A level Cambridge 9609 Chapter 3 and 4

A level Business 9609 (Barking Abbey School)

MARKETING

Refers to a process or system of researching into identifying customer needs and applying suitable prices, product, place and promotion strategies in order to satisfy those needs profitably. It is a business function which aims to link the business to the consumer and aims to get the right product having the right price to the right place at the right time. Marketing is not only advertising and selling of goods and services. Market research is done to find out what customers want or might want and what price they are prepared to pay for a product. Marketing will then involve making sure that the design and production teams produce what consumers want at a cost that will enable a price to be set so that the business can make profit.

Marketing Objectives

Refers to the goals or targets a business has that are concerned with marketing methods or issues. They specify the results expected from marketing efforts and should be consistent with overall organisational/ corporate objectives. Basically, they are goals set for the marketing department. Effective marketing needs to have a clear sense of direction.

Criteria for good marketing objectives

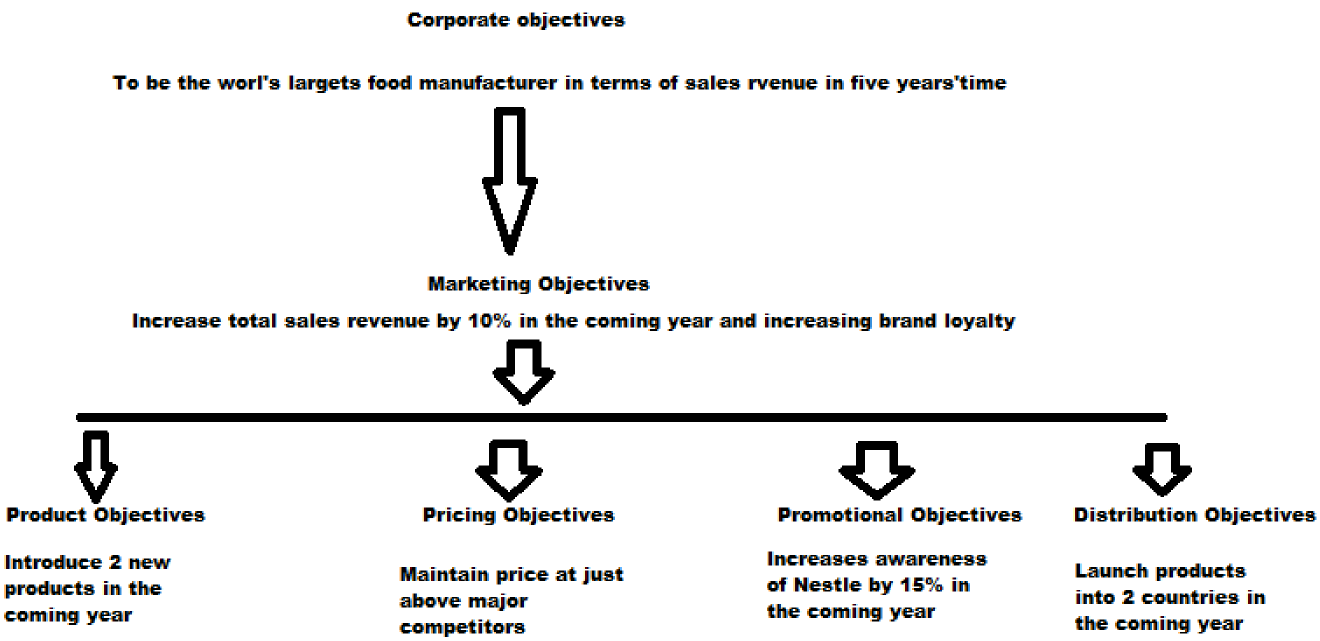
- Must express realistic expectations
- Must be expressed in clear, simple terms so that all marketing personnel understand exactly what they want to achieve
- Must be measurable
- Must be time framed

Examples of marketing objectives

- ❖ Increasing sales revenue or sales turnover by 5% by December 2020
- ❖ To increase market share by 10% by end of 2019
- ❖ To increase promotional budget by 7% by end of 2019

Relationship between corporate objective and marketing objectives

In Nestlé's case, marketing objectives support the corporate objectives and all of them work together



Importance of marketing objectives

- They provide sense of direction for the marketing department
- Progress can be monitored against these targets
- Assist in decision making
- Can be used in making marketing strategies (long term plans established for achieving marketing objectives

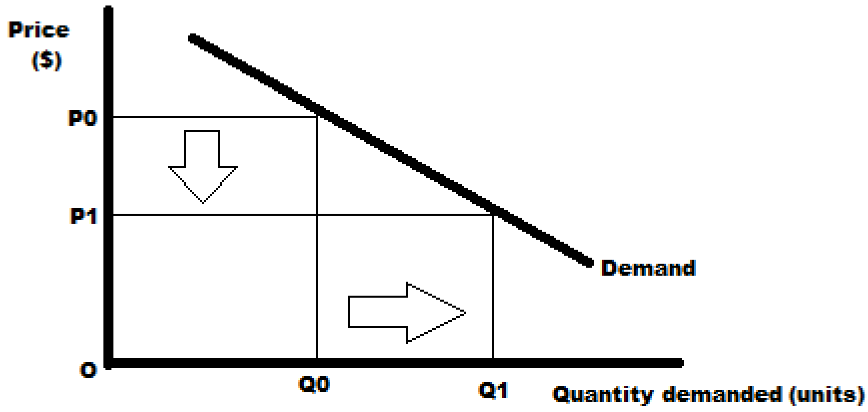
Demand and Supply

The primary goal for the marketing department is to meet customer wants profitably. Marketing staff must be aware of how the free market works to determine the price. In a free market economy, price is determined by the forces of demand and supply. Market is a place or system that enables producers of a product or service to meet potential buyers and exchange these for money.

Demand

Refers to the units of a product that consumers are willing and able to buy at a given price in a given time period. According to the law of demand, more units of a good are bought hen the product's own price decreases, ceteris paribus. Ceteris paribus means that 'other things remaining constant' Consumers' demand determines what producers should produce.

Demand curve: Refers to a graph which shows the relationship between quantity demanded and prices. Demand curve is a graphical representation of demand schedule. It is the locus of all the points showing various quantities of a commodity that a consumer is willing to buy at various levels of price, during a given period of time, assuming no change in other factors



When price decreases from P0 to P1, consumers increase their purchase of the product from Q0 to Q1. This is due to income effect and substitution effect of a price change

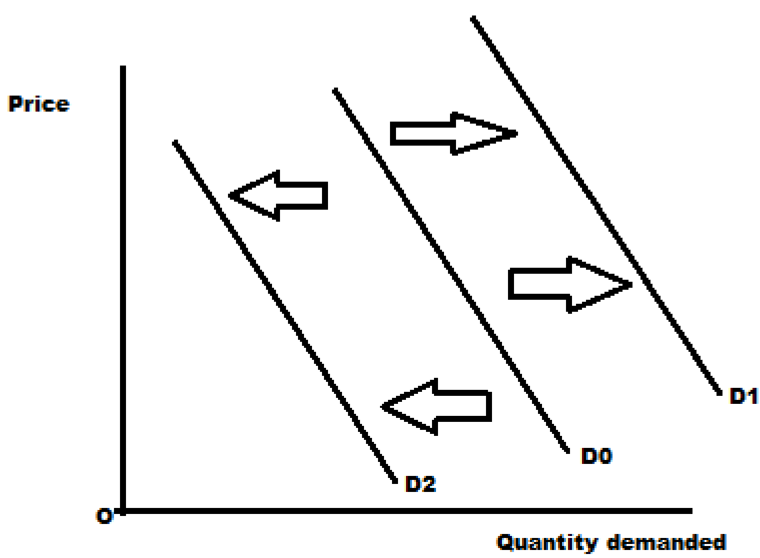
Income Effect: low prices increases real income and consumers can now buy more

Substitution Effect: low price makes the consumers to switch over from substitutes to this product which is now cheaper

Shift in the demand curve

Usually demand curves are drawn based on the assumption that all other factors except price remain the same. But there might be instances when demand may be affected by factors other than price. This will result in the change in demand although the price will remain the same. This change in demand may cause the demand curve to SHIFT inwards or outwards.

- Shift of demand curve OUTWARDS shows an increase in demand at the same price level. It is known as INCREASE IN DEMAND.
- Shift of demand curve INWARDS shows that less is demanded at the same price level. It is known as a FALL IN DEMAND.



Factors Influencing Demand

i) **Price of the product:** price of the product is a key factor determining the demand. If the price falls then demand will rise as the product becomes more affordable to customers so they buy more of it. When products increase in price people will buy less of them and demand falls

ii) **Price of other Products**: some products are substitutes and others are complements. Substitutes include butter and margarine. When the price of butter increases, people will buy more margarine and less butter. There is a positive relationship between the price of one product and the demand for a substitute good. When they are complements like tennis balls and tennis rackets, a rise in the price of tennis balls will lead to a decrease in demand for tennis rackets

iii) **Advertising and promotion:** a successful advertising campaign will create new customers and remind existing customers to buy the product. The demand for the product will increase due to promotional activities like by-one-get-one-free.

iv) **Income level:** as people gain higher incomes they will demand more of most products. People will buy more of normal goods when income increases e.g meat. Demand for inferior goods decreases as income increases e.g second-hand clothes.

v) **Change in the size and composition of population:** a rise in the population size will lead to an increase the demand for goods and services.

vi) **Weather conditions:** in a hot day people will buy more ice creams and less of them on a cold day

vii) **Change in fashion and taste:** Commodities for which the fashion is out are less in demand as compared to commodities which are in fashion. In the same way, change in taste of people affects the demand of a commodity.

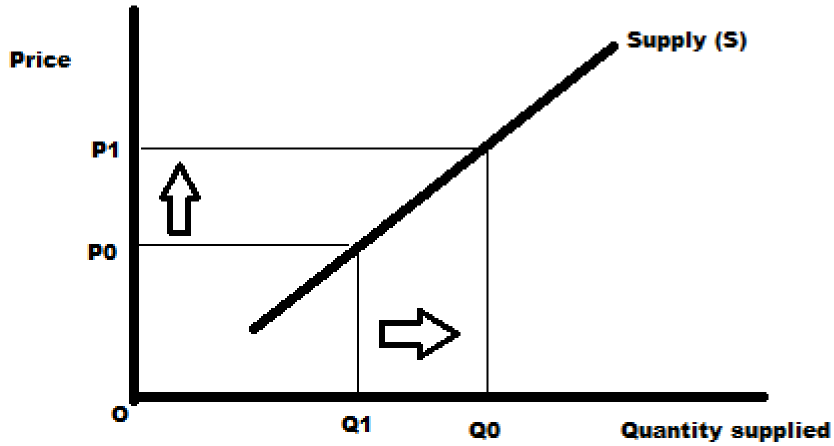
viii) **Changes in Income Tax:** An increase in income tax will see a fall in demand as people will have less money left in their pockets to spend whereas a decrease in income tax will result in increase of demand for products and services because people now have more disposable income.

What is Supply?

Supply refers to the amount of goods and services firms or producers are willing and able to sell in the market at a possible price. The law of supply states that when the price of a commodity rises, the supply for it also increases. The higher the price for the good or service the more it will be supplied in the market. The reason behind it is that more and more suppliers will be interested in supplying those good or service whose prices are rising.

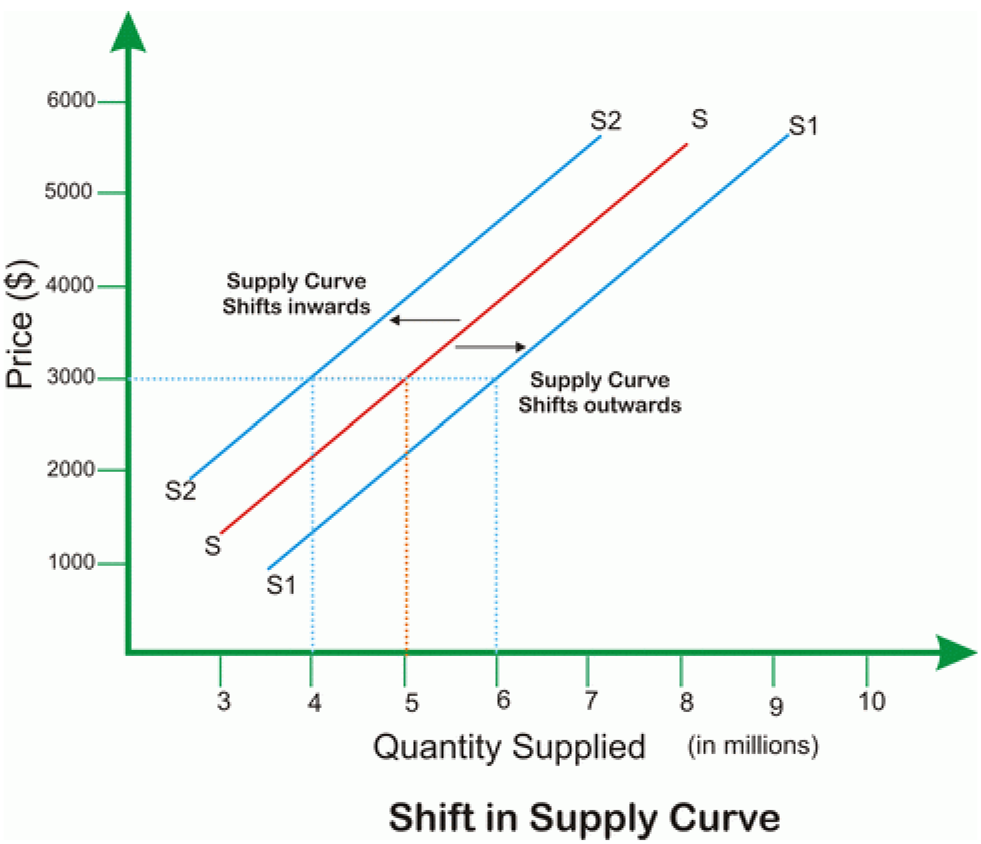
Supply Curve

Represents the relationship between the quantity supplied and the price if the product in form of a graph. A supply schedule represents this relationship in form of a table. Supply curve plots the quantity of a product supplied against its price.



Shifts in Supply Curve

When factors other than price affect the supply it results in the shift of supply curve. The supply curve may move inward or outward.
A shift of supply curve outwards to the right will mean an increase in supply at the same price level.
When the supply curve moves inwards to the left it means that less is being supplied at the same price level.



Factors affecting Supply

Price of the commodity: A rise in price will result in more of the commodity being supplied to the market and vice versa. A change in the price of the product will lead to a movement along the same supply curve.

Other factors leading to shifts

Prices of other commodities: For example if it is more profitable to produce LCD TVs then producers will produce more LCD TVs as compared to PLASMA TVs. Thus the supply curve for PLASMA TVs will shift inwards **(leftward shift)** i.e. a fall in supply.

Change in cost of production: Increase in the cost of any factor of production may result in the decrease in supply as reduced profits might see producers less willing to produce that commodity. **(Leftward shift)**

Technological advancement: Improvement in technology results in lowering of cost of production and more profits for the producer and thus more supply of that commodity**.(rightward shift)**

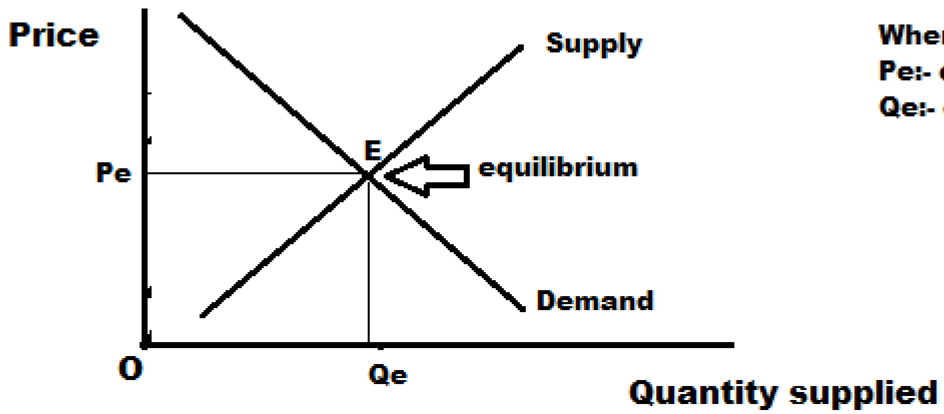
Climate: Climate and weather conditions affect the supply of commodities especially agricultural goods. Favourable weather will lead to an increase in supply **(rightward shift).** Unfavourable weather will lead to a decrease in supply**(leftward shift)**

Number of firms: when the number of firms increases, the industry's supply curve will shift to the right (increase in supply). Conversely when the number of firms decreases the supply curve will shift to the left(decrease in supply)

Government policy : Taxation can be regarded as an increase in the cost of production and hence shifts the supply curve to the left. On the other hand, subsidies are seen as a reduction of the cost of production thereby they shift the supply curve to the right.

Market Price-Equilibrium Price

Equilibrium refers to a situation of balance where, at least under the present circumstances, there is no tendency for change to occur. Demand will be equal to the supply. Thus the plans of consumers (as represented by the demand curve) match the plans of suppliers (as represented by market supply curve). Consumers are willing and able to buy more when price decreases and the producers are willing and able to supply more for sale when price increases. Thus the consumers' wishes and Sellers's wishes are combined and that interaction of demand and supply will force them to settle on a compromise price at a point where demand is equal to the supply. Equilibrium price can be defined as the price at which the quantity demanded is equal to the quantity supplied. E**quilibrium price** can be defined as the price which the demand is equal to the supply. Prices are determined by supply and demand forces. **Equilibrium quantity** is defined as the level of output where demand is equal to supply
In the graph below the point at which the demand curve meets the supply curve is the equilibrium.



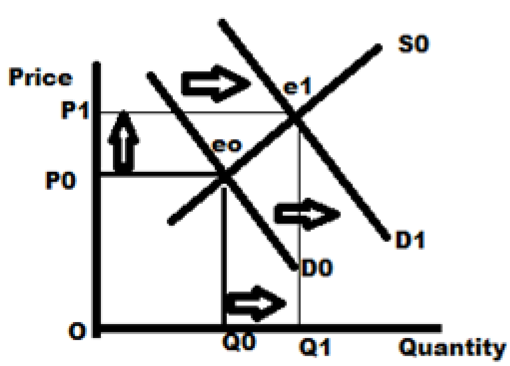
Where:
Pe:- equilibrium price
Qe:- equilibrium quantity

Disequilibrium: refers to a situation where demand and supply are not equal. Supply may be greater than demand or the demand may be exceeding the supply. **Shortage :** This refers to a situation where the demand is greater than the available supply. There will be an upward pressure on prices. Price will continue to increase until demand is equal to supply. This condition is also known as excess demand. **Surplus:** It occurs when the demand is less than supply. There will be a down ward pressure in prices. The sellers will find themselves with unsold stock. To avoid an unnecessary loss they reduce the price to clear stock. This condition is also referred to as excess supply

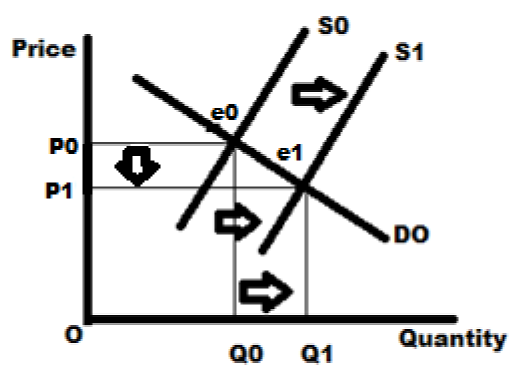
<u>**Shifts and changes in the equilibrium**</u>

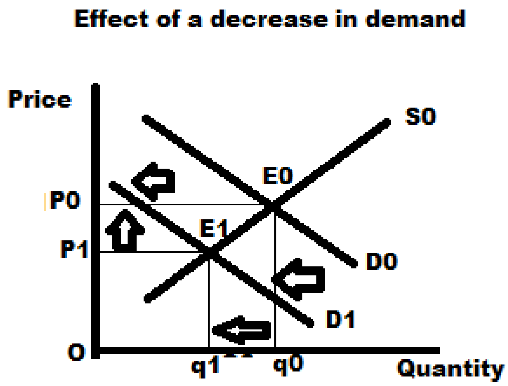
Equilibrium can only change if the conditions of either demand or supply change as shown in the diagrams below.

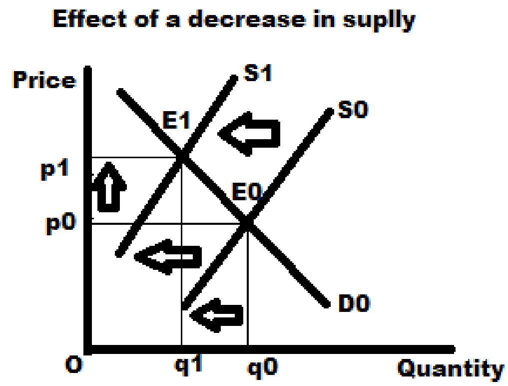
Effect of an increase in demand



Effect of an increase in supply







Progress Check: Using supply and demand curve diagrams, show how the price and quantity demanded of soap made by ABC limited will change in the following circumstances. Make sure you identify whether it is supply or demand that is changing:

i)The government carries out an extensive campaign to get people to wash their hands more often
ii)A new process is invented which reduces the cost of production of soap.
iii)XYZ limited, the main competitor reduces its price
iv)The government puts a new tax on soap

TYPES OF MARKETS

a)Consumer Market: a market whose customers are final users of the product such as members of the public. They are ultimate/ final consumers who consume either by themselves or for family use. They do not buy a product to make another product for resale.

b)Industrial Market: a market for which customers are other businesses and they buy products as inputs to their own processes. It is also known as a business market. It consists of individuals or groups who purchase a specific kind of product for any of the following purposes:

- ✓ Resale
- ✓ Direct use in producing other products
- ✓ General use in daily operation e.g lighting in schools, stationery for organisations' offices etc

Product and Customer Orientation

Product Orientation: The business will supply products it thinks will be attractive to customes. The business will be making unique products without keeping customer needs in mind. It is also referred to as inward-looking approach where businesses just invent and develop products in the hope that they will find customers who will buy their products. Much emphasis is placed on the production of quality goods. They think that customers are always looking for high quality goods. It is ideal when there is no or little competition. A good example is the iPhone, which was designed by Apple and then sold worldwide on the strength of its design and technical features.

Benefits of Product Orientation

- The approach saves market research costs
- The business is also using its strength

Limitations of Product

- More risk than customer orientation
- Resources will be wasted when customers are not buying the product

Customer Orientation: An approach used by businesses that researches what consumers want and designs and supplies these to the market. It is also referred to as market orientation or outward-looking approach. The business pays more attention to customers and their satisfaction needs. The business will produce goods that are wanted by customers. This approach requires the business to carryout market research and market analysis to indicate present and future customer needs. It is ideal where there is stiff competition in the market.

Advantages of customer orientation

- The firm will be more confident of a successful launch of a new product as effective market research has been undertaken to determine customer requirements
- Appropriate products that meet customer needs are likely to survive longer and give higher profits that those built with a product-led approach.
- Firms can respond quickly to changes in the market information as constant feedback from customers is given
- Due to continuous market research, firms will be better able to anticipate changes and will be in a strong position to meet the challenge of new competitors entering the market.

Recent Trends in Marketing

a)Asset-Led Marketing:- an approach to marketing that bases strategy on the firm's existing strengths and assets instead of concentrating on what the customers want. If a company try to satisfy the needs of all customers in the market, the costs may increase leading to losses.

b)Societal / **Green Marketing**:- The concept was put forward by Kotler in 1972. This approach considers not only the demands of customers but also the effects on all members of the public (society) involved in some way when firms meet these demands. It's a marketing approach that focuses on the business and all its stakeholders. The business must therefore satisfy customers profitably and at the same time minimise damage and costs to the society.

Features of the Market

a).Location: Firms should know who their customers are and where they are located. A firm may operate locally, Nationally, regionally or internationally. Customers in all these geographical areas may have different needs and wants depending on cultural, economic or historical factors.

i).Local Markets: The firm will sell its products to customers in the area where the business is located e.g hairdressers, motor-repair garages, restaurants. Local media is used to advertise the products.

ii).National Markets: Firms will sell its products to consumers in the area where the business is located and also outside its geographical location. National markets are larger and will require more research. The business must be able to get what they offer known to potential buyers across a country so mass media is often used for advertising. A firm may service national markets to increase sales. Examples include Banking sector firms, large retail shops.

iii).Regional Markets: regional markets are larger again. A firm that sell its products to customers located in different countries but in the same geographical region. They may cover a wider economic grouping like the European Union, Southern African Development Commission (SADC). Each region will have its own identifiable characteristic and customer needs.

iv).International Markets: A firm that sell its products to customers located in different countries in different continents. It is done to increase sales and also profitability. Companies that operate in different countries are known as Multinational Companies (MNCs). International markets are increasingly important as globilisation continues. Globalisation refers to the growing integration and interdependence of economies and cultures involving increased trade, movement of capital and people.

b) Market Size: is the measurement of all the sales of businesses that are supplying to the market. Size of market can be estimated or calculated by the local market sales of all businesses in the market. There are two methods that can be used to determine market size

- Value of goods sold:- the toal amount spend by customers buying products for all sellers in the market (total revenue/ total sales)
- Volume of sales: refers to the total physical quantity of products which were sold by all frims in the market i.e total number of units sold by all firms

Importance of Market size:-

- ✓ Firms can be able to calculate its own market share
- ✓ The firm can easily see if the market is growing or declining
- ✓ Marketing manager can assess whether a market is worth entering or not

c).Market Growth: It refers to the rate at which total sales in the market are rising each year or falling (if growth is negative) It is also defined as th percentage increase in the size of the whole market. Marketing managers will be more willing to venture into markets which are growing rapidly.

Factors affecting market growth

- ❖ Economic growth: The rate at which GDP of a country is growing will also affect the rate of market growth.
- ❖ Incomes of consumers: increases in income increases the consumers' willingness abd ability to pay for the product.
- ❖ Changes in consumer tastes and preferences: Consumer tastes can change in favour or against the product.
- ❖ Technological Advancement: inventions and innovations like on-line buying and selling can lead to growth in the market

Benefits of calculating Market Growth

- It enables the business to plan ahead by looking at the market growth trend
- Growing market indicates opportunities

d).Market Share: it is the proportion or percentage of sales of one firm as compared to the whole market size. It is the percentage of the total market held by a business or product.Two variables are used and these include firm's sales and total market sales. Market share can be by value or by volume. It is calculated using the following formulas.

Market Share by value $= \frac{\text{Firm's sales}}{\text{Total sales of all firms}} \times 100$

Market Share by Volume $= \frac{\text{Units sold by the firm}}{\text{Total units sold by all firms}} \times 100$

Market share measures the relative success of one business's marketing strategy against that of its competitors. A product with the highest market share is known as a brand leader and a business with the highest markets share is known as a market leader.

Benefits of high market share

- Higher market share usually translate into high profits
- Small scale shops will be willing to buy from the business since it will be offering best-selling brands
- Customers are more willing to buy from a market leader (a business with a higher market share)

Limitations of market share

- Different results can be obtained if two methods are used which makes it difficult to interpret the results
- Markets can change rapidly especially in services or technology-based industries, making it difficult to track changes over time
- Data on sales or profits can be hard to obtain

Numerical Example

There are four firms in the market and below are the sales figures for each firm. Use the data to answer the questions that follow.

	1990	**1991**
Firm W	$10 000	$50 000
Firm X	$40 000	$80 000
Firm Y	$30 000	$50 000
Firm Z	$20 000	$20 000

Questions:
a)Calculate market size for the two years
b)Calculate market growth for the two-year period
c)Calculate Firm Y's market share in 1990 and in 1991
d)Comment on the results obtained on 'c' above

e).Competitors: are businesses that sell similar or identical goods or services in the market. There are two main types of competition and these include price competition and non-price competition. Price competition involves charging price different from the competitor's price. Non-price competition include offering quality goods, after-sale services, hire purchase facilities etc. Competition can be direct or indirect.

- Direct competition: refers to competition from the business that provide the same or very similar goods and services. Goods may be slightly differentiated. Goods can be differentiated by size, colour, packaging etc
- Indirect Competition: competition is from businesses that are in a different market of sector i.e a bus operator can experience indirect competition from rail transport operators.

Niche and Mass Marketing

a).Niche Marketing: involves identifying and exploiting one segment of a larger market. This segment can be one that has not been identified and filled by competitors. It is a very small section of the market and that section has got specific requirements e.g the market for professional divers' watches or high status products. It is suitable for small firms and the goods are produced in small quantities. This segment is also known as the target market. Target market refers to a specific group of customers to which a business has decided to sell its products or services. A target market can be defined according to age, gender, income, taste, location etc. Allows businesses to develop products/services to meet the needs of this specific group.

Benefits of Niche Marketing

- Enables small firms to avoid competition from larger firms
- By targeting niche markets, firms can focus on the needs of customers in these markets
- Direct marketing is possible
- There is little competition on those markets

Limitations of Niche Marketing

- Niche markets are small and can therefore only support a small business
- It is not suitable for a business selling many products
- It is more risk than mass marketing

b).Mass Marketing: involves selling the same products to the whole market with no attempt to target separate groups. Mass marketing produces a product that appeals to the whole market, so that everyone becomes a customer, no matter what their age, job, income, wealth or gender. Mass markets consists of a large number of customers for a standardised product such as markets for food and grocery. Goods are produced in large quantities.

Benefits of Mass Marketing

- Enables a firm to operate in a large scale and enjoy economies of scale (economies of scale refers to a decrease in the average costs experienced when a firm operate on a large scale.)
- It is less risk than niche marketing since the business will be selling to a lot of consumers
- A strong brand image and customer loyalty is reinforced and these act as barriers to entry making if difficult for competitors.

Limitations of Mass marketing

- The business can lose customers who will be looking for specialised products
- Direct marketing is not possible. Thus mass marketing is likely to require very high advertising, promotion and distribution costs and failure to succeed will be very expensive.
- There is a lot of competition as the needs and wants of the large market can be seen by many businesses.

Market Segmentation

Refers to the process of dividing the whole market into different sub-groups according to their respective similar or homogeneous characteristics. It is the process of identifying particular groups that have similar needs and wants in the market. Market segmentation is also known as differentiated marketing. A sub-group of the whole market is referred to as a market segment. A market segment consists of consumers who have similar characteristics. Segmenting a market means that marketing activities are focused on people who are more likely to buy, meaning they are more cost effective and less likely to be a waste of time.

Identification of Consumer Groups

The business should be able to determine the different consumer groups in the market. To have a clear picture of the type of consumers in a given market, the business must come up with a consumer profile. Consumer profile refers to a quantified picture of consumers for a firm's products. Thus the consumers can be grouped according to age, income levels, gender, social class, religion and region.

Methods of Market Segmentation

a)Geographical Differences: refers to area wise market segmentation. Consumers in different locations demand different types of goods and services. Thus it will be ideal to offer different goods in these areas. Markets can be divided into districts, towns, provinces, rural etc. For example Woollen and thick garments are not demanded in hot cities while the demand is very high in Polar regions.

b)Demographic Differences: segmentation can be based on the vital characteristic of population. E.g gender, age, income distribution, religion, education etc.

Social class is usually determined by the levels of income earned by an individual. Basically there are three categories of social classes and these are:

- ❖ Upper Class: skilled and experienced professional e.g C.E.Os Directors, Managers, Lawyers, Doctors etc. They buy expensive goods for prestigious reasons
- ❖ Middle Class: Lower managerial workers e.g Teachers, Nurses etc. They want quality goods at affordable prices
- ❖ Lower Class: unemployed, pensioners, part-time workers etc. The want inferior goods at low prices

Age: Some products are purchased by particular age groups eg. Walking frames, coke zero

c).Psychographic Factors: refers to market segmentation according to mental status of the people. It includes culture, personality attributes, motives, life style of the consumer. Life style refer to the way in which one lives. Attitude refers to a settled way of thinking or feeling or a position of the body indicating a particular mental state. Personality refers to the combination of characteristic or qualities that form an individual's distinctive character. Brands are generally segmented according to the psychograph. Segmentation is decided according to the advertisements and content shown. A celebrity can be used for a BMW X5 car to make the advert more appealing to the middle and upper classes.

d).Behavioural Segmentation: market segmentation according to the utilisation of the product. Thus consumers are grouped according to the volume of usage, purchase occasions, brand loyalty, price sensitivity etc

Benefits of Market Segmentation

- Increased sales since products are produced for a specific group of consumers
- Enables the business to identify consumer needs and wants which are not currently satisfied
- Enables small firms to avoid competition from big firms by targeting a specific group of customers
- Enables the business to implement price discrimination to increase revenue and profits
- Money and time is not wasted in trying to sell products to the whole market

Disadvantages of Market Segmentation

- Firms may appeal to segments that are too small to be profitable
- Firms may not be able to use certain media die to small size of the segment
- Costly and extensive market research is needed
- Firms may misinterpret consumer similarities and differences
- Promotional costs might be high as different advertisements and promotions might be needed for different segments

Market Research

Refers to the collection, collation and analysis of data relating to the marketing and consumption of goods. It is the process of gathering information about markets, customers, competitors and the effectiveness of marketing methods. It is every day information about developments in the marketing environment that mangers use to prepare and adjust marketing plans. The information is used to identify and define marketing opportunities and problems, generate and evaluate marketing actions, monitor marketing performances and improve understanding of marketing as a process.

Qualitative and Quantitate Information

Quantitative Information: information will be in the form of numerical data. Data can be obtained by carrying observations and some experiments e.g test marketing or field experiments. The results can be distorted if the person is aware that he/she is being observed.

Qualitative Information: information is non-numerical e.g attitudes, opinions, ideas etc The researcher may want to find the reasons why consumers will or will not buy a particular product. The data can obtained through personal interviews and in-depth discussions amoung groups e.g focused groups and consumer panels

Reasons for conducting Market Research

a).To eliminate the risk associated with new products: the company needs to obtain information about potential demand before launching a new product.

b).To predict future changes in demand: information should be gathered which will enable the firm to predict all the likely changes in future demand.

c).To help in decision making: market research provides vital information which is needed for decision making purposes

d).To gain a competitive edge: to assess the most popular designs, styles, brands, promotions and packages

e).To explain patterns in sales of existing products and market trends: market research is required for both new and existing products. If the sales figures for an existing product are declining then marketing managers must implement new measures to reverse the negative trend.

Types of Market Research

Primary Research: it is also known as field research. It is the gathering of information for the first time directly from sources in the market. Information which is collected by the researcher and the information gathered is new. An example of primary research is asking people what is their favourite chocolate.

Characteristics of Primary Research

- The data collected has never been published in any form
- The data will be directly related to a firm's specific needs. Thus a consumer survey will be designed to discover specific aspects of consumer needs relevant to the firm.
- Primary research is typically expensive to collect. This is because it requires significant labour input and expertise of the results are to be trusted.

Primary Research Methods

a).Observation: market researcher can observe how people behave. Observations can take the form of audit (stock checks) or using recording devices like security cameras and Televisions. It can give you the answer of what is happening but not why as you just observe and see through cameras. It involves seeing how much time they spend at a shelf and the type of products they were looking at. Thus the results can be distorted if the customer knows that he/she is being observed.

b)Experimental Methods/ Test marketing: basically there are two types which includes:-

i).Laboratory Method:- occurs when people are invited to a particular artificial setting and ask them to taste a product or try it at their own place.

ii).Field Experimentation:- the marketing manager will select a particular geographic area and launch a product in that location to see the reaction of the people. This is cheaper as the loss is less if the product is not successful.

c).Survey Method: It includes the telephone surveys, mall-intercepts, internet surveys, simple questionnaire surveys and door-to-door surveys. Mall-intercepts occurs when people are stopped in malls and are then asked about a product. Questionnaire surveys are most common when people are given out forms with questions that could be either open-ended or closed-ended. Quantitative research include the use of closed questions e.g a yes or no question and or a multiple choice question. Qualitative research include the use of open-ended questions where the responded is allowed to give his or her point of view (space is provided for respondent to give his/her point of view)

Questions to ask when using surveys

i).Who to ask: it involves population, sample size and sampling method. Population includes current or potential customers.

ii)What to ask: the types of questions and the required information

iii).How to ask: the layout of the questionnaire, questionnaire techniques (i.e complex or simple)

iv)How accurate the result is: likely limitations of market research. Accuracy depends on the intelligence and cleverness with which questions are being asked.

Example of a questionnaire: Shopping for shoes

1. Do you ever buy shoes yourself? Yes…….. No……
2. If yes, where do you buy them?
A) High street
B) Shopping mall
C) Departmental store
D) Internet site
E) Other
3. How do you often buy shoes?
A) One week
B) Once a month
C) Once every three months
D) Once a year
4. How much do you usually spend on a pair of shoes?
A) less than $10
B) $11-$20
C) $21-$40
D) Over $40
5. What is the most important thing you look for when buying a pair of shoes?...
………
6. How important to you is the place you buy shoes in?..
……
7. How much do you consider fashion when buying a pair of shoes? ……………………………………….
………

d).Sampling Method

What is a sample: is that part of the whole population whose characteristics are studied to give insights into the characteristics of the population as a whole. Statistical theory can be used to calculate the minimum size of the sample necessary to give the required degree of accuracy. Sample size refers to the number of people selected from the population in which marketing research is conducted. Generally speaking, the larger the sample size the more accurate can be the results. The sample must be more representative of the population, it should be balanced in terms of age, sex, type of occupation, social class etc. A carefully chosen sample should produce similar results to those that would be achieved by asking everyone in the population.

However one needs to take into consideration time and cost factors. Bias will also exist especially if the samples are poorly selected or too small, or if questionnaires have complex interview questions.

Two types of Sampling Methods

- **Probability Samples:** a sample is selected randomly and the probability of each member's inclusion in the sample can be calculated and reliable conclusions about the whole population can also be made. Probability sampling methods are more complex, costly and also time consuming.
- **Non-Probability Samples:** it excludes estimating the probability of any particular item being included. Reliable conclusions from these samples for the whole population are not possible. However it saves time and money. It is also very easy.

Probability Sampling Methods

i)Random Sampling: every member of the population has an equal chance of being selected. Names and addresses for respondents may be chosen at random from the electoral register and then visited for an interview.

ii)Systematic Random Sampling: every n^{th} member in the target population is selected. For example, selecting every 10^{th} name in the telephone directory until the required sample size had been reached.

iii).Stratified Random Sampling: it divides the population into groups (strata) by age, sex, occupation, social class etc. It provides a more representative cross-section of the whole population. Each selected sub-group is then randomly sampled i.e people in each stratum should be randomly chosen.

iv).Quota Sampling: when the population has been stratified and then the interviewer selects an appropriate number of respondents from each stratum. It is commonly used for street interviews e.g a quota may be used to interview 25 males and 25 females for each selected age group.

v).Cluster Sampling: cluster refers to a group of similar things positioned or occurring closely together. A random group is selected from a particular area or region where they are concentrated e.g choosing the CBD in a town. It is used to reduce costs of interviewing and travelling.

Non-Probability Sampling Methods

i).Convenience Sampling: involves the gathering of information from whoever is available when the survey takes place, regardless of their age, sex, background etc. It also involves stopping by-passers, asking shoppers in just one location. It is less costly. However the results are less reliable

ii).Snowball Sampling: it is a very specialised form of sampling in that, a first group of people is selected as the first sample. The selected people are then asked for one more contact (friend) who is then added into the sample. Sample size continue to increase hence snow ball effect. Businesses in secretive markets use this and also those firms that produces highly specialised and expensive products for a very limited range of customers. It is less costly. However sampling in this way is not representative. Thus the results may be biased since a person's friend is likely to have a similar lifestyle.

iii).Judgemental Sampling: the researcher chooses the respondents based on what they think is appropriate for their study. This could be used by an experienced researcher who may be short of time as they have been asked to produce a report quickly.

e).Focus Groups

It is a selected group of 15-20 people who are shown a product or allowed to taste it and then asked about what they feel or think about it. These people must comment on its taste, design and colour depending on what the product is. Once they are interviewed they won't be asked again. It is used to obtain feedback especially for new brands. During the interview, members are allowed to discuss with each other. Information to be obtained is more reliable.

Limitations

- It can be time consuming
- The data collected can be difficult to analyse and present to senior managers
- The presence of the researcher may influence the discussions

f).Consumer Panels

It is to a great extent similar to focus group. The difference is that, after an interview, the focus group is dismissed and another group is selected. In a consumer panel, the same group is asked for opinions at a certain point in time after some changes have been introduced. It is more accurate as asking the same people give a better idea of how consumer thoughts and feelings are changed.

Advantages of Primary Research

- Targeted issues are addressed: thus the investigator collects data specific to the problem under study
- Data is up-to-date: the data is current and as such it is specific to the place and situation the researcher is targeting.
- The researcher enjoys privacy: collector of information is the owner of that information and he need not share it with other companies and competitors. This gives an edge over competitors relying on secondary data
- Data interpretation is better: the collected data can be examined and interpreted by the marketers depending on their needs rather than relying on the interpretation made by collectors of secondary data.
- The researcher may get more information: if required, it may be possible to obtain additional information during study.

Disadvantages of primary research

- High costs: collecting data using primary research is a costly proposition as the more people are required to carry out surveys and collect data
- Time consuming: the time required to do the research accurately is very long as compared to secondary data, which can be collected in much lesser time duration
- In accurate feedback: in case the research involves getting feedback from the targeted audience, there are high chances that feedback given is not accurate. Feedback by its basic nature is usually biased and given just for the sake of it.

SECONDARY RESEARCH

It is also known as desk research. It involves the collection, analysis and evaluation of second-hand information. Second-hand information refers to data that already exists. This information was originally collected by another person or organisation for a different purpose. It is the secondary research that should be initially done as it has lower costs, saves time and helps in giving directions for primary research.

Sources of data for Secondary Research

Internal Sources

- Internal company records or annual reports
- Sales trends
- Stock movements
- Supplier and customer records

External Sources

- Newspapers e.g the business section
- Magazines
- Government publications (population census)
- Libraries (number of households in an area)
- Economic surveys (economic trends)
- Information from competitors
- Internet (feedback from customers)
- Prepared research report by other firms

Advantages of Secondary Research

- Secondary research materials are usually cheaper to obtain as costs of conducting the research do not have to be borne by the organisation
- Data is obtained quickly since the data is already there. There are no hassles of data collection
- Data from several different sources can be compared and important competitor details obtained
- Basic information like population structures can be obtained which then provide a foundation for primary research. Thus secondary research makes primary research easier.

Disadvantages of Secondary Research

- The data is often out-of-date:- in fast-moving consumer markets, data quickly become out-dated as the external environment change.
- The data was collected for a different purpose:- Thus the data obtained may not suit the objectives of the company as it may have been conducted for a different purpose.
- If a company is starting to develop or has developed a new product then secondary research data may not be available at all.
- Obtaining additional data or some additional clarification about something may not be possible
- Lack of control over data quality. One can only hope that the data is of good quality.

Factors affecting choice of the research method

1.Budget available: if the researcher has more money available for market research to be conducted then primary research can be necessary. The organisation can afford expensive primary research methods such stratified random sampling, quota sampling etc. If the organisation is experiencing cash problems the secondary research can be the best option.

2. Accuracy required: primary research provides more accurate results than secondary research . Secondary research provides misleading results since the research was done for a different purpose and is often out-dated.

3.How quickly the information is required: secondary information is ideal when the marketing data is required quickly since the data is readily available. Primary research method can be employed when the data is not required quickly.

4.Accessibility to the old sample: if the researcher doesn't have access to the sampled population then primary research won't be possible. The researcher will then depend on the data provided by other organisations.

Cost effectiveness of market research

The business should not just spend large sums of money on market research for the sake of it. The marketing managers should ask themselves questions such as: Is it worth it? Is it cost effective? These questions implies that money should not be wasted. A well designed and focused market research pays for itself in form of higher sales and increased profits. If very little amounts are spent on market research then the validity and reliability o the results will be compromised. By spending more on market research the more the data can be obtained leading to better results. Nowadays the internet and mobile phones have made it easy to contact a wide range of potential customers within a short period of time as compared to home surveys. The key way to maximise the likelihood of cost-effectiveness is to plan thoroughly. According to the Marketing Association: an existing business must set a marketing budget not exceeding 1% of its gross sales and 10% for a new product or business.

Factors to consider when deciding how much to spend on market research

a)likely returns : The marketing manager should consider the potential increase in sales or profits

b)Method to be used : More money is required if they are planning to use a primary research method.

c)Budget available: resources available can be a constraint to the amount of money a business can spend on market research.

d)Emergence with which the data is required: If the data is required quickly then more is required so that more data collectors can be hired.

Reliability of data collection

-different factors should be considered before concluding on whether the data is reliable or not.

Market research data may be unreliable due to the following reasons:

- Questionnaires used may have had misleading or leading questions

- Interviews or focus group leaders may guide responders or may not fully under stood the question they are asking.
- Interviewers or focus group leaders may complete the forms themselves
- Respondents to questionnaires, interviews and discussions may deliberately not give their real views in order to get the process finished quickly or just for fun.
- People in focus groups may say what they think other people in the group would like to hear
- The sample size may be too small and so not represent the whole population
- Different statistical methods of treating data will often result in different conclusions

Analysis and Interpretation of the results of market research

Most market research reports will be presented in writing, though there may be meetings where the findings are orally presented. The writing may be supported by graphs, charts, tables and diagrams. The information must be presented clearly and in an organised way. There may be recommendations, though these may be left to those who the report was produced for.

Methods of presenting market research results

a)Tables: a table shows the rows and columns which show any connection between the two variables. It is important to choose appropriate headings for the rows and columns. It is an effective way of organising large quantities of data.

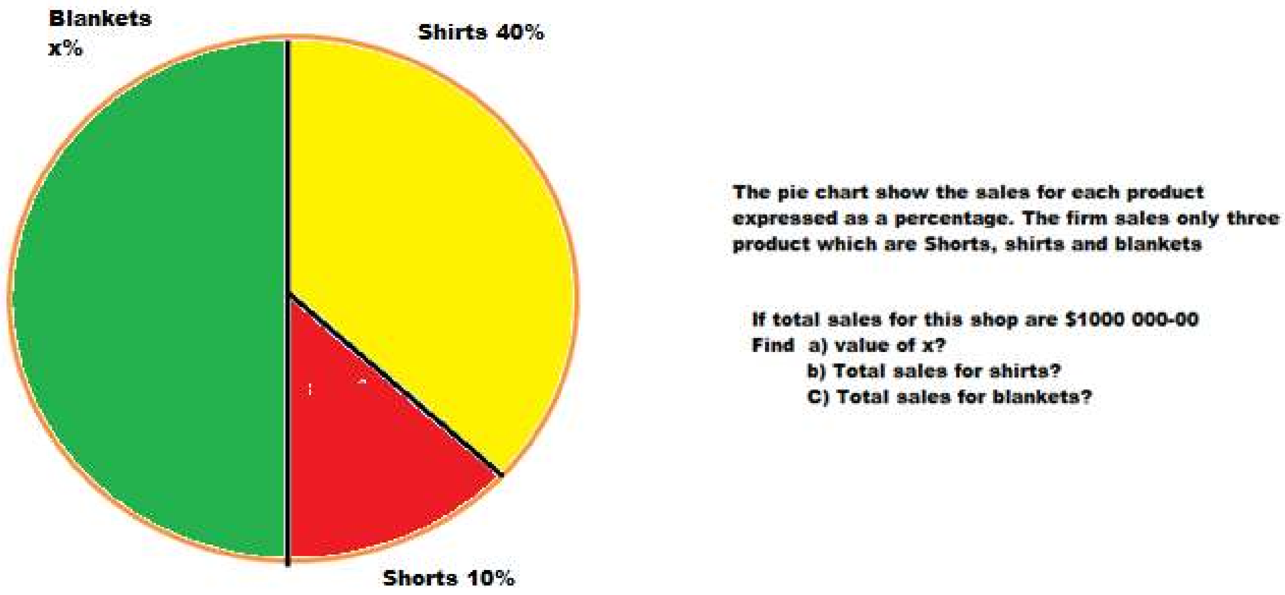
Product	**Sales revenue for the four product in a supermarket over time**		
	1990	**1991**	**1992**
Biscuits	$100	$110	$123
Bread	$90	$88	$84
Cooking oil	$55	$55	$56
Buckets	$60	$65	$70

Problems

- Not attractive in most cases
- The reader may take more time to interpret the data

Pie Chart

They are visually attractive and present the data in an easy-to-see way. The data is broken down into categories. The area of each circle/sector occupied by each category is in proportion to the percentage that category is of the total.

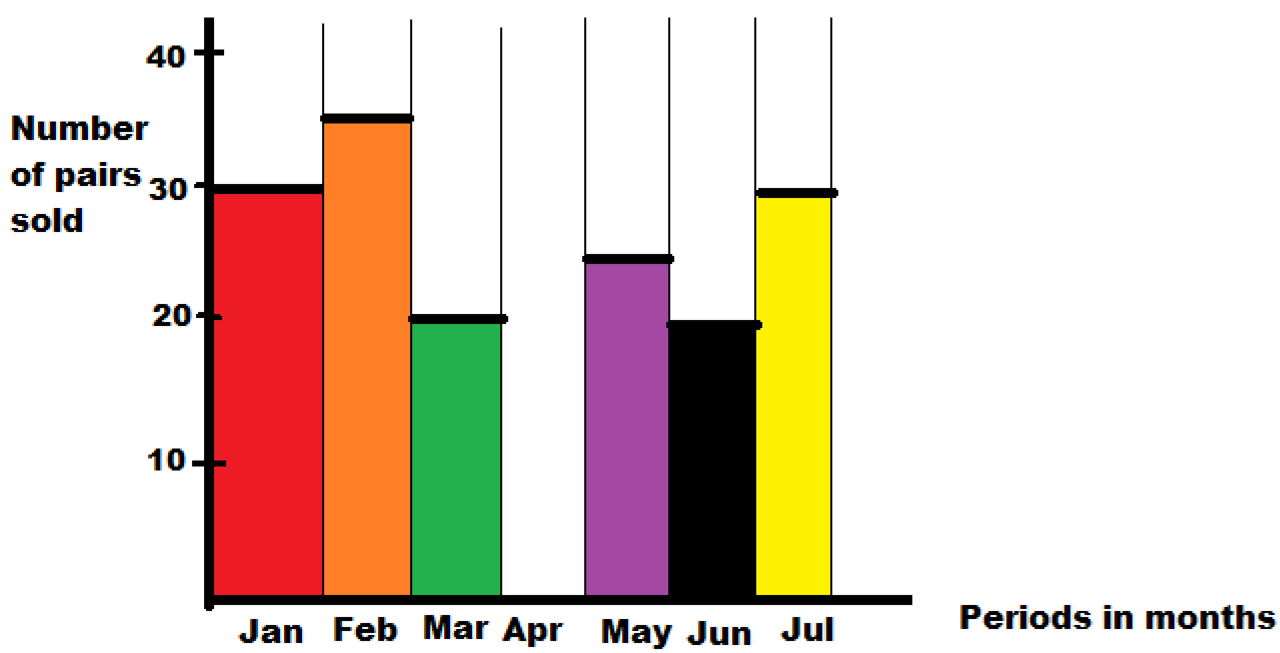


Problem: A pie chart is used to show only one variable

Bar Graph

Show data in the form of vertical or horizontal bars. A bar graph displays data in separate columns. They may show absolute values or percentages. They are also visually attractive. Use the data in the table below to draw a bar graph

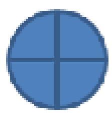
Month	Jan	Feb	Mar	April	May	Jun	July
Pairs of shoe sold	30	35	20	0	25	20	30



Pictograph

A pictograph uses icons or pictures to present the information. It is visually appealing and it is easy to see variables. A key is required for the reader to easily understand value of an icon. Use the following data to draw a pictograph.

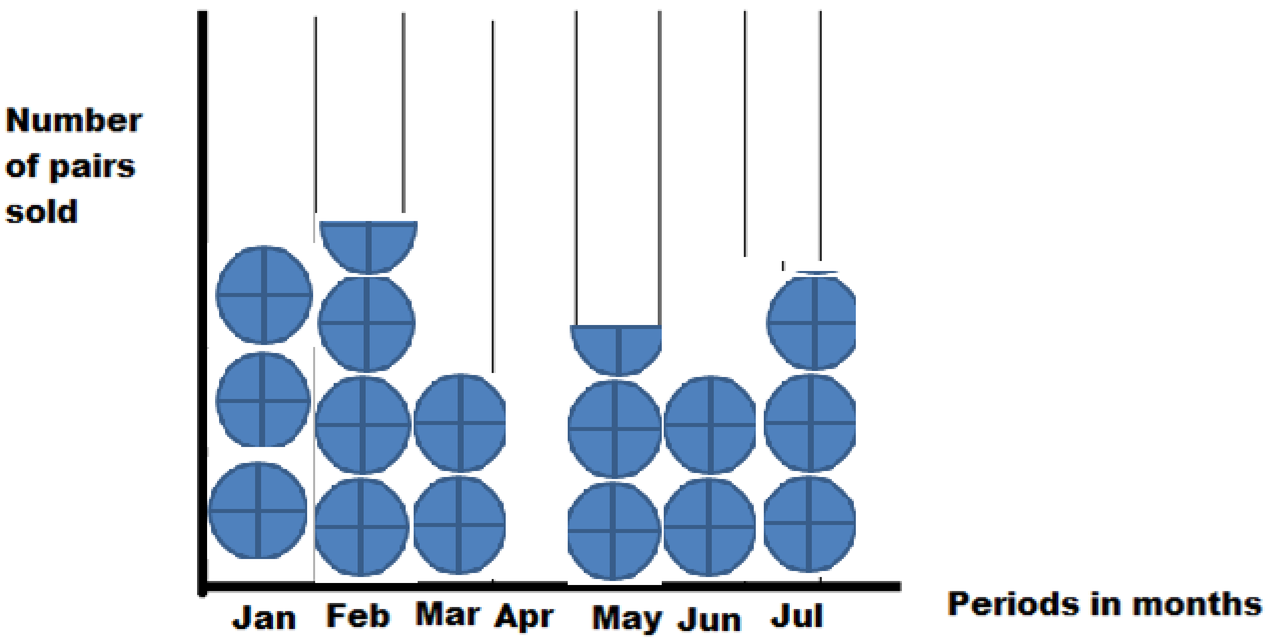
Key



represents 10 pairs of shoes

Month	Jan	Feb	Mar	April	May	Jun	July
Pairs of shoe sold	30	35	20	0	25	20	30

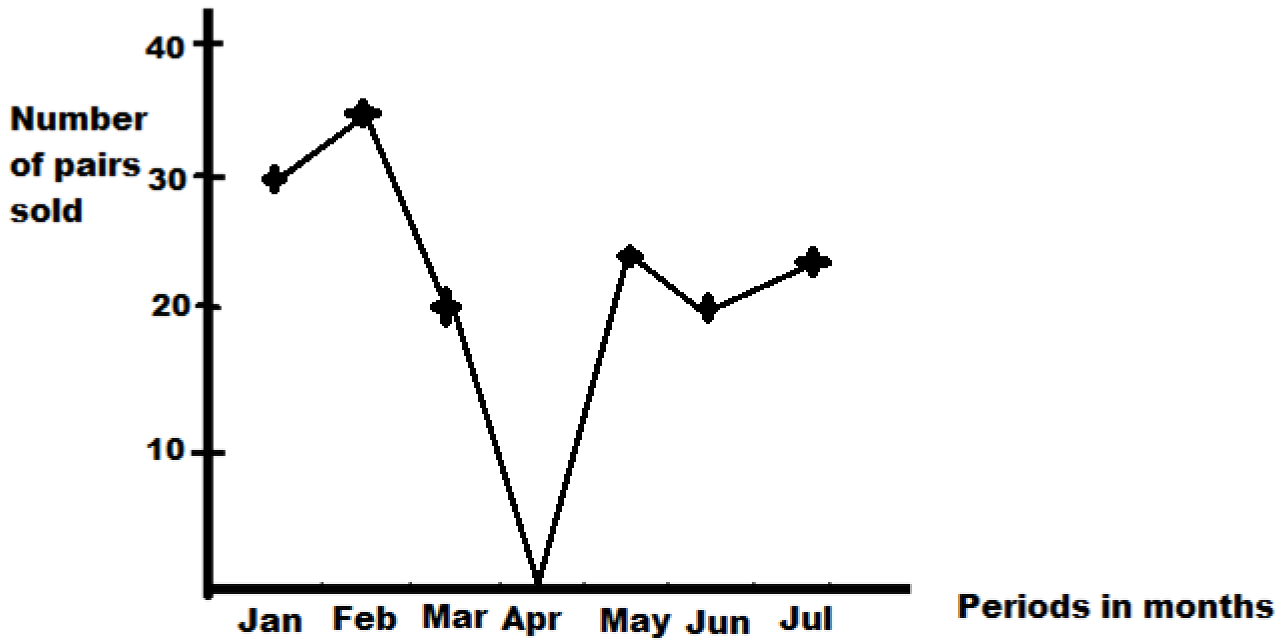
Draw a pictograph on the space provided



Line Graph

A line graph is used for showing the way a variable changes over time. A line graph plots data as points and joints the points with a line. It is simple and clear and more than one line can be shown on the same axis to **enable a comparison. Use the data below to draw a line graph.**

Month	Jan	Feb	Mar	April	May	Jun	July
Pairs of shoe sold	30	35	20	0	25	20	30



Measures of the middle or the average

Use the data in the table below to calculate the mean; median and the mode. The table shows the number of hours the respondents listened to a certain radio station

Year	Number of hours
2010	7;3;2;0;10;3;2;4;8;6;7;5;7;10;7;11
2011	6;12;3;9;11;6;9;10;5;9;9;4;10;4

First step: Arrange the data in ascending order

Year	Number of hours
2010	0;2;2;3;3;4;5;6;7;7;7;7;8;10;10;11
2011	2;3;4;4;5;6;6;9;9;9;9;9;10;10;11;12

Mean

= add all the values and divide by the total number of values

Mean (2010) = 92/16 = 5.8

Mean (2011) = 118/16= 7.4

Comment : the data show an improvement since people are listening to the radio programs for longer periods.

Mode:

refers to the number which appears most

Mode (2010) is 7 (appears 4 times)

Mode (2011) is 9 (appears 5 times)

Median refers to the middle term in the range of ordered data. The median divides the data into 2 equal parts

Median when there are odd number of values :- $= \frac{\text{(Number of values +1)}}{2}$ th value

Median when there are even number of values = add the two middle numbers and divide by 2

Median (2010) = (6+7)/2 = **6,5**

Median (2011) = (9+9)/2 = **9**

Advantages of using a mean

- It includes all of the data in its calculation
- It is widely used and easily understood

Disadvantages of using the mean

- It is affected by one or two extreme results
- It is commonly not a whole number.

Advantages of using the mode

- It is easily observed and no calculation is necessary
- The result is easily understood since it is a whole number

Disadvantages of using a mode

- The mode does not consider all of the data
- There can be more than one modal result which could cause confusion

Advantages of using the median

- It is less influenced by extreme results than the mean

Disadvantages of using the median

- It cannot be used for further statistical analysis
- When there is an even number of items in the results, its value is approximated

MARKETING MIX

Marketing Mix is defined as a combination of elements that influence a customer's decision whether or not to buy a product. It is also defined as the combination of product, price, promotion and place that is used to make sure that the customer's requirements are met. It is a marketing tool that combines a number of components in order to strengthen and solidify a product's brand and to help sell the product or service. The marketing mix is often simplified and is commonly described as the 4 P's. This approach identifies four elements in the mix (all beginning with the letter P)

P - Product : Include the many different aspects of a product such as design, quality, reliability as well as its features and functions. A product is an item that is built or produced to satisfy the needs of a certain group of people. The product can be intangible or tangible as it can be in the form of services or goods.

P – Price: Refers to how much the customers are charged for the product and other terms of payment involved. This is what a business is asking consumers to pay for a product or service. The price can be related to the cost of production or sometimes related to the prices charged by competitors

P – Promotion: This is the way a firm communicates information about the product to the customer. It may use advertising or a sales force to highlight its strength. The promotion of a product will affect the image that customer have of it and their awareness and understanding of the benefits of the product. Promotion includes advertising, special offers, sponsorship and public relations activities

P – Place: Refers to the way the product is distributed. Is the product sold directly to the customer or through retail outlets? Can you buy online or do you have to travel some distance to get to a shop where it is sold. Place refers to the points of sale such as store or websites as well as Lorries that distribute products. Packaging is also part of promotion. Packaging refers to the technology of enclosing or protecting product for distribution, storage, sale and use.

The role of the consumer (The 4 C's')

Another way of analysing the marketing mix is to consider it from the perspective of the consumer. The 4Cs (Customer/consumer value, Cost, Convenience, and Communication) enables you to think in terms of your customers' interests more than your own. From being business-oriented, you'll become customer-centric. This is known as the 4 C's approach

4 C’s	Explanations
Customer solution	• What benefits does it offer? How does the product meet a customer need to solve a customer’s problem? A company should only sell a product that addresses consumer demand. So, marketers and business researchers should carefully study the consumer wants and needs.
Convenience to customers	• How easy it is to buy the product. The product should be readily available to the consumers. Marketers should strategically place the products in several visible distribution points.
Communication with the customers	• What do we know about the product. Marketers should aim to create an open dialogue with potential clients based on their needs and wants
Cost to the customer	• How much does the product cost to the customer

Relationship between 4 C’s and 4 P’s

The 4 P’s take the point of view of the seller and not the one of the buyer. From the buyer’s point of view, the 4 P’s are transformed into the 4 C’s

Relationship between 4 P’s and 4 C’s				
4 P’s	Product	Price	Place	Promotion
4 C’s	Customer solution	Cost to the customer	Convenience of the customer	Communication with customers

Customer Solution and Product

- Buyers don’t see a product as a selling item but rather as a solution for their problem
- The business must find out what people want and then ‘build it’ for them, their way
- Study customer needs and wants and then attract them one by one

Cost to the customer

- Price indicates a return to the sellers and on the other hand, price is a cost to the customers
- Buyers see how much they would have spent to benefit from the product

Convenience to the customer

- Sellers try to choose the right place for their products in order to make them convenient for buyers
- You have to know how each sub-set of the market prefers to buy e.g on the internet, from a catalogue, on the phone, using credit cards etc

Communication with the customers

- Communication requires a give and take between the buyer and seller
- As a marketing manager, you must listen to your customers whenever they give you feedback

Product Differentiation: refers to the degree to which customers perceive a product or brand to be different. The main focus for most of the businesses is to make customers see that the brand or product is the only one that meets their wants. The differentiation may be through an actual advantage in design, performance, or price, or an imaginary but real process in which the customer is convinced that the product or brand has something over and above its physical characteristics.

Ways to achieve product differentiation:

- Advertising and marketing campaigns to make the product stand out e.g Nike
- Branding and packaging e.g Coca Cola
- After sale services and guarantees
- New designs

Unique Selling Point / Unique Selling Proposition

A unique selling proposition (USP, also seen as unique selling point) is a factor that differentiates a product from its competitors, such as the lowest cost, the highest quality or the first-ever product of its kind. A USP could be thought of as "what you have that competitors don't." A successful USP promises a clearly articulated benefit to consumers, offers them something that competitive products can't or don't offer, and is compelling enough to attract new customers. The USP may be something unique to the product, the distribution arrangements or the marketing methods.

Here are a few famous examples of USPs:

- Domino's Pizza deliveries" it arrives in 30 minutes or it's free" promise.
- FedEx's "When it absolutely, positively has to be there overnight."
  Southwest's claim to be the lowest-priced airline

Benefits of Unique Selling Point (USP)

- The business is able to charge high prices
- Positive publicity from customers
- Increase in market share
- Leads to Brand loyalty. Brand refers to an identifying symbol, name or trade mark that distinguishes a product from its competittors

What is the product life cycle?

The **product life cycle** is an important concept in marketing. It describes the stages a product goes through from when it was first thought of until it finally is removed from the market. Not all products reach this final stage. Some continue to grow and others rise and fall. This can be illustrated by looking at the sales during the time period of the product

What are the main stages of the product life cycle?

Development stage - objectives

At this stage, you should not worry about sales or introducing the product. Your focus should be on working with a team of designers, manufacturers or product development experts on:

-producing prototypes
-testing prototyped product
-sourcing and pricing materials
-intellectual property issues

To further develop your product, you should:

- consult team members on development plans
- speak to suppliers and other business associates
- communicate with customers about your plans
- consider the environmental impacts of your product
- ask a group of potential customers to test your product and give feedback - you can use this to develop the product
- When developing your product or service you need to establish the level of quality you are aiming for, and how many different versions you want to develop to generate interest at launch. You should also take steps to protect all your intellectual property rights - eg patents and trademarks - before you launch the product or service. Doing this protects you from other competitors copying the idea and hurrying through an alternative. See how to **protect your intellectual property**.

Introduction stage of a product life cycle

The introduction stage of a product's life cycle is when you can build an awareness of your product or service in certain markets.

Introduction stage - objectives

You should concentrate on building a base for your product at this stage, and focus on the following marketing factors: - pricing
-distribution
-promotion

Price your product or service

You should initially start pricing at the highest point you believe it is possible to achieve. You can also consider a skimming price strategy: charging a relatively high price for a short time when a new, innovative, or much-improved product is launched onto a market. The aim with skimming is to skim off customers who are willing to pay more to be one of the first to have a new product. You can lower the prices later when demand from the early adopters falls.

A penetration pricing strategy may work best for businesses entering a new market or building on a relatively small market share. It involves the setting of lower, rather than higher prices to achieve a large, if not dominant market share. See how to **price your product or service**.

Distribution

Your distribution should be selective and limited to a specific type of consumer, until your product is accepted. Also, you should consider different distribution models during different periods of the product life cycle, eg new products for different seasons in a clothes shop.

Promotion

You should try to build brand awareness at an early stage. It is worth working with a brand design or communications agency as you develop a product to establish a strong brand.

You can use samples or trial incentives to capture early adopters of the product or service. Introductory promotions can also help convince potential resellers to carry your lines. See more on **branding: the basics**.

Profitability during the introduction stage of product life cycle

It is likely that, at the introduction stage, your sales will be low until customers become aware of your product or your service's benefits. Due to the high cost of advertising and low initial sales, it is possible that you won't make immediate profits or you may even find that the product is producing negative profits. However, you should make up for this with increasing revenue generated at the **growth and maturity stage of a product life cycle**

Growth and maturity stage of a product life cycle

At this point in your product's life cycle, you should be putting your efforts into:

-increasing your product's market share
-creating a brand preference for your customers

Product growth stage

This should be a period of rapid growth in both sales and profits for your product or service. Your profits should rise through an increase in output and more competitive pricing.

You should also consider:

-maintaining product quality and adding features or support services for the product
-maintaining pricing to increase demand for the product
-increasing distribution channels to cope with demand
-aiming promotion at a wider audience

If your profits are still low, consider reducing the price of the product or service to increase the volume of sales.

Product maturity stage

If your product or service makes it to the maturity stage, this should be the longest part of its product life cycle. Sales are near their highest, but the rate of growth is slowing down, e.g. new competitors in market or saturation

At this stage, you will probably notice that:

- you may need to enhance product features to make it more appealing than competitors'
- you may need to lower your pricing due to increased competition
- distribution is becoming more intensive and you may need to offer incentives
- you may need to focus your promotion on the difference between existing products

At this point, the market has often reached saturation as a result of competitors releasing their own version of your product. Your product or service may experience a decreasing rate of sales, which should eventually stabilise.

During this stage, you should aim to differentiate your product or service from others that your competitors offer. You can do this by focusing and highlighting any branding, trademarks, or customer testimonials that may give you an advantage. Read about **designing a successful brand**.

Decline Stage

The last of the product life cycle stages is the Decline stage, which as you might expect is often the beginning of the end for a product. When you look at the classic product life cycle curve, the Decline stage is very clearly demonstrated by the fall in both sales and profits. Despite the obvious challenges of this decline, there may still be opportunities for manufacturers to continue making a profit from their product. The product/service either comes to its natural end or is re-developed

Extending the Product Life Cycle

What can businesses do to extend the product life cycle?

- **Extension strategies** extend the life of the product before it goes into decline. Again businesses use marketing techniques to improve sales. Examples of the techniques are:
- **Advertising** – try to gain a new audience or remind the current audience
- **Price reduction** – more attractive to customers
- **Adding value** – add new features to the current product, e.g. improving the specifications on a smartphone
- **Explore new markets** – selling the product into new geographical areas or creating a version targeted at different segments

Challenges of the Decline Stage

- Market in Decline: During this final phase of the product life cycle, the market for a product will start to decline. Consumers will typically stop buying this product in favour of something newer and better, and there's generally not much a manufacturer will be able to do to prevent this.
- Falling Sales and Profits: As a result of the declining market, sales will start to fall, and the overall profit that is available to the manufacturers in the market will start to decrease. One way for companies to slow this fall in sales and profits is to try and increase their market share which, while challenging enough during the Maturity stage of the cycle, can be even harder when a market is in decline.
- Product Withdrawal: Ultimately, for a lot of manufacturers it could get to a point where they are no longer making a profit from their product. As there may be no way to reverse this decline, the only option many business will have is to withdraw their product before it starts to lose them money.

Summary : Stages of the PLC and the marketing Mix

	Introduction	growth	MATURITY	Decline
Product	-first model	-modified model -wide range	-new models -modify existing models to extent their life cycle	-drop poor selling models
Price	-Could be high (skimming pricing) Could be low (penetration pricing)	-could be lower to attract customers - could be higher if the brand is successful.	-Could be lowered further to attract customers - competitors are also entering the market	-heavily discounted -reduce price to clear stock
Promotion	-Significant advertising (informative advertising) and promotion to raise awareness.	-more advertising and promotion to create brand loyalty	-persuasive adverting to stress on the positive difference with competitors' products	-could be much lower to save costs - advertising is only used to inform the public about lower prices
Place	-Could be focused on the key areas (restricted outlets)	-increased levels for wider coverage	-the highest number of outlets	-eliminate unprofitable outlets

Uses of the PCL

- The position of a product in the PLC gives some indications to a business about how the elements of the marketing mix might be used
- It is also used to check progress against the marketing objectives of the business
- It is used to identify how cash flow might depend on the cycle
- To decide on whether to withdraw or to re-launch a product

Limitations of the PLC

- It is based on past or current data as such it cannot be used to predict the future
- Some products can come back after the decline stage
- Sales of some products continue to grow.

New Product Development

An ability to develop new products [or services] can help to breathe new life into a business. The primary advantage of product development is that it can help a brand and business stay relevant with its consumer base. By continually striving to solve new problems that consumers face, an organization is continually creating the chance to create revenues.

New Product Development: the creation of products with mew or different characteristics that offer new or additional benefits to the customer. Product development may involve modification of an existing product or its presentation, or formation of an entirely new product that satisfies a newly defined customer want or niche market.

Benefits of new product development

- Increase in market share
- The business is able to respond to changing needs of customers
- The business can benefit from positive word-of-mouth marketing, which can lead to higher revenues.

Limitations

1. It can be easy to set unrealistic expectations for a product.

Without quality benchmarks in place, the product development process can create unrealistic future expectations for a brand and business. Just because a prototype works as intended does not mean that it can provide an expected value. There must be a consistent performance in meeting consumer value expectations and accurate benchmarks must be set to make this happen.

2. Products can fail unexpectedly.
Even with thousands of hours of testing, it is possible for a product to fail unexpectedly. The Samsung Galaxy Note 7 battery issues and subsequent recall are example of this. If a product doesn't perform as expected in the general market, then the anticipated profits can become large unanticipated expenses in a very short period of time.

3. External sources can change procedures, which can alter your product development.
There are a number of external sources which are involved in the product development process, but fall outside of the direct sphere of influence for a brand and business. Shipping vendors may change delivery dates. Off-shore manufacturers might change procedures. Manufacturing materials may decline in quality. These all can affect the final product under development.

4. Product testing can result in a failed idea.
A brand and business can put a lot of time and effort into the product development process, only to see an idea fail when tested within a market. There will always be a risk with product development because the costs of a failed idea must be absorbed. If the hopes for new revenues rely on one product in development, then this puts the organization at risk for failure instead of experiencing a product failure.

5. The primary disadvantage of product development is that changing consumer preferences can cause a valuable product to actually be seen as worthless.

NB: The pros and cons of product development show that this process can be risky, but it also provides a brand and business with the opportunity to experience greater success. When approached in a methodical way, the innovative outcomes are often worth the risk of future failure.

Product Portfolio Analysis

Refers to analysing products of a business to help allocate resources effectively between them. Considers the range of product a business offers, using market sales, market share, position of the product life cycle and segmentation in order to plan the most appropriate product mix to meet objectives. It focuses on how to achieve the optimum (best) product mix, that means getting a range of products that are going to achieve long-lasting sales. It helps the business to pinpoint exactly what marketing activities need to be employed for each product in the mix

Benefits of product portfolio analysis

- Allows businesses to ensure that it always has a product ready to replace products that might be losing market share or sales
- It enables a business to have a range of products so that if one fails the others can provide revenue to cover
- It allows planning to take place over time so that the business will always be in a position to maintain revenue.

Marketing Mix – Promotion (Promotional Strategy)

Promotion is the marketing activity that communicates to customers in order to change their attitudes or buying behaviour. It is an attempt to draw attention of the customer to the product. Promotion is the part of marketing where you advertise and market your product, also known as a promotional strategy. Through it, you let potential customers know what you are selling.

- In order to convince them to buy your product, you need to explain what it is, how to use it, and why they should buy. The trick in promoting is letting consumers feel that their needs can be satisfied by what you are selling.
- An effective promotional effort contains a clear message that is targeted to a certain audience and is done through appropriate channels. The target customers are people who will use, as well as influence or decide the purchase of the product. Identifying these people is an important part of your market research. The marketing image that you're trying to project must match the advertisement's message. It should catch your target customers' attention and either convince them to buy or at least state their opinion about the product. The promotional method you choose in

order to convey your message to the target customers may probably involve more than one marketing channels

Objectives of Promotion

- To increase customer awareness
- To reach targeted clients which might be geographically dispersed
- To remind customers about the existing product and its quality
- To show the superiority of a product over its competitors
- To increase sales
- To give information about the product and the company

Types of Promotion

a)Above the line promotion: it occurs through an independent media such as advertising using television, magazine, newspaper, radio, internet. Thus it involves using mass media space that is paid for, often through an advertising agency. The main aim is to inform, raise awareness and build brand positioning. Communication is targeted to the whole market not to specific individuals

b) Below the line promotion: marketing methods that communicate with the customer without paying for the media. These are promotional activities that pushes customers into buying e,g buy one get one free (BOGOF). These are promotional activities where the business has direct control over the target or intended audience. It is designed and produced by a business in-house. It is more of one-on-one approach. It is designed to achieve short term sales increases and repeat purchases.

Elements of Below the lime promotion include:

-Sales promotion
-Personal selling
-Public relations
-Exhibitions and Trade fairs

Promotional Mix

Refers to all the elements of promotion that a business can pursue which include advertising, public relations and sales promotions. In other words, it is defined as the combination of promotional techniques that a firm uses to sell a product.

Elements of Promotional Mix

a)Advertising: it is a controlled impersonal conveyance of a message regarding a need-satisfactory product or service by a business to a specific audience with the objective of informing, reminding or persuading them to take a specific action.

Four Types of Advertising

i)Informative Advertising: it is done to inform the public about the existence of a product. Provides precise details of goods to the public on new products, prices, where to buy and how to buy the product.

ii)Persuasive Advertising: it is undertaken by an individual company to promote its own products using brand names at the expense of other manufacturers.

iii)Competitive Advertising: advertising only gives the good points about the product and they use attractive devices or techniques

iv)Collective or Generic Advertising (Collaborative):producers in the same industry will jointly advertise a product in general. They don't use brand names e,g 'Take a lot of milk for good health'.

Types advertising Media

a)Print Media: newspapers; magazines; pamphlets

b).Electronic Media: Radio; internet; television

c)Outdoor Media: Billboards; posters

Factors influencing choice of Media

i)Size of targeted audience: national coverage requires Television; national newspapers. Local level requires posters and Billboards

ii)Cost involved: television is more expensive nut more expensive

iii)Urgency of message: if speed is required to spread the information then radio and television is the best

iv)Expected profit or revenue: revenue to be collected should be able to cover all the advertising expenses

Benefits of advertising

- Enables consumers to make informed decisions
- Increase in sales and profitability
- Fights competition
- Improves image of the business
- Informs customers about promotions and sales taking place

Problems of advertising

- Leads to higher prices
- Encourages impulse buying
- Adverts interrupt TV and radio programmes

Elements of Below-the-line promotion

- Sales promotion
- Personal selling
- Public relations
- Exhibitions and trade fairs

Sales Promotions

This promotional strategy is done through special offers with a plan to attract people to buy the product. Sales promotions can include coupons, free samples, incentives, contests, prizes, loyalty programs, and rebates. You might also want to educate potential and current customers by holding trainings and seminars, or reach them via trade shows. Some of the target audience may be more receptive to a certain promotional method than another. You can also do sales promotions by setting up product displays during a public event or through social networking at business and civic gatherings.

Sales promotion is divided into two:-

Trade Promotions: These are aimed at distributors like wholesalers and retailers. It includes special discounts and bonuses such as free extra product per case.
Consumer promotions: is used to create interest and tempt potential customers to make a purchase. It includes free gifts, coupons, special offers, free samples, competitions, buy-one-get-one (BOGOF).

Public Relations or PR

Public relations is usually focused on building a favorable image of your business. You can do this by doing something good for the neighborhood and the community like holding an open house or being involved in community activities. It also involves sponsorship. Sponsorship refers to a financial contribution to an event in return for publicity. You can engage the local media and hold press conferences as part of your promotional strategy. In this case the business is not going to pay for the message to be run on the media. Thus PR is the cheapest method of promotion

Personal Selling

You can employ salespersons to promote and sell your products as part of the business communication plans. These salespersons play an important part in building customer relationships through tailored communication. Personal selling can be a bit costly, though, because you will need to hire professional sales people to do the promotion for you. But done right, the profit gained could. It is an action oriented approach and it is often used by insurance companies.

Exhibitions and Trade fairs

Some businesses attend trade fares and exhibitions to promote their products. The business setup a stall and promote their products face-to-face.

Factors to consider when choosing a method of promotion

a)Cost: many businesses are forced to use cheaper promotions because advertising is too expensive

b)Stage in the product life cycle: promotional methods change as a product gets older e.g PR is used during the introduction stages aggressive advertising on maturity and decline stage.

c)Competitors' promotion: it is common for business to copy the method of promotion used by a rival firm. Once one business come up with a successful promotional method, others will quickly take advantage of it and modify a little bit.

d)Legal factors: in the E.U, tobacco product cannot be advertised on T.V.

Promotional Elasticity of Demand

The responsiveness of quantity demanded due to a change in promotional expenditure ,ceteris paribus.

Promotional Elasticity of demand = $\frac{\text{\% change in quantity demanded}}{\text{\%change in promotional expenditure}}$

Illustration: From the data below find the promotional elasticity of demand when the promotional budget was increased from $2000 to $3000.

Year	Quantity demanded in units	Promotional budget ($)
2010	100 000	200
2011	200 000	300

Marketing Mix – Price (Pricing Strategy)

Price is the amount of money that your customers have to pay in exchange for your product or service. Determining the right price for your product can be a bit tricky.

A common strategy for beginning small businesses is creating a bargain pricing impression by pricing their product lower than their competitors. Although this may boost initial sales, low price usually equates to low quality and this may not be what customers to see in your product.

Pricing Objectives

-They include the following:
1. **Profitability** -prices should increase overall profitability of the firm
2. **Rate of return** –a specified return on capital employed (ROCE)
3. **Growth** –the price should provide a steady profit over a period of years to enable the firm to survive and grow.
4. **Competition** –should be competitive and attractive to customers
5. **Market share** –a price must be set which enables a firm to at least maintain its market share.
6. **Utilization of capacity** –it should cover fixed costs and enable the firm to fully utilize capacity, thus spreading unit costs over a larger output.

Pricing Policies/Strategies

1. Price Skimming –It uses high prices to obtain high profit margins and a quick recovery of development costs. It is useful for products with a short life cycle and fashion items e.g. computers, videos, toys, CDs etc It is ideal for technological goods and where there is less competition

Advantages
- High prices give appearance of quality and a must have 'factor'
- Some customers pay high prices for a new unique product
- High prices covers development and marketing costs
- More profits to the business

Disadvantages
- High prices may discourage buyers
- Early buyers at high prices may be discouraged when price falls and they will not buy again
- Buyers may wait as they know price will fall
- Attract new competitors

2. Penetration Pricing –The main objective is to capture a large share of the market as quickly as possible. It depends on the expected product life. It is mainly used for products with a longer life. Low prices are set in the initial stages of the product and gradually increased as it gains market share. Consumer products are often introduced this way. It is suitable where there is stiff competition.

Advantages
- High sales volumes and low prices stop entry of competitors
- High sales volume reduces average costs (economies of scale)
- Increase in brand awareness
- High market share

Disadvantages

- Consumer resistance when prices are increased in the future
- May result in brand seen as low quality
- Low profit margins

3. Differentiated/Discrimination Pricing –It involves the use of different prices for the same product when it is sold in different locations or market segments e.g. wholesalers may receive trade discounts while small buyers in remote areas may be charged a higher price due to additional distribution costs.

Can be used where:

- Supply of the product is controlled only by one firm
- Markets are geographically separated
- Reselling of the product is not possible e,g when the business is selling a service

4. Promotional Pricing –Involves the use of a lower and normal price either to launch a new product or to periodically boost sales of existing products.

5. Negotiable Pricing –It is common in industrial markets and building trade. The price is individually calculated to take account of costs, demand and any specific customer requirements.

6. Market Pricing –Prices are quoted 'at market'. They are determined by forces of supply and demand. Common for commodity markets e.g. gold, silver, stock exchange etc

7. Premium Pricing –Involves charging a higher price than competitors to strengthen the image perceived by consumers of a certain brand.

8. Cost-based pricing: firms will assess the cost of producing each unit of the product and add a certain amount on top of the calculated cost. It also includes mark-up pricing which involves adding a fixed mark-up for profit to the unit price of a product. It takes into account all the relevant costs. But the problem is that it can lead to higher prices.

9. Predatory Pricing: charging a low price to drive competitors out of the market. When the rival firms had closed down the business will then increase price.

10. Psychological Pricing: setting a price at just below a whole number e.g $99,99, making customers feel they are paying much less than $2.00, so they more likely to buy than if the price were $2.00

11. Bait and hook pricing: selling a product at a low price but charging a high price for associated products, for example selling a printer cheaply but the cartridges are expensive. It can only work if the products are complementary goods.

12. Loss leader pricing: products are sold below cost at a loss to attract customers who might then buy other products. When customers enter into a shop, full price products will also be bought. Customers have a tendency of buying more than what they planned for. The loss on the loss leader will be more than made up for by extra spending on the full-price items. It is used in most cases by supermarkets.

13.Competitor based pricing: involves researching the price competitors charge and then setting a price based on this. The price can be similar, slightly higher or lower than that which is charged by competitors. It is suitable where there is large number of competitors. If the firm is selling a differentiated product, they can charge a higher price. Differentiated product is that where customers see as being different from any other similar products. If they are selling the same type of product, they can charge the same price and then offer after sale services to attract more customers.

Factors to consider when setting prices

- cost : fixed and variable costs
- price charged by the competitors
- stage of the product in the product life cycle
- Objectives of the business
- Customer perceptions
- Government policy
- Price elasticity of demand

Price elasticity of demand (PED)

Refers to the responsiveness of quantity demanded for a product due to a change in its price. It measures the extent to which units demanded respond to a decrease or increase in price

$$\textbf{Price Elasticity of demand (PED)} = \frac{\textbf{\% change in quantity demanded}}{\textbf{\% Change in price}}$$

If the answer is between 0 and 1 (ignore negative sign)
PED is inelastic: increase the price to maximise profits. A given increase in price will lead to a less than proportionate decrease in quantity demanded. The product has very few substitutes

If the answer is equal to 1(ignore negative sign)
PED is said to be unitary elastic: maintain the price

If the answer is greater than 1(ignore negative sign)
PED is said to be elastic: reduce the price to maximise sales. A given decrease in price will lead to a more than proportionate increase in quantity demanded. The product will be having a lot of substitutes.

Illustration: Use the data in the table below to answer questions that follow

	Current units demanded and the corresponding price	**proposed increase in price and its effect on quantity demanded**
Quantity demanded	100 units	200 units
Price	$10	$8

.

a)Calculate the Price elasticity of demand (PED) [3]

b)Use your answer in ‘a’ above to decide on whether it is elastic or inelastic [1]

c).What will be the best strategy for the business to maximise sale in this case [3]

Factors that affect Price elasticity of demand:

- **The number of substitutes:** goods that have a lot of substitutes have elastic demand e.g margarine. Those with very few substitute have inelastic demand e.g pills to a patient
- **The period of time :** in the short run the demand for goods is generally inelastic while it becomes elastic in the long run
- **The proportion of income spent on the commodity:** products which take up a small proportion of an individual’s income have inelastic demand e.g sweets. On the other hand products which take up a larger fraction of a person’s income have elastic demand e.g wardrobes
- **The necessity of the product:** products that are basic necessities have inelastic demand while luxury products have elastic demand.

DISTRIBUTION

-It is concerned with getting the product from the producer to the customer at the right quantity, to the right place, at the right time and in the right condition.

Channel of distribution

Refers to the chain of intermediaries a product passes through from producers to the final consumer. It involves the links between the manufacturer and the consumer. A Channel of Distribution for a product is the route taken by the product as it moves from the producer to ultimate consumer

The 3 types intermediaries are :

1. Agents

-An agent works on behalf of another firm to perform certain specified services. They are usually used in importing and exporting and also in domestic trade.

2. Wholesalers

-A wholesaler buys goods for resale to someone other than the eventual customer. They usually supply goods to retailers who in turn sell to the public or to the manufacturers who use the goods in the production process.

Functions of Wholesalers

a) they break down bulk purchases and repack them into smaller lots to retailers
b) they offer warehousing for products for the manufacturer
c) they provide financial service to manufacturer (pay cash) and extend credit to the retailer
d) they handle publicity and promotion on behalf of the manufacturer

3. Retailers

-Retailing refers to all activities that are related directly to the sale of goods/services to the ultimate consumer.

Types of Distribution Channels

1.Zero –level Channel/ Direct selling

The product is passed directly from manufacturer to the final consumer e.g dentist.

Advantages of zero-level channel / direct selling

- Quicker than other channels
- Producer has complete control over the marketing mix i.e how the product is sold
- Direct contact with customers offers the business with useful information
- Products will be cheaper to consumers

Disadvantages of direct selling

- All storage costs are paid for by the producer
- It may not be convenient for consumers
- It can be expensive to deliver each item to the consumer
- Consumers may not be able to see and try the product before they buy

One-level Channel

There is only one intermediary. The retailers buy the product from the manufacturer and sell it to the final consumers

Advantages of One-level channel

- Producers can focus on production and selling is done by retailers
- Retailers are often in locations that are near to customers

- When goods are bought by retailers, the risk is reduced on the part of the manufacturer
- Storage costs are reduced

Disadvantages of One-level channel

- Profit mark-up imposed by retailers could make the product more expensive
- Producers lose some control over the marketing mix
- Retailers may sell products from other competitors too i.e there is no exclusive outlet

Other channels of distribution

Factors Affecting Choice of Distribution Channel

- **The desired degree of control wanted by the manufacturer**: More is gained on a zero-channel of distribution
- **The number of potential customers:** If they are too many then a 2-level or 3-level channel can be used
- **Type of products:** some goods are perishable hence they require a zero-level channel of distribution.
- **Storage costs**: if storage costs are very high then the goods must be quickly sold to wholesalers or retailers
- **Availability of intermediaries** like the agent; wholesalers or retailers. If they are not there , the manufacturer will have to sell the goods directly

The role of Branding in Promotion

Branding:-Brand is a name/term/design or symbol or a combination of these which is intended to identify the goods/services of one business from others, usually offering similar products.

- Brand Image is a perception a person has of a particular brand.
- Brand Extension is a strategy by which an established brand name is applied to new products from the same manufacturer.
- Brand Loyalty is a consumer's decision to consistently repurchase a brand continually

because he/she perceives that the brand has the right product features or quality at the right price.
-With brand loyalty, consumers can reduce purchasing time, thought and risk therefore developing brand loyalty as the long-term objective of all marketing organizations and the major reason for their continued study of consumer behaviour.

Types of Brands

1. Family Brands
-the brand name is used to cover all the products of a business, even if they are widely different and in different markets e.g. Willard, Heinz, Kellogg, and Unilever

2. Retail Brands
-the retailer, not the manufacturer is the one guaranteeing quality and consistency e.g. Barbour's, Greatermans, Truworths

3. Corporate Brands

-the name of the business is incorporated into the brand name of the product e.g. Jewel Bank-CBZ

4. Individual Brand
-each product is given its own brand name

Factors to consider when selecting a brand

1. easy to spell, say or recall
2. should allude to the product uses, benefits or special characteristics
3. should be distinctive and recognizable
4. should be sufficiently versatile to be applicable to new products
5. should be capable of being registered and legally protected under The Trade Marks Act
6. should be adaptable to packaging and labelling requirements

Benefits of Branding

-protects quantity
-it aids in shelf selection (case of identity)
-it differentiates similar goods
-for prestige
-it facilitates product diversification
-it hampers price comparisons
-it facilitates promotional effort

Reasons for Not Branding
-to avoid the high initial costs of promoting a brand
-the physical nature of some goods may prevent branding e.g. vegetables
-to maintain a consistent quality of output
-it may be difficult to differentiate products of one firm from another e.g. safety pins, coal, wheat etc

The role of packaging in promotion

Packaging is what the consumers see as they consider buying a product. Packaging act as protection and security, enables grouping of several items, convenience and is used for transmitting information and marketing communications
-Packaging is used to develop brand image by making it distinct and easily recognizable.
-It is termed the 'silent salesman' in marketing.
-It is often an integral part of a product designed to add to its appeal through the use of colour, shape, size, logos etc, all of which can have a significant effect on sales.
-Packaging is useful in successful advertising and promotion as it can encourage impulse buying.

***A package should have:**
1. brand (product) name
2. quantity
3. expiry date
4. ingredients/nutritional information
5. guarantee
6. directions for use
7. address and contact number of manufacturer
8. health information e.g. 'do not litter'

Internet Marketing (Online Marketing)

Refers to the advertising and marketing activities that use the internet, email and mobile communication to encourage direct sales via electronic commerce

E-commerce: refers to the buying and selling of goods and services by business to consumers through electronic medium. It involves the trading of products or services using computer networks, particularly the internet and mobile phones.

Benefits of Internet Marketing

- It is relatively cheap
- World coverage
- Accurate data can be kept about the number of visitors
- Convenient for consumers since they can shop in the comfort of their homes

Problems of internet marketing

- Internet connectivity problems
- Consumers can not touch, smell, fell or try the goods before buying it
- It is more risk.ie dealing with someone whom you doesn't know
- Problem of hackers especially for telegraphic funds transfer.

Viral Marketing

Refers to the use of social media sites or text messages to increase brand awareness or sell products. It is type of marketing in which users of social networks act as advertisers for products by spreading knowledge of them to other users of the network. It describes any strategy that encourages individuals to pass on a marketing message to others, creating the potential for exponential growth in the number of people getting the message. A viral message must be created and then passed to the influences. The influences will then pass on the message about the products they like and the people who are going to receive that message will also spread the message to their friends.

Short Answer questions

1.What is meant by the term marketing mix? [2]
2.a)What is meant by the term price elasticity of demand [2]
b)Explain the meaning a value of price elasticity of demand of **-3** [3]
3.a)Explain any two stages of the product life cycle [2]
b)Explain one way in which the marketing mix might change at different stages of the product life cycle [3]
4.a)What is meant by an extension strategy [2]
b)Explain one extension strategy with an example [3]

5.a)What is meant by the term ‘price skimming’ [2]
b)Explain one condition necessary for price skimming to be effective [3]
6.a) What is meant by the term ‘price description’ [2]
b)Explain one benefit of price discrimination to the business [3]
7.a)What is meant by the term ‘primary market research’ [2]
b)Explain one advantage of primary market research [3]
8.What is meant by the term ‘secondary market research’ [2]
b)Explain one disadvantage of secondary market research [3]
9.a)What is meant by the term ‘market research’ [2]
b).Explain one reason why spending more on market research may not lead to higher sales [3]
10a) What is the difference between a random sample and a quota sample [2]
b).Explain one limitation of sampling [3]
11.a)Define the term ‘qualitative research’ [2]
b).Briefly explain the term ‘consumer profile’ [3]
12.a)Explain why sample size influences the reliability of research results [3]
b).Explain why it is important to consider the type of market that a new product is aimed at before starting primary research [3]
13.a)List two factors that could lead to an overall decline in the size of a market [2]
b).Explain two benefits to a business of using mass marketing [3]
14a).Outline two possible examples of marketing objectives that a retail business might set [2]
b)Outline three ways a manufacturer of jeans could use to try to increase market share [3]

15. Use the data in the table below to answer questions that follow

	2013		2014	
	Value ($)	Volume (Units)	Value ($)	Volume (Units)
Company A	200	150	600	300
Company B	300	200	400	200
Company C	500	450	800	500

a).Define the term ‘market share’ [2]
b)Calculate market share (by volume) for company B in 2013 [3]
c) Find market growth by value for the two year period [3]
16.a)Explain the term ‘Unique selling point’ [2]
b).Explain the term ‘product portfolio’ [2]
17 (a) Define ‘product differentiation’. [2]
(b) Briefly explain **two** marketing benefits of product differentiation. [3]

(b) Briefly explain **two** advantages of using ‘focus groups’ as a method of market research. [3]

18 (a) Defi ne the term ‘cost-based pricing’. [2]
(b) Briefl y explain when a business might use penetration pricing. [3]

Essays

719(a) Analyse how a business might use price elasticity of demand for pricing decisions. [8]
(b) Discuss the best ways a car manufacturer could use the marketing mix to increase its share of the market. [12]

20 (a) Analyse, using examples, why packaging could be important in the marketing mix. [8]

(b) Discuss factors that could determine the success of a business that has decided to set up an online shop to sell beauty products. [12]

21 (a) Explain the differences between niche marketing and mass marketing. [8]
(b) Discuss the view that marketing is only about the advertising and selling of products and services. [12]
22(a) Explain, with examples, the difference between 'above the line' and 'below the line' methods of promotion. [8]
(b) Discuss the importance of branding for effective product promotion. [12]
23 (a) Explain the importance of primary market research to a new business. [8]
(b) Discuss how a business could make sure that its market research expenditure is cost effective.[12]

Marketing Advanced Level

MARKET PLANNING

Is the systematic approach to developing marketing objectives and setting out specific activities that will implement the marketing strategy designed to achieve the objectives. It will result in a marketing plan setting out these activities. Marketing plan sets out the marketing objectives, strategy, budget and the activities necessary to achieve the objectives. Marketing plan provides a detailed, fully researched written report on marketing objectives and the marketing strategy to be used to achieve them

Important questions when making a marketing plan

- Where are we now? Carry out an Audit. An audit is an investigation to determine exactly what position in the marketplace a business is. Market audit can be achieved through PEST and SWOT analysis
- Where do we want to go? It involves setting marketing objectives
- How are we going to get there? It involves deciding on the appropriate marketing mix
- How do we make sure we get there? Monitoring using performance standards and benchmarks

Elements of a Marketing Plan

- Purpose and Mission: it must provide important information about the business to potential investors. The plan must highlight on the purpose of the marketing plan and mission of the business. The marketing plan should provide background information about the business.
- Situational Analysis: It must clearly indicate the position where the business is currently at. Carry out things like PEST or SWOT analysis. The plan will look at current product analysis. The plan will also look at competitor analysis to identify the main competitors. Target market analysis is also done to identify the important features of consumers in the market
- Marketing objectives: the plan must clearly spell out where the business is aiming to get to. Marketing objectives should be SMART. An example of objectives for a car manufacture could be: 'To take advantage of the expanding customer demand for fuel-efficient cars and to obtain 5% of small-car market by 2018'
- Marketing Mix: it must describe how the business is planning to get there. Marketing plan can now focus on the 4 Ps.(product, place, price and promotion)
- Budget : a budget must be prepared to ensure the success of these marketing objectives. Most businesses are affected by the problem of limited resources. The budget will look at how much is required to put the marketing strategy and tactics into effect. The budget must also consider the

expected sales performance of the plan, to allow a comparison between marketing expenditure and expected sales

- Executive Summary: refers to a short summary of the plan and the time scale over which it will be introduced. The plan will also look at how the business is going to ensure they get there. Monitoring using performance standards and benchmarks should be highlighted.

Benefits of a marketing Plan

- Ensure that the marketing activities are aimed at achieving corporate objectives
- Encourage a rational integrated approach to marketing
- Improve efficiency of the business in relation to using its resources by providing a frame work for marketing activities
- Better prepare the business for change as there is ongoing monitoring and evaluation
- It is an essential part of the overall business plan. It is used to convince potential investors that their business proposal is both sound and potentially profitable

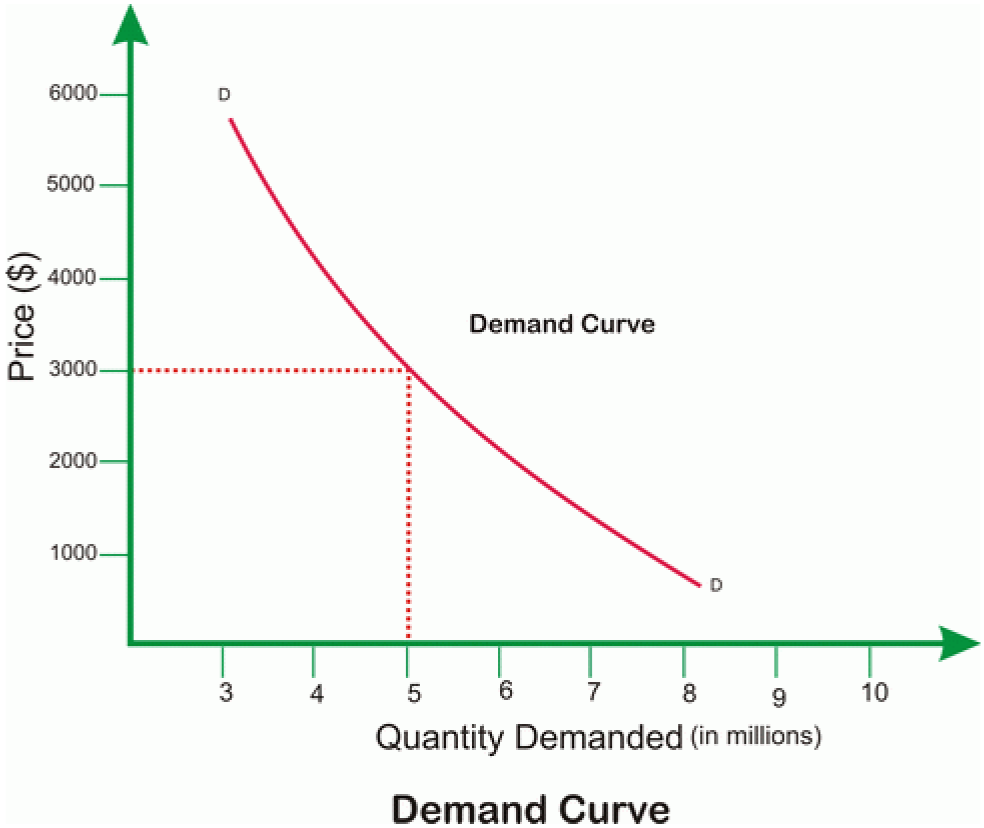
Limitations of marketing plan

- It is costly and many small business doesn't have the money to finance the production of a professional marketing plan
- It is time consuming
- Since the market is ever changing, it means the marketing plan can become out of date before it is published

Demand

-this is the total amount of a particular product which consumers wish to buy at a given price or period of time. -generally, demand increases if price falls and vice-versa -a change in price has an income effect (low price, real income increase) and substitution effect (high price, consumer switch on to substitute goods or other cheaper products from competitors)

The Demand Curve



Factors Influencing Changes in Demand

Change in people's income: More the people earn the more they will spend and thus the demand will rise. A fall in income will see a fall in demand.

Changes in population: An increase in population will result in a rise in demand and vice versa.

Change in fashion and taste: Commodities or which the fashion is out are less in demand as compared to commodities which are in fashion. In the same way, change in taste of people affects the demand of a commodity.

Changes in Income Tax: An increase in income tax will see a fall in demand as people will have less money left in their pockets to spend whereas a decrease in income tax will result in increase of demand for products and services because people now have more disposable income.

Change in prices of Substitute goods: Substitute goods or services are those which can replace the want of another good or service. For example margarine is a substitute for butter. Thus a rise in butter prices will see a rise in demand for margarine and vice versa.

Change in price of Complementary goods: Complementary goods or services are demanded along with other goods and services or jointly demanded with other goods or services. Demand for cars is affected by the change in price of petrol. Same way, demand for DVD players will rise if the prices of DVDs' fall.

Advertising: A successful advertising campaign may affect the demand for a product or service. The demand will increase since advertise creates new customers and remind old customers to buy the product.

Climate: Changes in climate affects the demand for certain goods and services. In winter the demand for warm clothing increases and in summer demand will decrease.

Interest rates: A fall in Interest rate will see a rise in demand for goods and services. People can save when interest rate is low, they rather use the money to buy goods for current consumption.

Elasticity of Demand

Elasticity is the degree of responsiveness of demand to changes in demand conditions (price, income).

1. Price Elasticity of Demand (PED) -it measures the responsiveness of demand to changes in price of the product.

$$\textbf{PED} = \frac{\%\text{ change in quantity demanded}}{\%\text{ change in price}}$$

$$= \frac{\frac{Q1-Q0}{Q0} \times 100}{\frac{P1-P0}{P0} \times 100}$$

Where Q1= new quantity
Q0= old quantity
P1= new price
P0= old price

-**If PED > 1**, a small change in price causes a large change in quantity demanded therefore it is elastic. A reduction in price causes revenue to increase.
-**If PED < 1,** a small change in price causes a relatively small change in quantity demanded, therefore it is inelastic. A reduction in price causes total revenue to fall and vice-versa.
-**Unitary Elasticity** is when total revenue stays the same at all prices.

Factors determining the degree of Elasticity
1.**Availability of Substitutes** e.g. glass has no perfect replacement therefore it is very inelastic
2. **The proportion of income spent on a** product –e.g. matches, salt are very inelastic – they cost a tiny proportion of a person's income.
3. **Necessities** –e.g. bread, mealie-meal, clothing are inelastic. Luxuries e.g. computers, holidays, satellite, television are elastic.
4. **Habit forming goods** –e.g. tobacco and alcohol have a relatively inelastic demand because they make substitution more difficult for consumers to accept.

Importance of PED

Elastic demand: firms must reduce price of goods to maximise revenue. Revenue refers to the total amount of money that the seller will get which is found by multiplying price with the number of units sold.

Inelastic demand: firms must increase the price in order to maximise revenue. The product has no substitutes so the customers cannot easily switch to other products.

2.Income Elasticity of Demand (YED) -it measure the responsiveness of demand to change in levels of income

$$\textbf{Income Elasticity of demanded} = \frac{\%\text{ change in quantity demanded of product}}{\%\text{change in the income}}$$

$$= \frac{\frac{Q_1 - Q_0}{Q_0} \times 100}{\frac{Y_1 - Y_0}{Y_0} \times 100}$$

Where Q_1 = new quantity of the product
Q_0 = old quantity of the product
Y_1 = new income
Y_0=old income

-If income increases, the demand for necessities will probably not change but the demand for luxuries is likely to increase.
-If income produces a fall in demand, YED is negative because people switch from 'inferior' to 'better' products.

3**. Cross Elasticity of Demand (XED)** -it measures the responsiveness of demand to changes in price of other products.

$$\textbf{Cross Elasticity of demanded} = \frac{\%\text{ change in quantity demanded of product Y}}{\%\text{change in the price of product X}}$$

$$= \frac{\frac{Q^Y_1 - Q^Y_0}{Q^Y_0} \times 100}{\frac{P^X_1 - P^X_0}{P^X_0} \times 100}$$

Where Q^Y_1 = ne quantity of product Y
Q^Y_0 = old quantity of product Y
P^X_1 = new price of product X
P^X_0=old price of product X

-Substitute goods have a positive XED e.g. coffee, beer, butter and margarine. -Complementary goods have negative XED e.g. cars and petrol, VCR and video tapes.

Promotional Elasticity of Demand
Show the sensitivity of demand due to a change in promotional expenditure or the responsiveness of quantity demanded due to a change in promotional budget.

PRED $= \dfrac{\%\text{ change in quantity demanded}}{\%\text{ change in the promotional expenditure}}$

$$= \dfrac{\dfrac{Q1 - Q0}{Q0} \times 100}{\dfrac{PR1 - PR0}{PR0} \times 100}$$

Where:
Q1 = new quantity
Q0= old quantity
P1= new promotional expenditure amount
P0 = old promotional expenditure amount

When Positive
It shows that when the business spend more on promotion, quantity demanded will increase

When Negative
It shows that when promotional expenditure is increased, quantity demanded will decrease

NB: PROMOTION -The basic sum of promotion is to communicate information to customers and potential users about the product/services on offer and to eventually persuade them to buy.
-It focuses on the distinctive features of a product called the 'Unique Selling Points' (USPs).
-Promotion comprises advertising, public relations (PR) and sales promotion

-The objectives of promotion are;
1. to increase awareness of the
2. to target particular segments
3. to position the product in relation to its main competitors
4. to build an image for the organization

-The promotional mix depends on;
1. the nature of the product
2. the nature of the market and its customers
3. the product life cycle
4. the relative costs and the availability of funds

New Product development
Refers to the creation of products with new or different characteristics that offer new or additional benefits to the customers. Product development may involve modification of an existing product or its presentation, or formulation of an entirely new product. It is important for businesses to consider developing new products all the times as existing products reach the decline phase of their life cycle, as new technologies appear, as market gaps are identified, as a way of expanding into different markets and as a way to maintain their competitive advantage over rivals

Reasons for Product Development
1. it stimulates sales enabling existing markets to be developed
2. to enter new markets or market segments
3. to counter competition more effectively
4. to increase market share and profitability
5. to spread risks
6. to maintain market positions as innovator

Stages in the Product development process
Developing a new product is a process. It require planning, it does not just happen. Developing a new product starts with an idea and moves on through stages in the planning process as described below.

Generating ideas: it involves assessing current range, threats and opportunities in relation to objectives. Business may be doing this as part of review and market research. Ideas for new product can come from a variety of sources which include: company's own research and development (R&D), from the adaptation of competitor's idea, market research such as focus groups, employees, sales people and brainstorming in groups.

Idea Screening: it involves eliminating those ideas that seem to be unprofitable. It can be very expensive to develop and market new products that have very few chances of success. Those doing the screening process should ask themselves questions such as: How will the customers in our target markets benefits from this product?, is it technically feasible to manufacture this product?, will the product be profitable enough at the price we are likely to be able to charge the customers for it?

Developing new product
The people involved should consider things like the features that should be included, method of production which is cost-effective and possibly how consumers are likely to react. The firm will the then produce prototypes and should carry out initial market research.

Product Testing: this is concerned with the technical performance of the product and whether it is likely to meet consumer's expectations. Product testing include testing the product in typical use conditions e.g a car will be tested in hot and cold industries to test performance under different conditions, using focus groups to gather opinions about the product and adapting the product as required after testing considering focus group feedback.

Test Marketing: refers to the launch of the product on a small market to test consumer's reactions to it. Test marketing has certain benefits over a full-scale launch to the entire market.

These benefits include:
- Getting and recording actual consumer behaviour
- Feedback from customers can be used to improve the product before the full-scale launch
- Risks associated with a product failing after a full-scale launch are reduced.
- Any weakness in the product are identified and addresses in the final version of the product

Limitations of test marketing
- It can be very expensive
- Competitors have access to the firm's intentions and possibly come up with an exact copy of the product before the full-scale launch of the product

Full-Scale Launch:
It corresponds to the introduction stage of the product life cycle. Consumer reaction monitored through product life cycle and marketing mix altered in response. It is also referred to as commercialisation.

Research and Development (R&D)
Refers to the scientific research and technical development of new products and processes. It is a function within a business set up to investigate new ideas/ products/ services and then to develop the best of these into marketable products / services.

Benefits of R&B programmes
- Generate new product possibilities
- Increase in profitability
- Reduces risk of failure
- Business will gain competitive advantage in rapidly changing environment
- Quality goods are produced
- Good name for the business

Factors influencing the level of R&D expenditure in a business
- The nature of the business. i.e rapidly changing industries requires substantial amounts
- The R&D spending plans of competitors
- Business expectations
- The risk profile and culture of the business: attitude of the management to risk and whether shareholders are prepared to invest for the future.
- Government policy: tax exemptions for business that invest in R&D programmes can promote research and development.

Reasons why new products fail
Product failure is attributed either to failure in the marketing process or to an unanticipated change in the external environment.
-inadequate market research
-misleading market research findings
-defects in the product
-activities of competitors
-insufficient or inappropriate marketing efforts
-distribution problems
-unexpectedly high costs
-inadequate sales force

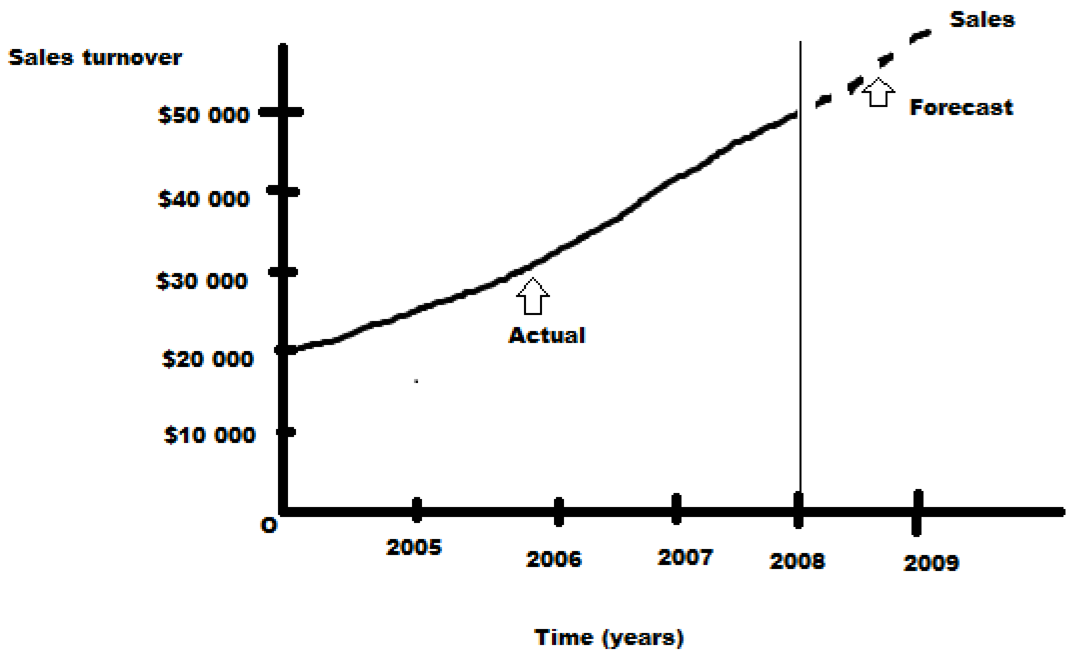
Sales Forecasting
Is defined as the predicting of future sales levels and sales trends. Marketing data is a valuable tool for a business.

Importance of sales forecasting
- The production department would know how many units to produce and how many materials to order
- The marketing department would be aware of how many products to distribute
- The human resource department will know how many employees to add
- Finance department could plan cash flows with much greater accuracy

Methods of forecasting sales

a).Trend Analysis/ Time series Analysis

Trend refers to an average change (increase/decrease) for each time period. It shows the overall pattern of movement in the data. Trend analysis takes data over a period of time and assumes that whatever patterns or trends had occurred in the past will continue into the future. For instance, if sales have been increasing by 5% per year, trend analysis assumes the future see sales continue to rise by 5% per year. To forecast sales in the near future, extrapolation is used.



The dotted line shows projected sales for the next year (2009).

b) Moving Average Forecasting

Refers to a method of forecasting into the future that takes account of regular variations. E.g seasonal changes in sales. It involves averaging sales figure over a set time period and doing this successively, moving the average through time. Moving average method enables the data to be smoothened out to give a trend line that removes the effect of regular changes

Calculating moving average for a four quarter moving average

It is used to forecast sales where they are varying in regular quarterly way

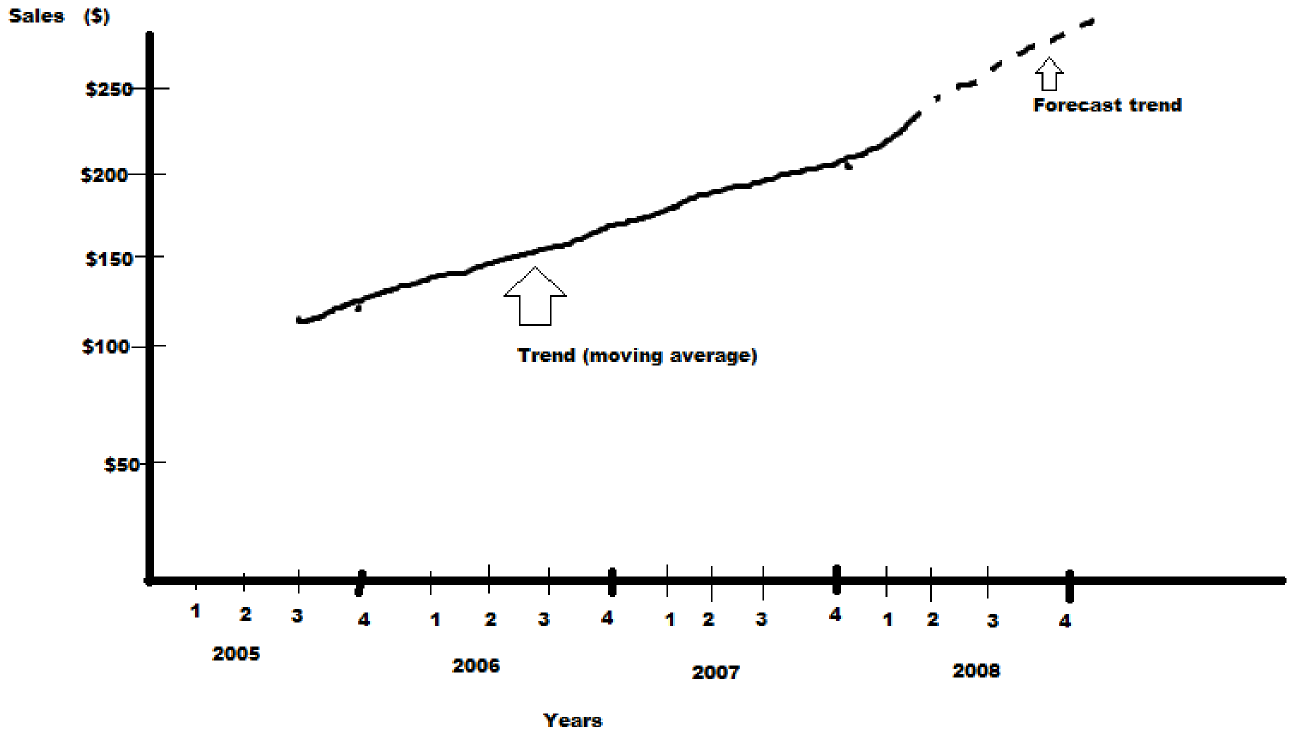
Data

Year	1st quarter Sales ($)	2nd quarter Sales ($)	3rd quarter Sales ($)	4th quarter Sales ($)
2005	100	130	140	120
2006	130	160	190	150
2007	140	190	240	180
2008	170	240	280	190

Calculation

Column 1	column 2	column 3	column 4	column 5	column 6	column 7	column 8
Year	Quarter	Sales	four quarter sales	Eight quarter sales	Eight quarter total/ 8	Seasonal variation= (Col3-Col6)	Average seasonal variation per quarter
2005	1	100					
	2	130					
	3	140			126.25	13.75	31.25
	4	120	490		133.75	-13.75	-16.1
2006	1	130	520	1010	143.75	-13.75	-30
	2	160	550	1070	153.75	6.25	11.25
	3	190	600	1150	158.75	31.25	31.25
	4	150	630	1230	163.75	-13.25	-16.1
2007	1	140	640	1270	173.75	-33.75	-30
	2	190	670	1310	183.75	6.25	11.25
	3	240	720	1390	191.25	48.75	31.25
	4	180	750	1470	201.25	-21.25	-16.1
2008	1	170	780	1530	212.50	-42.25	-30
	2	240	830	1610	218.75	21.25	11.25
	3	280	870	1700			
	4	190	880	1750			

NB: Quarterly moving average (trend) is found on column 6. The data for the quarterly moving average is used to forecast sales.



Evaluation

- Give forecasts which takes account of seasonal variation hence the estimates are more accurate
- It identifies the average seasonal variation for each time period and this can assist in planning for each quarter in future
- More realistic than projecting forward a trend line without considering seasonal variation

Limitations

- Future growth in sales may not follow past trend due to changes in the future external environment
- Change in customer's tastes and entry of new competitors may not be reflected in the trend analysis
- It is more complicated to use.

Co-ordinated marketing Mix

A successful marketing mix is one that achieves specific objectives. These objectives must be clearly set out and relate to achieving the overall objectives of the organisation. Product, price , place and promotion must all be integrated together to give the same message to consumers and support and reinforce each other.

- A high quality, high –specification product is likely to be sold to a small target market at a high price where technical expertise and personal selling is available to the consumer. Promotions of such a product are likely to be in appropriate media publications and will focus on the performance and characteristic of the product, or the level of service available to a buyer.
- A low-quality and low-price product aimed at a mass market is likely to be promoted in mass media with a focus on the price and be available in a wide range of outlets. Contrast the marketing of a luxury cruise liner with that of discount clothing. If one of the mix elements does not match and support the others, the consumers are less likely to be interested

A co-ordinated marketing mix must take account of the position of the product in its life cycle, the economic environment, market conditions and the actions of competitors

Globalisation and international marketing

Globalisation: refers to the growing trend towards worldwide markets in products, capital and labour, unrestricted by barriers. Globalisation is now being accelerated by the rapid growth of Multinational Companies and the expansion of free international trade with fewer tariffs and quotas on imports Tariff is a tax charged on imported goods. It is also known as a customs duty. Quota refer to a physical limit on the quantities of imports from other countries. In other words, Globalisation means moving towards a borderless world.

Characteristics of Globalisation:

- A rapid expansion of international trade in products and services
- A large increase in finance moving between countries, both money and foreign direct investments and inward direct investments by multinational companies
- Increased international travel and instant global communications
- Increasing similarity between cultures and societies
- Free movement of workers.
- Signing of trade agreements. Globalisation involves the signing of the World Trade Organisation and its free trade agreements. It also involves the growth of regional free trade areas that allow no trade barriers between member states, such as the Northern American Free Trade Area(NAFTA) and the European Union (EU).
- Increase in the Global brands for example, Apple, Toyota, Coca Cola are found in most countries

Effects of increasing Economic collaboration/ or forming trading Blocs

- member countries will maximise the gains from trade
- removal of the barriers to trade leads to variety of goods
- member state are able to sell their products and services more easily in other markets
- countries can easily achieve a faster economic growth and a rising income. Standards of living will improve when GDP is increasing
- competition between local and foreign firms leads to quality goods

NB: Trading Bloc: refers to an agreement between states, regions or countries, to increase trade between the participating regions by removing barriers to trade. It is a grouping of countries with formal agreements on trade. They make it easier for member countries to access the market and very difficult or expensive for non-members to sells their goods on the market.

Examples of trading blocs:

- ASEAN:- Association of South East Asian Nations
- APEC:- Asia Pacific Economic Co-operation
- NAFTA:- North American Free Trade Agreement
- EU:-European Union

BRICS Countries

It's an acronym for Brazil, Russia, India, China and South Africa. These are major economic power that are not yet fully developed but are developing at a faster rate. Their income (GDP) is growing rapidly. They account for over 40% of the world population, 25% of the world income and production, and have large trade surpluses and foreign reserves. As their economies continue to grow and attract greater trade, their markets will become increasingly important for the world economy and as key market opportunities for foreign businesses

Benefits of Globalisation to the businesses

- Greater opportunity for selling goods in other countries
- Increased competition gives firms the incentives to become more internationally competitive
- There is a wider choice of locations
- Greater freedom to arrange mergers and takeovers with firms from other nations as restrictions on foreign acquisition are reduced
- Global brand can be created and this saves on the cost of 'different markets –different products' This is also known as Pan Global marketing. Thus adopting a standardised product across the globe as if the entire world were a single market. It involves selling the same goods in the same way.

Limitations of Globalisation to the businesses

- Businesses from other countries have freer access to the domestic market, so the will be increased competition
- Inefficient domestic firms will shutdown
- Businesses are now at risk of foreign takeovers e.g Land Rover and Jaguar by Tata.
- Anti-globalisation pressure groups may comment negatively about a multinational company. E.g Coca Cola is under pressure to limit production in some Indian state due to shortage of water.
- Decrease in profitability for domestic firms when more imports flood local markets

International Marketing

Refers to the selling of products in markets other than the original domestic markets. The rapid development of major developing countries is leading to huge marketing opportunities for businesses that are prepared to sell their products and services in these international markets. The decision to expand into an international market is a key one for any business. It is potentially very costly, firstly in terms of the market research needed, then to set up the distribution systems and marketing plans. This kind of expansion must match the objectives of the business and there must be resources of money and the right people available.

Why sell products in other countries : These are also the factors influencing the decision to enter an international market

- ✓ To maximise profits
- ✓ When the home market is saturated
- ✓ To reduce risk of failure
- ✓ Poor trading conditions in the home market
- ✓ Legal differences creating opportunities abroad. Fewer restrictions abroad can create opportunities for local firms to export goods to those countries

- ✓ To escape competition in the home market
- ✓ To meet management goals of growth

Identifying, Selecting and Entering an International market

Identifying an International Market

Market research should be done. SWOT analysis is carried out to get a clear picture of the market

SWOT ANALYSIS

Strengths	**Weaknesses (controllable)**
• Strong ethical position • Excellent research facilities • Expansion in new markets • Brand loyalty	• Inefficiency due to large size market and the lack of control • High advertising budget • Inexperienced workers
Opportunities • Increasing incomes and population • Growth of the market • Buying other companies • Foreign government support	**Threats (uncontrollable)** • Risk of economic downturn • Emergence of competitors • Increase in inflation and interest rates • Restrictive laws from governments

Selecting an international market

Factors influencing the Selection of an International Market

a) Product Factors: the business must consider its product in relation to possible markets

b) Organisational Factors: the business must consider its objectives, risk and resources.

C) Market Factors: market factors are key in selecting the final choice and these include:

- ➢ Size of the market
- ➢ Potential growth prospects of the market
- ➢ Nature of competition
- ➢ Existing and possible distribution channels
- ➢ Costs of setting up distribution channels
- ➢ Political and cultural factors affecting the market
- ➢ Economic factors e.g currency used and its stability, tariffs, government incentives etc

Entering an International Market

Once the business has selected a market to sell to, it must decide how it will do it. The choice will be determined by the strategy of the business. This in turn is determined by the objectives and resources of the business.

Methods of entering an international market:

Direct Foreign investments: the business may set-up subsidiaries in foreign countries. Direct investments refers to constriction of production facilities or offices in other countries. Toyota opened subsidiaries in South Africa. The subsidiaries will have centralised control from the Head Office in the Home or parent country. The firm will be able to produce and distribute in the host country. Thus the product must the have a marketing plan designed to achieve objectives.

Benefits of this method

- The business will be able to avoid trade barriers
- The business may be able to get government support especially if they have invested in critical areas or if they are socially responsible.
- There is no agent or joint venture partner to consult with or take joint decisions with. Thus all profits after tax belong to the organisation
- Lower costs e.g the decrease in transport and labour costs.

Limitations

- Set-up costs are very high
- The firm is required to have country specific understanding of the way businesses operates which may increase costs
- It is more time consuming than taking over an existing firm
- Foreign operations may be subject to changes in government policy. Foreign firms may be asked to comply with certain government policies like nationalisation, indenisation etc

NB: Foreign Investments is suitable for large businesses where there are tax advantages, government aid, trade barriers and a long-term commitment.

Exporting: refers to the marketing and selling of goods and services to other countries. Production is done in the domestic economy and goods are sold in other countries. The business will need to find an importer and a transport provider and deal with the government. An agent may be used to arrange the practical details of selling. Agents often organises sales through existing channels in return for a commission or agency fee. Exporting can be done directly or indirectly. Direct exporting occurs when the business sell goods directly to foreign customers. Indirectly through intermediaries in international trade like agents or trading companies.

Benefits exporting Directly

- The company has complete control over the distribution of goods
- Agents may be having other deals with other companies and as a result may not be fully committed
- Saves on costs since no commission is given to the intermediaries.
- Customer feedback is obtained directly by the business.

Benefits of exporting indirectly

- The agents have full knowledge about the local market hence make more sales per given period
- Transport and administrative procedures become the responsibility of the agent
- Less costly as fewer staff is involved in selling goods abroad.

Problems of exporting directly

- The business lacks important knowledge about the local market
- More hustles of arranging transport and storage facilities
- The business must employ sales personnel to deals with foreign buyers

Problems of exporting indirectly

- Commission should be paid to the agents
- The agents may be having products from other firms to sell as well and they may not be fully committed.
- Lack of personal touch with the foreign customers.

Franchising: a franchise business (franchisor) charges a fee to other businesses (franchisee). In return for this money the franchisee obtains the right to use trademarks, logos, recipes, promotional material and the use of the brand. This means that the franchising business has few start-up costs apart from marketing. Examples include. McDonalds, Wimpy, Connaught Plaza restaurants etc

Benefits of opening a franchised business

- Few start-up costs
- Fewer chances of new business failing as an established brand product are being used
- Advice and training offered by the franchisor
- Supplies obtained from established and quality-checked suppliers
- Franchisors agrees not to open another branch in the area

Problems of opening a franchised business

- Share of profits or revenue has to be paid to franchisor each year
- Initial franchise fee can be expensive
- Local promotions may still have to be paid by the franchisee
- The franchisee is forced to get raw materials from certain suppliers only
- Strict rules over pricing and layout of the outlet reduces the owner's control over their own business.

NB: It is suitable for businesses selling services

Joint Ventures: refers to an alliance where two or more businesses agrees to contribute products, services and or capital to a common commercial enterprise. It is a business agreement in which organisations agree to develop a new corporate identity separate from their own, for a specific period of time.

Benefits of a joint venture

- Risk is shared between the business and venture partners
- Sharing of skills, knowledge and resources
- Trade barriers are not relevant

Problems of a joint venture

- There may be conflicts between the venture partners
- There is loss of control
- One business may not have the incentive to be efficient

Licensing: it involves a contractual agreement to distribute the product or services in return for a fee.

Benefits of licensing

- This means there is a low initial costs
- much of the risk is borne by the licensee
- trade barriers are avoided
- licensee may have full knowledge of the local market

Problems of licensing

- the business lose control of the marketing process
- the business must pay a fee to the licensee
- The contract can be terminated at any time.

NB: It is suitable when there are strong legal property rights.

Acquiring existing foreign business: the business can merge or take over a foreign company. Many Chinese companies are entering global markets through this route. Lenovo obtained the IBM PC business in 2004. Using this method, the business directly acquires brand names, distribution networks, experienced employees and customer relationships

Benefit of acquiring foreign firms

- risk of failure is reduced
- customer relationships are maintained
- a faster way to penetrate foreign markets
- skilled and experienced staff can be retained

Problems of acquiring foreign firms

- lot of paper work is involved when merging two firms
- more capital is required when buying a business which is already performing well.

Challenges faced when trying to enter foreign markets

Political differences: changes in the governments can cause instability in the country. Wars can increase the risk of doing business in foreign lands. Acts of terrorism or threats of civil violence, which might lead to the destruction of a company's assets, will all add to the problems of marketing abroad.

Economic differences: in some economies the GDP will be falling making it difficult for firms to survive. Inflation rates may also be rising and business operations will be crippled.

Social differences: the structure of the population may differ greatly between the mother country and the host country. The role of women and the importance of marriages in societies vary substantially and other social factors may have an impact on the types of products to be sold in those markets

Legal difference: products allowed in one country may be illegal in other countries. For example, guns can be sold in USA, but are illegal in other countries. It is also illegal to advertise directly to children below the age of 12 on Swedish TV. Product safety and product labelling controls are much stricter in the EU than in some African states.

Cultural Difference: cultural differences are not written down as laws are, yet they can powerfully impact on people's behaviour. Cultural differences are often related to religious beliefs and moral values. Failure to recognise cultural difference can have disastrous effects on a firm's marketing strategies. Firms must also take note of the language differences. Some words have unfortunate meanings when translated into another language. Colours can have different significance too e.g black is associated with mourning in the Far East.

Strategies in global marketing

Pan Global Marketing: involves marketing products and services to global markets in many different markets using a single strategy. It refers to the selling of the same goods in the same way in different countries. The business must build a consistent brand image, use the same logos, colours and advert styles that give customers the same message which ever country they are in. Examples of Pan Global businesses include Coca Cola, Nike, Toyota and Nestle.

Benefits of Pan Global Marketing

- saves on costs since the same product can be produced for all markets
- a common identity for the product can be established.

Problems of Pan Global Marketing

- legal restrictions can vary across nations. It is illegal to use promotions involving gambling in certain countries
- brand names do not always translate effectively into other languages. They might even cause offence or unplanned embarrassment for the company
- setting of the same price in different countries may not lead to profit maximisation
- firms must develop different products to suit cultural or religious variations.

Global localisation: occurs where the products are marketed in a way which allows for local differences. Sales are maximised when the marketing strategies take account of local cultural differences. Many businesses are now using segmentation in their global markets to target particular countries or groups of customers in order to achieve their objectives.

Benefits of Global Localisation

- profit and sales maximisation
- local needs, tastes and cultures are reflected in the marketing mix of the business
- products are made in such a way that they meet certain minimum quality standards in each country

Problems of Global localisation

- there will be additional costs of adapting the products to suit cultural variations
- the business can no longer benefit from the economies of scale

Questions

Desjardins offers finance and accountancy services to construction businesses. The business is considering expanding into neighbouring countries. Advise the business on which method of entry it should adopt [10]

2. Explain the Pan Global Marketing [4]

3.Explain the benefits of entering into a joint venture when expanding into international markets [8]

4. Explain the main factor that a business must consider when identifying and selecting a country to start exploiting [10]

5. Assess the negative and positive effects of globalisation on marketing plans of a business [12]

6. How might growth in BRICS influence globalisation [6]

7. Explain the main features of globalisation [4]

8. Explain the reasons why McDonalds decided to enter international markets [8]

9. Assess the importance of marketing planning to a new product of your choice [10]

Essays

10. Recommend to a marketing director of one of your country's largest manufacturers of consumer goods the best way to sell its products in another country's market that it has not yet entered. [20]

11. 'Pan Global marketing is the only way forward –we must establish a global identity and sell in all markets using the same mix.' Discuss whether this approach is likely to be successful for a manufacturing of quality ice cream.[20]

4. OPERATIONS AND PROJECT MANAGEMENT (AS LEVEL)

4.1 THE NATURE OF OPERATIONS

-It is also referred to as production management. Production is the transformation of inputs into outputs. Thus production takes place when a business takes inputs, carries out a production process and produces output. In other words, it is the conversion of resources such as raw materials or components into goods or services. Operations management decisions involve making effective use of resources (inputs), land, labour and capital to provide outputs in the form of goods and services.
-Production can be done at primary, secondary or tertiary levels. The inputs of production differ from one organisation to another. The outputs of one organisation can be the inputs of another firm.

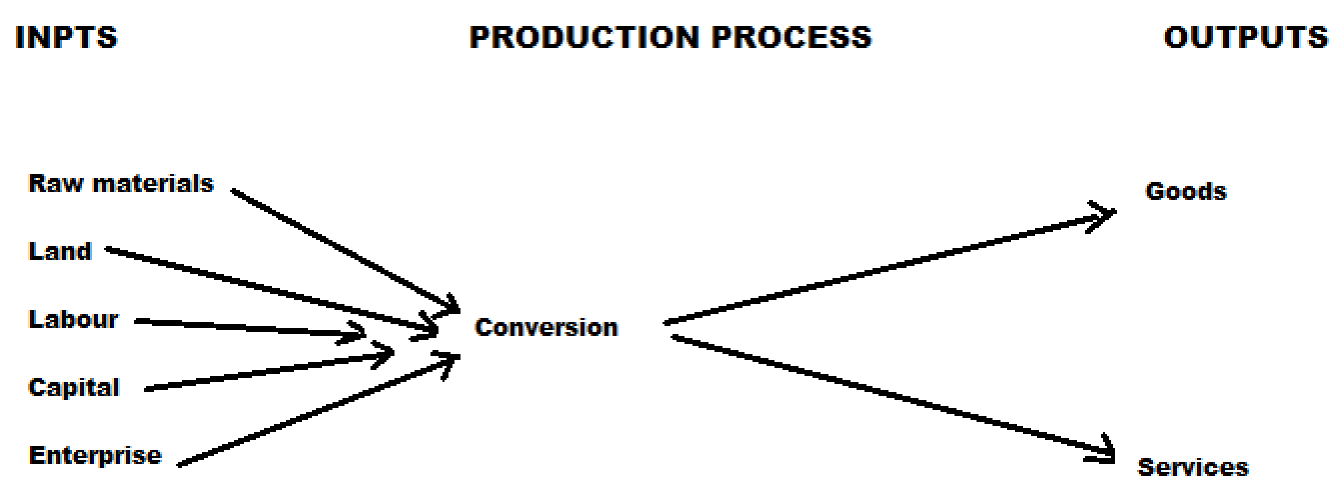
-operations management seeks to ensure that goods/ services are made with the required quantity, required standard and at the right time and in the most efficient manner. Thus it is concerned with acquiring the necessary inputs, allocating and utilising them in such a way as to maximise output

– Operations management and planning is concerned with:
○ which resources are needed to complete the production/service process.
○ how the work/process will be organised and scheduled.
○ who will perform the work.

Objectives of an operations management department

- To design, create, produce goods and services for an organisation and its customers effectively.
- To direct and control the transformation process so that it is efficient and effective and adds value.
- To procure appropriate inputs in a cost effective way.
- To effectively manage an appropriate inventory level.
- To focus on quality, speed of response, flexibility, type cost of the production process.
- Achieve an effective labour/capital production mix.
- To incorporate latest technological approaches into the production process.

THE DIAGRAM BELOW SUMMARIES PRODUTION



Transformation process
An activity (process) or group of activities that takes inputs and converts them into outputs.

INPUTS

i. **Raw materials-** the basic materials that can be used to make or create something e.g wheat is a raw material in bread production
ii. **Land-** refers to the site on which production takes. It also refers to all the free gifts of nature e.g minerals, climate
iii. **Labour-** refers to the physical and mental effort put into the production process. Production process is said to be labour intensive if labour cost constitutes a larger fraction of a firm's total costs. There are three types of labour:- unskilled labour, semi-skilled labour and skilled labour
iv. **Capital:-** refers to the tools, machinery, computers and other equipment that businesses uses to produce goods and services. All man-made items used in the production of other goods i.e machines, buildings, computers, vehicles, roads e.tc Production process is said to be capital intensive if the cost on capital constitute a larger proportion of the firm's total cost

NB- **Intellectual Capital** - is defined as the amount by which the market value of a company exceeds its tangible assets (physical and financial) – the collective knowledge and skills of a company. Intellectual capital is the intangible bank of expertise, skills and competencies within a business that can give the production process a distinctive competitive edge.

INTELLECTUAL CAPITAL- total market value of business asset- total net book value of assets

VALUE-ADDITION and OPERATIONS DECISIONS

Refers to the differences between the cost of purchasing raw materials and the price at which finished goods are sold. In other words it is an increase in value a business adds from one stage of production to another. When inputs are transformed into outputs, they will end up with a higher value than their starting point. As each stage of production process takes place, value is added to the starting inputs because these have to be transformed, adding value. The role of operations decisions is to achieve a desired value added, in terms of productive efficiency in reducing unit costs (minimising inputs in relation to outputs) and in terms of financial value (sales revenue and profit). The operations decisions should lead to efficiency and effectiveness so that customers' needs are met by the value added through the productive process

Value added and Marketing

Value addition can be looked at from the point of view of customers. Marketing is the process of meeting customers' needs, and the process of adding value is making sure that that production process is effective in doing this. Adding value in marketing is giving something to customer that is of high value to them but is low cost to producer. Added value marketing gives customers what they really want by making the product have improved performance or better looks, giving advice on using it, making it more easily available to the customer, providing discounts as well as quality assurance.

PRODUCTIVITY

-It is a measure of efficiency of production. It shows the relationship between output of a system and factor inputs. It is also defined as the ratio of outputs to inputs during production. There are two types of productivity:-

i. **Labour Productivity-** refers to the number of units produced per worker

   Labour Productivity= total units produced/ total workers involved

ii) **Capital Productivity-** units of output produced per unit of capital resources employed.

Capital productivity= total output produced/ capital employed

ILLUSTRATION

FIRM	ITEMS	UNITS PER MONTH	CAPITAL EMPLOYED	NO OF EMPLOYEES	TOTAL WAGES
A	Chairs produced	1000	$500	100	$300
B	Shirts produced	500	$200	25	$250
C	cakes	300	$200	20	$200

Calculate

(i) Firm A's - Capital productivity
- Labour productivity

(ii) Which firm is more efficient in terms of the utilisation of labour.

METHODS TO IMPROVE PRODUCTIVITY

a) **Improve the training of staff to raise skills level**:- employees with relevant skills are more productive
b) **Improve worker motivation-** use financial and non-financial motivators to encourage employees to work extra harder.
c) **Purchase more technologically advanced equipment-** the firm can introduce new machinery and latest production systems i.e robot-controlled production systems.
d) **More efficient management-** good leadership improves the overall efficiency of the business

Differences between efficiency and effectiveness in business operations
EFFICIENCY
-it is defined as doing the right thing. It involves the production of output at the highest ratio of output to input. Efficiency is measured by the productivity of the factors of production. E.g total output / units of inputs

EFFECTIVENESS
-is defined as doing the thing right. It involves meeting business objectives by using inputs appropriately to meet customer needs. Efficiency is one part of effectiveness. For any business the relationship between efficiency and effectiveness depends on the market segment it is aiming at e.g volume, exclusive designer range etc

Differences between Labour intensive and Capital intensive method of production

Labour intensive	Capital intensive
• Costs of labour are a higher proportion of total costs than costs of capital • E.g hand worked farm	• Costs of capital are a higher proportion of total costs than costs of labour • E.g an oil refinery
Benefits	**Benefits**
• Can produce one-off unique products • Well suited to deliver personal services • Lower productions costs especially when labour is cheaper in that area • Low start-up costs • Relatively easy to vary labour force (recruit/ retrench)	• Mass production requires large scale output using repeated task. Machine can deliver this much more quickly than labour • Enables the business to enjoy economies of scale • Increased labour productivity • Skills level may be lower so costs are less and it is easier to recruit employees.
Limitations	**Limitations**
• Cannot produce large-scale output quickly • Limited economies of scale • Employees can disrupt production easily due to industrial action or absence • Legal constrains may make it difficult to vary labour force • Training costs may be very high	• Difficult to produce a range of varied one-off products • Difficult to deliver personal services • High start-up costs. Cost of capital may be too high for a business to buy machinery • Machine break down can be a big challenge to the business • Employees using machines can be bored

Factors that could influence a decision to change to more capital intensive production methods.

– Relative prices of the two inputs may change – labour costs significantly increase.
– Cost of capital machinery may reduce.
– Technological development may allow production process (or parts of it) to be mechanised.
– Competitors may force a business into capital intensive approach.
– Business may become large enough/profitable enough to purchase capital machinery.

BENEFITS OF OPERATIONS MANAGEMENT

Operations management is concerned with orchestrating all resources to produce a final product or service and as such it is constantly seeking to make the transformation process of inputs into outputs more efficient.

- reducing costs.
- reducing wastage.
- increasing productivity.
- taking out activities that do not add value.
- improving design.
- improving quality.
- designing more efficient work methods.
- better product development.
- more efficient inventory management.

4.2 OPERATIONS PLANNING

OPERATIONS DECISIONS
-decisions taken by operations manager can have a significant impact on the success of business. These decisions are often influenced by marketing factors, availability of resources and technology.

a) **Marketing Factors-** there is a link between operations department and marketing department. Operations manager requires information pertaining to estimated market demand when planning future production levels. Thus the operations manager will try to match supply to potential demand (operations planning)
NB-operations planning involves preparing input resources to supply products to meet expected demand

Important elements of operations planning
-reducing wastages
-producing the range of product that are forecast to be demanded
-employ and keep an appropriate number of staff
-keep sufficient inventory

b) **The availability of Resources-** the production department use resources to produce goods and services. These resources include land, labour, capital equipment and raw materials. Thus the availability of raw materials or lack of them can influence a number of important operations decisions. The business must decide on the best location, nature of the production method (robot-controlled equipment)

c) **Technology-** the provision of services and also the manufacturing of goods has changed. Firms now use digital technology and there two main forms i.e **CAD** and **CAM**

COMPUTER-AIDED DESIGN (CAD)
-involves the use of computer programs to create 2 or 3 dimensional graphical representations of physical objects. It is most used in architectural designs and on computer animations. It can provide special effects on movies and advertising.
-**CAD** is also used in furniture manufacturing and the software is used to calculate the optimal size or shape of the product. Engineering department also uses **CAD** to analyse the components of various structures.

BENEFITS OF CAD
- Lower product development costs
- Increased productivity
- Improved product quality
- Good visualisation of the final product and its constituent parts
- Errors are minimised i.e it is more accurate

LIMITATIONS OF CAD
- Complexity of programs
- Need for extensive employee training
- It is more expensive i.e computer software used are very expensive
- Computer programs can be affected by virus

COMPUTER-AIDED MANUFACTURING (CAM)
-involves the use of computer software to control machine tools and related machinery in the manufacturing of components or complete products. Processes in a **CAM** process are controlled by

computers. Thus a high degree of precision and consistency can be achieved than a machine controlled by men.

BENEFITS OF CAM

- ✓ Quality products are produced
- ✓ Faster production and increased labour productivity
- ✓ **CAM** can be combined with **CAD** to produce a wide range of products
- ✓ More flexible production allowing quick changeover from one product to another

LIMITATIONS OF CAM

- ✓ High costs of hardware, programs and employee training
- ✓ Hardware failure can be time-consuming to solve
- ✓ Computer system can be easily affected by virus
- ✓ Small firms cannot afford it

FLEXIBILITY AND INNOVATION IN PRODUCTION

a) **Operational Flexibility-** refers to the ability of a business to vary both the level of production and the range of products following changes in customer demand. The level of demand is not constant, it may increase or decrease. Thus the business must be able to respond quickly to changes in demand.

Way to achieve operational flexibility

- Buy more equipment
- Construct or buy new buildings
- Maintain the efficient stock levels
- Employ part-time or temporary labour force

b) **Process Innovation-:** refers to the use of a new or much improved production method or service delivery method

Elements of process innovation

- Use of robots in manufacturing
- Faster machines to manufacture microchips for computers
- Use of bar codes and scanner for tracking inventory
- Use of internet to track the exact location of parcels being delivered worldwide and improve the speed of delivery.

Benefits of process innovation

- Being able to get more accurate and reliable information on the performance of various departments
- Being able to save time i.e less paper work is involved
- Increased professionalism and image to suppliers and customers
- Increased productivity
- Reduction of costs in the long run i.e in the short-run the costs of acquisition are high
- Cheaper production methods makes the business more competitive

NB: Process innovation involves the use of automation/ robotics. **Automation**- refers to the use of electronics and machinery to control a production system. **Robotics** refers to the use of robots/ machinery that resembles a human being in the operations it can perform in a production system.

PRODUCTION METHODS (OPERATION METHODS)

Each firm must carry out production designing. Production design refers to the scheduling of production which involves organising the activities in a manufacturing plant or service industry to ensure that the product or service is completed at the expected time. There are four basic ways of production design namely job, batch, flow production and mass customisation.

The method chosen will depend on the following factors:-

a) Nature of product- unique products require jobbing, group of identical products require batch and identical products requires flow production
b) Size of business- small businesses use jobbing and batch while large firms use flow. This is because flow production is expensive to set up.
c) Size and location of the market- the firm must take into cognizance the volume of output required. If the demand is high but not in large quantities, batch is used. Mass marketing requires flow production.
d) Demand of the product- less frequent demand requires jobbing while larger and fairly steady demand requires flow production.

JOB PRODUCTION

Used when a single product or small orders are completed by one/ a group of people from start to finish to meet the customer's individual requirements. Thus the products are customised (produced according to the customer's specifications)

Each order is different and it may not be repeated at all. It is usually used by small and new firms to make products like wedding cakes, wedding gowns, building plan etc

It is the most expensive form of production, very labour intensive (requires few machines) and requires highly multi-skilled labour.

ADVANTAGES

- Product can be tailored to meet customer needs
- It is suitable for personal services e.g hair cuts
- The workforce has greater involvement with the product. This increase job satisfaction.
- The product meets the exact requirements of the customer. This result in guaranteed customer satisfaction.
- Use of skilled staff results in the production of quality products
- High employee motivation. This is because there is no monotony since each task is different from others

DISADVANTAGES

- Need a highly skilled workforce, competent supervisors and management. Specialists are costly to attract and to keep at a business
- Production takes long. This is because there is no automation or use of complex machines. It is usually done manually.
- Special materials are required leading to high cost of production. Only quality material is required.
- Products are specially made to order and any error is very expensive.

BATCH PRODUCTION

-a method of production where items are made in groups with similar characteristics. Each item in a group of products passes through a stage of production at the same time.

- it is the production of a limited number of identical products to meet customer order or specifications and each order is called a batch.

-It falls between job and flow production. It is commonly used by bakeries, furniture manufacturers etc

ADVANTAGES

- It gives variety to workers' jobs. This is because workers work on different batches that may require different skills. This removes boredom from work
- It allows more variety to be produced. This will increase consumer choice
- Materials can be bought in bulk. This will give bulk discounts to the business
- Unit cost is lower than Jobbing. Producing more goods reduces average cost of production
- Production can be easily changed from one product to another

DISADVANTAGES

- No product will be completed before another, lead time
- Increase in costs since there is need for a very efficient control system in planning production
- Warehouse space will be needed for stock of raw materials and components.
- Machines have to be reset between production batches. This will result in delayed production and output is lost

FLOW PRODUCTION

-It is also known as mass/ continuous/ serial or repetitive production.

-It is the production of large quantities of a product in a continuous process. The products produced are identical or standardised

-It uses a series of repetitive processes so that each item moves on to the next stage as soon as a process is completed. Products pass along a conveyor belt or assembly line. It requires a high degree of standardisation and specialisation

-It is more capital intensive- it requires more machines, robots and automation than people. It is also very expansive to start because of the need to buy expensive machines and automation.

-The following products are produced using flow or mass production: chemicals, fuels, packaged food products, cars, televisions etc

ADVANTAGES

- Automation allows goods to be produced quickly
- Mass production enables the business to enjoy the economies of scale which leads to lower prices
- Automated production lines can operate 24 hours a day and 7 days a week

- Time is saved since goods move on conveyor belts
- Promotes specialisation. Repetition of the same task makes the employee more skilled
- Materials can be bought in bulk. This will give bulk discounts to the business

DISADVANTAGES

- If one machine breaks down, the whole production line will have to be halted
- It is very costly. This is because machines and automation are very expensive to buy
- Repetition of the same task can be boring to the worker
- It is not flexible. Once production lines are set it is difficult to switch to other methods
- High warehousing costs since the mass produced goods must be stored before delivery to consumers
- Use of machines puts people out of their jobs
- Only suitable for products with a large market and high demand

MASS CUSTOMISATION

-It's a flexible mass production system enabling customers to specify what features of a product/ service they want. This process combines the latest technology with multi-skilled labour force to use production lines to make a range of varied products. This allows the business to move away from the mass- marketing approach with high output of identical products. The businesses will now use focused or differentiated marketing which allows for higher added value. Few changes to the products are made using flexible computer aided production systems to produce items to meet individual customers' requirements at mass production cost levels

ADVANTAGES

- Accurate records are kept. This is because of the use of computers to keep records
- Greater job satisfaction as boring and routine tasks are now being done by computers
- New products are produced as new methods of production are introduced
- Better quality products are produced due to better production methods

DISADVANTAGES

- It is very expensive to set up. Computers, robots and machine are very expensive
- Technology will become out-dated. Technology keeps on changing
- Employees may need to be retrained to use the new technology. This adds to business costs
- Increased unemployment as workers will be replaced with machines

Problems of changing operations methods

Setting up an operation method takes time, planning and capital. To change from one method to another would mean taking apart the machinery and equipment and redesigning the whole production system. It would also mean that it might be necessary to redesign the product. It would be extremely difficult and very expensive to produce some batch produced products by flow production

BUSINESS LOCATION

Business have to make the important decision of the best place to locate in order to operate well. The location of the business can affect its costs, its demand, its image and its ability to attract employees to work for it. Thus location choices should not be taken lightly and will involve decisions at the most senior level. Influence on the final location depends on the type of business, size, demands of the production process and the market.

FACTORS AFFECTING CHOICE OF LOCATION

a) **Market :-** a factory must be closer to its customers to reduce transport costs. Perishable goods must reach the market as fast as possible. Heavy products must also be manufactured near customers
b) **Raw materials and Components :-** if the raw materials are heavier to transport than the final product, the firm must locate near raw material source to reduce transport cost. E.g sugar cane is heavier than the manufactured sugar. Where mineral is processed from ore, the ore is much heavier than the final product.
c) **Availability of Labour :-** Workers operate machine and do all of the management and manual work. If a process requires skilled labour, it is best to locate near people with the required skills. If the manufacturing requires more unskilled labour, it is best to locate where there is high unemployment
d) **Infrastructure and communication :-** business need to be located near to transport system such as roads, rail, inland water ways, sea-ports and air-ports. Good transport system enables the business to be easily accessible by suppliers and customers
e) **Power and Water supply :-** uninterrupted supplies of water and electricity can be a competitive advantage to some industries where power and water are critical inputs e.g steel manufacturing
f) **Government Influence :-** Land is allocated to businesses by the government. It may also offer grants to businesses to encourage them to locate in certain areas. On the other hand, the government can also refuse businesses to locate in a certain area or may put restriction in certain areas. Governments have planning regulations which determine where to build and what to build.
g) **The costs of a particular location relative to other options :-** the cost of land, for example, will vary from area to area. The cost of land in major towns is very high than in small towns. Thus locating in small towns can be a better option for small firms.

BENEFITS OF THE BEST (OPTIMAL) LOCATION

- Lower costs- decrease in transport costs leads to higher profits
- Improves the firm's competitiveness- being closer to customers may boost sales and profits since the firm is able to sale at lower prices
- Overcoming trade barriers- to overcome trade restriction a firm may locate itself in a particular country rather than exporting goods to that country.
- Attracting suitable job candidates- the firm will have access to the right job candidates at the right time.
- Lower taxes- by locating itself in the designated areas, the firm may be exempted from paying taxes or pay taxes at concessionary rates

BUSINESS RELOCATION

Relocation can be defined as a change in the physical location of a business OR the movement of a business from one area/region to another. Relocation can occur within or between countries

Reasons why a business may want to change its location

- Infrastructural development in other locations

- Cheaper labour costs in other locations
- Changing objectives and strategies of the business
- Changing of location of suppliers or customers
- Change in government policies

Relocation costs

Changing location may involve costs such as:

- Finding and training new employees
- Finding new customers and suppliers
- Administrative costs of the change
- Redundancy payments
- Adjusting to the new set-up

Industrial Inertia: occurs when a business stays in its current location even though the factors that led to its original location no longer apply. The costs of moving will be exceeding the costs of staying. Large-scale industries like iron and steel production often display industrial inertia.

THE OPPORTUNITIES AND PROBLEMS OF ENTERING NEW MARKETS ABROAD

Opportunities of entering new markets abroad

a) **Sales growth-** new markets increases a firm's sales. This may boost company sales revenue as new customers are buying the product
b) **Increased profits-** The new markets abroad may result in more profits to the business. Increased sales volumes mean more profits to the business
c) **Improved business image-** a good image locally and internationally may result because the business is selling in foreign and competitive markets, the business products will be seen as of high quality
d) **Earn foreign currency-** foreign currency obtained can be used to acquire new machinery in foreign countries

Problems of entering foreign markets

a) **Cultural differences-** different countries have different cultures. The firm needs to understand the culture of the country they intent to enter for them to be successful.
b) **Lack of knowledge-** the business may lack marketing knowledge of the new country or market e.g consumer preferences, goods offered by competitors, advertising methods and distribution methods
c) **Lack of foreign currency-** the business may not have sufficient foreign currency to pay for workers, taxes, rentals and advertising

How to overcome such challenges

a) **Form joint ventures**- the business can join with an existing local business. The business will have knowledge from the local business who understands the local market.
b) **Use local agents and local dealers**- the business can engage local dealers to distribute and market the goods for business. The local agents have local marketing information and they know the best methods to distribute the goods

c) **Primary and Secondary research**- essential information about the products, customers, markets is obtained through conducting market research.

ECONOMIES AND DISECONOMIES OF SCALE

-businesses can expand by employing more of a few or all of the factors of production.

-scale of production is changed when all the factors of production are changed.

-Large scale operation leads to a fall in the average total cost (cost per unit). On the other hand, when the organisation continues to grow beyond a certain optimal level, unit cost may begin to increase

-Thus large scale operations may result in a decrease (economies of scale) or increase (diseconomies of scale) in the unit cost

ECONOMIES OF SCALE

-refers to the cost saving advantages that a business can exploit by expanding their scale of production. Thus making things cheaper because they are bigger. The effect is to reduce the long run average cost of production over a range of output.

-economies are divided into internal and external economies of scale

INTERNAL ECONOMIES OF SCALE

-internal economies of scale arises from the growth of the firm itself. Thus the average cost will decrease as the firm employees more capital and labour

SOURCES OF INTERNAL ECONOMIES OF SCALE

a)Purchasing Economies of Scale

Large firms receive discounts when they buy raw materials in bulk. Thus the cost of acquiring raw materials will decrease leading to a fall in the unit cost/ average cost. A 5% trade discount will lead to a 5% decrease in the cost of production and the cost per unit

b)Marketing Economies of Scale

A large firm can spread its advertising and marketing budget over a large output. Advertising is charged per total time on airplay (TV/ Radio) or space (Newspaper) not on the size of the business. As the firm grows in size, the average marketing cost will decrease

c)Financial Economies of Scale

Large businesses may be able to access finance at lower interest rates because of the growth of the business. Large businesses are usually rated by the financial markets to be more 'credit worth' and have access to credit facilities with favourable rates of borrowing

d)Managerial Economies of Scale

Large scale manufacturers can afford to employ skilled workers to supervise and to carry out production. Effective leadership can also lead to an improvement in worker motivation. Skilled workers will also help reduce wastages. Employees also become experts due to the length of experience in a market and the cost per unit will decrease

e)Technical Economies of Scale

Large scale businesses can afford to invest in very expensive and specialist capital machinery. For example, a National Chain Supermarket can invest in technology that improves stock control and helps to control costs. It would not be viable or cost efficient for a small corner shop to buy this technology.

<u>The LAW of increased dimensions</u> –this is linked to the cubic law where doubling the height and width of a tanker or building leads to a more than proportionate increase in the cubic capacity. It is an important aspect in the distribution and transport industries

f)Risk Bearing Economies of Scale

A large firm is able to provide a wide range of products in different markets. This lowers the risk of putting all eggs in one basket. McDonalds hamburgers and French fries share the use of food storage and preparation facilities.

EXTERNAL ECONOMIES OF SCALE

External economies of scale exist when the long term expansion of an industry leads to the development of ancillary (something additional) services which benefit all or some of the businesses in the industry. External economies partly explain the tendency for firms to cluster geographically.

SOURCES OF EXTERNAL ECONOMIES OF SCALE

a)Supply of raw materials- as the industry grows, suppliers of raw materials will be willing to locate themselves close to the manufacturers. This will reduce transport costs to the manufacturers in a given industry.

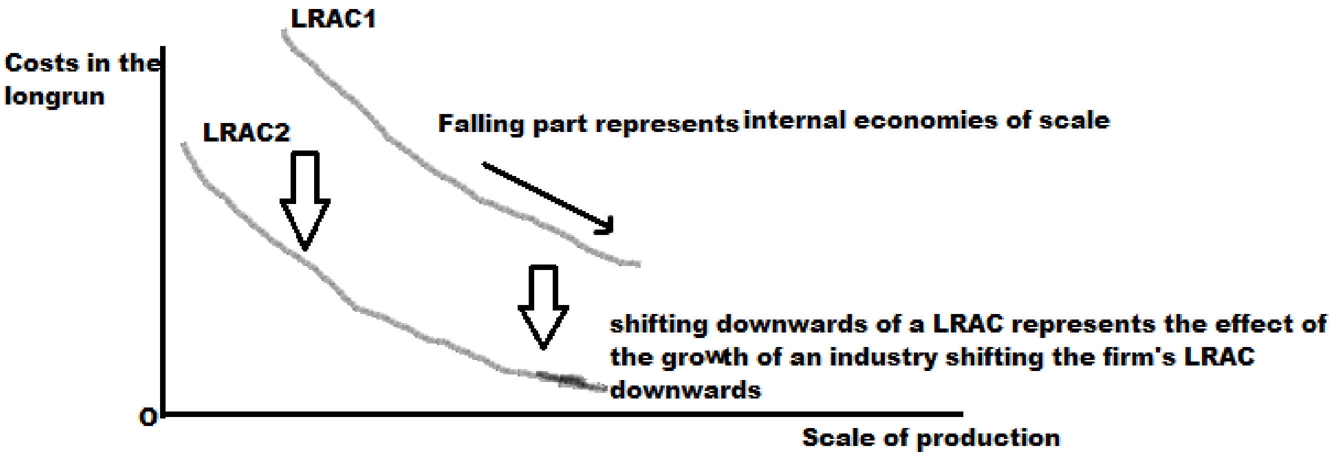
b)Better transport network- as the industry grows, there will be massive infrastructural development in the area. The development of transport networks cut costs and also saves time.

c)Research and Development Facilities- businesses can benefit from researches done by local universities

d)Economies of information- business in the same industry may share vital information about the market or about the economy in general. This reduces the cost of acquiring information to a single business.

e)Trade Magazines- enables all firms in an industry to advertise and disseminate information cheaply.

Diagram : Internal and External Economies of scale



DISECONOMIES OF SCALE

Diseconomies of scale leads to a rise in the long run average cost. Average cost rises due to firms expanding beyond their optimum scale (Optimum-right size)

SOURCES OF INTERNAL DISECONOMIES OF SCALE

a)Managerial Diseconomies of Scale- monitoring the productivity and quality of output from thousands of employees in big corporations is imperfect and costly.

b)Administrative Diseconomies of Scale- these are associated with the bureaucratic structures of large firms where long channels of communication and complex administrative procedures delay effective action. Instructions from the top management may be partly or completely distorted if they are to follow a long channel of communication down the organogram.

c)Over-specialisation- workers in large firms my feels a sense of alienation and subsequent loss of morale. If they do not consider themselves to be an integral part of the business, their productivity may fall leading to wastage of factor inputs and higher costs.

EXTERNAL DISECONOMIES OF SCALE

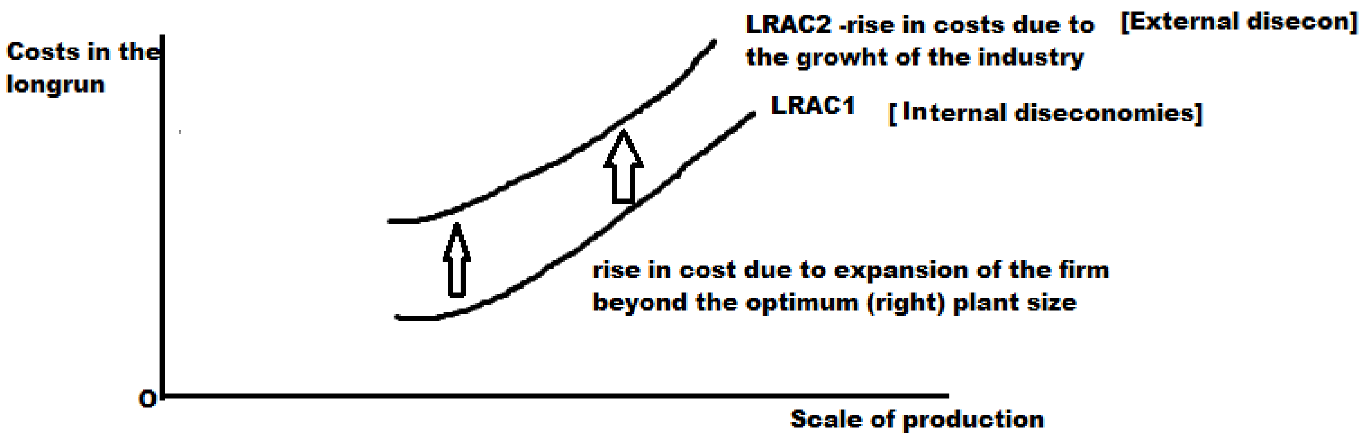
-refers to a rise in the average costs which is independent of the firm's output. They arise due to the growth of the whole industry. These occur when too many firms have located in one area.

SOURCES OF EXTERNAL DISECONOMIES OF SCALE

a) **Shortage of Labour**- as the industry grows, shortage .of labour may crop up. Firms have to bid wages higher to attract and retain new workers As the wage rises due to labour shortages, the cost of production to all firms in an industry will increase.
b) **Formation of Trade Unions**- growth of an industry may lead to the formation of industrial unions. Such Trade unions may ask for higher wages for their members which then increases the production costs.
c) **Pressure on Raw materials**- increased demand on raw materials and other components may lead to a rise in the unit cost. Geographical concentration of firms in an area may lead to a rise in the rentals, interest rates.

d) **Disposal of Waste material becomes costly**- when the industry grows, dumping sites will be shifted to the peripheries of a town or business centre. Firms can also be forced to acquire more advanced equipment to reduce and dispose waste. The government can also increase pollution taxes as the industry grows

Diagram: Internal and External Diseconomies of Scale



4.3 INVENTORY MANAGEMENT

STOCK MANAGEMENT

-it also kwon as stock control. Stock management occurs when the purchasing department aims to minimise cost of stock by maintaining adequate levels of stock. Thus the purchasing department must obtain the right quality at the right time in the right quantity, from the right source at the right price.

Reasons for holding stock (or purpose of stock control)

- Stock of raw materials is kept in order to meet production requirement
- Stock of work-in-progress is maintained in order to continue the production process and allowing greater flexibility and better utilisation of time and machinery.
- Stocks of finished goods are maintained in order to meet customers' demand on time
- Stocks of equipment and spares are kept in order to support sales and production
- To control cash tied up in stocks
- To control wastage and pilferage (stealing of small items/amounts at a time)

TYPES OF INVENTORY

1) **Raw materials-:** the basic materials from which a product is made and they are usually bought from outside.
2) **Work-in-progress-:** unfinished project that is still being added to or developed or partially completed goods
3) **Finished products-:** goods that have completed the manufacturing process

COSTS OF HOLDING HIGH LEVEL STOCK

- Opportunity cost as capital is tied up in stored stocks
- Storage costs will increase
- Increase in spoilage
- Rise in administrative and finance costs e.g insurance
- Wastage of resources in a period of lower demand in the market
- Risk of theft

COSTS OF HOLDING INADQUATE / LOW LEVEL OF STOCK

- Lost sales which are known as out-of-sale costs
- Idle production resources i.e the machines will be operating below capacity
- Ordering costs will increase since the firm places more number of orders in a given period
- The advantage of bulk buying cannot be achieved

BENEFITS OF HOLDING HIGH LEVEL STOCK
- The firm can enjoy the benefit of bulk buying
- There is production flexibility since the business will be having enough stock at any given time
- Machine and factory plant will be operating at full capacity at all times
- Enough stock will be available to support production and sales

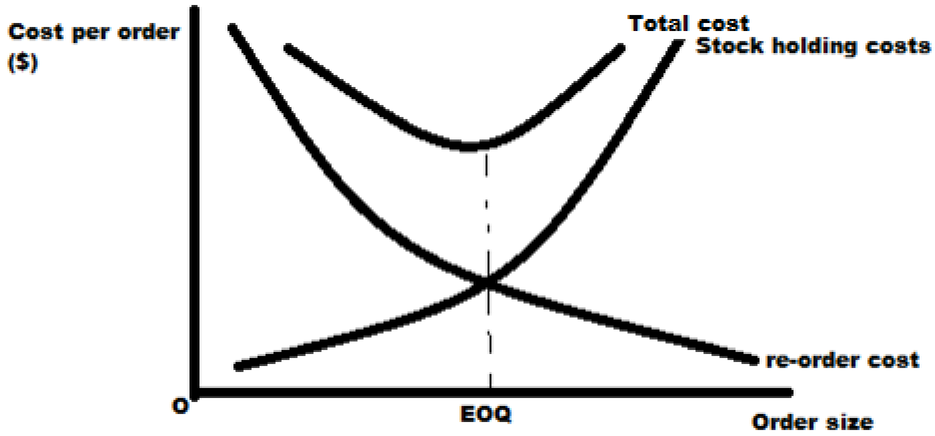
BENEFITS OF HOLDING LOW LEVEL STOCK
- Storage costs are reduced
- Insurance costs are minimised
- Capital is not unnecessarily held or kept in stocks
- Minimum wastages in a period of reduced demand
- Risk of theft and spoilage is reduced

MANAGING INVENTORY
-involves the stock control techniques

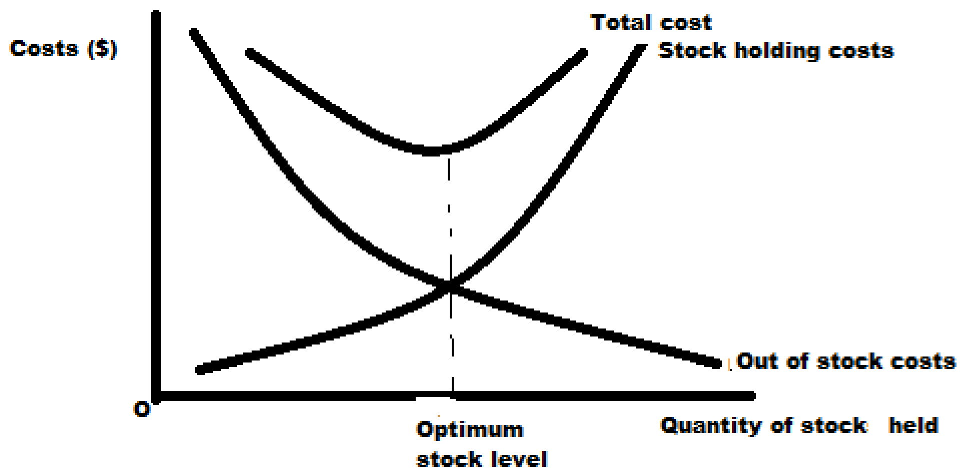
a)BUFFER STOCK
-refers to the reserves of stock kept to cater for eventual stock out or uncertainties. To avoid the risk of running out of stock, the business must have reserved stock
-this technique is used to avoid stock out costs which are:-
- ✓ Lost production
- ✓ Lost contribution from lost sales
- ✓ Loss of customer good will
- ✓ High unit costs associated with urgent purchases
- ✓ Loss of bulk buying discounts

b)RE-ORDER LEVEL
-refers to the level of stock at which a new order is placed with the supplier. The quantity of this order or the re-order quantity will be influenced by the economic order quantity (EOQ)
-EOQ refers to the quantity of materials ordered at cash point to minimise the total annual stocking costs or the least cost quantity of stock to re-order taking into account delivery costs and stock holding costs.

-EOQ depends on -: -interest on capital
-storage costs
-wastage costs
-insurance costs

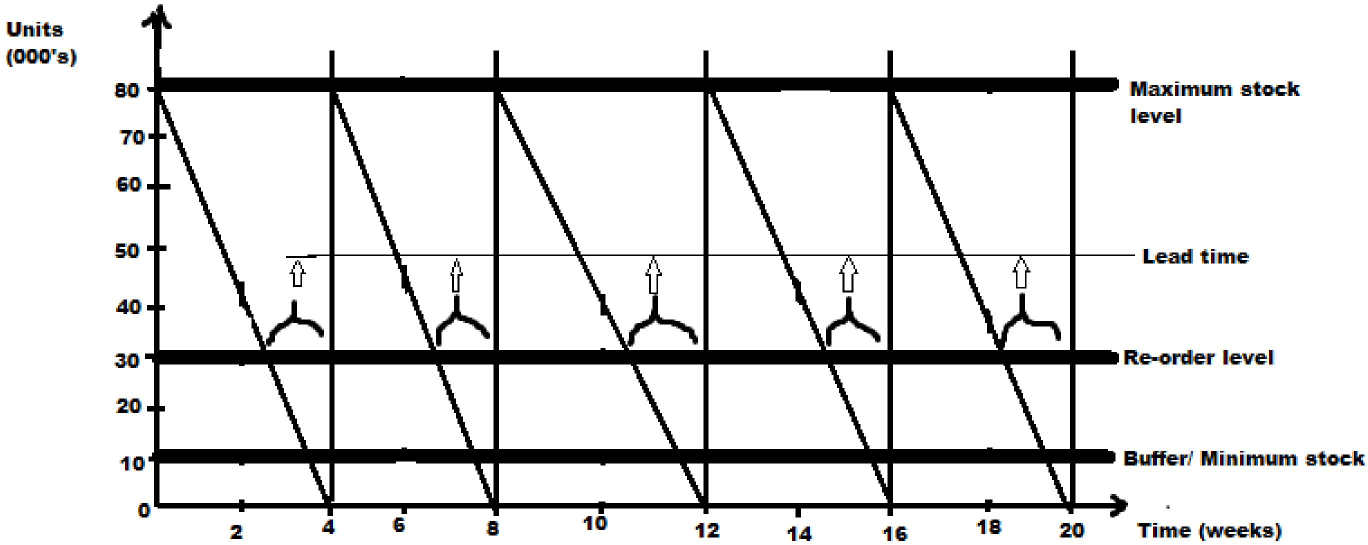


c)OPTIMUM STOCK LEVEL TO BE HELD
-refers to the right quality and quantity of stocks to be kept at the business to promote the smooth running of production.



- TOTAL STOCK COSTS= stock holding costs + out of stock costs

d).INVENTORY CHATRS- is a tool used to control stock



MAXIMUM STOCK- refers to the highest amount of stock kept and it is limited by space and the financial costs of holding higher levels

- Maximum stock = EOQ + Buffer Stock

MINIMUM STOCK- is also known as buffer stock. This is the minimum number of stock that should be held to ensure that production still continue in case of delay in the delivery of raw materials
RE-ORDER LEVEL- this is the level of stock at which a new order is placed with the supplier. The quantity of the new order will be influenced by the EOQ

LEAD TIME- it is the amount of time it takes for a stock purchased to be received, inspected and made ready for use. If more time is required between ordering new stocks and their delivery then a higher minimum stock is needed

f).JUST-IN-TIME
-it is a stock control system in which material is scheduled to arrive exactly when it is needed for production and in the exact quantity. Raw materials are reduced to zero and finished goods inventories are minimised by matching production to demand. Thus JIT does not require any Buffer Stocks to be held. The components arrive just at the time that they are needed and the finished goods are delivered to customers as soon as they are completed
NB- JIT is basically a Japanese approach towards production

Requirements for JIT Production
i).Employee Flexibility- employees of the firm should be multi-skilled and should be able to switch jobs quickly so that excess stocks of raw materials won't build up.

ii)Flexibility of Machinery- modern, computerised machinery is required for JIT production as it can produce a wide range of products just by changing a single software
iii)Excellent relationships with suppliers- it should be possible for suppliers to be able to supply raw materials at short notice.

iv)Accurate demand forecast- this will enable the business to produce a reliable production schedule which would help in the calculation of precise number of goods to be produced over a certain time

v)Extensive use of IT- computerised records of sales and stock levels would allow minimum stocks to be held. Electronic communication with suppliers would enable accurate delivery of supplies

vi)Strict quality control/ zero defect- since there are no spare stocks, therefore goods have to be produced correctly the first time otherwise customer orders will not be completed on time.

BENEFITS OF JIT

- ✓ The right quantities are produced or purchased at the right time
- ✓ Improvements on product quality
- ✓ Improved customer service
- ✓ Reduction in storage costs
- ✓ Less chance of stock being out-dated or obsolescent
- ✓ Less stock reduce the risk of damage and wastage
- ✓ Higher profits due to overall decrease in costs

DISADVANTAGES OF JIT

- ✓ It is associated with high start-up cost
- ✓ Advantages of bulk buying are lost
- ✓ Delivery costs rises as frequent small orders are delivered
- ✓ Administration costs rises as so many small orders need to be processed
- ✓ Doesn't work when demand is unpredictable

Examination Questions

November 2013

4 (a) Distinguish between capital intensive production and labour intensive production.
[2]
(b) Briefly explain **two** factors that could influence a decision to change to more capital intensive production methods. [3]
4 (a) Define the term 'intellectual capital'. [2]
(b) Briefly explain how intellectual capital could increase the value of a business. [3]
6 Discuss the important factors that will need to be considered by a business in deciding where to locate a new adventure and amusement park.
[20]

June 2014

4 (a) Define the term 'operations management'. [2]
(b) Briefly explain how changes in technology could affect the operations management of a business. [3]
7 (a) Explain the differences between batch production and flow production methods. [8]
(b) Discuss the implications for a manufacturing business of changing from batch production to flow production.
[12]
4 (a) Define the term 'value added'. [2]
(b) Briefly explain **two** ways operations management could contribute to the success of a business. [3]
3 Explain factors that could affect the level of inventory held by a business. [5]

June 2015

2 (a) Define the term 'business relocation'. [2]

(b) Briefly explain **two** factors that could cause a business to relocate. [3]
4 (a) Define the term 'diseconomies of scale'. [2]
(b) Briefly explain **two** causes of managerial diseconomies of scale. [3]
2 (a) Define the term 'process innovation'. [2]
(b) Briefly explain **two** ways a manufacturing business could use process innovation to improve efficiency and effectiveness. [3]

November 2015

2 (a) Define the term 'buffer inventory'. [2]
(b) Briefly explain **two** reasons why inventories of finished goods need to be carefully managed. [3]
4 (a) Define the term 'intellectual capital'. [2]
(b) Briefly explain how the input of capital (including intellectual capital) can contribute to the effectiveness of business operations. [3]
2 (a) Define the term 'process innovation'. [2]
(b) Briefly explain **two** ways in which process innovation could improve the operational efficiency of a business. [3]

Specimen paper 2016

3 Explain the difference between efficiency and effectiveness in business operations. [5]
5 (a) Analyse the importance of inventory management to a retail business. [8]
(b) Discuss the factors which could influence the successful operation of Just-in-Time (JIT) inventory management.
[12]

March 2016

2 (a) Define 'productivity'. [2]
(b) Briefly explain **two** ways of improving manufacturing productivity in a business. [3]

June 2016

4 (a) Define 'inventory management'. [2]
(b) Briefly explain **two** reasons why a business might decide to hold a high level of inventory. [3]
3 Explain the costs and benefits to a business of a decision to hold low levels of inventory. [5]
3 Explain why efficiency is important to a manufacturing business. [5]

November 2016

5 (a) Analyse the benefits and limitations of a labour intensive production process for a business. [8]
(b) Discuss the importance of 'intellectual capital' for a university.
[12]
6 Discuss ways in which the operations management department of a car manufacturing company could help the business survive during an economic recession.
[20]
4 (a) Define 'transformation process' [2]
(b) Briefly explain two objectives of an operations management department [3]

March 2017

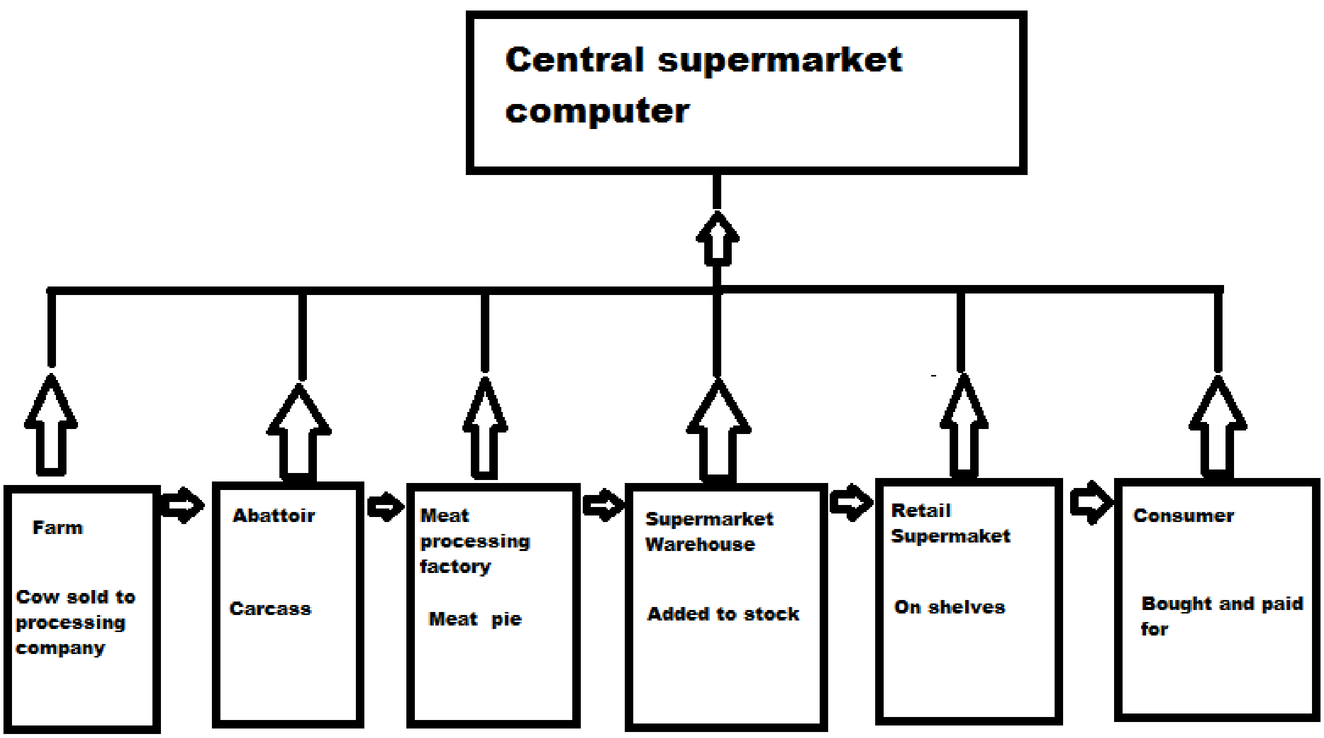
4 (a) Define the term 'economies of scale'. [2]
(b) Briefly explain **two** causes of **diseconomies** of scale. [3]

OPERATIONS AND PROJECT MANAGEMENT (AL)

4.2.1 Enterprise resource planning (ERP)

Refers to a software based system that integrates management information from all functions in a business into a single computer system that serves all those functional needs. Thus it is a method of integrating production systems so that product planning, manufacturing, marketing, inventory and delivery are all linked together in an automated integrated way. ERP involves the use of carefully designed computer software and other techniques to improve the efficiency of an organisation. It integrates management information from all functions in a business into a single system that serves all the functional needs. This enables a business to use one set of information (e.g sales requirement) and the ERP software then orders materials, arranges employees, set up machines, and notifies customers of delivery details. ERP tries to make information flow freely within the organisation and between it and outside stakeholders like customers, suppliers and government. Typically, ERP systems are supplied in modules which match functions like finance and marketing. These modules will replace standalone computer packages in these areas and all of them will access a central database so information can be shared. The modules allow different functions to maintain their own systems but now they will all be linked, so communications will be easier. Putting in more modules will increase the integration but will increase the costs, the amount of change and the risk of losing data in the transition

ERP in getting a meat pie to a customer



Benefits of ERP

- all employees will be able to find out at any time the progress of an order
- employees are able to know where the products are and what flows of money are involved (production management)
- all the departments have the same information
- helps to reduce organisational conflicts
- the business will know the details of the customers who buy their products (customer relations management)
- enables the business to easily obtain raw materials (supply chain management)

Limitations of ERP

- ERP systems are very expensive. The average cost of ERP system is $15 million.
- ERP cannot be used by small firms
- The method can be affected by computer system failure

How ERP can improve Efficiency

- ❖ **Inventory management:** inventory refers to the stocks a business holds. It can be raw materials, work in progress or finished goods. ERP enables all departments to know exactly what inventory is held, how much raw material is needed, how much unsold stock exist. This can be used to reduce stock holding costs so that efficiency is increased
- ❖ **Costing and pricing:** ERP enables the precise cost of each order to be calculated, so it is much easier to set a price that will yield a profit. Costs of employees, materials, production and fixed costs are built into an integrated system. ERP reduces the administrative cost of setting a price to the customer and therefore increases efficiency.
- ❖ **Capacity Utilisation:** refers to the proportion of full capacity being produced by the business.

  Capacity Utilisation = $\frac{\text{Current output} \times 100\%}{\text{Maximum output}}$

  Illustration: A school with 500 places for learners with only 400 learners at the school. Capacity utilisation is 80%

  In manufacturing businesses, it enables the business to know exactly what orders there are, what orders might be coming in, when the orders must be fulfilled and what materials are needed for them. Because all departments have this information, production can be planned to ensure that the equipment is being used as near to full capacity as possible as often as possible, with all the materials ordered and stocked to make this possible. All of this reduces the cost of production, so efficiency is increased.
- ❖ **Response to change:** ERP enables all departments (functional areas) to know what is happening in each of the areas. It will indicate changes in orders, employees profiles, prices of materials, hold-ups in production and financial shortfalls or surpluses. This means that the business is able to respond to changes quickly and with the best possible overall approach. Quick responses reduces the cost of identifying and reacting to change, so efficiency is increased.
- ❖ **Management Information:** ERP covers all the functional areas in a business so management will know at the time what is happening. This means that decisions can take account of all the functional areas and be

based on accurate up-to-date information. This ready availability of information reduces the cost of obtaining it so increasing efficiency

Examples of how ERP can improve efficiency

- Accurate sales and order information allows optimum amount of inventory
- Orders can be tracked by process and finance arrangements can be matched to supplies needed
- Everyone has the same financial information, not slightly different biased versions
- Real-time information is available to all so decisions-making is improved
- Security is improved as there is only one system that deals with all aspects of production.

What reasons are there for ensuring capacity utilisation does not go too high

- Machines break down and people make mistakes when they work as hard as they can and for long hours
- There will be no possibility of increasing output to meet any special orders
- Scheduling and planning may be difficult
- Employees, including managers, may feel under pressured and become demotivated

Problems of too much capacity?

- Increasing costs
- Increased wastages
- Leads to losses

Strategies taken by a firm when there is too much capacity

a)**Rationalisation:** organising resources and working methods in a better way so that the result is greater efficiency. This often involves reducing capacity by cutting overheads, for example by closing a factory or a production line. This will reduce costs and increase capacity utilisation but the business will have to make employees redundant.

b) **Make major changes to the production capacity to produce new products**. This could be very expensive and may take a long time.

c)**Explore new markets overseas**. It is sometimes the case that out-dated products in some countries may be acceptable in others.

Ways of improving capacity utilisation

a) Rationalisation

b) **Acquire more resources to expand capacity**. Make the production facility bigger. Invest in more plant, machinery and equipment

Advantages

- An opportunity to update equipment and procedures
- The firm may end up enjoying economies of scale
- Long term benefits

Disadvantages

- Can be expensive with large capital investment
- There will be too much capacity if demand subsequently fell
- May take time, and be disruptive. Customers may not want to wait.

c) **Subcontracting:** involves paying another business to undertake part of the functions required to produce a product or service. Thus production is transferred to other business that may have far more efficient production capacity, and so may be able to produce cheaper than in-house. An example is that a builder will pay an electrical business to install all the electrical cables and fittings in house.

Advantages of subcontracting

- No major capital investments
- Offers great flexibility in relation to future changes in demand
- Quicker solution than capital investments

Disadvantages of subcontracting

- Potential loss of control over quality and output
- Unit costs may increase as the subcontractor will want to make a profit
- Contact between the business and subcontracted firm can be terminated any time.

d) **Outsourcing:** using another business (third party) to undertake a part of the production process rather than doing it within the business using the firm's own employees. Outsourcing is a special type of subcontracting. Subcontracting involves the transfer of a task to another business while outsourcing involves the transfer of functions to another business.

Advantages of outsourcing

- It enables the business to focus on its core activities
- Offer more flexibility than expansion of facilities
- Greater scope for growth without high capital investments
- Possibility of reduced operating costs
- Third party may do the job better

Disadvantages of outsourcing

- Third parties may have access to sensitive information which may put the business at risk
- Quality may be more difficult to control
- May be uncertainty over delivery times and reliability of delivery
- Could be difficult and expensive to reverse the process if circumstances change
- Loss of jobs within the business

NB: Offshoring: occurs when the business relocates some of its functions overseas, usually to businesses in a country with cheaper labour.

Questions

1.Explain what enterprise resource planning(ERP) is ? [4]

2.Describe the advantages of ERP [6]

3.Describe the main advantages of ERP [6]

4.What type of business would ERP be most appropriate for [6]

5.Discuss the factors a medium-sized electrical goods manufacturer might take into account when deciding whether to introduce enterprise resource planning (ERP) [12]

6.Give three advantages of outsourcing the accounting functions of a small manufacturing business. [6]

LEAN PRODUCTION: is the use of resources as efficiently as possible to minimise waste and improve quality. It involves the introduction of new processes and technology to reduce waste and inefficiency in production. Lean production tries to reduce the time taken to develop a product and to make it available to consumers. Lean production also removes any activity which do not adds value to the product or service. A business achieves this by examining all of its activities and processes and finding ways in which to improve on the methods employed.

Lean production focuses on the following processes

- **Inventory control**: if there is too much stock more space will be used up hindering efficient production of other goods
- **Employee roles**: if they can be developed and improved the whole process can be more efficient
- **Defects**: any fault requires the goods to be fixed and time will be wasted inspecting the goods
- Utilisation of resources: resources should not be wasted
- **Time factor**: machines and workers must not be unnecessarily moved. Movement is a waste of time.
- **Capacity management**: capacity must not be underutilised or over utilised.

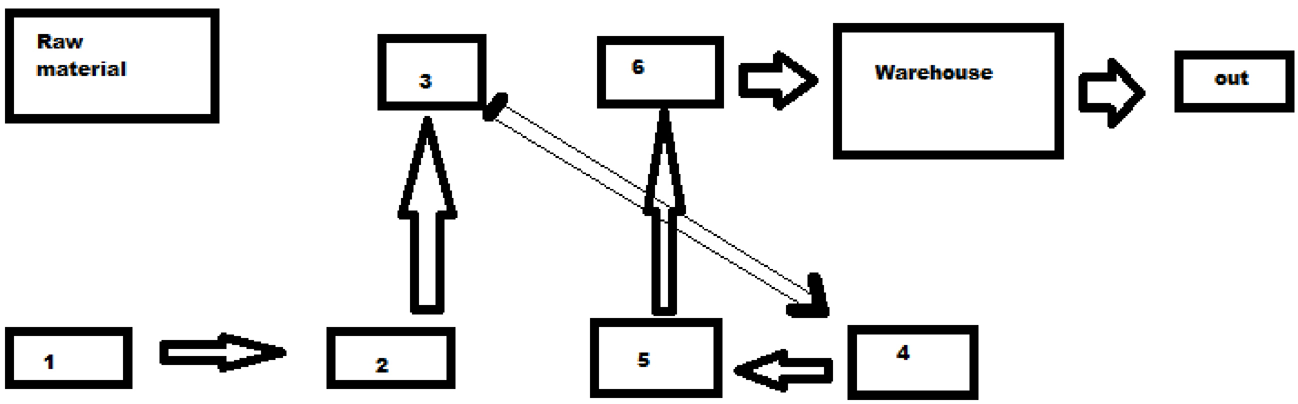
Advantages of Lean production

- Less storage costs of raw material, components and finished goods. The firm will only keep the required stock
- No defects or need for replacement. All goods produced will be defect free. This will increase customer satisfaction
- Less money is tied in inventory. Only few stocks will be held, hence only less money is kept in stock
- Time is saved. This is because unnecessary processes have been removed. All processes that do not add value are removed.
- Few accidents at work place. This result in improved worker health and safety. This is because of few movement in machinery and workers in the factory

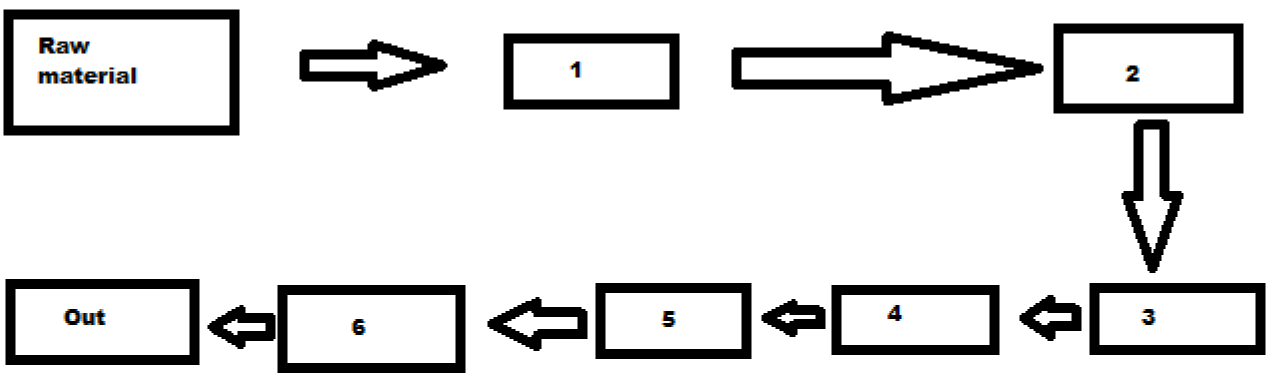
Lean Production Methods

Kaizen Effect: a Japanese word that means that a business should seek continuous improvements. The basic idea is that the employees of an organisation are the best people to know how a task should be undertaken. The Kaizen idea is that employees should be given the responsibility of working out how their jobs can be changed so that efficiency and quality can be improved. It is achieved through new processing ideas from workers. Small groups of workers meet regularly to discuss processing problems and possible solutions to the problems. Kaizen eliminates waste by removing unnecessary movement at the work place and by improving factory layout. This increase factory space and free employees from unnecessary jobs.

Before Kaizen



After Kaizen



Conditions for Kaizen to work at a business

- Employees must be empowered to make the necessary improvements
- Team working should be part of the organisation's culture
- Management or leadership style must promote democratic style
- All staff should be involved, no matter how seemingly insignificant their contribution.

Limitations of lean production

- Employees may require training which can be costly to the business
- The business may not be able to increase the supply of goods when demand increases in the near future
- Lean production can lead to job loses which can make the business unpopular
- Sometimes employees may be unwilling to take on responsibility. Employees may be resistant to change.

Summary: Lean production aims for:-

- ✓ **Zero delays**
- ✓ **Zero inventories**
- ✓ **Zero mistakes**
- ✓ **Zero waiting**

- ✓ **Zero accidents**

Just-in-Time (JIT) in the context of lean production

It is believed that stock control on its own can be inadequate and there can be waste, particularly money which could better employed elsewhere. JIT production involves managing the flow of raw materials, work-in-progress, finished products and production systems so that these items are available exactly when they are needed and not before. An effective lean production will minimise inventories and flows throughout the process by ensuring purchases, production and deliveries to customers have as much co-ordination of flows as possible.

Benefits of JIT production

- The business can save rent and insurance costs
- As inventory is only obtained when it is needed, less working capital is tied up in stock
- There is less likelihood of products becoming obsolete or out of date
- Avoids the build-up of unsold finished products that can occur with sudden changes in demand

Problems of JIT production

- There is little room for mistakes as minimal inventory is kept for reworking faulty product
- Production is very reliant on suppliers, and if deliveries are not on time the whole schedule can be delayed.
- There is no spare finished product available to meet unexpected orders because all products are made to meet actual orders.
- The firm is vulnerable to action taken by employees

Quality control and assurance

What is quality?

- Refers to fitness of a product or service for its purpose
- The ability of a product or service to meet customer expectations
- Quality does not mean producing a high quality product. Quality is meeting customer's expectations. Quality is determined by consumer expectation. Thus it is in the interests of all businesses to know the quality levels that customers expect and to have systems in place to minimise the risk of customers being dissatisfied with the quality that they receive. To achieve quality, managers must therefore set targets based on customer needs and then make sure that the targets are being achieved.

KEY CONCEPT 3: CUSTOMER FOCUS

Quality is about making products and services which are 'fit for purpose'. In essence this means meeting customers' minimum expectations.

Benefits of improved quality

- ✓ The product establishes a good brand image. Customers prefer to buy brands that are of high quality and this will increase sales
- ✓ It builds brand loyalty. Customers will be loyal to the company's products that they will not be willing to buy competitor's products
- ✓ Higher prices can be charged. Customers are willing to pay more for quality products. This may boost business profits.
- ✓ Less legal cases from customers. Satisfied customers will not sue the company.

- ✓ The business can benefit from positive publicity from its customers. Customers will only say good things about the company.
- ✓ Reduces the cost or reworking the product.

Possible costs involved in improving quality

- ✓ Market research must be done to establish customer expectations
- ✓ Inspection may be expensive in a quality control system
- ✓ Workers must be trained which may increase costs
- ✓ Production may need to be stopped to trace and correct faults

Three Elements of Quality

- ❖ Quality control
- ❖ Quality assurance
- ❖ Total Quality Management (TQM)

QUALITY CONTROL

A refers to a system for improving quality based on inspecting finished products to find any faults that exist and remove them. It involves inspecting (through testing and random sampling) of a product or service before it is provided to the customer. This is to ensure that the products produced are of quality and that the products are defect free.

Methods of Quality Control

Preventive Control: it is control maintained on the inputs to ensure that raw materials are defects free. All inputs are checked for quality before use. When the product is designed the designers should take into account the customers' quality requirements. Processes (such as manufacturing, providing a service) should be designed to achieve this level of quality.

Concurrent Control/Pro-active control: it is the monitoring of an on-going production process. Quality checking will be done while the process is running. Products are regularly inspected/ tested to see if quality standards have been meet.

Feedback Control/ Post action control: This is the checking of outputs for errors so that the next production process can be corrected. Faulty products/ service need to be corrected and design or processes adjusted to ensure that the problem is not repeated.

Limitations of Quality Control

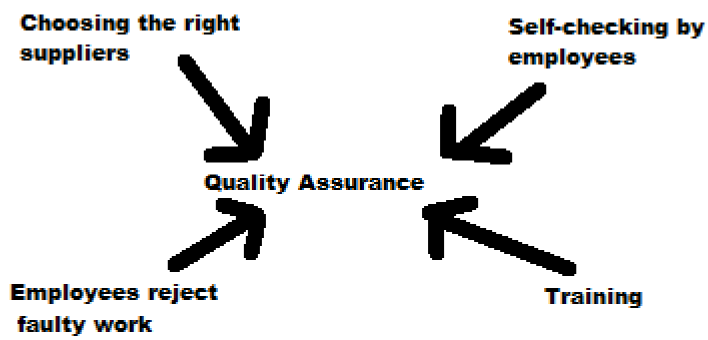
- It finds problems only after they have happened
- It is difficult to identify the process that will be causing problems
- Quality control process relies on the skills of those involved in the inspection process.

Quality Assurance

A system for making sure agreed standards are met at each stage of a process in order to ensure customer satisfaction. Thus, it is the checking of products or services to see if they meet minimum quality standards throughout the production process. Quality assurance put more emphasis on preventing mistakes. An important part of this approach is that employees check their own work rather than relying on someone else to check it for them at the end of the process. It stresses the need for employees to get it right first time. The purpose of quality assurance is to make sure that the customers are satisfied. This will increase sales, increase value addition and profits.

At General Motors, for example, employees are told, 'don't accept errors don't build errors and don't pass them on'.

Requirements for quality assurance



NB: Quality control focuses on the end result: quality assurance focuses on the processes to ensure that the end result meets an agreed standard.

Benefits of Quality assurance

- Problems should be identified before the end of the process thereby saving costs of putting things right
- There is little need for final inspection thus saving the costs of an inspectorate
- When there are problems it should be easier to trace back to where the fault is occurring in the processes, saving future costs or problems
- Improves accountability since employees are responsible for quality at every stage of production
- There are greater opportunities for employees to take pride in their work thus improving motivation
- The business can get industry or government awards which improves the reputation of the business

Total Quality Management

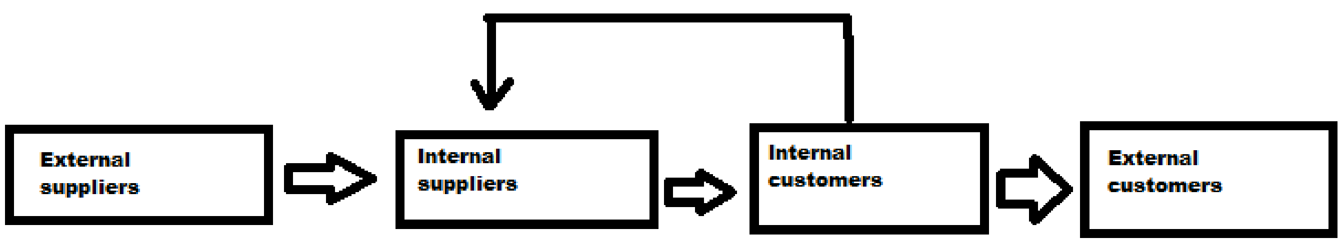
Refers to an approach to quality that aims to involve all employees in quality-improvement. It is the continuous improvement of a product through involving all workers in quality control focusing on quality at each production stage. TQM recognises that all employees are of equal importance, including the factory floor, the office staff, the cleaners, the maintenance staff and the delivery drivers. The way in which customers are dealt with when they ring up, the accuracy of invoices sent out and the reliability of the vans all have an impact on how customers view the firm. It is not just the people who directly make or provide the product who matter. TQM approach considers that employees should always aim to improve the quality of what they do. People should be committed to **zero defects** principle. Zero defect principle seeks to achieve perfect products every time.

SUMMARISED VERSION

TOTAL	based on participation of all people involved in a business, including employees on the lowest level of the business to top management
QUALITY	TQM aims to improve the quality of goods, services, systems and processes in a business
MANAGEMENT	The process of supervising or managing all activities needed to ensure a business produces goods and services of consistently high standard

Key aspects of TQM

Quality Chains: setting up a procedure so that parts of the procedure can be identified as 'internal customers'. Each stage of the process behaves as part of a supplier/ customer relationship.



Quality Circles: refers to groups of employees who meet regularly to discuss work-related issues and problems and to identify potential improvements. These groups are empowered to put their ideas into practice, making improvements at their stage in the quality chain. They usually meet to discuss ways in which they can improve the quality of their work and cut out waste.

Internal customer: businesses are set up as if each stage of a process is a new 'customer', providing checks and balances in the process. Thus the business must be aware of the fact that they have internal and external customers

- **Internal customers:** people within the organisation who depend upon the quality of work being done by others. Employees need to think of the requirements of all the people they produce work for and ensure they are providing exactly what is required.
- **External customers:** the people from outside the business who buy the product.

Elements of Total Quality Management

1. Top management commitment and involvement –'leadership through quality'
2. Customer involvement –"focus groups"
3. Design products for quality –"designing for robustness"
4. Design production processes for quality
5. Control production processes for quality
6. Developing supplier partnerships
7. Customer service, distribution and installation
8. Building teams of empowered employees –quality circles

9. Benchmarking and continuous improvement. Benchmarking is the practice of establishing internal standards of performance by looking at how world-class companies run their business.

Benefits of TQM

- Improved customer satisfaction
- Repeated sales due to brand loyalty
- High profits
- All a higher price to be charged
- The firm will gain a competitive advantage over its rivals
- It will be easy for the business to introduce new products in the future
- Avoiding heavy penalties when customers complain
- Cut on costs of remaking the product
- Promotes team work

Potential costs of TQM

- Training of staff which may be expensive
- Inspection costs may increase
- Stopping production to trace and correct quality problems will disrupt output
- Resistance to implement TQM from staff
- Market research to establish expected customer requirement needs to be done.

The potential of Kaizen in TQM

Although the origins of Kaizen are in improving production processes to achieve greater efficiency, it can clearly be applied to a product or service to focus on quality. Indeed the best uses of Kaizen will aim to improve both the process and quality at the same time. Kaizen is a Japanese word meaning continuous improvement. The Kaizen approach tries to get employees to improve what they do in some small way every day of every week of every year.

BERCHMARKING

Involves management identifying the best firms in the industry and then comparing the performance standards of these businesses with those of their own business. The business will investigate the product/ service or procedure. The product/service or procedure is then compared with other businesses in the same field of activity to identify 'best practice' i.e better methods than those currently used. Weaknesses can be identified, acted upon and new standards and procedures can be set.

Stages in the benchmarking process

1.Identify the aspects of the business to be benchmarked: ask customers and find out what they consider to be most important
2.Measure performance in these areas e.g reliability records; delivery records and possibly the number of customer complaints
3.Indentify the firm in an industry that are considered to be the best: get information from management consultants or government benchmarking schemes
4.Use comparative data from the best firms to establish the main weaknesses in the business: obtain data from published accounts; contacting suppliers or customers
5.Set standards for improvement: use or modify standards set by the best firm
6.Change process to achieve the standards set: introduce a new way of doing things

7.Re-measurement: The changes to the process need to be checked to see if the new, higher standards are being reached.

Benefits of benchmarking

- Encourages the generation of new ideas
- If workforce is involved in the comparison exercise, then employees may be motivated by their participation in the program
- It is a faster and cheaper way of solving problems
- Increased market share when the identified problems are solved

Limitations of Benchmarking

- It can be expensive when the firm fails to recover all the cost incurred in the comparison exercise
- The business is relying on copying ideas from other firms which then discourages innovation
- Benchmarking exercise may be misleading if the information obtained is not relevant or up-to-date.

Link between Quality and Training

Quality Control: employees will need to know how to select samples, what to do when samples are selected, and what to do when samples show up unacceptable errors. Training is required for the employees to be able to handle all these issues

Quality Assurance: employees will need to know the standards of assurance and the methods used to achieve the desired standards. They will also need to know how to react when standards do not meet assured levels.

Total Quality Management: a business will need to train employees so that they know how concepts like the internal customer and quality circles work. They need to understand and able to implement Kaizen. The culture of the organisation will need to change. For all of these methods, it will be essential for managers and employees to be trained effectively.

International Organisation for Standardisation (ISO)

The ISO is an international body that develops international standards that cover most areas of technology and business. A standard is a document that provides requirements and specifications against which processes, goods, services and materials are measured to ensure good quality

Examples of ISO standards

- ISO 9 000: quality management
- ISO 14 000 : environmental management
- ISO 22 000 : food safety management
- ISO 26 000 : Social responsibility

ISO 9000: This an internationally recognised certificate that acknowledge the existence of quality procedure that meet certain conditions

To obtain the ISO certificate the firm has to demonstrate that it has

- ✓ Staff training and appraisal methods

- ✓ Methods of checking on suppliers
- ✓ Quality standards on all areas of the business
- ✓ Procedures for dealing with defective products and quality failures
- ✓ After-sales service

Questions

1.a).What is meant by lean production [2]
b)Explain one benefit of lean production [3]
2.a)What is benchmarking [2]
b)Explain ONE advantage of benchmarking [3]
3.a)What is meant by quality [2]
b).Explain one cost of improving quality [3]
4.a)What is just-in-time production [2]
b)Explain one reason for adopting a just-in-time approach [3]
5.a)Define Kaizen? [2]
b)Explain one benefit of Kaizen to a business [3]
6.a)Explain why the involvement of employees is key to implementing Total Quality Management (TQM) [2]
b)Outline two features of cell production [3]
Answer: Occurs when the production is divided into stages undertaken by teams (cells).
7.Explain reasons why workers may resist Total Quality Management [5]
8.a)What is Total Quality Management? [2]
b)Explain One reason why staff may resist total quality management [3]
9.Explain the link between training and quality [3]

Essays

10.To what extent do you think Lean production guarantees the success of a business? [20]
11.To what extent is improving quality expensive [20]
12.Discuss the issues that should be considered by a small manufacturing firm specialising in quality dining tables before adopting lean production techniques [20]
13.Evaluate how a business that owns and operate ten hotels might attempt to ensure a high quality of customer service [20]

PROJECT MANAGEMENT

Refers to a discipline of planning, organising, securing and managing resources to achieve specific targets. It entails the use of modern management techniques to carry out and complete a project from start to finish in order to achieve pre-set targets of quality, time and cost. Very often these targets have been set in response to the need for the business to change. A project involves a sequence of activities that have a clearly defined beginning and end designed to achieve a desirable business outcome. On the other hand an activity is a clearly identifiable stage or task, in the completion of a project. A project usually involves individuals collaborating in a team to achieve a particular aim. Managing a project therefore involves managing a team of people to complete a task on time, to a given standard and within given budget constraints.

Examples of Projects

- Building a new factory
- Organising a staff training day
- Rationalising business operations
- Designing a new piece of computer software.

Project management skills required

- Good communications kills to communicate to people what is being done and what has to be done
- Good people skills to pick the right team and to keep the team working well together
- Good planning skills to establish what can be done by when and by whom
- Good management skills to review progress and keep project moving forward

Why do projects fail?

We know of buildings that took longer to build than planned, major construction projects that ended up costing far more than originally planned, new products that nobody wanted etc.

- legal changes which force new standards on a business
- changes to the economic environment, i.e. recession
- political changes in the government
- technological changes
- new competition in the market.
- Insufficient resources allocated
- Poor planning
- Lack of consultation with the customer
- Lack of effective management.
- Poor quality control

Impact of project failure

- Business may have to make penalty payments if the project is late
- Business may lose money if cost are higher than planned
- The business may have its reputation damaged and lose future customers
- The customer is dissatisfied and may, in turn, let down its customers
- Customers might face financial penalties.

Network Analysis

A planning tool that identifies all of the activities in a project and allows analysis of the project in terms of completion times and other key features. It is a method of organising the different activities involved in a particular process in order to find the most efficient means of completing the task. The main aim is to complete the project in as short a time as possible. To do this a firm will determine the exact order in which activities have to be undertaken and identify those which can be undertaken simultaneously to save time.

Important elements of network analysis

- Identify all the different tasks involved in the process
- Estimate the expected length of time each task will take
- Determine the order in which tasks must be completed.

Critical Path Analysis (or network analysis)

Refer to a planning technique that identifies all tasks in a project, puts them in the correct sequence and allows for identification of the critical path. CPA indicates the shortest possible time in which a project can be completed. Thus the critical path is the sequence of all the activities that must be completed to achieve this shortest time or the sequence of activities that are critical to completing the project on time. Critical activity is an activity within a project that cannot be delayed without delaying the overall project.

Steps to be followed when implementing critical path analysis

- Identify the objective of the project e.g opening a new branch within 5 months
- Put the tasks that make up the project into the right sequence and draw a network diagram
- Add the durations of each of the activities
- Identify the critical path:- those activities that must be finished on time for the project to be finished in the shortest time
- Use the network as a control tool when problems occur during the project.

Network Diagrams/ Network Charts

Refer to a diagram that shows, in a logical progression, the activities involved in a project together with their time sequence. All the activities involved in the project are shown, in the order in which they must be undertaken and the times each one will take.

When drawing a network diagram the following features are used:

❖ A circle (called a node) represents the start and end of each activity
❖ A straight line represents the activity itself
❖ Arrows to show the sequence of activities/ the flow of the logic of sequences
❖ Critical activity is shown by a pair of double lines (

Key terms

Earliest Start Time (EST): the earliest possible time an activity can start relative to the beginning of the project. To calculate EST work from left to right.

EST = earliest start time of the activity before + duration of the activity

If the is a choice choose the largest number

Latest Finish Time (LFT): the latest possible time an activity can finish relative to the beginning of the project. It shows the latest an activity can be finished without holding up the whole project. To calculate the latest finish time work from right to left

LFT of the activity = LFT of the next node - duration of the activity

If there is a choice choose the smallest number to use

Minimum Project Duration: the shortest possible time within which a project can be completed

Illustration

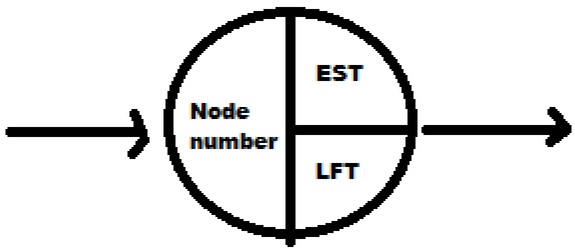
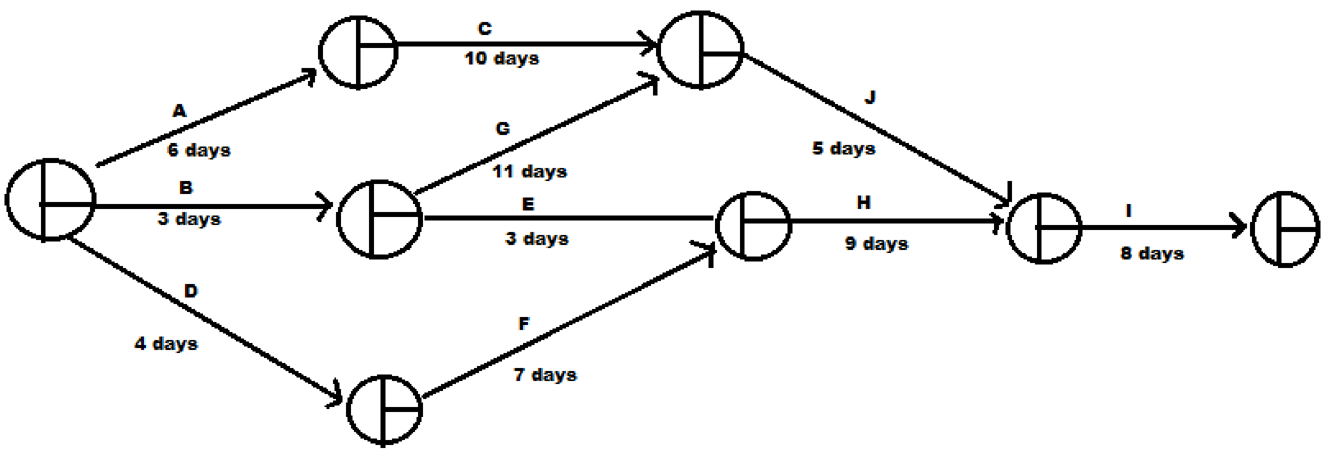


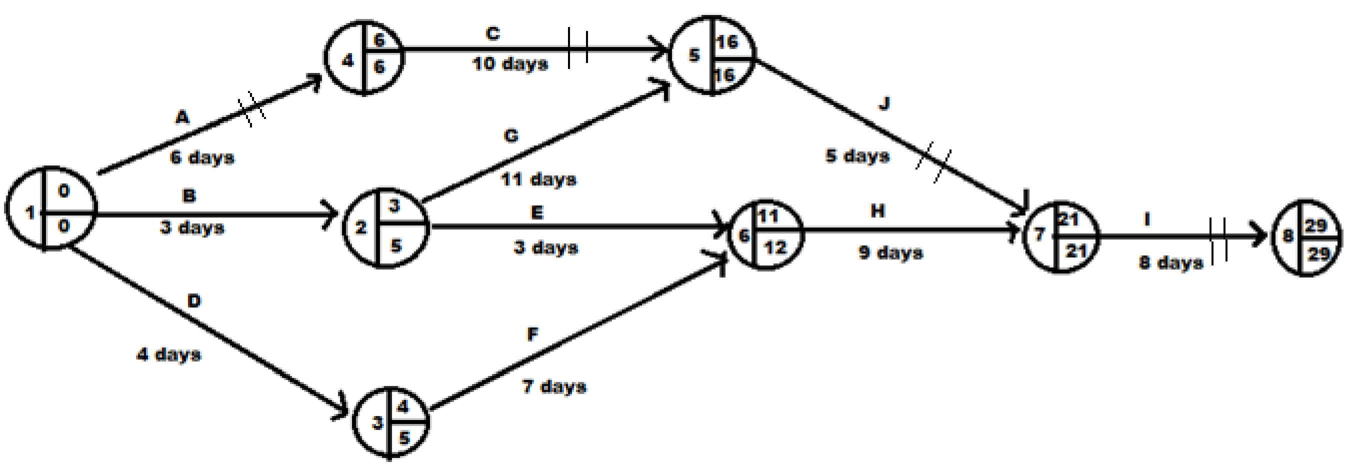
Illustration: The objective of this project is to construct a building in 29 days. The tasks to be performed in order to construct the building have been broken down into ten main activities from digging the foundation up to roofing. The duration of the activity is shown in the table below and the network diagram for this diagram is shown in the figure below

Activity	Duration
A	6 days
B	3 days
C	10 days
D	4 days
E	3 days
F	7 days
G	11 days
H	9 days
I	8 days
J	5 days

Figure



Solution



Note:

Calculation of EST

EST NODE 1 = 0

EST NODE 2 = 0+3= 3 days

EST NODE 3 = 0+4= 4 days

EST NODE 4 = 0 +6= 6 days

EST NODE 5 = 6+10= **16 days**/ 3+11= **14 days** (**choose largest number = 16 days**)

EST NODE 6 = 3+3 =**6 days**/ 4+7= **11 days** (**choose largest number= 11 days**)

EST NODE 7 = 16+5=**21 days**/11+9=**20 days** (**choose the largest number =21 days**)

Calculation of LFT

LFT NODE 8 = 29 days

LFT NODE 7 = 29-8= 21 days

LFT NODE 6 = 21-9= 12 days

LFT NODE 5 = 21-5= 16 days

LFT NODE 4 = 16-10= 6 days

LFT NODE 3 = 12-9 =5days

LFT NODE 2 = 16-11=**5 days**/12-3= **9 days** (**choose the smallest number =5 days**)

LFT NODE 1= 6-6= 0 days/ 5-3= **2days**/ 5-4= **1 day** (**choose the smallest number = 0 days**)

Calculation of the minimum project Duration (MPD)

MPD= the LFT of the final activity

= 29 days (in the illustration above)

Determination of the Critical Activity

This is an activity within a project that cannot be delayed without delaying the overall project. Critical activities can be identified by nodes which have EST which is equal to LFT (EST=LFT). What it means is that the earliest time an activity can start is the same as the latest time the preceding activity can start. Completion of critical activity in time is necessary to ensure the project as whole is completed in the shortest possible time.

Determination of Non-Critical Activities

These are activities that can be delayed without delaying the whole project. Non-Critical activities can be identified by nodes which have EST which is less than LFT (EST ‹ LFT). i.e B;D;E;F;G and H

Critical Path

Refers to a sequence if critical activities. In the question above the critical path is from ACJI. i.e they have a pair of short parallel lines

Summary: Importance of critical path analysis

- The earliest the whole project can be completed
- Activities that are critical to the completion of the project and this is where the managers must focus their attention on. i.e A; C; J and I

- Activities that non-critical i.e B;D;E;F;G and H

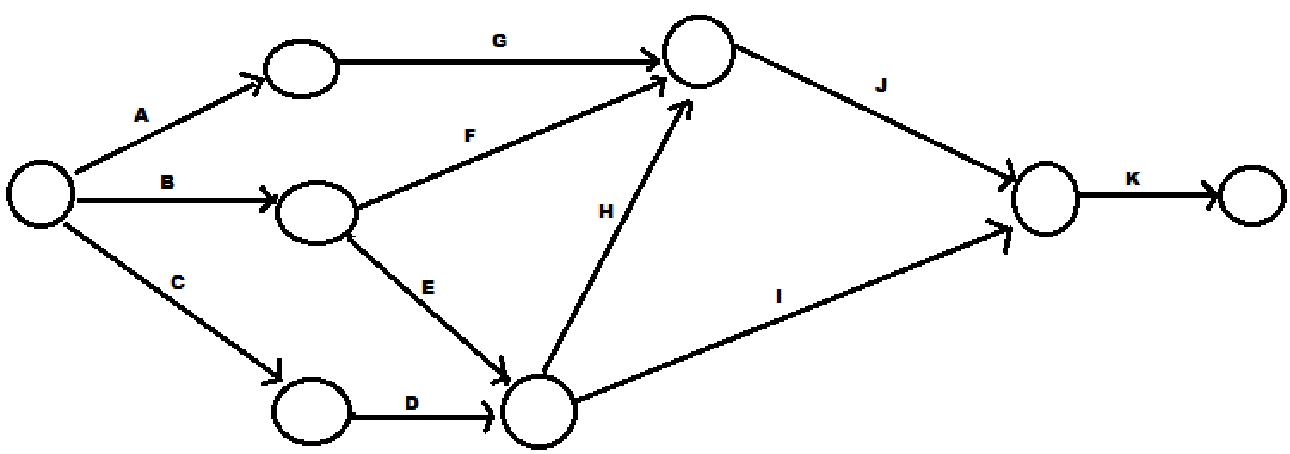
Question

Illustration: The objective of this project is to construct a building in 34 days. The tasks to be performed in order to construct the building have been broken down into eleven main activities from digging the foundation up to roofing. The duration of the activity is shown in the table below and the network diagram for these activities is shown in the figure below

Table

Activity	Duration
A	4 days
B	6 days
C	7 days
D	3 days
E	8 days
F	5 days
G	10 days
H	11 days
I	12 days
J	6 days
k	3 days

Figure



[25 marks]

Float Time

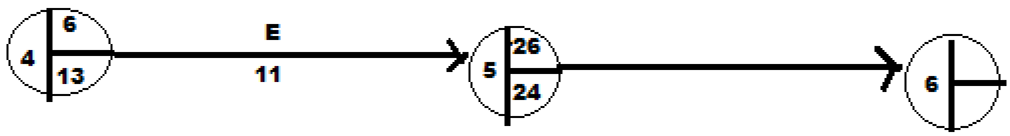
Using the EST and LFT it is possible to calculate the float of an activity. Float time refers to the time an activity can be delayed without either delaying the next activity or the overall project. There are two types of float time

a)Free Float: Refers to the maximum time an activity can be delayed without delaying the next activity in the sequence.

Formula:

Free Float = EST of the next activity- EST of this activity- duration.

Illustration

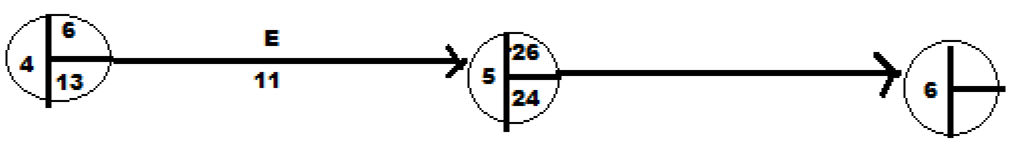


Free Float = EST of the next activity- EST of this activity- duration.
=26-6-11
= 9 days
NB: Free float is zero for a critical activity

Total Float: refers to the maximum time an activity can be delayed without delaying the overall project.

Total Float = LFT- EST- duration

Illustration



Total Float = LFT- EST- duration
= 24- 6- 11
= 7 days
NB: Total float is zero for a critical activity

DUMMY

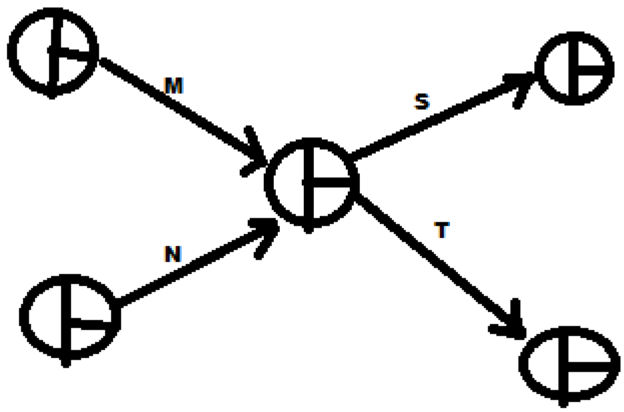
Refers to an artificial activity used to ensure the logical representation of a project in not ambiguous. Sometimes when constructing network diagrams the relationships get so complex and to be able to draw then you need a dummy. This is an activity that has no time or costs involved, it is included in the diagram to help show the relationships between real activities. The dummy has no other impact on any other aspect of the CPA other than resolving ambiguities

Example:

S follows M and N

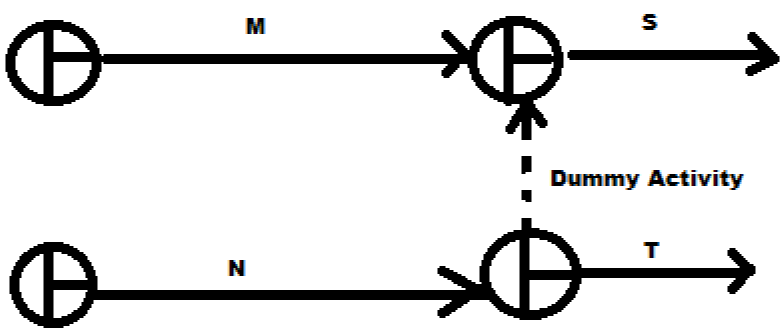
T follows N

A network to show this:



It is ambiguous in the sense that it's like T also follows M. T follows N not M. Thus a dummy is required to eliminate the ambiguity involved.

Logical Presentation including a dummy



The importance of CPA as a management tool

- It is important in calculating project duration. This means that delivery dates can be estimated and negotiated and other operations can be planned
- It enables the managers to know when activities should start. This means that mangers can allocate resources to activities at the right time. This helps co-ordination
- Knowing latest finish times. This means that managers are able to monitor progress and see the possible consequences if activities are running late
- Knowing the critical path. This means that managers can focus on the timely completion of these with greater priority than non-critical activities
- Knowing floats on non-critical activities. This means that managers are able to assess the significance of delays to non-critical activities. Where there are significant floats managers can divert resources from those non-critical activities to critical activities to ensure the latter are completed on time.

Limitations of CPA

- Guess work is common for new projects as there will be no previous experience.
- The manager may have a good project plan but the project may fail if the employees are less skilled and less motivated. All projects must be managed properly if they are to be completed on time.
- The ability to complete a project on time will depend on the reliability of suppliers. If raw materials are delivered late, this may prevent the next activity starting on time.
- Critical path analysis simply shows the quickest way to complete a project; it does not guarantee that this is the right project to be implemented in the first place.
- The project can be done quickly but the quality may be poor. Subordinates may cut corners to get the project done on time.

Questions 1.

Media Marketing

MM is planning a new marketing campaign for a chocolate bar. It has collected the following information

Activity	Description	Weeks' duration	Sequence of activities
A	Design leaflets	2	start of project
B	Negotiate advertising with television channels	3	can be done at same time as A
C	Get materials for producing chocolates bars	4	can be done at same time as A
D	Make chocolates bars and build up stocks	6	must follow C
E	Get leaflets printed	3	must follow A
F	Make TV adverts	5	must follow B
G	Distribute chocolate bars to shops	3	must follow D
H	Post leaflets	1	must follow E
I	Start advertising on television	2	must follow F
J	Launch product	3	must follow G; H; I

1.a) Draw a network [6]

b).Identify the minimum project duration [4]

c).Identify the critical path [2]

d) Calculate the free float and total float for activity E [2]

e). Evaluate the usefulness of CPA to the management of MM [10]

[Total 24]

Question 2

Activity	Proceeded by	Duration
A	-	3
B	A	5
C	-	2
D	B	10
E	C;D	4
F	-	1
G	F	12
H	E	3
I	E;G	5
J	H;I	3

1.a) Construct the network diagram given the data in the table. [6]
b) What is the critical path? [3]
c) Calculate the duration of the critical path [2]
d) Calculate the total float and free float for each of the activities in the network. [10]
e) To what extent will critical path analysis guarantee that this project will be successfully completed [14]

[Total 35]

Short answer questions

1.What is a project [2]
b)What does a node show [2]
2.a)What is network diagram [2]
b)Explain **ONE** benefit of constructing a network diagram [2]
3. a)What is the critical path on a network diagram [2]
b)What is the effect of a critical activity overrunning? Why? [2]
4.What is meant by a dummy activity [2]
5.a)What is meant by the earliest start time? [1]
b)What is meant by free float? How is it calculated [3]

Essays

1.a)Explain why efficient project management is important for a business operating in a competitive market.**[8]**
b)Evaluate the usefulness of critical path analysis to a construction business building a new sports complex to a completely new design **[12]**
2.Evaluate the usefulness of critical path analysis to an operations manager when planning the relocation of production facilities to another country. **[20]**
3.Towhat extent does using network diagrams ensure the success of a project? **[20]**
4.To what extent is effective project management the key business success these days **[20]**