The Supply Chain Eco-System Framework
Delivery Services Infrastructure
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Manufacturing and services are Intertwined
Developments in Transportation
High Performance Trade Logistics
Some Recent Trends in Logistics
Conclusions
Manufacturing and Services are Intertwined in a Supply Chain
Services in Supply Chain Networks

Service inputs into the Manufacturing
- Quality control
- Equipment leasing
- Logistics, MRO

Pre Production Services
- Feasibility studies
- Finance, VC
- R&D, Product design
- Market research

Manufacturing Network
- Sourcing (S)
- Manufacturing (M)
- Distribution (D)
- Retail (R)

Post-Production Services
- Advertising, Distribution
- Outbound Logistics, MRO
- Customs & Trade Logistics
- Client Training

Service inputs into the factory operations
- Accounting, legal, HR
- Transport & Communications
- Software, Insurance, Finance
- Real estate, Security, Cleaning, Catering.

Ecosystem Aware
Global Supply Chain Management

The Financial Supply Chain

Movement of Documents Data & Physical Goods

Supplier
Manufacturer
Retailer / Distributor
Customer

Movement of Documents Data & Money

Physical Supply Chain Questions
- What to buy?
- When to buy?
- How much to buy?
- From whom to buy?
- Just-in-time-manufacturing
- Demand Forecasting

Financial Supply Chain Questions
- What and how to pay?
- When to pay?
- How much to pay?
- Who to pay?
- Just-in-time-cash
- Cash Flow Forecasting

Currently being optimized

Optimized over last 10 years

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Developments in Transportation
Delivery Infrastructure Transforms Economies

- The Internet, Wireless and Sensor networks facilitate greater visibility into and control of the shipments through improved track and trace capabilities and real-time co-ordination.
- Several innovations in Transportation systems: from commercial jet aircraft to container shipping; Suez and Panama canals to Trade facilitation.
- In world class supply chains, the movements of components, final products, information and funds are not discrete functions, but are governed by a single integrated process, with the goal of tight management of deliveries, inventories, and costs.
Suez and Panama Canals have altered the Global trade
“The Earth is Round”
New Routes to the New World!

Source: Curtis Spencer, President IMS Worldwide Inc. “Logistics Trends & the Impact on Industrial Real Estate”
High Performance Trade Logistics
The quality and performance of logistics services differ markedly across countries and significantly affect their trade competitiveness.

These variations in time and cost stem from the quality and cost of infrastructure services and policies, procedures, and institutions.

- In Kazakhstan it takes 93 days to export a 20-foot full container load (FCL) container of cotton apparel while in Sweden it takes only 6 days.
- In Namibia the costs of all trade-related transactions for a 20-foot FCL container, including inland transport from the ocean vessel to the factory gate, amount to slightly more than $3,000, and in Sweden to a little more than $500.
Differences in logistics performance are driven only in part by poor quality of physical infrastructure services such as road, rail, waterways, port services, and interfaces.

Most inadequacies often are caused by Policy & Institutional constraints—procedural red tape, Poor enforcement of contracts & rules of engagement, delays in customs, ports and border crossings, pilferage in transit, and restrictive protocols on movement of cargo.
Delivery Services & Competitiveness

- The quality of Delivery services have a major bearing on a firm’s decisions about the country to locate in, the suppliers to buy from, and the consumer markets to enter.
- High logistics costs and—more particularly—low levels of service are a barrier to trade and foreign direct investment (FDI), and thus to economic growth.
- Countries with higher overall logistics costs are more likely to miss the opportunities of FDI.
- Countries with efficient logistics infrastructure such as Singapore and Hong Kong were targets of MNCs for setting up facilities.

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Brand Logistics Services

- Brand Logistics provider
  - Resources: Warehouses, Fleet of vehicles, containers
  - Support of financial institutions for Letters of Credit
    Foreign exchange, Insurance, Credits, etc
  - Skill Development Training Centers
  - Education Institutions for research in New business models, Optimal location of warehouses, Scheduling truck services and maintenance, Freight space negotiation and allocation, etc
  - Talent with domain knowledge and connections
Some Recent Trends in Logistics
Piracy in the Seas

- Pirates have expanded over the years 2006-10
- Many of the world’s most powerful Navies are involved: US, EU, India, Malaysia, Indonesia and South Africa.
- The Japanese and South Koreans send warships to protect ships carrying cars.
- It is still cheaper & convenient to pay higher insurance fees and take risk being attacked by pirates than to incur the extra cost of diverting vessels around the Cape of Good Hope.
Performance based logistics

“Never tell people how to do things. Tell them what needs to be done & they will surprise you with their ingenuity.”
Let’s assume that XYZ has contracted with ABC 3PL to provide call center and fulfillment services.

Under a transaction based agreement, ABC 3PL gets paid more, the worse the supply chain performs.
- If XYZ has forecasted too much, ABC 3PL will make more money by storing the excess inventory. They will be paid to destroy the obsolete product.
- If XYZ has forecasted too little, ABC gets to charge for expediting. If ABC’s products are returned, they make even more money.

Under performance based contract, the supplier is to assume a more proactive role in managing its customer’s supply chain by bridging the supply and demand gap.
Logistics Execution via BPO

More efficient back-office processes and More responsive customer service
Penske works with Genpact to improve efficiency and customer service.

- Penske is a US based logistics company. Genpact manages the logistical services of Penske
- Genpact workers in India and Mexico
  - Arrange for titles and registrations for the trucks leased by Penske
  - Check the customer’s credit status, arrange necessary permits. If the truck gets stuck at a weigh station, the truck driver would call the BPO staff who would transmit necessary documentation to the weigh station.
  - After the trip, the driver’s log would be shipped to a Genpact facility in Juarez, Mexico, where mileage, tax, toll, and fuel data are punched into Penske computers and then processed in India.
Conclusions

- Logistics amounts to 10-15% of every product produced. It is estimated to be more than US$ 2 Trillion worldwide.
- The quality of Delivery services have a major bearing on a firm’s decisions about the country to locate in and on a country’s abilities to attract FDI.
- Hard infrastructure contributes only 25% of the Logistics productivity and the other 75% comes from soft infrastructure such as trade facilitation & IT based execution.