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MATERIALS MANAGEMENT REVIEW

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Materials Management Day Celebrations

23rd April 2013

Green Rally had been flagged off by Hon'ble Shri Haroon Yusuf, Minister for Transport, Food & Civil Supplies Department, Govt. of Delhi and Mr. C. Subbakrishna, National President, IIMM. Other dignitaries from L to R: Mr. Suresh Kumar Sharma, Imme. Past President, IIMM, Mr. Sanjay Shukla, Chairman Delhi Branch and Mr. M.K.Bhardwaj, Co-Chairman, BOS, IIMM

A MONTHLY PUBLICATION OF INDIAN INSTITUTE OF MATERIALS MANAGEMENT

Materials Management Day Celebrations

23rd April 2013

Tribute to Father of the Nation

National President Mr. C. Subbakrishna felicitating Shri Haroon Yusuf Hon'ble Minister for Transport, Food & Civil Supplies Department, Govt. of Delhi.

Plantation by National President at Bhushan Steel Ltd.

National President felicitating Mr Kishi Saxena, Asstt. V.P. (Materials) Bhushan Steel Ltd.

Interactive Session at Bhushan Steel Ltd.

Seminar on MM Day Theme

All Past Chairmen with NP & Keynote Speaker

Group photo of GDMM Students

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DSM	Distance	1 Year	Degree in any discipline or 12th pass + 2 Yrs. Exp.	DSM and DIT conducted from Vadodara Branch	
DIT	Distance	1 Year			
GDPP	Distance	1 Year	Degree in any discipline or Diploma in Engg.		
IPSCM	Distance	18 Months	Degree with proficiency in Eng.	2 Yrs. Exp.	International Trade Centre (ITC) (WTO / UNCTAD) Geneva, Switzerland
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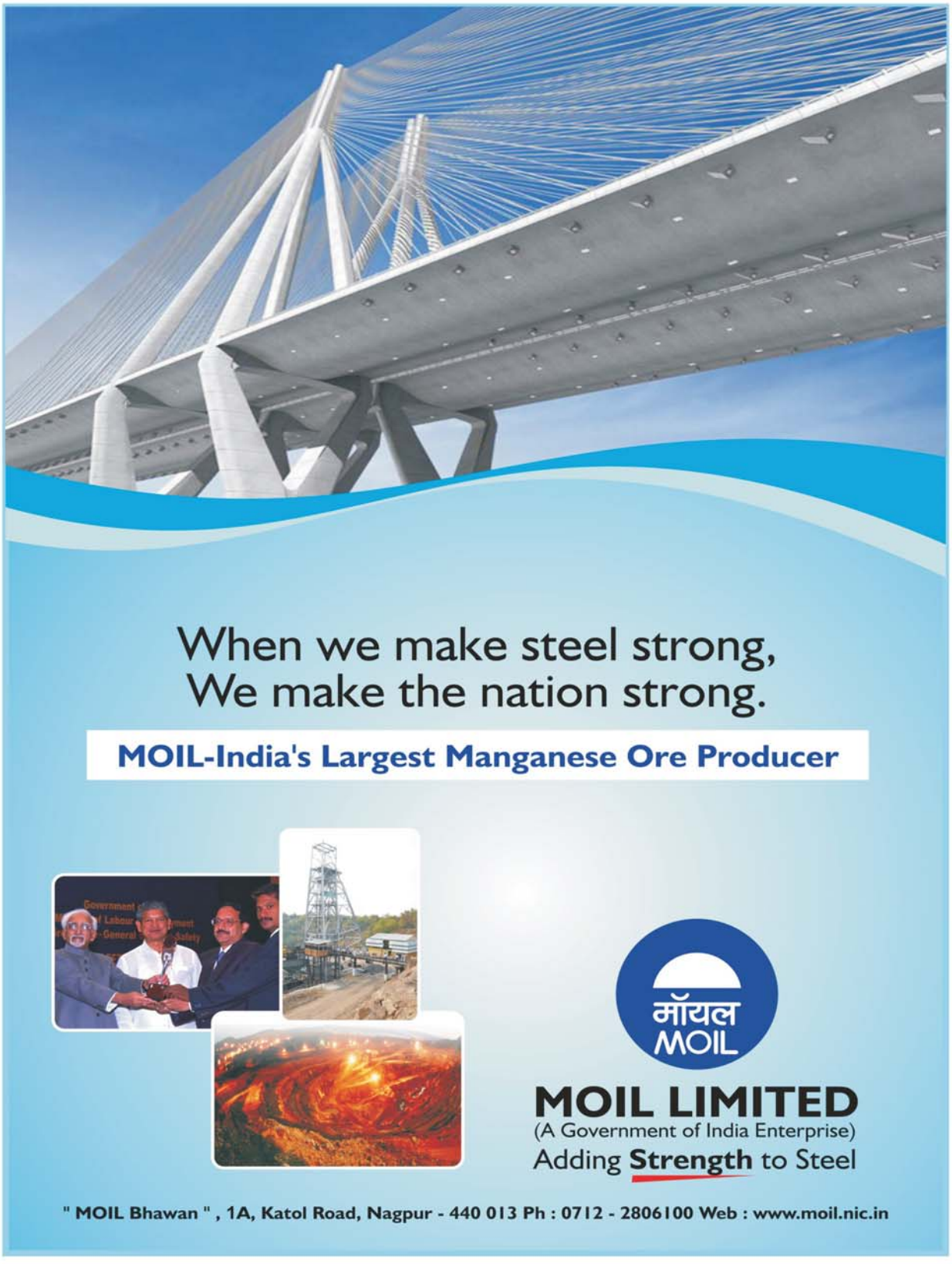

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From the Desk of The National President

My Dear Readers,

Greetings of the season from your National President,

We have already completed one month in the first quarter of the new financial year by the time you receive this issue. There is a hope of economy putting into growth track. One of the main reason is that the world s largest economy, the United States, showing signs of recovery. The numbers are piling up such as Car sales, manufacturing, housing etc. which are few yards stick of the economy. Forecasts of the US economy of 2% growth in 2013 and 3% in 2014 may look small but considering their saturated and robust economy, experts say that it will be equivalent to almost 5% of China and what India would add by growing at 16%. This would put India to look up in IT and IT enabled sectors and also in manufactured exports.

The role of our Supply Chain fraternity to take the advantage of this situation cannot be overemphasized. Innovative Supply Chain is the need of the hour. To day there is tremendous scope for us to display our skill than earlier time by smartly using IT and automated processes to make the supply chain efficient thus gain the Competitive advantage. The cost, quality and timely availability of the end products depends on the efficiency of the supply chain. Hence it can be reiterated that the competition is no longer between two Marketing but between two supply chain.

Our present total focus is on the next mega event International Conference on Supply Chain in Bangalore on 16th and 17th May called Asia Pacific Conference in short APCON 2013. It seeks to bring together professionals from different parts of India, Asia Pacific region and rest of the world. With participation from wide range of Industries and academia, public and private sectors of Industry - APCON 2013 expects to serve as a springboard for Collaboration, an idea- exchange which can in turn, fuel innovation. I strongly feel, that this is an opportunity coming after more than a decade to India and all our members, to the extent feasible, attend the conference and derive the benefit. Host of IIMM-APCON International SCM Awards have been called for entries. A visit to the dedicated website www.apcon2013.com, will give full details.

I am sure the Materials Management Day has been celebrated by all the branches on 23rd April with enthusiasm. It is the day to rededicate ourselves for service to our dear profession of Materials Management and Supply Chain Management particularly on code of ethics. In many branches, taking the oath on IIMM code of ethics was a part of celebration. I wish all the branches practice the administering the oath of IIMM code of ethics.

I am signing off with Best Wishes and looking forward to meet many of you in Bangalore on 16th and 17th May during APCON 2013.

With warm regards,

C. Subbakrishna
National President
np.iimm@yahoo.com

From the Desk of Editor-in-Chief

Outsourcing is a cost saving strategy being implemented by both Private and Public sector to concentrate on their core activities rather than non core activities such as Administration & Back office operations.

According to the General Financial Rules 2005, A Ministry or Department may outsource certain services in the interest of Economy and efficiency and it may prescribe detailed instructions and procedures for this purpose. At the central level, the department of Electronics & Information Technology, under the Ministry of Communications & Information Technology, is the main Authority responsible for the overall development of Outsourcing in India.

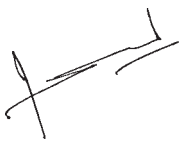
Outsourcing encompasses 4 stages, first Strategic Thinking, to develop the concept of outsourcing in its activities, second evaluation & selection of outsourcing projects & the service provider to do it. Third is contract development, to work out the legal, pricing & service level agreement and fourth is the Outsourcing Governance or Management to refine the professional relationship between the client & service providers.

Evaluating an outsourcing firm against Key Parameters shall give a better understanding about the service provider's Credibility, Experience, Quality Standards, Areas of expertise and Organizational Structure, Work Culture & Ethics followed by company.

Core Competencies are the fundamental strength of any company which should be identified & cultivated in order to build new products & market opportunities. In today's world platform, companies are shedding their flab and becoming Lean & Trim to ensure faster response, agility and better ability to handle pressure. Outsourcing not only ensures a lot of flexibility in operations but also financial freedom by streamlining the cash flow of the company. It also helps in increasing the productivity & efficiency by concentrating more on core activities. Outsourcing frees an organization from investments in technology, infrastructure and people that make up the bulk of a back end process. Outsourcing however, possesses some risk which needs to cater strongly like loss of sensitive data & confidentiality, quality of service, legal problems etc.

Owing to its advantageous factors like world-best intellectual and internet resources, lowest cost structure, multilingual capabilities etc. has made India the best choice as Outsourcing destination as much can be seen from the rise of software & BPO industries since two decades. The Outsourcing industry not only provides employment but also contributing immensely in GDP growth of the economy. India's export of IT products mainly in the form of Outsourcing Services grew to $ 69 Billion in 2011. Banking & Financial Services contribute nearly 40% of India's Outsourcing Industry.

Despite the allure of using Outsourcing as a tool for achieving better economies of scale, increased efficiency & productivity, reduced overhead costs, less or no investment in technology & infrastructure, the debate about the Public Sector Outsourcing is still on because of economic & political Implications of leaving certain processes in the hand of private sector service provider. However, going by the fact of emerging needs of growing population, Public Sector Outsourcing would be a better option for preserving Govt. Integrity. Contracting out has proven its capability to significantly improve service delivery and increase savings on public spending. Their presence is felt by more people because the reach of their services has broadened with the use of advanced technology.



(M. K. BHARDWAJ)

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UNLEASHING INNOVATION VALUE CHAIN A DRIVER FOR ECONOMIC GROWTH

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ABSTRACT

A high-level model of how businesses receive raw materials as input, add value to the raw materials through various processes, and sell finished products to customers. Value-chain analysis looks at every step a business goes through, from raw materials to the eventual end-user. The goal is to deliver maximum value for the least possible total cost.

The concept of LPG (Liberalization-Privatization and Globalization) has triggered tremendous enthusiasm all over the country and in fact even in other countries. Indian business manufacturing sector is advancing with robust knowledge as to how to adds values to the products and make it more price worthy and industry growth is moving in arithmetic speed. Even American Association for the Advancement of Science (AAAS) is seeking our help in building database similar to Honey Bee database developed in India. Commonwealth Science Council has sought our help to assist Science & Technology Ministers in Commonwealth countries.

It is essential for every business and businessmen in this era of financial constraints and spiraling prices we should obtain full value for the money spent on products avoiding all unnecessary costs, Value Engineering with its systematic functional approach. Has proved to be an effective tool for achieving the required functions at the lowest cost consistent with the desired reliability, utility, maintainability, and aesthetics. Given the increasing demand for value addition for any product, sophistication, expertise, and demands of major clientele and customers who are becoming the driving force for improving the performance of any goods that are manufactured by industry. Also the clients' primary criterion is value it is included that much can be gained from the use of value management in facilitating continuous improvement.

The subject of value chain comes under the segment of marketing which is concerned with identifying clients' requirements and tailoring the supply (both product/ service and process of production and delivery) to meet these requirements. Market maturity incorporating common levels of 'advanced' technical development among suppliers, determines vastly enhanced roles for non price components of competition while retaining the importance of price competition.

Value chain management (VCM) is the integration of all resources starting with the vendor's vendor. It integrates information, materials, labor, facilities, logistics, etc. into a time-responsive, capacity-managed solution that maximizes financial resources and minimizes waste. In other words, efficient and effective value chain management optimizes value for the customers' customer. The following sections discuss the development of VCM, integrated supply chain planning and scheduling, full resource management, cycle time responsiveness, chain-wide resource optimization, and information integration.

DEVELOPMENT OF VALUE CHAIN MANAGEMENT IN TODAY's BUSINESS

Using the previous definition as a basis, it is helpful to review how VCM was developed. Traditional industries focused on vertically integrated operations. For example, if you manufactured a product, you wanted to control the material sources, the transportation, the warehousing, the production, and possibly even the retailing of your product. The theory held that more vertical elements that were under your direct control, the more efficiently you were able to perform.

International competitive pressures caused organizations to realize that they simply were not good at everything; thus, they began to focus on what they did best. In other words, they focused on their core competencies. This shift away from vertical integration encouraged organizations to look outside of themselves for services. For example, a manufacturer would have a shipping company do all their packaging and shipping. This introduced more steps in the vendor-to-customer linkage, making the management of this process more complex.

The trend toward operational diversification focused organizations on developing a supply chain whereby an organization would establish a relationship with shippers, vendors, and customers so that all the linkages in the supply chain could be effectively integrated. These interrelationships became extremely complex to manage. Initially, the management of these relationships and linkages was primarily performance-based. Having too many linkages in the supply chain would often cause unresponsiveness to customer demands. Time-to-market became the buzzword of successful competitive positions; the organization that managed its supply chain most effectively tended to

have the competitive advantage, at least in terms of customer responsiveness and order fulfillment.

Soon, managers realized that time responsiveness was not the only important element in customer satisfaction. The supply chain linkages-the links among upstream suppliers, manufacturers, and downstream distributors-also had a cost element and resource-efficiency element associated with them. This realization generated a need for value chain management, which is the management of all the linkages of the supply chain in the most efficient way. Sometimes this includes the elimination of elements of the supply chain; for example, Web marketing has eliminated the need for retail outlets. Amazon.com is a well-known example of eliminating the need for physical "bricks-and-mortar" retail locations. Another example is Atomic Dog Publishing. This textbook company leases online textbooks to students for a semester. Because the texts are online, Atomic Dog has cut out an intermediary between text development and customers; in other words, Atomic Dog manages its value chain through disintermediation by eliminating the need for college bookstores.

Returning to the definition of value chain management, we can now look at the key aspects that are incorporated in VCM. These include:

- integrated supply chain planning and scheduling
- full resource management
- cycle-time responsiveness
- chain-wide resource optimization
- information integration

INTEGRATED SUPPLY CHAIN PLANNING AND SCHEDULING

The planning process for managing the supply chain is easy and has existed for many years. Systems like material requirements planning (MRP), manufacturing resource planning (MRP II), distribution requirements planning (DRP), theory of constraints (TOC), just-in-time (JIT), critical path method (CPM), and program evaluation and review technique (PERT) have performed the planning process effectively for the last 30 years. However, under these environments, capacity has been treated largely as an afterthought, and therefore scheduling has been plagued with performance challenges. The introduction of capacity management tools like finite capacity scheduling (FCS) into the existing planning environments has allowed the development of schedules that were optimizable both in timing and in cost. Most planning systems still do not include these scheduling elements, but rather focus on achieving delivery performance through the utilization of an overriding expedite process. FCS enhancements are a key piece in the development of efficient VCM environments.

FULL RESOURCE MANAGEMENT

Traditional environments focused on managing only the material resources, assuming all the other resources had an infinite capacity. This logical fallacy came from the limitations of the planning systems previously discussed. In a centrally-controlled environment where authoritarian rule existed, the expediting process could make this management style operational. Unfortunately, in a multi-stage supply chain integration, the scheduler needs to make sure that capacity limitations are considered at all steps in the supply chain. Expediting across the links of the supply chain was extremely difficult, if not impossible. For example, the constrained resource at one link in the supply chain may be entirely different than the constrained resource at another step in the supply chain. For one step, the constrained resource could be labor while at another step it could be truck capacity. Therefore, a scheduling system that analyzed and constrained all the resource elements at all steps became a critical piece in VCM.

CYCLE-TIME RESPONSIVENESS

Total cycle time measures are needed because they have, in many cases, become more important than cost when it comes to competitive advantage. Strategic positioning requires a supply chain to be able to supply a customized product at speeds quicker than anyone else, even if the product is not customized. Therefore, a measure of cycle-time performance, measuring the time from when the order for a customized product is placed until it is delivered to the customer, becomes as important as price.

CHAIN-WIDE RESOURCE OPTIMIZATION

Value chain management adds the evaluation not only of all the traditional resources like labor, materials, machinery, etc., but also the optimal management of time and financial resources. Realizing that the supply chain has more steps than existed in the traditional vertical model in which a single firm integrated many supply chain processes and functions within a single organization, the profit margins of each step have become smaller as firms became disintegrated in order to focus on one or only a few core competencies. This "disintegration" has created the need for profits to be available at multiple points throughout the value chain because each step in the chain needs to share a smaller piece of the overall margin pie. In order to accomplish this, value chain management focuses on value-added optimization (also referred to as waste elimination). Some organizations have interpreted this to include the elimination of steps in the supply chain, like the elimination of retailers at Amazon.com and elimination of the need for college bookstores by Atomic Dog Publishing. The efficient performance of all the remaining links in the supply chain is also carefully evaluated by each link.

INFORMATION INTEGRATION

VCM is meaningless if a near-total sharing of information does not exist among all elements of the supply chain. This incorporates multiple levels of information, from the operational information (which includes capacities and work loads), to the strategic

levels (which include vision and mission statements). This sharing of information has to be fully accessible and interactive, which often suggests some sort of Web-based database. Each link of the supply chain will need to be able to evaluate the efficiencies and performances of all the other links in the supply chain. However, this information network should not be available to elements outside of the immediate supply chain, like competitors. The shared information within the chain will primarily be utilized by each of the elements of the supply chain for their specific planning and scheduling. It will also be utilized by the sales/marketing functions to generate realistic schedules for the customer and end-consumer of the supply chain process. An overall finite capacity scheduling process that projects realistic and feasible schedules while simultaneously optimizing cost and timing will be necessary.

In summary, value chain management increases the number of steps in the supply chain by focusing on core competencies. VCM attempts to optimize the integrated efficiency of these steps in the management of resources, including the response time and the cost resource. Going into the future, VCM will become increasingly important as pressures to globalize mount, competition shrinks industry profits, and new market entrants challenge existing competitors.

In fact unleashing innovation across the value chain – a mantra for growth of the industry and economy. Some people see things as they are and say why? Innovations – revolutionary – evolutionary – non-linear innovators tend- linear innovators tend to be to be revolutionary evolutionary making thereby improvements for the products. For instance in IT sector first invention was telephone-mobile phone-I-phone, android, photography, digital photography, computers, laptops, internet, world wide web, web blogs, face book, mailbox, hotmail, web crawler, Google, napster, itimes. For instance-innovation in inbound logistics- build to order model, reduces working capital, Dell wanted to do away with inventory as it is a liability in the technology industry.

BENEFITS FROM SYSTEMATIC CHANGE IN VALUE CHAIN:

Modern notion of marketing reinforce the approach in the context of projects technical performance by discovering what customers desire and tuning the supply to suit as the most effective way of securing orders. The value management certainly in relation to the given industry, however, expositions of value management emphasizes the value seeking nature of the discipline based on costs for functions analyses with express hierarchies of functions for the product. Various management functions such as engineering, design, marketing, material, planning, purchase, technology, production and costs and accounts will interact continuously in any value addition of the product or commodity that is manufactured.

The quantitative benefits arising out of systematic addition in value management of products/ commodities will have its benefits which includes higher productivity (simplified manufacturing) cost reduction, producing products with latest improvised techniques, reduction in lead time, better reliability, better performance, weight reduction, better quality, improved logistics, better packaging, improved maintainability, better appearance of the products, optimization of product cost, higher market share in that product marketing, less close and rigid tolerances, application of latest technology, and accommodating customer needs.

The qualitative benefits include better understanding with cooperation between individuals and departments. Introspection by individuals and departments for techno-economic excellence, prompt and punctual data base management, autonomy in technical – professional autonomy and challenge leading to job satisfaction and motivation. There is widespread tendency to think of function rather than parts, encouragement creativity in the organization, suggestions from employees leading to cost reduction, improvement in morale of consumers, their involvement, and commitment as value management the product increase its price-worthiness, joint decision making and responsibility, and improved capability to cope with changes.

Conventional Value management & improvised value management.

Conventional cost reduction method aimed at item oriented, tends to follow past practice and is analytical in approach, with convergent ideas, cost analysis by part or process – material, labor, transport, packaging, and overheads. Similarly this approach is individual oriented, tends to compromise on quality with arbitrary decisions sometimes.

Innovation in in-bound logistics, innovation in operation of the company, innovation in chalking of marketing and sales strategies, and sales promotion, service, social media, customer relationship management, support activities, procurement of raw materials that are required for manufacturing, and innovation across value chain through holistic approach to convert innovation into organizational growth.

Thus **value chain** is a chain of activities that a firm operating in a specific industry performs in order to deliver a valuable product or service for the market. This concept comes from business management and was first described and popularized by Michael Porter in his 1985 best-seller, *Competitive Advantage: Creating and Sustaining Superior Performance.* The appropriate level for constructing a value chain is the business unit , (not division or corporate level). Products pass through activities of a chain in order, and at each activity the product gains some value. Chain of activities gives the product more added value than sum of the independent activities' values. The value chain categorizes the generic value-adding activities of an organization. The activities considered under this product/service enhancement process can be broadly categorized under two major activity sets. These can be seen as the physical

world activities which we perform in order to enhance our product/services. These activities have evolved over time by the experience people gained from their business conduct. As the will to earn higher profit drives any business, professionals (trained/untrained) practice these to achieve their goal.

Virtual Value Chain:

The advent of computer based business aided system in modern world has led to a completely new horizon of Market Space in modern business jargon set - the CYBER MARKET SPACE. Alike any other field of computer application, here also we have tried to implement our physical world's practices to improvise this digital world. All activities of persistent physical world's Physical Value Chain Enhancement process, which we implement here in this Market Space (Cyber Market) are in general terms referred as Virtual Value Chain.

In actual practice today, no progressive organization can afford to remain stuck to any one of these value chains. In order to cover both Market Spaces (Physical World & Cyber World) organizations need to deploy their very best practices in both of these spaces to churn out the most informative data, which can further be used to improvise the ongoing product/ services or to develop some new product/service.

Combined Value Chain.

Good look at this Value chain Matrix indicates that there are a number of locations in any business process to add value or to improve the process, which in turn will help in saving money and time while improving the performance. The basic idea is same age old concept of utilizing the incoming of information, let the source be anything.

A firm's value chain is part of a larger stream of activities, which Porter calls a value system. A value system, or an industry value chain, includes the suppliers that provide the inputs necessary to the firm along with their value chains. After the firm creates products, these products pass through the value chains of distributors (which also have their own value chains), all the way to the customers. All parts of these chains are included in the value system. To achieve and sustain a competitive advantage, and to support that advantage with information technologies, a firm must understand every component of this value system.

Executives in large companies often ask themselves, "Why aren't we better at innovation?" After all, there is no shortage of sound advice on how to improve: Come up with better ideas. Look outside the company for concepts and partners. Establish different funding mechanisms. Protect the new and radically different businesses from the old. Sharpen the execution. Such strategic counsel, however, is based on the assumption that all organizations face the same obstacles to developing new products, services, or lines of business. In reality, innovation challenges differ from firm to firm, and otherwise commonly followed advice can be wasteful, even harmful, if applied to the wrong situations.

Consider how two different CEOs confronted the innovation challenges facing their companies. When Steve Bennett joined Intuit, the maker of the financial software programs Quicken and QuickBooks, in January 2000, it was a company with lots of ideas—most collected from outside the organization—but little discipline for bringing those ideas to market. "We had a lot of energy focused on learning from customers," the CEO recalls, "but we were struggling to decide which ideas would have the highest impact." To fix this, Bennett demanded that clear business objectives be set for ideas in development, and he held people accountable for delivering on them. Intuit is now just as good at executing on ideas as it is at generating them. The company's revenues and profits are up 47% and 65%, respectively, from three years ago, in part because of this effort.

About the same time that Bennett took the helm at Intuit, A.G. Lafley became CEO of Procter & Gamble, a company that had traditionally been good mainly at developing new products internally and bringing them to market. But a persistent weakness was its insular culture. Lafley wanted the company to become better at cultivating ideas from the outside. After five years of investments, P&G now has a state-of-the-art process for sourcing ideas externally, which includes a global network of resources and online knowledge-exchange sites. This process complements P&G's core competency in executing on ideas and has helped fuel an increase in sales and profits of 42% and 84%, respectively, over the past five years.

Bennett and Lafley faced different innovation challenges, which required different solutions. Intuit and Procter & Gamble probably would be worse off today had their CEOs simply imported the latest best practices in innovation management. Now consider a computer hardware company we analyzed. Buying into the latest advice about innovation—companies should focus on generating more ideas—managers set up a series of formal brainstorming sessions. Idea generation wasn't the problem, however. The company had inadequate screening and funding processes: Concepts never flourished, nor did they die. The brainstorming sessions actually aggravated the innovation process—employees were pumping more and more ideas into an already badly broken system.

In the modern management scenario value management referred to as value engineering and value analysis. This concept was developed by General Electric – USA after the 2nd World War and quickly spread to other countries. Economic prosperity of a country is achieved through rapid industrialization. In order to be successful in international markets the product must excel in three areas- price, quality and technology. The experience of other parts of the world have proved through innovation and creativity even small countries can challenge the industrial giants. There is need to cut down costs is the

most important aspect for Indian industries. This is also true in most of the developing countries. Cutting down of the costs from which we are able to provide highest value for the money to our valued customer.

The value consciousness is the analyzing principle of value management. There is overwhelming evidence that one cannot practice these techniques without proper training. Training is also necessary because though the rules appear simple, interpretation of the same and application of such rules in real life situations is complex. Rules may be easy to learn and assimilate but it needs special ability, ingenuity and creativity to master them. Value management is not confined to industry alone. It is equally applicable to business, industry and even in government departments.

Value Vs Cost:

Often value and cost are used as synonym and this is not true as cost is what one pays to possessing an item of goods or services. Hence cost is intangible. Value is the measure of satisfaction one gets from acquisition of the term or service. This is tangible as well as intangible. Perceived value is based on its functions such as performance, quality, appearance or combination of the above. There are different types of values – some of these are

Use Value: The monetary measures of the properties and functions of an item or service which contribute its usage and hence saleability.

Esteem Value: This is the monetary measure of the properties and functions of an item or service which contribute to its esteem demand and saleability. In other words, it refers to the special features which makes one want to possess the item or service.

Cost Value: This is monetary measure of input efforts such as material, labor, overhead, required to produce an item or service which contribute to its cost and saleability.

Exchange Value: This is monetary measure of the properties and functions which contribute to its exchange ability for something else. Normally the sum of use value and esteem value is equal to or greater than the exchange value, viz, Use Value + Esteem Value >_ Exchange Value.

Time Value: It is value determined predominantly by the time of availability of the item or service. Computers are capable of computing fast and hence are capable of giving their services (solutions to problem) without any time delay. This is time value.

Place Value: Value of an item or service depends upon its availability at a place where is required. Water provided to a traveler in a desert and life saving medicine made available to a dying patient at the hospital, imported materials made available to a manufacturer at his factory are examples of place value of item or service. The traveler in a desert is prepared to pay a higher price compared to one in the plains to get a bottle of water because he attaches higher value to satisfy his thirst at the desert.

From the above it is clear value is not unique but varies with perception of people who buy the item. Thus value is not intrinsic. Values are created by the society and by the people. People are again influenced by the value system inherited by them. Value systems of people are conditioned by the history, culture, religion, political system or ideology.

Even the strongest dose of the best analgesic on the market won't help mend a broken bone. Likewise, companies can't just import the latest fads in innovation to cure what's ailing them. Instead, they need to consider their existing processes for creating innovations, pinpoint their unique challenges, and develop ways to address them. In this article, we offer a comprehensive framework—"the innovation value chain"—for doing just that. The innovation value chain is derived from the findings of five large research projects on innovation that we undertook over the past decade. We interviewed more than 130 executives from over 30 multinationals in North America and Europe. We also surveyed 4,000 nonexecutive employees in 15 multinationals, and we analyzed innovation effectiveness in 120 new-product-development projects and 100 corporate venturing units.

The innovation value chain view presents innovation as a sequential, three-phase process that involves idea generation, idea development, and the diffusion of developed concepts. Across all the phases, managers must perform six critical tasks—internal sourcing, cross-unit sourcing, external sourcing, selection, development, and companywide spread of the idea. Each is a link in the chain. Along the innovation value chain, there may be one or more activities that a company excels in—the firm's strongest links. Conversely, there may be one or more activities that a company struggles with—the firm's weakest links. (See the exhibit "The Innovation Value Chain: An Integrated Flow.")

The challenges of coming up with fresh ideas and realizing profits from them are different for every company. One firm may excel at finding good ideas but have weak systems for bringing them to market. Another organization may have a terrific process for funding and rolling out new products and services but a shortage of concepts to develop. In this article, Hansen and Birkinshaw caution executives against using the latest and greatest innovation approaches and tools without understanding the unique deficiencies in their companies' innovation systems. They offer a framework for evaluating innovation performance: the innovation value chain. It comprises the three main phases of innovation (idea generation, conversion, and diffusion) as well as the critical activities performed during those phases (looking for ideas inside your unit; looking for them in other units; looking for them externally; selecting ideas; funding them; and promoting and spreading ideas companywide).

Using this framework, managers get an end-to-end view of their innovation efforts. They can pinpoint their weakest links and tailor innovation best practices appropriately to strengthen those links. Companies typically succumb to one of three broad "weakest-link" scenarios. They are idea poor, conversion poor, or diffusion poor. The article looks at the ways smart companies—including Intuit, P&G, Sara Lee, Shell, and Siemens—modify the best innovation practices and apply them to address those organizations' individual needs and flaws. The authors warn that adopting the chain-based view of innovation requires new measures of what can be delivered by each link in the chain. The approach also entails new roles for employees—"external scouts" and "internal evangelists," for example. Indeed, in their search for new hires, companies should seek out those candidates who can help address particular weaknesses in the innovation value chain.

Even in companies for which innovation is a strategic imperative, the job of managing it tends to be defined narrowly. Rarely do executives examine their company's innovativeness—the capacity to conceive, develop, roll out, and improve new offerings—as a whole. If you don't manage your innovation efforts with an eye to these articles' different but related approaches, open innovation will become a silver bullet aimed right at your foot. By contrast, companies that take a systemic view will find their capacity to innovate so enhanced that they leave rivals in the dust.

This article includes a one-page preview that quickly summarizes the key ideas and provides an overview of how the concepts work in practice along with suggestions for further reading.

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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 engeged 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.

MAKE YOUR SUPPLY CHAIN YOUR COMPETITIVE ADVANTAGE

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Abstract: The article discusses supply chain manager's role is often not understood too well by the youngsters. He needs to organize many duties and responsibilities at a go and hence the supply chain manager collaborates with other corporate functions. The supply chain executive/manager must help facilitate innovation in marketing efforts. He must lend rock support to the marketing function of the firm. Firms depend heavily on supply chain consultants these days. The greatest skill of a supply chain consultant is normally the ability to immediately assess inventory costs and put plans in motion to reduce their impact. Supply chain experts typically try to match an inventory management approach that meets the company's market, industry, customers and its business philosophy. They provide companies with the tools needed to lower their month-to-month carrying charges of inventory.

In todays over competitive business world managing the firm's supply chain brilliantly is one of the strategic responsibilities. A supple supply chain can be firm's competitive advantage. A well managed supply chain can be supportive to firm's value chain. Today companies are under increasing pressure to rapidly read buyers' signals which change rapidly. Buyers want the products and services available to them as swiftly as possible; therefore companies are pressed to deliver when customers are ready to buy. Organizations are taking inputs directly from their customers. Customers are also in constant touch with firms; they are directing the firm's supply chain from the overall product concept; timing of the launch, packaging and delivery. And therefore, in this emerging world of demand-driven markets the supply chain plays a crucial role. It must not only be flexible and cost-effective, it must be able to respond directly to customer needs, even as those needs are continually shifting. And it must be able to reduce lead times to the bare minimum.

Necessity is the mother of inventions. When people are hard pressed for finding solutions to their problems, they will figure out a way to find it. This means people think laterally when they have to struggle, when they need to fight odds, when they are pushed to the corners. Since the beginning of human life, enormous changes around us have taken us to a path of scientific progress, which in turn has benefited mankind in a number of ways. In every era, men invented many things in order to cater to their rising needs. I would like to present in this article to showcase how some great companies have brought in innovations and strengthened their supply chains.

This article is based upon pure desk research. The desk research technique is mainly acquired by sitting at a desk, using secondary data from various sources such as internet, newspapers, journals and magazines. In short in a desk research the researcher uses data from existing published resources.

In a news item published in Economic Times dtd 8th June 2011, the former Finance minister Pranab Mukherjee asked chief ministers to 'urgently' look into the supply chain of items and remove the bottlenecks that are driving food inflation in the country. In a letter to all the chief ministers, Mukherjee said particular attention should be paid to the local factors that are widening the gap between the wholesale and retail prices. The Food Corporation of India recently reworked its supply-chain management. It took help of consultants to reduce the bottlenecks. The nodal agency that procures and distributes food grains across the country annually buys 250 lakh tones of wheat and 300 lakh tones of rice. In 2010-11, it lost Rs 482 crore from storage and transit loss of food grains.

FCI uses linear programming technique to manage movement of stocks, this technique is of limited use as all loading railheads and recipient railheads cannot handle full rakes. At times, demands of nearby railheads are combined so that a full rake is used to reduce operational cost and time. Food grains are transported from surplus regions, such as Punjab, Haryana, Andhra Pradesh, Madhya Pradesh and Chhattisgarh, to

consuming or deficit regions. A detailed monthly movement plan is charted out to help the Railways in allotting rakes and ensuring smooth movement of food grains. In September 2010, the Supreme Court asked the state-owned Food Corp. of India (FCI) to expand and modernize its distribution infrastructure, and noted that 50,000 tons of wheat had already deteriorated. The case brought renewed focus on the interlinked challenges of feeding India's poor and overhauling its food grain procurement, storage and distribution infrastructure.

According to West Bengal Governor, Mr.M. K.Narayanan, better supply chain management will help reduce inflations in the price of agro-products. Due to lack of proper governance of supply chain there is a huge wastage of food grains in India.

While on one hand when we see the Government failing to take the right measures to improve the supply chains, the private sector is using lots of innovation to combat bottlenecks in supply chain. Companies like Hindustan Unilever, ITC, Godrej use of stockiest and their staff for effective direct sales to nooks and corners of the nation. In rural India mandis are emerging as the target centers for direct sales. BPCL (Bharat Petroleum) is introduced specially designed Rural Marketing Vehicle, which moved from villages to villages to fill gas cylinders on spot.

Another innovative distribution model that merits mention is the HLL's Shakti project, which connects Self-Help Groups (SHGs) with business opportunities. Hindustan Lever promotes and uses the SHGs network present in the villages for increasing its sales in the rural areas. The SHGs are offered chance to become company's local small scale distributor in the rural areas. The groups, typically of 15 to 20 people, buy a small stock of items such as soap, detergent or shampoo and then sell directly to consumers in their homes. The model is a win-win for the company and the village SHGs.

A supply chain that responds directly to customer needs may look quite different from the supply chains of the past. For one reason that today it maintains a close relationship with marketing channels and producers from the very beginning of the product life cycle. The reason being the supply chain strategy helps an organization at various stages of the PLC from launch to decline. It addresses the bottlenecks of at every stage of production as well as distribution. Today's supply chains need strategies which will give them:

Visibility: here visibility means an array of record and movement of goods with the right processes with vigor. The recording of the movement, events, and patterns that enable the automation allow accurate expectedness, this also enhances dynamic responses of all stakeholders in the business. Today supply chain professionals are realizing the need for more visibility. After re-inventing the category of express parcel shipments, FedEx went a step further in the mid-1980s with its development of a new computerized tracking system that provided near real-time information about package delivery. Outfitting drivers with small handheld computers for scanning pick-ups and deliveries, a shipment's status was available end to end. The Fedex system really drove the idea that "information was as important as the package itself," and was foundation of our current supply chain visibility systems and concepts.

Adaptability: the supply chain professionals are realizing that the emerging markets in the globe are driven by middle class buyers who are cost conscious, eager and demanding. Hence, supply chains need to adapt to the cost-conscious buyers swiftly in these markets. In 1982, 3M, like every other company, had to leave transportation decisions to each plant and distribution center. **Roy Mayeske**, at that time the Executive Director of 3M Transportation, had the idea to centralize transportation planning to look for network synergies. 3M took mainframe software being used by Schneider National - one of its major carriers and modified it to be workable from a shipper perspective. Planned shipments, well studied routings made a huge change to the company's supply chain. Costs were cut, time saved, damages and wastes saved.

Improved communication: A dynamic supply chain needs to respond to rapid responses in crisis by keeping the response time short. Progressive companies in the world recognize importance of communication; they take help of social media. Social media tools, like blogs, can be more effective in encouraging and collaboration idea sharing than getting employees to attend and participate in meetings. TEVA Pharmaceuticals – a Canadian Pharma company has recognized that the speed of supply chain is about people talking to people, and has harnessed the power of social media to enhance communication between internal functional groups. This has resulted in "spontaneous association" between their VP of Supply Chain and the customers of the company all over the globe.

Collaborating supply chain with value chain of the firm: Firms recognize these days that they need to collaborate with the right supply chain partner to enhance their value chain. Partnering with a good logistic firm for the movement of supply chain improves forecasting of the firm by getting closer to the points of demand and supply. It strengthens strategic relationships with suppliers and marketing channels, enhances sales and operations planning to achieve corporate goals. An automated monitoring makes the supply chain hassle free.

Square D, a division of Schneider Electric, which is based in Palatine, Illinois, provides a good example of a nonlinear development flow in the electrical controls and automation management industry. Demand-driven innovation is an important part of Square D's business, and the company actively engages its customers in developing new products. But instead of simply submitting specs for a desired product and waiting for Square D to produce it, customers collaborate online or on the phone with order engineers, even before specs have been drawn up. Designers can suggest their own ideas or push back on features that might create hurdles

in the manufacturing process. The nonlinear back-and-forth makes innovation easier, richer, and faster than it would be otherwise. The faster flow means supply chain managers have to react more quickly in order to support innovations, but it also helps them plan ahead—they learn at the early stages of product development what the supply chain needs will be. There's another aspect of the strategy that's crucial for the supply chain: Square D requires that the products be made from standard components. That's how the company maintains control over the development process and keeps costs down. For supply chain managers, it's vastly easier to source standard components than to supply the materials that would be needed to make new products from scratch. The overall result of Square D's nonlinear flow: a 30 percent reduction in order-taking cycle times. Square D's system depends on integration of the supply chain with other functions of the business.

The supply chain manager's role is often not understood too well by the youngsters. He needs to organize many duties and responsibilities at a go and hence the supply chain manager collaborates with other corporate functions. The supply chain executive/manager must help facilitate innovation in marketing efforts. He must lend rock support to the marketing function of the firm.

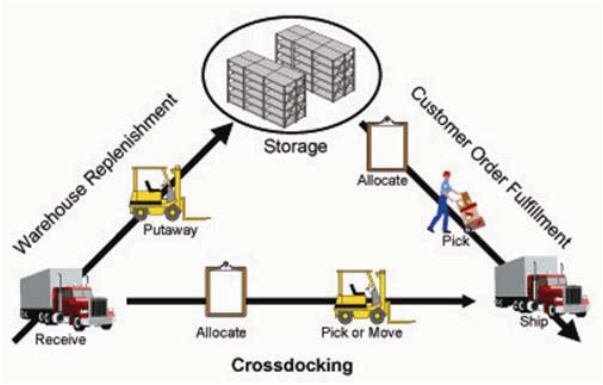
Wal-Mart's innovation in supply chain: In its persistent quest for low consumer prices, Wal-Mart embraced technology to become an innovator in the way stores track inventory and restock their shelves, cutting costs and passing the savings along to customers. In the process the company became synonymous with the concept of successful supply chain management. Through a combination of distribution practices, truck fleet management and technological innovations, Wal-Mart became the model of supply chain efficiency and used it to become the largest retailer and private sector employer in the world. Wal-Mart showed the world that Supply chain management is moving the right items to the right customer at the right time by the most efficient means. In the 1980s Wal-Mart began working directly with manufacturers to cut costs and more efficiently manage the supply chain. From 1993 to 2001, Wal-Mart grew from doing $1 billion in business a week to $1 billion every 36 hours, growth that was attributed as much to supply chain management as to customer service.

Under a Wal-Mart's supply chain initiative called VMI (vendor managed inventory) manufacturers became responsible for managing their products in Wal-Mart's warehouses. As a result, Wal-Mart could expect close to 100 percent order fulfillment on merchandise.

Wal-Mart streamlined supply chain management by constructing communication and relationship networks with suppliers to improve material flow with lower inventories. The network of global suppliers, warehouses and retail stores has been described as behaving almost like a single firm. Wal-Mart developed the concept of "cross docking," or direct transfers from inbound or outbound truck trailers without extra storage. The company's truck fleet and corps of non-unionized drivers continuously deliver goods to distribution centers (located an average 130 miles from the store), where they are stored, repackaged and distributed without sitting in inventory. Goods will cross from one loading dock to another, usually in 24 hours or less, and company trucks that would otherwise return empty "back haul" unsold merchandise.

Collaboration Companies within the supply chain synchronize their demand projections under a collaborative planning, forecasting and replenishment scheme, and every link in the chain is connected through technology that includes a central database, store-level point-of-sale systems and a satellite network.

Wal-Mart implemented the first company wide use of Universal Product Code bar codes, in which store level information was immediately collected and analyzed, and the company devised Retail Link, a mammoth Bentonville database. Through a global satellite system, Retail Link is connected to analysts who forecast supplier demands to the supplier network, which displays real-time sales data from cash registers and to Wal-Mart's distribution centers. In recent years Wal-Mart has used radio frequency identification tags (RFID), which use numerical codes that can be scanned from a distance to track pallets of merchandise moving along the supply chain. Even more recently the company has begun using smart tags, read by a handheld scanner, that allow employees to quickly learn which items need to be replaced so that shelves are consistently stocked and inventory can be closely watched. Wal-Mart reaps the benefits of its supply chain management in time saved, faster inventory turnover, increased warehouse space and accurate forecasting of inventory levels. It is difficult for us to imagine that a company can track customer purchases and demand and allow consumers to effectively pull merchandise to stores rather than having the company push goods onto shelves.



In another case from close home - in remote districts like Gadag chemists had to ensure that medicines are stocked well and can be offered during emergencies. Unfortunately, chemists such as Maranabasari had to wait for an emergency before reaching out to a distributor for life saving drugs, losing precious many

hours for medicines to arrive.

Maranabasari found answers to his challenges in a solution used by the US army in its Global Combat Support System (GCSS), which was originally developed by Anup Akkihal, an Indian born in West Virginia. Maranabasari used it with several other chemists in the district, by paying Rs 100 every month for a software solution that tracks demand, sales and movement of drugs - all on a simple to use handset that does not need any fancy technology. Of course, the chemists had to learn the usage of this technology.

Akkihal, a post graduate in logistics from the Massachusetts Institute of Technology, found his inspiration to develop the software while working on a US Army project with defense contractor Northrop Grumman during July 2006. While working for the US defense, Akkihal realized that the technique could be used for the chemists' solution of stocking life saving drugs. He along with his team, worked with local chemists to develop a solution that could solve their problems in a simple, effective way. The solution developed by Akkihal, who sells the software through his firm **Logistimo**, is now gaining grip and holds potential for solving supply chain management problems faced by many village entrepreneurs in the country, experts say. Logistimo's solution is finding takers in remote villages and districts of Africa.

For instance, the World Health Organization (WHO) uses Logistimo's technology to track the vaccines meant for the immunization drive in Tunisia since most regions there are not well connected to internet and were looking for some technology that would do it with the mobiles. It seems once there was a pipeline of vaccines which were to be sent but were creating supply chain challenges. There was no real way of understanding where the vaccines were and Logistimo does exactly that. And it is relatively cheap in terms of technology.

3 PL & 4 PL: Indian firms have started using Third Party Logistics (3PL). Third party logistics providers typically specialized in integrated operation, warehousing and transportation services that can be scaled and customized to customer's needs based on market conditions and the demands and delivery service requirements for their products and materials. These companies offer services that can allow businesses to outsource part of all of their supply chain management function. Many 3PL companies offer a wide range of services including; inbound freight, freight consolidation, warehousing, distribution, order fulfillment and outbound freight. Firms opt for 3PL so that they can operate without much baggage; they become leaner by reducing assets and allowing focus on core business processes.

Globally the growth of 3PL companies began back in the 1980's when businesses began to look for new ways in which they could outsource logistics functions and concentrate on their core business. The increased awareness and usage of information technology due to revolution in IT services gave way to 3PL firms. One such firm which took the lead in 3PL revolution is FedEX. Its overnight delivery services changed the logistics format for numerous firms all over the world. It offered business operations the technique of just-in-time techniques; which in turn allowed firms to save warehouse space and reduce overall business cost.

3PL industries originated in India after 1990. The industry was pioneered by global logistics majors as a part of expanding these services to the Indian subsidiaries of multinational companies in automobile, electronics and FMCG sectors. Indian subsidiaries of multinational companies in these sectors took cue from their parent companies and began to outsource a share of their logistics functions to these specialist service providers. Though insignificant in the first few years, Indian 3PL industry is experiencing a rapid growth after year 2000. The number of participants in this industry had grown to be more than 400 by year 2005. The Indian 3PL industry can be divided into three distinct tiers - National Major 3PL companies with nationwide presence, Regional 3PL companies with strong presence in one or two regions, and Small Remote 3PL companies.

4PL business is still at budding stage in India; they provide a wide range of value-added services that can range from business process analysis to hand work such as assembly, packaging and configuration besides the core activities of logistics. 4PL companies are hired by firms which engage services of 3PL. The term "4PL" was actually coined by the consulting group Accenture. In fact, they also hold the trademark to the name 4PL. Accenture defines a 4PL in the following manner: "A 4PL is an integrator that assembles the resources, capabilities, and technology of its own organization and other organizations to design build and run comprehensive supply chain solutions."

In 4PL, logistics is controlled by a service provider that does not own the assets to carry out logistics activities but outsources to subcontractors, the 3PL. Some large Indian firms in various sectors have invested heavily on logistics whereas sectors such as cement, FMCG, electronics, consumer durables, automobiles, pharma, food processing and the colour & paint sectors are among the chosen sectors which rely heavily on 3PL & 4PL logistics. While multinational logistics firms such as SembCorp, Exel and BAX, have made way into Indian lands couple of Indian firms such as GATI and TVS Logistics are also slowly changing the way products and

materials are distributed.

Globally most of the Fortune 500 companies have opted out hiring services of 4PL. In India, IBM, Dell, Nike and Philips have handed over their logistics operations to 4PLs. Much of the 4PL service includes execution of activities directly or through 3PL service providers. The logistics activities and solutions have started covering compilations of orders, planning the dispatch, physical transportation, in-transit monitoring, confirmation of deliveries, payment to be made to the transporters plus providing MIS to the client and the entire gamut of physical distribution function.

Geographic multiplicity of India needs varied logistics expertise as each region has its own troubles. Logistics posses a main challenge in the growing Indian trade. Along with diverse geographic scenario h a diverse cultural and regional buyer behavior has made logistics operations complicated in India. The buyer behavior in each state varies from the other, coupled with the geographical diversity of each state. Each state requires a tailor-made logistics model. Today, we require multiple solutions logistics companies to suit the nationwide logistics needs. Hope the administration is hearing.

India faces infrastructure limitations which in turn challenges the logistic company's work also. The congested roadways and heaving ports are resulting in significant delay in movement of goods, affect the performance of 3PL service providers; similarly, lack of sufficient warehousing and specialized storage facilities beyond major cities of the country result in 3PL service providers to restrain from offering warehousing services across the country, hence resulting in their failure to become the complete logistics service providers for clients. Perhaps, allowing these firms to construct their own warehousing facilities in strategic geographic locations and specific regions, could address this problem. If this strategy is adopted by the government then such geographic locations could be designated has warehousing hubs. Over and above, complex tax structures and corruption coupled with erratic bureaucratic control are some other hassles faced by logistics service providers in providing the best of logistics solutions for their clients.

Increased Use of Supply Chain Consulting: Inventory is usually an extremely important aspect of operational costs for many companies and must be managed with the most cost-efficient method possible in order to see profits. Firms today face rough challenges such as whether the firm has supply chain visibility; this structural issue includes the complexity of the product, the nature of the technology the firm uses and at what degree the brand loses its uniqueness and faces challenge of commoditization at each point in the supply network. The second challenge being how much visibility is good visibility; firms are cautious about their supply chain details as these details are of strategic importance. The information can be misused to sabotage a firm's business plans, and its existence itself. The third challenge being how does a firm behave when it confronts risk? Firms need to juggle with market changes, new product launches and specific distribution for them, handling marketing channels with a difference for new products and existing channels for older products with a different treatment, sourcing, new acquisitions, credit availability, protecting intellectual property, R&D and its results, shipment security, maintaining cordial relations with suppliers and distributors etc. Supply chains must periodically be assessed and redesigned in response to market changes. In addition, supply chain risks must be identified and quantified.

Firms depend heavily on supply chain consultants these days. The greatest skill of a supply chain consultant is normally the ability to immediately assess inventory costs and put plans in motion to reduce their impact. Supply chain experts typically try to match an inventory management approach that meets the company's market, industry, customers and its business philosophy. They provide companies with the tools needed to lower their month-to-month carrying charges of inventory. A supply chain consultant may have a degree in logistics or supply chain management or may simply have enough years of experience within logistics and management to be considered an expert in the field. I see a great future for careers in supply chain as managing supply chain professionally is need of the hour!

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EMERGING TREND OF STRATEGIC SOURCING UNLEASHING THROUGH INNOVATION IN VALUE CHAIN

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Abstract:

Emerging trend of Strategic sourcing is a *complex commercial process* requiring extensive knowledge andcompetence. It is satisfying business needs from markets via the proactive and planned analysis of supplymarkets and the selection of suppliers with the objective of delivering solutions to meet pre - determined andagreed business needs. It is advisable for organizations to shift from the Reactive and Tactical sourcingprocess and evolve the Strategic Sourcing process. The Implementation of Strategic Sourcing needs Top Management buy in and High level of competence in doing various analysis to arrive at an optimum source. The Strategic Sourcing Organization should be highly placed for an easier decision-making. Anextensive market driven analysis should be carried out for implementation of the Strategic sourcing of an Organization where in the Organization's position in the market place is the prima force. The current supply chain should also be mapped for an effective implementation of the Strategic sourcing. The Analysis provides with extensive data analysis leading to weighing in the various options and arriving at a sourcing Plan. The source Identification and strategizing follows the set procedural path making Strategic sourcing an excellent tool generating bottom line growth and rationalizing the supply chain costs unleashing through Innovation in value chain.

Emerging trend of Strategic sourcing is a pivotal activity for purchasing and supply management professionals. It is relatively important to draw a distinction between *Strategic, Tactical and Reactive sourcing*. Each organization should as a priority develop an overall sourcing strategy, of which strategic sourcing should be seen as a key element. The formation of a Sourcing Board or Panel for discussing strategies and assisting with decision-making is important in the Effective functioning of Strategic sourcing. The key stage in the implementation of a strategic sourcing policy is an As-is Analysis. Once the relevant data has been gathered and consolidated, and appropriate options generated, the outcomes should be presented to senior management for their consideration. In developing, analyzing and comparing a range of strategic sourcing options the use of weighted evaluation criteria is recommended rather than simply using cost/price as the sole basis for arriving at a decision. Once the preferred strategic sourcing option has been finalized, the purchasing and supply management function in the organization should have a key role to play in its implementation.

The Strategic Sourcing options should be assessed in terms of the benefits that they actually deliver as opposed to those, which they may have been expected to deliver as, set out in the original business case. Traditionally, sourcing was considered to be the identification of new or potential suppliers.

This is of course still a fundamental aspect of strategic sourcing but this paper aims to illustrate how the function has developed and expanded in recent years. This paper describes best practice Purchasing and Supply management; encouraging purchasing and supply management professionals to endeavor to move purchasing and supply management in their organizations towards strategic sourcing. However, it also appreciates that some organizations are Evolving Strategic Sourcing bound by legislative requirements that demand a different, (or in some cases, a complementary approach) to that proposed in this white paper e.g. Public sector enterprises and governmental agencies.

Categories of Sourcing: Reactive, Tactical and Strategic

Reactive Sourcing : Reactive sourcing as being a procurement approach where no proactive sourcing strategies have been put in place and so the purchasing and supply management function has an entirely reactive role e.g. responding to requisitions or other unexpected requirements from the business. It is better the Purchasing and supply management professionals to move away from this method of sourcing, wherever possible. However, some organizations still operate entirely on the basis of unexpected demand responding to individual needs as and when they arise. This response may be professional, but the buyer behavior is transactional, low level and will not necessarily enhance or promote the purchasing and supply management profession.

Tactical Sourcing : Tactical sourcing is to some extent reactive as it covers those business requirements that cannot be planned in advance, but are provided within a framework of strategic sourcing. It is however, proactively managed and so resources and processes are set aside to manage it within the purchasing and supply management strategy An example of tactical sourcing is working with colleagues in Marketing and Sales, pro-viding a bid support activity within fast moving technology areas. Notwithstanding the above, there should be no unplanned or unexpected capital expenditure as all organizations have capital investment plans which purchasing and supply management professionals should obtain and incorporate in the strategic sourcing strategy. If an unexpected requirement is ad hoc, low risk and low value, purchasing and supply management professionals should not be involved with obtaining the requirement anyway. All low-value requirements should have been aggregated into call off contracts for use by end users; those that are low value, yet high risk, are precisely those that require strategic sourcing plans.

Strategic Sourcing : Strategic sourcing is a core activity in purchasing and supply management. It is a complex commercial process requiring extensive knowledge and competence. It can be defined as ' satisfying business needs from markets via the proactive and planned analysis of supply markets and the selection of suppliers with the objective of delivering solutions to meet pre-determined and agreed business needs'.

Implementation of Strategic Sourcing : Developing the strategic sourcing strategy is a fundamental part of the purchasing and supply management process.

Strategic sourcing is a logical process involving the application of tools by skilled, competent and knowledgeable people; however - developing and implementing strategic sourcing is a functional process. Since it is such a broad area, the Paper will focus on the subjects in a brief manner, A Strategic Sourcing analysis model can be seen in Fig 1

Positioning Strategic Sourcing: Positioning Purchasing and Supply Management for Strategic Sourcing is a very critical step in the whole process. Every purchasing and supply management function needs to develops a written, and Regularly updated, overall strategy which states their objectives and activities over a given time frame. The strategic sourcing activity should form one part of the overall purchasing and supply management strategy.

The first stage in implementing strategic sourcing is the positioning of the purchasing and supplymanagement function within the organization. In order to undertake strategic sourcing, purchasing andsupply management must be positioned at the appropriate level (senior) within an organization and shouldreport to the Board (or via an appropriate Board representative) and it must possess suitable humanresources. Strategic sourcing requires the application and interpretation of sophisticated strategic sourcingtools and techniques such as relationship management, by suitably authorized and competent professionals.In order to sustain the high level position, resources and influence, the purchasing and supplymanagement professionals responsible for strategic sourcing should create a suitable governance structure so as to:

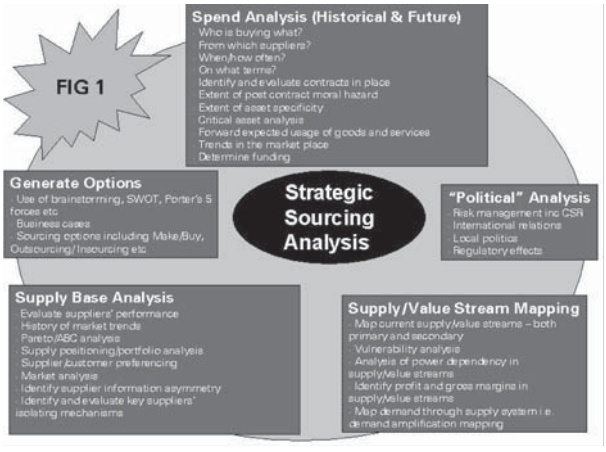
- Illustrate where the purchasing and supply management functions sits within theorganization e.g. ***alongside Finance, Legal, Human Resources ·***
- Illustrate the role of the function itself and those people that carry it out - the purchasing and supply management function's terms of reference, scope of responsibility andobjectives.

The purchasing and supply management function should create a Sourcing Board (sometimesreferred to as a 'Procurement Board/Panel') comprising, decision makers, opinion leaders and influencers. The Sourcing Board should be used to discuss strategies, policies, approaches, assist with decision makingand to help influence others in the organization on behalf of the purchasing and supply managementprofessionals.

As – Is Analysis: This is a very resource-consuming stage in strategic sourcing which includes establishing:

Customer and Business requirements:

· What do our customers need and what does the business need? An analysis of getting the Customer and Business Wants / Needs.



Spend analysis:

- A historical usage analysis of various goods or services the business is in.
- How the Supplier positioning is
- A Supplier historical analysis
- Analysis on Transaction cost.
- An Analysis on critical nature of products.

Future spend analysis

- Establish a Forward/ Expected usage of goods and services in your business.
- Trends in the market on the Goods/ Services you procure.

Market analysis

- Assessment of the market capability, how the market is going to behave and what is the general Market trend.
- Analysis of power dependency in supply chains, which department has the Maximum power wield.
- Analysis of individual marketplaces
- Supplier preferencing
- Relative positioning of your organization with respect to your competitors and similar industries.
- Supply chain cost analysis
- The nature of the market and how it behaves and responds to the fluctuations.
- What type of Sourcing Strategy - global, regional or local will be applicable for the
- Organization.
- Potential size (and actual size) of the supply base.

Several analytical tools can be used as appropriate for this stage including Porter's Five Forces,PEST (Political, Economic, Social, Technological) and SWOT (Strengths, Weaknesses, Opportunities andThreats).

Mapping Supply Chains

The process of mapping supply chains can be complex and the extent to which it is undertaken is dependent on the value and risk of the procurement in question and limited by the resources allocated tostrategic sourcing by the organization. The 'As-is' analysis and 'Mapping' stages can take typicallybetween three and six months. The time frame is too long for some organizations and more overimpracticable for some procure ment situations. However, the longer-term benefits of such proactive strategic sourcing are invaluable. The Best practice supply chain mapping generally includes:

- Identifying profit and gross margins in supply chains
- Understanding interdependencies in supply chains e.g. power dependency
- Mapping the required products and services onto these supply chains
- Analyzing spend by each supplier in respect of category and business unit
- Buying patterns by product, service, supplier, and business unit
- Sourcing patterns
- Pricing patterns - both past and forecasted, and also purchase price analysis
- Historical performance of suppliers
- Historical market trends and associated cost drivers (there are specialists in various fields)
- Value chain analysis
- Identifying and addressing dominant players in the supply chain
- Critical asset analysis (i.e. identify your critical assets which should be borne in mind when outsourcing)
- Technical analysis - alternative solutions to specification of requirement
- Risk assessment
- Costmodeling
- Portfolio analysis
- PEST analysis
- Complexity reduction i.e. standardization
- Ascertaining the demand e.g. formulating the requirements
- Demand challenge - does the organization need the 'requirement' (Defer, Diminish, Delete)
- Market potential/market modeling
- Determining the policy areas that need to be accounted for in sourcing - environmental and ethical policies for e.g. determining funding.

Consolidate Data and Generate Options for Strategic Sourcing:

Once the analysis has been undertaken and supply chains have been mapped, the next stage is toconsolidate the data and to generate options. Although not ideal, where resources are tight, in terms of timeand skills availability for instance, it is possible to omit some of the analysis stages and go direct to thebrainstorming of options. It is good practice to undertake all stages in strategic sourcing but where this isnot possible, it is better to attempt some aspects of it than not undertake it at all. Options should beperceived as 'baskets of opportunities'. In summary, this stage involves brainstorming options to fulfill the requirements, such as identifying the offering of suppliers and identifying whether there are other ways to fulfill the requirement e.g. instead of pur-chasing PCs i.e. goods, rather purchase a desktop service i.e.outsource the PC desktop provision. Another example would be instead of buying meters, buying a billingservice including meter reading and customer billing. The process of generating options is an iterative process in that colleagues examine, discuss andcriticize options and their feedback stimulates the production of further options. Having brainstormed a list of potential options the strategic sourcing team should subject each to a SWOT analysis and whereappropriate, a detailed risk analysis. The options that seem to be the most favorable are then prioritized onthe basis of the benefits and savings that they can deliver. Clearly, any pro-posed strategic sourcing planmust fully support the organization's objectives. Examples of options includeMake/buy options; dual/single source

decisions; feasibility of starting up partnerships with suppliers;benefit sharing etc.

Selection of the Strategic Sourcing Options

Once a range of suitable strategic sourcing options has been identified, these should be presentedby Senior purchasing and supply management professional(s) to the organisation's directors or SourcingBoard to be considered in the light of where the business currently stands and what the customers require.Occasionally, the strategic sourcing teams will be required to investigate further, or support theirsuggestions with business cases, ROI (return on investment models) and so on. Equally, the organizationmay require further options, or clarification or changes to those options preferred.If a purchasing and supply management function is insufficiently resourced, the presentation ofsuch strategic sourcing options can be a means of securing more appropriate levels of resource from seniordirectors. Equally, where the purchasing and supply management professional's impact on spend is limited,or where bought out expenditure is only 20% of turnover, the presentation of strategic sourcing options tosenior directors, may be seen as a method of:

- Increasing the strategic sourcing remit.
- Increasing other value-add of the purchasing and supply management function i.e. notsimply price reduction.
- Penetrating aspects of the business that can be transformed into bought out expenditure,via out sourcing for instance.

Sourcing Plans

Once the preferred strategic sourcing options are agreed, these are developed into ***'Sourcing Plans',*** which should be innovative and creative solutions to the organization's requirements in support ofthe organization's mission and objectives. Strategic sourcing plans should generate work-streams i.e. clearmilestones to be achieved with resources e.g. project teams allocated appropriately. This is where theprocess of acquisition begins involving design teams, outcome-based specifications, market development,advertisements, and policy compliance for instance. Strategic sourcing plans include determining processesfor tenderer and supplier selection and performance criteria ensuring the supplier continues to meetcustomers' expectations.A weighted evaluation criteria when determining the preferred options as this is one method ofpersuading internal colleagues that purchasing and supply management is not focused on price and costalone but considers issues such as speed to market and other appropriate and relevant criteria. ThereforeStrategic Sourcing plans will include producing and managing the Invitation to tender process, conductingnegotiations and everything up to the recommendation of contract award.

Identifying New Suppliers : Traditionally, sourcing has been perceived as the identification of new or alternative suppliers e.g.sources of supply. Methods of identifying suppliers have included:

- Internet e.g. suppliers' own pages and B2B trade bulletin boards
- Trade associations and trade directories
- Business directories like Thomas registry, Kelly's, Sell's etc.
- Supplier exhibitions
- Networking with other buyers
- Talking to specialist end users.

This process is now part of the strategic sourcing work streams i.e. only part of the sourcing process. Following the development of strategic sourcing plans and the identification of work streams, thepurchasing and supply management function should facilitate the implementation of the strategic sourcingstrategy. This may involve helping with, or leading, the contracting process, educating the internalcustomer or order placer; enabling the supplier e.g. getting the supplier ready to deliver by developing andmanaging them etc. In many larger organizations, the strategic sourcing part of purchasing and supplymanagement is what purchasing and supply management professionals are primarily involved with. Theyare rapidly becoming less involved with the other aspects of contracting; i.e. purchasing and supplymanagement professionals have trained colleagues to manage the less strategic and more straight-forwardaspects of purchasing and supply management.

Measurement

All strategic procurement, including the design and implementation of sourcing plans, should bemeasured in terms of the benefits that they are delivered compared with what they were expected to deliveras set out in the original business case. This might take the form of a post-contract audit perhaps one yearafter the contract had been let. The findings should be reported to and discussed by the purchasing andsupply management professional(s) and their Sourcing Board in order to learn from experiences and buildon current commercial arrangements.

Conclusion :

An effective sourcing expertise is a key element in the purchasing and supply management professional's tool kit. Increasingly, the term 'Sourcing' is incorrectly replacing the terms 'Procurement' or 'Purchasing' or 'Supply Chain Management'.

Strategic sourcing encompasses aspects of all of those activities and is not a replacement activity. Strategic sourcing is a skill set which must be learned, developed and refreshed. Strategic sourcing, as described in this paper, is a relatively new skill set for purchasing and supply management professionals.

It requires great resource and excellent management information and so only some organizations are currently in a position to implement it. Further, strategic sourcing should only be carried out by competent and

knowledgeable professionals having the requisite Industry and sourcing Knowledge. This paper is to make a clear distinction between reactive, tactical and strategic sourcing and encourages purchasing and supply management professionals to move away from the former and to take a more proactive and strategic approach.

So, *Emerging trend of Strategic Sourcing unleashing through innovation in value chain, and as appropriate tactical sourcing, have a vital role to play in the overall corporate plan with the potential to make a significant and positive contribution to the bottom line.*

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CAs TO SOON OFFER FREE AUDITING SERVICES

ASHISH SINHA

The call for Corporate Social ResponsibUity (CSR) by the corporate affairs ministry has turned into a Professional Social Responsibility (PSR) for lakhs of Chartered Accountants (CAs) who may soon provide free auditing and accounting services in the country.

Institute of Chartered Accountants of India (ICAI),the apex body responsible for accounting and auditing standards in the country, has decided to offer 'free' auditing services to at least 100 auditable entities belonging to the deprived classes, micro, small and medium enterprise or those located in the tribal, remote and rural areas from this fiscal.

Speaking to FE/ICAI president Subodh Kumar Agrawal said the CA body is willing to scale up the free services to upto 1000 entities, if need be. "ICAI will now form a panel of volunteering CAs and discuss the modalities for putting this into effect with the corporate affairs ministry," Agrawal said.

It will be a first such initiative by CAs since ICAI come into existence in 1949.

But the concept is not new for the profession around the world. In the UK andlreland, the CA firms are providing their advisory, auditing and accounting services free-of-charge or on reduced rates for charities. Such services also qualify as community ser-vices, especially if provided to local bodies. The CAs of Ireland have formed a Chartered Accountants Voluntary Advice service (CAVA) which provides free business advisory services nationwide.

In order to increase its active participation in nation building, the lCAI has also entered into a memorandum of understanding (MoU) with the department of posts. Under the MoU, ICAI will help India Post in switching over from cash based accounting to accrual based accounting. " We are or ganising a series of training programmes on accrual basis of accounting in the Postal Accounts Offices across all 22 circles in the country. In this regard, programmes have been organised at Jaipur, Bangalore, Lucknow & Chennai," Agrawal said.

According to ICAI, it has also urgedfor mandatory independent information system audits for all cooperative societies, NGOs and educational trusts apart from internal audits. "The independent audit through Chartered Accountants would ensure transparency and reduce the discrepancies. Further for audit of Cooperative Societies, ICAI has made representations to various state authorities for empanelment of cooperative auditors," Agrawal said.

Talking about other recent initiatives, ICAI president said the Securities and Exchange Board of India (Sebi) had sought support from lCAI to review the audit qualification of the listed enterprises. "The Sebi has set up a new Qualified Audit Report Review Committee (QARC) which among other members will comprise of the representatives of the ICAI and the Stock Exchanges. While its role will be to guide Sebi in processing the qualified annual audit reports, ICAI will assess the materiality of the qualification contained in auditor's report, based on which QARC may even direct the entity to restate its books of accounts," Agrawal said.

Source : Financial Express, April 4, 2013

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UN-LEASING INNOVATION IN VALUE CHAIN – A DRIVER FOR GROWTH

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In today's fiercely competitive global business environment, corporations are under compulsions to find new and unique ways to create and deliver value to customers through innovations and the demand to innovate and deliver better value addition is growing ever stronger and stronger.

There is a growing recognition that through effective management of the Value Chain both cost reduction and value enhancement can be achieved. Since value chain function has been identified as a key value lever linking demand to delivery, in order to capture this value, the focus has been on taking Value Chain to a central stage of business strategy. Unlocking its potential will create significant opportunities for corporate success, performance, and profit - it can become a key strategic differentiator and a corporate contributor.

DRIVING PROFITS AND GROWTH THROUGH VALUE CHAIN SYNCHRONIZATION - A HOLISTIC APPROACH :

Myriad of changes around the world are posing greater challenges characterizedby different levels of value added but also by diverse relationships among thevarious actors involved, as well as by heterogeneous characteristics in termsof labour, technology, knowledge, capability and infrastructure requirements. The global economy has significantly increased competition; to successfully compete and gain the competitive advantage all the resources need to be optimized, processes synergized and need to collaborate with all the concerned stakeholders. This Integration is all about to synchronize within and across the value chains - and related strategies and operations / processes — and to leverage their strengths in collaboration, flexibility, visibility and technology to drive profits and growth.

VALUE ADDED IN VALUE CHAIN :

In a value chain additional value is created at each stage. Value added refers to any additional value created (the difference between input cost and output value) at a particular stage that include both tangible value added through raw material transformation, through various stages of production / processes by using man, machines and money and intangible value added through services, intellectual capital and capabilities of a firm (firm attributes, firm controlled information, use of knowledge assets and experience) and relational exchange like building of collaborative relationships to enhance efficiency and effectiveness. **Value added (both tangible and intangible) at different stages making different levels of contribution towards value generation are being transferred along the supply chain from point of origin to point of consumption creating value chain.**

INNOVATION DRIVEN VALUE CREATION :

Innovation is an idea, imagination or creative thinking, coupled with use of knowledge, information, skill, ability and other resources to **translate these into an outcome or change** that is substantially different, creative or new and the resultant product / device or process / method or way to do things is **intended to create value** by solving a problem, satisfy wants / needs and make some-thing or some-body better off strategically, technologically, economically, intellectually, socially and that is widely accessible and adoptable.

Innovation drives value creation that transforms ideas into vital products and processes into customer value into revenues inturn into increased stakeholder value. That is innovation in both products and processes contribute positively to company growth,prosperity and sustainability if it translates into business value through value added in the value chain.

INNOVATION – VALUE CHAIN : This innovation translated into value,forms *Innovation – Value Chain*. Organizations are investing in the time, energy, creativity, research, planning, refining, modeling and retesting with the hope that innovation driven value chain will pay off in terms of improved product, process, better teamwork, a new business model, a refined brand – and value addition to customers in terms of improved product, price, distribution and service levels. These are assets that add value to the company, therefore innovation driven value addition in the value chain become absolute necessity for organizational growth, prosperity, enhance long-term competitiveness and sustainability.

DRIVERS OF VALUE CREATION : For achieving an organization-wide focus on Innovation - Value creation is to understand the sources and drivers of value creation within the industry, company, and marketplace. Understanding what creates value will help focus on new ideas, creative thinking and brainstorming. Since innovation is considered as a major driver of value, growth and change, the factors that lead to innovation are also considered to be critical to organizational growth and transformation. Although the factors that drive value creation differ by industry, some of the major areas of innovation include strategy, technology, alliances / collaborations, management capabilities, employee relations, customer relations, community relations, and brand value.

In this presentation an attempt is being made to demonstrate how to build organizational Innovation-Value Chain that facilitatestransfer of value both within the firm and across the value chain to gain the capability to position the organization for future growth.

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PROCUREMENT - KEY FUNCTION AND PROFIT CENTRE OF ORGANIZATIONS IN PETROLEUM SECTOR

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As an increased number of Indian firms are gaining global recognition, there is a greater demand for supply and procurement resulting in complex processes and production cycles. Taking cue from global companies, industries in India are investing heavily in Procure to Pay solutions popularly known as P2P. Procure-to-Pay systems automate the full purchase to payment process, connecting procurement and invoicing operations through an intertwined business flow that automates the process from identification of a need, planning and budgeting, through to procurement and payment. Procurement and Purchasing are two actions that are performed in relation to goods and services and they are done with differences in their method and approach.

Procurement may be defined as the acquisition of appropriate goods or services at the best possible total cost of ownership. This is done to meet the needs of the purchaser. The factors or quality and quantity are taken into account in the act of procurement. On the other hand purchasing is a form of buying that consists in getting the goods or services by paying a certain amount of price or money. The amount of money or price paid in the case of purchasing will be in accordance with the quality and quantity of the goods or services. This is the main difference between procurement and purchasing.

It is thus understood that both procurement and purchasing have the factors of quality and quantity common between them. It is important to note that procurement is done to meet the needs of the purchaser in terms of time and location as well. This is an important observation to be made in defining procurement. There are two types of procurement called the direct procurement and the indirect procurement. Direct procurement involves the acquisition of raw materials and production goods. Indirect procurement involves the acquisition of maintenance, repair and operating supplies. An example of direct procurement is crude oil in petroleum industry. Similarly an example of indirect procurement is lubricants. Acquisition of spare parts can also be cited as an example under indirect procurement. Purchasing is normally done by both individuals and groups such as companies and organizations. On the other hand procurement is done mainly by companies and organizations or such other groups.

It is important to know that procurement is a process in business organization and is said to contain seven steps. These steps include information gathering, supplier contact, background review, negotiation, fulfillment, consumption, maintenance and disposal and renewal. Purchasing can also be divided mainly into two called direct purchasing and indirect purchasing. Direct purchasing involves the method of paying cash or money directly and getting the goods or the services delivered to your house. Indirect purchasing involves buying of goods or services through the third party sources. It is interesting to note that timing of purchases plays a very important role in the procurement systems.

Procurement has always been a profit centre of organization in India as well as in World. Procurement in the petroleum industry in India has contributed heavily to the manufacturing industry in the country in foreign trade in petroleum products. Rapid globalization, fast-changing technology, and the changing methods in the way business is conducted have brought significant changes and enormous opportunities in the procurement process particularly in petroleum companies in India.

After independence, the Indian government nationalized private foreign oil companies like Esso, Burmah shell & Caltex. Since then, state-owned Oil Companies have grown into manifolds. Initially these state run oil companies have been criticized for their huge bureaucracies as there were no private oil companies to compete with them due to regulated pricing and had almost 100 per cent market share.

The development of the Indian petroleum industry began on a very slow note. It started mainly in the northeastern part of India especially in Digboi in the state of Assam. Until the 1970's, the production of petroleum and the exploration of new locations for extraction of petroleum were mainly restricted to the north eastern state in India.

An important advancement in the Indian petroleum industry came with the passing of Industrial Policy Resolution in 1956, which emphasized focus on the growth and promotion of industries in India. Another major incident was the discovery of Bombay High, which changed the scenario of the Indian petroleum industry drastically. The Indian petroleum industry was sponsored completely by the government, and the management control of the petroleum industry and all its related activity was entirely with the government. The petroleum industry has the most significant role to play in changing the Indian economy from an agrarian

economy to an industrial economy.

The adoption of liberalization and privatization in July 1991 changed the situation again. The government started allowing the Indian petroleum industry to go into private hands and also entered into government and private joint ventures. The government also eased the stringent regulation process on the petroleum sector. This gave a tremendous boost to this industry. The industry began to grow at a tremendous pace. The production of petroleum and petroleum products also showed a significant rise.

Along with liberalization and privatization, the overall economy of India grew. Also, the demand for petroleum products increased at an annual rate of about 5.5 per cent. The demand for petroleum and petroleum products still continues to grow, and there is great potential for investors to invest in India in the sector and gain valuable returns while meeting the increasing demands for the petroleum products.

The petroleum sector in India is particularly favorable for foreign investment because the industry is one of the fastest growing segments, and it has shown a staggering growth rate of around 13 per cent in the recent past. Apart from the tremendous growth rate in the Indian petroleum industry today, it also boasts technology of international standards, easy availability of infrastructure at very cheap rates, high demands for petroleum products, and increased spending habits of the middle-class people. All these factors make investments in the Indian petroleum sector an attractive proposition for foreign investors.

The foreign trade in petroleum and petroleum products in the recent past have registered significant growth. It has thus attracted new foreign investments. Some of the main petroleum products that are manufactured for trade with foreign countries are petroleum gases, gas oil, propane, distilled crude oil, naphtha, ethane, and kerosene.

The Indian petroleum industry plays a major role in economic development of the country. The total investment estimated in petroleum sector from 1995 to 2010 is estimated to be Rs. 432000 Crores (US $ 120 bn) of which Rs. 258000 Crores (US $ 80 bn) are for upstream sector alone which will continue to increase in future till alternative sources are discovered.

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THIRD PARTY LOGISTICS SERVICES IN 2013

Ankit Gupta on why he is so bullish about the future of 3PL industry

ANKIT GUPTA
DIRECTOR OF MUMBAI-BASED TOTAL LOGISTICS

The use of third party logistics I services is bound to take a leap in the year 2013 when outsourcing is seen continuing to increase among companies in sectors such as automotive, telecom and construction.

Even amongst shippers, there is continued rationalization taking place. However, survival of 3PL companies will depend totally upon specialization which is the most important factor when it comes to global markets. 3PL involves specialization of a basic job and only those companies that can manage it on time will survive.

A recently concluded survey has put the industry growth at 10% in 3PL services in the Asia Pacific region during 2013. While there will be basic growth during the year the. profits are likely to diminish due to cut throat competition among industry players. The companies that can provide value added services are the ones which can gain market share and as a result improve their margins too.

Intellectual capital would be the success mantra for 3PL companies. Intellectual capital comprises of human capital the competency and commitment of a human resource and their motivation to contribute; structural capital the process and developmental culture existing in an organization; relation capital the ability to create trust in the value chain amongst organizations, customers and suppliers.

Talent management will play an important role for companies looking to excel. Till date 3PL companies have been recruiting from within their own industries but now-a-days many are increasingly looking to recruit talent from other industries. Company success and performance, salary and benefits and opportunities for personal development are considered the most important tools to attract the right kind of talent

As logistics becomes ever more intrinsic to a company's ability to attain its business goals, shippers and 3PLs must be able to put trust in supply chain leaders to be prepared for future business challenges. The logistics market must, in turn, look to develop programmes for talent management to create a dear, well-defined business strategy for the recruitment, retention and development of talent.

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THE THREE SUPPLY CHAINS IN INFRASTRUCRE

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In Infrastructure Project Management, we talk about three Supply chains as against material Supply chain referred in most of the Industries. Such three Supply Chains have been deliberated in this article.

In the Infrastructure Companies deal with many projects simultaneously spread across the Country as well as in neighboring countries. These projects are at different stages of the project like Mobilization, Active Project, Demobilization & Defective liability stage etc.

The supply chain becomes the vital activity to supply of Quality & large quantify of materials from small pin to huge size Construction Equipment for such a Mega Projects in time as well as within the budgeted cost. These projects could be Hydel, Nuclear, Road, Marine, Pipeline, Irrigation, Transportation and other Utility of Urban Infrastructure. These need to meet project management criteria's of environment and occupation, health, safety, etc.

Many of the Power Projects related to Hydel are at remote places like in Jammu & Kashmir, Uttarakhand, Himachal Pradesh, Sikkim, Arunachal Pradesh, etc. These projects are also at very high altitude resulting into the lower oxygen levels, thus making working there difficult. In addition to its remoteness, some of the projects are having extreme climatic conditions like temperature going down as low as (-) 25 degree C in winter. Some of the projects are also remain cut off from other part due to the snowing, flooding etc.

These Engineering Construction projects need huge quantity of materials like cement, reinforcement steel, structural steel, concreting chemicals, pipes, cables, various costly construction equipments, spares, Diesel, Oil, Lubricants. A very large equipments need to be moved, depending upon its need from project to project or to the refurbishment workshops and back to projects, before road gets cut off. This talks about the increased uncertainties in movement of goods in a required time frame to meet the winter stocking as well as during the initial project mobilization.

Normally in Industry, we talk about material supply chain from supplier and supplier's supplier to the manufacturing unit and move the finished products to the distributors & thereafter to the customers. **However, in the case of Infrastructure Project Management, there are three supply chains:**

1. At the outset, we normally talk about **Material Supply Chain,** which is common in all industries, and also exists in Infrastructure.

2. **Secondly all equipments** which need to be moved from different projects surplus to needy projects. This also includes new equipment from suppliers sourced globally which we call as **Equipment Supply chain.**

3. These projects are being of a short duration like of 2 years to 5 years. As such, the required manpower for supply chain for handling warehouses, organizing required materials, we need supply chain manpower to be placed at these projects. When project starts, there is nothing except a river that is flowing and a thick forest, in case of a Hydel project. So we need to send our Supply Chain team to receive materials, Store them, account them, plan & procure materials required in the initial mobilization of the project, and also to dispose off surplus.

   This manpower needs to be trained to take such

time of challenges at project sites as well as to ensure the de-mobilization when the project needs wherein neither the materials nor the equipment, we need to be kept when the project is over at the project sites, once the project is over. These supply chain personnel need to be shifted to other needy projects. This means there is a continuous monitoring required to mobilize, demobilize assess and train these supply chain workforce for all the projects day in and day out, This we call as **Manpower Supply Chain.**

The construction sites normally work for 9-10 months in a year as remaining months it is difficult to work because of rains, flood and snow. This means the asking rate of construction is very high as these months lost due to rain, flood and snow need to be covered in the remaining months. As such the construction projects, work, during the working months, 24 hours a day 7 days in a week .For meeting the such project schedule, the huge quantity of cement, steel, chemicals, pipes, cables are required to be moved to meet the requirement of the project needs, to be unloaded & issued as and when required The stock preservation,, the stock verification &the material reconciliation goes on continuously. There are huge number of equipments which are put in construction sites which needs a good amount of diesel to run.

Thus, the large quantity of diesel which becomes the lifeline of the project for running these equipments & go ahead with the construction. So there are many projects wherein there are no Petrol Pump resulting into projects going with their own large storage of such lifeline like HSD. While doing so there are many statutory & safety requirements.

There are occasions wherein certain equipment become critical and need to be moved / transported quickly and thus calling for supply chain action. If the roads to such projects are dosed at that time, such Infrastructure Companies have moved the construction equipment like Compressors, Drilling Rigs, Dumpers by air lifting & by using the Air Crafts like IL76 (photograph enclosed) to be met. The photograph here indicates the arrangement done for storage of such a costly inflammable diesel, in underground tanks with required arrangement to dispense, with portable HSD dispensing units when ever required.

With several Construction projects being operated simultaneously, the number sometimes running to 40 to 55 Mega projects, the Project Inventory need monitoring and control. Many Infrastructure Companies utilize the ERPs like SAP to ensure required material availability .Other than materials, project needs of equipments, Spares, Construction assets like Staging and Shuttering need to be met. This involves a continuous exercise of identifying surplus and moves them to the needy sites.

We choose our Supply Chain team with care, considering the factors as under:

- Physical ability to bear though climatic conditions
- The requisite technical & professional skills
- No health limitations that may require urgent attention
- Emotional willingness to be away from home for a considerable length of time

These people live and work together in harsh & lonely conditions away from their families, in case of remote Projects. The Project & Supply Chain Leaders had to ensure that this Supply Chain Work Force not only work technically correct but also that these are mentored at regular intervals by managing the “human factor”. This calls for being in touch with them continuously, assess them, provide required training and even Facilitate and Mentor them at the regular intervals.

Logistically we also need to ensure that our Supply Chain Team is well equipped in every manner, from food, water, warm clothes, medicines & life lines like entertainment, communication and to meet their personal tastes. In nut shell the three Supply Chains in Infrastructure, working simultaneously, need to be addressed with equal importance, to achieve the competitive edge in this industry.

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ROLE OF THE STATE IN PUBLIC PRIVATE PARTNERSHIPS: A THEORETICAL PERSPECTIVE

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Abstract : 'Public Private Partnership or PPP has become a buzzword in the public policy circles and is being increasingly preferred as a medium for provisioning of public services both within the industrialised and low-income countries in various sectors.

This article provides theoretical insights into the concept of PPP, analyses reasons for their growth, and argues at a theoretical level for a active role of the State in governance of the partnerships.

Introduction : The concept of 'Public Private Partnership', or 'PPP' as they are popularly called, has become a buzzword of late in the policy circles, and is being increasingly preferred as a medium for delivery of public services both within the industrialised as well as low-income countries. Although PPPs are more common in the transport infrastructure sector such as roads, ports, railways, bridges and airports, primarily due to the commercial pricing models, they are also found in water supply and sanitation, tourism, education, health, and other social sector programmes, albeit to a lesser degree.

Engagement with the private sector for provisioning of infrastructure facilities has become increasingly popular in the past few years in the country. Although PPPs as a means of delivery of public services are comparatively recent in India, increasing reliance has been placed on private sector participation for fulfilling the country's infrastructure deficit (Planning Commission, 2010a). As a policy choice, PPPs are perceived to enable access to private sector resources and expertise to enhance efficiency of infrastructure projects, and improve service delivery. In terms of investment, while private participation was about 36% of total infrastructure investment during 2007-2012, it is expected to reach 50% of the planned investment of about US $1 tn (about 10.8% of the country's GDP) in 2012-2017. Within developing low–income countries, India is reported to have the largest market for private participation in infrastructure (World Bank, 2010).

It is claimed that India has the maximum number of projects within PPP in the transport sector. Its experience in highways and expressways has been substantial. About 93% of all the road projects in India have been developed within the PPP mode during the last five years. The largest national roads and highways development programme in the country, and one of the largest in the world- the NHDP (National Highways Development Programme)- is being developed within the PPP framework. Targeted investments in the road sector have been doubled to about INR 3140 bn[1] for 2012-2017 over 2007-2012. Recently, the empowered Group of Ministers on infrastructure has decided that 95% of road projects in the current year will be through PPP. Several airports are being built with private sector participation, while some metro-rail projects, such as the Hyderabad metro, are also opting for this mode of procurement rather than the traditional approach of public sector delivery. Recently a fund of INR 50 bn has been set up by the Government of India for supporting Research and Development (R&D) in PPPs in the field of vaccines, drugs and pharmaceuticals, supercomputing, solar energy and electronic hardware.

An investment of USD 1 tn has been envisaged for infrastructure during the 12th Plan; of this USD 500 bn is expected to be contributed by the private sector. India attracted US$ 71.9 bn in infrastructure in 2010 which is an 85% increase from 2009. This is the highest investment in any developing country in 2009-2010. Furthermore, according to a recent study by the Cambridge University and Royal Bank of Scotland (RBS, 2011), emerging countries will spend about US $20 tn in the next 20 years on infrastructure, registering growth of 158%. Asia will account for bulk of this demand with about US$ 15.8 tn in investment; India is listed as one of the countries that is expected to benefit substantially from this growth. Sector-wise, roads will see the second maximum investment (US$ 4.2 tn) after power (US$ 12.7 tn).

These figures demonstrate the primacy given to private sector participation in the infrastructure sector, at the policy level. In view of the political favour that PPPs have attracted and the increasing preference for these modes for the infrastructure and other sectors, it is relevant and timely to understand why the concept of PPP has become popular in various countries. This article will also critically analyse PPPs and provide an insight into the growing consensus for a leading and active role of the State in their governance.

Public Private Partnerships (PPPs)

Different definitions and interpretations have been associated with the term Public-Private Partnerships depending upon the context within which they are invoked and operated. Some scholars (Hodge, 2009; Osborne, 2000) argue that the meaning of the term 'PPP' may have contextual explanation within the broader socio-economic, cultural and country context in which

it operates. It is however observed that these different meanings are not exclusive categories as they have overlapping elements based on their intended purpose of application and significance. As Weintraub (1997) explains, this is also because the terms 'public' and 'private' suggest social differentiations, not all connoting bipolar meanings. Simply put, PPP implies collaborating with the private sector for provisioning of public services and infrastructure such as roads, airports, ports, health services, garbage and waste management, through structured framework of partnership. Such services have been historically provided by the government through public works agencies. Within the specific context of the infrastructure sector, PPP is defined as a long-term cooperative and contractual institutional arrangement between the government and private agencies, wherein they pool in their differentiated and specialised resources for planning, design, construction, operation and maintenance of infrastructure services, towards accomplishing a desired public objective. The partners share the investments, risks, benefits and responsibilities. The access this mode provides to private capital and its technological and managerial resources, in addition to the allocation of risks to the private partner, have been argued to form the crux of the partnership. PPPs are argued to provide the services more efficiently than the government could accomplish on its own, primarily due to its perceived superior qualities of the private sector in asset creation and management.

A general and common misconception about PPPs is that they involve the private sector merely for accessing its financial resources. However, PPPs are more about a service procurement policy rather than a capital asset management policy; they do not do away with public investment but merely supplement it. Within the PPP mode, the private partner is involved in a broader ambit of 'infrastructure investment' where neither the private sector nor the government is the only owner. In India, even though PPPs are being adopted for various services, the traditional method of delivery services continues to be part of public policy.

Categorising PPPs

PPPs are often classified into 'economic' and 'social' blocks and are further distinguished as 'hard' and 'soft'. While roads, railways, telecommunication and airports fall under the 'hard economic' category, areas like vocational training, technology transfer and Research and Development (R&D) facilitation are termed as 'soft economic'. Water treatment, housing and prisons and childcare are labelled as 'hard social' whereas social security, environment services and community services are included in 'soft social' category.

PPPs are also distinguished on the basis of stages in which the partnership is entered into. It can be either in the 'planning and design' stage or at the 'realisation' stage. As financial arrangements, PPPs have been observed to take different forms. There are various terms for them, such as BOT (Build Operate Transfer), BOO (Build Own Operate), Build Own Operate Transfer (BOOT), and Design Build Finance Operate (DBFO). The DBFO model appears to be most preferred PPP model across the world, where a single concessionaire or a consortium of private agencies take up all the activities of providing the infrastructural services.

Analysing the reasons behind growth of PPPs

Public Private Partnerships as are known in their current form started in the Organisation for Economic Co-operation and Development (OECD) countries and the USA. These gradually spread to the low-income countries. Reliance on PPPs as a preferred mode of service delivery rose to significant proportions during the 1990s, peaking around 1997. Among all the countries adopting PPPs, UK has had the maximum number of projects implemented under the Public Finance Initiative (PFI) initiated in 1992. PPPs have been now included in legislation in many countries such as the urban policy legislation of UK and USA, industrial policies of France, and economic development policies of Italy, Netherlands and UK. While Netherlands, Australia, Hungary, Italy, Japan, Korea, Spain and France have had substantial experience in implementing infrastructure projects under PPP, countries like Chile, Brazil, Singapore, India, and Canada are actively exploring this mode of delivery of public services.

On a broad canvas the wide acceptance of PPP seems to reflect the transformation of the State-market relationship. There has been a clear theoretical divide between the 'public' and 'private' sectors, and 'public' and 'private' goods. Traditionally, the government provided 'public' goods to prevent negative externalities of the market, and in order to meet its social and sovereign mandate (although, there have been differences among scholars as to what constitutes a pure public good). There has been an ongoing debate in literature regarding the merits of private versus government provision of goods and services and State intervention in markets. Subsequent to a period of domination of the government in almost all sectors (directly and indirectly), through an era of market preponderance due to 'State failure', countries again started to look towards government initiatives and interventions to tide over 'market failure' to ensure that public interest was not left to price-determined market vagaries. The government was again seen as the best bet to take countries to 'commanding heights'. However, issues concerning inadequacy and inefficient delivery were also observed with excessive government provisioning. Traditional methods were observed to leave a number of risks with the public sector, regarding the asset ownership. This is attributed to its monopoly position with no incentive for competition, poor fiscal discipline and limited fiscal autonomy to public bodies and managerial inefficiency which increases production cost. Many governments attempted to improve performance through corporatisation and performance contracts which were largely unsuccessful. PPPs

emerged in response to this situation as a form of governance which is argued to be midway between a purely 'State-directed' or 'market-oriented' way to provide public good. In addition to providing mix of resources of both the sectors, some scholars claim that they devoid of their dysfunctions.

Partnership with the private sector is argued to be moored in the neo-classical and new institutional economics with a marked 'market focus'. The growth of PPPs is credited to the implicit assumption that the market stands for better efficiencies in production and delivery of services, and partnering with the market is perceived to improve efficiency gains for the government. Some of the reasons cited for the growing interest in this mode of service delivery are the access they provide to private capital (Hodge and Greve, 2005), and the market knowledge and skills in technologically-intense fields, discipline and entrepreneurial spirit of the private partner, its project financing and management skills, effective organisation and innovation (Field and Peck, 2003). In addition, other benefits of PPPs include private sector efficiencies towards better risk management (Ward *et al*., 1991), emphasis on value for money and cost-effectiveness over life of the project (Akintoye, 2009), lowered transaction costs (Chen and Chen, 2003), overall reduced total project cost (Mothe and Quelin, 2001), and flexible and adaptable forms that allow them to respond more nimbly to uncertainties and opportunities (Provan and Kenis, 2007). These features are argued to make them distinctively different from the traditional contract-based procurement method which was found to have several limitations for projects characterised by a high degree of product specificity, such as the highways and airports (Klijn and Teisman, 2000). Low-income countries are relying on PPPs as part of their overall public sector reforms to fund infrastructure services and to fill the 'capability gap' (Pessoa, 2008).

The more recent discourses on PPPs view them as new forms of governance that combine the features of both the State and the market, and as a response to limitations to markets and hierarchies with regard to allocation of resources and provisioning of services. As a hybrid mix of the two forms, they typically mix virtues of state, such as accountability, probity, legitimacy and transparency, and efficiency and quality attributes of the market (Mayntz, 1994).

Critical analysis of PPPs

Despite the popular perception that 'infrastructure partnerships symbolize modern, fast and efficient public administration' (Hodge, 2009: 2), comprehensive review of worldwide experience of PPPs suggests that their overall economic benefits are mired in uncertainty and debate. A body of growing evidence has revealed that it is prudent to be cautious and even sceptical about PPPs (Boase, 2000). They have been termed as a Faustian bargain (Flinders, 2005), while doubts have been expressed regarding their social desirability (Vining and Boardman, 2008). There have been serious concerns in respect to their governance aspects including transparency, accountability, equity and efficacy under all conditions, and the risk of being captured by the elite (Rosenau, 1999; Peters and Pierre, 1998). The PPP model with too many actors in the fray has been criticised for fragmentation of reporting lines and blurring of existing mechanisms of accountability through contracts, legislation and other mechanisms (Loffler, 1999), which Skelcher (2010: 299) apprehends may lead to 'democratic deficit'. While new accountability structures have not emerged, the traditional ones appear to have diminished (Harlow, 1999). Walker and Walker (2000) argue that PPPs also have the potential to sidestep parliamentary accountability. While, Papadopoulos (2007) apprehends that accountability deficit may lead to legitimacy and governability deficits as accountability of decision makers is a means for their legitimation in democratic environments. The seemingly complex financial agreements of PPPs have limited the possibility of meaningful participation of the common man with their management due to a marked lack of transparency. Moreover, despite claims of risk sharing and private financing, the stakeholder is often in the dark about the true nature of partnership. This cloak of secrecy adversely affects the community support in their favour even when the projects are beneficial.

Recent studies of PPPs in the OECD and capitalist countries have found serious flaws with the claims of economic superiority, effectiveness and profitability of the PPP mode (Shaoul, 2009; Pollock *et al*., 2007). Analysts have been wary of veracity of measures used to determine VfM (value for money) and cost effectiveness of these projects pointing out that inaccurate discount rates, and flimsy and unprofitable risk analysis based on subjective criteria are often employed for estimation (Ball *et al*., 2007). There have also been allegations of excessive profiteering (Toms *et al*., 2009), hidden wealth transfers to the financiers, and deliberate attempts by governments to showcase their perceived efficiency and inflated savings (Shaoul, 2009). Studies have also revealed flawed evidence to support claims of improved time and cost over-runs (Pollock *et al*., 2007). Review of 227 new road sections across EU countries by Blanc-Brude *et al*. (2006) has revealed that PPPs are 24% more expensive on various heads against expectations from traditional procurements. Similarly, studies in the USA (Boardman *et al*., 2005; Bloomfield *et al*., 1998) demonstrate that inflated figures often mask the real cost, and risks borne by the public through unrealistic risk-transfer and higher taxes are difficult to be captured. Analysis of 76 major infrastructure projects has revealed significant private financing in less than half of the reviewed cases, 'imperfect partnership' with high degree of complexity and specificity, unrealistic risk transfer and strategic behaviour (such as private partners declaring bankruptcy) to claim compensation and avoid large scale losses. Analysing the controversial case of London Underground, Hall (2008) notes that the PPP for its maintenance and rehabilitation failed within a few

years due to multiple reasons, and the facility reverted back to the public agency with heavy losses to the taxpayer. Complex financial arrangement between partners, particularly the sharing of risks and inability of the government to effectively monitor the contracts, has been observed to be principal causes for collapse of the partnerships. Similarly, the Channel Tunnel project has saddled the government and private investors with several financial uncertainties (Hodge and Greve, 2009).

Some critics (e.g. Shaoul, 2011) suggest a subtle political power shift towards the private sector based on its capital power, through the PPPs. According to Hall (2009), long concession periods commit the future governments and reduce their flexibility of economic choices, which as Standard and Poor's (2008, in Hall, 2009: 4) points out may damage the public body's own credit rating, or its spending on other public services. Studies (e.g. Light, 2000) have revealed that private firms are more prone to hazards of opportunism[2], forcing them to cut costs, reduce quality and increase profits. Also, capital infrastructure projects due to their intense asset specificity, complexity and high sunk costs can potentially lead to problems of opportunism in either of the partners due to the reduced alternative value of the asset (Globerman and Vining, 1996). Evidence from Canada reveals that transaction costs appear to be high in most PPPs. Also, governments have not always effectively reduced either their total costs or their budgetary risks with PPPs (Vining and Boardman, 2008). Moreover, study of UK defence demonstrates that there are several transaction costs that cannot be offset through trust-based relationships (Parker and Hartley, 2003).

On the other hand, lack of clear government objectives and poorly defined sector policies, low credibility of government policies, complex decision making, inadequate legal and weak regulatory and supervisory mechanisms, and poor risk management by the government in the context of PPP have been highlighted by several studies (Kwak *et al*., 2009; Li *et al*., 2005). Political, economic, administrative and social contexts have been found to result in various forms of barriers to acceptance of PPPs in some low-income countries (Clarke, 2000; Hentic and Bernier, 1999). Lack of a competent market to fulfil the presumed arrangements, marked difference between norms and practices of administration, and ascriptive rather than achievements-based criteria for allocation and distribution of recourses are observed to impede success of PPPs (Peters, 2001). Studies of some East Asian countries (Clarke, 2000; Jomo and Gomez, 2000) demonstrate that 'crony capitalism' and 'clientelistic' nature of decision making seriously undermine market efficiency and benefit a few powerful. Several studies have identified weak institutional structures to contribute to ineffective partnerships. Unavailability of economic evaluation frameworks; poor clarity about contract management; hasty, poor and uninformed closure of contracts; and costly delays due to protracted dispute resolutions within government agencies contribute to this conclusion (Hodge, 2005).

Governance of PPPs: Role of the State

Although governments are relying on PPPs for filling their infrastructure deficit and capability gaps, recent studies of PPPs have demonstrated that '[t]he evidence to date is largely based on business case estimates, has an unclear counterfactual and suffers from a host of poor evaluative design features' (Hodge and Greve, 2009: 38). Evidence through a useful body of literature indicates that while there may be many cases where PPPs have been beneficial (Raisbeck *et al*., 2010; NAO, 2003), equal and maybe more number of cases presents a contrary picture. Moreover, as Bator (1958) notes, not always can commercial gains justify private provision of public goods. It may be possible that 'gains in income are accompanied by losses in welfare' because of inequalities the division of benefits generate (Streeten, 1983: 877).

Comprehensive review of several 'successful' cases in some industrialised countries claiming efficiency gains concludes that 'it is well to be sceptical about the data', and that 'in many cases, studies rely on assertion, or on surveys of managers' perceptions' (Walsh, 1995: 231). Hodge (2009) therefore recommends a shift in focus from the first generation technical matters to larger and more important dimensions of governance and public policy to understand 'who gets what' in the final analysis. Similarly, Kettl (1993: viii) argues that, '... public reliance on private markets is far more complex than it appears on the surface. In these relationships, government inevitability finds itself sharing power, which requires it fundamentally to rethink not only how it manages but how it governs'.

In the background of increasing concerns about the claims regarding the financial and efficiency benefits of PPPs as outlined in the sections above, there is a general convergence of opinion among many scholars that the strength of governing activities of the State does not diminish when private sector gets involved in provisioning of services, but merely changes as the government assumes new responsibilities (Allard and Trabant, 2007; Hirst and Thompson, 1995). Rejecting demands for a 'minimalist State', there has been a growing support in literature for a significant and leading role of the State in the coalition (Peters, 1998; Weiss, 1997). According to the hypothesis, the purpose behind a strong State with an expanded agenda of a different kind is to prevent distortions in resource allocation by the market forces (it was presumed by neo-classical economists that market forces and prices could be used as non-discriminatory and non-discretionary measures for building an egalitarian society). The overarching goal of a PPP is argued to develop infrastructure for *public good* by coalescing efficiencies of both sectors, and not merely to collaborate with the private sector because a new philosophy demands it and it is fashionable to do so. The complementarity of the public and private domains is professed to work well when both build upon the

comparative advantage of each and not by leveraging their power positions. Any intervention by the State to steer these partnerships therefore needs to be distinguished on basis of the purpose behind it; there needs to be a differentiation between 'more regulation' and 'effective regulation' as there are numerous ways by which an effective State can stimulate markets, enhance their efficiency and make them more people-friendly.

In this view, the State is the key source of constitutional legitimacy with legal authority and social mandate to seek and protect public interest, ensure equity, continuity and stability of services, prevent discrimination or exploitation, and ensure social cohesion (Goodsell, 2006). Many of the concerns regarding governance of PPPs stem from the inherently different, and sometimes conflicting, policy and business interests of the two partners (Peters, 1998; Streeten, 1983). The governments are therefore required to transit from the role of the financer, controller and commander to a wider one of regulator and facilitator (Goodsell, 2006). An enlarged role of the State has been advocated for engaging in wider process of formulating policies and mechanisms for allocating and coordinating recourses, influencing and structuring the economic and market space, and regulating the partnerships such that the commercial interests of the private partners are balanced with the socio-economic interests of the citizens (Kjaer, 2004).

A need is therefore felt for a competent government which can 'tightly' govern PPPs through stringent oversight mechanisms (Skelcher, 2010). This is because as Panayotou (1997) notes, PPPs are not merely a question of technical provision of services but form an inherent part of public governance today and can potentially alter how the public and private sectors are organised internally. The State is required to look beyond the narrow commercial formulations of a problem (in order to steer clear of 'opportunistic ignorance'), and to take a wider view within a multidisciplinary framework by bringing in the social, economic and political dimensions of the issue into the discussion as reality is layered (Myrdal, 1968). A strong State is more likely to ensure that PPPs secure public interest while providing facilities, improve existing efficiencies, and supplement limited resources of government at reasonable cost. Ineffective governance of PPPs may give rise to 'legitimate criticism of the Government which always remains responsible and accountable for delivery of services to the users', as private entities which normally use public assets to build these projects 'could short-change user and government interests, thus compromising the very purpose of inviting private participation' (Planning Commission, 2009: Preface).

Conclusion

This article presented a theoretical overview of the factors spurring growth and acceptance of Public Private Partnerships as alternative to government delivery of public services. Brief summary of the worldwide experiences of PPPs, highlighting the critical areas of debate and discussion, has also been furnished. The article also outlined the crucial issues of governance emerging from the distinct characteristics of the two partners, thus arguing at a theoretical level for a more active role of the government in enhancing effectiveness and efficacy of PPPs as alternative modes of service delivery.

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(Footnotes)

[1] INR- Indian Rupees. [Available at:

http://www.xe.com/ucc/convert/?Amount=1&From=GBP&To=INR

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[2] According to Williamson (1979: 234),

'[o]pportunism is a variety of self-interest seeking but extends simple self-interest seeking to include self interest seeking with guile

'. It is lack of candour or honesty in transaction, to include self-interest seeking with guile (Williamson, 1975: 9).

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CHALLENGES TO SUSTAINABLE DEVELOPMENT AND ENVIRONMENT IN INDIA

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Once upon a time, 'nature' was considered by practically all civilizations as sacred for they ensured human survival and development. Modern era came in Europe in Seventeenth Century. Europeans Spread over the whole world capturing both land and the people inhabiting it. They became the masters of all they surveyed. Both became the resources for exploitation; forest were cut, soils were destroyed, waters were polluted, air was poisoned, rivers were dammed – all this for increased production and consumption. A series of scientific discovers and technological developments strengthened man's hands to control nature in this era as a result of industrial revolution. As a result using energy resources like Coal, Petroleum, natural gases released green house gases in the atmosphere. Our land water and air are no longer in their life supporting State. The result is: global warming and climate change that is threatening the very survival of life on planet earth.

In twenty first century, we realize that something went drastically wrong with the way we tried to modernize ourselves; and that our fore fathers, who interfered with nature only with in the confines of the laws governing it on the one hand, and human craving for peace and harmony on the other, were perhaps right. This realization, even within a limited circle of people and institutions, has lead to a search for a paradigm of development that is devoid of violence against nature and fellow human beings. This search is, however, still with in the framework of the basic tenets of modern civilization, which gives priority to material advancement even if it means making nature inert and human beings less human. It is clear from the applied meaning of the new concept of sustainable development.

Concept of Sustainable Development:-

The term *'Sustainability'* derived from the Latin root *'Sustinere'.* The concept of sustainable development was first popularized by the word Conversation Strategy (UCN, 1980) and was very strongly promoted by the Brundlant Report, which define it as a "development that meets the needs of the present without compromising the ability of future generations to meet their own needs, improved living standard for all, better protected and managed ecosystem and a safer, more prosperous future". The world Conservation Strategy Report defined it as "the integration of conservation and development to ensure that modification to the planet do indeed secure the survival and well being of all people". Whatever the definition is, it carries the tenor of development that can be achieved without an undue exploitation of the natural resources. For long, it was taken for granted by the mankind that nature is bountiful and can be used unscrupulously. Accordingly, the resource exploitation continued unmindful of the consequences till it was realized that the resources are actually being over exploited. The international community called for a meet that aimed at bringing a halt to this menace and chalk out a programme to restore nature's capacity.

The first call to these environmental threats was given as early as 1960s. A new environmental movement emerged around this time that was sparked of by Rachel Carson's book *'Silent Spring'.* The book drew the attention of the world to the destruction of wildlife by the use of pesticide. She warned that this chemical contained the prospect of dying world in which spring time would no longer bring forth lease to new life but only silence. Carson revealed that our action could lead to seriously damaging environmental consequences when we interfered with the natural systems we fully did not understand. There were meetings from time to time addressing these issues including the Stockholm Conference of 1972; the United Nation General Assembly, in 1983, set up the World Commission on Environment and Development with the Norwegian Prime Minister Mrs. Gro Harlem Brundtland as the chairperson. The core theme of the report of this commission was emphasized the importance of taking into consideration environmental resources limitation before deciding the economic policies of the State. Thus a need was felt into integrate environment and economics in a coordinated manner without having deter mental effects on both.

The market driven economics and globalization led's to over use of natural resources in the name of

development. The developing countries are compelled to use their resources in an uneconomical manner; while the poverty levels remained as they are development eluded many a country. According this view the Brundtlant commission argued that in a world marked by extreme poverty, people are compelled to use resources in an erratic manner for meeting their immediate needs; these means of survivals result in an unhealthy environment.

Human needs are two dimensional; (1) the fulfillment of basic needs like food, clothing, shelter and clean environment; and (2) the option of pursuing a chosen lifestyle. The developed countries were successful, through early industrialization but the developing countries have not been able to secure the advanced technologies that would ensure a better lifestyle to their citizens. So they are in need of technical knowledge for not only good life but also an economically viable one. These countries have abundant natural resources but they take the know-how to convert them into environmentally sustainable technologies and tools. In this context, the second option is a subjective option. A good governance strategy promises a better standard of living and how this can be realized depends on the integrated approach adopted by the Government.

Challenges to Sustainable Development and Environment:-

After independence several development efforts in India created a lot of mess with misguided policies. The immediate task in front of us is it to cleanup this mess. According to the 2011 census, there are 640867 villages in India and about 833.1 million, which is 68.84% of Indian populations, live in this village. The number of people living in such of the Indian villages also varies considerably. It is found that most of the Indian villages have a population less than 1000, while there are only a few villages where more than 10000 people live. Rural areas thus sustain fourth-fifth of the total labor force of the country. More than two thirds of the working population is engaged in agriculture and allied activities. These people live in mainly rain – fed areas. The resources are limited for these people. 70% of populations are poor. Majority of the lands own by them are categorized as waste lands where yields are about 0.5 to 1 ton of grain per hectare. Forests and Pastures have been highly degraded and the top soil has been eroded or deprived of nutrients. Usually one corps per year is cultivated in these areas due to inadequate irrigation facilities. On the whole the present natural resource endowment in this region appears quite bleak. Even through we talk about privatization, there is no real investment in agriculture, especially in these rain – fed areas that are outside the much hyped "Green Revolution" areas. That is why the theme of this talk is "turning the present crisis to an opportunity. In fact, by the combination of a scientific and participatory approach to land improvement and micro-watershed management a sufficiently large bio-mass surplus can be achieved in these areas. In fact it is possible to generate bio-mass surplus in the form of wood and processable material of 2 ton per household per year.

On the other hand India ranks 128 out of 177 countries in overall HDI, just below Morocco and Guinea, in life expectancy at birth India ranks 125 just below Pakistan and Comoros, in adult literacy rate in India rank 125 just below Rwanda and Malawi, in terms of primary and secondary education enrollment India ranks 122, just below Namibia and Vietnam and as far as GDP per capita India ranks 114, just below Syria and Nicaragua. Nearly 46% of the children below 5 years of age are underweight and only 33% of the population has uses to improved sanitation. So the question needs a detailed analysis and identification of the causes of underdevelopment of the rural areas and a search for an alternative remedy.

There are so many challengers to sustainable development in India. Many of these problems are caused due to insensitive use of natural resources. Governmental responsibility is also trifling in solving the critical issues. This deterioration of environment has direct impact on the life of individuals, affecting the longevity of life, which in turn, affects the development process on the whole. The degraded soil, depleted aquifer, diminishing forest cover, deteriorating urban environment and destroyed eco-systems can scarcely support better living standards and quality of life in future. The challengers are both natural and man-made.

Government Initiative for Sustainable Development:-

As per a report by UN Environment Programme, Global Trends in sustainable Energy Investment 2010', India was ranked eight in the world in terms of investment in sustainable energy. The report further stated that India invested around US $2.7 billion in sustainable energy in 2009. Wind energy attracted 59% of financial investment in clean energy in India. India was placed fifth place in the world for installed wind power in 2010. Biomass and waste was the second largest sector recipient of investment, generating US $0.6 billion of new financial investment. India's sustained effort towards reducing greenhouse gasses will ensure that the countries per capita emission of greenhouse gas will continue to be low until 2030-2031. A new study suggests that the per capita greenhouse gas emissions would stay under four tones of CO_2 in 2031.

Major Achievements of sustainable development in India:-

There are many achievements for sustainable development in India. Such achievements are:-

i) India has been ranked ninth in the tree planting role of honor in 2009 in a campaign to plant a billion trees, which was launched by the United Nations Environment Programme in November 2006. The secretary of the Ministry of Environment and forests, Mr. Vijay Sharma announced that India has joined the United Nations Environment Programmes plant for the planet: Billion tree campaign by planting two billion trees since 2007.

ii) The number of carbon credits issued for emission reduction projects in India is set to triple over to 246 million by December 2012 from 72 million in November 2009, according to a CRISIL Research study. This will cement India's second position in the global carbon credits market. The growth in CER issuance will be driven by capacity additions in the renewable energy sector and by the eligibility of more renewable energy projects to issue CERS. Consequently, the share of renewable energy projects in India CERS will increase 31%. CRISIL Research expects India's renewable energy capacity to increase to 20,000 MW by December 2012, from the current 15,542 MW.

iii) The contribution of renewable energy to the power business in India has now reached 70% Growth in use of green technologies has put India on the green building leader board with countries such as United States. About 2-3% of all construction in India is green and it will reached 10% in next two or three years.

iv) India's first – ever 3MW solar photovoltaic power plant, developed by the Karnataka Power corporation Limited, the state-owned power generation company, was dedicated to the nation at Yalesandra village in Kolar district on June 17, 2010. The plant, which uses modular crystalline technology to generate solar energy, has been set up at a cost of US $ 1.29 million. India is the fifth largest wind energy producer in the world, with installed capacity of nearly 10,500 MW and a target to scale up capacity to 14,000 MW by the end of 2011.

v) The US $1.79 billion Indian lighting market is estimated to be growing at 18% annually and switching rapidly to energy – efficient systems. It value of terms, about US $425.58 million of the current market size belongs to the compact fluorescent lamp (CFL), according to Electrical Lamp and Component Manufactures, Association of India statistics.

vi) Compressed natural gas – powered vehicles in India have increased 30% over 2009 to 1 million in 2010, According to NGV India, Advisor. The Society of Manufactures Electric vehicles expect more sellers of electric two – wheelers in current year.

vii) Vijayawada will be one of the 60 cities in the countries that would be called solar cities, in very near future. The project, for which the centre has allocated over US $6.44 million with each city getting US $107,330 each, is part of the 11th five year plan. Geo syndicate Power Pvt. Ltd, a Mumbai based energy company, plans to set up the countries first geothermal power plant of 25 Mega Walt (MW)in the Hama district of Andra Pradesh at an investment of US $ 64.7 million.

Government has an enormous responsibility in ensuring the conservation of resources in a sustainable manner a part from providing a decent standard of living. For development Government initiated the programmes like controlling urban pollution, minimization of deforestation measure, joint forest management, environmental management system, and water harvesting measures to control groundwater depletion, bio-diversity conservation measure and so on. The government even initiated a National Environmental Policy, which is under through scrutiny by various concerned bodies and organizations of the state. The Government has also given due importance to rural development programmes, development of indigenous systems and industries, enhancement of technical and ingenious know-how through social welfare and income generation scheme.

The role of panchayats is vital for the overall development and for pursuing development from the bottom to the top level. The 73rd Constitutional Amendment has vested the panchayats with constitutional status, more powers and functions including the financial matters. After 73rd Constitutional Amendment Act the panhayats have been taking an active interest in the local governance matters enabling an effective local participation. The areas that come under the panchayat development plans include agriculture, irrigation, watershed management, village farming, farms produce, dairy, poultry, animal husbandry, fisheries, rural development plans, housing, cottage industries, use of energy, social and family welfare, improvement of transport and communication and

public distribution system, relief and rehabilitation, educational and training programmes, health end sanitation facilities and poverty alleviation programmes. As per the provisions of panchayats, the Gram Sabha and Gram Sansad (Word Sabha) is given power to control the institutions and functionaries in all social sectors, including activities like ownership of minor forest produce, selection of beneficiaries under various programmes, management of minor water bodies, minor mineral lease, MGNREGS also implemented and controlled by the Gram Panchayats.

The increasing pace of urbanization throughout the country is now posing enormous challenges to the management of urban environment. Multi – centered settlements, sprawling shopping malls, multiplication of population, scare resources, poor urban infrastructure, inadequate housing facility, air, land and water pollution, problem of solid waste collection, access to safe drinking water have jeopardized the economy. Lack of careful design, planning and management further abated the existing environmental challenges. The Municipal bodies are directly responsible for safeguarding the urban atmosphere. This institution should promote environmental ethics and spread awareness among the general public to avoid such activities that directly or indirectly lead to environmental degradation.

Participatory management and techniques need to be adopted towards achieving development. The involvement of local communities, panchayats, cooperative societies and women is a must towards creating sustained and self reliant communities. The livelihoods of the local communities are dependent on the surrounding natural resources. So it is very necessary that they should be involved in the development schemes right from the beginning stage of the development plan, to the execution stage. This approach ensures their place and stakeholders and associates of the development course of the auctions and also enables and empowers them to classify, plan, sustain and share the common benefits.

Conclusion:-

Sustainable Development is the process of improving the quality of human life while living within the carrying capacity of supporting ecosystems. It carries the premise of development that can be achieved without an undue exploitation of the natural resources. It is the duty of the national, state and local government's, to meticulously work out the modalities of achieving the goal of sustainable development in tandem with the National policy. It is an ongoing process in India. The governance for sustainable development should include an integrated approach of economic and environmental concerns in the development strategy, keeping in view not only the quality of life that has to be offered to its citizens but also an equal distribution of it with 'Social equality' as its goods. Governance should also safeguard a citizen's right to develop simultaneously holding the environmental concerns at a high pedestal. There are various challenges to sustainable development in India such as loss of biodiversity, depleting natural resources, pollution of lands, water and air as also poor health, poor literacy rate, and environmental sustainability. The decentralized governance helps in promoting humans and environmental concerns by the helps of local participation.

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FULL CIRCLE: REVERSE LOGISTICS KEEPS PRODUCTS GREEN TO THE END

AMY ROACH PARTRIDGE

Smart strategies to reuse, refurbish, and recycle products and raw materials not only benefit the environment, but also save money and increase profits.

While companies struggle at times to find ways to make their supply chains more environmentally friendly, one subset of the supply chain stands out as inherently green: reverse logistics. Because reverse logistics by definition includes processes such as remanufacturing, refurbishment, recycling, reuse, and asset recovery, engaging in reverse logistics activities guarantees companies a certain level of green.

"All elements of reverse logistics have green implications," says Jeff Robe, director of marketing for the Reverse Logistics Association (RLA), a trade organization focused on educating retailers, manufacturers, and third-party logistics providers about the benefits of reverse logistics. "Reverse logistics addresses questions including: At a product's end of life, can some components be salvaged and reused? Can the materials be ground up, recycled, and made into additional parts?

"Recovering products, refurbishing goods, and pulling out parts such as precious metals that can be recycled or reused are green processes, and they bring a huge benefit to the environment," he adds. Through effective reverse logistics operations, companies can also cut out inefficient returns processes that result in unnecessary transportation moves, helping to reduce carbon emissions and improve air quality. It is hard to argue against that list of green attributes. But environmental green is only feasible if it doesn't cost too much of the other kind of green. Contrary to what some logistics professionals suspect, it is possible to manage reverse logistics processes so they are friendly to both the environment and the bottom line.

GOOD FOR THE BOTTOM LINE, TOO

The benefit reverse logistics brings to companies ranges from three to 15 percent of the overall bottom line, according to RLA estimates. Robe cites electronics giant Cisco as a prime example. Partnering with a third-party provider and revamping its reverse logistics processes turned the company's reverse logistics function from a cost center to a profit source. What was an $8-million loss for Cisco in 2005 became a $147-million revenue generator by 2009, according to Rehman Mohammed, Cisco's senior director, customer value chain management.

Another example of green reverse logistics contributing to the bottom line is mobile electronics producer Palm Inc. The company revamped its reverse logistics processes to focus on refurbishing its goods, and now resells them using secondary channels such as an online corporate store and Internet retailer Overstock.com. Refurbishing the returned inventory for consumers, rather than leaving it to be scrapped, benefits the environment and Palm's profitability.

Thanks to the revamp, Palm decreased processing costs by 50 percent, reduced returned goods inventory to less than two weeks, and tripled the product recovery rate. "Now we are often able to receive up to 80 percent of the retail sales price for our returned goods," says Dawn Wang, senior manager of reverse logistics at Palm. Sometimes, finding a way to make green reverse logistics pay off is just a matter of looking beyond short-term profit motives to long-term business and environmental gains.

"Businesses would not implement green reverse programs if they did not ultimately reflect a bottom-line value," says Dave Meyer, vice president of sustainability consulting firm Sustainable Economic & Environmental Development Solutions (SEEDS) of Vancouver, Wash. "Companies get hung up focusing on short-term horizons instead of a long-term complete product lifecycle perspective," he says, explaining that the initial capital and process reengineering costs sometimes involved in green reverse logistics may scare companies away. "Companies need to consider collaborative opportunities within their supply chain and their long-term ROI," Meyer says. "They should also weigh the intangible benefits of being green, such as positive public relations and consumer loyalty."

But it's simpler than that. The very goal of reverse logistics, and what makes it green, is also what makes it smart from an economic perspective: getting rid of waste, which is costly to profits and harmful to the planet. "The whole idea of reverse logistics is to reduce what is used to manufacture a product; reuse components that can be economically recovered, for as long as possible; then at the end of its life, recycle that product to squeeze maximum life and profit out of it," Meyer explains.

Best Practices Revealed : How can companies get started on the path to implementing green reverse logistics processes that yield a healthier bottom line? Here are a few best practices to follow, from companies and experts who practice what they preach.

UNDERSTAND YOUR PRODUCT FROM BEGINNING TO END

The first step is to truly understand the product's impact, from the start of the manufacturing process until the end of its useful life. Although reverse logistics concerns only the reverse half of the supply chain, the implications for its success begin with the forward supply chain. "Companies need to understand what resources are used in their manufacturing process; whether any of those products are hazardous; which

components can and cannot be recovered and reused. Then they need to examine the various waste streams and outputs associated with the process," Meyer explains.

This approach means thinking of reverse logistics at the beginning of a product's lifecycle, and designing with its end-of-life disposition in mind. "Don't take an end-of-the-pipeline solution; start instead with the initial product conceptualization and design," Meyer advises. "Designing a product in a way that reduces the amount of hazardous materials that are used and maximizes the use of those materials so they can have an extended life, will reduce the product's overall long-term environmental impact."

This "designing with the environment in mind" aspect of reverse logistics is key for global telecom supplier Ericsson. The company tweaked its designs to reduce operating energy consumption; reduce product weight and volume; remove banned or restricted substances; and keep product disposal in mind throughout its product development process. The philosophy has helped Ericsson decrease the raw material footprint of its mobile switching center products by 70 times over the past 10 years.

This approach is also key to boosting profitability, because a product design that uses fewer resources and allows for easy reuse or recycling at end of life generally translates into lower overall production costs. Meyer cites the example of a solar panel manufacturer in Portland, Ore. The firm contracted with a local recycling company that collects and reclaims some of the waste, including slurry filter cake and graphite, produced in the manufacture of solar panels. The recycler is able to turn some of that waste into a material that the solar panel manufacturer can reintroduce into its production process.

BE CREATIVE ABOUT FINDING VALUE

When products are returned to a manufacturer (or to a third party that handles reverse logistics for the manufacturer) several scenarios usually arise:

§ The product is still functional and can be repackaged— or repaired/remanufactured if necessary— and sold as refurbished goods in a secondary market.

§ The product no longer functions but can be harvested for parts that still have value.

§ The product has reached the end of its life and must be disposed of in some way. At each of these points, companies can be creative about how to find value in the product, while still adhering to green practices.

"One of the greenest parts of reverse logistics is that it turns material that used to end up in the landfill into something useful," says Liz Walker, vice president of marketing and business development for Image Microsystems Inc., an Austin, Texas-based company that provides repair, refurbishment, and reverse logistics services. At the company's depot, for example, it tries to find a value or a use for everything that comes through its doors. This is where it helps to be creative. Take e-waste plastics— such as the plastic in spent printer cartridges or on cell phone housings. They are a major environmental issue for today's electronics manufacturers because the goods usually "have no value in the downstream recycling supply chain and are burdensome to dispose of," Walker says.

To combat this issue and find additional value for its clients, Image Microsystems has developed a process where it grinds and compresses e-waste material into an earth-friendly material that it uses for sign substrate. "We work with a major computer OEM in Austin that uses these signs— made from its own e-waste— on its corporate campus. It's a unique closed loop," she adds.

DON'T FORGET ABOUT TRANSPORTATION

While much of green reverse logistics focuses on returned goods and how best to reuse or dispose of them in a cost-effective and environmentally friendly way, the reverse logistics process also has a variety of transportation and carbon footprint implications. Greening returned goods processes but ignoring reverse transportation concerns makes for an incomplete green reverse logistics strategy.

"The procedures required to ensure timely processing and turnaround of returns directly affect transportation," write supply chain consultants Wayne Burgess and Craig Stevens in a recent whitepaper, *Reducing the Environmental Impact of Returns*. The authors advocate a centralized returns process in order to decrease multiple shipments and location transfers.

"Shipping consolidated lots holds clear carbon footprint gains, which are closely matched by a decrease in fuel costs," they say.

That was certainly the case for a large office supply retailer that partnered with Image Microsystems to gain reverse logistics efficiencies. The company, which sells computers, printers, and other consumer electronics, now ships all its returned products to Image Microsystems' facility, regardless of whether the products are to be repaired, resold, or scrapped.

"We developed software to help the retailer analyze— right at the point of return— what needs to be done with that product, so it does not have to ship products to different facilities around the country depending on the work required," Walker explains.

If a product has to be scrapped, Image Microsystems handles that process; if the product can be resold, the company becomes a virtual store for the retailer, fulfilling orders out of the refurbished inventory it holds for the retailer. "This takes several legs out of the reverse journey, and prevents the retailer from incurring extra carbon footprint and transportation costs," Walker notes. Ultimately, whether it is the actual products being returned, or the process by which a company returns them, reverse logistics can— and should be— both green and cost-effective. "The benefit to green reverse logistics is tangible," says RLA's Jeff Robe. "Most companies are realizing that being green means being more profitable, too."

Source : Inbound Logistics

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GLOBAL SUPPLY CHAINS - A BIG OPENING FOR ASIA'S SMALL FIRMS

MASATO ABE

Asia plays a crucial role in the global supply chains of many industries. Now, thanks to several emerging trends, the region's small and medium-sized enterprises have an unprecedented opportunity to get in on the act. Masato Abe, an economic affairs officer of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), discusses how they can take advantage.

Among the most significant developments in Asian business has been the emergence of global supply chains, specifically the cross-border business activities that produce and deliver goods or services for end-consumers far away. Since the late 1980s, transnational corporations, both inside and outside Asia, have invested aggressively in developing these supply chains. This spread has seen the growth of production facilities and jobs in the region, along with a concentration of production and distribution.

Regional foreign direct investment (FDI) flows have accelerated the development of global supply chains forging linkages between export growth and local business development. It is also taking advantage of untouched local resources, such as low cost labour and natural endowments, plus consumer demand in developed markets. Further underpinning the global supply chain phenomenon in Asia have been national export-oriented development strategies, trade and investment liberalisation, integrated logistics systems and the application of advanced information and communications technology.

China, Asean (Association of Southeast Asian Nations) countries and India have been Asia's major FDI recipients. As a result, global supply chains flourish throughout the region in diversified industrial sectors, including metals, energy, automobiles, semiconductors, electronic components and chemicals.

Global supply chains enable small and medium-sized enterprises (SMEs) to act as suppliers of labour-intensive parts and components or to provide other basic services, largely on a subcontracting basis. SMEs' greater flexibility, adaptability to local economic conditions and capacity to serve orders for smaller quantities are key advantages.

Most global supply chains are led and coordinated by a larger transnational enterprise, which controls factors such as brand recognition, technology, production assets and distribution channels. This lead firm makes decisions about the items or products to be outsourced, their quality or quantity, timing of supplies, and pricing. It requires and helps SME suppliers to implement improvements in the quality of their products or services, their productivity and the upgrading of their human resources. The lead firm also ensures the consistency and reliability of the suppliers. Furthermore, an SME which becomes a vital part of a global supply chain is responsible for managing its own suppliers.

Recently, economists in developing Asian countries have observed several trends in the development of global supply chains which are particularly relevant to SMEs.

First, enterprises from emerging economies – beyond Asia's traditional economic powerhouses of Japan, South Korea and Taiwan – have expanded their access to the markets of regional trading partners. This is partly due to the development of various free trade and investment agreements at the regional level.

As a result, some enterprises from China, India and Asean economies have been transforming themselves into transnational corporations, in line with the national economic expansion of their home countries. This trend is supported by increasing FDI outflows from those countries to neighbouring developing countries, as with intra-Asean FDI flows. This has helped to offset the decline in FDI flows from developed countries after the global financial crisis and has provided new opportunities for local SMEs to engage with global supply chains.

Second, and in parallel, many SME suppliers in Asian developing countries have been moving to higher value-added functions within global supply chains. While enhancing their supply capacity, they provide more products and or services with higher quality, thereby becoming increasingly preferred suppliers to lead firms.

Third, mainly due to increasing labour costs, some suppliers in emerging economies such as China, Malaysia and Thailand have started transferring traditional labour-intensive operations to less-developed neighbouring countries. This is particularly evident in sectors such as garment and apparel, consumer goods, electronics, food processing and

automotive parts. Examples include Vietnam's outsourcing of low-end electronic component manufacturing to Cambodia. By taking up production from their neighbours, SMEs in less advanced economies can begin to capture opportunities in manufacturing operations within global supply chains.

Fourth, SMEs are acquiring more technology and knowledge through global supply chains from larger or more advanced partners. Transfer of technology is required both for product and process innovations—which still mainly originate from developed countries—and is needed to help SMEs build capacity to compete in regional and global markets. As they become integrated into global supply chains and gain skills and knowledge about conducting business across borders, SMEs in Asia begin to attract more foreign investment, usually in the form of joint ventures, as with the automotive parts industry in Thailand.

The spread of global supply chains in Asia has opened opportunities for local SMEs, particularly in underdeveloped countries, to tap into larger and more efficient business networks as well as gain access to overseas markets.

In many developing countries in Asia, however, SMEs still play a limited role as they may lack the scale and necessary knowledge for entering and integrating into global supply chains. They often require a more enabling environment to help them improve their capacity. This involves having stronger policies and regulatory frameworks, supporting infrastructures, access to financing, an entrepreneurial culture, technology incubation and business development services.

To participate more effectively in global supply chains, SMEs must be able to meet a wide range of increasingly stringent standards in regard to quality, product safety, price, timely delivery and flexibility. A number of suggestions can help facilitate these processes.

SMEs that seek to establish partnerships in global supply chains should understand the structure of a specific supply chain and, more importantly, the specific characteristics of lead firms as they are the ones that decide which smaller firms can participate. If SMEs are unable initially to enter a supply chain as a supplier of higher value-adding functions, they can join at a lower-value level, where entry barriers are comparatively low, and subsequently position themselves for opportunities to move up the value-adding ladder.

As for policymakers, they can provide assistance by conducting the type of research which is beyond the resources of individual SMEs. This will help identify which sectors and products to promote and pinpoint which supply chains offer the greatest opportunity for growth. This generally involves three steps: 1) analysing the competitiveness of the home economy; 2) selecting product sectors; and 3) ascertaining existing supply-side capacity for those sectors.

Policymakers also can increase the capacity and competitiveness of SMEs in global supply chains by reducing domestic red tape, developing infrastructure, facilitating adequate flows of finance, and improving both business and general education. Finally, SMEs can benefit from pro bono consulting and training – and even financial support – that many lead firms offer to their suppliers to improve efficiency throughout the supply chain.

Source : Fung Global Institute

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COMMODITY INDEX

Commodities	Days's Index	Prev. Index	Week Ago	Month Ago
Index	2411.5	2401.7	2417.1	2529.3
Bullion	4868.7	4809.2	4914.9	5680.3
Cement	1758.4	1758.4	1804.4	1831.5
Chemicals	1776.3	1776.3	1801.2	1864.2
Edible Oil	1407.7	1410.3	1419.0	1407.2
Foodgrains	2063.7	2064.5	2062.2	2052.8
Fuel	2147.0	2161.6	2161.6	2187.7
Indl Metals	1838.1	1838.1	1829.7	1829.7
Other Agricom	2088.4	2088.4	2088.4	2084.7
Plastics	1935.4	1921.8	1921.8	1906.5

Source: ET Intelligence Group Database dated 23rd April, 2013

WTO UPDATE

"A PROMINENT PLACE FOR GROWTH IN THE POST-2015 DEVELOPMENT AGENDA" —

PASCAL LAMY, DIRECTOR-GENERAL, WTO

Director-General Pascal Lamy, in a speech at the Conference on International Cooperation in 2020 in the Hague on 7 March 2013, said that "economic growth and trade — as a driver of growth — deserve a prominent place in the post 2015 development agenda. We need an agenda that integrates economic growth with social inclusion and with environmental protection." He added: "Collectively we must plan for a common destination for the post-2015 development agenda. We need a compass that has countries converging around the same destination. 'Convergence' must be an overarching principle. At the same time we need to allow for differences in the pace and rhythm of getting there. And we must make special efforts towards the poorest and weakest. These are in my view the three basic ingredients for a post-2015 development agenda." This is what he said:

"Trade as a Platform for Inclusive and Sustainable Development"

Frans van den Boom, President and CEO of NCDOLadies and GentlemenIt is a pleasure to be back in the Netherlands, just over a year after I had the honour of addressing the NCDO's jubilee conference.

Thank you to the organisers for inviting me to share my thoughts on inclusive and sustainable development.

The Netherlands is a pillar of the rules-based trading system, a strong advocate for keeping markets open, and a leader in development co-operation. This country is home to several dynamic global corporations, and displays excellent trade and investment performance. However, you are not a country that remains stationary. Constant dialogue to ensure your development co-operation is more effective testifies that The Netherlands appreciates the important role which Official Development Assistance, investment and growth play in moving forward the development agenda.

The current Millennium Development Goals (MDGs) have roughly a thousand days to go before their end-2015 target date. The significance of the MDGs lies first and foremost in the fact that they gave the world a shared development agenda. They identified a set of shared goals around which we could collectively mobilise and they established time-bound goalposts for progress, many with quantifiable targets, against which we could measure our performance.

But beyond these targets and goals, the MDGs placed poverty reduction at the top of the global agenda. In doing so, they reshaped policy priorities, galvanising the attention and interest of governments, international organisations, the private sector, and individuals.

The WTO has embraced this role by remaining intimately involved in ensuring delivery on MDG 8 on the Global Partnership for Development including through using its leadership on the Aid for Trade (AfT) agenda to create a platform for inter-agency coherence.

Economic growth and trade — as a driver of growth — deserve a prominent place in the development agenda. We need an agenda that integrates economic growth with social inclusion and with environmental protection. We need a transformational agenda which creates jobs, develops infrastructures, raises productivity, improves competitiveness and promotes sustainable production and consumption'. Strengthening international co-operation in the area of trade is an important element in achieving this agenda.

This is supported by the evidence. Virtually all cases of large-scale human development and poverty reduction have been marked by a high average rate of economic

growth sustained over a long period. And every country that has achieved this kind of sustained high growth has participated actively in international trade. In addition, diversified productive capacity is essential for growth to be resilient. Therefore, growth, trade, and productive capacity must be part of any long-term global development effort.

But growth is not an end in itself. Rather growth is an important factor in enabling individuals and societies to realize their potential and pursue their dreams. As Mike Spence's *Commission on Growth and Development* put it,*"growth can spare people en masse from poverty and drudgery. Nothing else ever has."*A pragmatic take on the trade-growth relationship comes from the Growth Commission, based on decades' worth of empirical evidence. It has found that the open global economy served as a source of demand far greater than that offered by many home markets, but also as a source of ideas, technology, and knowhow. It enabled countries to specialise, boost value-addition, and increase output many times over. A list of ingredients is not the same as a recipe but nevertheless, in the past two decades, many developing countries have embarked on a path to higher growth supported by trade which has contributed to the attainment of many MDG targets.

Today, the rise of value chains provides important new avenues for trade, growth, and diversification. For developing countries in particular, regional and global value chains lower the bar for entry into the global economy. Smaller countries and small and medium enterprises no longer need to have a full-fledged vertically integrated industry producing finished products to participate meaningfully in international trade. And this is why the WTO's 4th Global Review of Aid for Trade in July 2013 will focus on how to support developing countries connect to value chains.

Improving the broad economic and policy environment in which developing countries produce and trade is an area in which global co-operation has to keep playing a constructive role. And I think this is where the efforts to conclude a WTO deal on trade facilitation come into play. Trade facilitation, a key issue that WTO Members are working to deliver for the 9th WTO Ministerial in Bali in December, can help reduce the thickness of borders i.e. time, red-tape, and cost of transit and customs clearance. Predictability and efficiency in importing and exporting is essential for inclusion in value chains. And its gains could be impressive: A Trade Facilitation agreement at the WTO could bring down the cost of moving trade today from roughly 10 per cent [of trade value] to 5 per cent. Globally, removing these barriers could stimulate the US 22 trillion dollar world economy by more than US 1 trillion dollars. Simply reducing this red tape by half would have the same economic effect as removing all remaining tariffs.

But it is clear that many poor countries will require help to implement this agreement. And this is where the deal being negotiated in Geneva is smart: it links for the first time "implementing rules" to "receiving assistance". It is not a deal with exceptions or exclusions. It will be a deal empowering countries based on a thorough, tailor made assessment of their needs.

Catalysing efforts such as trade facilitation would prove particularly advantageous over the next few years as more trade-led growth could create virtuous circles with other priorities as we look post-2015. There is clear symbiosis between growth, sustainable development and poverty reduction and the growing recognition that a holistic approach is the best way to achieve progress is to be encouraged.

The world post 2015 will be different in some dramatic ways to the world of 2000 when the MDGs were born. And we need a narrative that effectively captures this. The poles of economic growth have changed; there are new and emerging actors on the trade and development landscape that may have the means and indeed the desire to contribute more to shared global prosperity. These new actors — the emerging countries, the private sector, and philanthropic organisations — must be active partners. We are in search of a truly global partnership for development.The crisis is also impacting on ODA levels. Despite a potential flat landscape for ODA in the near future, I contend that placing growth and trade on the post-2015 development agenda could catalyse new resources and attention towards these objectives.In spite of trying economic circumstances, the Netherlands has kept ODA spending above the 0.7% threshold. I commend you for this but also strongly encourage you to continue to see development aid, not as charity, but as an investment in growth and development. Please keep investing in development. Keep investing in Aid for Trade.Collectively we must plan for a common destination for the post-2015 development agenda. We need a compass that has countries converging around the same destination. 'Convergence' must be an overarching principle. At the same time we need to allow for differences in the pace and rhythm of getting there. And we must make special efforts towards the poorest and weakest. These are in my view the three basic ingredients for a post-2015 development agenda.We may not have yet eradicated poverty, but the world today is a better place for many more billions of people than it was in 2000 when the MDGs were launched. For sure, absolute poverty reduction has not reduced inequalities which have grown, during the same period, within many countries. We should learn from this experience, from what we did right and what could have been done better to build a common post-2015 development agenda for the benefit of all citizens.

Source : WTO Website

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REALISING THE BENEFITS OF SUSTAINABLE PROCUREMENT

GARY WAYLETT, CEO, ECLIPSE GROUP

Good procurement can promote sustainability and transparency : Demands for demonstrable sustainability strategies are beginning to filter into many new business relationships. And, with the right approach, sustainability programmes can also result in a cost reduction – from consolidating suppliers and reducing deliveries to removing paper-based processes. Role of excellent procurement practices not only to ensure adherence to sustainable procurement practices but also to deliver transparency; enabling businesses to track activity and demonstrate sustainability to customers, suppliers and business partners.

Since the onset of the recession, environmental considerations and sustainable business strategies have taken a back seat to the focus on driving down costs. However, for many organisations, sustainable procurement is once again becoming an issue – not least as growing numbers recognise the importance of sound environmental practice to improve corporate image. Indeed, as the recent furore over corporate tax avoidance has revealed, in an era of real-time, social network-enabled global communication, perceptions of poor business practice can have an immediate and dramatic impact on revenue and profitability. Of course, taking a sustainable approach to procurement requires corporate upheaval; existing supplier relationships need to be reassessed based on each supplier's green track record; whilst staff will also experience a degree of cultural change.

The challenge for organisations is to balance sustainable strategies against staff experience and productivity: how successful, for example, is a strategy that demands staff always take the train in preference to a plane if the flight would take less than four hours? How can the company balance the value of reducing its carbon emissions against the negative impact on staff productivity and morale? Rather than basing decisions primarily on price, quality and time, sustainable procurement considers the whole life cost of goods and the potential benefit/impact to both the business, society and the economy, whilst minimising damage to the environment.

In Practice : The good news is that environmentally sound does not necessarily equal more expensive. Indeed, a 2010 study by PwC and EcoVadis in collaboration with the INSEAD Social Innovation Center on the value of sustainable procurement practices revealed benefits in three key areas: cost reduction, risk reduction and revenue growth. In addition to reducing carbon emissions, cutting waste, and lowering energy and fuel consumption, sustainable procurement can also improve health outcomes, deliver more skills, apprenticeships and training, even opportunities for small businesses. So how does sustainable procurement differ to standard procurement good practice? In addition to verifying the eco-claims of suppliers, procurement strategies must also take into account travel/delivery requirements and packaging and must include opportunities to consolidate orders to reduce unnecessary environmental impact. Companies can also monitor procurement practice – how many contracts are awarded to smaller businesses, for example.

However, one of the biggest barriers to achieving sustainable procurement today is a lack of coherent corporate procedures, systems and approaches. Organisations require supply chain visibility and excellent purchasing control. There is no point in an organisation creating a strong procurement strategy that reflects corporate sustainability goals if employees are able to circumvent procurement controls and the business has no way of tracking/measuring the benefits of sustainability. In addition, procurement best practice is still relatively immature in this area. There are few sustainable accreditations – aside from those that apply within the food industry – that provide organisations with an easy way of vetting the credibility of potential suppliers. The onus is therefore on each organisation to create its own standards and expectations.

Realising Benefits : For those organisations that do not have a robust procurement process or purchasing system in place, this must be the first step. Even without considering the sustainability angle, the process of imposing procurement control will inevitably both reduce costs and achieve a far more sustainable procurement model. From supplier consolidation to the reduction of orders - and hence deliveries - and the replacement of paper-based payment processes, including the attendant print and stationery costs, with far more streamlined electronic processes, companies can achieve immediate financial benefits.

Furthermore, with these processes in place, organisations can begin to explore other opportunities for improving sustainability – such as a thorough supplier review. A detailed questionnaire can request information regarding packaging policies, delivery methods and the existence of relevant green accreditations. In addition to flagging up the most sustainable suppliers, this process will also provide an opportunity to renegotiate contracts with suppliers, offering further opportunities for cost savings.

Critically, the procurement system can begin to collect a raft of information that can be analysed to assess the best way forward. Analysis of trends in purchasing behaviour – such as the reduction in orders and drop in delivery numbers – can also be used to demonstrate the improved performance to stakeholders, from investors to potential customers and partners.

Conclusion

Given the environmental targets set by both the EU and UK government, there is no doubt the emphasis on sustainable procurement will increase over the next few years. For most organisations, the concept remains relatively immature and, realistically, this is not a cultural shift that can be achieved overnight. However, the introduction of a robust procurement process and system can deliver value today. As growing numbers of organisations put pressure on the supply chain to demonstrate a sustainable strategy, those with good processes in place and the ability to analyse trends in behaviour will be well placed to gain competitive advantage and reinforce corporate reputation.

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MSMES - KEY DRIVER OF THE COUNTRY'S INDUSTRIAL GROWTH

MSME Sector Contributes around 9% to GDP and accounts for around 45% of the Manufacturing Output and 36% of Total Value of Exports

The President Confers National Awards to Micro, Small and Medium Enterprises

The President of India, Shri Pranab Mukherjee presented the National Awards to the successful Micro, Small and Medium Enterprises and also to the Banks for Excellence in Micro & Small Enterprises Lending, at a function here today. Speaking on the occasion, the President said that the micro, small and medium enterprises is perhaps the most crucial link between India's economic growth and socio-economic transformation. He stated that this sector contributes about 8 per cent of the country's GDP, 45 per cent of the manufactured output and 40 per cent of the total exports and is the key driver of the country's industrial growth as it comprises about 36 million enterprises that generate over 6,000 products and employ over 80 million persons.

The President added that this sector has great potential to be a true agent of socio-economic change. But for that, we must direct our efforts at increasing the competitiveness of this sector by enhancing the availability of institutional credit, promoting innovation and technology, providing adequate industrial infrastructure, meeting the demands for skill development and capacity building, and strengthening market support. He further added that the growth potential of the MSME units should not be impeded by lack of access to financial resources. He stated that there is a need to increase the reach and coverage of financial institutions by expanding branch network to locations near industrial clusters.

The President also said that our future progress would be determined largely by the level of technology that would drive our economy. Innovation and technology provides the competitive edge that our industrial sector at large and the MSME sector in particular should not be deprived of, he stated. He said that MSME units can prosper only if there is a concerted effort at widening the market for their products. He stated that market development assistance - trade fairs, packaging technology, bar coding and standardization- should be strengthened through the joint efforts of the Government and industry associations. The private sector must be active participants in the process of rejuvenating the MSME sector, he added.

Congratulating all the award winners the President expressed the hope that their success would inspire millions of small entrepreneurs working diligently through the length and breadth of the country, who have set benchmarks of excellence for other entrepreneurs.

Welcoming the President the Minister of State (Independent Charge) for MSME, Shri K. H. Muniyappa said that the Ministry of Micro, Small and Medium Enterprises honours the top achievers of MSME sector by conferring the National Awards annually, to recognize their outstanding contribution to MSME sector and to encourage innovative entrepreneurship. The Minister added that the MSME sector contributes around 9% to GDP and accounts for around 45% of the manufacturing output and 36% of total value of exports in the country. This is a sector of 3.6 crore thriving enterprises employing over 8 crore persons. The sector has been growing consistently above 10% for the last five years and the growth has been above 18% during 2011-12 in terms of filing of Entrepreneurship Memorandum.

Lauding the rich heritage of Khadi and Village industries and its unique place in the rural economy employing about 1.30 crore persons the Minister said that the MSME Ministry has launched a comprehensive Khadi Reform and Development Programme with an assistance of Rs 750 crore to directly benefit as many as 300 Khadi Institutions in the first phase for enhanced sustainability of Khadi, increased employment, income and welfare of artisans. Further, a new identity for Khadi in the form of "Khadi Mark" is also being introduced so that such products are guaranteed of the purity of Khadi.

He further added that the Prime Minister's Employment Generation Programme (PMEGP) is the flagship programme of the Ministry for creating productive employment for the unemployed youth and traditional artisans. The 1.85 lakh enterprises that have been assisted under PMEGP till date are mostly first generation entrepreneurs thus making the process of industrialization more "inclusive" in nature and the Ministry has decided to set up 100 new enterprises in every district of the country every year under the Programme. An amount of over Rs. 8,000 crore has been allocated in the 12th Plan to set up about 3.39 lakh enterprises, which would create 27.12 lakh employment opportunities. Further the Ministry is in the process of setting up "Advisory Committees" for PMEGP in every district under the Chairmanship of Member of Parliament, Lok Sabha with representation from Legislative Assembly, Panchayati Raj Institutions (PRIs) and other stakeholders to guide the implementation of this popular scheme.

The Minister informed that recently the Government has

announced in the Budget - 2013 to set up 15 new Tool Rooms with World Bank assistance of Rs. 2200 Crore during the 12th Plan.

The Minister said that the availability of adequate credit is always a major concern for growth and sustenance of MSME Sector. This year's Budget has come out with a number of initiatives, which would greatly strengthen availability of credit and finance to the sector. The refinancing capability of SIDBI has been enhanced from the present Rs 5000 crore per year to Rs. 10000 crore. Further, the non-tax benefits can be enjoyed by the MSMEs for 3 years after they have grown to next higher level.

The National Manufacturing Competitiveness Programme (NMCP) aims at equipping MSMEs with technology-based tools in areas of quality up-gradation, productivity, design development, energy efficiency and marketing. The Minister expressed the hope that the implementation of this innovative programme would go a long-way in promoting global competitiveness amongst Indian MSMEs.

The Minister congratulated all the winners of National Awards and expressed that these Awards would imbibe a sense of achievement among the MSME entrepreneurs and encourage them and more such entrepreneurs to reach newer heights in product quality, innovation and global competitiveness. Present on the National Award function were Shri Madhav Lal, Secretary, Shri Amarendra Sinha AS&DC, Shri Devendrakumar R. Desai, Chairman, KVIC, Prof. G. Balachandran, Chairman, Coir Board, H. P. Kumar, CMD, NSIC and other senior officials of the Ministry.

Source : PIB, 3rd April, 2013

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SUPPLY CHAIN & LOGISTICS: MANUFACTURERS LOOK FOR A BETTER RETURN ON RETURNS

DAVE BLANCHARD

Reverse logistics strategies allow companies to optimize end-of-lifecycle management.

T he push for sustainability has had a dramatic effect on reverse logistics services. Once considered a fringe activity, reverse logistics (also known as returns management) has in recent years become a key element in manufacturers' corporate social responsibility (CSR) initiatives since it encompasses the 4 R's of the green movement: reduce, reuse, recycle and recover. Manufacturers and their supply chain partners are being held accountable now for the entire lifecycle of their products, including what happens to the products after they've been returned or discarded.

While the growth of online aftermarket exchanges in particular has opened up new markets for manufacturers and retailers, it's also extended their responsibility to protect their brands. As more companies look to return management as a new and potentially lucrative revenue stream, they find themselves under increasing scrutiny to ensure their activities have a positive effect on the environment, rather than just contributing more waste to landfills.

"Traditional disposition processes include many inefficiencies that impact maximizing recovery and increase costs in the reverse supply chain," explains Cayce Roy, executive vice president and president, Retail Supply Chain Group, with Liquidity Services Inc., a firm that helps companies sell surplus, returned and end-of-life assets. He cites the process of having returned products moving from retail stores back to the supplier, who then ships the product to a return center, which sends it on to either a recovery provider or a refurbisher, with numerous overlapping steps in the process.A more streamlined process, Roy suggests, would be to place greater focus on end-toend supply chain efficiencies by working directly with a recovery provider. For instance, a large computer OEM had been selling its refurbished products to a small number of wholesalers and retailers, who offered the products at deeply discounted prices to move them as quickly as possible. Working with Liquidity Services, the OEM switched tactics and adopted a multi-channel approach, using various logistics tactics, such as offering pallet and truckload volumes to a broad base of retailers with coordinated pricing, as well as moving pallet-loads of older models onto online liquidation marketplaces. T he OEM reportedly increased recovery by more than 20% in six months.

T hat mirrors the type of approach Jabil Circuit Inc., a manufacturer of electronic circuit boards and a provider of electronic manufacturing services (EMS), is taking. Jabil is teaming up with package delivery giant UPS to offer return and repair programs to high-tech OEMs such as Dell. Acting in the capacity of a third-party logistics provider (3PL), the Jabil/UPS collaboration will offer OEMs access to strategically-located repair and distribution facilities near their customers, with services such as order fulfillment, next- and same-day transportation, returns processing, whole unit and component repair, planning and inventory funding. T he goals of the collaboration are to help OEMs reduce repair turnaround time, transportation spend and capital expenses, while improving customer support.

Source : www.industryweek.com

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NEW MANUFACTURING POLICY

WILL IT HELP MSMES GROW?

S. BALASUBRAMANYAM
FORMER PRESIDENT, PEENYA INDUSTRIES ASSOCIATION
BANGALORE

The GOI, through its highly ambitious NMP, **has embarked upon a Herculean task to achieve the objective of increasing the share of manufacturing in GDP to 25% from the current level of 16% and creating 100 million jobs in the manufacturing sector within a decade. No doubt, it is a task which is gigantic by any proportion and needs extraordinary commitment and drive not only by the Central Government but also a matching effort if not less by the State Governments.**

The major cause of headache for the policy makers in the Government was that the share of manufacturing in GDP has not gone above 15% for the last 3 decades, while the share in comparable economies in Asia is much higher at 25 to 34%. Hence the GOI, through DIPP, decided to eliminate the bottlenecks which were responsible for stagnant and low share in the manufacturing sector which resulted in undertaking the exercise to come out with a New Manufacturing Policy (NMP) which would step up the share of manufacturing in GDP percentage in November 2009. The GDI's objective was that the New Manufacturing Policy should not only aim at increasing the share of manufacturing in GDP to 25% but also creating 100 million jobs. Accordingly, a draft paper was prepared and posted on its website in March 2010. Since then it has journeyed back and forth through political corridors and finally the new NMP got the approval of the Cabinet last October. Finally the NMP was released on 04 November 2011.

The Focus

The focus for the above initiative is to ensure employment of 'rural youth' by imparting necessary skills to ensure employment suitability. This exercise has to facilitate the creation 220 million jobs by 2025 keeping in view the demographic dividend.

The MSME sector in India despite the challenges within and outside and lack of level playing field has significantly contributed for the growth and development of national economy since independence.

Thus it is rightly so on the part of the GOI to have come out with an NMP to counter the existing challenges on hand but also to gear up to meet the demand for one or two decades. The share of manufacturing sector in GDP to be rapidly increased is a huge challenge to be immediately taken up on priority keeping in view of the social manifestations. Hence the manufacturing sector has to lead and don the role of champion for employment creation exercises. Ensuring value addition to the resources on hand while addressing the needs is of great importance in view of the huge potential that can be added by matching employment skill development with that introduction of new technocrats.

The initiative contributes immensely for development of long-term competitiveness across all sectors not only to achieve the above objectives but also hasten the process. It is the MSME sector which will be right vehicle. The MSME sector in India despite the challenges within and outside and lack of level playing field has significantly contributed for the growth and development of national economy since independence. Be it light and heavy engineering, fabrication, auto components, rubber, plastic, paper, garment, leather, gems and jewellery, food processing or any other industrial activity, it is the MSMEs' which stands out with stellar performance. This is the only sector which not only paves the way for self-employment but also creation of huge employment opportunities.

In such a scenario it is not enough if NMP does a passing reference to this sector thereby overlooking the huge potential this sector can offer to achieve in real terms the objectives of NMP. The specific policy instrument as initiated to achieve the objectives can overrun the specific requirements of the MSME sector as a percentage share.

Policy Instruments

Let us examine a few of the specific policy instruments in the light of its reach to MSME sector.

1. **Rationalization & Simplifications of Business Regulations:** Such of those rationalization and simplification of regulations by both Central and State Governments (as applicable) will be tailored to meet large industry requirements who will have both capital and hiring of consultants to meet the requirements. Merely shifting from paper to web without understanding the applicability of the regulation itself to an MSME is not sufficient. The systems of'Single Windows' and fast tracking initiatives have by and large remained on paper without any help at the grass root levels. As the State Government controlled regulations are quite large, there is no guarantee that States may adopt the same.

2. **Exit Mechanism:** Here the burden is again on the MSME units with an increase in payments. The units by and large resort to reduction of employment due to market and financial constraints. In what way the policy will be helpful here is left to anybody's

guess.

3. **Technology and Acquisition:** This initiative is again an old content in the new package. The initiatives emphasised already exist with poor record of reach. The focus is again on regulatory issues rather than empowerment with new technologies. The clean green ensuring masters of the so called Green Manufacturing Committee (GMAC) will have to define what they can do for the sector more specifically so that units can first access new technologies at least cost.

4. **Industrial Training and Skill Up-gradation Measures:** Keeping in view the huge number of employable persons that are going to be generated, the process of starting of MSME units itself needs to be equally matched. 'No Units. No Employment'. However, the role, responsibilities and results as demonstrated b> ITIs' and Polytechnics is far from satisfactory with the skill level of a large number of trained personnel is far from satisfactory. The same opinion is also expressed in the case of engineering graduates. The statement b> Mr. Narayana Murthy of Infosys thai oah 5% of the engineering graduates produced by engineering schools are employable is worth mentioning in this context.

5. Polio proposals for improving access to finance for SMEs in the manufacturing sector

a. **Relief froa capital gains:** Instead of granting 3 bridge roll over fund to support im element, the policy recommends !be sale of residential propem ancestral properties to raise the level of im estment and take roll over relief from long term capital gains tax. w hicfa really sounds ridiculous.

b. **Liberalisation of RBI norms:** This will encourage banks to simply invest in V'CFs' thus passing the buck to avoid law regulating to priority sector lending.

c. **The other initiatives:** Only time will tell as these initiatives are already existing in some form or other and results are anybody's guess. The recommendanons of Task Force on MSMEs' are yet to see the light of the day even after 3 years.

"NMP brings in a new mandate for SMEs[1] operating in manufacturing sector promising infrastructure, technology support, funding initiatives and liberal taxation policies. But with no actions over a year, let us hope it is not another policy gimmick by the politicians"

6. **National Investment and Manufacturing Zones (NMIZs):** Hoping that States will acquire a minimum 5000 hectares for any NMIZ is the biggest hope that anybody can have. The current scenario regarding land acquisition includes the various socio-legal-economic-environmental implications to give a very limited hope for realization of at least one NMIZ in every State in the next 5 years will be a matter of great achievement. The bitter experience of industrial giant like TATA in West Bengal brings to the fore the ground realities.

Other issues like ownership. Administrative structure, special purpose vehicles (SPVs'), etc could be considered later. For example, Karnataka State Small Industries Development Corporation (KSSIDC) in Karnataka meant for developing industrial estates has not developed exclusive industrial estates (after Peenya Industrial Area) in the last 2 to 3 decades when 95% of the MSMEs' are operating in private lands.

It is not out of context to mention below the apprehensions expressed by the representatives of SME associations across the country about the NMP.

"NMP brings in a new mandate for SMEs' operating in manufacturing sector promising infrastructure, technology support, funding initiatives and liberal taxation policies. But with no actions over a year, let us hope it is not another policy gimmick by the politicians "

"(With) financing, management debt, obsolete technology (and a large part of it) also commoditization of the product into easily replicable products, there is very little value added due to the lack ofR & D. Hence it is very important to create an enabling environment rather than just rendering financial and debt support to SMEs' into manufacturing" - Sachin Nigam, Senior Director, SME Ratings-CRISIL.

"We have been hearing about the NMP since March 2011. But nothing has happened about it. Frankly, we do not count on the government help or policy initiatives anymore. I understand that it is pretty disheartening to say something like this, but associations are doing a lot better than the actual enablers " - Prafull Doshi, President, Vidarbha Industries Association.

"This is undoubtedly not a recipe for the realisation of the tall claim that "thrust on manufacturing is integral to the inclusive growth agenda of UFA " as the NMP so proudly and loudly claims, analysts contend wryly.

"All the promises sound Utopian, frankly I will count on them only once they are implemented and specifically followed to benefit SMEs " — Doshi, Hon. Secretary, All India Plastics Manufacturing Association.

"The recent nod by the Union Cabinet to a revised proposal of the DIPP of a New Manufacturing Policy for a sound infrastructure development, (the bugbear of investors, both domestic and overseas) through the creation of large industrial townships dubbed NIMZs' is nothing but a chimerical ploy by the UFA Government to perpetuate yet another discriminating policy, after the SEZs ". — G. Srinivasan's Article: "The New Manufacturing Policy - A chimerical ploy" in *Business Line.*

"Comparisons between the SEZ and NIMZs may be odious but the fact remains that any policy support to a select few is a flawed approach. Because this leaves the rest of the stakeholders high and dry at a time when they are beset by structural rigidities, prolonged policy inertia and high inflation which together would only exacerbate the agonizing pain of operating in a high-cost economy "

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BIS NEWS

KEY CHANGES IN IS/IEC 60079 SERIES ON ELECTRICAL APPARATUS FOR EXPLOSIVE ATMOSPHERES

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INDIAN FLAMEPROOF MANUFACTURER'S ASSOCIATION

Indian Standards on electrical apparatus for use in explosive atmospheres have been harmonized in line with the corresponding IEC standards of the IEC 60079 series. This article aims to highlight the major differences of the revised standards for better understanding the impact of the revision.

IS/IEC 60079-0 : 2004 Electrical Apparatus for Explosives Gas Atmospheres Part 0-General requirements

IS/IEC 60079-0 : 2004 supersedes IS 13346 : 2004/IEC 60079-0 : 2000. The major changes between them are as under:

Apparatus Standards (Clause 1): In addition to Standards concerning specific type of protection, reference is drawn to product standard for the first time namely IEC 60079-25 (Intrinsically Safe Electrical Systems), IEC 60079-26 (Equipment with Equipment Protection Level EPL "Ga"), IEC 62013-1 (Caplights for use in mines) and I EC 62086 (Resistance trace heating).

Specific type of protection (Clause 1 & 3.12): For the first time reference has been drawn to IEC 60079-15 (of type of protection "n"). Earlier reference was drawn to only seven type of protection and accordingly some more definitions for electrical parameters have been added.

Protective Guard (Clause 6.2): Guards relied upon to provide protection from impact shall be removable only by use of a tool and shall remain in place for the required impact test. For example, guard for light fitting and cooling fan of motor etc.

Gasket Retention (Clause 6.5): Where the degree of protection provided by the enclosure depends on a gasketed joint, which is intended to be opened for installation or maintenance purposes, gasket shall be, attached or secured to one of the mating faces to prevent loss, damage or incorrect assembly. The gasket material shall not itself adhere to other joint face.

Note: An adhesive may be used for attaching a gasket to one of the mating faces.

Sealing Ring - Aging test (Clause 7.1.1, 3.5.3 & A.3.3): Sealing rings on which type of protection depends, the proof furnished according to A.3.3 shall be sufficient. Sealing ring is used in a cable gland or with a conduit entry to ensure the sealing between the entry and the cable or conduit. A.3.3 defines procedure for aging test.

Apparatus incorporating cells and Batteries (Clause 23): A whole clause has been added regarding type of cells and batteries, which can be used along with necessary precaution.

Ex cable Gland (Clause 3.5.4): Threaded Cable Glands are treated as apparatus unlike IS 2148 : 1981

IS/IEC 60079-1 : 2007 Explosive Atmospheres Part 1: Equipment protection by Flameproof Enclosures "d"

IS/IEC 60079-0 : 2007 supersedes IS 2148 : 2004/IEC 60079-0 : 2001. The major changes between them are as under:

Ex blanking element (Clause 3.16 Fig 22 & Clause C3.3): Ex threaded blanking 'element tested separately from enclosure but having an equipment certificate and which is intended to be fitted to the equipment enclosure without further consideration is now permitted. Earlier they were permitted with components certificates and not with equipment certificate. For first time their testing requirement has been detailed in Clause C3.3.

Ex threaded Adapter (Clause 3.17, Fig C2 & Clause C3.4): Ex threaded adapter tested separately from enclosure but having an equipment certificate and which is intended to be fitted to the equipment enclosure without further consideration is now permitted. Earlier they were permitted with components certificates and not with equipment certificate. For first time their construction and testing requirement has been detailed in Figure C2 and Clause C3.4.

Ex Component Enclosure (Clause 3.18 & Annex D): Empty flameproof enclosure provided with an Ex component certificate, without the internal component being defined, so as to enable the empty enclosure to be made available for incorporation into an equipment certificate without repetition of type testing is now permitted. Additional details are given in Annex D of the standards.

Corrosion protection of flame path (Clause 5.1): A corrosion inhibiting grease may be applied to joint surfaces before assembly. The grease, if applied, shall be of a type that does not harden because of ageing, does not contain an evaporating solvent and does not cause corrosion of the joint surface. Verification of the suitability shall be in accordance with the grease manufacturers specification.

Joint surfaces may be electroplated. The metal plating, if applied, shall not be more than .008mm thick.

Gauging Practice for NPT threads (Table 4): Gauging practice for NPT threads has been specified in Table 4 as per ANSI/ASME B1.20.1.

Breathing & draining device as Ex components (Clause 10.9): As per clause 10.9 of IS 2148 : 2004(IEC 60079-1 : 2001), the certification of breathing and draining device as component certificate devices was limited to application on flameproof enclosure of volume 3L or less. This restriction is now removed in IS/I EC 60079-1: 2007.

Yield Strength of fasteners & Studs (Clause 11.3, 11.4 & Annex

F): Concept of property class has been introduced in IS/ IEC 60079-1 : 2007 instead of min yield strength of 240NM/mm2 earlier specified by IS 2148 : 2004/IEC 60079-1 : 2001.

Use of blanking element with adopter (Clause 11.9.4): A blanking element shall not be used with an adopter.

Use of threaded adapter (Clause 13): Each cable/conduit entry can have only one adopter.

Fitting of conduit sealing device (Clause 13.2.2): A sealing device shall be fitted, directly or through an accessory necessary for coupling, to enclosure. The distance from the face of the seal to outside wall of enclosure shall be as small as practical, but in no case more than size of conduit or 50mm, whichever is the lesser.

Ex threaded bushings (Clause 13.4): The Ex threaded bushing can be evaluated as equipment.

Cable Glands (Clause C2.1.1.2): As per IS 2148 : 2004/IEC 60079-1 : 2001, cable glands constructed as per clause C2.1.1.2 were not allowed with Group 1 & IIC enclosures having volume greater than 2000CC.This condition has been deleted in IS/ IEC 60079-1 : 2007. Thus cable glands constructed as per C2.1.1.2 can be used without any restriction.

Threads on nipple of Cable Glands, sealing device, adopter, accessories or blanking elements (Clause C2.2): As per IS 2148 : 2004/IEC 60079-1 : 2001, in case of metric thread, no of threads on nipple was required to be minimum 6. This has been increased to 8 as per IS/ I EC 60079-1 : 2007.

Note: The requirement of at least full eight threads is to ensure that at least five full threads will be engaged - taking into consideration the presence of any undercut or chamfer.

Cells and Batteries used in flameproof "d" enclosures (Annex

E): Related details are given.

Equipment protection level (Annex

G): Related details are given:

IS/IEC 60079-7 : 2006-Explosives Atmospheres Part 7 : Equipment protection by Increased Safety *"e"*

IS/IEC 60079-0 : 2006 supersedes IS 6381 ; 2004/IEC 60079-7 : 2001. The major changes between them are as under:

EPL (Clause 1 & Annex I): Increased Safety *"e"* can provide Equipment Protection Levels (EPL) Mb or Gb. For further information, see Annex 1.

Potential air gap sparking risk assessment for cage rotor ignition risk factors (Clause 5.2.4.3 & Table

4): Types and Factors for Rotor cage construction has been changed. Total sum of factors beyond which testing in explosive gas mixture and other precautionary measures are required during starting of machine is changed from 5 to 6.

Stator winding insulation system (Clause 5.2.7): Type testing in explosive gas mixture and other precautionary measures during starting of machine was required for machines above 6KV in IS 6381 : 2004/IEC 60079-7 : 2001. Threshold level has been changed from 6KV to 1KV in IS/IEC 60079-7: 2006.

Additional tests for Machines (Clause 6.2.3 & Table 9): Composition of explosion test mixture has been changed from a common gas mixture of 21 ±5 percent Hydrogen to depending on gas group for machine is required to be tested that is 21 ±5 percent Hydrogen for IIC, 7.8 percent Ethylene for MB and 5.25±0.5 percent propane for MA.

Inoperative lamp test for luminaries with FTL (Clause 6.3.2.2): This test has been added.

Power dissipation of cathodes of lamps supplied by Electronic ballasts for luminaries with FTL (Clause 6.3.2.3 & Annex H): This test has been added.

Ex component certificates (Clause 8): This clause has been added.

Marking (Clause 9.1): The motors shall be marked with Gas Group 11 A, MB or IIC, if they have been tested with applicable explosive gas mixture.

Marking (Clause 9.1 i & j): These clauses for marking of terminals and heaters respectively have been added.

Instructions for use (Clause 9.2): More details are required to be provided.

Warning markings (Clause 9.3): More type of warning marking has been specified.

Defined terminal/conductor arrangement (Annex E - Fig E1): This has been added.

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THE LEAN, GREEN SUPPLY CHAIN MACHINE

ANNE REMIEN, PRESIDENT &
LINDA G. TRESSLAR, COO, ALLSWELL SUPPLY CO.

The theme of this year's NDTA Forum is "New Frontiers - New Opportunities". Efforts to green the supply chain fit right into this focus. Any supply chain by definition is a dynamic process, from manufacture to delivery, with multiple stakeholders including: users, vendors, manufacturers, purchasers, transporters, warehousers, and employees. The term "green" can mean a variety of things to people, however, within this vast arena lie numerous new frontiers and oppor-tunities throughout the supply chain.

The defense industry is challenged with meeting a host of government mandates and expectations for meeting green objectives to improve sustainable operations. While these run the gamut from warfighter to supplier, we focus here on efforts and new frontiers within the supply chain from manufacturer to warfighter/user, specifically on already available products that are helping vendors and suppliers deliver new green solutions for efficiency and savings within die existing supply chain.

MANDATES AND EXPECTATIONS Are there sustainability initiatives emerging that vendors and suppliers ignore at their peril when it comes to government mandates and user expectations for sustainable business and operating practices? The expectations are becoming fairly settled in the world of new design and construction. The US Green Building Council's LEED (Leadership in Energy Efficiency and Design) system for establishing and measuring a project's level of sustainability has served to coalesce the focus and direction for those involved in the design, construction and operation of real estate assets in the public and private sectors. The focus for government and the private sector is now turning largely to setting and achieving similar goals in existing buildings and supply chains.

The Defense Logistics Agency (DLA) continues to look to its defense department customers for direction on green or sustainability requirements, and then turns to contractors and vendors to deliver.

Research is now yielding evidence of the positive impact of adoption of certain sustainability initiatives as represented by a building meeting LEED or Energy Star certification requirements. There is a clear consensus among most asset stakeholders that LEED certification standards, measures and initiatives are die direction to follow whenit comes to new building design and construction. Focus has now shifted to the other 99% of existing buildings and their operations. This is being adopted in both die public and private sectors. This is where variations in focus and priority of importance in sustainable operating practices begin to emerge as potential costly stumbling blocks or key value differentiators in die future. The same can be said of die supply chain.

The Defense Logistics Agency (DLA) continues to look to its defense department customers for direction on green or sustainability requirements, and then turns to contractors and vendors to deliver. This is where cost/ benefit calculations are made, and a win win common ground must be forged. Systems and products that meet the sustainability requirements of the defense industry user, and provide a cost effective and efficient solution for the vendor, will likely be adopted.

Government Mandate and Regulation The ultimate influences of green initiatives are federal mandates enacted through law and regulation. The expectations of the federal government, as both owner and tenant/ user of real estate, and user of products and services are emerging with clear implications. Executive Order 13514 signed by President Obama on October 5, 2009 establishes numerous sustainability requirements for federal government agencies to meet, including:

- 26% improvement in water efficiency by 2020;
- 50% of construction, recycling and waste materials must be diverted from landfills by 2015;
- 95% of all applicable contracts will meet sustainability requirements;
- Implementation of die Department of Energy's 2030 net zero energy building requirement for new buildings;
- Implementation of die storm water provisions of die Energy Independence and Security Act of 2007, section 348.

This order makes it clear that suc-cess will be measured through broader operational criteria that applies to supply chain activities as well.

Several voluntary participation programs are also being supported by federal agencies to solicit participation by private industry in helping government agencies meet dieir own mandates. The US General Services Administration (GSA) and the Environmental Protection Agency (EPA) recently announced a new Grcen Gov Supply Chain Partnership to promote clean energy, as well as cut waste and pollution in the federal supply chain. Those federal suppliers who participate and provide information on their efforts to reduce green house gas emissions will benefit as the program develops an incentive based approach to developing contract advantages. There are specific strategies sought from carriers such as idle reduction, improved aerodynamics and freight logistics to name a few. For shippers, the program encourages intermodal shipping, full truck loads, preferential docking, ware-house improvements, electric forkJifts, among others. The GSA states that the federal government is the largest energy consumer in the US economy with purchases of over $500 billion in goods and services each year. With this size of a target, it is clear that both federal mandate and voluntary programs (the sack and carrot) will be employed. The good news is that private industry has been leading the way in innovation of greening both building and supply chain. Innovation within die defense industry can be as simple as importing products, processes and services that are already used in other industries.

Military agencies continue to refine their own mandates in order to comply with die broader federal mandates as well as their own objectives. A recent example comes from the Air Force as leaders announced in May 2012 a new policy focused on pol-lution prevention and waste elimination efforts referred to as P2. The crux of this

policy is to minimize waste through:

- 20% reduction of the 2008-2010 average of recurring hazardous waste;
- Diversion of 65% by weight of non-hazardous waste from landfill disposal, excluding construction debris;
- Reduce toxic release inventory releases by 35% from a 2006 baseline.

NEW OPPORTUNITIES IN PLAIN SIGHT It is no surprise that both federal and private sectors' focus on greening in building and supply chains is aimed on the low hanging fruit. In the prisms of both cost savings and meeting mandates, the first wave of focus and effort has covered areas of energy usage including energy and fuel efficiency, as evidenced by ratings and standards including LEED building operating standards and the EnergyStar rating system. Significant cost savings and efficiency increases are now being well documented throughout the defense industry. Water management has also been an area of focus. Additional process improvements have been achieved through new technologies and better supply chain management strategies. The cost of delivery of goods is always under review for continuous process improvement and cost savings. This is becoming solid ground.

One of the largest areas of sustainability focus that has been lagging behind has been in the area of improved waste disposal management and pollution control. The federal mandate referred to in Executive Order 13514 calls for 50% re-duction in waste going to landfills from all federal agencies. This lagging area then can be viewed as an area where new frontiers and new opportunities exist. While there are numerous areas of supply chain management focused on green supply chain initiatives, there are few products already available in the market that can help meet these challenges. They are representative of numerous products that are out there for government agencies and their contractors to consider as they seek additional gains in improvement in this area of green supply chain goals and objectives.

Between transit and storage, there are several products diat are delivering both cost savings and landfill diversion, including a reusable, recyclable pallet wrap, plastic pallets, and slip sheets. They represent market opportunities in the area of pollution and waste reduction. The most popular method of goods transport from warehouse to end user involves the use of plastic stretch film and wooden pallets, both of which end up in landfills sooner rather than later. Below, we outline examples of readily available alternatives that fulfill the same function while providing cost savings and efficiency enhancements, proving that new opportunities may in fact be in plain sight.

REUSABLE PALLET WRAP The Pallet WrapZ is a reusable, recyclable alternative to stretch wrap that must be disposed of after one use. With a one per-son application process, the pallet wrap is faster and cheaper. It can be reused and it significantly reduces contribution to landfill waste. This product has been used in the private sector for several years with companies such as Goodness Greenness, achieving diversion of 118 miles of stretch film annually from landfills. Annual cost savings of 50% and more over prior stretch film costs have been achieved by companies using the pallet wrap. Stretch film can only be used once, then cut upon removal, and disposed of at significant additional cost.

SLIP SHEETS : Both Home Depot and SBS Worldwide have adopted use of slip sheets to replace pallets. SBS Worldwide is an international freight forwarder that switched to slip sheets from wooden pallets, and achieved 15% freight cost savings annually. Slip sheets are lighter and less bulky, providing more space for freight, and resulting in fewer shipping trips with lighter freight. Slip sheets weigh 20 times less than wooden pallets and are recyclable. Home De-pot launched an initiative in 1995 aimed at migrating 55% of their vendor shipments to slip sheets over time. After one year, the program delivered $2 million in savings to Home Depot and its vendors. Home Depot also reduced their pallet ex-pense by $660,000 and disposal costs by $760,000. In addition, use of 1.8 million pallets was eliminated.

KEY IMPEDIMENTS TO SUCCESSFUL ADOPTION OF NEW OPPORTUNITY As with the traversing of any new frontier or pursuit of new opportunities, there are impediments to success. With respect to greening of the supply chain, this is a relatively new focus with a new framework for success measurement within existing supply chains. Adoption of new practices in a fluid system with many stakeholders, such as a supply chain, is only successful when there is a common purpose perceived to be of value to all involved. The mandate and support must come from the ultimate customer and from leadership throughout the chain. In addition, there must be incentive throughout the universe of participants to adopt new products or processes. When it is clear that the ultimate end user; in this case the defense industry and its agencies; desires the product or changes, then a framework can be crafted to ensure successful implementation that will benefit all parties. Challenges can come from areas that one may not first consider, like an individual's performance measurements, budgetary controls or lack thereof, or an employee's compensation structure. However, a clear desire to adopt a new product or process, combined with the proper incentives and ability to meet objectives, will help to ensure success.

Twenty five years ago, just-in-time in-ventory was die industry buzz. Now no one talks about it. That JIT lessens die huge inventory commitments in government and industry, is now the norm. No discussion needed. Green initiates can have the same system-wide positive results that JIT has shown. Green can, and should be efficient, safe, and cost saving, and there is no reason why it shouldn't be. As Americans, we dirive on diese challenges. New products, systems, and industries rise from challenges that become unquestioned world-wide standards.

It is clear that greening of the supply chain will be a process of continuous improvement for the defense industry and its support infrastructure. Federal mandates dictate this. Requirements from the various military agencies dictate it as well. Defense contractors will ultimately be the group to deliver continued improvement results. This can only happen in an environment that embraces new frontiers and new opportunities. Our focus on several products that represent new alternatives for an existing supply chain model, highlights that new opportunities are available in the market, hiding in plain sight. They represent a means of greening the supply chain without having to change die supply chain. They are but a few of the opportunities out there. It is the challenge of those supporting die defense industry to find and adopt these types of products or services, or create new ones, in order to continue forging a lean, green supply chain machine, to support the defense industry.

Source : Defence Transportation Journal

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BRANCH NEWS

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BANGALORE BRANCH

03.04.2013 : A Press Meet was organized on 3rd April 2013 at Hotel Royal Orchid Central in connection with APCON 2013 International Conference to be held on 16th and 17th May 2013 at Hotel Sheraton, Bangalore.

Mr. C.Subbakrishna, National President Addressing Press Conference on 3.04.2013

Mr. S.B. Lovekar, Chairman APCON 2013 addressing Press Conference on 03.04.2013

Mr. Channabasappa, Branch Chairman welcomed the media and introduced addressed the media and introduced spoke persons. Mr. C. Subbakrishna, National President, Mr. S.B. Lovekar, Chairman –APCON 2013 & Mr. K.C. Harsha, Convener –APCON 2013 spoke on this occasion.

IIMM is all set to host APCON 2013 (Asia-pacific Conference), the flagship event of International Federation of Purchasing and Supply Management (IFPSM), on May 16-17, this year. The event that brings together top management executives and supply chain management (SCM) professionals from around the world, is back in India after a successful tour around the globe. The two-day conference, will be held at the Hotel Sheraton, Bangalore, India, and will serve as an important platform for SCM practitioners in the region to network, exchange ideas and arrive at new solutions to age-long issues as well as emerging challenges in the sector.

Brief to Press media by Dignitaries

"Businesses everywhere, are now focused on the key goal of increasing their competitive advantage, value-addition and reducing costs through innovative supply chain management. IIMM is indeed very happy to host this prestigious and industry-significant event, especially at a point, when the world of commerce is experiencing a major churn across different geographies. Particularly, with retail chain and service sectors on the growth path, efforts of all sophistication in emerging SCM technologies and management should ensure that end-benefits are multifold, diverse and measurable in the industry" said Mr. C Subbakrishna, National President, IIMM, India, addressing the press conference.

Some of the topics that will be addressed at the APCON 2013 conference include – leveraging technology for innovation in value chain, growth of e-procurement, industry case studies of innovation in value chain, good governance in SCM, competitive advantage by superior performance in SCM, and impact of inventory in value chain.

Elaborating on speakers, technical agenda and planned topics for discussions at the conference, Mr. Subhash Lovekar, Conference Chairman, APCON-2013, IIMM, said, "The supply chain needs to constantly reinvent itself into a value chain and this requires newer tools and techniques. Innovation cycles have to be compressed and supply chain professionals continuously seek answers to master future challenges. This conference will do its best to deliberate on issues and find smarter SCM solutions to support the industry."

The much awaited, industry-top, IIMM-APCON 2013 awards will also be presented at the upcoming international conference to SCM teams or organizations in order to recognize significant achievements, key value additions, functional brilliance, critical innovations, and best practices that have led to fundamental differences in the growth areas of materials and supply chain management. Award categories include SCM Best Practices Award, Corporate Excellence in SCM, IIMM Idol, SCM Innovation Award, SCM Young Achievers Award, and Best SCM Faculty Award, among others.

"At the event, you will be able to listen to the views of some of industry's top functional experts, thinkers and change leaders, besides deliberating on how SCM professionals together, can contribute to enhanced knowledge and capability in this part of the world. The end objective, of course, is to find and formulate ways to further the development of a world class supply chain management system that delivers under varying local conditions," said Mr. Harsha Kestur, Convenor, APCON 2013, talking to the press.

APCON 2013 conference aims to help SCM professionals by focusing on ways to stay competitive in order to increase profitability, turn challenges into opportunities, empower team members to communicate and cooperate, develop sensitivity to client diversity, and encourage collaboration among suppliers, customers and partners.

Speaking to the press, Mr. Channabasappa Herur, IIMM Bangalore Branch Chairman, added, "Forward-thinking CEOs, CFOs, COOs, CPOs, vice presidents, directors, general managers, business development managers and SCM professionals from both manufacturing and service industries will look forward to join us at the event and benefit from APCON 2013, which will provide them with the latest industry updates and information, practical skills and networking opportunities." With participation from a wide range of industries and academia, public and private sectors of industry - APCON 2013 expects to serve as a springboard for collaboration, an idea-exchange which can in turn, fuel innovation. For more information, please visit www.apcon2013.com

Mr. Subbakrishna also spoke about the courses offered by IIMM, viz. Graduate and Post Graduate Courses, MBA, BBA, CPSM, IPSCM, Professional Certification, E-Learning Courses etc.

DELHI BRANCH

MM Quiz competition

IIMM Delhi Branch has organized MM Quiz competition on April 7, 2013 at IIMM Study Centre, Shakarpur, Delhi.

Chairman Delhi Branch Mr. Sanjay Shukla welcomed the participants. Mr. T G Nandakumar Vice President (North) highlighted the details of educational activities. Mr. Suresh Kumar Sharma, Immediate Past President has given the background and importance of this activity at branch & national level. The programme ended with vote of thanks by Chairman Delhi Branch Mr. Sanjay Shukla.

Mr. Manoj Mehra & Mr. Thomson Reddy have been qualified for IDOL competition at Bangalore.

HUBLI BRANCH

Lecture on "Importance of Supply Chain Management in Small & Medium Scale Industries".

IIMM, Hubli Branch recently organized a lecture on the above subject Mr, O, P. Khare, Controller of Stores, South Western Railway addressed a huge gathering of industrialist and academicians- of North Karaatate region in the premises of IIMM, Hubli branch.

Mr. O.P. Khare inaugurated the programme by Sighting the lamp. Mr. Subhaschandra S, Holal, Chairman, IIMM, Hubli branch who presided over the function, introduced

the guest-speaker to the audience. While addressing the gathering, Mr, O.P Khare said that Supply Chain Management (SCM) has gained importance in the recent past and plays a pivotal role in the success of an industry, SCM has got direct bearing on the cost-effectiveness and in gaining a competitive edge in the business.

Fro L to R Mr. Subhaschandra S.Holal, Chairman of IIMM Hubli Branch, Mr. O.P.Khare, Controller of Stores, South Western Railway, Hubli and Mr. M.Parthasarathi, Secretary IIMM, Hubli Branch

He highlighted the salient features of SCM and how they can be successfully adopted even by Small & Medium scale Industries (SMEs). At the end of his address, an interactive session was held wherein many queries by the participants were clarified. Mr. M. Parthasaradhi, Secretary IIMM, Hubli Branch welcomed the gathering and highlighted the activities, of the branch in serving the local industries. He emphasized the need for more interaction among industry and IIMM, He also explained about the educational courses conducted by IIMM, Hubli for the benefit of those who are already employed in this field and for those who are ambitious of taking up Materials Management as a career. Mr, Ramanjaneya, Treasurer, IIMM, Hubli proposed Vote of thanks.

MUMBAI BRANCH

Visit by IIMM Mumbai Branch Members to Future Logistics Warehouse Facility : As part of the celebrations of MM Day 2013, Mumbai Branch organised a visit by members, to **Future Logistics Warehouse facility** at Bhiwandi. The visit was organised on **13th April 2013**, under the guidance of Mr. Surendra Deodhar, and **Mr. G R Apte**, NC Members, in consultation with the senior management of Future Logistics Ltd.

Future Supply Chains (FSC) (A part of Future Logistics Group) are having a state of the art facility at Bhiwandi spread over a carpet area of more than 1 lac sq. ft. The warehouse has a clear height of 12 meters **Mr. Jitendra Godbole**, GM-Operations – Contract Logistics of FSC briefed our members about the various facilities available at the warehouse and the state of the art technology being used by them in the warehouse operations. He and his team of officials accompanied our team members on a guided tour the various warehouses. Our members had a firsthand experience of the facilities and the systems being used in in-bound, sorting, checking, stocking, issue and outbound services. FSC are serving both their internal as well as external customers for various different types of materials. Some of the unique features in the warehouse are:

1. A temperature controlled storage facility being used for the material of Cadbury India, with temperature being controlled at 20 ± 2 degrees
2. VAN warehouse (very narrow aisles) with high space utilization with 180 degrees turning for picking/ storing pallets on either side of the aisle.
3. Use of conveyors, forklifts and special material handling equipments.
4. FSC are using WMS (Warehouse Management System) having interface with SAP system of vendors/ customers.
5. Use of barcodes, RFIDs for identification and tracking of materials

Another unique feature is the **Cross-Docking** system being followed by FSC. Here the materials are checked at the in-bound receipt stage, and transferred to the outbound area for delivery to customers, with proper documentation being maintained. The whole operation is completed within 48 hours. A team of 20 members participated in the visit which was coordinated by **Mr. S Rajagopalan**, Director, Mumbai Branch. .

Mumbai team travelling to FSC in the coach

Team Members in front of the Warehouse

Visit by Students to Railway Workshop at Matunga

As part of MM Day Celebrations, and as a part of GDMM course curriculum, we had a students' plant visit at Matunga Railway Work Shop on **13th April, 2013**.

Total 59 students participated in the plant visit and Mr. Ashok Ninawe, EC member and Controller of Stores, Konkan Railways was present to guide and motivate the students. Dr. Shete also participated in the visit.

Mr. Jogendra Yadvendu, the Dy. CMM of Matunga Railway Workshop welcomed all the students and dignitaries from IIMM and shared very important information about the Matunga Workshop. He informed that the Workshop is situated on 85 acres of land in between Matunga east and west. The total strength of the employees in various depts. is around 7500.

Mr. Yadvendu and his team of officials took lot of efforts and showed us an excellent animated PPT on the workings of Matunga Rly. Workshop which included Bogie, Coach, Brakes, couplings, distribution of weight of coach, wheel, wheel plate etc. bogie mechanism, internal spare parts of each items etc.This PPT helped the students to understand the design of the bogie, coach, design and functioning of brakes, design of wheels etc. very well. It also helped them to correlate the things easily when they visited the shop floor.

Thereafter, Mr. Misra and Mr. Mithilesh, Supervisors from Workshop took us to various departments like Lifing deptt, repairing deptt, wheel alignments, washing area, carpentry deptt.and furnishing deptt. where the seat and seat covers, berths etc of bogies are repaired, paint shop where repaired bogies and coaches are being painted again, welding deptt. where broken parts are being welded and salvaged again.

A view of the students visiting the Workshop

The students were also taken to the warehouse where various spares were kept. Mr. Mithilesh informed that they follow a system of Annul average requirement of the spares and order the items as per the priority. e.g. as per ABC analysis. Some of the items are being ordered annually whereas some of them half yearly and very important items are ordered quarterly. The store and Warehouse was modified recently and some new methods/ systems were introduced.

Mr. Singh, Chief Workshop Manager addressed the students about the importance of Materials Management in the Workshop and expressed his satisfaction that the students are taking interest in it. He also thanked IIMM for visiting the workshop and assured IIMM to help in all its future endeavors.

The Dy. Director **Mr. Shirish** Joshi thanked Mr. Singh, Mr. Yadvendu and his team for giving this unique opportunity to visit the Workshop and nice treatment.

Workshop Officers briefing the team in the conference Room

Students having firsthand experience of the activity in the workshop

Forthcoming Programs

Apart from the above two programs, Mumbai Branch has planned various other programs for students, members and families during April-May 2013 at different venues covering various topics. The tentative list of remaining events is as under: The dates and venues for the events will be finalised in due course

1. Guest lecture program by expert faculty, for students – Date to be finalised
2. Evening seminar at Thane on 19th April, 2013.
3. Half day seminar at Taloja;on 27th April, 2013
4. Family get-together on 28th April, 2013.
5. Matquiz Preliminary Rounds on 5th May, 2013.

MANGALORE BRANCH

IIMM, Mangalore Branch organized a unique seminar on 22nd March 2013 on innovative topic "Industrial Risk & Transfer Mechanism", in association with A J Institute of Management.

Mr Dinesh Samant – (Director, Tarjani Insurance Broking Pvt Ltd) addressing the audience.

Mr K Pownraj (Secretary- IIMM, Mangalore Branch) welcoming the participants.

Mr Dinesh Samant with IIMM, Mangalore Office Bearers

The seminar was addressed by Mr Dinesh Samant – Director, Tarjani Insurance Broking Private Ltd. Mr Dinesh highlighted various aspects of Industrial Risk Management and enlightened the audience with ways to tackle the risk. The seminar was attended by Mr K S Koppalkar GGM- Materials & IS MRPL, MrShekharPujari (GM- Aspin wall Company) and various IIMM members and Management students of A J Institute of Management and it was well received by all. Mr K Pownraj, Secretary - IIMM Welcomed the gathering and MrTanvirShaikh, Treasurer- IIMM anchored the event.

CURRENCY EXCHANGE RATES

	INR
Australian Dollar (AUD)	55.57
Bahraini Dinar (BHD)	143.98
British Pound (GBP)	82.83
Canadian Dollar (CAD)	52.82
Chinese Yuan (CNY)	8.78
Danish Krone (DKK)	9.49
Euro (EUR)	70.76
Hong Kong Dollar (HKD)	6.99
Iraqi Dinar (IQD)	0.05
Japanese Yen (JPY)	0.55
Kuwaiti Dinar (KWD)	190.86
Omani Rial (OMR)	140.98
Pakistani Rupee (PKR)	0.55
Qatar Rial (QAR)	14.91
Saudi Arabian Riyal (SAR)	14.47
Singapore Dollar (SGD)	43.77
South African Rand (ZAR)	5.86
Swedish Krona (SEK)	8.26
Swiss Franc (CHF)	57.97
UAE Dirham (AED)	14.78
US Dollar (USD)	54.29

Source : Rediffmail.com dated 23rd April, 2013

EXECUTIVE HEALTH

HIDDEN HYPERTENSION

KAVITA DEVGAN

High blood pressure is a silent disease and its symptoms are easy to miss, making it a disaster-in-the-waiting. But regular check-ups can help you catch the disorder early. You could be big and muscular or lean and fit, and seemingly in the pink of health, but there could still be a disorder lurking in your body. More and more cases of hidden high blood pressure (HBP) or hypertension are being detected now.

In fact, the World Health Organization's (WHO) theme for World Health Day (7 April) this year was hypertension. It is developing a global plan of action for 2013-20 for the prevention and control of such non-communicable diseases. "(The) main reason is that HBP in most cases is not felt (it is an asymptomatic, silent disease), so unless one actively gets it checked, it stays hidden. And even if they are there, the symptoms are usually vague—like dizziness, headache, nosebleeds, flushing, tension and fatigue—so they get missed. Add to that the tendency of most Indians to not seek medical care unless we fall sick seriously," says Renu Garg, regional adviser, non-communicable diseases, department of sustainable development and healthy environments, WHO regional office for South-East Asia, Delhi. "Another reason for late detection is that the age of hypertensives is getting younger; people in their early 20s are falling prey but they don't suspect it so they don't bother to get tested," says Anand Krishnan, head, WHO Collaborating Centre for NCD Prevention and Control, and additional professor, All India Institute of Medical Sciences, Delhi.

The burden is huge : An integrated disease surveillance project (IDSP) carried out by the Indian Council of Medical Research (ICMR) in seven states in 2007-08, surveying 5,000 households from each state, threw up rather startling findings. "The prevalence of HBP was found to be as high as 25%, and more than 50% of these people were not aware that they were hypertensive. These are huge numbers," says Dr Krishnan. According to the project, about 5% of people in the 15-25 age group had HBP and the number went up to 60-70% for those above 65. "What is scary is that the number (of hypertensives) is increasing at the rate of 5-10% every year (these are in sync with the trend in South-East Asia, according to Dr Garg).

"These are large numbers for a problem that is easily prevented, as well as treated. Actually, a study done a long time back in Scotland suggested that the 'rule of halves' works in hypertension: Roughly half of all hypertensive cases are diagnosed, half of those diagnosed are treated, and half of those treated are well-controlled. The Indian HBP situation can be summed up like this even today," adds Dr Krishnan. WHO findings about India are similar. "Yes, prevalence is very high. According to our statistics, one out of every three adult Indians has HBP (that is close to 33%), and four out of five Indians who have HBP do not have it under control—that means it is either undetected or not treated properly," says Dr Garg.

The damage meter : Undetected HBP is a ticking time bomb—often, by the time it's discovered, an organ or two has been damaged. "Though this condition is usually silent, it is definitely not easy on the body," warns Dr Garg. "It is the single most important cause for death; one out of 10 deaths worldwide is attributed to HBP. It is responsible for 51% of heart attacks and 45% of strokes worldwide," she adds. Excessive pressure makes the heart muscle pump the blood harder, and after a time the heart enlarges, weakens and stops pumping properly—leading to heart disease. "HBP also damages and hardens the arteries, thus causing cholesterol to nest in these nooks, leading to arteriosclerosis and thus upping the risk of strokes and heart attacks," explains Dr Krishnan.

He shares the case history of a 45-year-old information technology consultant known to him. "He was overweight, there was a family history of HBP and the diet he followed was rather rich (full of fat), but he did not get checked for HBP ever, thinking he was too young for any disorder. One day he suffered a massive heart attack while in office and on scrutiny doctors realized that he had been nursing undetected HBP for many, many years," Dr Krishnan says. Unattended HBP doesn't just affect your heart but can also damage the vessels that supply blood to the eyes, forming clots and damaging them. "Profuse bleeding in the eyes and unattended high blood pressure can lead to retinal vein occlusion (RVO)," says Deependra Vikram Singh, director, retina, the Eye-Q super-speciality eye hospital, Gurgaon.

Similarly, kidneys can bear the brunt too. Ramesh Hotchandani, head of department, nephrology, Saket City Hospital, Delhi, recalls the case of a 32-year-old executive who came to him with kidney dysfunction last year. "He was a non-smoker and a teetotaller, but his medical examination had revealed that his BP was borderline high eight years back at an office medical check-up. He never took that warning seriously and never bothered to do anything about it. And over the years this negatively impacted his kidneys. While we could control his BP, the damage already done to the kidneys could not be reversed." Yet simple, easily available and inexpensive medication and a controlled dietary and lifestyle regime can avert any complications arising out of HBP.

Control it : Hypertension is not difficult to control. "Limit your sodium intake to under 5g/1 tsp of salt a day and get plenty of potassium through dietary sources, that is, from fruits and vegetables (bananas, leafy vegetables, etc.)," advises Dr Garg. "This is a disease of the lifestyle, and exercise plays a big part in controlling it. WHO advises 150 minutes of moderate to vigorous exercise per week (30 minutes, five days a week)," adds Dr Krishnan. Keep stress at bay, your body weight in check, get any persistent symptom checked by a doctor, quit smoking, drink alcohol in moderation and get your blood pressure tested regularly. "I'd say after the age of 25, get checked every year at least once and more if any problem is detected. Women have lesser undetected HBP issues as many tend to get checked when they get pregnant (in their 20s or so) but unfortunately men don't have this advantage, and hence must be proactive," Dr Krishnan adds.

KNOW YOUR BP : A blood pressure reading, given in millimetres of mercury (mm Hg), has two numbers. The first, or upper, number measures the pressure in the arteries when the heart beats (systolic pressure). The second, or lower, number measures the pressure in the arteries between beats (diastolic pressure). Normal blood pressure is below 120/80 mm Hg and blood pressure consistently over 140/90 is considered hypertension.

Source: Livemint

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