

## Comprehensive Review of Supply Chain Practices and its Implications on Small and Medium Enterprises

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### Abstract

Rising uncertainty regarding trade agreements, increasing protectionism and volatility in global trade has forced corporations to review their existing supply chain practices. There is a need for robust, flexible supply chain management systems that can mitigate the impact of external factors on cost and quality standards. This study draws parallels between supply chain practices adopted by larger enterprises and SMEs based on publications of various researchers and identifies best practices adopted across the manufacturing sector. The parameters used for evaluating supply chain management practices are information sharing, strategic supplier partnership, customer relationship and information. This paper highlights the constructs used for evaluation of best practices among larger enterprises and SMEs.

**Keywords:** Supply chain management; SME; supply chain practices; competitive advantage; organizational performance; supply chain integration.

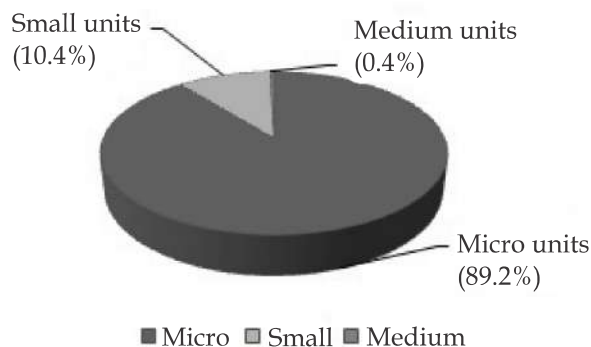
### Overview of SME in India

In the face of economic fluctuations and uncertainty, entrepreneurship serves a key driver for economic growth (Gupta *et al.*, 2004). The small business sector has emerged as a crucial player in impacting the growth of national economies (Shridhar, 2006). SME units are vital to local economies as they generate employment and create opportunities for prosperity (World Bank, 2016). In India, Small and Medium Enterprises consist of business units where the investment in plant and machinery are more than 25 lakh and not more than 5 crore, not less than 5 crore and not more than 10 crore respectively (RBI, 2018). The Micro, Small and Medium Scale sector which consist of over 50 million business units, contribute to 45% of total national manufacturing output, 40% of total exports and employs around 117 million people in

India (Gupta, 2017). 89% of MSME units consist of micro businesses and SME's account for less than 11% of total units in India (MSME, 2018).

The Government of India has undertaken several measures to boost the growth of SME's including technology upgradation and quality certification, credit support programmes, marketing development assistance, promotional service institutions & programs and infrastructure development.

### SME units in India (October 2018)



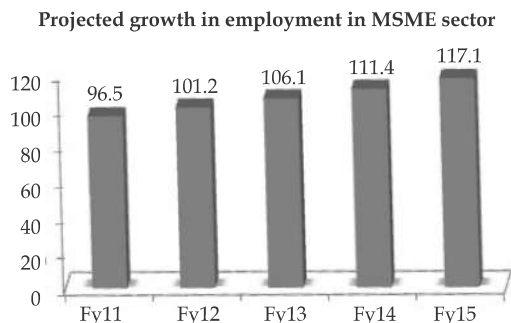
Source: Udyog Aadhar Portal for registration of MSME units  
Source: Ministry of MSME, Annual report 2016-2017  
Leading SMEs of India, Dun & Bradstreet, 2017

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Programmes. Furthermore, the government allocated 3 lakh crores for the Micro units Development and Refinance Agency Ltd, a 20% rise in allocation from 2017 (KNN, 2018). The Ministry of Commerce and Industry has also recommended that public procurement made by state agencies which consists of 20% of national GDP, should consist of a mandatory 50% of inputs sourced from domestic suppliers, with an additional 20% margin for preferring local inputs. This measure is to boost local industry in line with the Government's 'Make in India' initiative (Suneja, 2018). Furthermore, based on the recommendations of the Prime Minister's task force on MSME, targets have been set for banks lending to the MSME sector. The RBI has stipulated that respective banks achieve a 20% year on year growth in extending credit to the MSME sector (RBI, 2018). However the bulk of lending for MSME units is from public sector banks, with private banks and NBFC's accounting for around 40% of lending (SIDBI, 2018).

### Challenges faced by SMEs

The key challenges faced by SME's in a global context are lack of finance, lower productivity, poor management, improper checks and balances, high competition, lower profitability (Bustamam, 2010), poor infrastructure, unsaturated markets (Gill & Biger, 2012) and the lack of information technology (Mbonnyane & Ladzani, 2011). Other studies indicate challenges such as the need to remain internationally competitive in areas such as research & development, quality control and skills (Harvie, 2010) remaining competitive, need to improve standards and quality, remaining cost efficient and adopt standard management practices (Hwang, 2007). The key challenges faced by SME units in India include access to finance, access to markets, technological and environmental changes, infrastructural bottlenecks, access to customers and regulatory frameworks and constraints (FICCI, 2011). The other challenges faced by SME units in India are the impact of demonitisation & GST and

access to finance (Dun & Bradstreet, 2017) and competition from larger industries (Lahiri, 2012).

With regards to supply chain efficiency, poor inventory management disrupts demand and supply (Busuttill, 2007). This mismatch delays economies of scale and small businesses are not in a position to provide cost advantages to their buyers. This in turn increases the probability of existing customers switching over to rival firms (Okpara, 2007). Furthermore, adoption of e-business solutions among SMEs is hindered by the seasonality of business prospects, high staff turnover and low manufacturing lead time (Huin *et al.*, 2002). Competition in the India market intensified post liberalization in 1990. Thereafter organizations realized that it was insufficient to boost the operational efficiency and competitiveness of an organization, with streamlining the entire supply chain. In the current business environment, cut throat competition is no longer a battle between organizations, but respective supply chains.

### Supply Chain Management practices and Organizational Implications

Supply chain management practices are defined as the set of activities undertaken by an organization to promote effective and efficient management of its supply chain. Through streamlining supply chain practices, firms can gain competitive advantage. Competitive advantage is the extent to which an organization is able to create a defensible position over its competitors. Organizations enjoying the benefits of competitive advantage post higher profits, allowing the organization to adopt best practices in other areas, leading to greater organizational performance. The constructs of competitive advantage include cost advantage, higher quality, increased delivery dependability, higher capability of product innovation, and reduced time to market a product. There is significant positive impact of supply chain management practices on competitive advantage on small manufacturing firms (R. Prabusankar, 2017). Organizational performance refers to how well an organization achieves its market oriented goals as well as its financial goals. The constructs of organizational performance include increased market share, higher return on investment, the growth of the market share, the growth of sales, higher profit margin on sales and overall competitive position. Organizations adopting better supply chain management practices enjoying better competitive advantage and enhanced organizational performance (Li.S, 2006). Indian

organizations should streamline processes for supply chain integration for profitability and competitiveness (Sahay B.S., 2003).

Supply chain management practices have a significant impact on operational performance of SME (small and medium enterprise). (Koh S.C.L, 2007). As compared to larger organizations, SME are more susceptible to severe economic and financial crises due to lack of physical and financial resources. American and European SMEs reaped the benefits of adopting integrated supply chain practices through strategic partnership and collaborative relationship. But Asian SMEs are yet adopt relevant supply chain management practices for furthering organizational performance (Thoo Ai Chin, 2012).

Supply chain integration is the degree to which a manufacturer strategically collaborates with supply chain partners and collaboratively manages intra and inter-organizational processes. The level of supply chain integration is positively related

to both operational and business performance (Barbara B Flynn, 2010). The constructs of business performance include growth in sales, return on sales, growth in profit, and growth in market share. There is a direct significant relationship between supply chain management practice and organizational performance. Large enterprise in manufacturing sector adopt greater number of relevant supply chain management practices as opposed to medium and small scale manufacturing units (C. Ganeshkumar, 2013).

There are variations in adopting of supply chain practices between SMEs and large enterprises in (Inayatulla, 2015). SMES lack strong supplier relationships, skill development and other barriers that hinder the implementation best practices in supply chain management. SMEs are in a position to overcome business challenges through adoption of best practices, adopted by larger organizations.

*Literature Review - Supply chain management practices in SMEs and large organizations*

S.No	Author & Year	Industry	Firm Size	Constructs used	Remarks
1	Li.S, 2006	Assorted Industries	Large Enterprises	Strategic supplier partnership, Customer relationship, Level of Information sharing, Level of information quality, and Postponement	Postponement is not significant in impacting supply chain practices.
2	Koh S.C.L, 2007	Assorted Industries	SMEs	Close partnership with supplier, Close partnership with customer, Just in time supply, Strategic planning, Supply chain bench marking, Few suppliers, Holding safety stock, E-procurement, Outsourcing, Subcontracting, 3 PL (Third part logistics)	Holding safety stock, close partnership with customer and strategic planning were found as the most significant SCM practices, while JIT supply and fewer suppliers were less significant.
3	Barbara. B Flynn, 2010	Assorted Industries	Large Enterprises	Customer integration, Supplier Integration, Internal Integration	Supplier integration was identified as having little significance is impacting operational and business performance
4	C.Ganeshkumar, 2013	Assorted Industries	Large Enterprises	Procurement practice, strategic planning and lean practice, close partnership practice	Close partnership practice was identified as the most significant factor influencing supply chain practices.

5	W.A.D.S, w., 2017	Assorted Industries	SME	Strategic supplier partnership, Customer relationship, Level of Information sharing, Level of information quality, and Internal supply chain process, Lean practices	Only 27% SMEs indicated greater adoption of SCM practices. Greater adoption of SCM practices lead to higher organizational performance
6	R.Prabusuankar, 2017	Assorted Industries	SME	Strategic supplier partnership, Customer relationship, Level of Information sharing, Level of information quality, and Internal lean practices	All the constructs have a significant impact on competitive advantage.
7	Sahay B.S, R.M., 2003	Assorted Industries	Large Enterprises	Align supply chain strategy with business strategy, supply chain integration, Reduce inventory through partnership, Deploy infrastructure and technology as an enabler	The considered constructs are relevant in improving supply chain practices.
8	Ana Beatriz Lopes, 2011	Electrical & Electronic Industry	Large Enterprises	supply chain integration for production planning and control, information sharing about products and targeting strategies, strategic relationship with customer and supplier, customer order support	Customer order support was identified as the most significant factor influencing supply chain practices.

## Discussion

Supply chain practices are evaluated by commonly established constructs. Constructs relating to supply chain practices that proved significant for larger industries (Li.S *et al.*, 2006) found low rates of adoption in SMEs (W.A.D.S *et al.*, 2017). Furthermore, certain metrics applied for larger industries found no significance in SMEs, which is an indicator of absence of such standards (Koh S.C.L, 2007). The adoption of metrics used by larger organizations provided significant in creating competitive advantage among SME's (R. Prabusankar, 2017). Furthermore, the lack of investment in information technology, infrastructure and adoption of established standards prevent firms from achieving organizational efficiency through supply chain practices.

Competitive advantage is required by SMEs to fuel future growth and deploying technology in

this regard could facilitate greater organizational performance (Sahay B.S, 2003). In SMEs, industry wise studies can be carried out to benchmark relevant practices. Lack of awareness of regarding quality standards among decision makers/promoters in SMEs could be a barrier for adoption of best practices.

## Conclusion

Supply chain management can be viewed as a means of gaining competitive advantage and improving organizational performance. The study draws parallels between supply chain practices in SMEs and larger organizations, which reveal a gap in the adoption of best practices. This variation in adoption of best practices can be studied on an industry basis, exploring the challenges and the adoption of relevant practices suited to that industry.

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