ASSESSMENT 1

1. Outline the main benefits of a supply chain.

- are developed to beat the gaps when suppliers are some distance away from customer
- producers place operations in the finest locations regardless of their consumers.
- producers do not have to maintain huge stocks of goods,as they are destined further down to customer
- by focus operations in big facilities,producers can obtain economies of scale.
- wholesalers put big orders and producers pass on lesser unit cost in price discounts.
- retailers take lesser stock as wholesalers after reliable deliveries
- wholesalers maintain stocks from a lot of suppliers giving retailers an alternative of goods.
- wholesalers are close to retailers and have little lead times.
- transport is simpler,larger and fewer deliveries reducing costs.

2.Companies in any supply chain can make their decisions individually and collectively in five areas.What are these areas?

1.PRODUCTIONS -what products does the market demand?Which product and how much should be manufactured and how long?This activity comprises of the formation of master production schedules that consider plant capacites,quality control,workload balancing and equipment balancing.
2.INVENTORY-is a stock or store of goods or service,kept for use or sale in the future

.Are 4 types of inventory
-raw materials and purchased parts
-partially completed goods called work in progress
-finished goods inventories
-goods in transit to warehouses or customer.

LOCATION-where should production facilities and inventory storage space be located?Where is the most inexpensive location for productions and for storage of stock?Should present facilities be used or new ones?
Ones decision are made ,they decide the potential which are accessible for product to flow through for delivery to the final customer.

TRANSPORTATION-how the stock should flown from one supply chain site to another.Freight and truck delivery are usually fast and consistent,but are expensive .Shipping or train are chipper but involves longer transit time and more doubt.

INFORMATION- how much date should be gathered and how much information is to be sher? With fine information people can make effective decisions conserning what to make and how much ,about where to place inventory and how best to transfer it.

3.HOW IS A MODERN SUPPLY CHAIN DIFFERENTE FROM THAT OF THE PAST?

Modern supply chain.

-The main focus of SCM is to service customers with excellent goods and services at min.costs and time.
-All decisions are interdependent amongst the trading partners and not dependent or independent in nature.
-SCM is demand driven by customer who is the owner of specifications,requirements and orders.
-Strongly practices lean thinking and hence the lean manufacturing techniques are to be adopted .
-SCM performance is heavily based on the sophisticated IT system knowledge workers.

Old supply chain

-Old SC have improper planning which leads to non harmonization between main partners whereas new SC strong strong network across whole SC leads to cost saving ,higher profitability and strong network between partners.
-Its effect on long term growth plan and focus.In NSCM long term growth plan and strategies are aligned with the company vision and mission.
-It’s focused on individual performance without consider intermediates .NSC have strong connections between suppliers and producement managers.
It’s support by old legacy system which have low integrations among various parts.In new SC reduction of inventory waste individual systems are integrated and

constantly monitoring the existing practice at regular intervals leads to improve performance and efficiency.
WHAT IS INVENTORY MANAGEMENT ?

Inventory management is the supervision of non-capitalized assets(inventory)and stock items .
A component of SCM ,inventory management supervises the flow of goods from manufacturers to warehouses and from these facilities to point of sale.The main function of inventory management is to keep a detailed record of each new or returned product as it enters or leaves a warehouse or point of sale.
In inventory management goods are delivered into the receiving areas of warehouse in the form of raw materials and are put into stock areas or shelves .
Then the goods are pulled from stock area into production facilities where they are made into finished goods.The finished good can be returned to stock areas where they are held prior to shipment or they may be shipped directly to the customer.
Inventory management involves keeping track of a company's stocked goods. It monitors their weight, dimensions, amounts and location. This helps business owners know when it's time to replenish products, or buy more materials to manufacture them.

Effective inventory management is essential for ensuring a business has enough stock on hand to meet customer demand. If inventory management is not handled properly it can result in a business either losing money on potential sales that can't be filled, or wasting money by stocking too much inventory. An inventory management system can help prevent these mistakes.

INFORMATION IS ONE OF THE FIVE DRIVERS OF SC.DISCUSS THE PURPOSE OF INFORMATION IN A SC.

Information is crucial to the performance of a supply chain because it provides the basis on which supply chain managers make decisions.

Information is a key supply chain driver because it serves as the glue that allows the other supply chain drivers to work together with the goal of creating an integrated, coordinated supply chain. Information is crucial to supply chain performance because it provides the foundation on which supply chain processes execute transactions and managers make decisions. Without information, a manager cannot know what customers want, how much inventory is in stock, and when more products should be produced or shipped. In short, information provides supply chain visibility, allowing managers to make decisions to improve the supply chain performance Using IT systems to capture and analyze information can have a significant impact on a firm's performance. Availability and analysis of information to drive decision-making is a key to the success of a supply chain. To support effective supply chain decisions, information must have the following characteristics: Information must be accurate, must be accessible in a timely manner, must be of the right kind, and must be shared (Chopra & Meindl, 2013).

NAME VARIOUS TYPE OF INVENTORY

5 Basic types of inventories are raw materials, work-in-progress, finished goods, packing material, and MRO supplies. Inventories are also classified as merchandise and manufacturing inventory. Other such clssifications on various bases are goods in transit, buffer stock, anticipatory stock, decoupling inventory, and cycle inventory.

Merchandise inventory -it is the inventory of trading goods held by the trader

Manufacturing inventory- it is the inventory for manufacturing and selling of goods. Based on the value addition or stage of completion, the manufacturing inventories are further classified into 3 types of inventory – Raw Material, Work-In-Progress, and Finished Goods. Another type is MRO inventories which are to support the whole manufacturing and administrating operation.

LOCATION DECISIONS HAVE STRONG IMPACTS ON THE COSTS PERFORMANCE CHARACTERISTICS OF A SC.DISCUSS.

When manufacturers make location decision ,their priority is to minimize costs.Retailers look to maximize revenue where possible.Retailers look to maximize revenue where possible. Locating new facilities is a strategic decision that, once made, cannot be changed easily in the short term. Yet many organizations—especially small and mid-sized businesses—often neglect or delay this decision.One main reason why companies often neglect or delay this decision is the significant cost of performing the necessary analysis to optimize a manufacturing and distribution network—consultants can charge upwards of $100,000 for a study. The cost-benefit ratio can be significant, however, with savings often in the millions, and usually with improved service levels. Companies should conduct this analysis once every two or three years.

- **Location cost-volume analysis**: A simple location decision tool that looks at a future volume forecast, along with fixed and variable costs known for each location. This helps justify potential sites through predicted throughput volumes.
- **Weighted factor rating method**: Compares a number of locations using both quantitative and qualitative criteria, and applies ratings to each of the criteria to determine the winning location.
- **Center of gravity method**: Determines the approximate location of a distribution center that minimizes logistics costs, while considering the location of markets, volume of goods shipped, and shipping cost.
- **Transportation problem model**: Deals with distributing goods from several points of supply to multiple points of demand. It looks at the capacity of goods at each source, requirements at each destination, and a host of materials, manufacturing, transportation, and warehousing costs. The model then determines optimal location(s) that minimize total transport and production costs, while maintaining specified inventory and service level targets.

Companies that do not properly execute location decisions have the potential to create a huge amount of waste.

Parts of this column are adapted from *Lean Supply Chain & Logistics Management* (McGraw-Hill; 2012), *Lean Retail and Wholesale* (McGraw-Hill; 2014) and *Supply Chain and Logistics Management Made Easy* (Pearson, 2015) by Paul A. Myerson with permission from McGraw-Hill and Pearson, respectively.

The biggest influence of location decision :-distance from recipients,availability of communal services,local taxes in respect of inventory,road transport infrastructure,customs and taxes administration ,living standard in region.

WRITE SHORT NOTES OF THE FOLLOWING PARTICIPANTS OF SC.

-PRODUCERS-these a organisations that make a product.This includes businesses that are producers of raw materials and corporations that are makers of finished goods.

DISTRIBUTORS are businesses that take inventory in massf rom producers and supply a bundle of associated product lines to consumers .Distributors are termed and wholesalers.They usually sell to other businesses and they sell products in bigger quantities than individual customer would generally buy.Distributors supply product when and where the consumer wants.

RETAILERS stock inventory and sell in lesser quantities to the common public.

CASE STUDY.

Supply chain for milk

FARMERS →COOPERATIVES→PROCESSORS→ SUPERMARKETS

The supply chain in milk is started by the process of production ,which is started by the milking of cows in the first stage that includes the use of water and grass.When we move onto next stage where the milk is processed by refrigeration ,treatment processing

,packaged into pallets in a sustainable and efficient way.The next step is where the milk in pallets is transported in the refrigerated truck to the retailers.The final stage is when the consumers or end customers buy the milk from retailers or distributors.

Where PE Dairies fit into this.?

PE Dairies gives a home delivery service.This is farm-to table delivery.They deliver milk to the doorstep that was milked from a cow no more than 48 hours before it arrives to customer.

FARMERS↦ DISTRICT MAIN CENTRE(quality clearance)↦PROCESSORS(standardise milk)↦PE DAIRIES→CUSTOMER

Some of the farm having they own system to standardise milk,they can sell milk directly to customers.

WHAT SPECIFIC ACTIVITIES FROM THE LOGISTIC IN PE DAIRIES. ?

PE Dairies it is not a big company with its own logistic system.As a small company is able to know all staff .They know often farmers ,they know exactly where milk coming from.Milk and diaries products are short life product and transporting standards are very strict.PE Dairies pic milk from farmers(if they have they own system to standardise milk)or processors.This company is focus on clients.They know how many bottles of milk client required and they can calculating and minimalising returns.Apart of dairy product they can sell other products depend of client needs.PE Dairies is well known company for their client and because of that clients often feel connected to.They offer service to clients door so no matter the weather is, they can stay home and odrer will be deliver to their doorstep.

They can reduce transportation cost by selling milk around specific area or using electric cars.

WHAT ARE THE MAIN PROBLEM THAT PE DAIRIES HAS WITH LOGISTIC.

1.he cannot carry too much spare stock because diaries food has short life.

2.During holidays they have to know when their clients comming back-that is mean that sale will be lower .There is a problem also with temperature during sommertime.Clients do not like to have milk leaving by the door in hot weather,some of them choose milk from supermarkets.