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**SUPPLY CHAIN ADMINISTRATION IN INDIAN LOCOMOTIVE COMMERCE:
CONVOLUTIONS, ENCOUNTERS AND APPROACH ONWARD**

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Abstract:

The Indian car industry, including auto and spare parts manufacturers, has grown periodically due to the fact that the economic liberalization of the early 1990's. The arrival of main global auto firms has stimulated the home sector into adopting supply Chain first-class practices. This has more advantages and competitiveness to development in exports. However, the Indian automobile industry has to operate in a different environment which adds more challenges to the already existing problematic car provider chain. Consequently, there is always a need to be trained on supply chain practices on this sector from a modern, practitioner's point of view with the intent to determine key factors of differentiation which would eventually give forceful advantage. This paper pursues to provide the reward reputation, complexities and challenges facing the Indian automobile sector. It examines developments significant of visibility and innovation, association and gives networks and evolving organization roles impacting give chain efficiency. Approaches for overcoming challenges are provided as furthermore a framework for extra gainof knowledge and evaluation.

Keywords: Supply chain management, automobile industry, competitive excellence, globalization and business.

1. Introduction:

Unanimously, the automobile industry or business has been acknowledged as an important driver of the growth of a nation's economic system and is a huge contributor to the global financial system.

This business has been described as 'both a kind and function' established product involving high level of engineering as good as being placed as a fashion product [1]. It has rightly been called as "the industry of industries", because it makes use of outputs of virtually all manufacturing industries and helps upstream (mining, steel and so forth) and downstream industries (finance, coverage, after – market and many others) [2]. India, China and Brazil are fundamental rising markets with powerful home demand and adequate local production [3].

But, improper utilization of supply chain processes possesses challenges to manufacturers in their quest to achieve competitive excellence in upcoming market like India. This paper discusses the current trends, challenges and complexities in automobile supply chains and its relevance to the Indian automobile industry. This paper deals with two different views, first the practitioner's viewpoint on the major challenges and problems in supply chain and secondly the recommendations and proposals for achieving competitive excellence based on globally used supply chain processes.

2. Overview of Automobile Industry In India:

Though the Indian automotive industry has its origin in the 40's, it has grown considerably in the last two decades mainly because of the economic liberalization including 100% FDI in the industry sector [4]. During the early 60s & 70s, automobiles came largely in two forms. In scooters, you had a Lambretta or a Vespa. In motor cycles, you had a Bullet or a Jawa. In cars, you had to choose between an Ambassador or a Fiat. In trucks, it was either an Ashok Leyland or a Tata. In tractors, it was between a Swaraj or a Mahindra. This situation reflected the earlier years in India. Economic reforms and deregulation have transformed that scenario. Automobile industry has written an encouraging tale. It is a tale of unparalleled growth than any other industry using consumer experience—all within a few years. India has already become one of the fastest growing automobile markets in the world. This is due to the pioneers and managers in the industry and, equally the policy and decision makers.

International vehicle and spare parts manufacturing companies are keen to establish their manufacturing unit and R&D facilities in India due to the availability of large pool of skilled Workforces, low production costs, faster design and development process and developing market position [5]. This industry contributes 7% to India's GDP, 7-8% of the total employed population (about 13 million people), 4% of exports [6] [7], 39% of FDI inflows (USD 5.5 billion between 2009-13) and contributes 17% to total indirect taxes collected. The automobile industry is the backbone of the economic development of any country. A well connected transportation plays a vital role in the fast development of economy and industry. The well-built Indian automobile industry produces a wide range and variety of vehicles: passenger cars, commercial vehicles, multi-utility vehicles such as jeeps, motorcycles, three wheelers, tractors etc. to meet the requirements of different classes of populations.

Understanding the significance of the auto industry, which has grown immensely, and its contribution to economic growth, the Indian government laid out the goals of the industry in two documents – 'Auto Policy 2002' and 'Auto Mission Plan 2006-16' [4]. The Government has taken active steps to realize a target of USD 145 billion in output contributing to 10% of the GDP and providing additional employment to 25 million people by 2016. The giants of

automobile Industry Hyundai, Ford and Toyota have set up their manufacturing units in India which helped in the rapid growth and establishment of the global automobile Industry in India. The above scenario specifies that the Indian automotive industry has prospective for significant development. This makes it imperative for the industry to achieve global competitive excellence through acceptance of best supply chain processes globally.

3. Supply Chain Concerns in Indian Automobile Industry:

Supply chain management (SCM) is defined as the management of the flow of goods and services. It includes the movement and storage of raw materials, work-in-process inventory, and finished goods from point of origin to point of consumption.[8].

Essentially supply chain is the ability to meet the customer requirements and also to ensure that the customer gets the right product at the right time with optimised cost. The two most important supply chain goals were reducing operating cost and overall inventory levels and now the priority has shifted to enriched customer satisfaction and faster product delivery [9].

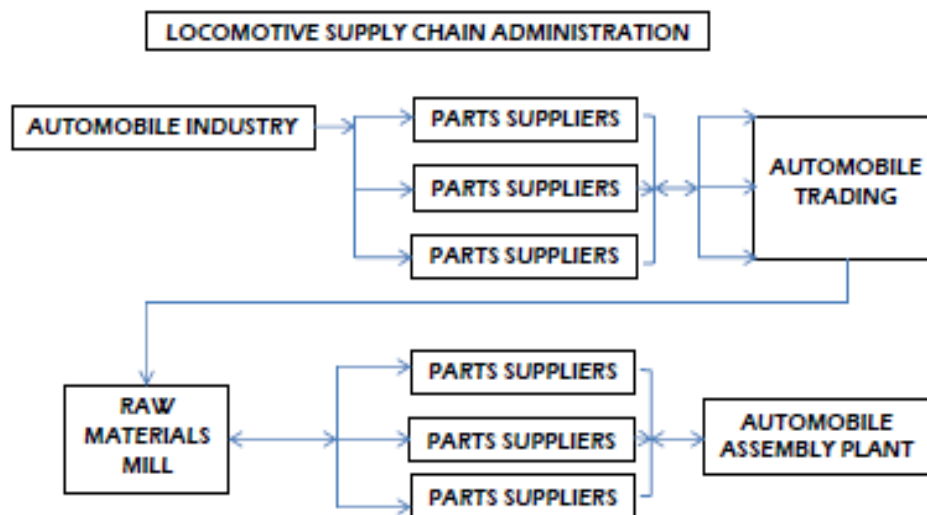


Figure 1: Depicts a typical supply chain process of automobile industry in India.

The supply chain process includes many tier1,2 or 3 manufacturers or producers or suppliers and many dealers. The complexity of the process may be measured from the fact that a classic Automobile includes approximately 20,000 components or parts with about 1000 sub-assemblies or modules [10]. The automobile manufacturer has to meet the demands and requirements of the customer and also needs to manage a network of part suppliers comprising many supply chains; this makes the supply chain process very complex in the Indian automobile Industry. It is vital that Indian auto industry follow supply chain processes to business strategies to achieve competitive excellence in an emerging market [11].

4. Challenges in Supply Chain Process

Supply chain managers have seen increasing challenges to create, and keep, efficient and effective supply chain methods. The five biggest supply chain challenges are Customer service, Cost control, Planning & risk management, Supplier/partner relationship and Talent. It is important to mention here that the supply chain processes in the automobile industry worldwide lag behind the other industry's supply chain process. There is a need to improve the above five factors to make them more effective and approachable. The increase in demand in the last ten years added extra pressure on the Indian automobile Industry and the spare part manufacturing industry to follow global standards to achieve competitive excellence [12].

The Indian automobile Industry faces a different problem which is different from those in the developed countries. In India small cars and two wheelers are preferred. Many issues arise due to language and cultural diversity, quality is not met due to poor and shortage of raw materials and collaboration from different suppliers and manufacturers and lastly lack of infrastructure [13].

The biggest challenge is the end-to-end integration of supply chains.

The automobile industry which is the major contributor to the development of economy of the country is affected with frequent changes in the price of the raw materials, shortage and substandard raw materials, customer's demand for quality product and timely delivery of the product.

5. Conclusion:

The Indian automotive industry has not met the trends in supply chain management along with the other countries [14] and remarkable prospective exists for national level incorporation of supply chains [15]. The forthcoming trends in the auto industry have been underlined in the paper which necessitates substantial variations in supply chain practices in automotive supply chains.

There is also a need for external support to the industry by way of supportive Government regulations and policies and development of infrastructure. The firm desires to emphasis on development of green technologies such as amalgam vehicles, low emission and fuel efficiency to meet hi-tech, stern norms, cost control throughout the automotive value chain (such as economical engineering in the development of Tata Nano Division), enrich investments and efforts in R&D specially in auto component manufacturing sector and build up scale to boost export.

The continuous growth in the automobile Industry in India will underwrite considerably to the country's GDP growth. Though this requires fortitude and commitment on the part of all shareholders – Government, OEMs, suppliers and others. Meanwhile external agencies and factors are not their control; it becomes authoritative for

automakers to distillate on improving their relevant supply chain practices laying emphasis on supporting these to meet the energetic, evolving business atmosphere.

There is also a need for continuous hypothetical interest in these important industries which provide an ample, evocative theoretical framework and identify specific dimensional objectives for practitioners to implement in their sustained quest to develop market standards.

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