Sales Forecasting

What is Sales Forecasting?

- A sales forecast is a projection of the expected customer demand for products or services at a specific company, for a specific time horizon, and with certain underlying assumptions
- Essential tool used for business planning, marketing, and general management decision making.
- Sales forecasting can help you achieve sales goals.
- Sales forecasting can help drive sales revenue, improve efficiency, increase customer retention and reduce costs.

Factors affecting sales forecasting

External Factors

- Relative state of the economy
- Direct and indirect competition
- Styles or fashions
- Consumer earnings
- Population changes
- Weather

Factors affecting sales forecasting

Internal Factors

- Labour problems
- Inventory shortages
- Working capital shortage
- Price changes
- Change in distribution method
- Production capability shortage
- New product lines

Sales Forecasting Methods

Qualitative	**Quantitative**
Executive opinion method	Time Series Analysis
Delphi Method	Market Test Method
Sales force composite method	Regression Analysis
Survey of Buyer's intentions	

Executive opinion method

- Most widelyused
- Method of combining and averaging views of several executives regarding a specific decision or forecast.
- Leads to a quicker (and often more reliable) result without use of elaborate data manipulation and statistical techniques.

Delphi Method

Process includes a coordinator getting forecasts separately from experts, summarizing the forecasts giving the summary report to experts who are asked to make another prediction; the process is repeated till some consensus is reached

Sales force composite method

- Also known as "Grassroots Approach"
- Individual salespersons forecast sales for their territories
- Individual forecasts are combined & modified by the sales manager to form the company sales forecast.
- Best used when a highly trained & specialized sales force is used.

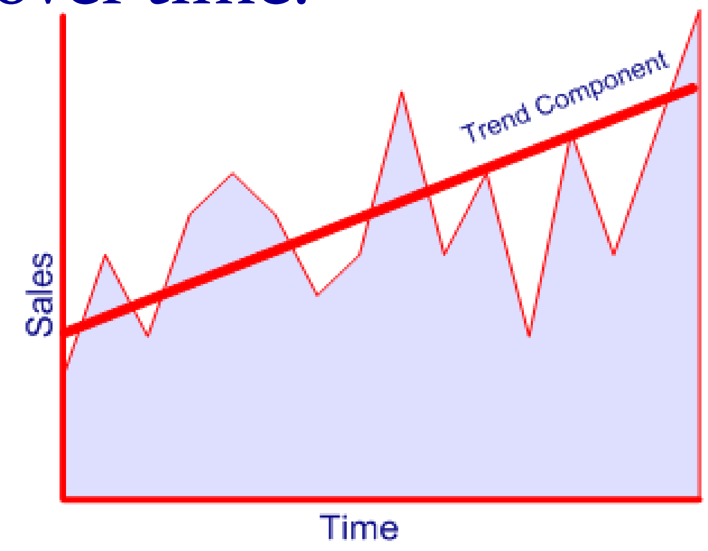
Survey of Buyer's intentions

- Process includes asking customers about their intentions to buy the company's product and services
- Questionnaire may contain other relevant questions

Time Series Analysis

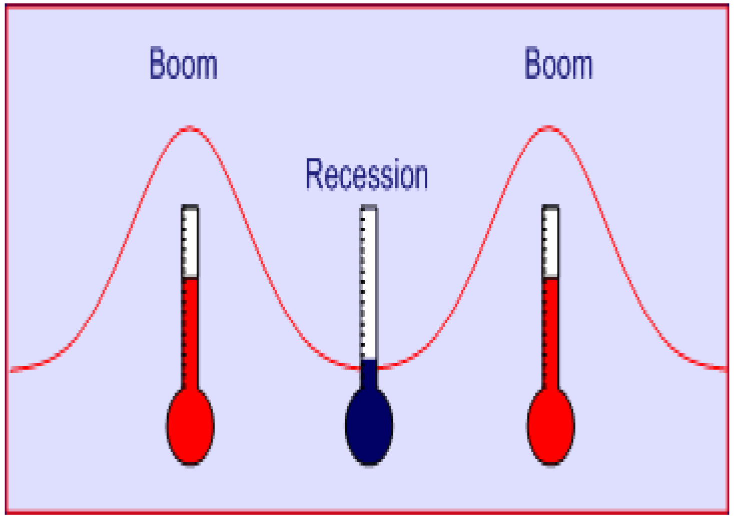
Make forecasts based purely on historical patterns in the data. It has four components

- The Trend component-Gradual upward or downward movement over time.



- The Cyclical Component

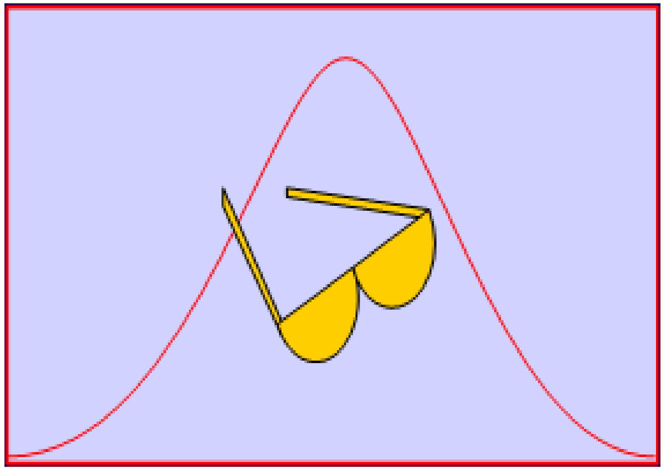
Sales are often effected by swings in general economic activity as consumers have more or less disposable income available



The Cyclical Component

The Seasonal Component

It is a distinguished pattern to sales caused by things such as the weather, holidays, local customs and general consumer behaviour.



The Seasonal Component

- The Erratic events-Random Variations in data caused by change and unusual situations
- Time series analysis are accurate for short term and medium term forecasts and more so when demand is stable or follows the past behavior.
- Some of the popular techniques of time series analysis are:
  - moving averages,
  - exponential smoothing

Moving Averages

- The sales results of multiple prior periods are averaged to predict a future period
- Called 'moving' because it is continually recomputed as new data becomes available, it progresses by dropping the earliest value and adding the latest value.

Week	Sales	3 Week SMA
10	105	
11	110	
12	107	
13	118	107.33
14	120	111.67
15	101	115
16	106	113
17	114	109
18	118	107
19	121	112.67
20	125	117.67

Exponential Smoothing

- Similar to moving average method
- Used for short run forecasts
- Instead of weighing all observations equally in generating the forecast, exponential smoothing weighs the most recent observations heaviest

Next year's sale=a(this year's sale) + (1-a)(this year's forecast)

a is smoothing constant taken in scale 0-1

Market Test Method

- Used for developing one time forecasts particularly relating to new products
- A market test provides data about consumers' actual purchases and responsiveness to the various elements of the marketing mix.
- On the basis of the response received to a sample market test, product sales forecast is prepared.

Regression Analysis

Identifies a statistical relationship between sales(dependent variable) and one or more influencing factors, which are termed the

- independent variables.

- When just one independent variable is considered (eg. population growth), it is called a linear regression, and the results can be shown as a line graph predicting future values of sales based on changes in the independent variable.
- When more than one independent variable is considered, it is called a multiple regression

Benefits of Sales Forecasting

- Better control of Inventory
- Staffing
- Customer Information
- Use for Sales People
- Obtaining Financing

Limitations of Sales Forecasting

- Part hard fact, part guesswork
- Forecast may be wrong
- Times may change

THANK YOU