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SHORT NOTES
PERCEPTION & DECISION MAKING

PERCEPTION

Perception is a **psychological process** by which individuals select, organize and interpret their **sensory impressions to give meaning to their environment**

The world as we see is not necessarily the same as it really is. **We perceive things according to our comfort and priorities and take them as reality.**

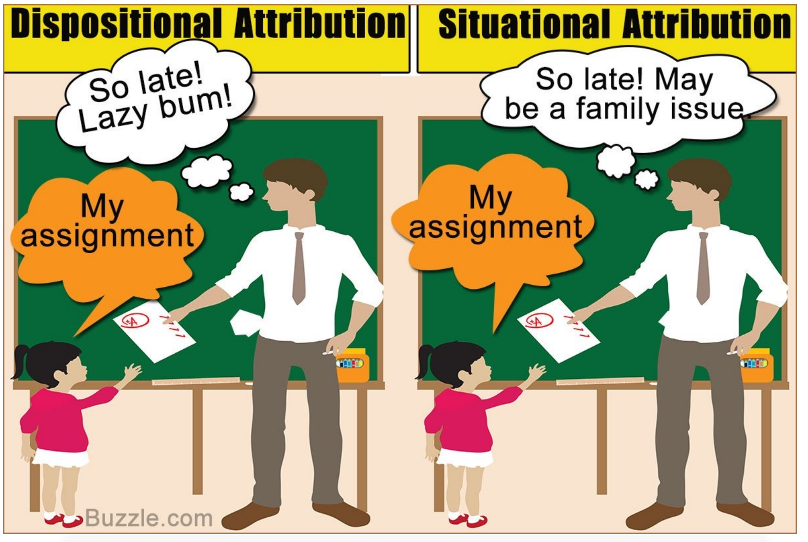
Factors that influence Perception

The factors that influence perceptual are of **three** kinds:

Factors in the perceiver	Factors in the target	Factors in the situation
Attitude, motives, interests, expectations, etc. of the receiver have an impact on her view of reality.	Characteristics of the target we observe can affect how we perceive.	The time at which we see an object or event can influence our attention, as can location, lighting, heat etc.

Attribute Theory on Application of Perception

Attribution Theory states that we perceive others based on the meaning we attribute and assumptions we make about the person's internal state.



As we observe a person's behavior, we tend to determine whether it was **internally** or **externally** caused.

Our determination of that person's behavior frames our perception about her.

3 factors help us determining whether behavior was internally or externally caused:

Distinctiveness

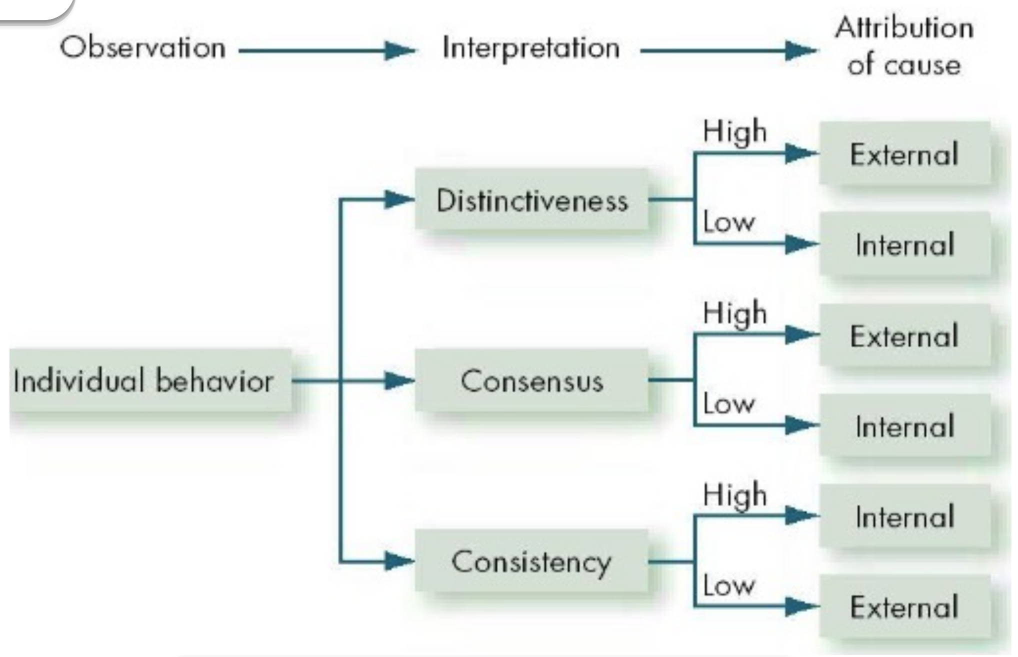
Here we make a comparison with other actions of same individual in different situations

Consensus

Here, we try to determine whether everyone facing the same situation is reacting in the same way

Consistency

Comparison of a person's reaction with respect to time determines consistency.



Perceptual Process

Perception is a process through which people **receive**, **select**, **organize** and **interpret** information from their environment.

1. Selection of required information

The process of selecting some aspects from the environment depending upon interests, attitude, experience etc. is called selection.

2. Organization of required information

After information is selected, it is organized to extract meaning out of it.

It is a cognitive process.

Organization of information is done through **figure ground** and **perceptual grouping:**

Figure ground principle: The object that is perceived fastest / first is the one that stands out distinct from its background and gets the cognitive attention of the individual.

Perceptual Grouping: Perception by grouping or clubbing information into meaningful patterns is called perceptual grouping. Ex- Using information from eyes, ears, nose, touch together to perceive an object.

3. Interpretation

This is the last step in the process.

Under this, meaning is finally assigned to all gathered information.

It is the process od judging others or situations and arriving at a definitive conclusion.

Perceptual Distortions/ Errors

1.	**Selective Perception**	People perceive what is in accordance with their needs, motives and interests.
2.	**Projection**	The act of attributing one's own traits to the people being judged is called projection.
3.	**Stereotyping**	Judging people based on characteristics of the group to which they belong is called stereotyping.
4.	**Halo Effect**	It refers to the tendency to draw a general impression about an individual based on a single characteristic
5.	**Impression**	People mostly judge based on first impression. First impression may not be correct, and this leads to perceptual distortion.

Principle of Bounded Rationality

- It is not possible to taken decisions based on "complete Rationality". WHY?
- There is always some missing information i.e., we don't have access to all the information.
- What's the solution?
  - Bounded Rationality – Combine "Rationality" and "Intuition + Value systems" to take decisions.
  - Take Satisfactory Decisions, instead of Optimal Decisions

By: Herbert Simon

Perceptual Defense

Perceptual defense refers to the screening out of those elements which create conflict and threatening situation for people.

There are many forms that defense may take -

Outright Denial: When the perceiver refuses the stimuli or information and sticks to his perception.

Modification of data received: When the perceiver attaches another information to the existing stimuli in order to give meaning to his existing perception or to justify his perception, it is termed as modification.

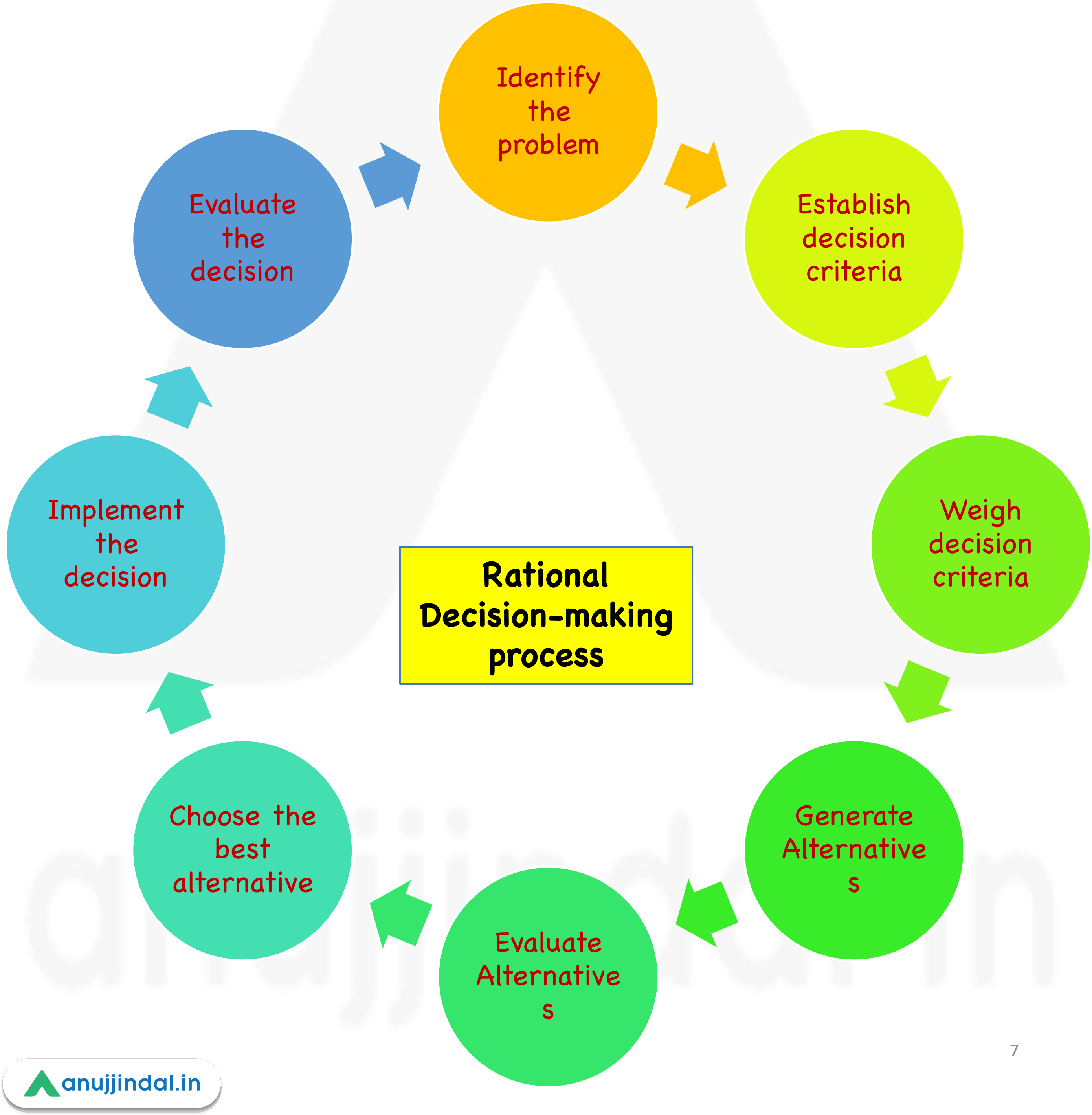
Change in perception but refusal to change: When the perceiver feels that the stimuli or information conflicts with his perception, but he refuses to change his perception.

Recognition/ change in perception itself: When the perceiver gives away his perception and accepts the stimuli or information as correct.

DECISION MAKING

The process of selection of a course of action from a choice of alternatives

Process leading to decision making in Systems Management Approach.



"Bounded Rationality" in Decision Making

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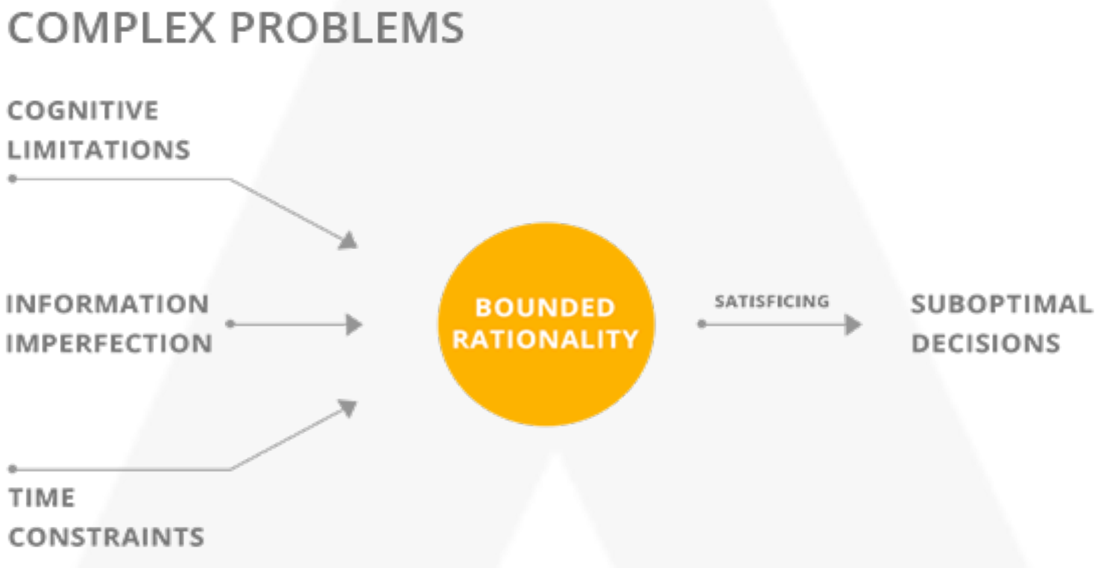


Since they cannot be completely rational owing to the unpredictable nature of their business, managers usually take the 'safe route' or play it safe. Herbert Simon called 'satisfying' – picking a course that is satisfying or good enough.

1.	Finding Alternatives: Development of Alternatives and the limiting factor
	Limiting factors exist in accomplishing a set of objectives. In such cases alternative must be developed to continue the plan.
2.	Evaluation of alternatives
	Evaluation of different alternatives based on different criteria
3.	Selecting an alternative
	Select the best alternative ☺

Programmed and Unprogrammed Decisions

Programmed Decision

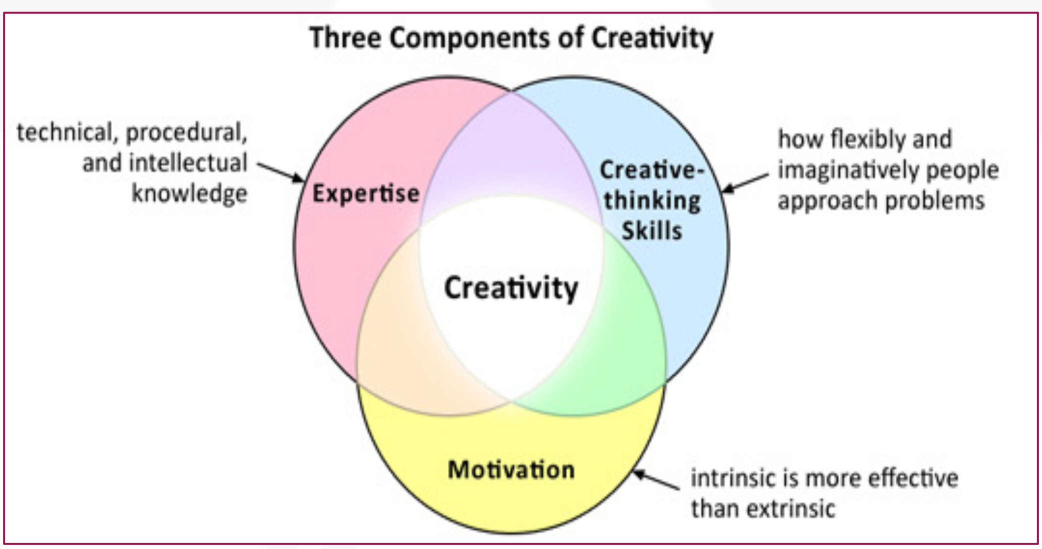
Used for routine or structured work

Unprogrammed Decision

Used for non-routine, fragmented, unstructured, work

Creativity and Innovation

Creativity: The ability and power to develop new ideas



Invention

Invention pertains to new ideas and processes that have not be used or developed before.

Innovation

The application of creative ideas or inventions (products, services) or the use of new ideas.

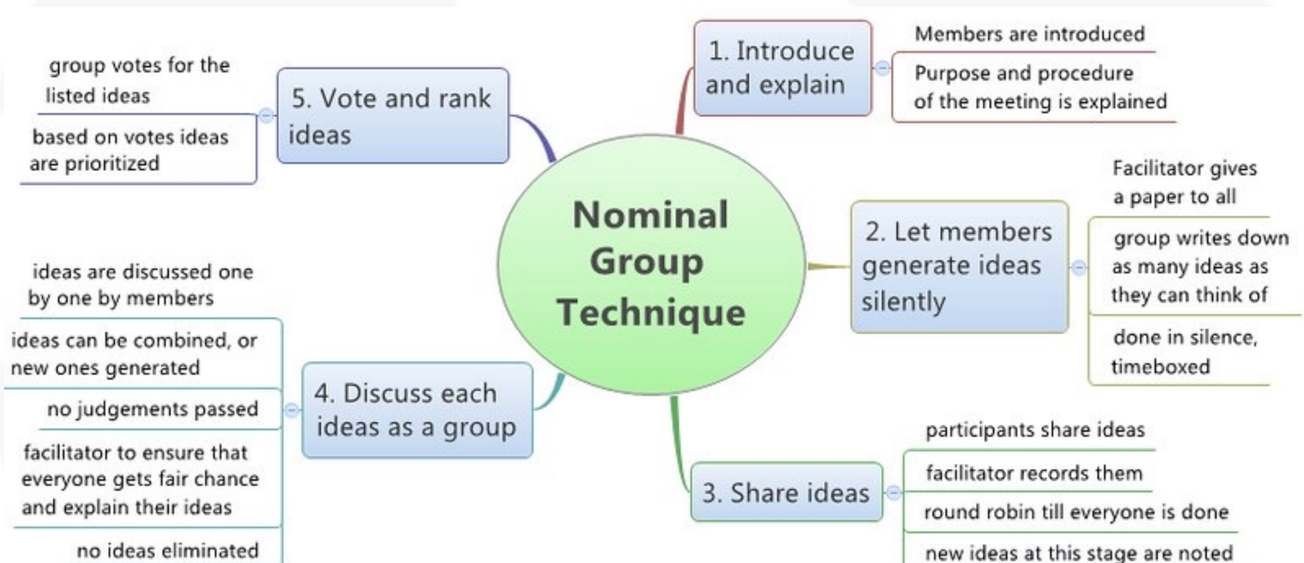
Techniques of Decision Making

❑ Brainstorming

Purpose- Find solutions and creative ideas to existing problems

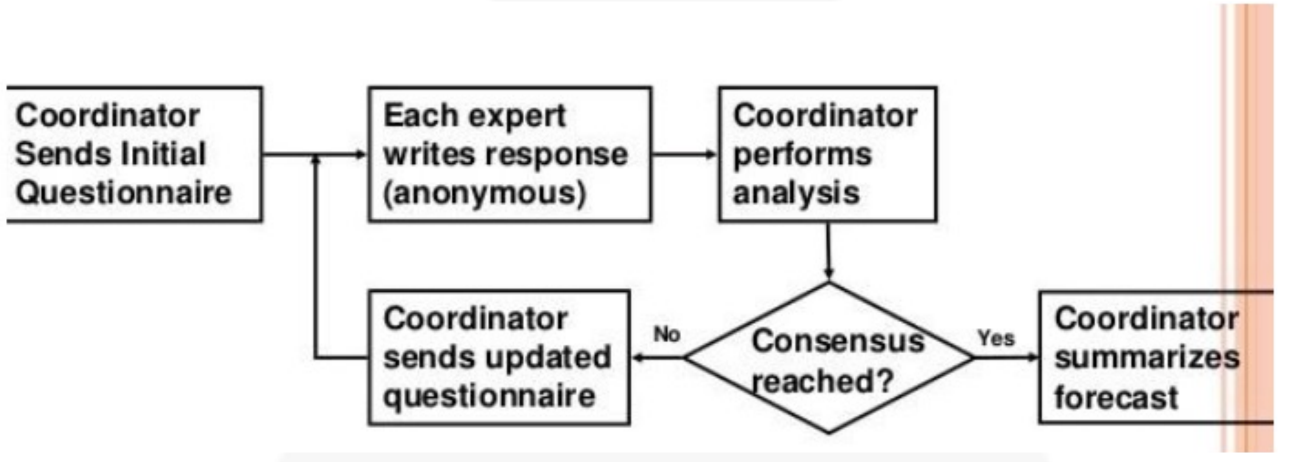
How?
Make a group of 10-15 people. Make them sit together and generate ideas. The group need not worry about how good or bad an idea is. i.e., over criticism not allowed.

❑ Nominal Group Technique



While brainstorming limited itself to generation of ideas, nominal group technique takes it a step further and along with generation of ideas, it indulges in evaluation of alternatives and taking group discussion.

❑ Delphi Technique



The Delphi method is a process used to arrive at a group opinion or decision by surveying through a panel of experts.

- Questionnaire is used to record the response of experts.
- Experts with a diverging/ different opinion are asked to explain their reason or re-evaluate their response
- The process continues until convergence of thought is achieved.

❑ Consensus Mapping Technique

Under consensus mapping, ideas of several task forces or subgroups are consolidated or pooled to arrive at one decision.

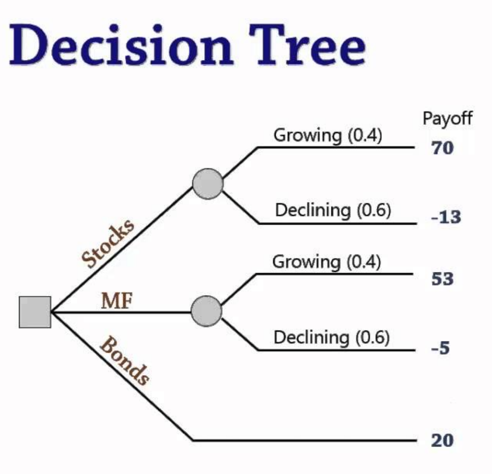
Errors in Decision Making

Availability Heuristic	Representative Heuristic	Escalation of commitment
The availability heuristic is a mental shortcut that relies on immediate examples that come to a person's mind	Tendency to make judgements on things with which people are familiar.	Increased commitment to a previous decision despite negative information. Due to overconfidence.

Quantitative Technique in Decision Making

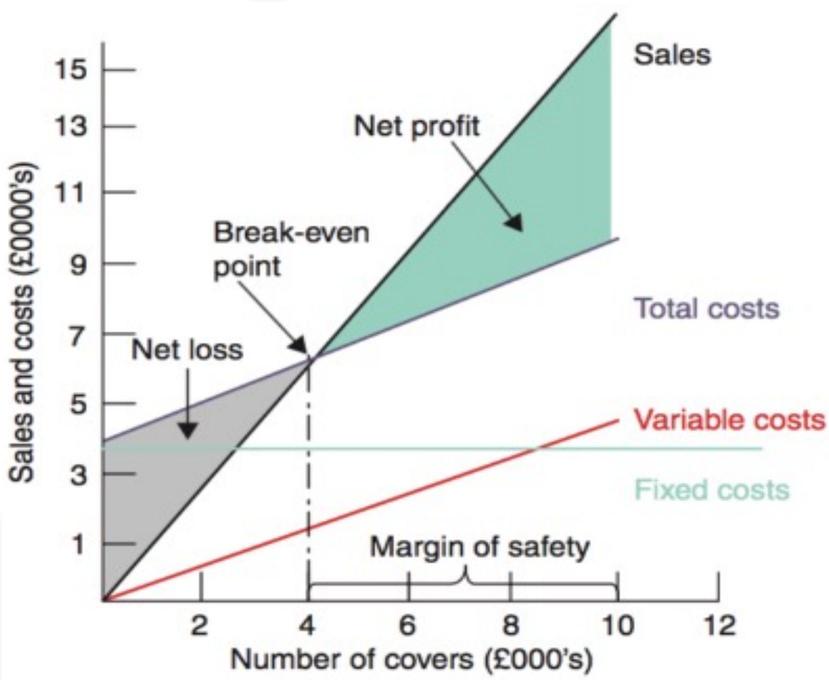
❑ Decision Tree

This method to analyze risk is a formal diagrammatic display of various alternatives followed by chance events which may occur with some profitability.



Alternatives	Growing	Declining
Stocks	70	-13
Mutual Funds	53	-5
Bonds	20	20
Probability	0.4	0.6

❑ Break Even Analysis



A break-even analysis shows the relationship between the costs and profits with sales volume. The sales volume which equates total revenue with related costs and results in neither profit nor loss is called break-even volume or point (BEP)

❑ Financial Control

Popular Financial Controls

OBJECTIVE	RATIO	CALCULATION
Liquidity test	Current ratio	Current assets / Current liabilities
	Acid test	Current assets level inventories / Current liabilities
Leverage test	Debt-to-assets	Total debt / Total assets
	Times-interest-earned	Profits before interest and taxes / Total interest charges
Operations test	Inventory turnover	Cost of sales / Inventory
	Total-assets-turnover	Revenues / Total assets
Profitability	Profit margin-on-revenues	Net profit after taxes / Total revenues
	Return-on-investment	Net profit after taxes / Total assets

EXHIBIT QM-5

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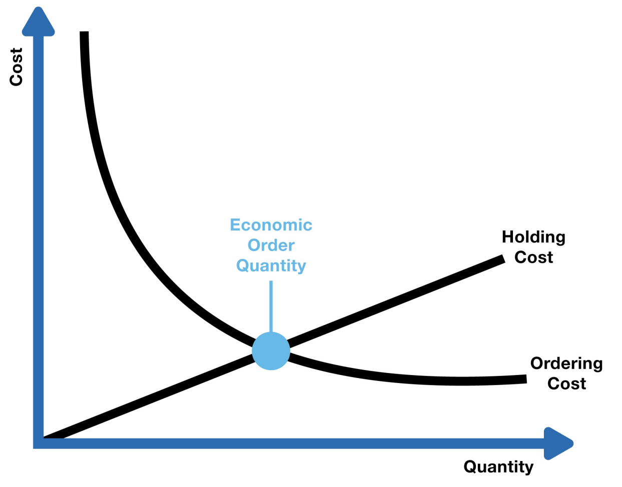
❑ Economic Order Quantity

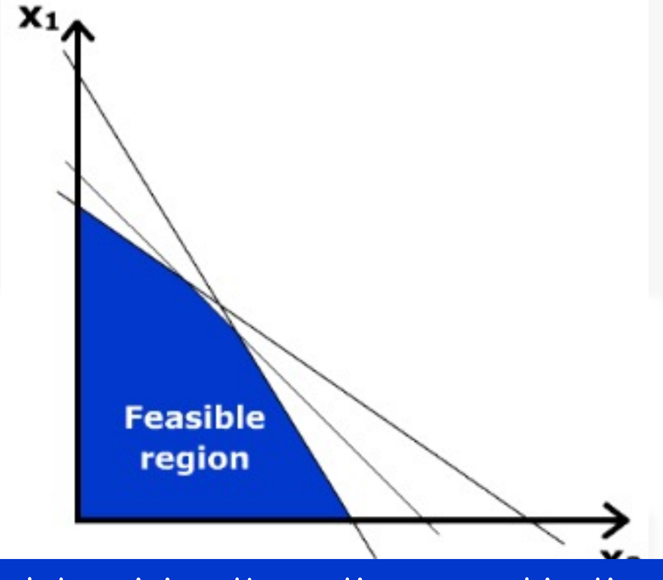


The economic order quantity is that level of inventory order that minimizes the total cost associated with inventory management.

The costs associated with inventories are (i) Ordering Costs (ii) Carrying Costs

State with reference to cost perspective, EOQ refers to the level of inventory at which the total cost of inventory comprising acquisition/ordering/set up costs and carrying cost is minimal.

❑ Linear Programming



It is a technique for determining the optimum combination of limited resources to minimize costs or to maximize profits. It is designed to minimize or maximize some of objective functions while at the same time satisfying the various restrictions placed on the potential users.