BBA FIRST SEM: PoM
Planning & Decision Making
Unit IV

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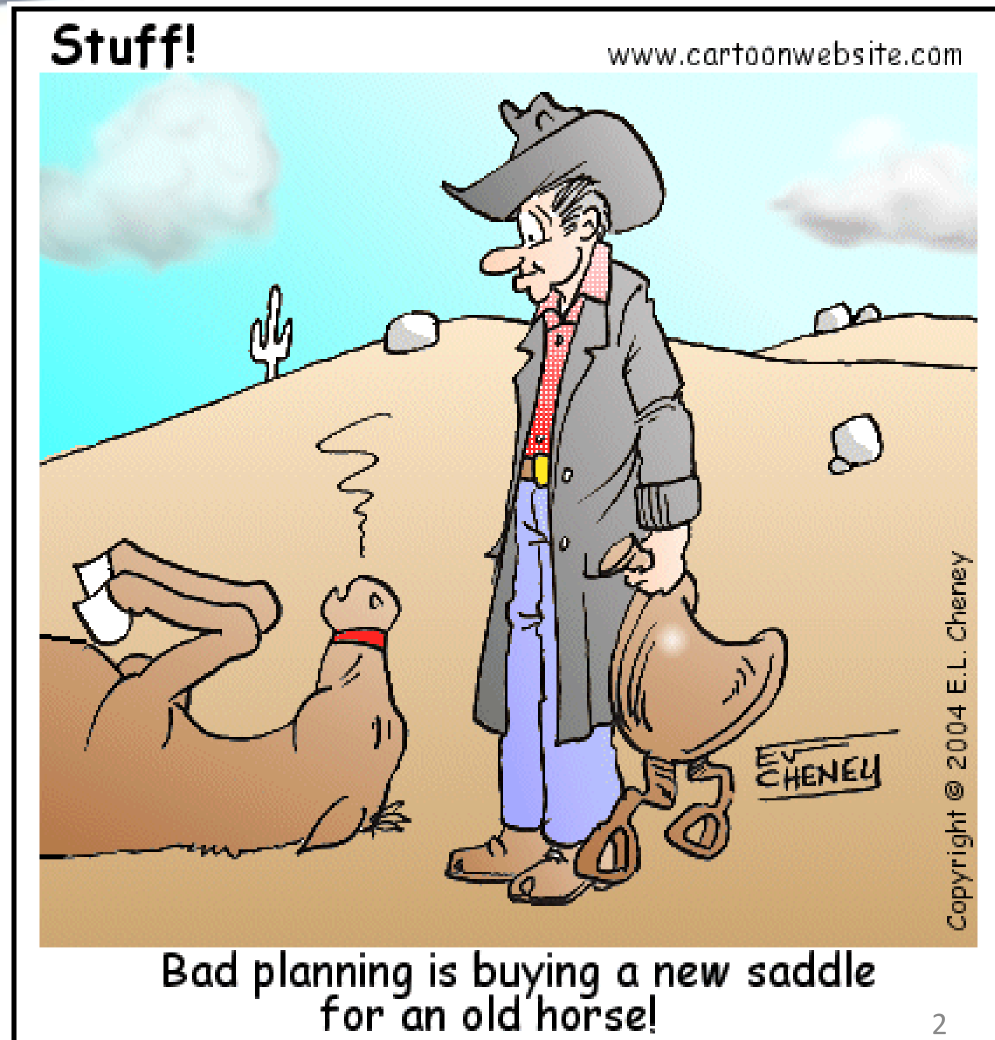
CITIZEN COLLEGE

LALITPUR, NEPAL

PLANNING

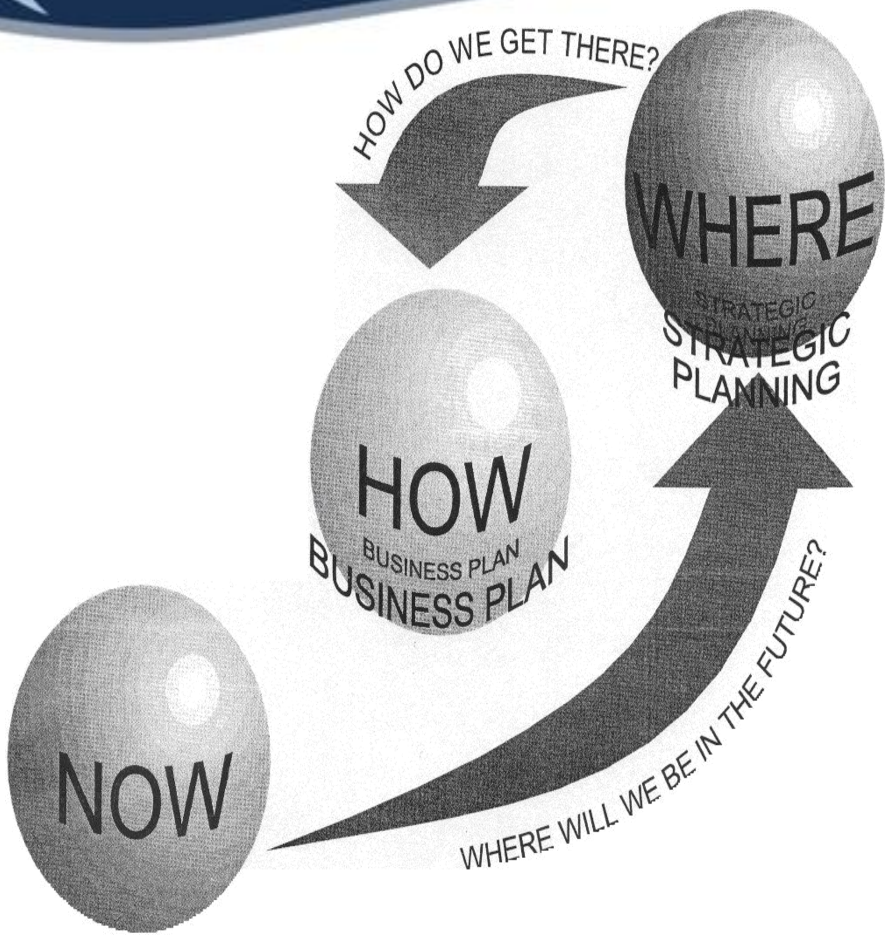
Planning is the realistic dream of an organized individual.



Planning Function of Management

- **Planning** means looking ahead and chalking out future courses of action to be followed. It is a preparatory step. It is a systematic activity which determines when, how and who is going to perform a specific job.
- **Planning** is a detailed program regarding future courses of action.

Planning Function of Management



- It is rightly said "**Well plan is half done**". Therefore planning takes into consideration available & prospective human and physical resources of the organization so as to get effective co-ordination, contribution & perfect adjustment.
- Planning is the basic management function which includes formulation of one or more detailed plans to achieve optimum balance of needs or demands with the available resources.

Planning defined

"Planning is the process of setting goals, developing strategies, and outlining tasks and schedules to accomplish the goals".

- Peter Drucker

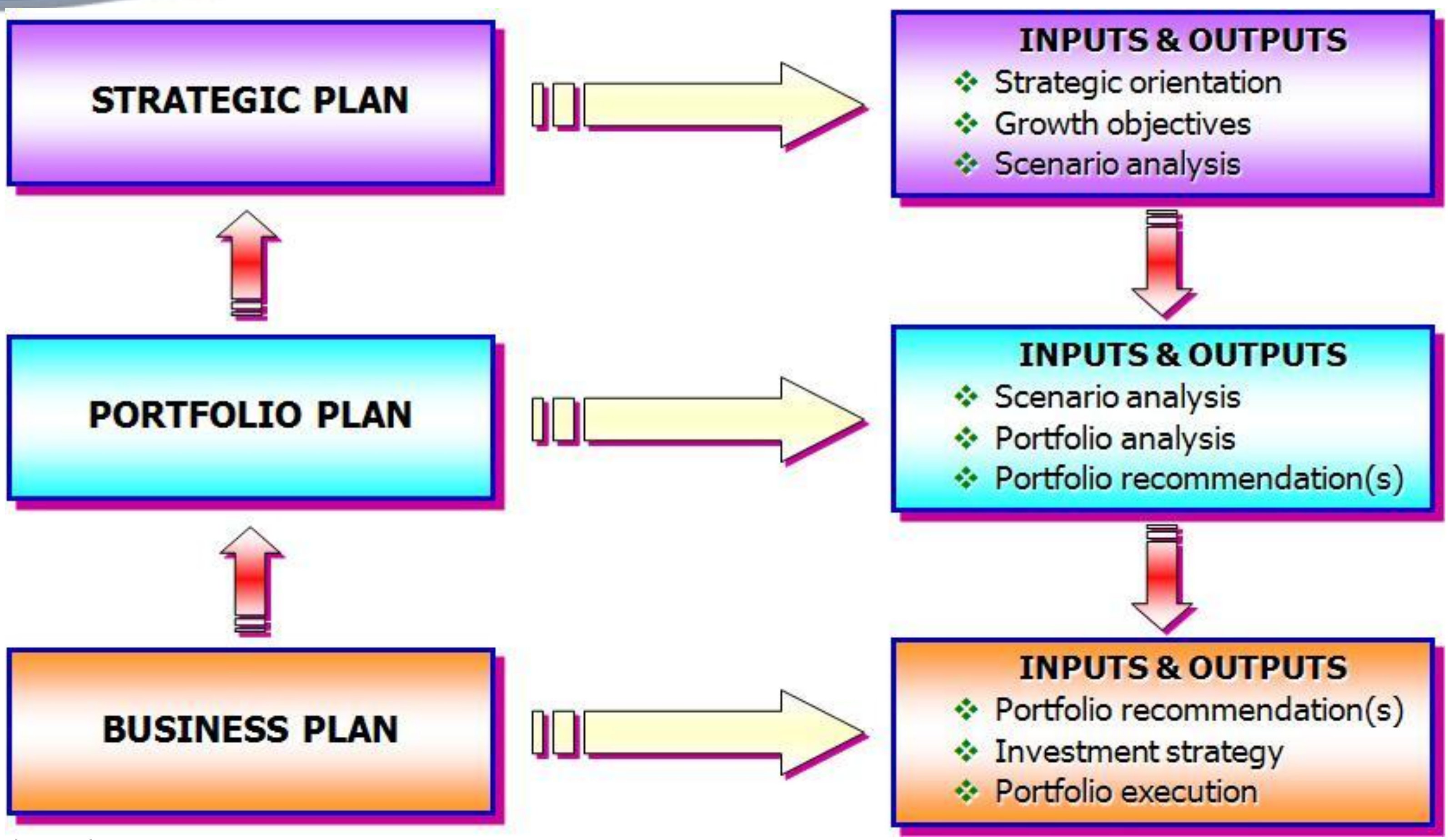
Planning defined

According to Urwick, "Planning is a mental predisposition to do things in orderly way, to think before acting and to act in the light of facts rather than guesses. Planning is deciding best alternative among others to perform different managerial functions in order to achieve predetermined goals".

Planning defined

According to Koontz & O'Donell, "Planning is deciding in advance what to do, how to do and who is to do it. Planning bridges the gap between where we are to, where we want to go. It makes possible things to occur which would not otherwise occur".

Planning defined



Planning: The first step in Management Cycle

Basic techniques of planning

Avoid BOREDOM….

Planning should be convincing, demanding and pragmatic

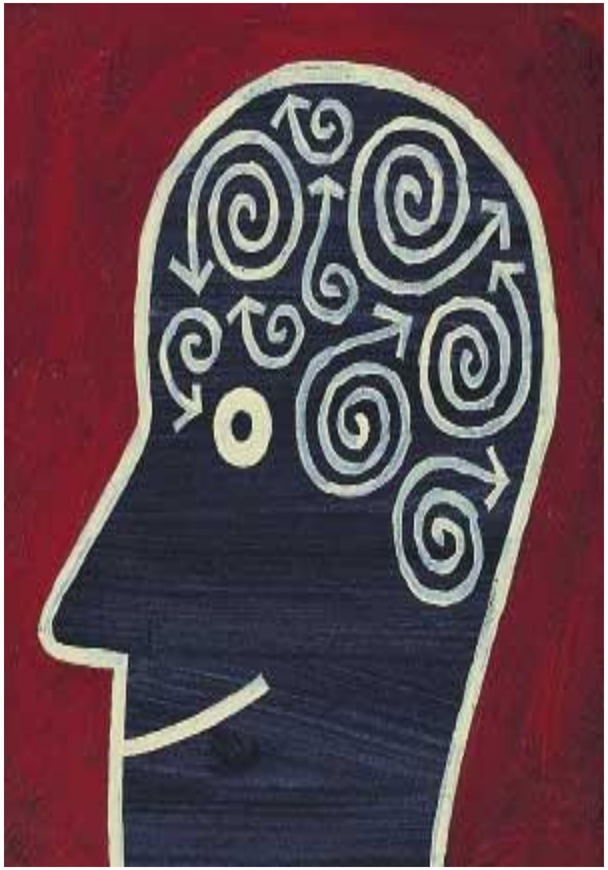
Make SMARTER planning supporting and complementing dynamic managerial environment.

What is SMARTER planning?

[Next slide]

Basic techniques of planning

SMARTER planning



- **S**pecific : clearly defined goal
- **M**easurable : planning outcome assessable
- **A**cceptable : overall agreed upon plan
- **R**ealistic : avoid irrational vague planning
- **T**ime frame : plan implemented in time
- **E**xtending : performer’s capability stretched
- **R**ewarding : plan end-result gratifying

Basic techniques of planning

- Involve the right people in the planning process.
- Write down the planning information and communicate it widely.
- Build in accountability (regularly review who's doing what and by when?)
- Note deviations from the plan and re-plan accordingly.

Basic techniques of planning

- Evaluate planning process and the plan.
- Recurring planning process is at least as important as plan document (ongoing communication).
- Nature of the process should be compatible to nature of planners.
- Critical -- but frequently missing step -- acknowledgement and celebration of results.

Key Planning Points

A detailed plan normally includes the who, what, when, where, how, and why:

- **Who** does it involve and who will do what?
- **What** are we going to do? What will happen if we do not do it?
- **When** does it start and end?
- **Where** will it take place?
- **How** will it take place?
- **Why** must we do it?

Factors involved in Planning

- Good plans start with a brainstorming session that includes all the people involved with the project. This allows everyone to be part of the solution, in addition to gathering the best ideas.
- Two key questions must be asked:
  - What are all the ingredients necessary for its successful execution?
  - What are all the possible forces or events that could hinder or destroy it?

Factors involved in Planning

- The plan must be organized. Organizing is the process of creating and maintaining the conditions for effectively executing plans. It involves systematically defining and arranging each task with respect to the achievement of the objective. It includes three major steps:
    - Determine all tasks.
    - Set up a structure to accomplish all tasks.
    - Allocate resources.

Factors involved in Planning

- It is also important to consider timing — when each task must be started and completed.
- A helpful approach is to use “backward planning”.
- *Backward planning* means looking at the big picture first, and then planning all tasks, conditions, and details in a logical sequence to make the big picture happen.
- Include all the details of support, time schedule, equipment, coordination, and required checks.

Factors involved in Planning

- The team must think of every possible situation that will help or hinder the project. Once the process of mentally building the project has begun, the activities will come easily to mind.
- Organize all planning details into categories, such as needs, supplies, support, equipment, coordination, major tasks, etc.
- List all the details under the categories. Create a to-do list for each category. This list will become the checklist to ensure everything is progressing as planned.

Hazards to Rational Planning

The ten planning pitfalls most commonly fallen into by the largest percentage of corporations.

(Results from a survey)

Hazards to Rational Planning

PITFALLS

1. Failing to encourage managers to do good long-range planning by basing rewards solely on short-range performance measures.
2. Failing to make sure that top management and major line officers really understand the nature of long-range planning and what it will accomplish for them and the company.
3. Becoming so engrossed in current problems that top management spends insufficient time on long-range planning, and the process becomes discredited among other managers and staff.

Hazards to Rational Planning

PITFALLS

4. Failing to use plans as standards for measuring managers' performance.
5. Failing to make realistic plans (as the result, for example, of over-optimism and/or over-cautiousness).
6. Failing to exploit the fact that formal planning is a managerial process that can be used to improve managers' capabilities throughout a company.
7. Failing to develop a clear understanding of the long-range planning procedure before the process is actually undertaken.

Hazards to Rational Planning

PITFALLS

8. Tendency of managers to focus too much on “today”… least bothered or concerned about what could happen “tomorrow”. The attitude of ‘we will face tomorrow as it comes’.
9. Doing long-range planning periodically and forgetting it between cycles.
10. Failing, on the part of top management and/or the planning staff, to give departments and divisions sufficient information and guidance (for example, top management's interests, environmental projections, etc.).

Organizational Goals

What are GOALS?

Goals are a statement of what the organization (e.g. the corporation) or subunit of the organization (e.g. a function or department) wishes to do. Goals state the end toward which effort is directed. They are usually a reflection of an organizational (or subunit) problem or of a desire to capture an opportunity to improve or advance the organization.

Organizational Goals

Organizational Goals

Goal setting sequence

The "sequence" is neither top-down, nor is it bottom-up. In reality it is a series of back and forth interactions between levels of the organization, between people and between planning processes.

Mission of the Organization

Vision of the Organization

Strategic Plan
(can be any time frame - often long range)

Organization Goals
(usually in the time frame of an operating plan, i.e. fiscal year)

Function/Department Goals
(operating plan time frame)

Individual Objectives
(operating plan time frame)

Organizational Goals

Why set Goals?

- First and foremost, setting goals will greatly increase the likelihood of **organization effectiveness**. This means that simply doing it - no matter how well or how poorly - will be beneficial to the organization. The absence of goals will likely result in lower organization performance.
- The second principle is that establishing hard and specific goals will result in **better performance** than establishing easy and vague goals. There is almost an 80% chance that hard, specific goals will increase organization effectiveness more than easier, less specific goals. This principle is of sufficient importance to suggest that managers have a responsibility to require their organizations (and individual employees) to stretch toward more difficult ends and specify those ends in enough detail to make measurement and accountability more achievable.

Organizational Goals

Why set Goals?

- Goals enable managers to see the **achievement between targeted and actual performance**. Without the reference point of goals, one cannot so readily see and experience the achievement. Job satisfaction is a function of the degree to which stated intentions are achieved. The closer the fit between targeted and actual performance, the greater the employee's job satisfaction. Morale is attributed more to achievement than to any other factor such as pay, supervision, work space, etc.
- Goals need to be set to keep every activity within a time frame. Goals need to be **time bounded**. Research has supported that the volume of work expands to fill the time allowed. Much more productive work can be accomplished when target completion dates are set. Indeed, "we don't have enough time" can be an asset if a manager requires shorter time limits than are often requested or assumed.

Organizational Goals

Why set Goals?

- Finally, **maintaining control of large organizations** cannot be done without direction setting mechanisms which enable all employees to see the targets and establish plans to reach them. As organizations grow in numbers of key people, increased numbers of parts (i.e. functions, departments, and other sub-units) and increased complexity (i.e. market place needs or demands, economic uncertainties, new technologies, etc.), they can only be controlled through management systems which enable employees to keep focused without the boss being ever present and ever directing. Goal setting is one of those management systems.

Organizational Goals

Functions of Organizational Goals

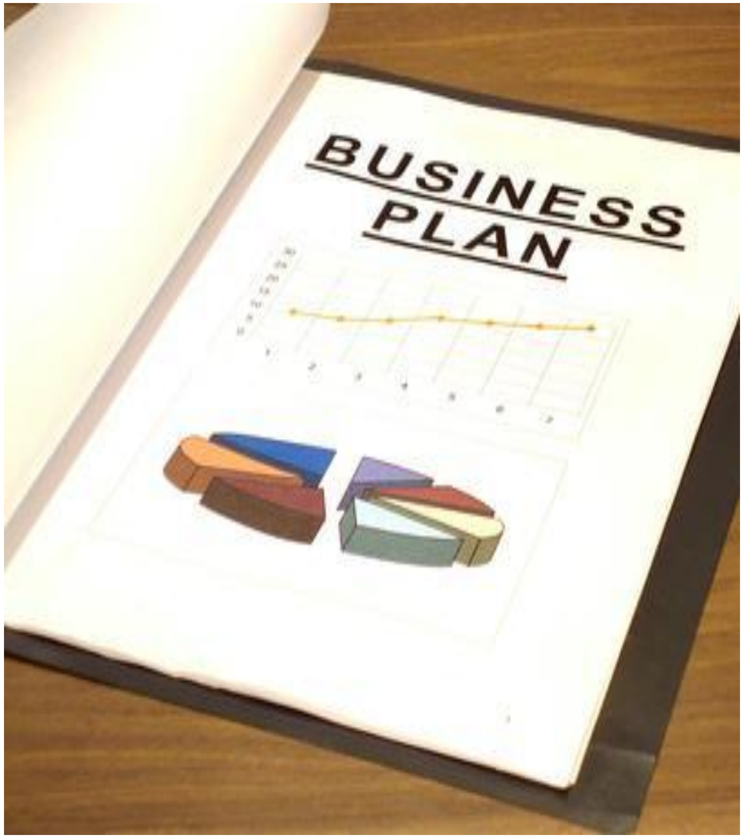
- A goal is a future expectation. It is something the organization is striving to accomplish. The meaning of the goal is subject to a number of interpretations. It can be used in a broad sense to refer to the overall purpose of an organization. A goal may be used to refer more specific desired accomplishment. For example, to produce and sell a given number of range of books within a given period of time.
- Some specific functions of organizational goals are mentioned in the next slide:

Organizational Goals

Functions of Organizational Goals

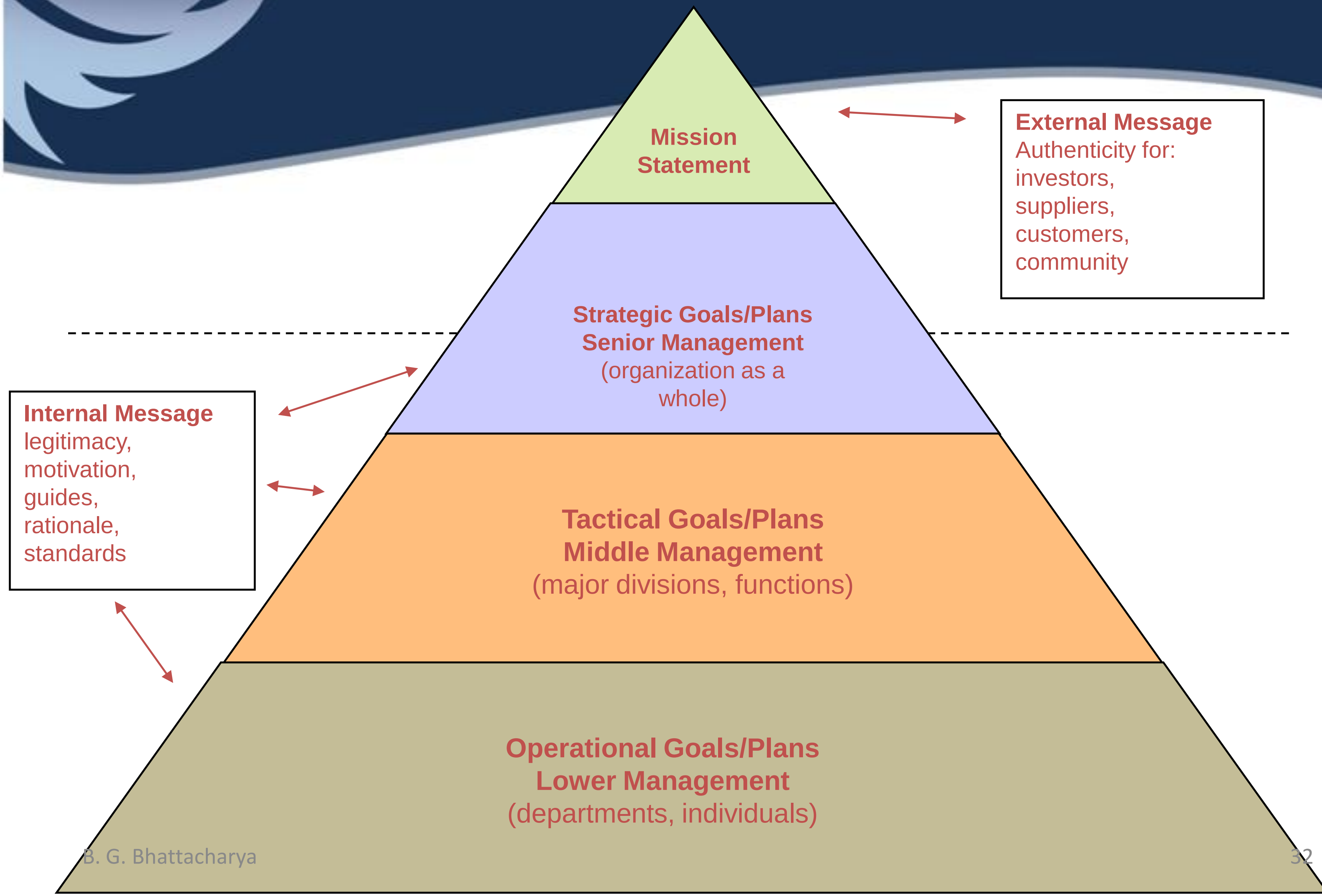
- Goals provide a standard of performance. They focus attention on the activities of the organization and the direction of the staffs.
- Goals provide a basis for planning and control related to the activities of the organization.
- Goals influences the structure of the organization and help to determine the nature of technology employed.
- Goals are basis for objectives and policies of the organization
- Goals are important feature of work organization. Goals should be stated clearly, emphasized and communicated to all employees of the organization in order to achieve effectiveness.
- Goals help to develop commitment of individuals and group to the activities of the organization. They focus attention on purposeful behavior and provide a basis for motivation and reward system.

Types of Planning



Three major types of plans can help managers achieve their organization's goals: **strategic, tactical, and operational**. Operational plans lead to the achievement of tactical plans, which in turn lead to the attainment of strategic plans. In addition to these three types of plans, managers should also develop a **contingency plan** in case their original plans fail.

Planning Pyramid



Types of Planning

Operational Planning

- The specific results expected from departments, work groups, and individuals are the **operational goals.** These goals are precise and measurable. “Process 150 sales applications each week” or “Publish 20 books this quarter” are examples of operational goals.
- An **operational plan** is one that a manager uses to accomplish his or her job responsibilities. Supervisors, team leaders, and facilitators develop operational plans to support tactical plans. Operational plans can be a single-use plan or an ongoing plan.
- **Single-use plans** apply to activities that do not recur or repeat. A budget is a single-use plan because it predicts sources and amounts of income and how much they are used for a specific project.
- **Continuing or ongoing plans** are usually made once and retain their value over a period of years while undergoing periodic revisions and updates. A **policy** is an ongoing plan because it provides a broad guideline for managers to follow when dealing with important areas of decision making as per the demand of different situations.

Types of Planning

Tactical Planning

- A **tactical plan** is concerned with what the lower level units within each division must do, how they must do it, and who is in charge at each level. Tactics are the means needed to activate a strategy and make it work.

- *Tactical plans* are concerned with shorter time frames and narrower scopes than are strategic plans. These plans usually span one year or less because they are considered short-term goals. Long-term goals, on the other hand, can take several years or more to accomplish.

- Normally, it is the middle manager's responsibility to take the broad strategic plan and identify specific tactical actions.

Types of Planning

Strategic Planning

- A **strategic plan** is an outline of steps designed with the goals of the entire organization as a whole in mind, rather than with the goals of specific divisions or departments. Strategic planning begins with an organization's mission.
- Strategic plans look ahead over the next two, three, five, or even more years to move the organization from where it currently is to where it wants to be.
- Requiring multilevel involvement, these plans demand harmony among all levels of management within the organization. Top management's strategic plan for the entire organization becomes the framework and sets dimensions for the lower level planning.

Types of Planning

Contingency Planning

- Intelligent and successful management depends upon a constant pursuit of adaptation, flexibility, and mastery of changing conditions. Strong management requires a “keeping all options open” approach at all times — that's where contingency planning comes in.
- **Contingency planning** involves identifying alternative courses of action that can be implemented if and when the original plan proves inadequate because of changing circumstances.
- Unexpected problems and events frequently occur. When they do, managers may need to change their plans. Management should develop alternatives to the existing plan and ready them for use when and if circumstances make these alternatives appropriate.

Strategic Planning

- In the corporate world, **strategic planning** generally refers to the defining of the organization’s go-forward plan for the future and accompanying desired outcomes.

- The primary tasks of strategic management are to understand the environment, define organizational goals, identify options, make and implement decisions, and evaluate actual performance.

Strategic Planning

- Strategic planning aims to exploit the new and different opportunities of tomorrow, in contrast to long-range planning, which tries to optimize for tomorrow the trends of today.
- When strategic planning is done well, with a mature and robust process that guides the effort to ensure completeness - the outcomes can be powerful and position the organization to dominate the competition.

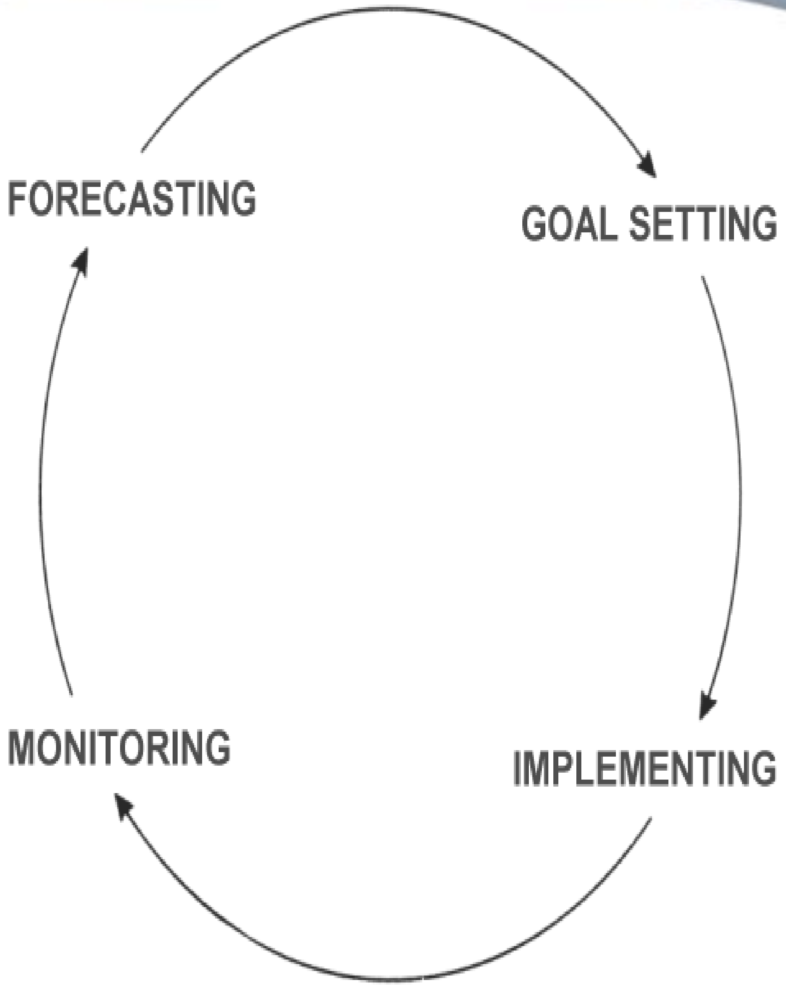
Strategic Planning Factors

- Timelines for the actions
- Metrics tied to goal accomplishment
- Plan governance structures
- Training
- Core competencies analysis

- Required resources
- Accountability in goal-related initiatives
- Scenario planning
- Industry trend analysis
- Core values analysis

Strategic Planning Process

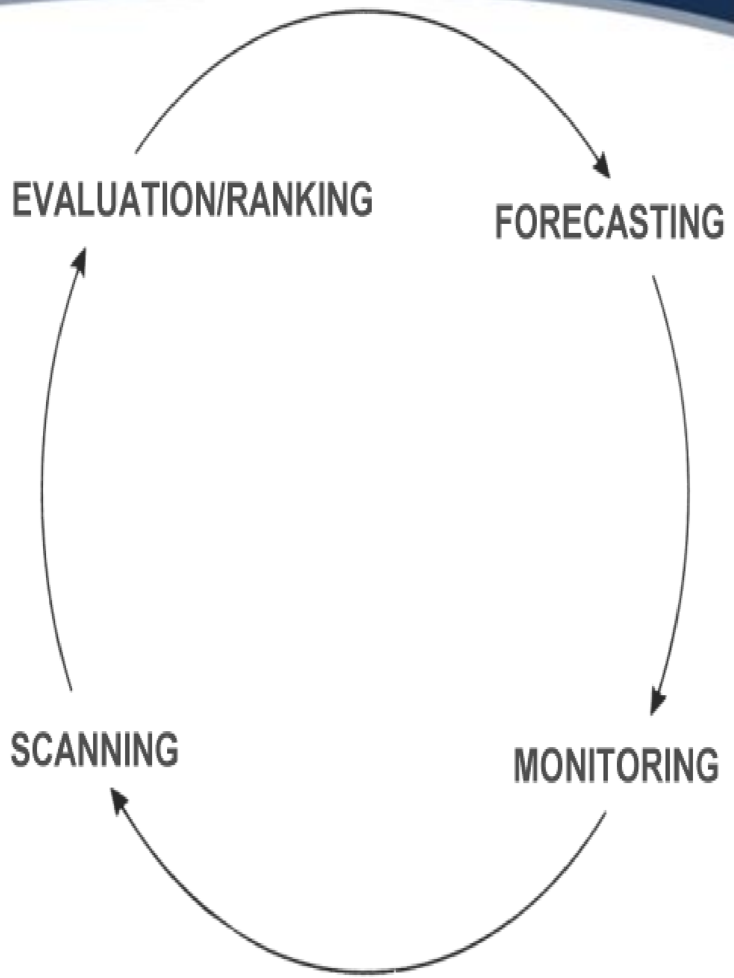
Traditional long-range planning in its most elementary form is based on the concept that planning consists of at least four key steps-- forecasting, goal setting, implementing and monitoring -- which are intended to answer these four questions: (1) Where is the organization now? (2) Where is it going? (3) Where does it want to go? and (4) What does it have to do to change from where it is now to where it wants to go?



Long Range Planning

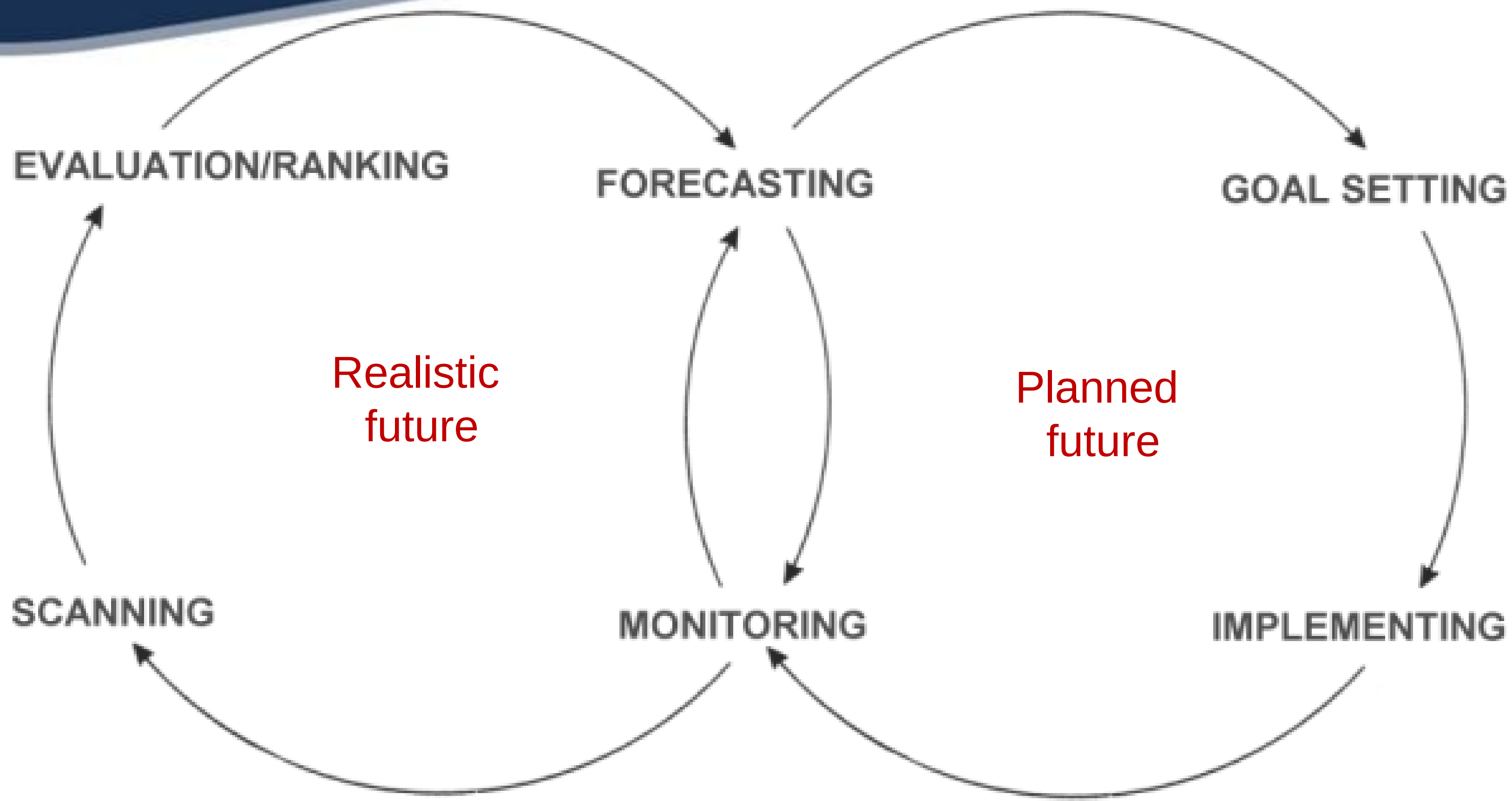
Strategic Planning Process

The environmental scanning model begins with **scanning** the external environment for emerging issues that pose threats or opportunities to the organization. Each potential issue or trend is then analyzed (**evaluation/ranking**) as to the likelihood that it will emerge and the nature and degree of its impact on the organization if it should actually materialize. The next stage, **forecasting,** focuses on developing an understanding of the expected future for the most important issues and trends. **Monitoring,** in effect, identifies areas for additional and continued **scanning.**



Environmental Scanning

Strategic Planning Process



The Strategic Planning Process: A fusion of “planned” future and “real” future

Strategic Planning Process

The argument for combining traditional *long range planning model* & *environmental scanning model* becomes apparent when the future that happens ***to*** *the institution* and the future that happens ***for*** *the institution* are contrasted.

In the **future that happens to the institution** (the typical "planned" future), new developments are not anticipated before they force their way to the top of the agenda, demanding crisis management and the latest fire-fighting techniques. In this future, issues are usually defined by others whose interests do not necessarily include those of the institution or its purpose. Not only are threats from the external environment not anticipated as early as possible; key opportunities will be missed or diminished in value.

Strategic Planning Process

In the **future that happens for the institution**, in contrast (the "strategic" future), administrative leadership is focused more on fire prevention and less on fire fighting. Hence, it is able to exercise more careful judgment in the orderly and efficient allocation of resources. Certainly management will still have to deal with unforeseen developments, but they will probably be fewer and less traumatic. Thus, institutions will be able to pursue their mission with greater confidence and consistency because they will be interrupted by fewer and smaller fire-fighting exercises.

Situational Analysis

Situational Analysis : Defined

- **SITUATIONAL ANALYSIS, according to the Business Dictionary, is "the systematic collection and evaluation of past and present economical, political, social and technological data".**

It is aimed at –

- **identification of internal and external forces that may influence the organization's performance and choice of strategies, and**
- **assessment of the organization's current and future strengths, weaknesses, opportunities and threats.**

Situational Analysis

Situational Analysis : An Overview

- SA is the assessment of the current situation of an Institution.
- The institution needs to take a hard look at itself as well as outside environment.
- Situation analysis tries to answer the following questions about the Institution:
  - Where it came from?
  - Where is it now?
  - Where is it going?
  - What are its choices?
  - Who are our stakeholders?
  - What are stakeholders expectations?
- Situation analysis establishes critical issues to be used in developing vision, mission, objectives and targets.

Situational Analysis

Situational Analysis : Approach

- There are various approaches to be used in situation analysis, but only two are recommended for the purpose of Strategic planning process.
- These methods are Stakeholder Analysis and SWOT/C.
- They assist in developing high quality Vision, Mission, Objectives, and Targets.
- The approaches selected will depend upon the nature of the institution, its capacity, and its resource availability.

Situational Analysis

Situational Analysis : Other methods

- Brainstorming
- Opportunities and Obstacles to Development (O & OD)
- Political, Economical, Sociological and Technological Analysis (PEST)
- Literature Review
- Performance Review
- Service Delivery Survey
- Self Assessments
- Problem Tree or Logic Model

Situational Analysis

SA : Stakeholder Analysis

What does Stakeholder Analysis entail?

- It attempts to understand **perceptions, expectations, and priorities** of all of those who have an interest (either direct or indirect) in an institution.
- Stakeholders' views should result from interactions with stakeholders, not as an analysis of what an institution's employees believe stakeholders want or think.

Situational Analysis

Stakeholder Analysis (contd…)

In conducting situation analysis we should seek to know:

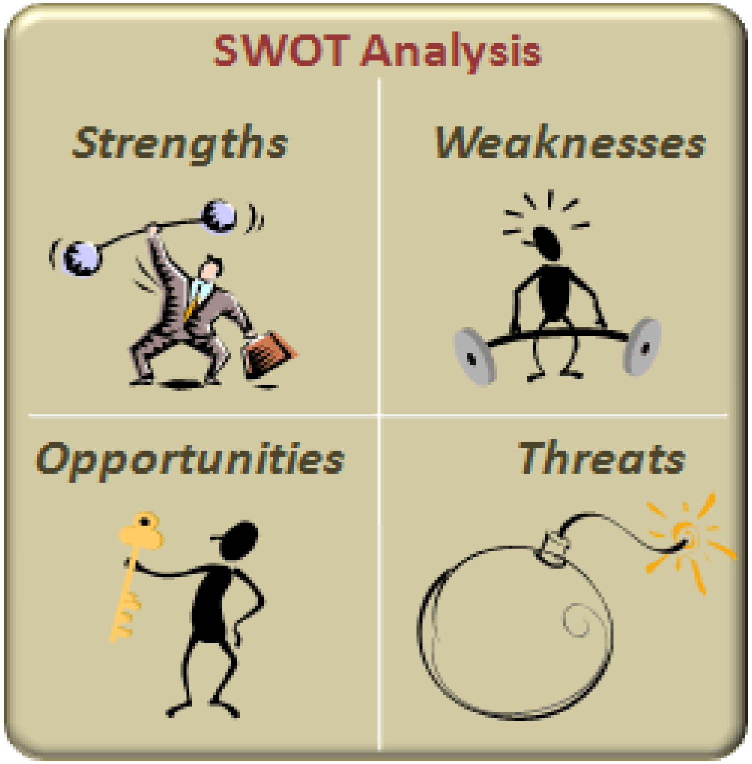
- **Who are our Stakeholders (who are they?)**
- **What do they expect from us?**
- **What have we actually delivered?**
- **What are they satisfied with (and why?)**
- **What are they dissatisfied with (and why?)**
- **What problems do we have?**
- **How can we improve?**

Situational Analysis

SA : SWOT/C Analysis

What is to be done?

- **The analysis is carried out through a brainstorming session involving management and key stakeholders.**
- **Strengths and Weaknesses are internal to the institution.**
- **Opportunities and Threats/Challenges are external.**
- **The development of is facilitated by answering a series questions that aim at reaching general agreement and to develop potential targets.**



Situational Analysis

SWOT/C Analysis (contd…)

Suggested questions for facilitating the process are listed below:

❖ **Strengths**

- What advantages does the institution have?
- What does the institution do well?
- What relevant resources does the institution have access to?
- What do other people perceive as the institution's strengths?

Situational Analysis

SWOT/C Analysis (contd…)

Suggested questions for facilitating the process are listed below:

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Situational Analysis

SWOT/C Analysis (contd…)

❖ **Weaknesses**

- What could be improved?
- What does the institution do badly?
- What should be avoided?

❖ **Opportunities**

- What are the opportunities available?
- What are the positive trends?

Situational Analysis

SWOT/C Analysis (contd…)

❖ **Challenges/Threats**

- What obstacles are faced by the institution?
- What are the competitors doing?
- Are the specifications for the institution's functions, products or services changing?
- Are changes in technology threatening the institution's position?
- Does the institution have bad debtors or cash flow problems?
- Could any of the institution's weaknesses seriously threaten the business?

Situational Analysis

Attributes of a good Situational Analysis

- The quality of a Strategic Plan is related to the quality of the ideas which underpin it.
- Situational Analysis is successful at generating good ideas and identifying fundamental issues.
- Situational Analysis is concerned with generating results rather than adhering to process.
- Situational Analysis is presented in a clear fashion.
- Situational Analysis does not state the 'obvious' (should be challenging to the development of the institution).

Managerial Decision Making

The word decision is defined as:

"A choice between two or more alternatives".

Thus decision-making can be defined as:

"The selection of a course of action from among alternatives ".

Managerial Decision Making may be defined as:

"The act of making up your mind about something, or a position or opinion or judgment reached after consideration. It is the process of selecting from several choices, products or ideas, and taking action".

Factors:

- Perception.
- Priority.
- Acceptability.
- Risk.
- Resources.
- Goals.
- Values.
- Demands.
- Style.
- Judgment.

Managerial Decision Making

Six C's of decision making

- 1. Construct.
- 2. Compile.
- 3. Collect.
- 4. Compare.
- 5. Consider.
- 6. Commit.

Managerial Decision Making

Six C's (contd…)

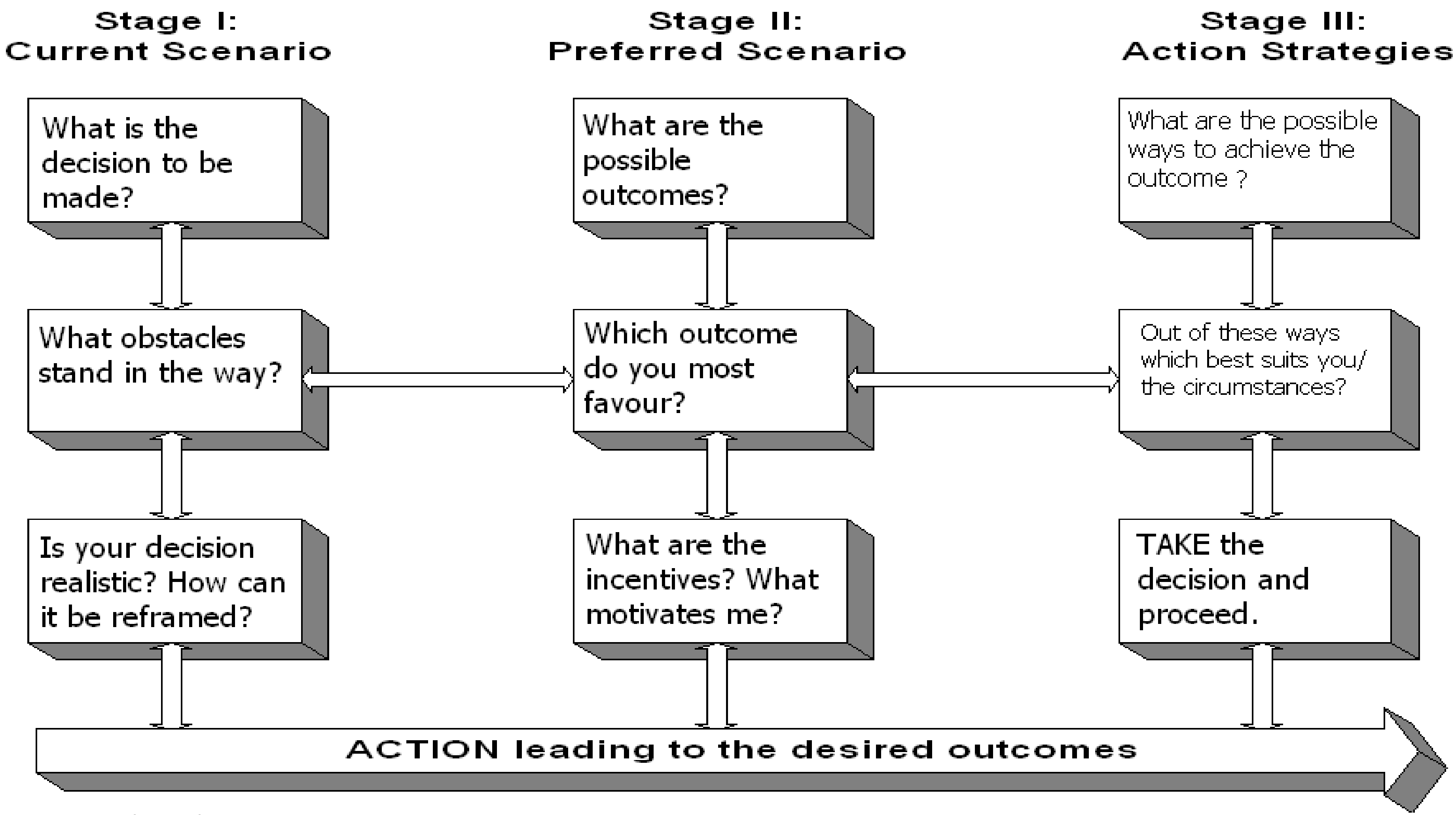
- **Construct** a clear picture of precisely what must be decided.
- **Compile** a list of requirements that must be met.
- **Collect** information on alternatives that meet the requirements.

Managerial Decision Making

Six C's (contd...)

- **Compare** alternatives that meet the requirements.
- **Consider** the "what might go wrong" factor with each alternative.
- **Commit** to a decision and follow through with it.

Managerial Decision Making



Managerial Decision Making

Effective managers make various kinds of decisions. In general, these decisions are either:

- Programmed decisions
- Non-programmed decisions

Managerial Decision Making

Programmed decisions

- A decision that is repetitive and routine
- A definite method for its solution can be established
- Does not have to be treated a new each time it occurs
- Procedures are often already laid out
- **Examples:** pricing standard customer orders, determining billing dates, recording office supplies etc.

Managerial Decision Making

Non-programmed decisions

- A decision that is novel (new or unique) or Ill structured
- No established methods exist, because it has never occurred before or because
- It is too complex

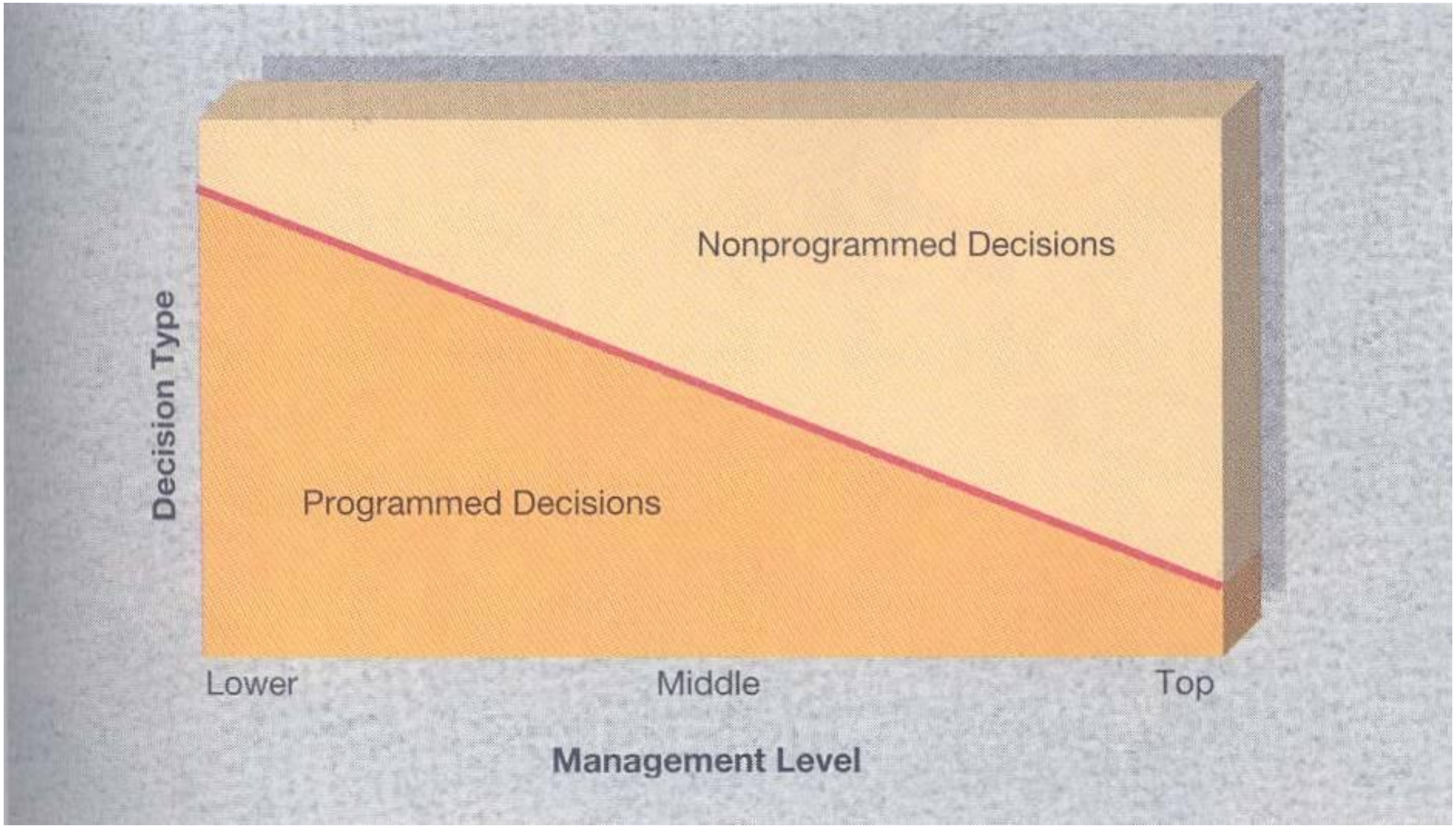
Managerial Decision Making

Non-programmed decisions

- Are **"tough"** decisions that involve risk and uncertainty and
- call for **entrepreneurial** abilities
- Such decisions draw heavily on the analytical abilities of the manager
- **Examples:** Moving into a new market, investing in a new unproven technology, changing strategic direction

Managerial Decision Making

Decision types & Mgmt. levels



Managerial Decision Making

Conditions that influence decision making

Managers make problem-solving decisions under three different conditions: **certainty, risk, and uncertainty**. All managers make decisions under each condition, but *risk* and *uncertainty* are common to the more complex and unstructured problems faced by top managers.

Managerial Decision Making

Conditions that influence decision making

Certainty

- Decisions are made under the condition of certainty when the manager has perfect knowledge of all the information needed to make a decision. This condition is ideal for problem solving. The challenge is simply to study the alternatives and choose the best solution.
- Structured problems are familiar, straightforward, and clear with respect to the information needed to resolve them. A manager can often anticipate these problems and plan to prevent or solve them.
- For example, personnel problems are common in regard to pay raises, promotions, vacation requests, and committee assignments, as examples.

Managerial Decision Making

Conditions that influence decision making

Risk

- In a risk environment, the manager lacks complete information. This condition is more difficult. A manager may understand the problem and the alternatives, but has no guarantee how each solution will work. Risk is a fairly common decision condition for managers.
- A *'crisis problem'* is an unexpected problem that can lead to disaster if it's not resolved quickly and appropriately. No organization can avoid crises, and the public is well aware of the immensity of corporate crises in the modern world.
- Managers in more progressive organizations now anticipate that crises will occur. These managers are installing early-warning crisis information systems and developing crisis management plans to deal with these situations in the best possible ways.

Uncertainty

- When information is so poor that managers can't even assign probabilities to the likely outcomes of alternatives, the manager is making a decision in an uncertain environment.
- This condition is the most difficult for a manager. Decision making under conditions of uncertainty is like being a pioneer entering unexplored territory.
- Uncertainty forces managers to rely heavily on creativity in solving problems: It requires unique and often totally innovative alternatives to existing processes. Groups are frequently used for problem solving in such situations.
- In all cases, the responses to uncertainty depend greatly on intuition, educated guesses, and hunches — all of which leave considerable room for error.

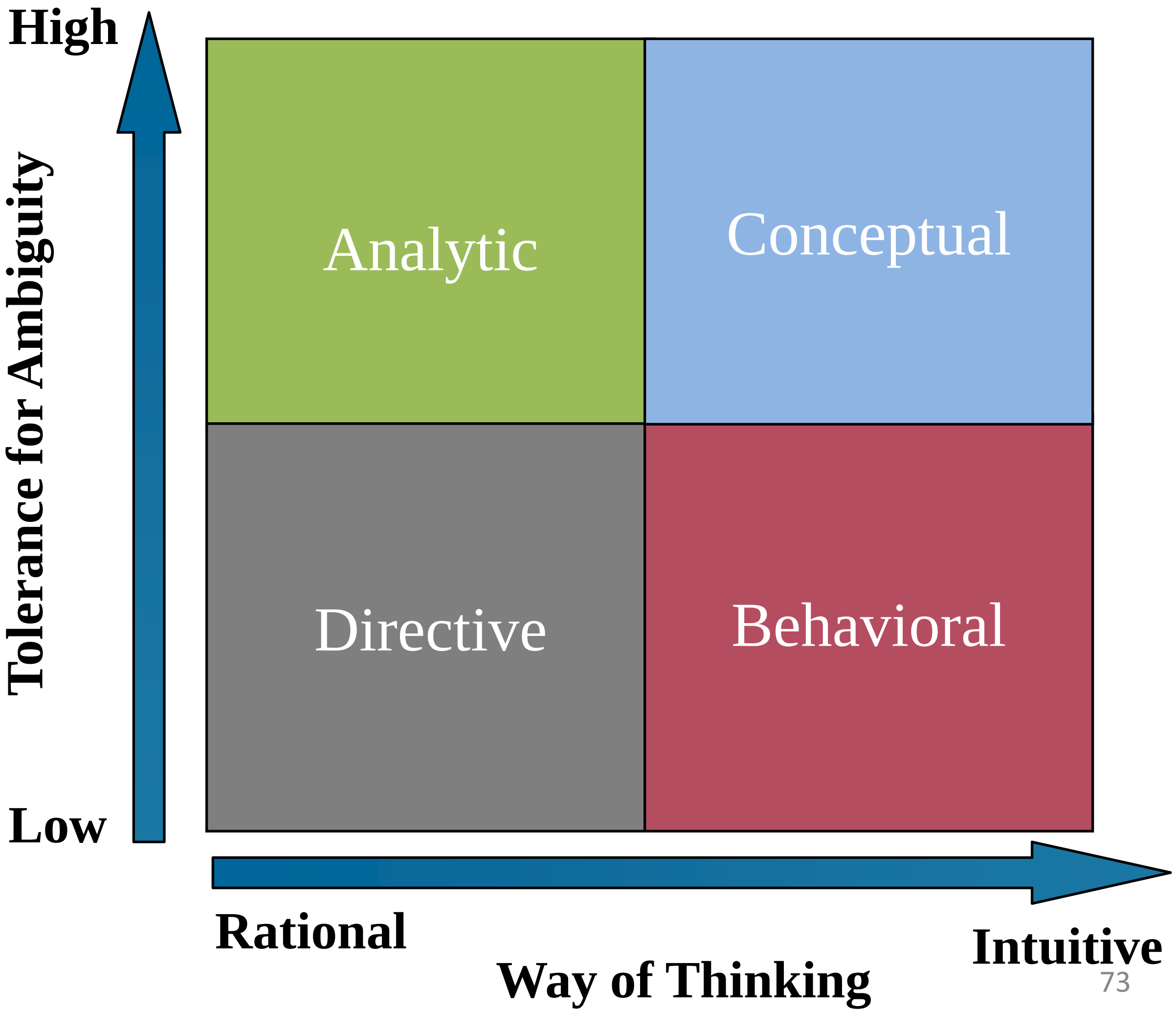
Managerial Decision Making

Decision making styles

- Decision-Making Styles
  - Two dimensions define the approach to decision making
    - ***way of thinking*** - differs from rational to intuitive.
    - ***tolerance for ambiguity*** - differs from a need for consistency and order to the ability to process many thoughts simultaneously.
  - Choose most appropriate of four decision-making styles
    - ***Directive*** - fast, efficient, and logical
    - ***Analytic*** - careful and able to adapt or cope with new situations
    - ***Conceptual*** - able to find creative solutions
    - ***Behavioral*** - seek acceptance of decisions

Managerial Decision Making

Decision making styles



Managerial Decision Making

Decision Style : Directive

Directive

- Represents **low tolerance** for ambiguity and uncertainty.
- Reflects rational thinking of the manager.
- Such decision styles are more suitable for routine procedural tasks.

Managerial Decision Making

Decision Style : Analytic

Analytic

- Analytical style is also a rational style of thinking.
- Involves a very **high tolerance** for ambiguity and uncertainty.
- Such managers generally seek detailed information before making a decision.

Behavioral

- Represents a **creative** way of thinking.
- Involves a **low tolerance** for ambiguity or uncertainty.
- Managers with a behavioral style introduce **"new"** ways of doing things.

Managerial Decision Making

Decision Style : Conceptual

Conceptual

- Conceptual style also reflects a **creative** and intuitive way of thinking.
- Conceptual style managers have a very **broad vision** and generally look at numerous alternatives for decision-making.
- Focused on the long run and often result in creative outcomes or alternatives.

Managerial Decision Making

Group Decision Making

- Importance of establishing/enforcing ground rules
- Consensus is powerful
- Reframing and reworking on alternatives
- Involving sensitive issues of strategic impact
- The ‘Risk Shift’ alternative
- High cost involvement

Managerial Decision Making

Decision Making Process

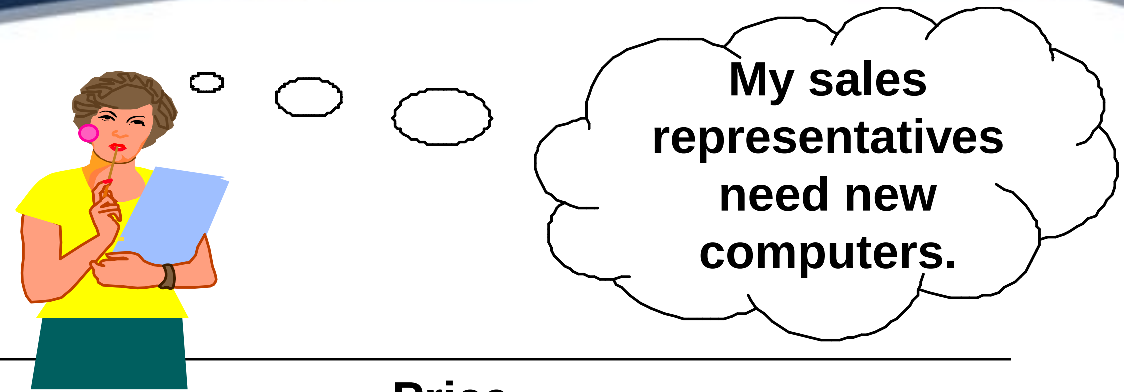
Six Steps in the Managerial Decision Making Process

Managerial Decision Making

Decision Making Process

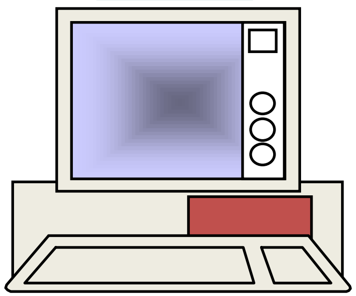
Identifying a Problem

↓



Identifying the Decision Criteria

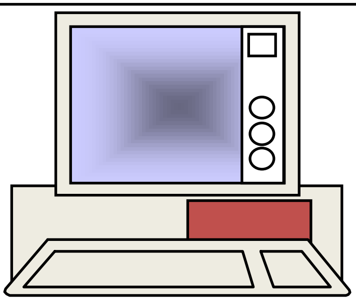
↓



- Price
- Manufacturer and model
- Warranties
- Support
- Reliability
- Repair Record

Allocating Weights To Criteria

↓



•Reliability	10
•Service	8
•Warranty Period	5
•On-site Service	5
•Price	4
•Case Style	3

Managerial Decision Making

Decision Making Process

Developing Alternatives

Compaq | Fujitsu | AST | NEC
Sharp | IBM | HP | TI

Analyzing Alternatives

Compaq, NEC, AST, HP

- Reliability
- Service
- Warranty Period
- On-site Service
- Price
- Case Style

Fujitsu, IBM, Sharp, TI

Selecting an Alternative

The Fujitsu is the best.

Implementing Decision

Evaluation of Decision Effectiveness

Group Decisions: Advantages

- Acceptance of group members
- Coordination is easier
- Communication is easier
- Existence of large alternatives
- More information can be processed
- Diversity of experience and perspectives

Group Decisions: Disadvantages

- Take longer time
- Group can be indecisive
- Groups can compromise
- Groups can be **dominated**
- Groups can “**play games**”
- Victim to **Groupthink**

Managerial Decision Making

Quantitative Tools for Planning

We can identify mainly <u>four</u> quantitative tools for planning:

1. Program Evaluation and Review Technique (PERT) network.
2. Break – Even Analysis.
3. Linear Programming.
4. Forecasting.

The PERT is a very popular tool for planning. It is a flow chart diagram that depicts the sequence of activities needed to complete a project and the time or costs associated with each activity. To apply the PERT it is essential to know about events, activities, slack time and critical path.

- *Events* are the end points of activities in the PERT network.
- *Activities* represent time or resources required to complete one event to another.
- *Slack time* represent the amount of time can be delayed in some activity without delaying the project.
- *Critical Path* is the longest and time-consuming sequence of events and activities in the PERT network.

- **The Break Even Analysis** is a widely used planning tool to assess the key aspects of the feasibility of a business.
- As a tool of planning, it helps in finding the relationships between revenues, costs and profits.
- An organization runs in a break-even situation when its total revenue is just enough or equal to its total costs.
- Break-even analysis can also be used to know various risks associated with selecting a certain strategy if different alternatives are available in selecting a cost structure.

Managerial Decision Making

Quantitative Tools for Planning

- **Linear Programming** is a planning tool mostly useful for maximizing an objective, such as profits, or minimizing an objective, such as costs.
- Linear programming can be used in different situations in which numerous activities are supposed to be done with the limited resources.
- This tool assist the managers to find the optimum way to allocate the limited resources, given an objective and any relevant constraints.
- The linear programming activities include maximizing production output, minimizing distribution costs, and determining optimal inventory levels.

Quantitative Tools for Planning

- **Forecasting** tools of planning predicts activities of the future. Quantitative forecasting can be done through *Simple Regression Analysis, Multiple Regression Analysis,* and *Time Series Analysis*.
- In *SRA*, estimation of future demand for product is obtained by establishing its relations with the past production volume and sales levels.
- *MLA* is an extension of SRA, where instead of one variable, more variables like sales volume, productivity, technical equipment, etc. are considered to determine future demand of a product.
- In many businesses, future sale levels are related to past sales. In *TSA*, past sales volume are examined to isolate seasonal and cyclical variations, long term trends, and other random movements.

Managerial Decision Making

Quantitative Tools for Decision Making

The most commonly used quantitative tools in the field of management decision making are:

- Operations Research
- Linear Programming
- Probability
- Decision Tree
- Queueing
- Gaming

Managerial Decision Making

Quantitative Tools for Decision Making

- **Operations Research** is an interdisciplinary branch of mathematics which uses methods like mathematical modeling, statistics and algorithms to arrive at optimal or good decisions in complex managerial problems connected to maximizing profits, faster assembly line, or minimizing costs, lowering risk, etc.
- **Linear Programming** – discussed earlier.
- **Probability** calculation is used in decision making to calculate likelihood of 'certain' events and to supply an estimate of gain or loss from a decision that assist the manager in selecting the best decision for a given set of circumstances.

- A **Decision Tree** (or tree diagram) is a decision support tool that uses a graph or model of decisions and their possible consequences, including chance event outcomes, resource costs, and utility.
- A *Decision Tree* is used to identify the strategy most likely to lead in reaching a specified goal.
- Another use of trees is as a descriptive means for calculating conditional probabilities.
- More specifically, decision tree is presented in a diagrammatic form to show a number of possibilities of future events that may affect a decision.

- **Queueing** is a mathematical decision-making technique for solving waiting-line problems. There are a number of management problems which stays in ‘queue’ to be solved. This tool minimizes the hazards of waiting.
- **Gaming** is uses to give reality to the situation. It is related with the actions of the competitors. When a firm alters its plan of increasing the volume of sales, what would be the actions of the other competing firm? The technique to analyze the sequential behavior of competitors is the task of ‘gaming’.

You paid kind attention . . .