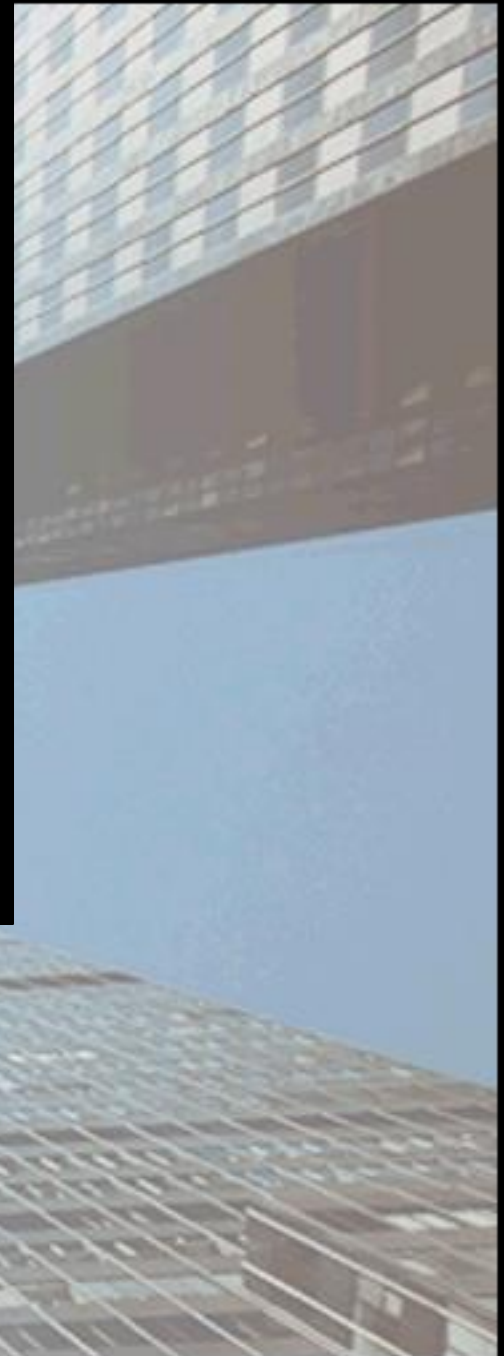


# Managerial Decision Making

ADM1100 & ADM1300  
Dr. Patrick Woodcock



# Learning Objectives



After studying this chapter, you should be able to

- Explain the traditional model of decision making.
- Recognize and account for the limits of rationality in the decision process.
- Identify the traps that individuals regularly fall into when making decisions
- Describe the role of risk and uncertainty in decision making.

# Learning Objectives

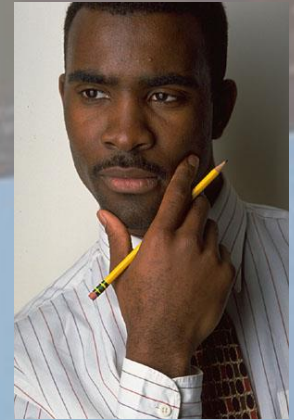


After studying this chapter, you should be able to

- List the conditions when decisions are best made individually and when they are best made collectively.
- Name the steps to facilitate group participation in decision making.
- Describe the barriers to effective decision making and ways to overcome them.

# Decision Making Concepts

- **Decision Making Process**
  - Specifying the nature of a particular problem or opportunity and
  - Selecting among available alternatives how to solve a problem or capture an opportunity



# Two Phases of Decision Making

**Formulation**

**Decision Making**

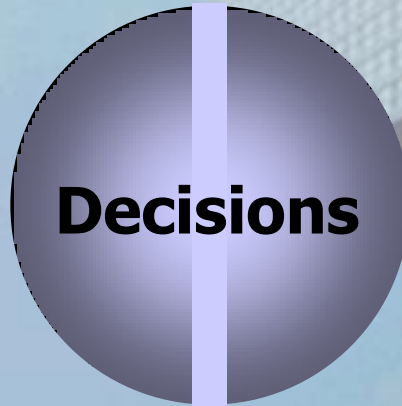
**Solution**

- Identifying a problem or opportunity
  - Acquiring information
  - Developing desired performance expectations
  - Diagnosing causes and relationships among factors affecting the problem
- Generating alternatives
  - Selecting the preferred solution
  - Implementing the decided course of action
  - Monitoring the situation to ensure successful implementation

# Types of Decisions

## Programmed Decision

- Simple/routine problem
- High levels of certainty
- Rules and procedures
- Standard operating procedures (SOP)



## Non-programmed Decision

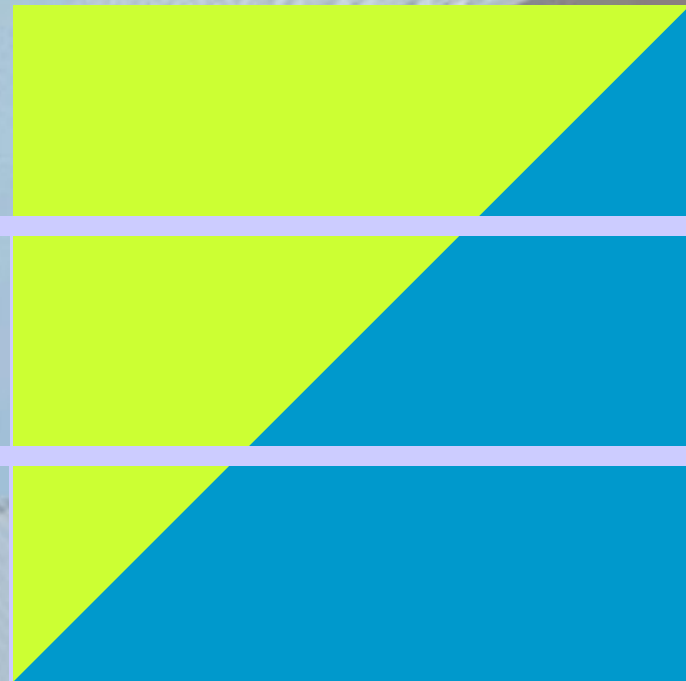
- Poorly defined or novel problem
- No alternative is clearly correct
- Past decisions of little help

# Decision-Maker Level and Type of Decision

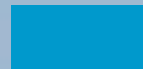
**Top  
Managers**

**Middle  
Managers**

**Lower-Level  
Managers**



**Non-programmed Decisions**

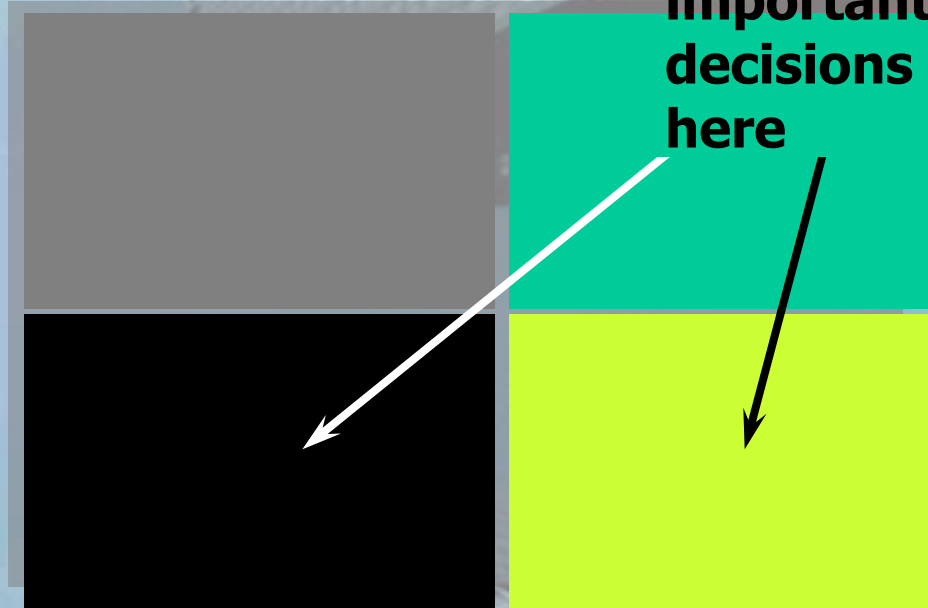


**Programmed Decisions**

# Gresham's Law and Decisions

**Non-programmed  
Decisions**

**Programmed  
Decisions**



**Urgent**

**Not Urgent**

# Individual Decision Making Models

1. Rational/classic model
2. Administrative, or bounded rationality model
3. Retrospective decision-making model



# Rational (Classical) Decision-Making Model

## Identify Decision Situations

### Step 1

- Identify decision situations
  - Problems
  - Opportunities

# Rational (Classical) Decision-Making Model



## Step 2

- **Develop objectives and criteria**
  - Specific criteria
  - Relative weightings
- **Criteria (what is important in the outcome)**

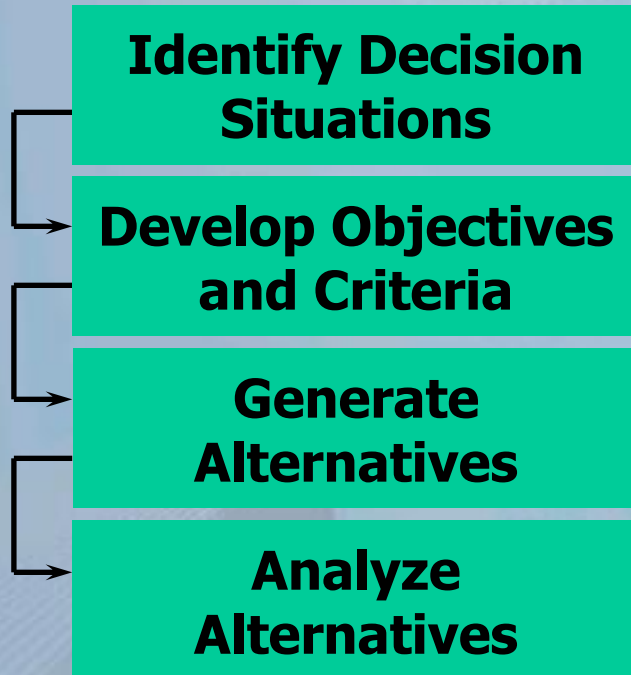
# Rational (Classical) Decision-Making Model



## Step 3

- **Generate alternatives**
  - Past solutions
  - Creative new solutions

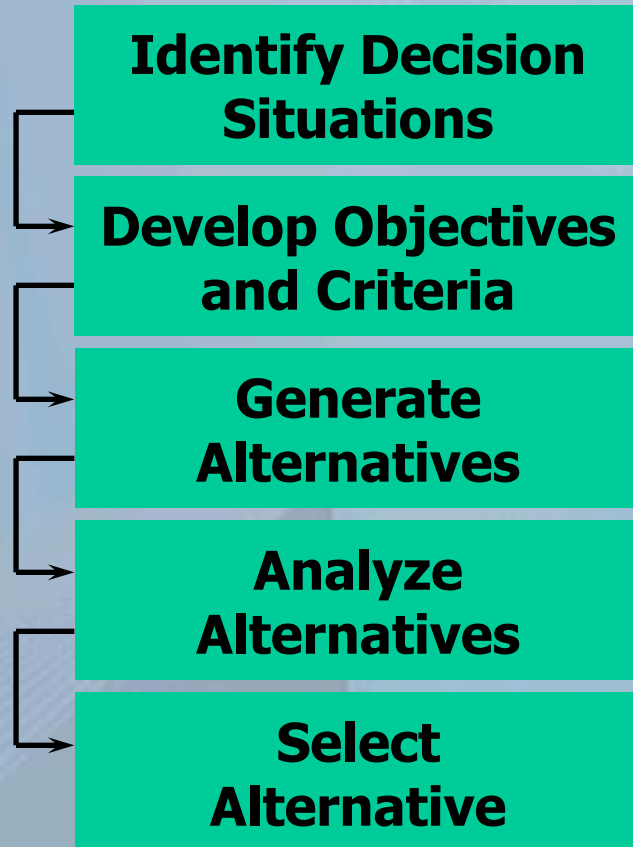
# Rational (Classical) Decision-Making Model



## Step 4

- **Analyze Alternatives**
  - Minimally acceptable results
  - Feasibility
  - Apply criteria and relative weightings
  - Best results

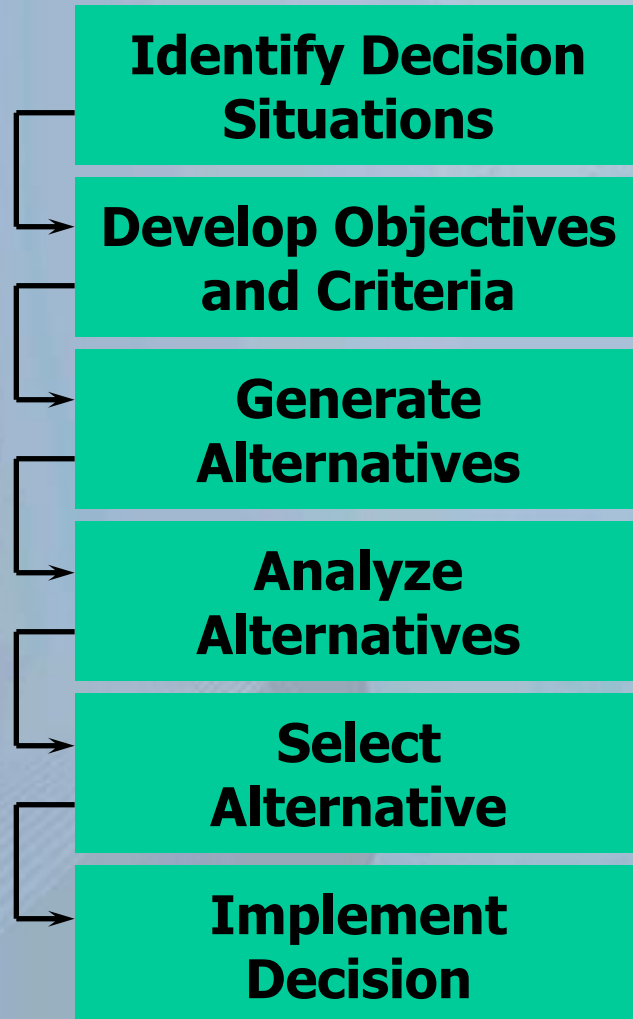
# Rational (Classical) Decision-Making Model



## Step 5

- **Select Alternative**
  - Subjectively expected utility (SEU) model

# Rational (Classical) Decision-Making Model



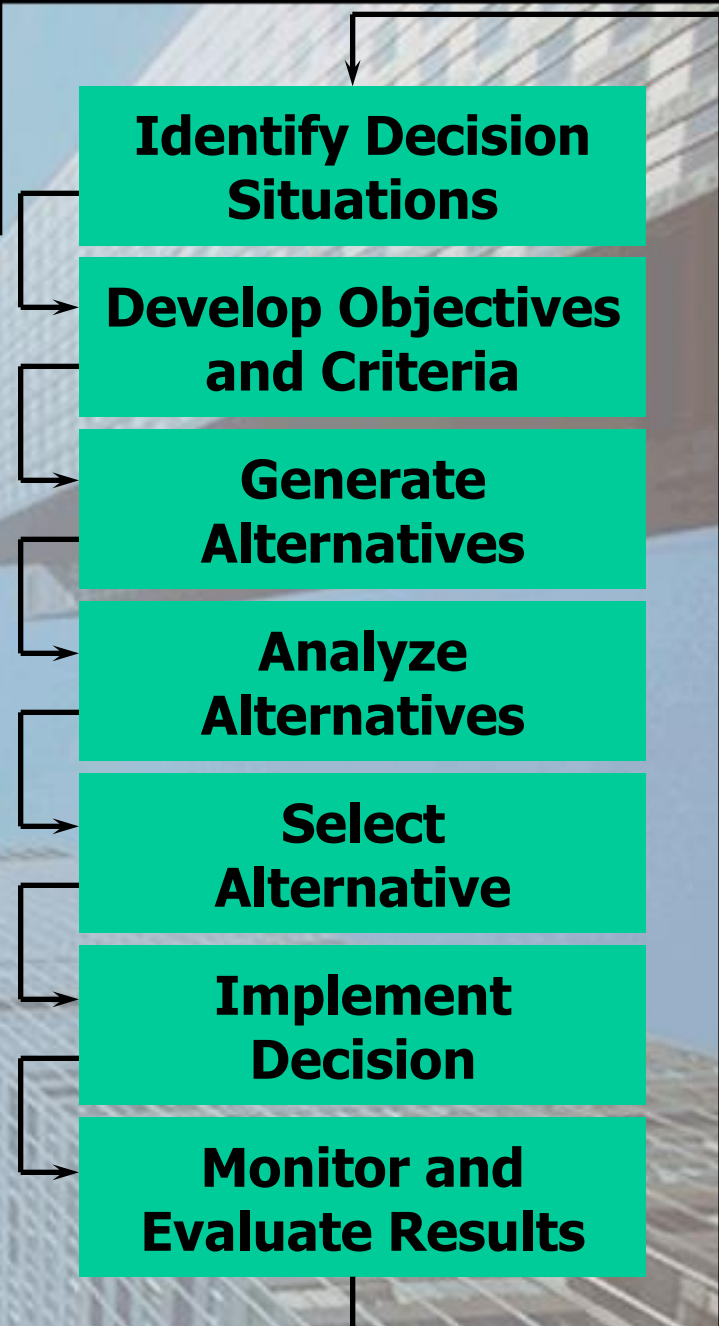
## Step 6

- **Implement Decision**
  - Sources and reasons for resistance
  - Chronology and sequence of actions
  - Required resources
  - Delegation of tasks

# Rational (Classical) Decision-Making Model

## Step 7

- **Monitor and Evaluate Results**
  - Gather information
  - Compare results to objectives and standards set at the beginning



# Assumptions of Classical Model

- **Problems are clear**
- **Objectives are clear**
- **People agree on criteria and weights**
- **All alternatives are known**
- **All consequences can be anticipated**
- **Decision makers are rational**

# Factors that Inhibit Accurate Problem Identification and Analysis

## Factor

## Description

## Illustration

### Information Bias

A reluctance to give or receive negative information

You favour Jane as the candidate; dismiss information about performance problem on her last job

### Uncertainty Absorption

A tendency for information to lose its uncertainty as it is passed along

Not clear how well Martha did in previous job. When feedback gets to you, she is described as a poor performer

# Factors that Inhibit Accurate Problem Identification and Analysis

<b>Factor</b>	<b>Description</b>	<b>Illustration</b>
<b>Selective Perception</b>	A tendency to ignore or avoid certain (especially ambiguous) information	Jane may have several employment alternatives and may even be considering going back to school, but you ignore all this in making her the offer
<b>Stereotyping</b>	Deciding about an alternative on the basis of characteristics ascribed by others	Not clear how well Martha did in Jane graduated from a private high school and went to a highly rated college on a partial scholarship, so you figure she must be a great hire

# Factors that Inhibit Accurate Problem Identification and Analysis

## Factor

## Description

## Illustration

### Cognitive Complexity

A Limits on the amount of information people can process at one time

You initially have 200 applicants for the position but decide to eliminate anyone with less than three years sales experience

### Stress

Reduction of people's ability to cope with informational demands

Your company's market share is slipping because you don't have enough sales people in the field, so you feel you just can't look at every bit of information on every candidate

# Bounded Rationality Model

- A descriptive model of decision making recognizing that people are limited in their capacity to fully assess a problem, and usually rely on shortcuts and approximations to arrive at a decision they are comfortable with

# Bounded Rationality Model

- Possible solutions examined one at a time
  - If alternative is unworkable, it is discarded
  - When an acceptable (not necessarily best) solution is found, it is likely to be accepted
  - Thus search and analysis effort is likely to stop at first acceptable solution

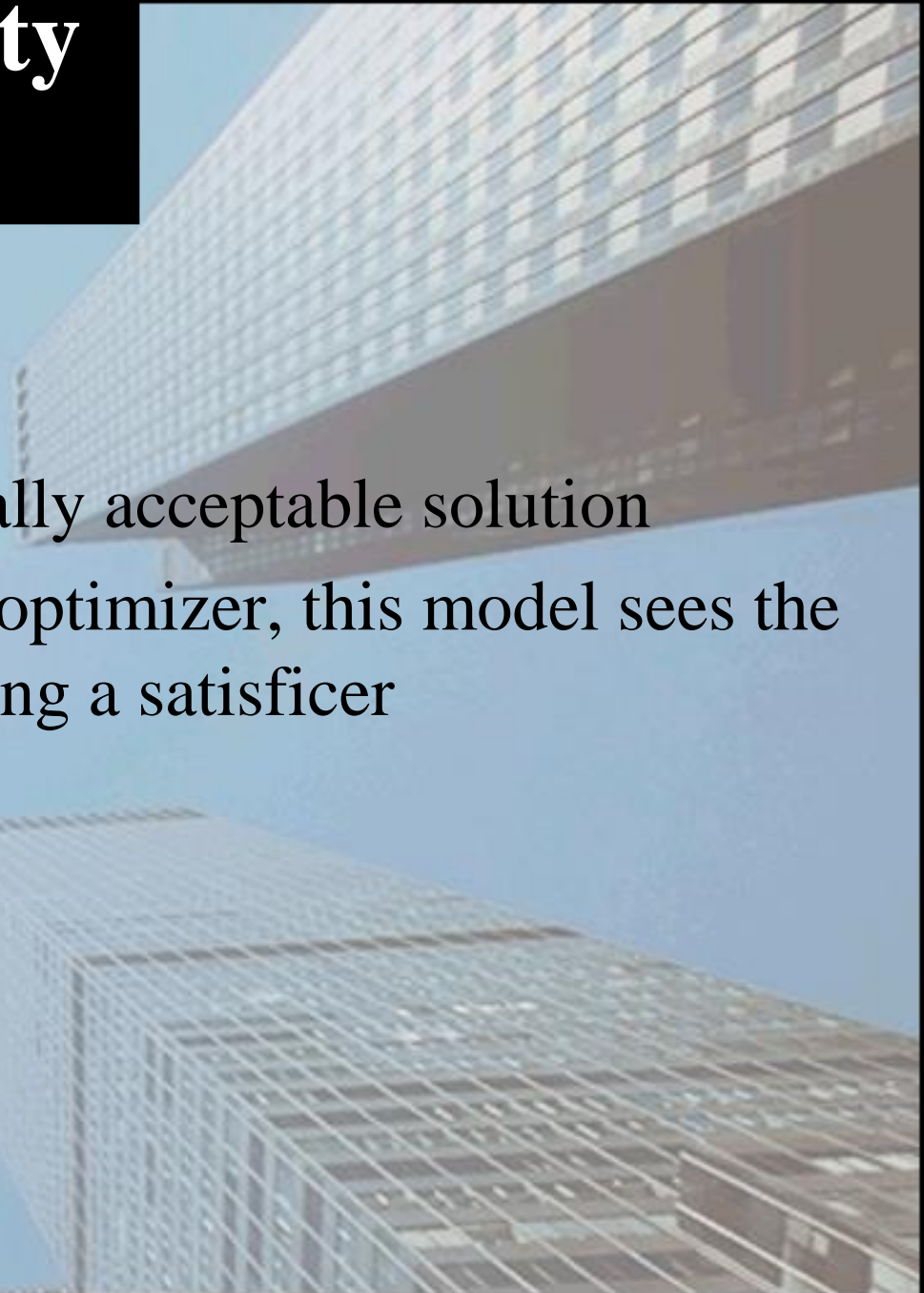
# Bounded Rationality Model



- Explicit criteria and weights *not* used to evaluate alternatives
- Limits include complex environment, incomplete knowledge, inconsistencies in individual preferences and beliefs, and conflicting values
- Decision makers use *heuristics*
  - A rule that guides the search for alternatives into areas that have a high probability for yielding success

# Bounded Rationality Model

- Satisficing
  - Selection of a minimally acceptable solution
  - Rather than being an optimizer, this model sees the decision maker as being a satisficer



# Retrospective Decision Model

- Implicit favourite is identified early in decision process
- Perceptual distortion of information occurs
  - Decision rules are adopted that favour the implicit favourite
  - Positive features of the implicit favourite highlighted over the alternative

# Influences on Effective Decision Making

## Decision Maker Characteristics

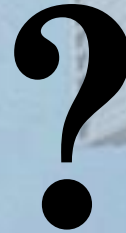
Knowledge  
Ability  
Motivation

## Problem Characteristics

Unfamiliarity  
Ambiguity  
Complexity  
Instability

## Decision Environment Characteristics

Irreversibility  
Significance  
Accountability  
Time and monetary constraints



# Decision Making Traps



Result from searching for shortcuts and using approximations. Four types of traps are

- Availability heuristics
- Representativeness heuristic
- Anchoring
- Escalation of commitment

# Availability Heuristics



- Recall of most memorable and significant past situations and decisions
- Potential biases
  - Ease of recall
  - Retrievability
  - Presumed associations

# Representativeness Heuristic

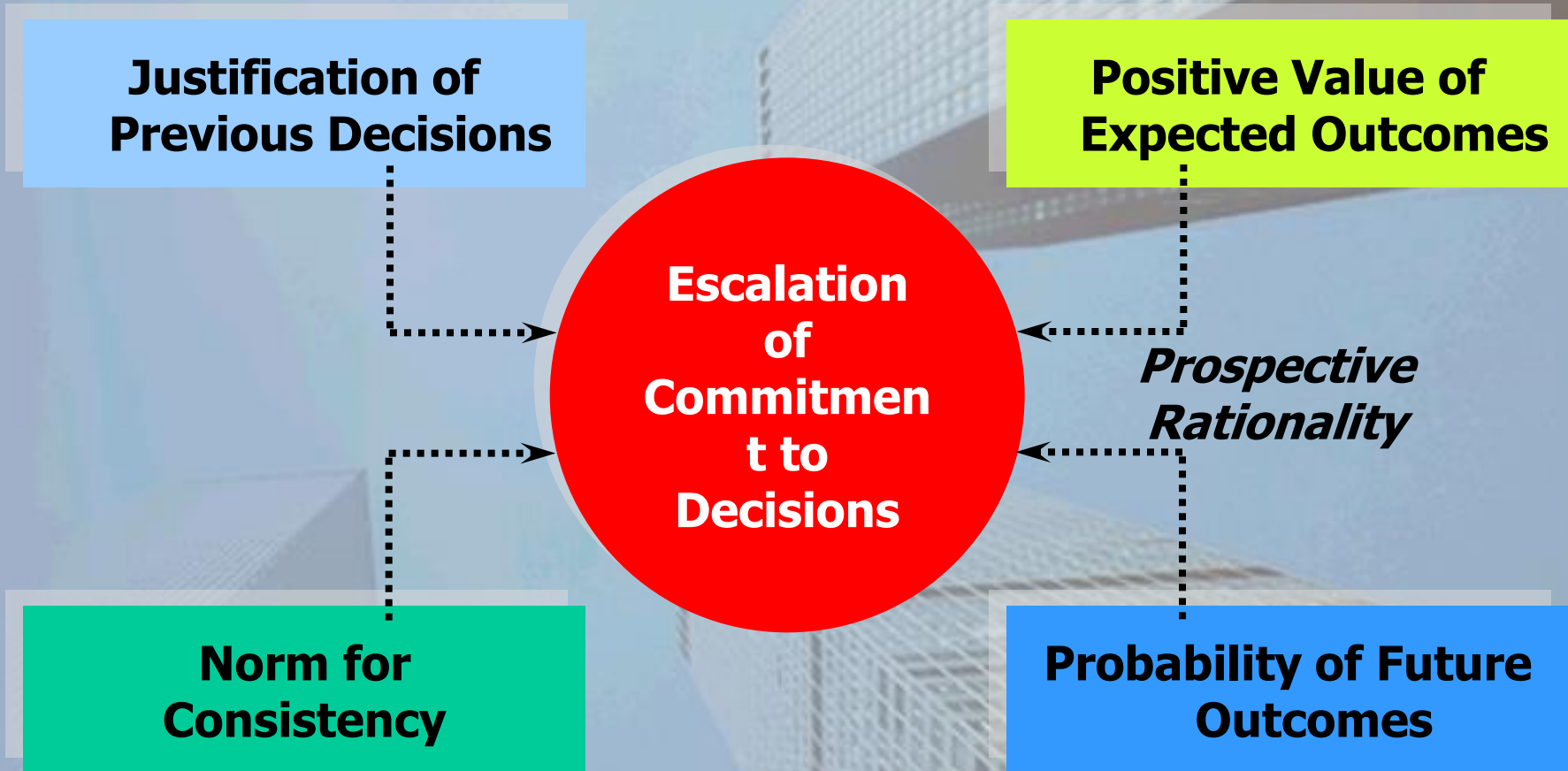
- How closely the current situation resembles a previous event
- Potential biases
  - Insensitivity to base rates
  - Insensitivity to sample size
  - Misconception of chance
  - Regression to the mean
  - Conjunction fallacy

# Anchoring and Escalation of Commitment



- Anchoring
  - Disproportionately using an initial value from prior experience or external information source in setting a final value
- Escalation of commitment
  - Exhibiting greater levels of commitment to a decision even after significant evidence indicates the decision was incorrect

# Escalation of Commitment



# Overcoming Escalation of Commitment

1. Stress that investments made in the past are sunk costs, *which should be ignored*
2. Creates an atmosphere in which consistency does not dominate
  - Match current decisions to current and expected future environments rather than to past decisions
3. Evaluate the prospects of future outcomes and their expected positive value critically and individually
  - Invite experts from outside the group to challenge members' future expectations, and/or use devil's advocate
4. Reward processes rather than outcomes

# Making Better Decisions

- **Analyze the situation**
- **Scan the environment**
- **Think through the process**
- **Be creative**
- **Know the right timing**
- **Increase your knowledge**
- **Be flexible**



# Influences on Effective Decision Making

## Decision-Maker Characteristics

1. Do you have an implicit favourite solution?
2. Do you have a tendency to satisfy and go with the first workable solution?
3. Do you feel overwhelmed by the amount of information you are having to process?
4. Do you feel a lack of knowledge about the problem?
5. Are you particularly unfamiliar or familiar with the problem?

# Influences on Effective Decision Making



## Problem Characteristics

1. Does the problem seem quite ambiguous?
2. Is the problem substantially complex?
3. Does the problem seem stable or volatile?

# Influences on Effective Decision Making

## Decision Environment Characteristics

1. Are you under significant time pressures to make the decision?
2. Do you face substantial resource limitations (e.g., people, money, equipment, etc.) relative to the problem and its solution?
3. Is the decision irreversible?
4. Are the problem and your decision of substantial importance?

# Impact of Groups on Decision Making

- **Establishing Objectives**
- **Identifying Alternatives**
- **Evaluating Alternatives**
- **Choosing Alternatives**
- **Implementing the Choice**



# Assets and Liabilities of Group Decision Making

## Assets +

- Groups can accumulate more knowledge.
- Groups have a broader perspective and consider more alternatives.
- Individuals who participate in group decisions are more satisfied with the decision and are more likely to support it.
- Group decision processes serve an important communication function, as well as a useful political function.

# Assets and Liabilities of Group Decision Making

## Liabilities -

- Groups often work more slowly than individuals.
- Group decisions involve considerable compromise that may lead to less than optimal decisions.
- Groups are often dominated by one individual or a small clique, thereby negating many of the virtues of group processes.
- Over-reliance on group decision making can inhibit management's ability to act quickly and decisively when necessary.

# Participative Decision Makers

## **Individuals who participate in decisions believe that**

- They have relevant content knowledge
- Their participation will help bring about change
- The resulting change will produce outcomes they value or prefer
- Their participation is valued by the organization and fits with its goals and objectives.

# Degree of Involvement and the Decision Process

Decision Process

Identify Decision Situations

Develop Objectives and Criteria

Generate Alternatives

Analyze Alternatives

Select Alternatives

Implement Decision

Monitor and Evaluate Results



Low

High

Degree of Involvement

# Contingency Factors for Effective Participative Decision Making

1. Do potential group members have sufficient content knowledge?
2. Do potential members have sufficient process knowledge?
3. Do members have a desire to participate?
4. Do members believe that their participation will result in changes?
5. Do members positively value the expected outcomes?
6. Do members see participation as legitimate and congruent with other aspects of the organization?
7. If the answer to any of the above questions is no, is it possible to change the conditions?

*Source:* N. Margulies and J. Stuart Black, "Perspectives on the Implementation of Participative Approaches." *Human Resource Management* 26, no. 3 (1987), pp. 385–412.

# Factors of Fast Decision Making

1. *Real-time information.* Fast decision makers must have access to and be able to process real-time information.
2. *Multiple simultaneous alternatives.* Fast decision makers examine several possible alternative courses of action simultaneously, not sequentially. This adds complexity and richness to the analysis and reduces the time involved in information processing.
3. *Two-tiered advice process.* Fast decision makers make use of a two-tiered advisory system, whereby all team members are allowed input but greater weight is given to the more experienced coworkers.
4. *Consensus with qualification.* Fast decision makers attempt to gain widespread consensus on the decision as it is being made, not after.
5. *Decision integration.* Fast decision makers integrate tactical planning and issues of implementation within the decision process itself.

# Problems in Group Decision Making:

## Groupthink

*When groups are...*

- Highly cohesive
- Insulated from outside input
- Dominated by leader

*...they often experience...*

- Illusion of invulnerability
- Illusion of morality
- Illusion of unanimity
- Self-censorship
- Peer pressure for conformity
- Stereotyping of opponents
- Rationalization
- Mindguards

*...leading to decisions characterized by...*

- Limited search for information
- Limited analysis of alternatives
- Rejection of expert opinions
- Few, if any, contingency plans

*...that result in...*

- Decisions of poor quality
- Poor group performance
- Wasted resources
- Lost opportunities

# Symptoms of Groupthink

- Illusion of invulnerability
- Collective rationalization
- Illusion of morality
- Stereotyping
- Illusion of unanimity
- Mindguards



# Consequences of Groupthink

- Limited search for alternatives
- Failure to reexamine chosen actions
- Failure to consider nonobvious advantages to alternative courses of action.
- Limited attempts to seek experts' advice either inside or outside their own organization.
- Pursue facts that support their preferred alternative (disregard negative facts)
- Ignore possible roadblocks to preferred alternative.

# Guidelines for Overcoming Groupthink



## **For the company**

- Establish several independent groups to examine the same problem.
- Train managers in groupthink prevention techniques.

## **For the leader**

- Assign everyone the role of critical evaluator.
- Use outside experts to challenge the group.
- Assign a devil's advocate role to one member of the group.
- Try to be impartial and refrain from stating your own views.

# Guidelines for Overcoming Groupthink



## **For group members**

- Try to retain your objectivity and be a critical thinker.
- Discuss group deliberations with a trusted outsider and report back to the group.

## **For the deliberation process**

- At times, break the group into subgroups to discuss the problem.
- Take time to study what other companies or groups have done in similar situations.
- Schedule second-chance meeting to provide an opportunity to rethink the issues before making a final decision.

# Cultural Dimensions of Decision Making

- Individualism versus collectivism
- Power distance
- Tolerance of uncertainty and risk
- Perceptions of acceptability and/or desirability of outcomes

# Strategies for Improving Decision Making:

## Problem Formulation

- **Structured Debate (Problem Formulation)**
  - Devil's advocate
  - Multiple advocacy
  - Dialectical Inquiry

# Strategies for Improving Decision Making:

## Problem Solution

- **Structured Debate (Problem Formulation)**
  - Devil's advocate
  - Multiple advocacy
  - Dialectical Inquiry
- **Creativity Stimulants (Problem Solution)**
  - Brainstorming
  - Nominal group technique
  - Delphi technique

# Strategies for Improving Decision Making:

## Role of Technology

- Increases decision makers' efficiency on routine but complex tasks
  - Process large amounts of information
  - Process at high speeds
    - Scheduling services
    - Dealing with raw materials
    - Scheduling material component flow



# Strategies for Improving Decision Making:

## Role of Technology

- Improve decisions by group members in different locations
  - View a common document
  - Make real-time changes
  - Save travel costs
- Increase virtual group decision effectiveness (compared to face-to-face groups)
  - May decrease group effectiveness,
  - May increase time required to complete tasks
  - May decrease member satisfaction