UNIT 10: SUPPLY CHAIN GLOBALIZATION
LH 3

OUTLINE

- Rational and key strategies
- Requirements and Challenges Supply Chain
- Globalization Potential hidden costs
- Total Cost Strategy

SUPPLY CHAIN GLOBALIZATION

Prepared By: Rjee Rakhal

What is Global Supply Chain?

- A global supply chain is made up of the interrelated organizations, resources, and processes that create and deliver products and services to end customers. In the instance of global supply chains, it is extended around the world

- Any company that uses parts and services from another factory overseas faces issues with global supply chain management

Supply chain globalization

- **Supply chain globalization range** from a primarily domestic business with some international suppliers to a truly integrated global supply chain.
  - **International distribution**:
    - manufacturing occurs domestically, but distribution and marketing take place overseas.
  - **International suppliers**:
    - raw materials and components are furnished by foreign suppliers, but assembled domestically (probably shipped back to foreign countries for consumption).
  - **Off-shore manufacturing**:
    - finished product is sourced and manufactured overseas and then shipped back to domestic warehouses for sale and distribution.
    - business activities of a company that happen in a different country to the one where the company is based, where costs may be lower:
  - **Fully integrated global supply chain:**
    - products are supplied, manufactured, and distributed from various facilities located throughout the world.

Rational and Key Strategies

- Manufacturing Strategy:
  - How many plants & where should each be located?
  - Products made & process to be used at each plant?
  - What part of the world should each plant serve?
- Supply Base Design / Vendor Consolidation:
  - How to select supplier for parts in same product group?
  - How many suppliers is best?
  - Which suppliers should send which parts to which plants?
  - Can I source more than one part at a time from a supplier?
- Impact of Duty / Drawback, Taxes, Local Content :
  - If the duty rates come down according to GATT/WTO, how should I change my supply chain design?
  - What is the best use of the tax havens?
  - How much of local & global sourcing is possible?
- Outsourcing:
  - What parts to produce "in-house" and what parts to outsource?

Rational and Key Strategies

- **Spare Parts Logistics**:
  - How many echelons of repair and stocking is best?
  - How many repair shops are needed, **where** should they be located, what products should each handle, and what geographic area should each serve?
- **New Product Pipeline Design**:
  - What should the supply chain look like for a new product?
  - How should I fit the new product into my current supply chain?
  - Should I single or double source this product?
  - How much do my fixed costs affect this decision?
  - What is the cross-over point to open up a second and third source of supply?

Why Supply Chain Globalization ??

GLOBAL MARKET FORCES

- Foreign competition in local markets
- Growth in foreign demand
- Global presence as a defensive tool: serve to international market

TECHNOLOGICAL FORCES

- Knowledge diffusion across national boundaries, hence need for technology sharing to be competitive
- Global location of R&D facilities
  - low cost in high quality through R&D

Why Supply Chain Globalization ??

GLOBAL COST FACTORS

- Availability of skilled/unskilled labor at lower cost
- Integrated supplier infrastructure (as suppliers become more involved in design)
- Capital intensive facilities like tax breaks, price breaks etc.
  - We can take advantage of tax heaven such as developing countries like Nepal

POLITICAL AND ECONOMIC FACTORS

- Trade protection mechanisms:
  - Tariffs, Quotas, Voluntary export restrictions, Local content requirements, Environmental regulations, Government procurement policies (discount for local)
- Exchange rate fluctuations and operating flexibility (in mfg system as per the demand situation that lower the cost
  - WE CAN INVEST in lower currency and can sell in high if currency becomes higher

Challenges for Supply Chain Globalization

- **General Challenges:**
  - Cultural challenges
  - Economic challenges
  - Political challenges
  - Organizational challenges
    - Managing hr, planning of activities etc.

- **Specific Challenges**
  - Supply challenges
    - Finding qualifies suppliers and lack of infrastructure
  - Manufacturing challenges
    - Managing or integrating diff manufacturing plants that may have located in diff countries.
  - Distribution challenges
    - Geographical distance, need to coordinate diff mode of transportation, large no, of warehouse and may increase stock level

Potential Hidden Costs

1. ***Cost of an outdated outsourcing strategy:***
   - For example, if 100 percent of the design and manufacturing for a product is located in China, it would be difficult to serve an emerging or fast-growing market in Brazil or Los Angeles.

2. ***Cost of management and coordination of contractors:***
   - This includes the cost of employees' time and travel expenses incurred when they visit suppliers, plus any other identifiable lost opportunities, such as lost sales, missed market opportunities, warranty and returns, and loss of customer confidence. The cost of these activities can quickly add up to millions of dollars.

3. ***Cost of subpar inventory performance:***
   - **Outsourcing manufacturing reduces flexibility in design as well as the ability to respond** to schedule changes. This usually translates into more inventory in the global pipeline, more mismatches between supply and demand, more shrinkage from variances (count errors, theft, weak disciplines, and so forth), and more excess and obsolete inventory

Potential Hidden Costs

4. ***<u>Cost of unplanned logistics activities and premium freight:</u>***
   - Outsourcing increases the distance and the number of touch points between order entry and order fulfillment. ***Poor planning and oversight in such a highly complex demand and supply chain leads to unnecessary expenses.***

5. ***<u>Cost of poor or substandard quality</u>***

6. ***<u>Cost of warranty, returns, and allowances:</u>***
   - Warranties require product repairs or replacements at no cost to the customer, customer returns equate to lost sales, and allowances are discounts for blemished but fully functional products.

Potential Hidden Costs

8. ***Cost of supplier management:***

- There are numerous costs associated with **selecting, developing, and maintaining** a supplier and ensuring that it meets expected performance levels in areas such as process capability, quality and reliability, capacity, flexibility in regard to changes, turnover and retraining, and so forth.

9. ***Cost of unplanned and unforeseen risks:***

- Organizations that outsource production tend to overvalue the labor savings they expect to gain from outsourcing and undervalue all the other potential costs and risks. These include such underhanded practices as **intellectual property theft, and product and component piracy and theft that** may be acceptable or are rarely (if ever) prosecuted in some countries.

Total Cost Strategy

- Integrating global sourcing into the overall business strategy to obtain a low-cost advantage.
-

.

1. ***Offshoring facilities : low cost facility for export production***
   - *An offshore facility serve the role of being a low-cost supply source for markets located outside the country where the facility is located. The location selected for an offshore facility should have lower labor cost and other costs to facilitate low-cost production. Given that many Asian countries waive import tariffs if all the output from a factory is exported, they are preferred site for offshore manufacturing facilities*

2. ***Source facilities; low-cost facility for global production***
   - *A source facility also has **low cost as its primary objective**, but its strategic role is broader than that of an offshore-facility. A source facility is often primary source of product for the entire global network. **Source facilities tends to be located in places where production costs are relatively low, infrastructure is well developed and skilled workforce is available**. Good offshore facility migrate over time into source facilities.*

3. ***Server facility; regional production facility.***

- ***The objective of server facility is to supply the market where it is located.*** *A server facility is built because of tax incentives, local content requirement, tariffs barriers or high logistics cost to supply chain region from elsewhere. In the late 1970's, Suzuki's partnered with the Indian government to set up the maruti udyog. Initially, maruti was set up as a server facility and produced cars only for the indian market. The maruti facility allowed Suzuki to overcome the higher tariffs on imported cars.*

4. ***Outpost facility: regional production facility built to gain local skills***

- A outpost facility is located primarily to **obtain access to knowledge or skills** that may exist within a certain region.

- Given its location, it is also plays the role of a server facility . The primary objective remains one of being a source of knowledge and skills for the entire network. Many global firms have set up outpost production facilities in japan despite the high operating costs.

5. ***Lead facility: facility that leads in development and process technologies.***

- A lead facility creates the **new products**, **process and technologies for the entire network**. Lead facilities **are located in areas with good access to a skilled workforce and technological resources**.

Note;

- **global supply-chain management** (GSCM) is defined as the distribution of goods and services throughout a trans-national companies' global network to maximize profit and minimize waste.
- Essentially, global supply chain-management is the same as supply-chain management, but it focuses on companies and organizations that are trans-national. Global supply-chain management has six main areas of concentration: logistics management, competitor orientation, customer orientation, supply-chain coordination, supply management, and operations management.
- These six areas of concentration can be divided into four main areas: marketing, logistics, supply management, and operations management.
- Successful management of a global supply chain also requires complying with various international regulations set by a variety of non-governmental organizations (e.g. The United Nations).
- Global supply-chain management can be impacted by several actors who impose policies that regulate certain aspects of supply chains. Governmental and non-governmental organizations play a key role in the field as they create and enforce laws or regulations which companies must abide by.
- These regulatory policies often regulate social issues that pertain to the implementation and operation of a global supply chain (e.g. labour, environmental, etc.). These regulatory policies force companies to obey the regulations set in place which often impact a company's profit.
- Operating and managing a global supply chain comes with several risks. These risks can be divided into two main categories: supply-side risk and demand side risk.
- Supply-side risk is a category that includes risks accompanied by the availability of raw materials which effects the ability of the company to satisfy customer demands.[4] Demand-side risk is a category that includes risks that pertain to the availability of the finished product.[4] Depending on the supply chain, a manager may choose to minimize or take on these risks.[4] Successful global supply-chain management occurs after implementing the appropriate framework of concentration, complying with international regulations set by governments and non-governmental organizations, and recognizing and appropriately handling the risks involved while maximizing profit and minimizing waste.

THANK YOU