What is Logistics ?

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Logistics

- Logistics in Chinese literally means **the flow of goods**. Logistics as a business is the effective management of the flow of goods
- Logistics is important because it is a key component in the cost of goods and therefore affects it's market value – from general neglect to focusing on the **"Soft three dollars"**
- Logistics therefore is the last frontier for cost reduction and market competiveness.

Logistics

Logistics cost by country as % of sales

- China 20.0
- USA 10.0
- HK 8.0
- France 7.2
- Italy 6.7
- Germany 6.3
- UK 5.1
- Spain 4.7
- Netherland 4.6

Logistics

By nature Logistics is a Passive Servicing industry which follows where the Goods are. Goods are in turn generated by

1) International Trade of raw material, parts & finished products – flourished by Free Trade Agreements, Information Technology and availability of mega carriers

2) Domestic Requirements - goods flow as we wear, eat, live, move, work and play – in USA domestic requirements represents 70% of the GDP whereas in China it is only 36%!

Logistics

3)Local & foreign direct investment
(building ports, tunnels, highways, railways, power plants, factories, mines, real estates, hotels)

4)Natural & Man made disasters
(Flood/drought/snowstorm/famine/ earthquakes/diseases/wars)

Logistics

- Red Cross/UN relief work eg. Global Budget for Women & Childrens' Health US$40 billion; supplying mosquito nets for 578 million Africans ; Global Warming Aids US$30 billion a year from 2010 to 2012 thereafter at US$100 billion a year

- US military spending 2010 included US$693 billion for Iraq & US$102 billion for Afghanistan !

  An air charter company handled 2,000 flights last year 90% military related

Logistics

Different types of goods require different types of logistics. The key ones being:

- Manufacturing/Production Logistics
- Sourcing Logistics*
- Retail/Distribution Logistics
- E Logistics
- Reverse Logistics
- Project Logistics

* Li & Fung turnover US$16 billion 50% in China from 6,000 factories. Walmart is China's 7th Trading Partner ahead of Russia

Logistics

The players

1PL – perform by the owner of the goods (seller or buyer)

2PL – asset based logistics hardware providers – *shipping lines, airlines, railways, truckers, warehouses, terminals, postal services/express integrators.

(* shipping agency, chartering co. ,ship management co.)

3PL - "Third Party", do not possess title of goods and typically non asset based

4PL - the lead 3PL among a group of 3PLs handling the same project

5PL - consultants, software vendors

Logistics

The division is far from clear cut

- Some 1PLs already transformed into 3PLs eg. Li & Fung, Haier, Midea (Annto), Konka, Bao Steel
- Some 2PLs also expanded to become 3PLs eg. Deutsche Post (DHL), Deutsche Bahn (Schenker), UPS, Maersk (Damco), APL (APLL), OOCL (OOCLL), Kerry Warehousing
- Hybrid eg. Kerry Logistics = 2 + 3 +4. Many 3PLs also now possess some assets such as warehouse and vehicles

Logistics

The evolution of a 3PL – a process of push and pull

Stage One – offering **Freight Forwarding –** organizing international sea and air transport between ports and airports. Fast becoming a commodity due to competition and service transparency

Stage Two – offering **Freight Forwarding Plus –** freight forwarding plus various Value Added Services (VAS) at both ends e.g. from trucking & warehousing to pick & pack, cross dock, labeling, order processing, kitting etc.

Stage Three - Contract Logistics/Supply Chain Management

Logistics

Contract Logistics is the provision of **tailor made integrated logistics solutions** by a 3PL with clearly defined SOP, KPI, remuneration, penalty & time frame which are under **contract**.

By definition, it is the effective management of a part of or the entire supply chain so that goods, be it material/parts or finished products and the related information can be delivered to the **right location**, at the **right time**, with the **right amount**, in the **right condition** and at the **right price**.(Tap Water Analogy)

Total Supply Chain Management from raw material to finished product is uncommon because once the product is made, it will likely change ownership & the 3PL. Exception are the Oil & Gas, automotive and aerospace Industry.

Logistics

To be effective in contract logistics , a 3PL needs to add value through the provision of

- Core professional skills – sea, air, land, W & D
- IT skill – transactional applications, total transparency, connectivity
- Geographical coverage due to globalization, the market is borderless – need at least regional network either directly or via agents/alliance
- Lateral thinking – cross functional/diagnostic skill/ imagination to formulate the Solution (what, where, when, how & why)
- Marketing skill to package & sell the Solution
- Implementation skill – leadership skill & team work with "can do" attitude

Logistics

- Ability in collaboration by choosing & managing the right agents & subcontractors
- Aptitude for continuous improvement & innovation – to be always customer centric and go for the best in class practices
- Create partner relationship with customer rather than acting as just another vendor – need good company culture and integrity to gain total trust for long term cooperation & participate in total process reengineering

Logistics

WHY CUSTOMER SUBCONTRACT/OUTSOURCE ?

- Although logistics is the last frontier for reducing cost , it is still noncore to both the manufacturer & the distributor.
- 3PL's can provide competitive pricing through economy of scale thus able to reduce direct logistics cost
- 3PL's professional knowhow can reduce non direct logistics cost
- Wide choice of products offered by 3PL
- Ever increasing complexity in logistics especially due to globalization, Corp responsibility/safety/environmental protection/ child labor
- Expensive IT Requirements – From simple Track & Trace to "Total visibility", RFID enabled supply chains(ISO8000-7 Protocol), EDI, EFT (electronic fund transfer),inventory planning & demand forecasting (ECR) & continuous replenishment programme

Logistics

- Higher level of customer service compared to in house setup & flexibility to change vendor
- Freeing up valuable capital for other core usage

Logistics

DIFFICULTIES IN SUBCONTRACTING

- Customer's lack of true understanding in logistic management – still only aiming at reducing direct logistics expenses
- Fundamental conflict of interest with current in house operators
- Difficulties in information gathering due to typical practice of silo/vertical management
- Internal politics & vested interest
- Security concern & lack of trust

Logistics

The simple rule of success is whether the 3PL can **add sufficient Value** to the supply chain which can be measured by it's ability to reduce both the **direct** as well as **indirect logistics expenses** & provide services the customer considered to be necessary but **noncore**.

The former can be achieved through economy of scale while the latter demands considerable professional knowhow & experience to properly manage/reengineer the logistic processes.

Logistics

Some basic guidelines for reducing logistics expenses

- **Minimize the number of movement** e.g. by unitization & subassembly
- **Maximize speed & accuracy** e.g. mechanization, bar coding, voice recognition, RFID
- **Minimize wastage of space & idling equipments** e.g. proper racking/route planning – avoid empty returns, stowage planning, FIFO/FILO
- **Minimize loss & damage** e.g. proper packaging/use of proper handling equipment/ install security systems against fire & pilferage
- **Focus on the essentials** Dynamic ABC Analysis 80/20 Rule vs mediocre & marginal products
- **Standardized products vs tailor made solutions**

Logistics

Supply Chain Management is not so much about perfection but the ability to be flexible and able to provide speedy recovery when things went wrong. The Moment of Truth is when conditions are **abnormal = crisis management**

Abnormality includes sudden volume surge account :

*war, strikes in ports/airports (2002 US W.Coast, Bangkok Airport 2008)
*natural disasters (2008 PRC ice storm, 2010 earthquake, volcano eruption)
*product recalls (from Japan Firestone tires to China milk powder)
*End 2009/ June 2010 restocking rush in USA

Logistics

* New regulations (2007 China's sudden reduction of export tax refund
* Demise of carriers

Logistics

Current challenges

- Shrinking in volume of traffic account global economic crisis since 2008/9
- Relocation of manufacturing bases – within China & from China to other Asia countries
- Orders are smaller but more frequent – from months to weeks with short lead time
- 3PLs are asked to do more – from payment, financing to handling of claims, the service scope is extremely blur
- Cost is difficult to control – freight and fuel price in particular
- Customer – Big gets bigger, small ones high risk in insolvency – the "soya sauce chicken syndrome"
- Increased Govt. inspection requirements against terrorism – CTPAT etc

Logistics

Latest trends

- Sensing technology – from Bar code to RFID, the "Smart things" – behaviour vs process tracking
- Mobile technology
- Cloud technology – "paid as used"
- Green logistics

- minimize power/material including water
- use recycled material
- reduce carbon footprint (water transport vs trucking, electric powered vehicles)
- product recovery/reuse/proper disposal

Contract Logistics

1. Production or Manufacturing Logistics

- Servicing the factory in countries of production
- Involve importation of raw material and parts- custom regulations
- JIT (Just in time) delivery to production line – Is ZERO inventory a myth ?
- From MMI to VMI

Contract Logistics

- Subassembly
- Need good IT System
- High penalty for delivery failure
- The concept of dispersed/borderless/parallel manufacturing calls for strong geographical network

Division by industry e.g. Auto Industry (from CKD to 4S shops), Aerospace Industry, Garments, Elevators

Contract Logistics

2. Sourcing Logistics

* Servicing overseas buyers in producing countries
* Buyers mainly chain store/department stores
* Single buyer multiple suppliers consolidation-store ready
* Involve testing & quality control
* Pick & Pack by Purchase Order/color/size/ratio pack/store pack/head or tail load
* Tagging/labeling/GOH
* Dump bin/display cabinets/shrink pack
* Merge in transit
* Handling Sample shipments
* Per piece landed cost

Eg. Macys, Zara (450 shops/11,000 styles per year)

Contract Logistics

3. Retail/Distribution Logistics

- Handling finished products at the market place
- Products may be imported or supplied locally
- Large number of SKU, relatively small lots, need distribution centers & domestic transportation plus good information system linking to points of sale – the 80/20 Rule
- FIFO is a must. SO (Stock Out) is unacceptable. Watch product life cycle
- VAS include repackaging, relabelling, bar coding, price tagging, security tag, gift pack, shelf management, promotion (lucky draw, bonus point management)

a. Fast Moving Consumer Goods (FMCG) –Supermarket chains
b. Food/Cold chains - Aircon/Chill/Frozen 10-25C/0-4C/-18C)Centra kitchen

Contract Logistics

c. High value Branded goods e.g. LV, Todd, Dunhill

d. Fashion/garments e.g. H & M, FCUK, Zara, Bandon

e. White goods e.g. Philips, Dell, HP, Samsung

f. Wines & Spirits/beverages e.g. Moet Chandon Hennessey, Coca Cola, wine testing/tasting
g. Bonded goods e.g.. Philip Morris cigarettes

h. Pharmaceutical/Medical Equipment/Hospital e.g. J & J, Baxter, Philips. Delivery to "mouth" !

i. Cosmetics e.g. Body Shop, Sa Sa

j. Furniture/Hardware e.g. IKEA, B & Q, Ace Hardware

k. Hotel supplies e.g. Pan Pacific, Shangri-La

Logistics

4. E – Logistics

- Supporting Internet sales covering both B2B & B2C
- Handling B2B is similar to other commercial goods
- B2C is ideal for selling small items of known quality e.g. books, medicine & electronic such as modem/mobile phones
- Hugh potential in large countries like China which has a very uneven distribution of population
- B2C is a real challenge especially re time of delivery, cash collection, reward systems & handling of returns

Logistics

- **Credit card vs Debit Card**
- **Collaboration with Post Office, domestic couriers & 24 hour convenient stores (711, Circle K)**
- **E-notice/E-payment/E-POD**
- **Connectivity with E Portals. Bolero/Trade Card/DTTN(Digital Trade Transport Network)**

Logistics

5. Reverse logistics

* Involve the handling of returned goods

* Goods are returned because of free trial option/wrong item/wrong size/damages and in all cases the original package is destroyed & product condition uncertain

* Processing Cost 4-5 times more than export logistics. (Est cost US$100 billion per year in USA) Not all cargo worth doing

*Assessing/Testing/Repair/Repackaging/Relabel/Restock/ Reselling/Disposal

* Principle is to return the goods to the *market ASAP (* market can be secondary market)

Contract Logistics

6.Project Logistics

Defined as one off, non repeat services including :

1. Removal business - House Hold Goods removal/ Office removal/HK Airport removal 1998. Insurance is an important source of income

2. Plants & Machinery (New or second hand, Engineering/Procurement/Construction (EPC) & turn key projects) eg. Occidental Open Cast Mine, Daya Bay Power Plant)

3. Odd size/heavy weight cargo e.g. yachts, trucks, fire engines, locomotives

4. Exhibitions, Shows & events e.g. Opera, Circus, Zoo animals, M. Jackson concerts, Europe/Asia Car races & the Olympics

Contract Logistics

5. Government projects – relief work eg. Prefab schools, tents, water pumps, food, fuel, ammunitions, military equipments/mail

* Usually very high margin but no tolerance for failure

* Need special knowhow/network/equipments like chartering of cranes, heavy lift vehicles & vessels.

World's top 10 container lines

- A P Moller-Maersk
- Mediterranean Shipping
- CMA CGM
- Evergreen
- Hapad-Lloyd
- CSAV
- APL
- COSCA
- Hanjin
- CSCL

Total container traffic 2010 is at 152 million TEU

World's top 10 forwarders

2010 in descending order

- Kuehne & Nagel (US$21.3 billion=10% Global Sea/Air market)
- DHL
- DB Schenker
- Panalpina
- Expeditors
- Sinotrans
- Ceva
- Agility
- UPS Supply Chain Solution
- DSV

Industry still fragmented but gradually consolidating towards the top 10 which already have 40% market share

Major Contract Logistics Players

Global	**Europe**	**USA**
1.DHL Supply Chain*	1. DHL	1.DHL
2.CEVA	2. Wincanton	2.Penske
3.K & N		3. CEVA
4.D B Schenker		4. Caterpillar
		5.Ryder
		6.UPS SCS
		7.Schneider
		8.Menlo

Asia

Hitachi, Sankyu, Mitsubishi, Toll, Kerry Logistics, L & F

* Turnover Euro12 billion
(Transport Intelligence)

Logistics

- Be selective basis on available market and own resources
- It is a Solution Business, a Brain Power Business & ultimately a **People's Business**
- The two **"P"** being **Passion & Pride**

Logistics

Thank you !