

# UNIT TWO – Part One

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# Information Technology and the Changing Business

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- Secure an online identity
- Establish a web presence
- Enable e-commerce
- Provide e-commerce and customer relationship management
- Use a service application model



# The five essential characteristics of useful information

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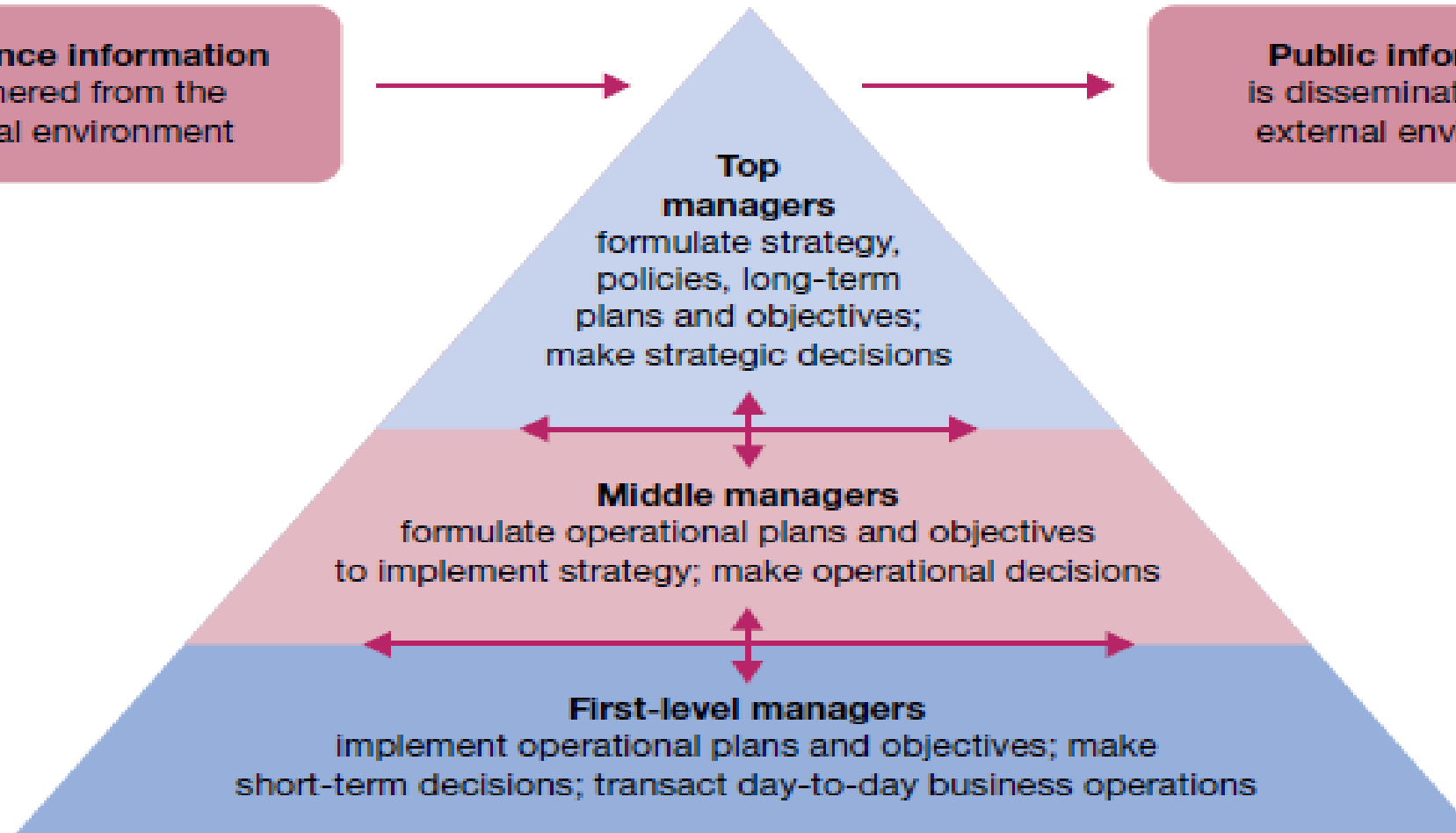
- **Timeliness**
- **Quality**
- **Completeness**
- **Relevance**
- **Understandability**

# Decision Support System (DSS)

A **decision support system (DSS)** allows users to interact directly with a computer to organize and analyze data for solving complex and sometimes unstructured problems. Decision support systems are now available to help with such business decisions as mergers and acquisitions, plant expansions, new product developments and share portfolio management, among many others

**Intelligence information**  
is gathered from the  
external environment

**Public information**  
is disseminated to the  
external environment



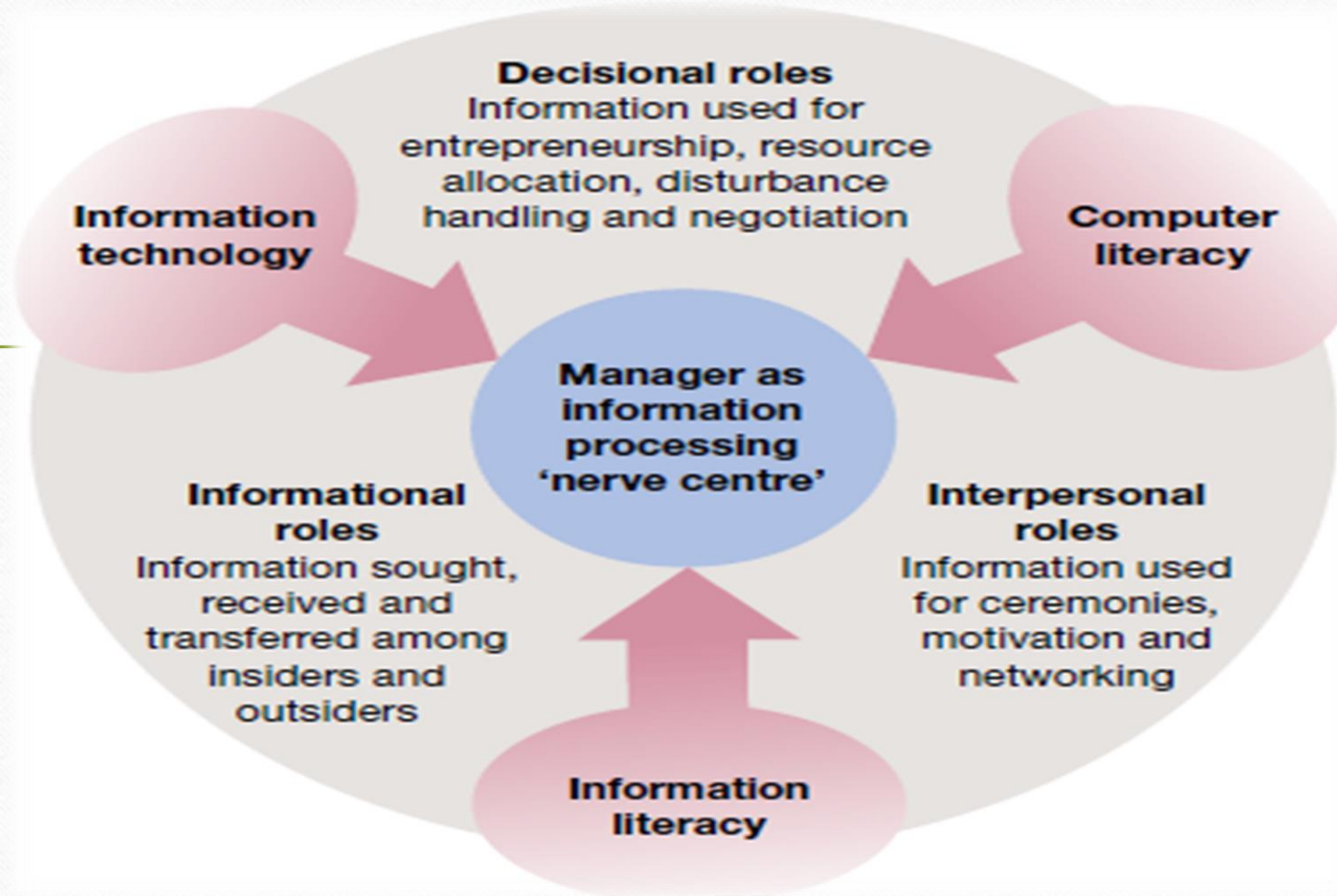
**Information flows vertically and horizontally within an organisation  
to facilitate problem-solving and decision-making.**



# External and internal information needs of organizations

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- Organizations to have **Intranets** and **Corporate Portals** that allow employees, by password access, to share databases and communicate electronically
- **Extranets** and **Enterprise Portals** that allow communication and data sharing between the organization and special elements in its external environment.
- **Electronic Data Interchange**, or EDI. It uses controlled access to enterprise portals and supporting software to enable firms to transact business electronically with one another
- **Information and Decision Making** , A **decision**, to be precise, is a choice between alternative courses of action. The process of decision-making is driven in part by the quality of information available



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Information technology is breaking down barriers and changing organizations

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# Decision conditions

## Three conditions environments

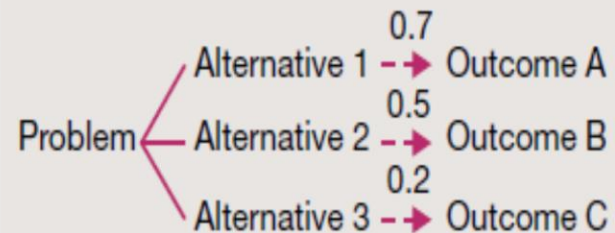
### Certain environment

Alternative courses of action  
and their outcomes are known  
to decision maker



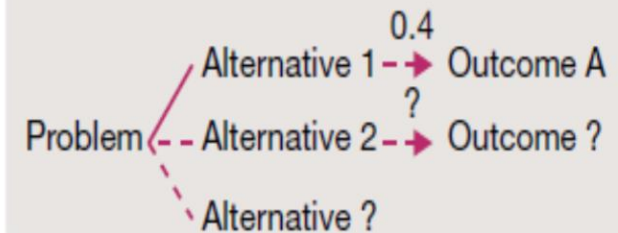
### Risk environment

Decision maker views alternatives  
and their outcomes in terms  
of probabilities



### Uncertain environment

Decision maker doesn't know  
all alternatives and outcomes,  
even as probabilities





## Approaching Decisions

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**problem avoiders**

**Problem solvers**

**Problem seekers**

# Systematic Thinking

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In **systematic thinking** a person approaches problems in a rational, step-by-step and analytical fashion. This type of thinking involves breaking a complex problem into smaller components and then tackling them in a logical and integrated fashion. Managers who are systematic can be expected to make a plan before taking action and then to search for information to facilitate problem solving in a step-by-step fashion

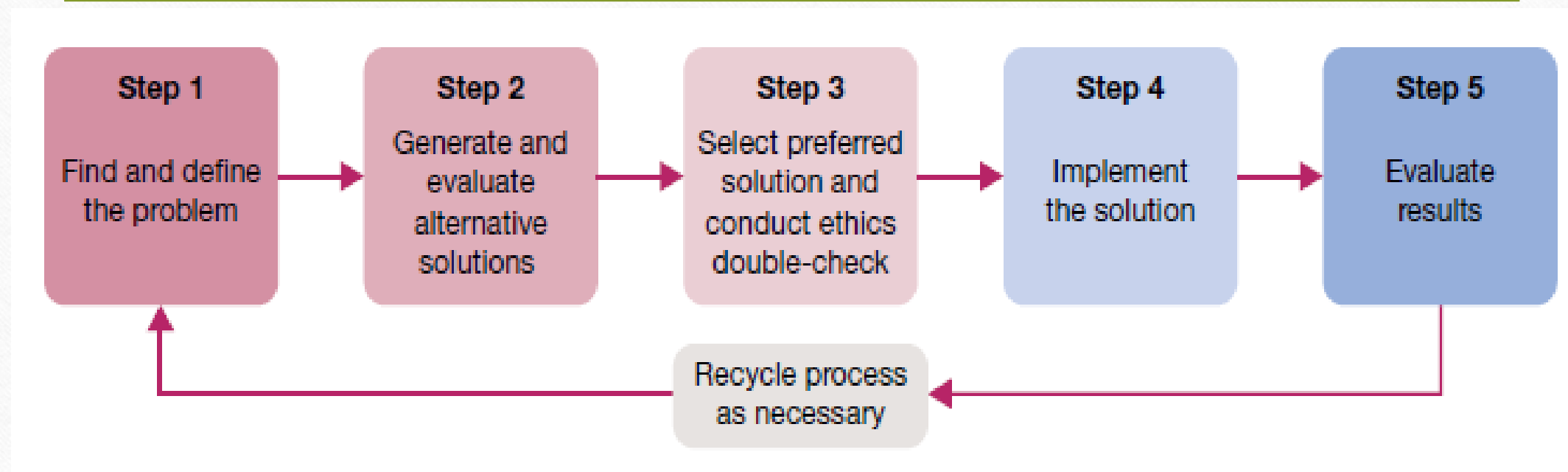


## Intuitive Thinking

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Intuitive Thinking, on the other hand, is more flexible and spontaneous and may also be quite creative. This type of thinking allows us to respond imaginatively to a problem based on a quick and broad evaluation of the situation and the possible alternative courses of action. Managers who are intuitive can be expected to deal with many aspects of a problem at once, jump quickly from one issue to another and consider ‘hunches’ based on experience or spontaneous ideas. This approach tends to work best in situations of high uncertainty where facts are limited and few decision precedents exist.

# Decision Making Process





# *Decision making step 1*

## *Identify And Define the Problem*

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- The first step in decision making is to find and define the problem.
- **Mistake number 1** is defining the problem too broadly or too narrowly
- **Mistake number 2** is focusing on symptoms instead of causes. Symptoms are indicators that problems may exist, but they shouldn't be mistaken for the problems themselves.
- **Mistake number 3** is choosing the wrong problem to deal with. Managers should set priorities and deal with the most important problems first. They should also give priority to problems that are truly solvable.

## *Decision making step 2*

### *Generate and Evaluate Possible Solutions*

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- A very basic evaluation involves cost–benefit analysis
- **Benefits.** What are the ‘benefits’ of using the alternative to solve a performance deficiency or take advantage of an opportunity?
- **Costs.** What are the ‘costs’ of implementing the alternative, including resource investments as well as potential negative side effects?
- **Timeliness.** How fast will the benefits occur and a positive impact be achieved?
- **Acceptability.** To what extent will the alternative be accepted and supported by those who must work with it?
- **Ethical soundness.** How well does the alternative meet acceptable ethical criteria in the eyes of the various stakeholders?



## *Decision making step 3*

### *Choose a Solution*

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- Management theory recognises differences between the classical model and the behavioural model of decision-making
- The classical decision model views the manager as acting in a certain world. Here, the manager faces a clearly defined problem and knows all possible action alternatives as well as their consequences
- an optimising decision that gives the absolute best solution to the problem
- approach is a very rational model that assumes perfect information is available for decision-making

### **Classical model**

Views manager as acting with complete information in a certain environment

- Clearly defined problem
- Knowledge of all possible alternatives and their consequences
- Optimising decision — choice of the 'optimum' alternative

### **Behavioural model**

Views manager as having cognitive limitations and acting with incomplete information in risk and uncertain environments

- Problem not clearly defined
- Knowledge is limited on possible alternatives and their consequences
- Satisficing decision — choices of 'satisfactory' alternative

### **Judgemental heuristics approach**

Heuristics are adopted to simplify managerial decision-making

Decisions are influenced by:

- Information readily available in memory — the availability heuristic
- Comparisons with similar circumstances — the representativeness heuristic
- Current situation — the anchoring and adjustment heuristic



## *Decision making step 4*

### *Implement the Solution*

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- Given the choice of preferred solution, appropriate actions must be taken to fully implement it. This is the stage at which directions are finally set and problem-solving actions are initiated
- implementation typically follows quickly, smoothly and to everyone's satisfaction. Involvement not only makes everyone better informed, it also builds the commitments needed for implementation.

## *Decision making step 5*

### *Evaluate Results*

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- The decision-making process is not complete until results are evaluated
- evaluation is a form of managerial control
- It involves a continuing commitment to gather information on performance results
- If the original solution appears inadequate, a return to earlier steps in problem-solving may be required to generate a modified or new solution
- problem-solving becomes a dynamic and ongoing activity within the management process
- Evaluation is also made easier if the solution involves clear objectives that include measurable targets and timetables.