Competing on Supply Chain & Logistics

Upcoming regulatory changes and infrastructural developments can have significant impact on the distribution and sourcing strategies of manufacturers with a pan-India presence. Arindam Chakrabarti, Practice Head- Automotive and Engineering in Tata Strategic Management Group feels that industry players need to rework their logistics plans today in light of these impending changes.

Past analyses have shown that prevalent sales tax structures and their cascading effect have a significant cost impact. No wonder, corporate India engaged in frenetic lobbying to obtain sales tax exemptions. In an era of cascading taxes, such exemptions and waivers meant significant pecuniary benefits to firms which offset high costs of:

a) **Transportation:** Sales tax concessions were often provided to encourage industrialization in backward/remote locations resulting in increased transportation costs and lead times.

b) **Warehousing:** Central sales tax (CST) regime forces companies to conduct inter-state sales via stock transfers route to avoid tax incidence, which often resulted in firms incurring incremental storage, handling and inventory carrying costs.

State VAT: Harmonizing and reduction of the cascading impact of sales tax

Introduction of VAT promises to put an end to the cascading impact of indirect taxes. However, in its current form, it allows firms to obtain full sales tax credit on inputs for intra-state purchases only. With inter-state transactions left outside its purview, it has failed to:

- create a unified/homogenous market for goods across the country
- eradicate artificial supply chains created by stock transfers
- prevent excessive inventory buildup at stock points
- force optimum modal mix deployment in transportation

Regulatory discontinuities

Upcoming changes in indirect tax administration are expected to address some of these lacunae. By creating a unified and accessible domestic market, it will make the business practice of inter-state stock transfers redundant.

Simultaneously, large investments in industrial infrastructure and creation of select freight corridors are expected to substantially reduce freight costs per ton-km and crash order to delivery cycles thereby making distant markets readily accessible.

Major regulatory discontinuities which can have a significant impact are:

1. **CST phase-out by 2010:**
   A nation wide goods and services tax (GST) will allow full set off on most indirect taxes. This will kill the economic logic cited by lobbyists in their demand for sales tax waivers. Firms will be served better by critically re-examining their supply chains to ensure:
   - greater proximity of manufacturing/storage to either supplier or customers
   - optimum distribution costs for the size of market covered
   - product differentiation at the final stage so as to maximize bulk dispatches
   - improved service levels
2. **Increased competition from imports:**
   With peak import duties slashed to 10%, tariff protections are surely being dismantled. Competition from imports will intensify further. New business models that allow imported goods to serve local markets under private labels are expected to emerge resulting in new supply chains around key gateway locations of the country.

3. **Creation of new demand centers:**
   Large industrial parks along Delhi-Mumbai freight corridor and large multi/single product SEZs will become the demand centers of the future. Domestic manufacturers supplying to firms in these notified zones will enjoy indirect tax benefits by virtue of deemed exporters status.

**Development in Logistics Infrastructure: A key enabler**

Creation of world class logistics infrastructure and new business models will demand distribution ideas and concepts. Key developments are:

1. **Port Infrastructure:** New container terminals are being set up to handle an annualized growth in exim container traffic of 15%. Products having import intensity or high export potential will particularly benefit by basing their operations near port locations. Currently JNPT and Chennai jointly handle ~75% of all container traffic. However, emerging terminals in Gujarat and transshipment hub at Cochin may reschedule container flows.

2. **Dedicated Freight Corridors (DFC):** By eliminating track congestion problems through creation of DFCs Indian Railways will pose serious challenges to the dominance of road transportation in the next five years. Supported by feeder networks, the DFC will drive greater penetration of the rail network and support the modal-mix correction in the economy which has been long overdue. Expectedly, long haul transportation costs (between hubs) will drop.

3. **National Highway Development Programs (NHDP):** National Highways currently handle around 40% of all cargo movements by road. Widening of these arterial routes under NHDP (Phases III to VII) coupled with rail-out options will create/ free significant capacities along these high density corridors. As a result, cargo throughput volumes will get maximized at lower costs.

4. **Logistics Parks:** Logistics parks with public private participation are being planned at strategic locations where the DFC and the National Highways intersect. These will serve as crucial multimodal exchanges for containerized cargo. Increased competition among rail and road networks will lower inland container haulage charges. With low hiring charges, firms may find containerization more reliable and cost effective for domestic shipments also.

5. **Boom in Organized Retail:** While logistics infrastructure discussed above impacts domestic long hauls, growth of organized retail will determine last mile distribution. Buying power of organized retail outlets will alter distribution and warehousing strategies of manufacturers. Larger parcel sizes, frequent and timelier replenishments at short notices to retail will be the order of the day.

**New capabilities required for the new decade**

As far as pan-India supply chain management is concerned, it is evident that pure sales tax considerations will be relegated to a mere compliance issue managed either by corporate finance or legal functions. Notwithstanding delays in phase-out of CST or creation of world class logistics infrastructure, the need for formulation of a national supply chain plan will grow in importance.
So how do all these regulatory, infrastructure and business model changes affect logistics plan of supplier firms? How can they respond to identify areas of competitive advantage?

The focus of the firms will need to change radically to obtain competitive advantage in an era of increasing dependence on logistics efficiency and declining returns from tax management. Competitive strength of firms will increasingly depend on their ability to design flexible and responsive supply chains. Judicious use of high end analytical tools and technology to optimize dynamic input variables (Exhibit-1) for maximum commercial impact can be key differentiators.

Exhibit 1: Conceptual framework for a dynamic logistics planning exercise

- Environment Scan
  - Stock of logistics infrastructure
  - Urbanization levels
  - Population/ GDP density
  - Increased buying power of retailers

- Regulatory Norms
  - CST phase out
  - SEZ Act and FTWZ
  - Lowering of tariff barriers
  - Domestic tax havens

- Product-market
  - SKU proliferation levels
  - Lead times and fill rates
  - Shelf life

- Channel players/ service providers
  - Centralized vs decentralized dist.
  - Growth in organized 3PL
  - Collaborative opportunities in warehousing, backhaul etc.
  - Dynamic pricing

- Technology
  - GPS
  - RFID
  - Other Track & Trace requirements

Corporate Strategy

Options
- Issues/ Options
- Alternatives
- Operating efficiencies
- In-depth Analysis
- Recommendations

Logistics Strategy/ Plan
- Inbound network
- Outbound network
- Make vs. Buy decisions
- Distribution Intensity
- Replenishment frequency
- Inventory Levels
- Outsourcing of logistics functions
- Technology deployment

Organizational Capabilities