Pricing

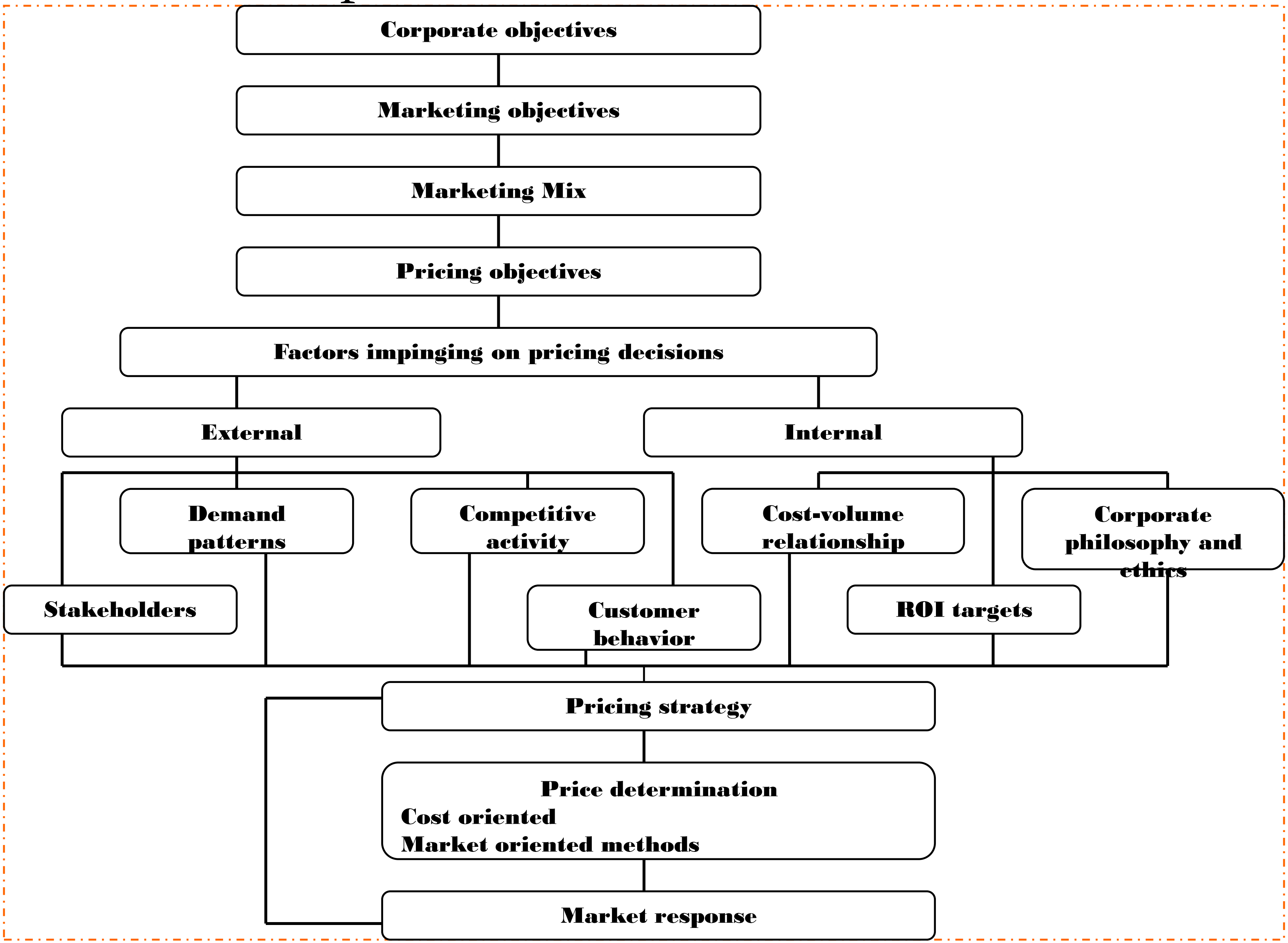
Price

- The economic value of goods and services, determined by the interaction of demand and supply.
- Guides decisions and economic activities of agents through signalling incentives and disincentives.
- Important variable both economically and politically
- Serves as a tool of intervention into markets to influence the behaviours of producer and consumers (price policies).
- Serves as a subject of policy intervention to influence income distribution and others with welfare objectives.

Pricing

- The task of pricing is reiterative because it takes place within a dynamic environment:
  - shifting cost structures affect profitability,
  - new competitors and new products alter the competitive balance,
  - changing consumer tastes and disposable incomes modify established patterns of consumption.
- This being the case, an organization must not only continually assess its prices, but also the processes and methods it employs in arriving at these prices.

The process of Price determination



Pricing

- Pricing decisions are not made by organizations operating within some kind of vacuum.
- When making pricing decisions marketers have to take into account a range of factors. Some of these are internal to the company, such as its marketing objectives, its marketing mix strategy and the structure of its costs.
- Factors which are external to the company include the state of market development, the pattern of supply and demand, the nature and level of competition and a host of environmental considerations (e.g. legislation, political initiatives, social norms and trends within the economy)

Pricing Objectives

- Whilst pricing objectives vary from firm to firm, they can be classified into six major groups
  - Profitability
  - Volume
  - Competition
  - Prestige
  - Strategic and
  - Relationship objectives.

Profitability Objectives

- Commercial enterprises, and their management, are judged by their ability to produce acceptable profits.
- Prudent managers are likely to take the strategic view when making pricing decisions. That is, they will not necessarily seek to maximize profits in the short-term at the expense of long-term objectives.
  - Example, profits may be low, or even negative, during a period when the company is seeking to penetrate a new market. Again, heavy investments in capital equipment and/or R&D may adversely affect the short-term profitability of an enterprise, but are likely to provide a foundation for longer term commercial success.

Profitability Objectives

- **Target return on investment** (ROI) - This is a cost-oriented approach to pricing decisions.
- ROI = (revenues/assets)*(profits/revenues)*(assets/equity)
  - Three components: Turnover, Earnings, Leverage.
- Typical pricing objectives might be a 20–25% annual rate of return on investment (after tax) and a 5–8% return on sales.
- **Maximizing revenues:** When it is difficult to calculate cost functions (e.g. when costs are indirect and/or are shared by different products) marketing managers often seek to maximize revenues when setting prices.
- Managers need only to estimate the patterns of demand and they believe that if current revenues are maximized then, in the long run, profits will be maximized.

Volume objectives

- Sometimes, the pricing decisions of managers have more to do with sales maximization than profit maximization.
- In these cases, organizations set a minimum acceptable profit level and then set out to maximize sales subject to this profit constraint.
- This is common where, as a matter of policy, a company commits itself to mass marketing, as opposed to serving narrow market segments.
- Minimum sales volumes can be more important than profit maximization in another situation.
  - Example, agricultural machinery manufacturers will seek to keep volumes up, even if it means sacrificing potential profits, if their factories and skilled work force are kept employed as a result.

Volume objectives

- **Maximizing market share:** Another volume-related pricing objective is the maximization of market share.
- The organization's specific goals may be either to maintain its share of a particular market or to increase its market share.
- There is frequently a positive relationship between high market share and profitability since the additional volumes help lower unit production costs.

Competitive objectives

- Pricing decisions must take into account the current behavior of competitors and seek to anticipate the future behavior of those competitors.
- **Going-rate pricing:** Competing firms will sometimes set out to match the industry leader's prices. The net result is to take the emphasis away from price competition and refocus competition on to other elements of the marketing mix.
  - Although pricing is an effective tool for gaining a differential advantage over competitors, a price move is easily imitated.

Competitive objectives

- **Anti-competitive pricing:** In some cases, a firm might price its products with a view to discouraging competitors from entering the market or to force them out of the market. This is done by maintaining relatively low prices and profit margins.

Prestige Objectives

- These objectives are unrelated to profitability or volume objectives.
- They involve establishing relatively high prices to develop and maintain an image of quality and exclusiveness that appeals to status-conscious consumers.
- Such objectives reflect a recognition of the role of price in creating the image of an organization and its products or services.

Strategic Marketing Objectives

- **Price stabilization:** The objective of stabilizing prices is met in the same way as that of removing price as the basis of competition.
- **Supporting other products:** Pricing decisions are often focused upon the aim of maximizing total profits rather than maximizing profits obtained from any single product within the portfolio.

Strategic Marketing Objectives

- In this case, some products may be designated as loss leaders whereby their price is set at a level that produces low or even negative returns in order to improve the sales and profitability of others within the range.
  - Example, a manufacturer of a herbicide/pesticide may sell a knapsack sprayer at or below cost in an attempt to stimulate sales of the high-margin chemicals which it is designed to apply.

Strategic Marketing Objectives

- **Maintaining cash flow:** Many businesses fail not so much because there is an inadequate demand for their products and services, but due to cash outflows running ahead of cash inflows.
- Prices can be structured in such a way that customers are encouraged either to pay cash or to repay credit earlier than they might otherwise do.

Strategic Marketing Objectives

- **Target markets:** The sensitivity of buyers to prices can vary across different market segments. Some consumers will view products as commodities and therefore purchase mainly, or wholly, on price.
- Others will perceive differences between competing brands and will perhaps make their choice on the basis of characteristics such as quality, freshness and convenience rather than on price.

Strategic Marketing Objectives

- **Product positioning:** The category into which a product is placed by consumers, and its relative standing within that category, is referred to as its position within the market. The same product can hold different positions depending upon which segments of its market are under consideration.
- Price setters have also to take account of perceived price-quality relationships. The product has to be priced at a level commensurate with the target quality image and market positioning.

Relationship pricing objectives

- Commercial organizations have several important stakeholders with which they must establish and maintain relations conducive to a positive operating environment.
- **Channel of distribution members**
  - Where there is intense competition for distributive outlets it is the organization which proves most knowledgeable and sensitive about the needs of intermediaries that will fare best.
- **Suppliers of raw materials and accessories**

Relationship pricing objectives

- **The general public**
  - Companies have to be careful in the way they report prices and profits since these can easily be perceived as being excessive.
- **Government**
  - Governments often take a keen interest in the prices charged, particularly if the product is a staple food.

Note on Elasticity

- The elasticity of demand is the percentage change in the quantity of a product demanded divided by the percentage change in its price.
- The price elasticity of supply of a product is the percentage change in the quantity of product supplied divided by the percentage change in its price.

$$\varepsilon_p = \left(\frac{\partial q}{\partial p}\right)\frac{p}{q}$$

- A price cut will increase revenue only if demand is ***elastic*** and a price rise can only raise total revenue if demand is ***inelastic***.

Note on Elasticity

- Factors that influence the price elasticity of demand
  - the availability of substitutes
  - the number of uses to which a commodity can be put
  - the proportion of income spent on a particular product and
  - the degree of commodity aggregation.

Note on Elasticity

- **Availability of substitutes**
  - Any commodity for which there are close substitutes is likely to have a highly elastic demand.
  - Even relatively modest price increases are likely to bring about a sizeable fall in its demand as consumers switch to substitutes.
- **Number of uses to which a commodity can be put**
  - The more uses a commodity has, the more elastic will its price elasticity tend to be.
  - A price reduction is likely to increase demand in several end-use markets and total demand could be dramatically affected.

Note on Elasticity

- **Proportion of income spent on the product:** The larger the product's share of the consumer expenditure, the more sensitive will the consumers become to changes in its price.
- The demand for most foods in poorer countries is generally more elastic than for comparable foodstuffs in rich countries.

Note on Elasticity

- **Degree of commodity aggregation**
  - The price elasticity of demand will depend on how widely or narrowly a commodity is defined.
  - The demand for ***meat*** is normally more price elastic than the demand for ***all meat***. Similarly, the price elasticity of ***all meat*** is likely to be more price elastic than the demand for ***all food.***
  - Commodity aggregation reduces the number of substitutes.

Note on Elasticity

- Elasticity also tends to vary along a demand curve. In general, price elasticity of demand will be greater at higher price levels than at lower price levels.
- If demand for a product is inelastic then, *ceteris paribus*, total revenue will fall when price is reduced and will increase when price is raised.
- Conversely, when demand is elastic, total revenue goes up when price is cut and falls when price is increased.
- Clearly these patterns of demand, in response to price movements, are of fundamental importance to pricing decisions made by marketing personnel.

The meaning of price to consumers

- The price of a product or service conveys many diverse messages to consumers.
- Some consumers will see price as an indicator of product quality; others will perceive the price as a reflection of the scarcity value of the product or service; some others will view price as a symbol of social status; and yet others will simply see price as a statement by the supplier about the value he/she places on the product or service.
- Thus, consumers will perceive a given price in a variety of ways: as being too high or too low, as reflecting superior or inferior quality, as indicating ready availability or scarcity of supply, or as conveying high or low status.

Price as indicator of quality

- In the absence of other information on which to base their judgment, consumers often take price to indicate the quality level of the product or service.
- Low prices can, in certain circumstances, prove as much a barrier to sales as prices which are too high. If the product is perceived to be too cheap then consumers begin to question whether it can be of adequate quality.
- In electing not to purchase the cheapest brand among competing products, the consumer is seeking to avoid the risk of acquiring a product with a performance considered to be substandard.

Pricing Strategies

- Pricing strategies are of two generic types
  - those that are based upon the organization's costs and those to which some margin is added.
  - Those that are market-oriented.
  - Whereas cost-plus approaches to pricing are proactive, in that prices are largely determined by the organization's financial performance objectives, market-oriented approaches are reactive to market conditions and are shaped by the organization's marketing goals.

Cost-plus methods of price determination

- Used most frequently.
- Involves calculating all the costs associated with producing and marketing a product on a per unit basis and then adding a margin to provide a profit.
- The per unit profit can be expressed either as a percentage of the cost, in which case it is referred to as the ***mark-up***, or as a percentage of the selling price, when it is referred to as the ***mark-on***, or margin.

Cost-plus methods of price determination

- Mark-up

$$= \frac{Selling\ price - Cost\ price}{Cost\ price} \times 100$$

- Mark-on (margin) – more common

$$= \frac{Selling\ price - Cost\ price}{Selling\ price} \times 100$$

Cost-plus methods of price determination

- Mark-up

$$= \frac{Mark\ on}{100\% - \%Mark\ on} \times 100$$

- Mark-on (margin) – more common

$$= \frac{\%Mark\ up}{100\% + \%Mark\ up} \times 100$$

Examples

Cost price of *tef*	Birr 500
Seller's addition (mark-up)	Birr 200
Selling price	Birr 700
Mark-up	40%
Mark-on (margin)	28.6%

Examples

- If we know the cost price and the required mark-on (margin), we can calculate the selling price.
- A retailer buys a quintal of tef for 90 and he knows he should secure 30% margin.

	Birr	%
Selling price	? **(128.6)**	100
Cost price	90	? **(70)**
Margin	? **(38.6)**	30

Calculating Mark-on (margin)

Producer's cost	100	Margin = 9.1%
Producer's selling price	110	
Retailer's cost	120	Margin = 20%
Retailers selling price	150	
Wholesaler's cost	150	Margin = 25%
Wholesaler's cost	200	

Breakeven Analysis

- The breakeven point is where the number of units of the product sold, at a given price, is just sufficient to cover both the fixed and variable costs incurred.

$$\#\, of\, units\ to\, breakeven = \frac{fixed\ costs}{price - variable\ cost}$$

Breakeven Analysis

- Example
  - Say a seed company carries fixed costs of 100,000 birr.
  - Assume a variable cost of production per quintal of seed be 500 birr.
  - Suggested selling price per quintal 1000 birr.
  - How much should the company sell before it breaks even

  = 100,000/(1000-500) = 200 quintals
  - The company will wish to estimate total sales, and therefore total profitability, at a selling price of 200 birr per quintal.
  - Marketing managers will repeat the same calculations for several possible selling prices.
  - Look example on excel!

Breakeven Analysis

- Important note:
  - Maximizing sales volumes and maximizing profits are not necessarily one and the same objective. It is equally useful in underlining the fact that maximizing sales revenues does not automatically provide the best profit performance.
  - Look example on excel!

Market Oriented Pricing (MOP)

- Market-oriented pricing begins from a consideration of factors external to the organization, i.e. the marketplace.
- Two broad alternatives are open to companies launching new products on to the market: skimming or penetrating.
  - Skimming strategies involve setting high prices and heavily promoting the new product. The aim is to "skim the rich cream" off the top of the market.
  - Profit objectives are achieved through a large margin per unit rather than by maximizing sales volumes.

Market oriented pricing

- Penetration strategies aim to achieve entry into the mass market. The emphasis is upon volume sales. Unit prices tend to be low. This facilitates the rapid adoption and diffusion of the new product.
- Profit objectives are achieved through gaining a sizeable sales volume rather than a large margin per unit.

MOP – Discriminatory pricing

- Discriminatory pricing involves the company selling a product/service at two or more prices, where the differences in prices are not based on differences in costs. Has different forms:
  - Segmentation pricing - prices are set to achieve an organization's objectives within each segment. Customers in different segments will pay different prices, for the same product.
  - Product-form pricing - different versions of the product are priced differentially, but often not in proportion to differences in their costs.
  - Time pricing - this involves varying prices seasonally. Typically this is done to encourage demand by reducing prices at times when sales are seasonally low and by raising prices to contain demand when it is strong and likely to outstrip supply.

Psychological Pricing

- Pricing has psychological as well as economic dimensions and marketers should take this into account when making pricing decisions.
  - **Quality pricing -** when buyers cannot judge quality by examining the product for themselves or through previous experience with it, or because they lack expertise, price becomes an important quality signal.
  - **Odd pricing -** creates the illusion that a product is less costly than it actually is, for the buyer. An odd numbered price, like \$9.99, will be more appealing than \$10, supposedly because the buyer focuses on the 9.

Psychological Pricing

- **Product line pricing**
  - The practice of marketing merchandise at a limited number of prices. For instance, John Walker has 4 (Red, Black, Blue and Green) labels of Whisky priced (estimated) at $15, $30, $60 and $100, respectively.
  - These price points are important factors in achieving product line differentiation and enable the company to serve several market segments.
  - The skill in price lining lies in selecting price differentials which are sufficiently far apart for consumers to distinguish between them, but not so far apart that a gap is left for competitors to fill.

Psychological Pricing

- **Customary pricing**
  - In the case of certain low cost products there is widespread resistance to even modest price increases.
  - Under such circumstances a common strategy is to maintain the unit price as far as is possible whilst reducing the size of the unit. This is termed customary pricing".

Geographic Pricing

- Geographic considerations sometimes figure in pricing decisions.
- FOB Pricing
  - FOB factory - purchasers pay all transportation costs beyond the factory gates.
  - FOB destination - the supplier meets all of the costs incurred up to the point where the goods are delivered to the customer.
  - The disadvantage of FOB is that for more distant customers a supplier operating the FOB factory pricing system will seem a high cost source of supply. The buyer's problem is overcome if the supplier applies FOB destination pricing, but the supplier's profit margin can be eroded to a substantial extent.

Geographic Pricing

- **Uniform delivered pricing**
  - Uniform delivered pricing is the opposite of FOB pricing. The selling price incorporates a freight charge never explicitly identified as such to the buyer which is an average of total freight costs.
  - This system has the advantage that it is easy to administer and the company can advertise its prices nationally.
  - The disadvantage is that those customers situated in close proximity to the manufacturer will find cheaper supplies from other manufacturers in the locality offering FOB prices.

Geographic Pricing

- **Zone pricing**
  - Zone pricing falls between FOB origin pricing and uniform delivered pricing.
  - The company sets up a series of geographical zones. All customers within a zone pay the same total price and this price is higher in the more distant zones.
  - This system can work well enough except that the dividing line between zones has to be drawn somewhere.

Geographic Pricing

- **Freight absorption pricing**
  - The seller who is anxious to do business with a certain customer or geographical area might absorb all or part of the transport cost in order to get the business.
  - The seller might reason that gaining more business will result in lower average costs and that this will more than compensate for the extra freight cost.
  - Freight absorption pricing is useful in achieving market penetration and also in holding on to increasingly competitive markets.

Administered prices

- Prices which are imposed on the market by some external body!

Demand Forecasting

Demand Forecasts -Forecasting methods

- **Qualitative**
  - Personal opinion
  - Panel consensus
  - Delphi method
  - Market research (rapid appraisal)
  - Historical comparison

- Quantitative methods
  - Time series
    - Freehand method
    - Smoothing methods
    - Exponential smoothing methods
    - Trend projection methods
    - Trend projection adjusted for seasonal influence
  - Causal
    - Linear regression model

Demand Forecasts

- **Analyzing components of price time series**
  - Usually little is known about why a time series behaves so.
  - Hence we approach it in terms of components (Trend, Cycle, Seasonality, Random term)
  - **Trend** is the broad long-term tendency of either upward or downward movement in the average value of the forecast variable (say ***y***) over time. E.g. Sale 1+2

Demand Forecasts

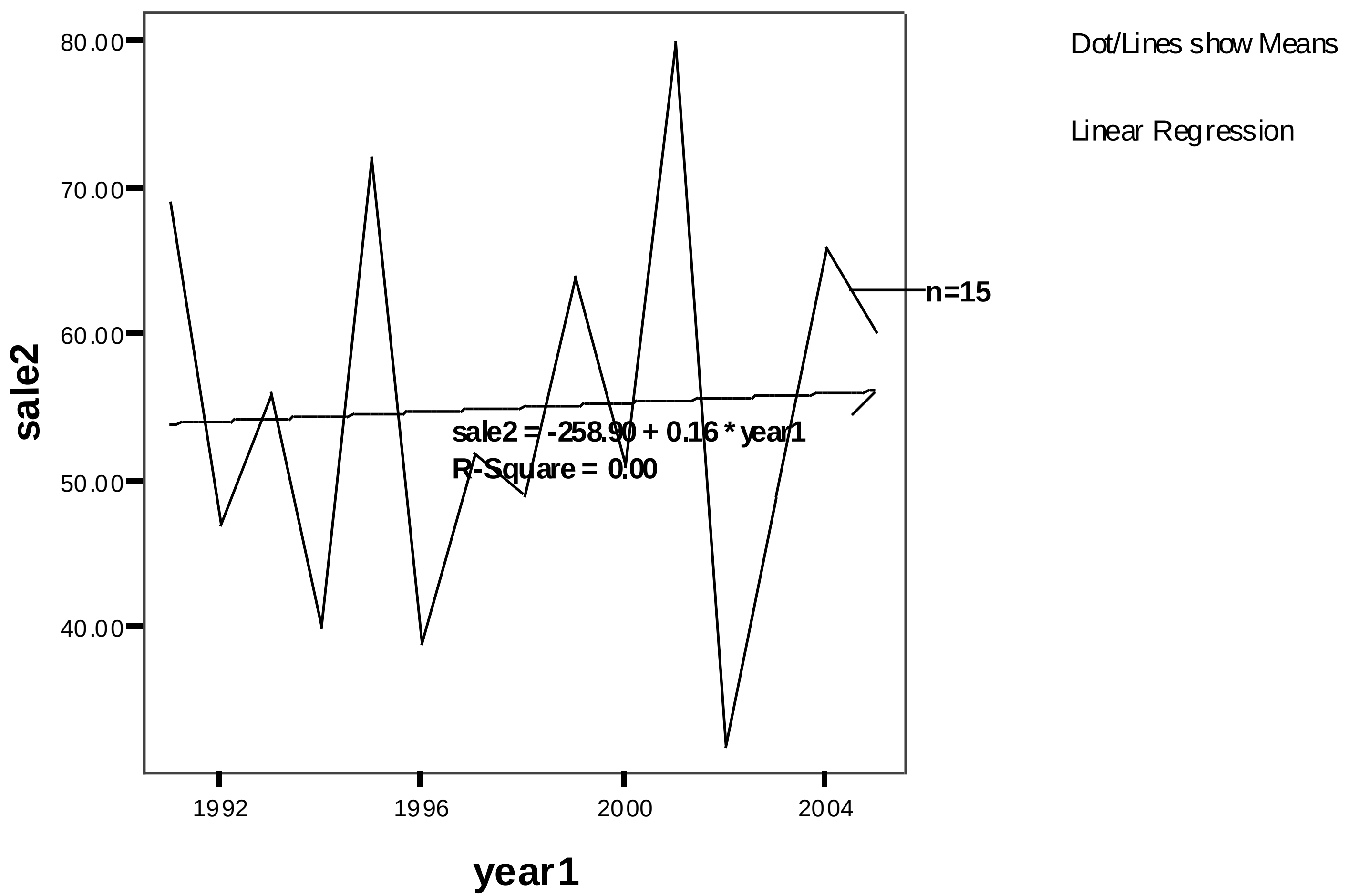
- **Cycles** – An upward and downward oscillation of uncertain duration and magnitude about the trend line due to seasonal effect with fairly regular period or long period with irregular swings is called a cycle. E.g. Sale 2+3
  - The movement is through four phases: from peak (prosperity) to contraction (recession) to trough (depression) to expansion (recovery or growth).

Demand Forecasts

- **Seasonal** – is a special case of a cycle component of time series in which the magnitude and duration of the cycle do not vary but happen at a regular interval each year.
  - Sales in festival seasons.
- **Irregular (random)** – an irregular or erratic movement in a time series is caused by a short-term unanticipated and non-recurring factors. These follow no specific pattern.

Demand Forecasts

- Need to identify patterns of data representing a variable and, based on identified patterns, need to forecast future values of a variable
- Trend and seasonality are the two most common patterns describing economic time series
- Likewise, time series analysis of agricultural prices involve identification of **trend** and **seasonality behaviors.**



Dot/Lines show Means
Linear Regression
80.00
70.00
60.00
50.00
40.00
sale2
n=15
sale2 = -258.90 + 0.16 * year1
R-Square = 0.00
1992
1996
2000
2004
year1