

Welcome in the presentation

ON

Guide of Supply Chain and Logistics Management

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Guide of Supply Chain and Logistics Management



“ Manage the activities of products/services that gives to you and your customer best value of money”.

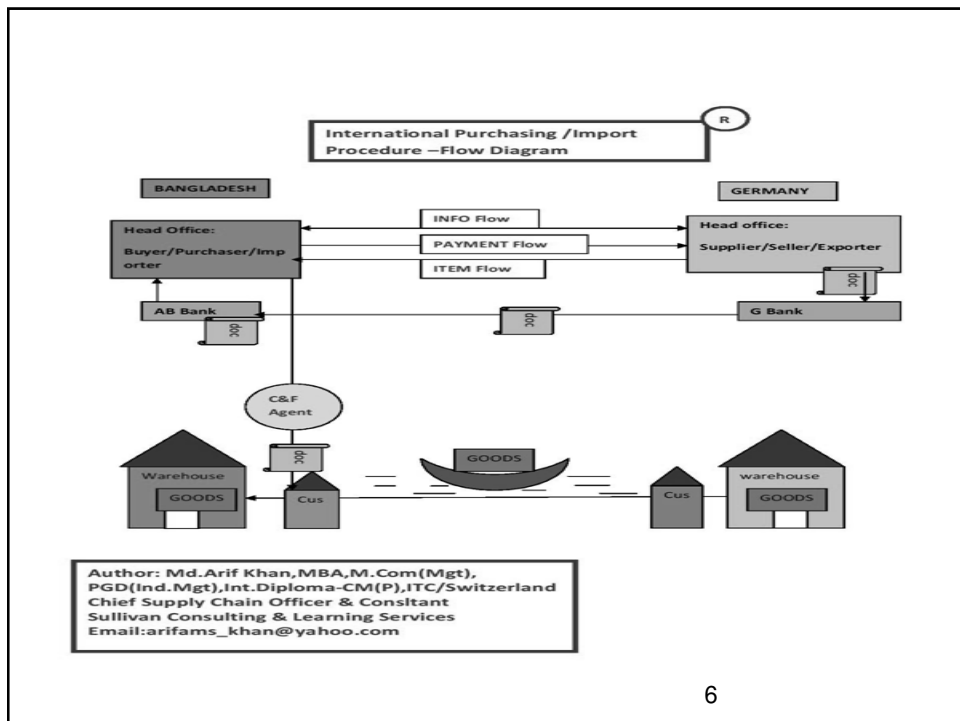
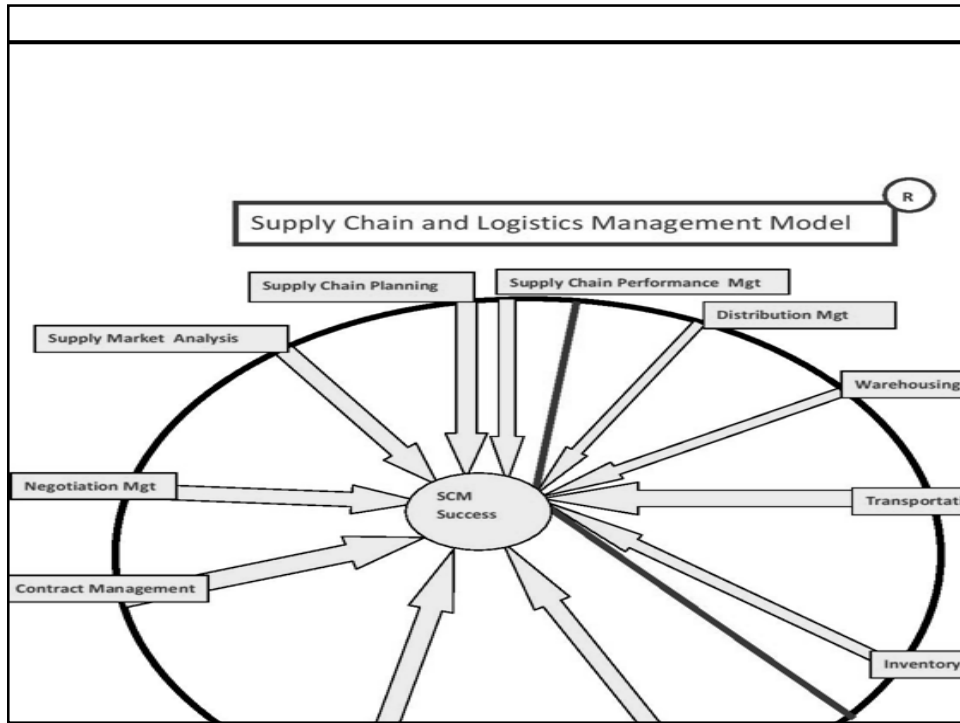
Some Questions/ ?????? Before implementing
SCM(Supply Chain Management)

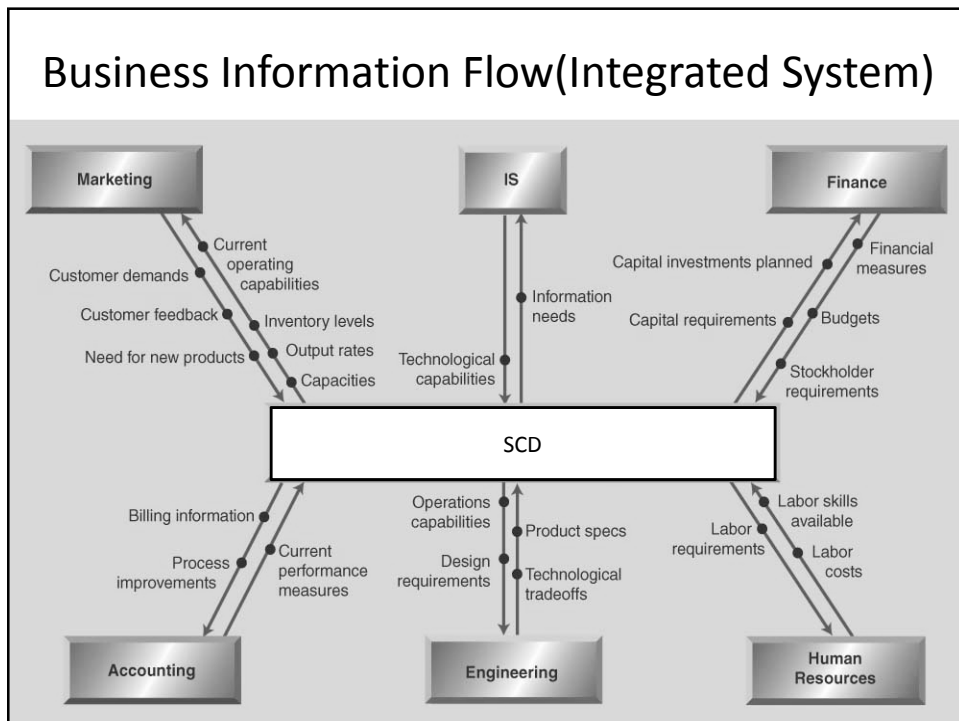
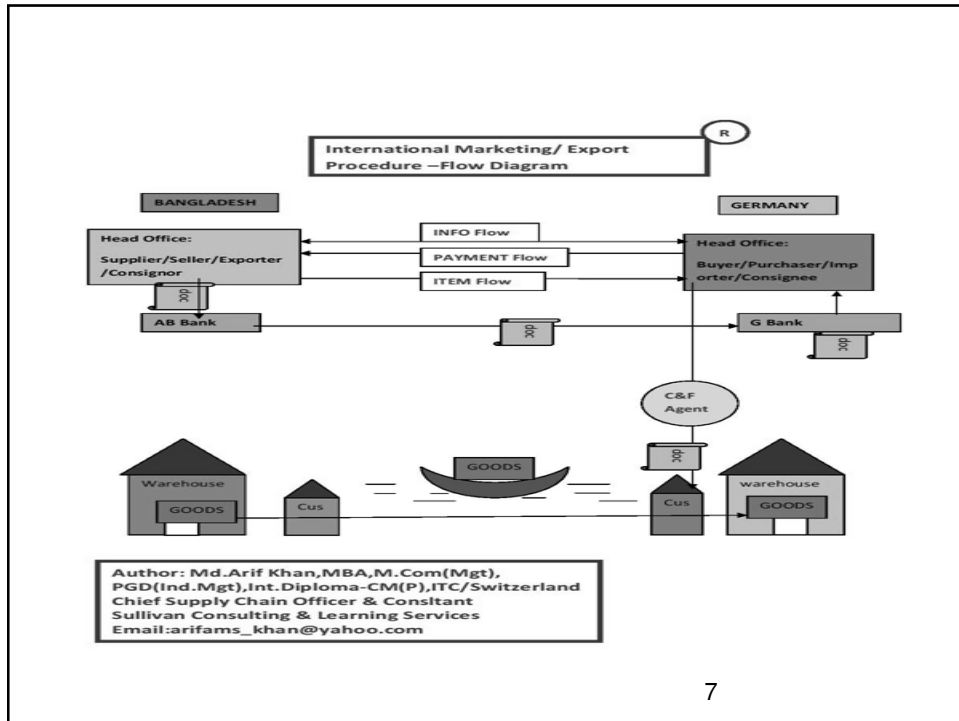
- Is Supply Chain Mgt Implementation is essential or not ?
- Does it minimize cost ?
- Does it add value to your organization ?
- Does it manage supply line(Item In -In bound & Item out-Out bound) ?
- Does it manage relationship among stakeholders ?
- If yes , then we will go forward further.

Meaning of Supply Chain Management

Supply chain management (SCM) is the combination of art and science that goes into improving the way your company finds the raw components it needs to make a product or service and deliver it to customers. As per SCOR Model by Supply Chain Council , following are five basic components of SCM.

- Plan
- Source
- Make
- Deliver
- Return-(Reverse Logistics)





Effective & Efficient Supply Chains

Key factors:

- ☐ Understanding end customer needs
- ☐ Adopting effective supply chain strategies to meet end customer needs
- ☐ Integration of the members of the supply chain
- ☐ Successfully tackling operational issues
- ☐ Successfully handling the impact of internationalisation on the supply chain
- ☐ Managing the information systems & technology which hold the supply chain together
- ☐ Ensuring value for the customer provided by the supply chain

Real meaning of Logistics Management

Logistics Management is the part of Supply Chain Management . It has FOUR Drivers/ACTIVITIES:

- Inventory**
- Transportation**
- Warehousing**
- Distribution**

Logistics is also defined as "that part of the supply chain process that plans, implements and controls the efficient, effective flow and storage of goods, services and related information from the point-of-origin to the point-of-consumption in order to meet

Global Supply Chain Management

- With increased globalization and offshore sourcing, global supply chain management is becoming an important issue for many businesses. Like traditional, supply chain management, the underlying factors behind the trend are reducing the costs of procurement and decreasing the risks related to purchasing activities. The big difference is that global supply chain management involves a company's worldwide interests and suppliers rather than simply a local or national orientation.

Lean & Agile Supply Chain

- Lean is invented by TOYOTA. When supply chain management systems considers the lean approach ,then we call it lean supply chain management.JIT is the one of the pillar of Lean Supply Chain.
- Agile supply chain is next to lean supply chain management system. In agile system marketers, the designers and production personnel share a common data base of parts and products and also share data on production capacities and problems.

12

Major Supply Chain activities of an organization

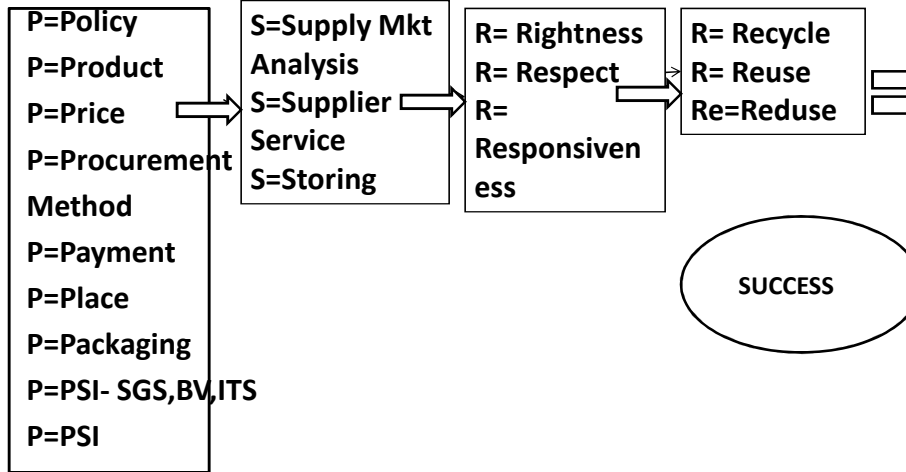
- Supply Chain Planning (Demand/Requirement Planning, Strategic production planning, Specifying Quality, Specifying Delivery time and place , Other services)
- Supplier Relationship Management (Supplier Enlistment, Supplier Appraisal)
- Negotiation
- Contract
- Purchasing/Procurement
- Payment
- Transportation
- Managing inventory
- Warehousing(Storage, handling & packaging)
- Distribution
- Supply Chain Performance Management i.e.controlling¹³

Supply Chain Departmental activities of an organization(Manufacturing & Trading)

- 1.Supply Chain Planning Sections (Item Requirement /Demand, Fund requirement, Time, Cost, Quality etc)
- 2.Requisition Management Sections
- 3.Supplier Relationship Management Sections
- 4.Contract Management
- 5.Procurement Management
- 6.Inventory Management
- 7.Transportation
- 8.Warehousing
- 9.Bill/Payment Management
- 10.Distribution
- 11.Supply Chain Performance Management (Controlling)¹⁴

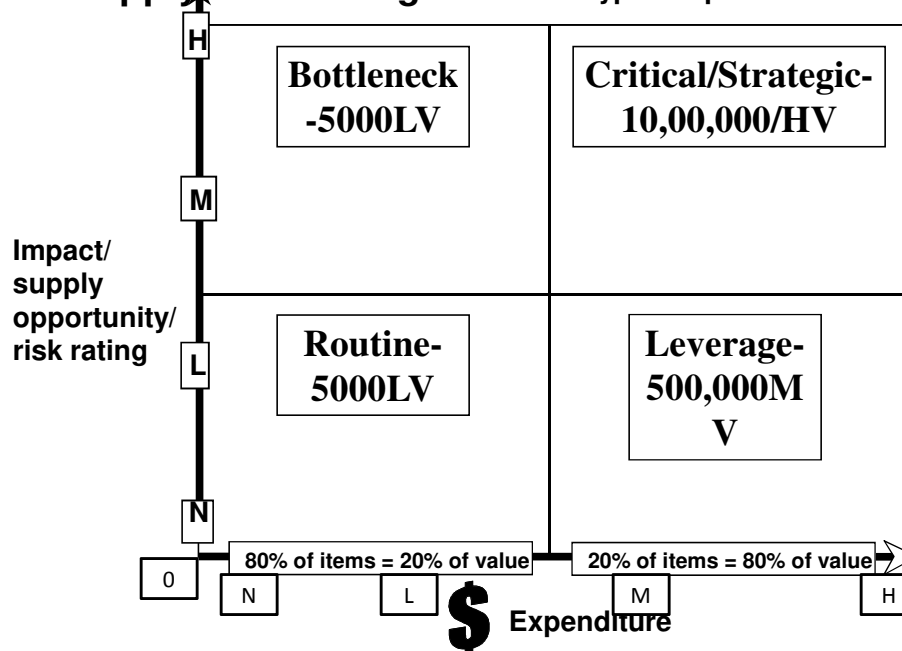
Supply Chain Planning (Named as Supply Chain Mix)

9P+3S+3R+3R= Success



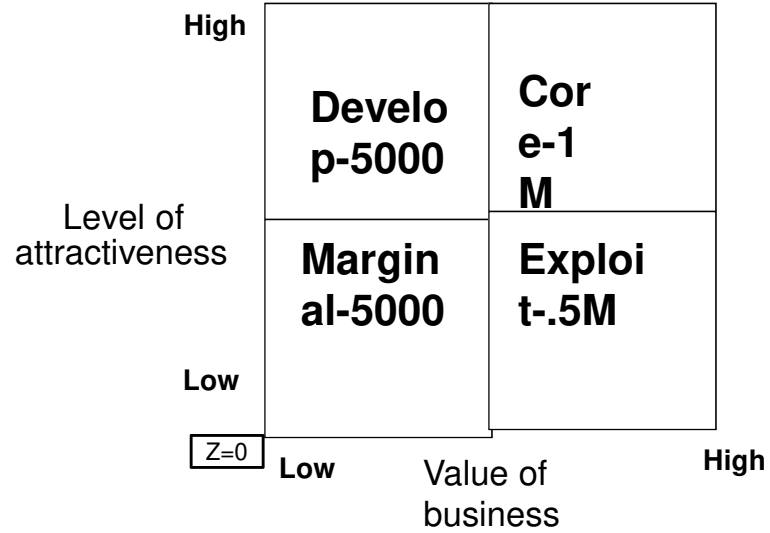
15

The Supply Positioning Model: 4 types of purchase items



The Supplier Perception Model

-how suppliers see your company as a potential client



Supplier and Supplier Country Analysis

Your appraisal criteria will relate to:

Quality

Availability

**Supplier service &
responsiveness**

Cost

Quality :

Can your specifications be met?
Flexibility and capacity to tailor specifications
Reject rates
Percentage of items returned during the first year
Maintenance intervals required
Consumption levels of replacement parts
Mean time between failures & outage rate
Durability
Comprehensiveness of warranty

Supply Availability:

Market segments serviced by the supplier
Whether the supplier supplies your competitors
Capacity & utilisation
If subcontractors are used
Stock levels
% of your requirements that are within its standard range
% of your top 20 required items within its standard range
Export experience

Supplier Service & Responsiveness:

Is customer support or responsiveness
mentioned in the supplier's mission statement or goals?

Does the supplier have:

- **A customer service policy?**
- **A system for reporting complaints and rectifying defects?**
- **Well-trained & experienced service staff?**

What kind of service can you expect - and how quickly?

Cost :

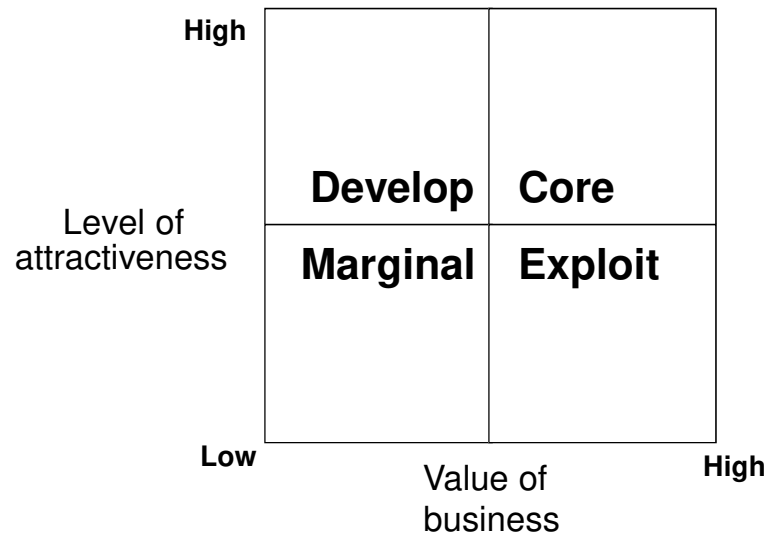
- Standard prices / rates
- Discounts
- Payment schedules (services)
- Terms of payment
- Financing costs
- Price revision formulae
- Currencies used
- General handling & shipping charges

**Where to get information for
supplier appraisal?**

- Published sources
- Supplier questionnaires
- Supplier visits
- Supplier client references

Buyer and Buyer Country Analysis

The Supplier Perception Model -how suppliers see your company as a potential client



The level of attractiveness of your business to a supplier:

Are your business strategies compatible?

Is it easy to do business with your company?

How good is your financial situation & payment record?(D&B)

Will the supplier benefit from being associated with you?

Do you offer a good potential for future business development & expansion?

Reverse marketing

The buyer makes a proactive effort to
supplier by:

“sell” itself to the

- ☐ Taking the initiative to develop the relationship
- ☐ Uses persuasion to convince the supplier
- ☐ Suggesting attractive prices, terms & conditions
- ☐ Being involved in product development with the supplier
- ☐ Improving the supplier's capabilities (and motivation) to supply the required goods

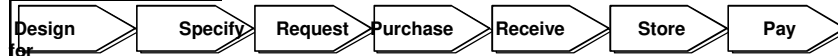
Cost Analysis

Life cycle Cost/ TCO:

LCC/Life-cycle cost = Cost of Acquisition+
Cost of Ownership

TCO=TOTAL COST OF OWNERSHIP

Costs of Acquisition



Costs of Ownership



**Supply Chain Management
System/Procedure in Manufacturing
Organization**

- **PI find the annexure sheet**

**Supply Chain Management System/Procedure in
Trading Organization**

PI find the annexure sheet

Negotiation:

- Bargaining (give and take) process between two or more parties (each with its own aims, needs, and viewpoints) seeking to discover a common ground and reach an agreement to settle a matter of mutual concern or resolve a conflict.
- The word "negotiation" is from the Latin expression, "negotiatus", past participle of *negotiare* which means "to carry on business". "Negotium" means literally "not leisure".
- Negotiation occurs in business, non-profit organizations, government branches, legal proceedings, among nations and in personal situations such as marriage, divorce, parenting, and everyday life. The study of the subject is called *negotiation theory*. Professional negotiators are often specialized, such as *union negotiators*, *leverage buyout negotiators*, *peace negotiators*, *hostage negotiators*, or may work under other titles, such as diplomats, legislators or brokers.

Negotiating is a key skillset in the Purchasing field.

- For example, if the company needs to buy \$30 million USD of widgets and the Purchasing Department secures the widgets for \$25M USD, the Purchasing Department would have saved the company \$5M USD. That savings could exceed the annual budget of the department, which in effect would pay the department's overhead - the employee's salaries, computers, office space, etc.

PLAN-ACTUAL=VARIATION

\$30M-\$25=(+\$5M) BEST SITUATION

\$30M-\$35=(-\$5M) WORST SITUATION


PLAN/Targets should be:SMART

- ☐ Relevant
- ☐ Ambitious but achievable
- ☐ Specific
- ☐ Measurable
- ☐ Impartial
- ☐ Compatible

-Best target

-Worst acceptable target

Setting targets - example

Variable/INDICATOR/PARAMETER/Factors/POINTS	<i>Best target</i>	<i>Worst acceptable target</i> 
Quality	" Specification as given in our enquiry " Any rejects to be replaced within 24 hours	" Accept deviations from defined tolerances: no more than +/- 2.0 cm " Rejects to be replaced within 3 days
Delivery	" Within 7 days	" No more than 10 days
PRICE	" As low as \$5.50 per unit	" No more than \$5.70 per unit
Payment Terms	" Open account " Supplier credit (3 months)	" Letter of credit " Payment in 30 days

When You would negotiate with suppliers :

- When the value is high
- When long-term supply is required
- When the purchase is complex
- When there are one or few suppliers
- Where you have no reference point

Quality of Successful negotiators:

- Spend more time planning & preparing
- Consider many options & possible outcomes
- Focus more on areas of common ground
- Distinguish facts from assumptions
- Set clear objectives
- Use open-ended questions
- Listen & observe well
- Use more long-term comments
- Deal well with pressure
- Focus on developing trust
- Seek more information
- Share knowledge easily
- Test understanding, summarise & clarify
- Keep the discussion focused

What is a Contract?

- A contract is an agreement between two or more parties which, if it contains the elements of a valid legal agreement, is enforceable by law or by binding arbitration. That is to say, a contract is an exchange of promises with specific legal remedies for breach
- **To be valid a contract must fulfill the following requirements:**
 - An offer
 - An acceptance
 - The contractual capacity of the parties
 - A consideration on something of value
 - A legally binding relationship

To be valid a contract must fulfill the following requirements

- **What makes a good contract:**
- Know what you want, what you want to avoid & your options if things go wrong
- Know your supplier
- Aim at “win-win”
- Don't accept unrealistic promises
- Avoid ambiguous drafting
- Keep technology in mind
- Keep intellectual & industrial property in mind
- Have a clear dispute resolution clause
- Have a clear termination clause
- Keep culture in mind
- BREACH OF CONTRACT

Avoiding contractual default - what to do?

- 1st solution - revise the terms
- 2nd solution – re determine certain aspects of the contract (e.g., prices & volumes)
- 3rd solution - addenda to the contract terms
- 4th solution - a New contract

Settling Disputes: Methods

- There are two groups of methods:
- 1. Adjudicative methods(CASE)
 - Litigation(court)-JAIL AND PENALTY
 - Arbitration(COURT)-FINANCIAL PENALTY
- 2. Non-adjudicative methods:(WITH OUT CASE)
 - Expertise
 - Mediation/conciliation
 - Negotiation

Purchasing Management:

- Management control point where all significant purchases are monitored for the right authorization of the right item, at the right price, quality, and quantity, from the right supplier at the right terms, and at the right time.

Purchasing Area

- Raw materials
- Plant & Machinery
- Finished Goods
- Works
- MRO
- Power
- Parts
- Accessories
- Service
- Etc

Local Procurement / Purchasing Method

- QM (Quotation Method): The method of procurement that is followed for purchase of readily available, standard off the shelf goods, works and services. Company may apply this method of procurement.
- RFQ (Request for Quotation): Procuring entity will request suppliers to quote offer for Goods and Works(VISIBLE ITEM)
- RFP (Request for Proposal): Procuring entity will request suppliers to quote proposal for services (INVISIBLE ITEM)

Contd...

- DPM (Direct Procurement Method): Procuring entity will purchase goods , works and services from one single source without going through all the requirements of a full procurement process within the permitted thresholds. Company may apply this method of procurement if necessary.
- **Tendering method:**
- OTM (Open Tendering Method): The method of procurement that is carried out through newspaper advertisement for ensuring fairness through competition, transparency and maximizing efficiency, effectiveness and economies of scale. In future Company may go for procurement under Tendering Process if necessary.
- Note: PARTICIPATE/ BID

Contd..

- LTM (limited Tendering Method)/TWO ENVELOPE SYSTEM): The method of procurement that is followed for purchase of goods and related services up to the set threshold. (TECHNICAL OFFER THEN FINANCIAL OFFER FROM SUPPLIER/BIDDER/TENDERER)
- For more insight on Public Procurement ,please follow PPA-2006,PPR-2008 (GOB),e-GP GUIDE LINE 2011 from CPTU website.
- ICT (International Competitive Tendering): When through QM,DPM,OTM,LTM procurement is not possible ,considering the availability, size, complexity and delivery schedule of the product, ICT may be applied .

Details of International Procurement /Purchasing procedure

- Normally Private Company undertakes International Procurement under following procurement method:
- 1. QM (Quotation Method):
- -RFQ (Request for Quotation)
- -RFP (Request for Proposal)
- 2. DPM (Direct Procurement Method) from single source
- But Companies may go for the LTM and ICT

Public /Government Procurement Procedure

- Please follow
- Public Procurement Act 2006
- PPR-2008

49

Purchase order:

- Written authorization for a supplier to ship products at a specified price, which becomes a legally binding contract once the supplier accepts it.
- Within limits, it is at the discretion of the department which method to use when purchasing items or services, except that some purchases require a purchase order. The Purchasing Department personnel will work with departments to determine an appropriate method to purchase items or services.

Proforma Invoice

- Please find annexure

☐ ITEM; 1 COMPLETE SET TEXTILE MACHINE
AND SPARE PARTS

- H.S .CODE-8521.90.00

Value:USD10,00,000/CFR CHOTTAGRAM SEA
PORT

Payment terms

- Conditions under which a seller will make a sale.
Typically, these terms specify the period allowed to a
buyer to pay off the amount due, and may demand
- -Cash in advance,
- -Cash on delivery,
- -deferred payment period of 30 days /90
DAYS/180DAYS/360 DEFFERED or more, etc.
- -L/C payment(Sight L/C or Deferred L/C)

Principal payment methods :

The cost, level of complexity and the level of security offered will vary depending on which method you choose:

1. Cash in advance:

Generally used only for small purchases and when the goods are built to order.

2. Open account

The easiest but requires the highest level of trust.

Principal payment methods (Cont.)

3. Documentary letters of credit :

- ◆ irrevocable Sight L/C
- ◆ irrevocable Deferred L/C

“Irrevocable” means that any amendment or cancellation requires the seller’s consent

“Confirmed” means that the seller can obtain confirmation from its bank that payment will be made upon presentation of the required documents (e.g., bill of lading)

The irrevocable, confirmed L/C offers the highest level of security

Other methods of payment

4.Documentary collection:

Key documents are sent via the seller's bank.

The buyer obtains these documents against payment.

5.Letter of indemnity(LOI):

Can be used when the bill of lading will not reach the buyer within the time stipulated in the contract

6.Standby letters of credit:

A guarantee that the importer's bank will pay should the importer fail to do so

7.TradeCard

Any changes can be incorporated immediately and at low cost

It is supported by a comprehensive Internet security package

Other methods of payment (Cont.)

10. Corporate charge or credit cards:

Are becoming increasingly popular for routine transactions using the Internet

11. Countertrade/ BURTER

Involves the exchange of goods of similar value

12. Supplier credit:

Is usually limited to well established relationships

Meaning of logistics Management:

- **Logistics is also defined as "that part of the supply chain process that plans, implements and controls the efficient, effective flow and storage of goods, services and related information from the point-of-origin to the point-of-consumption in order to meet customer requirements"**

Logistics drivers/ FUNCTIONS.

- **Inventory**
- **Transportation**
- **Warehousing operations**
- **Distribution**

Inventory

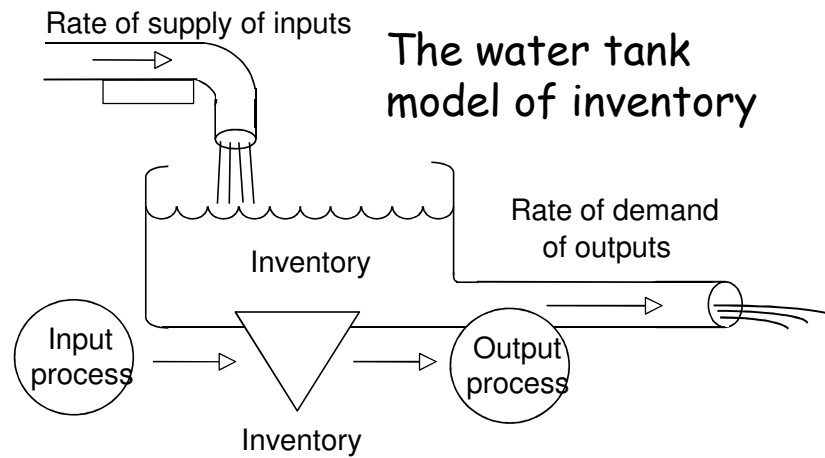
Stages of Inventory:

- Raw material inventory
- Work-in-progress inventory-WIP
- Finished product inventory

Reasons for keeping inventory

- | | |
|---|---|
| <ul style="list-style-type: none">▪ Demand forecast error▪ Unpredictable or late deliveries from suppliers▪ Minimum supplier order quantity(MOQ)▪ Supplier delivery interval▪ Stocking methodology▪ Reorder interval & quantity▪ Strategic stocking▪ Purchase price advantage▪ Lead-times offered to customers are shorter than supplier lead-times | <ul style="list-style-type: none">▪ Consignment stocking▪ Minimisation of delivery costs▪ Pipeline inventory▪ Anticipation or precautionary stocks |
|---|---|

How much inventory to hold?



Keep inventory (water in the tank) lower, by:

- Keeping the person controlling the input pipe in contact with the person controlling the output pipe...
- and with the persons knowing the demand for water.

Financial implications of holding inventory

- The cost of money “tied up” in stock
- Fixed storage costs
- Variable storage costs
- Inventory management costs
- Stock deterioration, loss and obsolescence

Signs of Trouble in Inventory Management

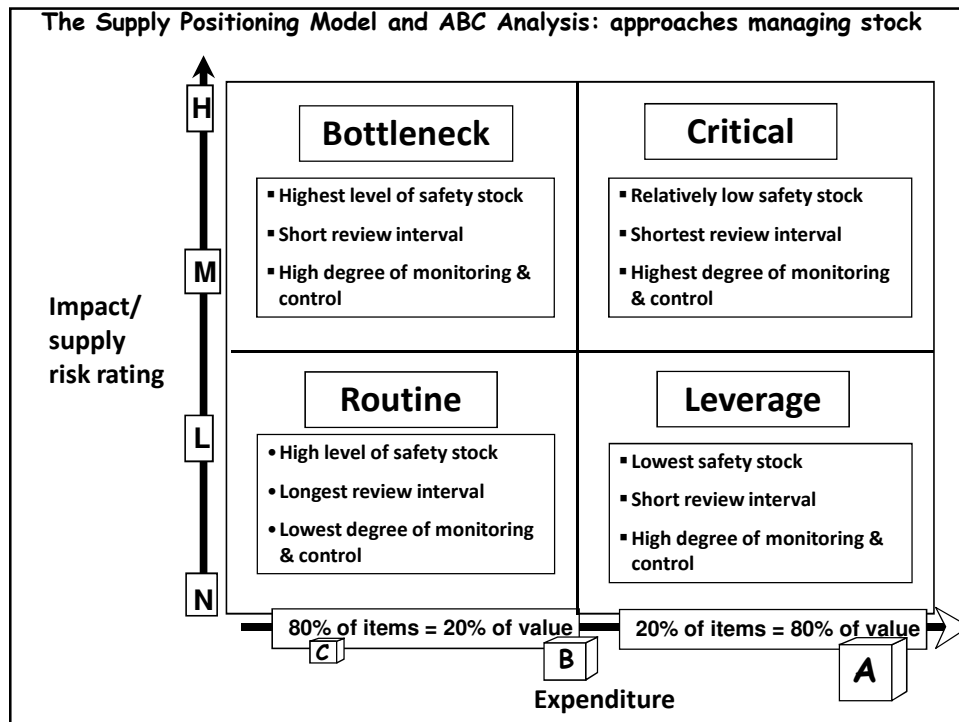
The signs of inefficient inventory management can be easily identified:

- ☐ Loss of customers
- ☐ Rising numbers of back-orders
- ☐ Growing investment in inventory despite the stable number of back-orders
- ☐ Excessive peaks of inventory
- ☐ Deteriorating relationships between supply chain members

Improving Inventory Management

Inventory management & inventory policy decisions can be ***improved*** by:

- 1) Realising the importance of the role & the cost of inventory in supply chain
- 2) Encouraging relationship management with other supply chain members
- 3) Undertaking an ABC analysis of all inventory items
- 4) Seeking improvements throughout the supply chain
- 5) Improving demand forecasting
- 6) Reducing variability by using appropriate IT applications & software



Inventory categorization (ABC Analysis)

- The **ABC analysis** is a business term used to define an inventory categorization technique often used in materials management. It is also known as *Selective Inventory Control*. Policies based on ABC analysis:
 - **A ITEMS:** very tight control and accurate records
 - **B ITEMS:** less tightly controlled and good records
 - **C ITEMS:** simplest controls possible and minimal records

The role of the Inventory Manager

- Optimising inventory levels
- Reducing holding costs & parts variety
- Reaching or surpassing international quality and traceability standards
- Maximising service levels & inventory turnover while minimising error

Transportation Management

- **Assessing transport modes**
- **Understanding regulations**
- **Decisions to have third party or own fleet vehicles**
- **Evaluating carrier performance**
- **Balancing trade-offs between costs & service in transportation**
- **Transportation is regarded as a driver of logistics & supply chain efficiency & value**

- **Inbound vs. Outbound Transportation**
- **3 M PHILOSOPHY**
- **M=MATERIAL**
- **M=MAN**
- **M=M/C // SAFETY,SCURITY,COMFORT AND QUALITY**

Transport objectives

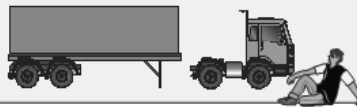
1. Use Large vehicles, as these are more economical



2. Utilise full vehicle capacity



3. Minimise idle time

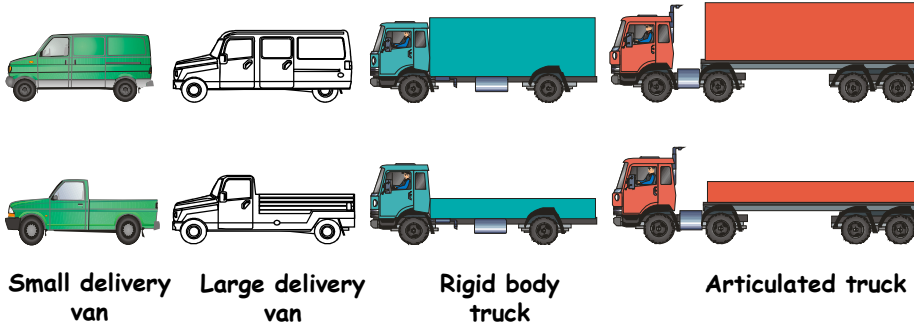


International Modes of Transport

- ☐ An organisation can choose *from sea, air and rail* as transport modes
- ☐ *Quality and speed* have a price, but so do *delays and damages*
- ☐ Prices of fuels, interest rates and freight costs are *continuously changing*
- ☐ Movements should be *constantly monitored* appropriate policy changes should be made when necessary

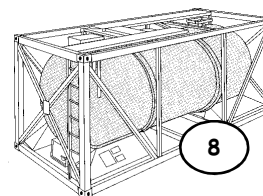
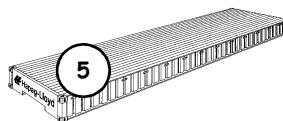
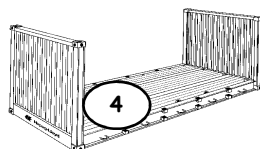
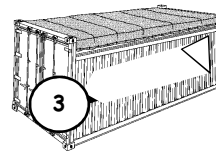
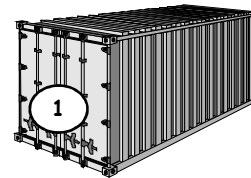
Types of Vehicles

Different vehicles have different capacities & different operating costs



Container types:

1. 40'/20' General purpose containers
2. 40' High cube containers
3. 40'/20' Open top containers
4. Flat containers
5. Platform containers
6. 40' Refrigerated containers
7. 40' High cube refrigerated containers
8. 20' Tank containers



Commonly used packaging materials:

- ☐ Natural materials (*jute, cardboard, wood*) as well as various types of plastic and metals are used for many break bulk goods
- ☐ Materials such as *straw, paper, chipped & moulded polystyrene*, etc. are used to fill free space in boxes & cartons
- ☐ *Metals, plastic, glass*, etc. is also used for specialised containers
- ☐ Remember that *weak* packing will result in losses & damage but *too strong packing* will be unnecessarily expensive
- ☐ Buyers should take a *proactive role* in specifying dimensions, type & capacity of packaging provided by suppliers

Warehousing/Store Management:

- Warehousing may occur at several points in the supply chain & is one of the main drivers of cost and value
- Costs involved when making storage decisions include:
 - Location in an appropriate market
 - Physical storage
 - Handling goods

Types of warehouses:

- Warehouse for incoming components & materials
- Warehouse for distribution of finished goods

The objectives of warehouse management

- Maximise completion of orders on time & in full(OTIF).
- Minimise the cost of warehouse operations.
- Maximise inventory turnover (i.e., minimise the time that materials stay in the warehouse).
- Minimise response time to demand & errors in despatches.
- At the same time, preserve the quality, value & security of the stored items/ MATERIALS/3M.

Which other factors to consider?

- Inherent safety
- Clearly marked signs
- Staff comfort
- Good communication
- Accessibility
- Use of space-80/20 RULE, 80%= M,
20%=3M MOVEMENT-HORIZONTAL
SPACE
- Long term flexibility

The principles of efficient materials handling

- Eliminating unnecessary movement
- Clear understanding of hazardous material classifications & markings
- Plan layout & handling simultaneously to reduce handling time & costs
- Arrange handling/movement to minimize the number of pick-up & put-down movements
- Use sealed unit loads, pallets or containers wherever possible

Distribution Center(It is also Store)

- A **distribution center** for a set of products in a warehouse or other specialized building, often with refrigeration or air conditioning, which is stocked with products (goods) to be redistributed to wholesalers to retailers, to , or directly to consumers.
- A distribution center is a principal part, the order processing element, of the entire order fulfillment process.
- Distribution centers are usually thought of as being demand driven. A distribution center can also be called a warehouse, a DC, a fulfillment center, a cross-dock facility, a bulk break center, and a package handling center.

Necessary safety ,security and Risk Management in POD(Point of Distribution/store)and POS (Point of sales/store)

- Availability of safety and security equipments
- Availability of safely ,security and handling manpower and equipments
- Ensure the quality of packages to protect core product while loading and unloading/ LAST MILE DELIVERY
- Insurance coverage of infrastructure of POD and POS, products, vehicles, equipments and operating manpower
- Establish Risk management guide line(Policy) /SOP and contingency policy

Performance management:

- Performance management includes activities to ensure that goals are consistently being met in an effective and efficient manner. Performance management can focus on performance of the organization, a department, processes to build a product or service, employees, etc. ...An assessment of an employee, process, equipment or other factor to gauge progress toward predetermined goals
- **Supply chain performance is affected by the performance of every link in the chain!**

Performance Management Formula:

Interpreting the results through quantitative analysis:

- “ Calculating variances between targets & results

$$\text{Variance} = \frac{\text{Plan/Target (or forecast)} - \text{Actual result}}{\text{Plan/Target (or forecast)}}$$

- “ Highlighting successes and failures, strengths & weaknesses
- “ Breaking the results down into components
- “ Explaining the causes and reasons for the results
 - **Identify all possible factors impacting on the measure**
 - **Gauge the extent of their influence**
 - **Review how these factors have actually evolved**
 - **Arrive at defensible conclusions on their levels of impact on performance**

- **Caution Note**

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83

End of Learning Program

❑ Thanks for your time ,effort and money
you Spent with us.

WISH YOU ALL HAPPY & SUCCESFUL
SUPPLYCHAIN.

GOODBYE!