

SUPPLY CHAIN MANAGEMENT STRATEGIES FOR COMPETITIVE ADVANTAGE: Some insights for Small and Medium Enterprises (SMEs)

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Abstract: *Small and Medium Enterprises (SMEs) constitute the backbone of national economy and provide maximum employment opportunities. Traditionally, the SMEs are under the protective shields of the government but the recent globalization of markets has resulted in their removal. Now it has become imperative for the SMEs to be globally competitive for their survival and growth, especially in developing economies. Among several strategies, tools and techniques, Supply Chain Management (SCM) is emerging as an important enabler for global competitiveness of SMEs. The current body of knowledge in the domain of SCM for SMEs is still under development. In the Indian context, this gap is even more significant and there is a need for bridging the gap. With a view to enrich this domain, we carried out an exploratory research through semi-structured interviews with the owner-managers of sixty small and medium enterprises in and around Hyderabad–Secunderabad, India. This paper presents the results of a literature review and exploratory research carried out to understand the SCM Strategies for Small and Medium Enterprises.*

Key words: *Small and Medium Enterprises (SMEs), Supply Chain Management (SCM), Strategies, Logistics, Inventory Management.*

1. INTRODUCTION:

The concept of SCM has evolved as a fusion of thoughts from several streams of business management. In the literature, there are different views about the evolution of supply chain management. The central idea of SCM is the creation and distribution of products and/or services to the end customers through the coordinated effort of a set of entities. These entities are the actors. The entities perform a variety of actions, which result in the flow of materials, resources, information, decisions, and finances. In our opinion, the scope of SCM includes all these actors, actions, and the flows involved in the creation and distribution of products and / or services to the end customers. Depending upon the nature of product/service, the actors may include raw material suppliers, component manufacturers, system integrators, distributors, wholesalers, retailers, and the end customers. Where the chain starts and where it ends depends upon the nature of products/ services. Everything in this world originates from the nature and ultimately returns to the nature. This is true of the products that flow through the supply chains also. Hence, the ideal boundaries of a supply chain start after separating the materials from the Mother Nature and ends when the materials are recycled or returned to the Mother Nature.

2. SUPPLY CHAIN MANAGEMENT:

- “Supply Chain Management is a series of trading relationships between firms that sequentially add value to a product or service” (Houlihan, 1985).
- “Supply Chain Management is an integrative approach to dealing with the planning and control of the material flow from suppliers to end-users” (Jones and Riley, 1985).

3. SUPPLY CHAIN CAN BE VIEWED AS FOLLOWS:

- The term “Supply chain” is a metaphor used to represent a group of autonomous enterprises networked temporarily for creation and delivery of a particular type of products and /or services to a particular group of customers.
- The term SCM represents an evolving set of practices adopted to manage a supply chain to derive certain benefits that would not be possible otherwise.
- The scope of SCM includes all the actions, actors and the flows involved in the creation and distribution of products and / or services, from the moment we separate the materials from nature until the moment materials are recycled or returned to nature.

4. SCM – SIGNIFICANT STRATEGIES:

The overall objective of SCM is to contribute to improvements in the company’s bottom line or profitability both in a short and long-term perspective. Another expression of this same objective is perhaps the focus on increased competitiveness as a means of improving profitability. We reduce the costs by lowering inventory and by more efficient use of resources. One can improve the revenues by increasing customer service and value to the customer.

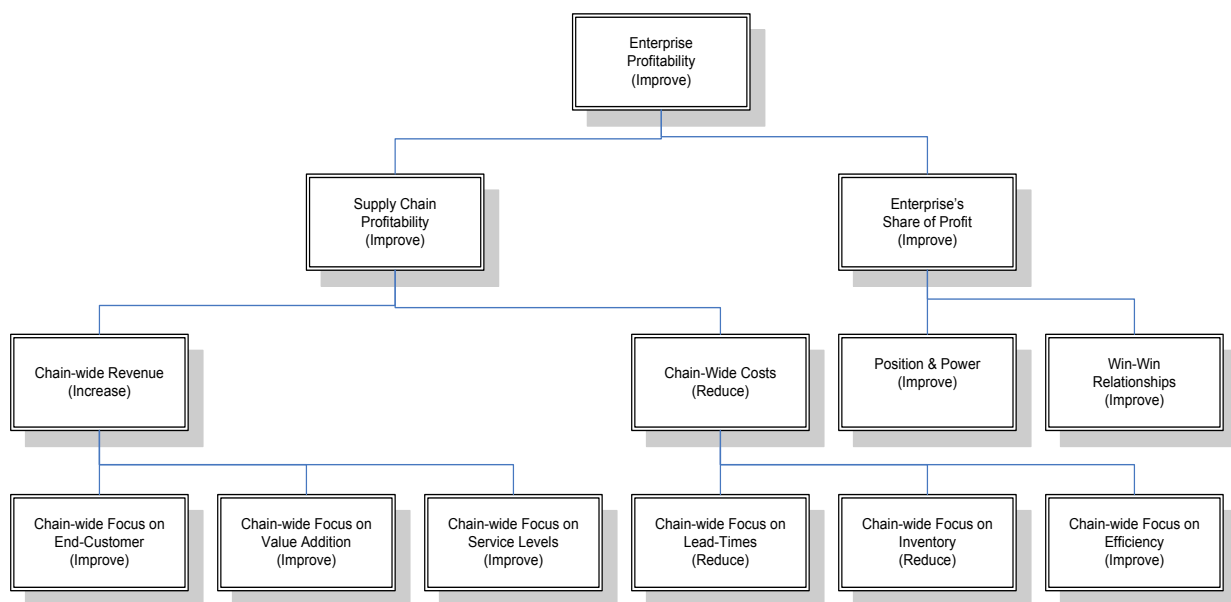
Following are some of the SCM Strategies stated in literature:

- Coordination and integration along the material flow (Schary and Scott-Larsen, 1995, Jones),
- Win-win Relationships (Cooper and Ellram, 1993, Anscombe, La Londe and Masters, 1994),
- End Customer Focus (Jones, 1989, p. 23),
- Channel-wide Inventory Management [Schary and Scott-Larsen, 1995, Johnson and Wood, 1996), Coyle et al., 1996, Johnson and Wood, 1996),
- Sharing of Information (Ellram and Cooper, 1990, Bhattacharya et al., 1996,
- Reduction in Supplier Base (Cavinato, 1992, Bhattacharya et al., 1996, Cooper and Ellram, 1993),
- Long Time Relationships (Berry et al., 1994, Handfield and Nichols, 1999),
- Viewing Supply Chain as a Single Entity (Anscombe, 1994),
- Joint Planning (Jones and Riley, 1985)
- Channel-wide Total Cost Approach (Cavinato, 1992),
- Compatibility of Corporate Philosophies (Anscombe, 1994).

Thus, SCM embodies the major strategies for competitiveness (Figure 1) and it is imperative for both big and small enterprises to adopt it. While there is a considerable progress for large enterprises in the form of supply chain management software tools such as i2, Manugistics, Red Pepper, MySAP, etc.,

5. SUPPLY CHAIN MANAGEMENT STRATEGIES FOR SMEs:

Figure - 1 Major strategies of SCM



Literature survey reveals that the pressures on companies today are reduced delivery times, prices, costs, stocks and product life cycles and increased customization, flexibility and agility. Globalization has brought increased pressure on manufacturing SMEs as they must continually reduce prices against a backdrop of improving quality and service. While virtually all emerging firms are small at inception, not all small firms are emerging, and thus the challenges such firms face may primarily concern resource constraints rather than legitimately Conflict exists over how supply chain management (SCM) affects small-and medium-sized enterprises (SMEs).

Bates and Slack (1998) observes that the literature on SCM concentrates on the large single industry model and is largely concerned with the expectations and paybacks arising out of buyer-seller partnerships, resulting in advice inapplicable to many small companies.

Lorange (1996) contends that: "By actively maintaining the core competencies in the form of a particular technological know-how or a unique market network, and by signaling the continuing evolution and strengthening of these core competencies, one might be able to impress on one's partner that one is constantly in a position to add new benefits to the alliance. One's partner may then become more moderate in his/her behaviour, in that he/she counts on the fact that new elsewhere unobtainable benefits will come his way by being associated with such progressive partner. The strategic signaling of one's strength, based on actively investing in the evolution of these strengths can therefore be a critical factor to maintain stability and can this be thought of as a black box protection of one's interests".

Lamming and Oggero (1995) carried out a survey of small companies and their larger suppliers to identify ways in which these small companies could attract the attention of the large supplier and in time create a relationship, which would be mutually beneficial. They suggested that small customers need to be more professional and predictable in their purchasing, and to develop a focused internal strategy in order to start building a closer relationship with their suppliers.

Christopher, (1992) says “exotic pipe dream” for the small buyer, nevertheless, developing buyer-supplier partnerships must yield many benefits, and therefore, companies must devise a way to manipulate, if not manage, their supply chain; “real competition is not company against company but supply chain against supply chain”.

SMEs provide clear opportunities for economic development both locally and nationally. Developing SME supply chain expertise is essential for sustaining (and in some cases, achieving) competitive advantage. SCM provides an opportunity for SMEs to align supply chain objectives with business strategy; it is an opportunity to understand the steps, the time, the costs and the value drivers; it is an opportunity to develop and maintain relationships and equally as important, to identify skills and competences thus allowing a focus on life cycle costs. As such, potential benefits from SCM include improved customer focus, network rivalry, and increased advantage of specialization across scale and scope, and accelerated, enhanced, and risk-reduced cash flows (Srivastava et al., 1999).

The literature has portrayed the fit as both positive and negative, as well as significant (Arend and Wisner, 2005). On the positive side, SCM and other SME alliance and network activity is supposed to help the SME overcome size and resource constraints through increased innovation and reduced costs and uncertainties (Lipparini and Sobrero, 1994; Coviello and McAuley, 1999), generally leading to higher survival rates (Gartner et. al., 1999). On the negative side, SMEs not only have higher transaction costs in such linkages, but also increase those costs to larger partners, to the point where the Large Enterprises (Les) may require compensation from the SMEs (Nooteboom, 1993). SMEs are more likely to have a differentiation advantage than a cost advantage does, most often due to the existence of scale, scope, and learning economies in the industry (Covin et. al., 1990; Porter, 1980; Dowling and McGee, 1994).

The question then remains why SMEs wish to engage in supply chain partnerships given that their strategies become less privately valuable in the SCM environment (Arend and Wisner, 2005). Arend and Wisner (2003) opine, while it is important for the SME strategy to fit the SCM concept to enable the SME to improve its performance, it is also important that these formulated goals are implemented appropriately for the firm to actually realize intended benefits. According to Arend and Wisner (2005), SMEs and SCM fit poorly when SMEs have a truly independent choice, but fit better when a key partner forces the choice. As SCM, as a strategy, for competitive advantage has gained prominence in both large and small organizations, an understanding of the supply chain management concept from the perspective of suppliers and, in particular, SME is crucial to the study of vertical integration of global SCM (Sabbaghi and Vaidyanathan, 2005). The lack of resources required for effective and efficient supply chain management is another major challenge for SME in adopting appropriate strategies for their supply chain management, particularly in their quest for global competition.

6. THE INDIAN SME SCENARIO:

In India SMEs are incubators of entrepreneurial talent generating approximately 130,000 new businesses resulting in 660,000 new jobs each year. In the last decade SMEs have grown faster than the overall economy. Indian SMEs contribute 95% of all industry establishments, around 40% of domestic exports and industry output and 35% of manufacturing sector. The Small-Scale sector has an important contribution to make in the global environment, which is changing rapidly by enhancing the competitive strength of Indian industry, provide an avenue for new employment and harness the entrepreneurial skills available in abundance. According to Small Industries Development Organization (SIDO), the key concerns of Indian SMEs are (a) Credit (b) Marketing (c) Technology (d) Infrastructure (e) Regulatory bottlenecks and (f) Impact of globalization.

According to Juneja (2004) in India, even prior to the launching of the planning era in 1951, the Government of India had adopted a well-formulated Industrial Policy in 1948, which gave considerable importance to the small enterprises as part of the efforts to initiate and promote the economic development of the country. The sustained policy support has enabled the small and medium enterprises to achieve tremendous progress during the last 50 years.

With the liberalization of Indian economic and industrial policies since July, 1991, it is encouraging that the small enterprises sector has responded positively to the need for structural changes in developing and venturing into new products, diversifying their business operations and opening new businesses and services by adopting new technical skills and improving productivity, by trying to participate in the new environment, improving quality of products and services, and increasing the versatility of their outputs. Shift in the strategies for domestic marketing of products and changes in export climate and overseas expansion by major multinational companies has caused compulsions for the small enterprises to undergo structural changes. In view of competitiveness and challenges of globalization more so in the WTO-led liberalized trade regime resulting in fierce competition for securing a market share, both in domestic and export markets, enhancing efficiency, productivity and quality improvement of small enterprise products has assumed tremendous importance.

Indian SMEs mostly operate in the informal sector having all its typical characteristics that accompany it. According to All India Management Association (AIMA) Study, 2003, it was observed that, Indian industry does not face any immediate threat from developed countries but serious competition is from neighboring countries where productivity is 60%-100% more than Indian productivity. In the era of competitive global scenario, the survival of small-scale sector is, therefore, critically dependent on technology up gradation and adoption of new technologies. There is a need to introduce new tools and equipments for production, transform manufacturing process, improve the quality of products and quality assurance, introduce new designs and diversify use of new raw materials and introduce modern management and IT tools. The modern tools of Information and Communication Technologies have revolutionized the new millennium.

The study further emphasized that the cost of manufacturing is going up due to poor understanding of supply chains resulting in higher costs of raw materials. Training on supply chain management needs to be introduced so as to reduce the intermediate cost of transaction and marketing the product at targeted area. Subcontracting can be pursued, which can be nurtured through better coordination and cooperation mechanisms between small and large companies. SMEs need to cooperate and collaborate with each other and network among themselves in executing orders in the face of global competition. The consortium and cluster approaches help in increasing the bargaining power and making SMEs stronger and should be encouraged. SMEs cannot face the increasing competition in isolation. Given the small scale of production, many SMEs will find it difficult to develop a powerful marketing campaign that will enable them to position their products and create a reputation for their goods. Groups of firms will be able to grow rapidly to find new market niches, access export markets and offer new employment opportunities. "If you can't beat them, join them" is an old saying. As there is much wisdom in those words, "One of the greatest challenges for small and medium-sized enterprises is not so much their size but their isolation," says Luis Alonso Gracia, as there are difficulties faced by SMEs acting individual to gain recognition for their products in the marketplace.

The Indian government is setting up Sub-contracting Exchanges, Vendor Development Programmes, Buyer-Seller meetings, Exhibitions, Trade Fair, Trade Delegations), Cluster Development, Marketing Consortia, Market Expansion through Export Houses and Trading Houses to facilitate SMEs and their supply chain.

7. EXPLORATORY SURVEY OF SMES:

Currently the awareness of SCM systems in SME Sector is very low and therefore difficult to obtain the required information. Since Owner / Managers usually dominate SMEs, we decided to focus the survey on the Owner-Managers of the SME in and around the region of Hyderabad and Secunderabad. From the survey, it is noticed that all the characteristics stated in the literature are present in the Indian SMEs as well to some degree or the other. In addition, the survey highlighted several issues like wastage, theft, bargaining, taxes, low margins due to competition and from substitute products, high loan interest rates, customs, shelf life, warehousing, educating/training customers, price fluctuations, data management, raw material shortages, inefficient logistic operations, frequent price fluctuations, retention of trained and skilled work force, etc.

The SMEs interviewed, are still surviving in the markets and growing by implementing the following survival strategies:

- Positioning at multiple nodes in the supply chain (raw material supplying, manufacturing, wholesaling, retailing, distributing, etc., as well as facilitators),
- Discounts on large purchases,
- Supplier credits,
- Innovative designs and skilled artisanship,
- Quality maintenance,
- Marketing products through mobile markets and exhibition,
- Limited stock holding to reduce wastage,
- Low margin sales,
- Trading in imported goods,
- Introducing new fashions into markets each season,
- Home based workplace,
- Free home deliveries and special discounts,
- Trading in low cost goods,
- Timely payment to suppliers to maintain relationships,
- Training unskilled manpower and paying more than their worth in the market, etc.

The SMEs had the following views on improving business:

- Good supplier relationship goes a long way in improving business,
- Product acceptability by the young customers and women is important,
- New products take time to take-off,
- Starting off from home based offices saves costs,
- Start off with minimum/low capital operations,
- Startup capital mobilized from personal savings and loans instead of institutions,
- Quality is emphasized by customers,
- Entrepreneurs who work hard get more profits, and
- Word of mouth advertising is very effective.

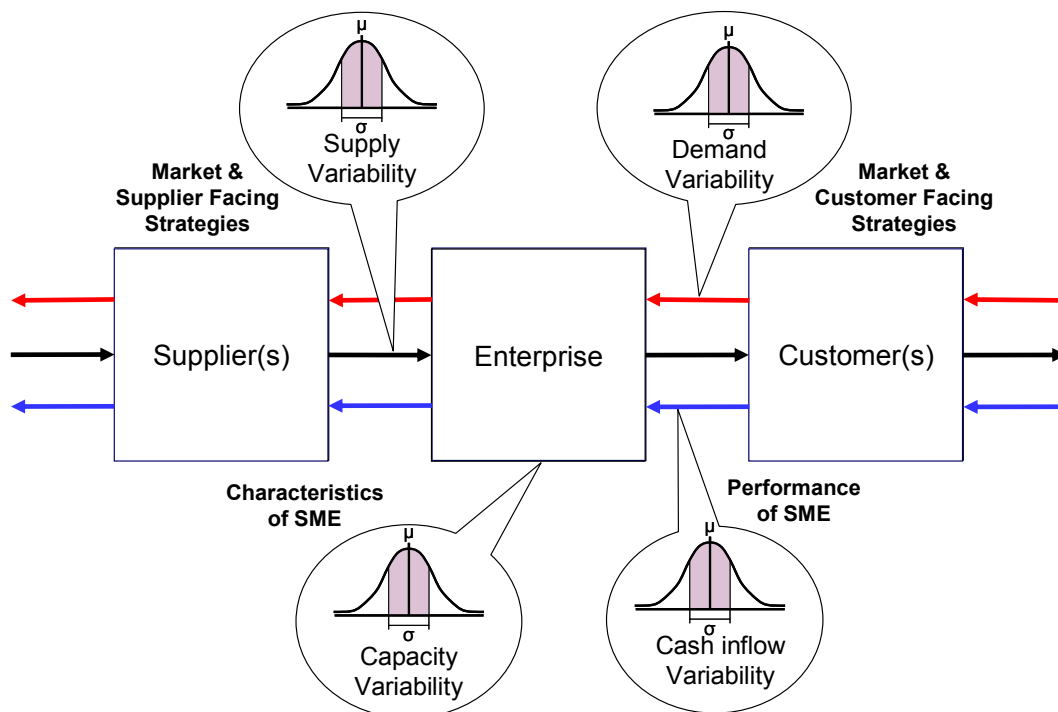
They observed the following about the Indian customers and markets:

- Customers have more purchasing power now,
- Customers accept new products,
- Hygienic products have special preference,
- Imported goods are preferred,
- Customers prefer quality to taste, cleanliness and ambience,
- Rich understand fashion more,
- Health care products preferred more by middle-aged customers,
- Fine quality and delicacy is preferred in crockery, and
- Customer satisfaction is very difficult.

8. SUPPLY CHAIN MANAGEMENT IN THE SMES CONTEXT:

The literature presents multiplicity of views and perceptions on SCM, while the interviews indicate that SMEs are mostly ignorant of such a concept. Since, more than 80% of enterprises in any country are SMEs, we see the real impact of SCM only when SMEs adopt SCM. This paper is a set in a direction to enrich through further comprehensive research.

Figure – 2: SCM related issues of SMEs



9. CONCLUSIONS:

From the above, we summarize the SCM related issues of SMEs (a) Demand related, (b) Supply related, (c) Capacity related, and (d) Cash-flow related. As shown in the Figure 2. All the SCM strategies in some way or the other focused on these four issues. Since SMEs are usually in the lower tiers of supply chains, customer-facing strategies may be the most important for them. Working capital being the major constraint, cash flow management strategies may be the next priority.

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Srinivasa Raju Gannavarapu took his Master's Degree in Business Management (MBA-Technology Management) and Bachelors of Law (LLB). His Doctoral research work (Ph.D.) was in Management. One of the largest and oldest universities in India, *Osmania University* has nominated him as 'Member' of the *Faculty of Management*. He is also extending his services as 'Vice-President' of prestigious '*Osmania University MBA Alumni Association (OCAMBAA)*'. **Srinivasa Raju Gannavarapu** is a first-generation entrepreneur turned academician; promoted various institutions and business ventures. '*Mantra School of Business Management*', a reputed B-School and '*Gurukul Group of Institutions*', an Integrated Campus offering Bachelors and Master's Degrees in Engineering, Pharmacy and Management were his flagship ventures; both being operated under the ambit of *Osmania University (OU)* and *Jawaharlal Nehru Technological University (JNTU)* respectively. **Srinivasa Raju Gannavarapu** travelled across the globe for academic pursuits as well as for expanding business networks. He has acquired over 25 years of cross-functional experience in marketing, liaison, co-ordination and managing business operations.