



# The rise of India: the evolution of new models of supply chain management

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In the past decade, the rapid expansion of China as the world's leading manufacturing centre and Asia's growing consumer market have created historical transformations in terms of economic development and changes in supply chain networks. The rise of India as a new economic powerhouse will further propel these changes, and at the same time introduce new models in the supply chain by combining innovative technologies and virtual networks to meet the country's growing consumer demand. If properly leveraged, the complex challenges presented by the Indian market today can become unique opportunities for the future.

#### Logistics to demand chain

Logistics is the process of efficiently moving

product between two points. The art of logistics, with its core components of warehousing, drayage, freight forwarding, customs clearance, and ocean and air transport, is the skill in coordinating the movement of physical product between a specific origin and destination point, while efficiently executing the entire shipping process. Total logistics companies are currently working to transcend their role in the supply chain process to a more pro-active one; linking technology and infrastructure to their core shipping services, allowing them better control of shipments and closer interaction with customers.

Supply chain management evolves to a different definition where the entire chain is creatively connected and optimized,

linking the raw materials feeding the plant, manufacturing plant and minimum order quantity planning, hubs and sub-hubs which ultimately feed to meet consumer demand based on sales forecasts.

By definition, the Supply Chain Manager plays a more neutral role as the orchestrator coordinating all activities across the entire chain, while outsourcing to other service providers as necessary to maximize efficiency and cost savings.

Demand chain flips the model further by utilizing dynamic demand chain networks to rapidly fulfill consumer demand at the store shelf level with automatic replenishment, and without being constrained by manufacturing plant MOQ's. Innovative technology becomes a critical factor for success, and the use

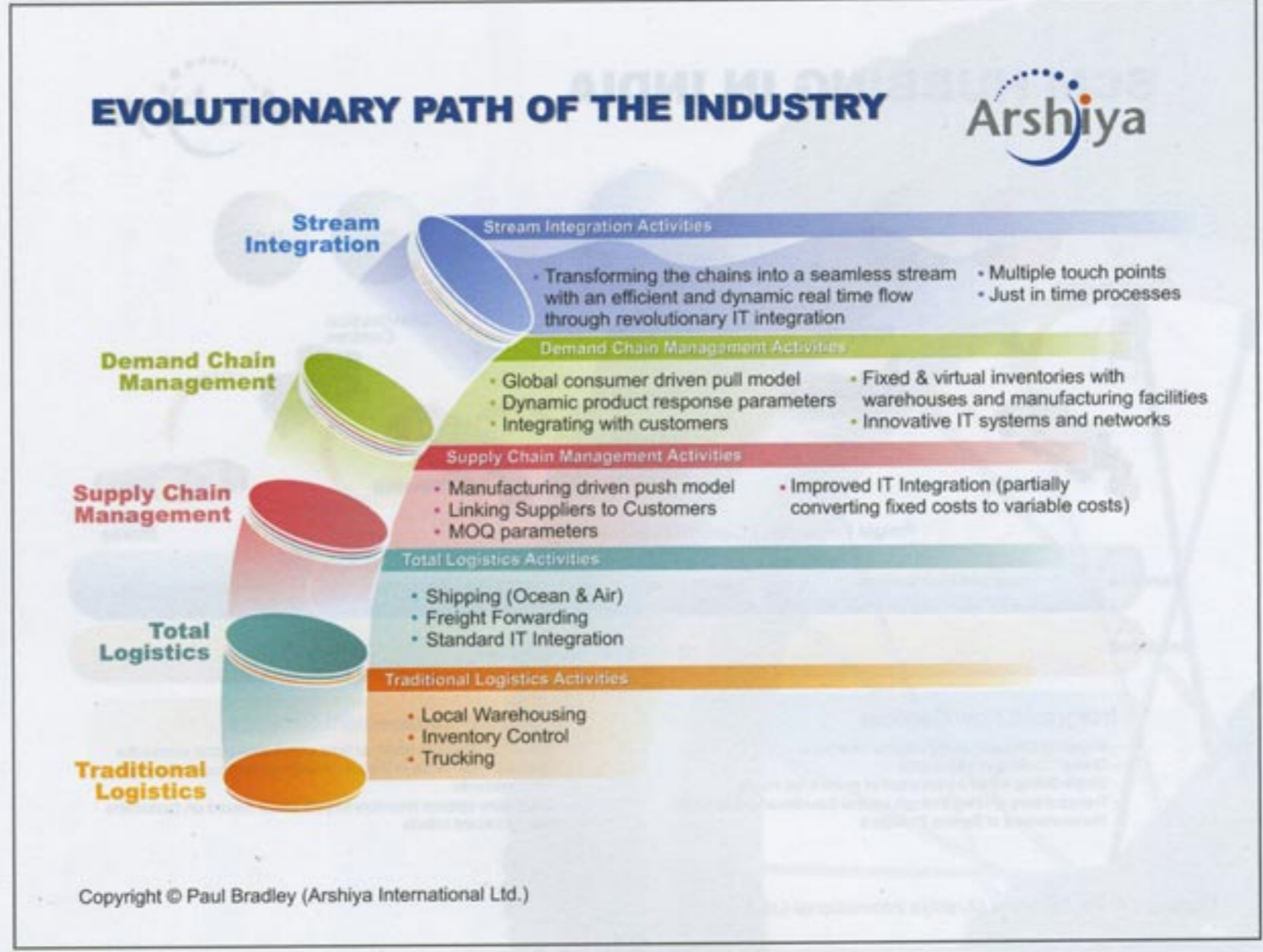


of hubs and sub-hubs further facilitates efficiency and competitive advantage.

**Supply Chain transference from the west to Asia**

The US and Europe have been the leading centres of excellence for supply chain developments as a result of leading edge technologies, state of the art infrastructure, and a highly sophisticated consumer market. As we move into the 21<sup>st</sup> Century, Asia will assume a wider leadership role in developing and implementing new supply chain solutions and driving the movement towards demand chain management. This shift will grow from several fundamental economic changes.

- a) In the coming decades the Asian consumer market will grow to become much larger than the combined consumer markets of the US and Europe. The best practice supply chain solutions of the west will be transferred to Asia; while new supply chain solutions unique to Asia will also be developed.
- b) Investment in new logistics infrastructure in the west has been declining. Logistics facilities are starting to age and funding for upgrades is limited by budget constraints. At the same time, Asia has been aggressively investing in new infrastructure and many of the newest and most modern airport and port facilities are now located in this region. This trend will continue, allowing Asia to



- more creatively leverage infrastructure and ideas to develop new supply chain models.
- c) Intra-Asia trade volume will continue to dramatically expand.
- d) Many of the world's most modern manufacturing plants are now located in China and Southeast Asia.
- e) Technological developments in terms of software development and business process outsourcing are being driven from India.

The combination of these events will lead to Asia becoming the centre of excellence for new innovative supply chain solutions, especially when combining the force of global manufacturing, innovative technologies, new infrastructure, and a rising consumer market.

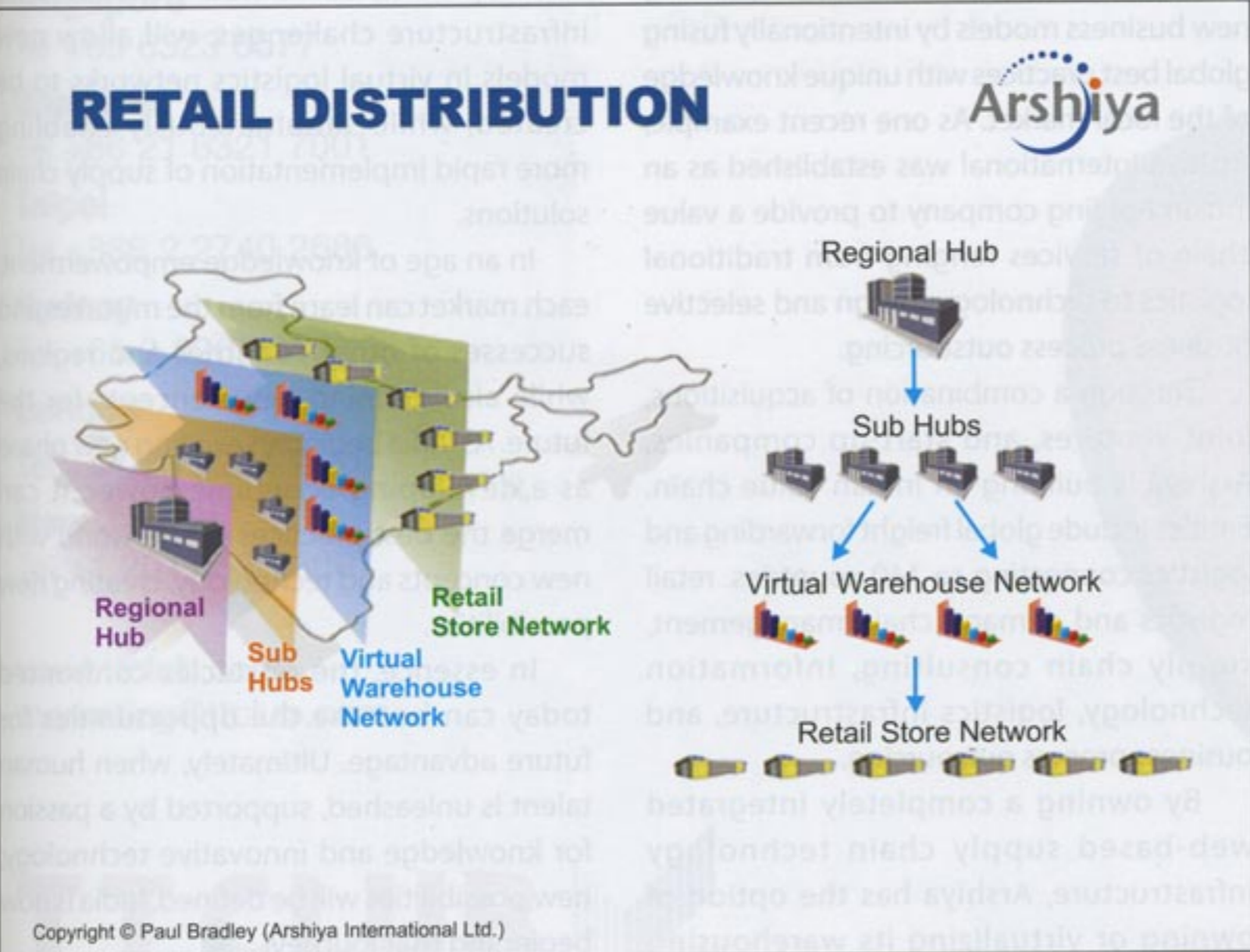
**Asia's three regions of SCM evolution**

In spite of its overall complexity, Asia's supply chain evolution can be summarized in regional terms: Japan, Korea and ASEAN; China, and the rise of India.

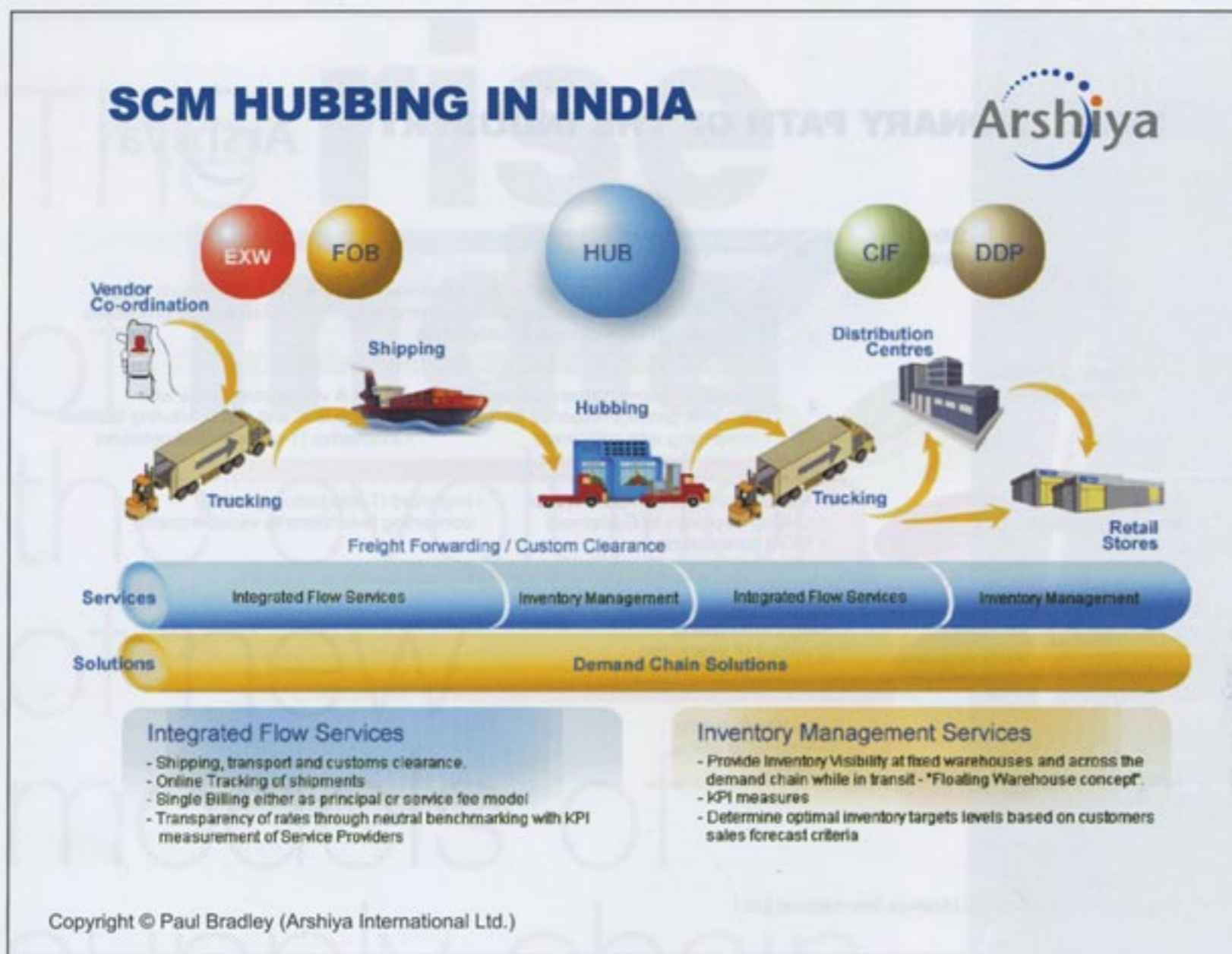
In the first phase of development, Japan with Korea and ASEAN created modern logistics infrastructure and manufacturing centres to propel the logistics and supply chain networks to efficiently link with global markets. Singapore has played an especially unique role as a regional supply chain hub for Asia by combining e-government efficiency, modern facilities, and value added services. China led the second stage by becoming the manufacturing centre of the world, further enhanced with a growing domestic consumer market, and massive investment in logistics infrastructure. India now begins the third stage by combining the creative power of technology leadership and a rising consumer market.

**The rise of India - challenges and opportunities**

Over the past few years, India has launched







its breakout to connect to the world as a rising economic superpower of the future. The transformation is already evident. Foreign direct investment has risen to over US\$14bn and economic growth for this fiscal year reached 9.4%, among the highest in the world. Entrepreneurial leadership is also evident. According to Forbes Magazine, India has 20 billionaires compared to 15 billionaires in mainland China.

While the current logistics infrastructure remains a key barrier to efficiency, the rise of the consumer is placing enormous pressure on the government and private markets to move faster to meet demands, and the economic benefits that will result. According to recent studies, the organized retail market in India is currently 2% to 3% of consumer spending, with the majority of purchases conducted through small owner shops. Within the next five years, organized retail will account for more than 20% of all consumer purchases, resulting in more than \$120bn in new consumer spending.

In order to reach its full potential, India must launch a bold logistics strategy. With the world's largest youth population, India is uniquely positioned to convert investment in logistics infrastructure into dynamic economic growth.

While China's competitive advantage has been manufacturing, India's advantage is in technology. In a sense, China has been building highways, while India has been

building virtual highways. India should now utilize its unique technological advantage to create entirely new models of supply chain networks to break through barriers and ensure sustained economic growth. New investment in ports, airports, and highways has recently been committed by the government; but new strategies also need to rapidly evolve to meet rising consumer expectations.

#### Case study: a new India business model

A number of companies in India are creating new business models by intentionally fusing global best practices with unique knowledge of the local market. As one recent example, Arshiya International was established as an Indian holding company to provide a value chain of services ranging from traditional logistics to technology design and selective business process outsourcing.

Through a combination of acquisitions, joint ventures, and start-up companies, Arshiya is building an Indian value chain. Entities include global freight forwarding and logistics connecting to 140 countries, retail logistics and demand chain management, supply chain consulting, Information technology, logistics infrastructure, and business process outsourcing.

By owning a completely integrated web-based supply chain technology infrastructure, Arshiya has the option of owning or virtualizing its warehousing

and trucking networks. The company will invest in strategic assets to directly control a hub in the main port of Nhava Sheva and future sub-hubs strategically located in key regions of India. A massive network of small and medium size warehouses and trucking companies will also be created through strategic partnerships, with Arshiya having complete IT systems control, and design of KPIs and operating procedures.

In essence, Arshiya's supply chain managers can control the entire supply/demand chain transparently for its customers, while creating a dynamic logistics network that can continuously adapt to changing market conditions. The company has also created separate 3PL and 4PL entities to provide distinct service menus to its customers. Selective outsourcing of business processes is also available as a further enhancement.

#### Asia's dynamic supply chain models of the future

The supply chain market continues to evolve in terms of technology and innovative concepts. China's dominant position in global manufacturing has created new concepts for dynamic manufacturing centres of excellence in which global brands can have virtual manufacturing networks, converting fixed costs into variable costs and aggregating competing volumes through shared infrastructure.

India's leading role in technology development, combined with logistics infrastructure challenges, will allow new models in virtual logistics networks to be created, while simultaneously enabling more rapid implementation of supply chain solutions.

In an age of knowledge empowerment, each market can learn from the mistakes and successes of other countries and regions, while also defining new concepts for the future. As India begins an exciting new phase as a developing economic power, it can merge the best practices of the world with new concepts and technology, creating new possibilities.

In essence, the obstacles confronted today can become the opportunities for future advantage. Ultimately, when human talent is unleashed, supported by a passion for knowledge and innovative technology, new possibilities will be defined. India is now beginning that journey! ■