Principles of management

05_Information and decision making

Introduction

Managers are decision makers because the decision–making process is part of management. An effective manager is distinguished by his ability to make a decision at the appropriate time.

Although it is possible to the delay decision at the appropriate time, prepare the necessary studies for it, or wait until the developments take shape, **the time must come to make the decision.**

Definition of decision making

decision making
(It is a multi-step process that finally culminates in choosing a specific solution as the final step)

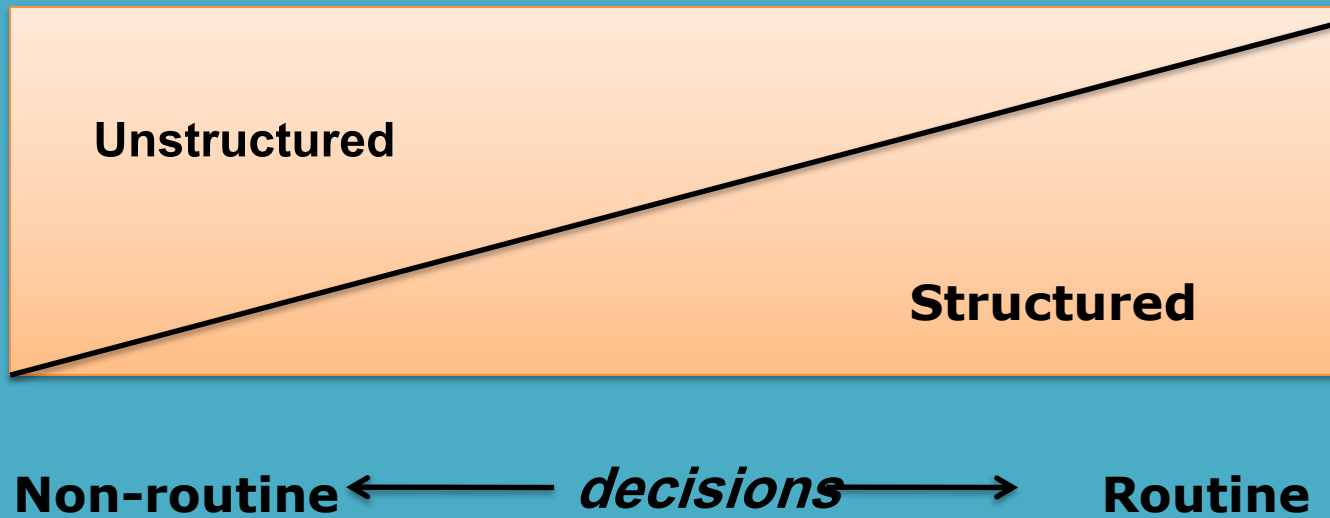(Choose the best alternative from among several alternatives)

Types of decisions

Types of decisions:

1- Routine and non-routine decisions

2- Decisions taken under conditions of certainty, risk, and uncertainty
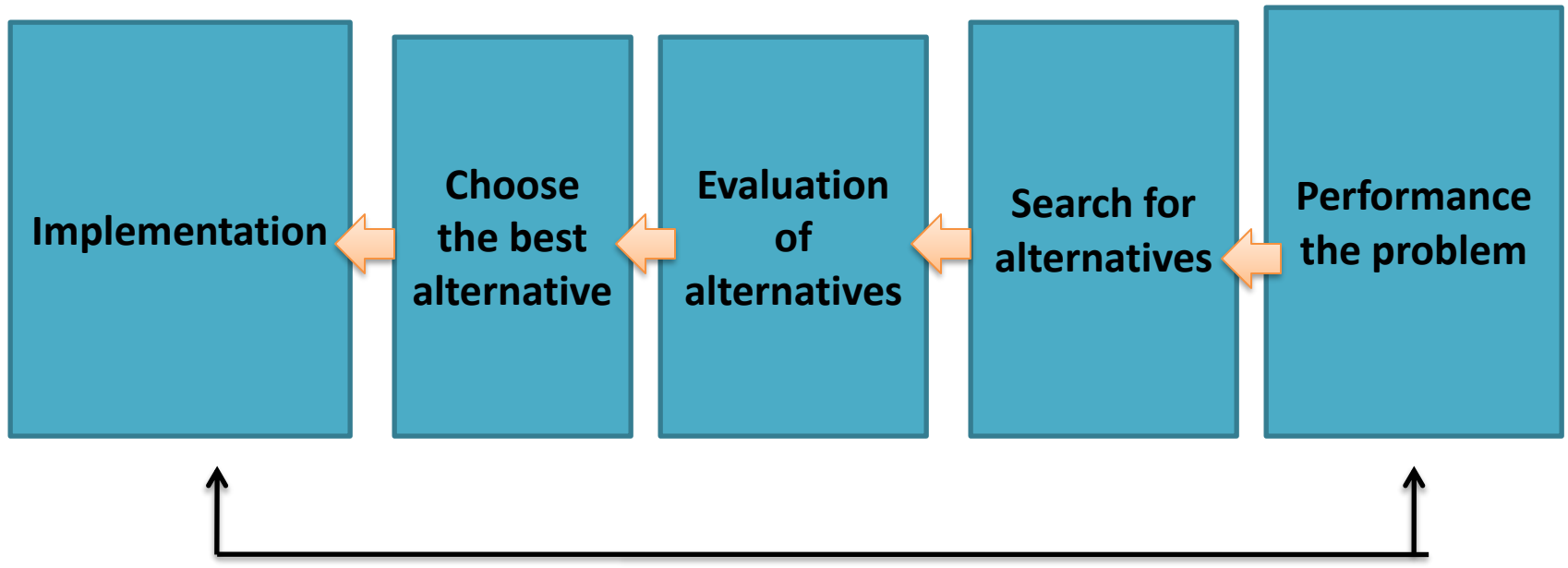
Routine and non-routine decisions

Unstructured

Structured

Non-routine ← *decisions* → **Routine**

Types of decision makers

Types of decision makers:

1- **Decisive:** It relies on a minimum amount of information and cares about speed

2- **Flexible:** Prefers summary reports and solutions that are accepted by others

3- **Hierarchical:** The manager examines and studies a large group of information, seeking perfection, accuracy, and comprehensiveness

4- **Integrative:** The manager uses a wealth of extensive information to generate solutions

Decision making steps

Selected decision-making methods:

Probability theory, decision tree

Probability theory

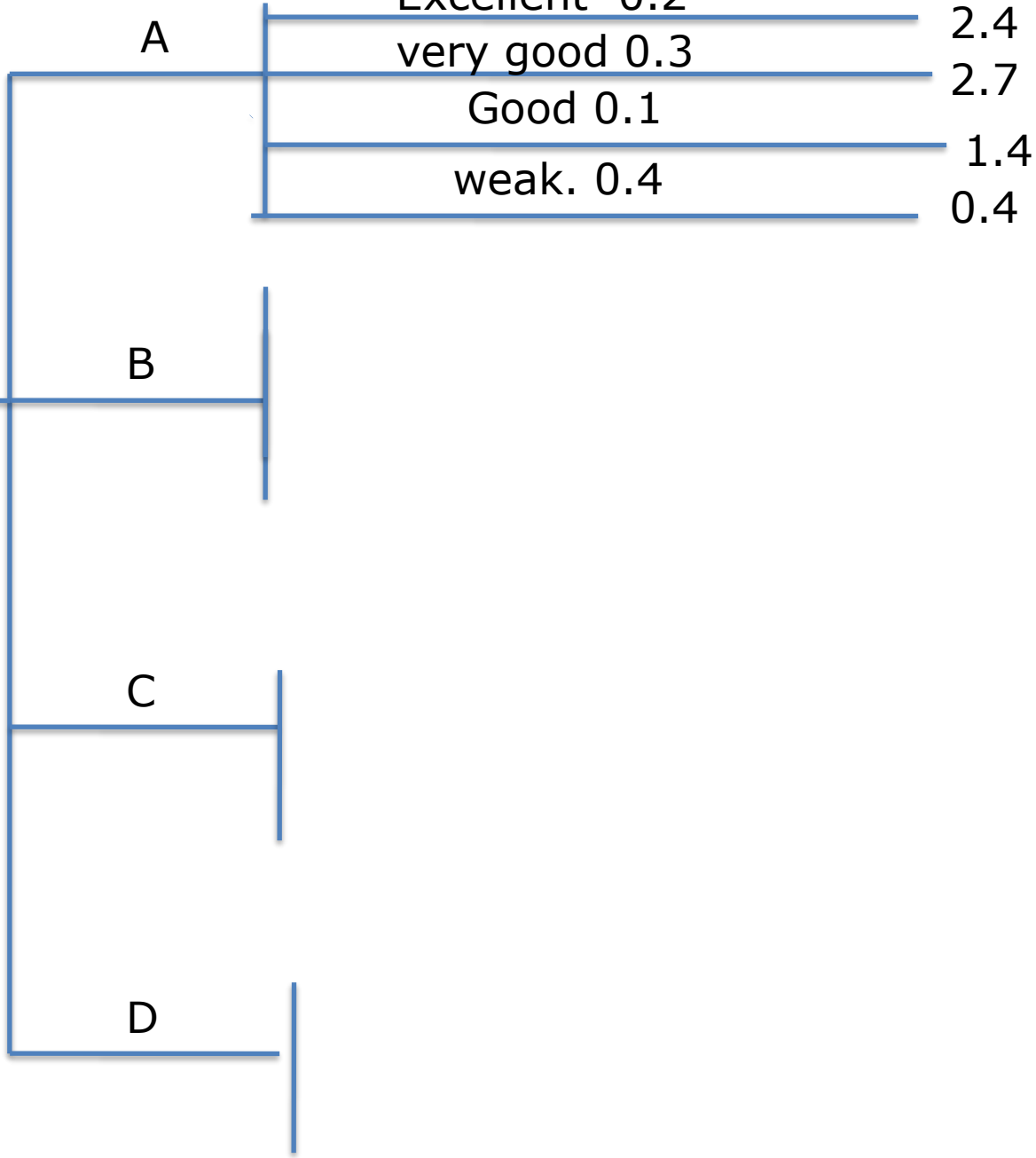The company wants to produce products A B C D, and it expects four profit states:

 excellent with probability 0.2 , **very good** with probability 0.3 , **good** with probability 0.1, **weak** with probability 0.4.

You are required to choose the best one in light of the following data:

Expected value		net profit				
		0.4 weak	0.1 good	0.3 very good	0.2 excellent	alternatives
		6	14	9	12	A
		5	10	15	14	B
		9	9	11	3	C
		8	6	2	18	D

the solution

Expected value		net profit				alternatives
		0.4 weak	0.1 good	0.3 very good	0.2 excellent	
	2.4 +2.7 .4 +2.4 =8.9 + 1	6*0.4=2.4	14*0.1=1.4	9*0.3= 2.7	12*0.2= 2.4	A
10.3	+ 4.5 +1+2 = 10.3 2.8	5*0.4=2	10*0.1=1	15*0.3= 4.5	14*0.2=2.8	B
	0.6+ 0.9 +3.6=8.4 3.3+	9*0.4= 3.6	9*0.1= 0.9	11*0.3=3.3	3*0.2=0.6	C
	+0.6+ 0.6+3.2 =8 3.6	8*0.4= 3.2	6*0.1= 0.6	2*0.3=0.6	18*0.2= 3.6	D

		Value
A	Excellent 0.2	2.4
	very good 0.3	2.7
	Good 0.1	**8.9**
		1.4
	weak. 0.4	0.4
B		
C		
D		