Abstract: 21st century opened gateways of opulence of challenges and opportunities where the corporate world is witnessing the toughest phase of competitiveness. Supply Chain Management (SCM) has increasingly become relevant in the environment of spearheading competitiveness. In the era of Liberalization, Privatization and Globalization (LPG), modern marketing systems, short life-cycle products, and the discriminating expectations of customers have enforced enterprises to invest in and focus attention on their Supply Chains (SCs) to meet-out customers’ satisfaction level. This study identifies areas where SCM may improve efficacy, operational excellence, enhance customer services and ultimately strategic excellence in the era of spearheading competitiveness.

Keywords: Supply Chain Management, Managing Competitiveness, Emerging Challenges

1.1 Conceptualizing supply chain management

The term supply chain management refers to cooperative management of materials and information flows between supply chain partners, to reach goals that cannot be achieved acting individually (Eric Sucky, 2005). Supply chain as defined by The Council of Logistics Management is “the process of planning, implementing and controlling the efficient, cost-effective flow of raw materials, in-process inventory, finished goods and related information from the point of origin to the point of consumption for the purpose of conforming to customer requirements”.

Supply chain management (SCM) is the combination of art and science that goes into improving the way your company finds the raw components it needs to make a product or service and deliver it to customers as shown in figure 1.

Figure 1 Process Network of Supply chain

Supply chain management is a cross-functional approach including managing the movement of raw materials into an organization, certain aspects of the internal processing...
of materials into finished goods, and the movement of finished goods out of the organization and toward the end-consumer. As organizations strive for focusing on core competencies and becoming more flexible, they reduce their ownership of raw material sources and distribution channels. These functions are increasingly being outsourced to other entities that can perform the activities in a better and cost effective way. The effect is to increase the number of organizations involved in satisfying customer demands, while reducing management control of daily logistics operations (Reiner and Trcka, 2004). Less control and more supply chain partners led to the creation of supply chain management concepts. The purpose of supply chain management is to improve trust and collaboration among supply chain partners, thus improving inventory visibility and the velocity of inventory movement (Choi and Hong, 2002; Huang et al., 2003; Quinn, 1997).

The most important perspective of modern business management is that individual businesses no longer compete as only autonomous entities, but rather within supply chains (Lambert and Cooper, 2000). In this emerging competitive environment of the twenty first century, the ultimate success of the business will depend on management’s ability to integrate the company’s intricate network of business relationships. Emergence of new technologies and the ever-increasing intensity of competition are forcing organizations, firms and industries to re-examine how they do business, meet new customer-driven challenges, companies are re-thinking, restructuring and re-investing their supply chains in order to survive, succeed, excel and even in some specific cases targeting to spearheading competitiveness (Drucker, 1998). For example in case of any mismatch existing between what the supply chain may offer with respect to customer demands, the company can either alter the structure of the supply chain design or alter its strategies.

2. SPEARHEADING COMPETITIVENESS V/S SUPPLY CHAIN MANAGEMENT

On one hand Twenty-first century offered opulence of costumers by opening new markets and on the other hand this opened Pandora’s box of unidentifiable situations and new problems to be encountered by producing new vistas for the industries, production houses, entrepreneurs, business stakeholders through which they are destined to sail through if they are really committed to scale success beyond the visible horizons. Adaptation of effective strategies of an efficient supply chain management can help any firm or industry in enhancing competitiveness level as the firm’s competitive strategy defines the set of customer demands that it seeks to satisfy through its products and services (Lambert and Cooper, 2000). The ultimate objective of SCM is to achieve a 'strategic fit' between the company’s competitive strategy and supply-chain strategy.

2.1 Supply chain management: a pivotal tool for strategic planning

Supply-chain strategies are helpful in determining the nature of procurement of raw materials, transportation of materials to and from the company, manufacture of the product or operation to provide the service and distribution of the product to the customer, along with follow-up services (Injazz and Antony, 2004). The regulatory factors that can stimulate competitiveness of any firm if they are effectively taken care of during the due process of supply chain are:

- Decision phases
- Performance
- Drivers and obstacles
- Network Designing
- Managing & planning inventories
- Managing uncertainties
- Sourcing, transporting and pricing products
- Coordination and technology

Nowadays, a considerable number of companies like Maruti Udyog Ltd., Mahindra and Mahindra, Dell and HP etc. are implementing supply chain management practices. Many of them are striving hard for spearheading competitiveness in their respective sphere through cross-functional collaboration, both within the enterprise and supply chain partners. But very few companies have successfully implemented the practices and technologies needed to do it well. The use of different practices are highly connected with the level of supply chain process development as well as the level of integration of these processes for ensuring competitive advantages. With the globalization of the world economy, the diversity and environmental factors that influence a company’s global (both global as well as local) strategies and approach, supply-chain drivers influencing the companies to become increasingly competent so that they can justify their dominance and maintain their dynamic growth. Different approaches to cater to emerging demands of competitiveness require different degrees of supply-chain integration, as well as different supply-chain strategies and structures. By ensuring a full proof SCM firms and industries can enhance their capabilities to spearheading competitiveness.

3. TRIBULATIONS IN SUPPLY CHAIN

The very concept of supply chain management has its own drawbacks to be addressed and so the following are some of the ailing concerns to be dealt with:

- **Unjustified networking distribution**: Though this is a unified system yet it lacks deciding parameters related to number, location and network missions of suppliers, production facilities, distribution centers, warehouses, cross-docks and customers (Chu et al., 2000).
- **Distribution strategy**: In some specific cases supply chain management may not offer any ultimate solution to the questions related to operational control (centralized, decentralized or shared); delivery scheme, e.g., direct shipment, pool point shipping, cross docking, DSD (direct
store delivery), closed loop shipping; mode of transportation, e.g., motor carrier, including truckload, parcel, railroad, airways, water transport and intermodal transport. Issues related to ocean freight, airfreight, replenishment strategy (e.g., pull, push or hybrid); and transportation control (e.g., owner-operated, private carrier, common carrier, or contract carrier) are also to be explored for ensuring a safer business environment (Dave and Karunesh, 2005).

- **Trade-offs impacts**: Ensuring well coordination in due process of all concerned activities to achieve the lowest total logistics cost is mandatory. Trade-offs may increase the total cost if only one of the activities is optimized e.g. full truckload (FTL) rates are more economical on a cost per pallet basis than less than truckload (LTL) shipments. If, however, a full truckload of a product is ordered to reduce transportation costs, there will be an increase in inventory holding costs which may increase total logistics costs and therefore it is imperative to take systems’ approach when planning logistical activities. These trades-offs are key to developing the most efficient and effective Logistics and SCM strategy (Ballou, 1992).

- **Information**: Process integration through the supply chain to share valuable information, including demand signals, forecasts, inventory, transportation, potential collaboration, etc. is another major concern. (Ansari and Modarress, 1990).

- **Managing inventory**: Issues related to quality, quantity and locations of inventory, including raw materials, work-in-progress (WIP) and finished goods and ensuring an effective working inventory in unforeseen circumstances are yet to be managed (Clark, 1972).

- **Cash-flow**: Managing the payment and its mode, terms and methodologies for exchanging funds across entities within the supply chain are other functional hurdles to be encountered. Supply chain execution means managing and coordinating the movement of materials, information and funds across the supply chain. The flow is bi-directional i.e. from supplier to customer and vice-versa (Cho and Gerchak, 2005).

4. **SUPPLY CHAIN MANAGEMENT: OBJECTIVES**

The purpose of supply chain management is to improve trust and collaboration among supply chain partners, thus improving, inventory visibility and inventory velocity (Choi and Hong, 2002) remains the core thrust area of the supply chain objectives. Emergence of new technologies and the ever-increasing intensity of competition are forcing organizations, firms and industries to reexamine how they execute business, meet new customer-driven challenges, companies are re-thinking, restructuring and re-investing their supply chains in order to survive, succeed, excel and even in some specific cases targeting to spearheading competitiveness (Drucker, 1998). Facing more demanding consumers, every chain member has to figure out how to increase flexibility so as to sustain good customer service while controlling or even better decreasing relevant costs from an entire chain standpoint. During recent years industries have been facing major challenges due to cut-throat competition, increasing operational complexity, technology changes, shortened product lifecycle and frequently changing customer needs. Despite high stocks, the performance of the supply chain has failed to meet customer expectations in terms of delivering the exact specification desired within an acceptable timescale. The regulatory factors that can stimulate competitiveness of any firm if they are effectively taken care of during the due process of supply chain are: Decision phases, Performance, Drivers and obstacles, Network Designing, Managing & planning inventories, Managing uncertainties, Sourcing, transporting and pricing products, Coordination and technology. Most of the industrial players and corporate houses are striving hard for spearheading competitiveness in their respective sphere through cross-functional collaboration, both within the enterprise and supply chain partners.

5. **UNCERTAINTIES EXPLORED BY SUPPLY CHAIN**

One of the major issues in a supply chain is ensuring hassle free and smooth functioning of inventory and so the role of inventory as a cushion against uncertainties and unforeseen oddities has been established for a long time (Gupta and Maranas, 2003). Figure 2 represents the uncertainties that are explored and solved by successful implementation of supply chain.

![Figure 2 Uncertainties solved by supply chain](image)

To reduce the impact of these uncertainties and non-predictable unforeseen happenings, supply chain managers must first understand their sources, the targeted market size, researched feasibility outcomes and the
magnitude of their impact. Surprisingly many supply chains do not document and track these variables which may result into over-stock or under-stock, miscalculation of the lead-time and invest in the wrong resources for performance improvement. Apart from the above discussed factors the umbrella term of Supply Chain covers inventory planning, replenishment planning, production scheduling, warehouse management, transportation and logistics management (Mangal and Chandra, 2011).

6. INFERENTIAL OBSERVATIONS
In today’s ever changing multi-dimensional market, maintaining a well-organized and flexible yet structured supply chain is critical but indispensable for every enterprise, particularly given the prevailing volatilities in the business situations which is continually undergoing through a constant process of a paradigm shift and increasing everyday as per customer expectations. The upstream and downstream coordination engendered by supply chain management with the goal of minimizing uncertainty and variations along the supply chain shows that businesses can no longer wait for that the objective of business can be met just by becoming efficient in itself. Presently industries are on a roll and there is a massive scope for improvement and augmentation of supply chain and its implementational possibilities in various walks of professional cult. Globalization has stressed upon Multi-National Companies (MNCs) to establish their facilities and form alliances with domestic companies of the nations and to enter in the market and introduce their products for spearheading competitiveness. The world-economy is now going through a critical phase of recession and liberal movements of goods and services between countries are to be ensured at any cost and at any time. Low cost of manufacturing and conducive government support have been the major drivers for the implementation and explorations of new supply chain avenues. Therefore efficiency in supply chain will be decisive in any enterprise for ensuring a risk-free fate towards the latter half of the twenty-first century where integration of nascent technological concepts i.e. additive and disruptive technologies with the strategic planning of supply chain will open new avenues and challenges to the corporate stakeholders and business houses of the futuristic society.

REFERENCES