



## Section 1.7

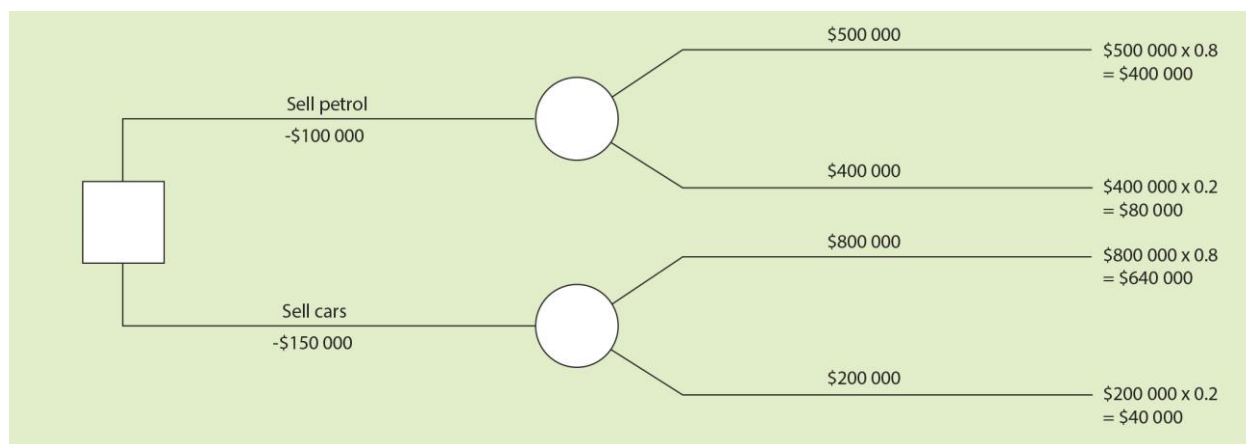
### Activity 1.7.1

A fishbone diagram could explain the decline in student numbers at a 16–19 high school by:

- Getting staff to agree the problem statement: ‘reasons for the decline in the number of students ...’
- Brainstorming the main fish bones: measurement, materials, methods, environment, manpower and machines
- Brainstorming detailed reasons in the small fish bones
- Researching the findings as a group.

### Activity 1.7.2

1. Decision tree for the petrol station expansion:



2. Expected values of:

- Sell petrol  $[\$400\,000 + \$80\,000] - \$100\,000 = \$380\,000$
- Sell cars  $[\$640\,000 + \$40\,000] - \$150\,000 = \$530\,000$

Selling cars has the higher return so on this basis it should be chosen.

3. Decision trees have the following advantages:

- They allow the visual representation of decisions and possible outcomes
- They show financial outcomes from a decision and the chances of success or failure
- Expected monetary values is a starting point for quantitative assessment.

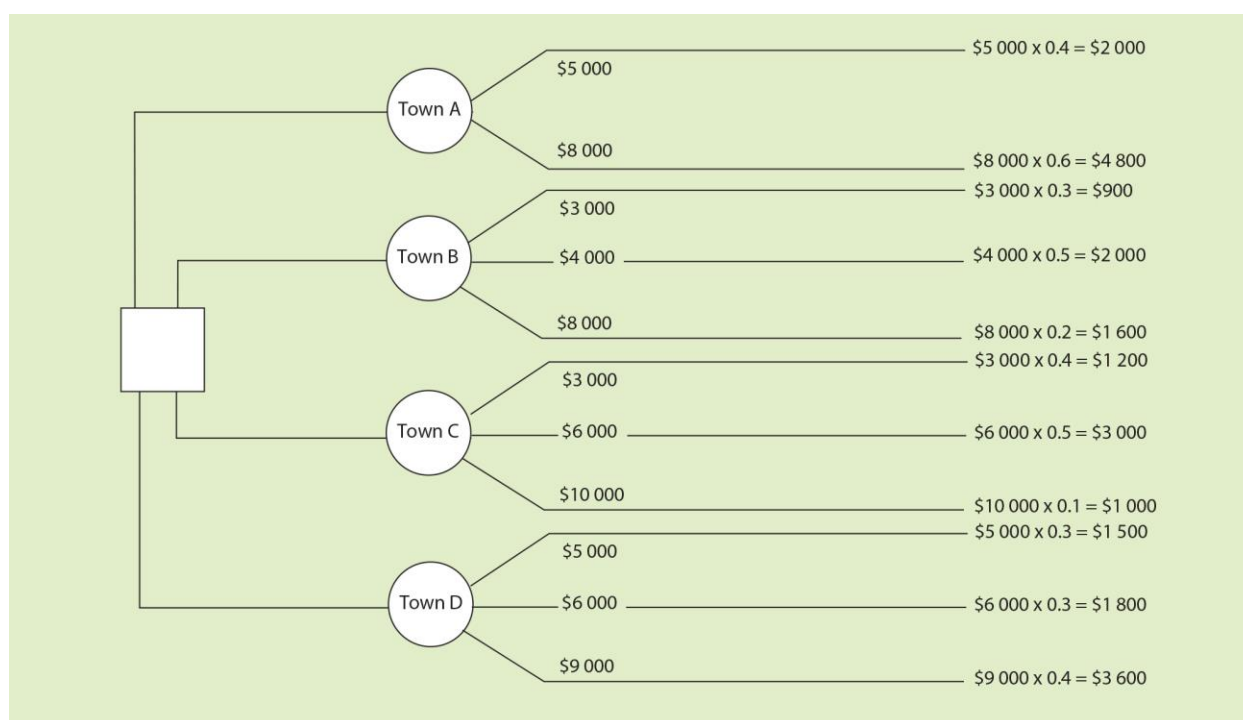


The disadvantages are:

- Forecasts are not always accurate – costs, revenues and probabilities
- No allowance for non-monetary factors
- Quantitative values change over time.

## Activity 1.7.3

1. An 'expected value' is the forecasted revenue from an outcome multiplied by the probability of the outcome.
2. Joe's options:



3. a. Expected values of the four projects are:
  - Town A = \$6,800
  - Town B = \$4,500
  - Town C = \$5,200
  - Town D = \$6,900.
- b. Option D has the highest expected value so it should be chosen on a quantitative basis.
4. Factors that could influence the accuracy of Joe's forecast might be:
  - Entry of a new competitor into the market
  - Economic slowdown (recession)
  - Change in government regulations on mobile markets.



## Activity 1.7.4

Lewin's force-field would be useful to a school or college planning to introduce IT-based lessons with students working from home one day a week in the following ways:

- The force-field diagram helps weigh up the importance of driving forces (student independence) and restraining forces (loss of school control).
- It helps identify the staff and students most affected by the change.
- It helps the school to strengthen the driving forces (training students to work from home) and reduce restraining forces (methods to monitor students online).
- The leadership style that reduces restraining forces encourages driving forces. Encouraging student participation in the decision may be an option here.

## Activity 1.7.5

1. A 'Gantt chart' is a visual representation of a project schedule in which a series of horizontal lines shows the amount of work planned in certain periods of time.
2. Steps that can be undertaken simultaneously:
  - Explore market need
  - Develop the concept for the product.
3. By undertaking some steps simultaneously businesses can:
  - Speed up the completion of the project
  - Reduce costs.
4. The entire time for the whole project is one year (January – December).
5. Gantt charts are useful for planning new projects in terms of:
  - Ensuring the schedule of a project is achievable
  - The right people being given responsibility for activities
  - Setting out the most efficient order of activities
  - Managing activities during the project
  - Updating consumers and employees of progress.

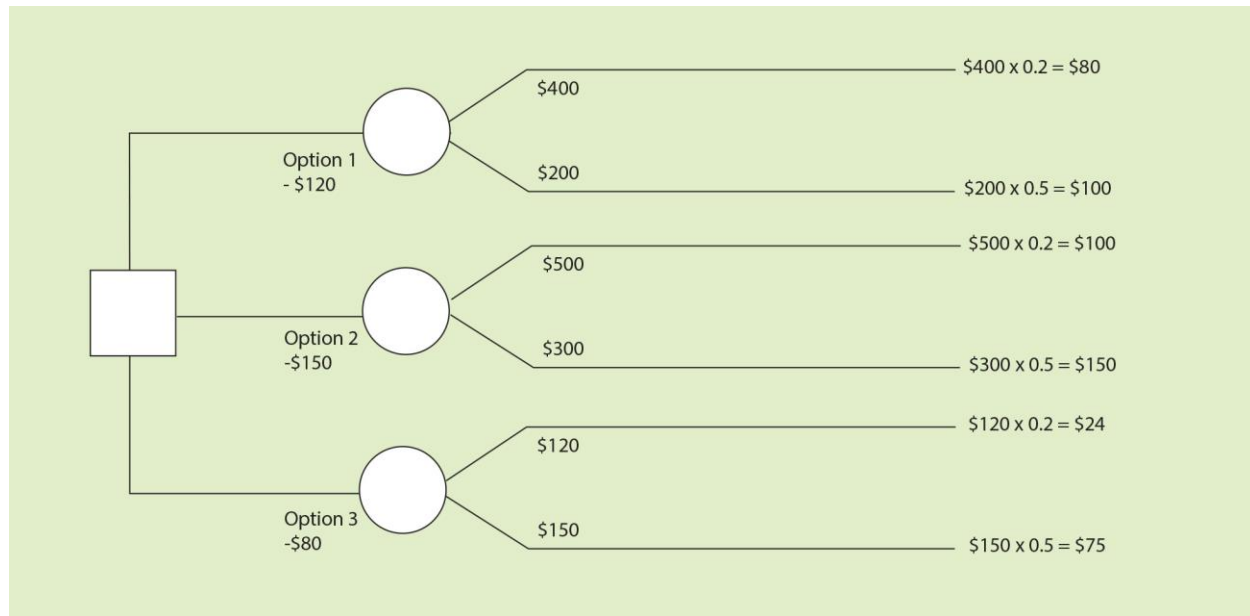
They have the following weaknesses:

- With many tasks they become very complex and difficult to interpret
- Forecasting accurate activity times is difficult
- Interrelationships between activities are not always predictable
- Limited to time factors.



## Exam practice question

1. Four Seasons decision tree:



2. The expected values of each option are:

- Option 1:  $\$180 - \$120 = \$60$
- Option 2:  $\$250 - \$150 = \$100$
- Option 3:  $\$99 - \$80 = \$19$ .

Option 2 should be chosen.

3. The following non-financial factors might affect Four Seasons' decision:

- Economic slowdown
- Skills of the management
- Taste and preferences of consumers in new destinations
- Government regulations in new destinations
- Competition in new destinations
- Political stability in new destinations.

## Key concept question

Business models are important for businesses strategy because they can be used to:

- Give a view on whether a strategy is achievable



- Allocate responsibility to managers
- Work out the most efficient operation method
- See what the best option is from a number of alternatives
- Plan resource needs: labour, capital and materials
- Plan finance
- Present the strategy to different stakeholders.

They have the following weaknesses:

- They can become over-complex and difficult to interpret
- Forecasting in models is subject to inaccuracy
- They are subject to outside shocks from the business environment
- Only a certain number of variables can be accounted for.