularly known as "Mother Dairy" Gandhinagar on 8th November 2014.



Members and Their families Enjoying The Talk.



Mr. Nehit Vasavada Stressing a Point.



Mr. Nehit Vasavada, During His Presentation.

Mr. Bhargav Kanabar Senior Dairy Technologist and Dy. Manager (GM Office) felicitated this visit and **Mr. A K Dhagat** GM Mother Dairy not only authorized visit but motivated IIMM team all along to undertake this visit. IIMM Group numbering 60 consisted of its enlightened

members and their families. Some of the young members had come well prepared with their inquisitive questions. Group assembled sharp by 9.45 AM at Mother Dairy Security gate and were received and welcomed by Branch Chairman. Mother Dairy team welcomed them at their Conference Hall.



Mr. Vasavada Answering Queries of Audience.



Mr. Vasavada making a Point.



Mr. Vasavada Proudly Presenting Landmarks of Mother Dairy.

Mr. Nehit Vasavada, Sr. Manager Production Mother Dairy made enlightened **PPT Presentation** on Mother

Dairy. He informed Members that Mother Dairy was set up in 1994 under **Operation Flood** Programme and is a unit of **Gujarat Cooperative Milk Marketing Federation Ltd.** GCMF Ltd is a national level apex marketing organization engaged in marketing of milk and milk products under the brand name of **Amul**.



Young Family Members Enjoying Delectious Ice Cream Presentation.

He told that Mother Dairy has Milk Handling Capacity of **30 Lakhs** liter per day and had turnover of **Rs. 4500 Crores**, which is likely to cross **Rs. 5000 Crores** in current Financial Year.

Mother Dairy **Product Range** consists of Pouch Milk/ Aseptic Milk, Ice Cream, Table Butter, Milk Powder, Gulab Jamuns, Pizzas, Ghee, Yoghurt, Flavored Milk and **Host of Probiotic** and other Products.

He explained at length how they are manufacturing these products in large volumes in **cost effective** way and maintain **quality**. He brought home point of their having all applicable **ISO Certifications**. He touched level of **automation** in Mother Dairy. Mr. Vasavada answered **queries** of audience in his lucid way.

Mr. Gupta shared some of his experiences and explained concept of **Operation Flood** which led to India becoming not only self sufficient in Milk Production but has become **World's Largest Milk Producer**. Members and their families were subsequently taken around various sections of Dairy. Members felt Mother Dairy premises is virtually a small town and were taken back by cleanliness all around.

They could not believe their eyes after seeing India's Largest Milk Powder Plant / Ice Cream Plant and Huge Aseptic Milk Processing Units besides Filling of Milk in Pet Bottles. Ladies showed lot of interest in automatic plant for production of Gulab Jamuns.

Members returned back to conference room and profusely thanked Mother Dairy Officials for pains they took in making their visit **Memorable**. They dispersed with fond hope of another Educational Visit soon.

BANGALORE BRANCH

18-19.09.2014- Two Days Workshop: Two Days Seminar held on "Emerging Technologies in SCM and MM" held on 18th and 19th September 2014 at The Citadel Hotel, Bangalore. The main focused areas on Materials

Management/Supply Chain Management function in Materials and SCM, Warehouse, Warehouse Management Systems, Advanced Technology using in Materials & Supply Chain Management and ERP Solution/Rfid – Managing Supply for Effective inventory & Logistics Management, Modern Inventory Concept, Role of IT in Inventory Management, Import Process, Inbound Transport and Distribution Operation. Some of the case studies also discussed in the seminar.

On 18.09.2014 : Keynote addressed by Mr. D. Subramani, Branch Chairman. Technology Overview presentation given by Mr. D. Sudhendra, Director –AB Logics Ltd. Technologies for SCM and Warehousing session handled by Mr. P.S. Satish, Director, Saraswathi Industrial Services. Mr. M.S. Arun –CEO of MBR India handled the session on "Technologies for Storage Tracking and Management in Container - EXIM". Mr. O.P. Khare, Branch Chairman, IIMM Hubli Branch and Controller of Stores – South Western Railways handled the session on Technologies for Materials and SCM in Railways. Mr. Subojit Chowdhury, Product Area Manager (South) LG Electronics given presentation on IP Surveillance for productivity improvement in warehousing and Logistics.

On 19.09.2014: Mr. D. Subramani, Member Materials, KAPL and Branch Chairman-IIMM handled the session on "Emerging Technologies for MM in Pharma".



Capt. N. Ramesh handling the session on Emerging technologies in MM Retil on 19.09.2014



Mr. P.S. Sathish, Sr. Faculty handling session- workshop on Emerging Technology in MM & SCM held



Mr. D. Subramani, Branch Chairman, IIMM & Members Materials handling session Technologies in Phar



Mr. D. Sudhendra, Director & Vice President of AB Logics, presenting

Capt N. Ramesh, Head –Operation, 6 Sigma Certified Black Belt – SPANEOs given presentation and handled the session on “Emerging Technologies on MM-Retail”. Mr. Sudevan P.V. Sr. Manager , Titan Industries Ltd. handled session on “Emerging Technologies for Merchandise Supply Chain and Customer Satisfaction in Lifestyle Accessories”. Mr. T.A. Barathi, Branch Chairman, IIMM- Chennai and VP of Wheels India, given presentation and handled the session on “Emerging Technologies in Automobile Sectors”. Mr. Vidya Shankar, IAS, President IESA and former Addl. Chief Secretary Govt. of Karnataka addressed the participants on “Advanced Technologies in MM and SCM”. Valedictory address given by Mr. C. Subbakrishna, Immediate Past National President and Adviser in house Training and Consultancy and distributed the Certificates to the participants.

Participants had an opportunity of interacting directly with Speakers and program was well appreciated by the participants. Mr. C.S. Subash, Sr. Member and Faculty, moderated the program. Mr. D. Subramani, Branch Chairman proposed vote of Thanks and the Seminar concluded and received excellent feed back from the participants.

26.09.2014-Evening Lecture Program: An evening lecture program was organised at Hotel Woodlands Hotel on the topic “Green Purchasing” by Mr. K. Sathyanarayanan, Head - Manufacturing Operation

NavSemi Technologies Pvt. Ltd. Bangalore. Mr. D. Subramani, Branch Chairman, Introduced the Speaker and welcomed the gathering. The programme was very interesting with lively interactions by participants with the Speaker. Mr. D. Subramani, Branch Chairman proposed vote of thanks.



A view of members present in Lecture held on 26.09.2014

In-house Training program on “Supply Chain Management”: 12 Half days in-house training program on “Supply Chain Management” started from 23rd August 2014 for Executives of BIO-CON Ltd. Senior faculties of IIMM are handling the sessions. Program conducted on 23.08,06.09,13.09,11.10, 18.10 and 8th November 2014 program will be ended in second week of December 2014.

10-11.10.2014 – Two Day Workshop: Two Days workshop on “Negotiation” based on Modular Learning System (MLS)- International Trade Centre (ITC) UNCTAD/ WTO conducted on 10th and 11th October 2014 at Citadel Hotel, Bangalore. Senior faculty of IIMM handed the sessions. Some of the case studies also discussed in the Workshop. Program ended with very good interaction sessions and received excellent feed back from the participants.



Mr. C. Subbakrishna, IIP, Sr. Faculty Handling the session on Negotiation Workshop held on 10.10.2014

17.10.2014 Evening Lecture Program: An evening lecture program was organised at Hotel Woodlands Hotel on the topic “Role of technology in Warehouse Management” for the benefit of members and students of IIMM on 17.10.2014. Mr V.A.Prabhu, Principal Consultant of PROLOG CONSULTANTS, and trainer at the World Bank was the speaker and delivered lecture. Mr.

D. Subramani, Branch Chairman, Introduced the Speaker and welcomed the gathering. Main coverage's of program was Warehousing are how it plays a key role in E commerce and the need of the hour is intelligent warehouses. This can only be done by introducing technology in end to end operations of the warehouse. After Mr.V.A. Prabu lecture Mr. D. Sudhendra, Director and Vice President of AB Logics gave presentation on "RFID integrated solutions, also IP Surveillance solutions" The programme was very interesting with lively interactions by participants with the Speakers. Mr. D. Subramani, Branch Chairman proposed vote of thanks. Received excellent feed back from the members.



Mr. V.A. Prabu, Principal Consultant of Prolog Consultants delivering lecture on 17.10.2014



Faculty getting understanding points from one of the participant attended in the workshop 18.10.2014



Mr. D. Subramani Branch Chairman, welcoming Past President of IIMM- Visited Bangalore Branch



Mr. H.R.T. Chari, Distinguished Member welcoming speaker Mr. A.N. Srirarm, Lecture Program held



Mr. P. Srinivasa Rao, Sr. Faculty involved delegates in Role Ply session

19.10.2014 In house Training Program: In house training on Material and Stores Management (3 Months Program) week end training started from 19th October 2014 for Executives of Hikal Pharmaceuticals Ltd. at IIMM Conference Hall. Senior faculty of IIMM handling the sessions.



A group of Delegates and Faculty workshop held on 19.10.2014

14.11.2014 Evening Lecture Program : An evening lecture program was organised at Hotel Woodlands Hotel on the topic "Corporate Risk Management in Materials and Supply Chain Management " for the benefit of members and students of IIMM on 14.11.2014. Mr A.N. Sriram , Cost Accountant and Auditor, Fellow of

ICWAI and Associateship of Institute of Internal Auditors Inc (IIA) Florida, USA, was the speaker , gave presentation and delivered the lecture. The program dealt with major risk areas and the procedures to mitigate their impact on the business for long term survival and stability. Mr. H.R.T. Chari, Distinguished Member of IIMM and Sr Faculty Introduce the Speaker and welcomed the gathering. The programme was very interesting with lively interactions by participants with the Speakers. Received excellent feed back from the members.

MUMBAI BRANCH

One Day Intensive Training Program on “Modern Supply Chain Management” : IIMM Mumbai Branch-Thane campus conducted One Day Intensive Training Program on ‘**Modern Supply Chain Management**’ at its new premises at Thane on **18th October, 2014**. This was the first program that happened at Thane campus. The program was attended by 22 participants from various industries located in Mumbai, Thane, Navi Mumbai etc.

Mr. Arun Banavali, Chairman of IIMM, Mumbai Branch was the faculty for the program and he made the program very lively, participative and interactive by his unique way of connecting with the participants. He shared his wide industry experience of 44 years in public as well as private sector companies with the participants. He covered all aspects of SCM i.e. from procurement to shipment.-Objectives, importance, functions and best practices in SCM, outsourcing, negotiations and INCO TERMS etc.

All the participants expressed their full satisfaction with the arrangements, hospitality and convenience at Thane campus. The feedback was very good. At the end, all the participants were awarded participation certificates from the hands of Mr. Arun Banavali, Faculty and Chairman IIMM, Mumbai Branch.

Mr. Shirish Joshi, Dy Director of IIMM Mumbai Branch thanked all the participants as well as the companies who supported the training initiative at the newly opened ‘Executive Training & Research Centre’ of IIMM, Mumbai Branch at Thane Campus. He organized the program and was ably supported by Mr. Ravindra Ghadshi, Office Assistant to make it a Grand Success.



Mr. Arun Banavali addressing the participants; Mr. Shirish Joshi is on his left



Lighting of lamp by Mr. Arun Banavali



A view of the audience



Participation Certification being issued to a participant



Group photo of participants with IIMM Team of Mr. Banavali and Mr. Shirish Joshi

One Day in-house Training Workshop on “Legal Requirements for Contracts” at Mahindra & Mahindra Ltd (M & M Ltd) – SSU : Mumbai Branch conducted a one day workshop at M & M Ltd – SSU, on **Legal Requirements for Contracts** on **1st November 2014**, at their Training Hall. The program was attended by 30 participants. **Mr. B V Iyer** and **Mr. G R Apte** were the expert faculties and covered the various sessions. The program was highly interactive with participants raising several queries which were handled very competently by the faculties. There were several case studies which made the program very interesting.

The feedback was very good with 91% of the participants rating the program as excellent or very good. Participation Certificates were issued to all at the end of the program. We expect to have repeat programs from M & M Ltd – SSU on the same topic to cover other batches

Mr. S Rajagopalan, Director, Mumbai Branch coordinated the conduct of the program.



Case Study in progress



Mr. G R Apte conducting the session



Participation Certificate being issued



Group photo of participants with IIMM Team

Evening Seminar at Thane Campus on “Supply Chain coupled with Risk Mitigation” : IIMM, Mumbai Branch organized an evening Seminar at Thane on **7th November, 2014** on **“Supply Chain coupled with Risk Mitigation”**. at our newly acquired premises at Thane which is centrally located and very well equipped and furnished with air-conditioned class rooms.

The program commenced with lighting of the holy lamp followed by welcome address by **Mr. Jain** and **Mr. Shirish Joshi**.

Mr. Pradip Saha, Associate Director – Procurement, M/s Colgate-Palmolive India Ltd and Advisor IIMM, Mumbai Branch was the eminent speaker for the seminar. He is a Chartered Accountant, Company Secretary and has held the position of Hon. Treasurer of IIMM Mumbai Branch. He is a sought after speaker in various Supply Chain Orientation Programs and speaker on various financial matters.

Mr. Saha in his speech, touched upon almost all areas of the SCM and risk involved into it at every stage. With his vast and rich experience in MNCs, Mr. Saha offered solutions to mitigate the risk involved in Supply Chain which was appreciated by all the participants. The program ended with a vote of thanks by Mr. Jain. There is a demand to have more such evening programs on related topics at Thane Campus. Nearly 27 participants from various companies in and around Thane attended the seminar which turned out to be a **GRAND SUCCESS**. The program was coordinated by Mr. P K Jain, Advisor, IIMM Mumbai Branch and was ably supported by Dy. Director Mr. Shirish Joshi



Lighting of Lamp by Mr. Pradip Saha



Mr. Pradip Saha addressing the participants



Mr. Pradip Saha being presented with bouquet by Mr. Sukhtankar

In-house Training Program at Rashtriya Chemicals & Fertilizers Ltd (RCF): IIMM, Mumbai branch conducted a second One Day Intensive Training Program on 'Costing Estimation - Supporting Skills & Knowledge' for the employees of RCF at their Trombay Plant, Chembur, Mumbai.

Nearly 21 participants were present from various departments of RCF, Trombay Plant. This batch comprised of all the department heads - from Chief Managers to DGM.



Dignitaries on the dais

Mr. Arun Banavali, Chairman, Mumbai Branch & **Mr. A R Sarkar**, Advisor, Mumbai Branch were the faculties who conducted the program very effectively. Mr. Sarkar referred to the various examples from his workplaces like BPCL, L & T etc. about costing and covered the theory part of it while Mr. Arun Banavali gave more stress on

practical and live case studies from the corporate to understand the costing and estimation fundamentals more clearly. Mr. Sarkar talked about Public Procurement and its procedures while Mr. Banavali came with the solutions from public as well as private sector companies based on his rich experience in the field.



Mr. A R Sarkar conducting the Session



Mr. Arun Banavali conducting the Session

The participants were very vibrant and curious and had many queries and asked many questions related to their workplace. These were answered well by both the faculties to their fullest satisfaction. This program was a customized and specially designed module for RCF based on the request from their Top management i.e. CMD **Mr. Rajan** as well as ED, Trombay-**Mr. Banerjee**. The program was appreciated by all officials and participants



Mr. Arun Banavali explaining a point to the participant

Mr. Banavali & Mr. Sarkar distributed the participation certificates and **Mr. Shirish Joshi** offered vote of thanks

to the management of RCF. He also coordinated the program. The next such program would be conducted at RCF, Thal plant in Raigad district shortly.



Group photo of participants with IIMM Team

Forthcoming Events

ITC - MLS Based One Day Workshop on Module 7 – “Negotiating” : IIMM Mumbai Branch is planning to hold a One Day Workshop on ITC – MLS Based Module 7 – “Negotiating” The program is planned to be held in our Thane Campus on **6th December 2014**

Annual Signature Program “Disha 2015” : The annual signature program of IIMM Mumbai Branch – **Disha 2015** – is being planned during January / February 2015. The dates will be finalized in due course. A Brainstorming Meet for deliberating on the theme and other details was held on **12th October 2015**.

NASIK BRANCH

Annual General Meeting of the IIMM, Nasik Branch was held on 19th Sept. 2014 at Hotel Emerald Park, Nasik. Chairman, Mr. Laxmikant Dashpute welcomed the members. In his welcome speech he emphasized the need of a new vision for the coming years in order to strengthen the level of interaction between Industry and the Institute, to serve as a platform for giving exposure to Materials Management professionals to latest trends in the field. He requested all members to come up with new ideas and give their suggestion for better recognition of IIMM in Nashik. He also requested all members to encourage colleagues for renewal of membership and make new members.



Chairman interacting with audience



Mr. Atul Sheth summarising branch activities for the year



Mr. Manoj Patil reading out branch accounts



Mr. Mohan Patil anchoring the program



Vote of thanks by Mr. Dantale

Mr. Atul Sheth, Vice Chairman submitted the report on various activities organized by Nasik Branch during the financial year. He informed to the audience that the strength of the membership has come down due to non renewal of the membership subscription during this financial year. Mr. Manoj Patil, Hon. Treasurer put on table the audit report and Income & Expenditure and Balance sheet for the approval of members. He explained the current financial status and also informed to the audience that the Audit Report was received from the National Auditor M/s Chandobhoy & Jassobhoy without any adverse remark or query. The Balance sheet was put on approval and the same was approved by the members.

An interactive talk with the members was done to know their views and suggestion for expanding the branch activities. Mr. Mukund Karhadkhedkar gave brief on the modular learning program. The AGM was attended by over 40 members from various Organisations. Mr. Ajit Dantale proposed vote of thanks and the AGM was followed by dinner.

VADODARA BRANCH

An Evening Talk on Topic of OUR RIVER OUR FUTURE - VAHO VISHWAMITRI ABHIYAN' by Dr. M.H.Mehta had been arranged on 15th Nov. 14 from 6.15 pm to 8.00 pm at IIMM Hall wherein more than 35 participants comprising of Members attended the same. The Speaker is President at the Science Ashram & Chairman at Gujrat Life Sciences. He is Chairman of National Committee on Agri Technology. NRDC & was Vice Chancellor of Gujarat Agricultural University. He has been honoured with Padamshri by President of India in 2011 & awarded with Lifetime Achievement Award by Agriculture Today.

He shared details about History & Importance of our River for Vadodara & Central Gujarat from holistic plan worked out by experts in different fields, which got appreciation by all. It was informed that if implemented. It can potentially become a National Demonstration Project for revival of River & Future of the City. He presented scientific approach for management of Water Body. Check Dams & Drainage system. Also he initiated public movement for Revival Plan with Bio Shield on river banks, Eco Agriculture, Organic Farming, Solid / Liquid Waste Management & Recycling.



Mrs. Sarvaiya offering floral homage to Late Shri R.J. Sarvaiya photo at the beginning of Evening Talk. Our National President Mr. Lalbhai Patel & other NC, EC MEMbers also offered flower homage.



Dr. M.H.Mehta being felicitated with Memento by Mrs. Sarvaiya

Evening Talk Dtd.08.11.2014 : An Evening Talk on Topic of 'Importance Of Sales, Inventory & Operation Planning In Business' by Mr. Amit Shukla had been arranged on 8th Nov'14 from 6.30 PM to 8.00 PM at IIMM Hall wherein about 25 participants comprising of Members attended the same. The Speaker has done Master Degree in Engineering & Management, Master in Engineering from BITS Pilani & MBA from S.P.Jain Institute of Management & Research. He has experience of 10 years wherein he has worked with TATA Motors, Adani, etc. & is currently working as Manager-Supply Chain Planning at Schneider Electric since 5 years.

It was an excellent opportunity to know the facts about Inventory / Operations Management & enriching ourselves from his professional experience which was appreciated by all.



The Speaker, Mr. Amit Shukla being welcomed with Flower Bouquet by National President, Mr. Lalbhai Patel.



Mr. Amit Shukla being felicitated with Memento by National President, Mr. Lalbhai Patel & Chairman, Mr Malay Mazumdar.

EXECUTIVE HEALTH

DENTAL TREATMENT WITHOUT TEARS!!

Dr. Darshini Vikram Shah
H.O.D. Dental Surgery, Shalby Hospital
Ahmedabad, Gujarat

Children too need Dentists: Milk teeth need as much care as adult teeth. Conditions like carries, cavities etc need to be treated so that permanent teeth come out properly. But the biggest constraint in treating children's teeth is the pain factor, children are afraid of dentists and cannot cooperate during treatment. We do dental treatments under general anaesthesia where appropriate, as these real life cases show.

Real Life Case : Namrata, a conscientious and caring mother, ensured that her four year old daughter Tanya [names changed] brushed her little teeth twice a day. But with eating sweets Tanya developed dental caries. Namrata had Tanya treated at nearby dentists, but every time the little girl cried so much that the dentists could not treat the child. Little children are afraid of the unfamiliar surroundings in a dental clinic, and of course, the pain.

Alternative Option : One of Namrata's friend had got her son treated by us at Shalby. So Namrata brought Tanya to me.

As if by Magic... : We treated Tanya in one sitting under general anaesthesia. Tanya went home happy and pain free in the evening.

What seemed very painful became so easy and simple. How did it happen?

Infrastructure and Backup

The answer lies in the facilities for safe and painless dentistry that Shalby offers. Why Tanya could be treated without pain was that her procedure was done under general anaesthesia. As we are a multispecialty hospital, we have everything necessary for anaesthesia:

- Full anaesthesia trolley and anaesthetists for painless treatment
- Central Oxygen line for use during general anaesthesia, this is more reliable than oxygen cylinders
- X Ray, CT Scan and Orthopantograms for accurate

diagnosis

- 24 x 7 Emergency Care
- Paediatricians available in the hospital

No wonder little children with painful teeth are brought to us only from Ahmedabad but also from far off places like Bhavnagar, Jamnagar, Rajkot, Indore, Jaipur and Jodhpur.

Special facilities for Children

Says anaesthetist Dr Milan Mehta: We have special anaesthesia masks for kids with apple or orange fragrance, so the child is not upset with the smell of anaesthesia. Also, we keep mothers near the child when we induce anaesthesia, so the child is comfortable during the process.

Big Benefit

For working parents treating their child painlessly under anaesthesia in one sitting avoids multiple visits to the dentist.

Take Home Point

Milk teeth must be treated in case of carries or cavities. Treatment can be done painlessly in a well equipped centre with anaesthesia facilities.

Dr Darshini Vikram Shah is the Head of the Department of Dental Surgery, Shalby Hospitals.

Dr Darshini specialises in Oral Implants, in which field she has been a pioneer in western India. In 2008 she was awarded a Diplomate from the International Congress of Oral Implantologists. She is also the recipient of the Garima 2011 Award from the Gujarat Chamber of Commerce and Sakhi Shakti Award in 2012.

Dr Darshini is an expert in treating the dental problems of little children.

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