MIS782
Value of Information

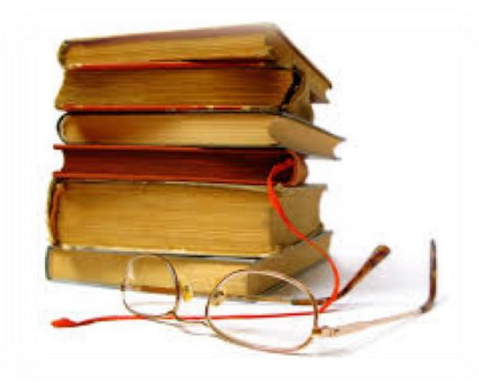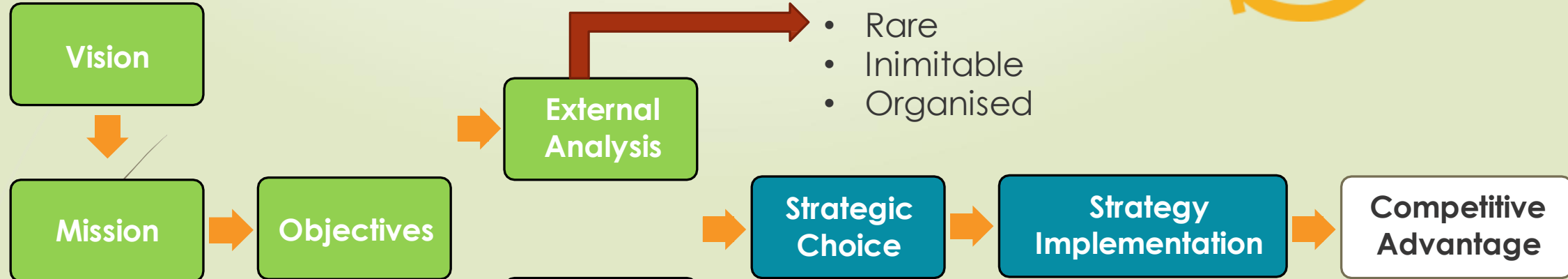**Class 5**

Module 3: Class 5

- Business Case Development
- Assignment 2

Last Module's Concepts on One Slide

The strategic management process

Vision

Mission → Objectives

External Analysis

Internal Analysis

VRIO Framework
- Valuable
- Rare
- Inimitable
- Organised

Strategic Choice → Strategy Implementation → Competitive Advantage

(Barney and Hesterly, 2012)

The Resource Based View (RBV)
- Tangible and intangible resources and capabilities
- Resource and capability heterogeneity and immobility
- Competitive advantage

Recap

- Now you should be growing in confidence on:
  - How to generate business value from IT investments by automating and informating
  - The different classes of ICT investments (IT Portfolio)
  - The strategic management process
  - How competitive advantage is seen through the lenses of:
    - Resource Based View
    - VRIO framework

- Discuss:

  How would you argue for an ICT investment project?

Making Investments at Organizations: Business Cases

- **Phenomenon**
  - Writing an argument in favour of a particular business investment
- **Abstraction**
  - Business case framework
- **Application**
  - Assignment 2

What is a Business Case?

- An **argument** intended to **convince** decision-makers of making a particular investment.

- A **tool** for:

  - identifying and comparing multiple alternatives in response to an opportunity

  - proposing the course of action that will create the most value.

- An **analysis** of the organisational value, feasibility, risks, cost, and benefits of several proposed options.

(Marchewka, 2012)

Quick Question

Have you been involved in developing a business case at work?

- What was it about?

- What role did you play?

- How did you structure your arguments?

- How did you convince management?

- In what form was the business case presented?

Why Write a Business Case?

The purpose of argument, should not be victory, but progress.

Disciplined Exercise

- Make tacit assumptions explicit
- Provides basis for allocating capital

Communication Tool

- Defines what the project is (and is not) at its initiation

Discuss:

- If you were a decision maker, what types of ICT projects (and business cases) would you want to see? Why?

- When is a business case not necessary?

Investing in ICT - A server room versus a printer

When is a Business Case Useful?

- Demonstrate that the value a product or service can generate for organisation
- Obtain resources for a new project or a new initiative
- Invest in a new capability, such as training or an ERP System
- Decide whether to outsource a particular function

A business case is NOT necessary to make a decision about:

- Should my department buy a new printer to be shared between 30 fulltime employees?
- Should I invest in a presentation course for personal development of our programmers?
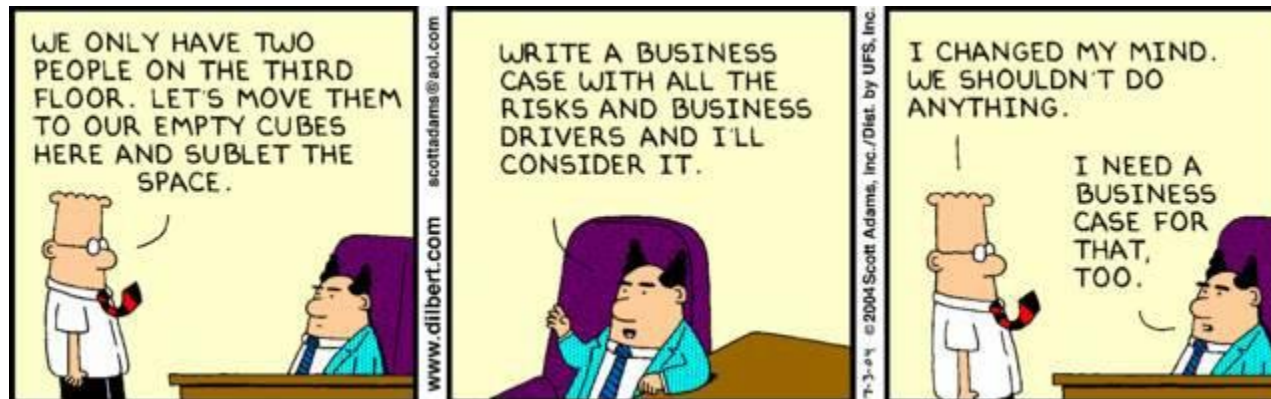
Business Case Example

- Suppose Deakin University is going to partner with OpenAI (that develops ChatGPT):
  - What kind of IT Portfolio investment is this?
  - Does it align with Deakin's vision?
  - Does this give Deakin a competitive advantage?

- If the partnership requires some monetary commitment:
  - What are the benefits?
  - What are the costs?
  - What are the risks?
  - What value does this partnership deliver?

Deakin University:
"As one of Australia's leading tertiary education providers, Deakin offers a personalised experience enhanced by world-class programs and innovative digital engagement. We lead by creating opportunities to live and work in a connected, evolving world."

Making the Case – Formulating an Argument

If you support the partnership with OpenAI:

What argument(s) would you use to convince a decision maker?

Forming Arguments in Business Cases

- **Arguments of Fact**
  - "The AI system will eliminate the need for hiring **two** positons for an annual savings of **$100K**."
  - Quantitative data and measures

- **Arguments of Faith**
  - Cantered around the **vision** of an organization
  - "The AI system helps to promote personalised learning experience among students, by embracing emerging and innovative technologies."

- **Arguments of Fear**
  - Barriers to the organisational vision
  - "If we don't invest in AI system, it is possible for us to miss the chance to be the first mover."

General Problems with Business Cases

In September 2011, Harvard Business Review (Flyvbjerg and Budzier, 2011) reported that one in six IT projects examined had:

- a cost overrun (on average: 200%)
- and a schedule overrun (on average: 70%)

When Things Go Wrong...

- The introduction of myki involved installing a smartcard system
  - Initial total cost estimates: $741.9 million
  - Went $350 million over budget and around four years behind schedule
- Why did the project overrun?
  - The Transport Authority lacked knowledge of transport ticketing options
  - **They had no ICT expertise and an under-staffed project team**
  - An unproven high risk and untested solution was chosen

What other failed IT projects can you think of?

What exactly went wrong?

How to Avoid Problems?

Make sure your business case:

- Presents a clear recommendation
- Aims at the decision maker(s)
- Backs up the investment proposition with details and particulars
- Relates to a significant investment
- Clearly identifies any possible benefits, costs and risks
- Compares with other alternatives
- Details milestones and timelines

BUSINESS CASE

Let's Structure a Business Case

Discuss (with your group members) how you would write a business case:

- How do you structure the document?
- How do you assess and compare the investment options?

The Business Case Framework

1. **Define the business problem or opportunity**
2. Business and IT alignment
3. Identify alternatives
4. Analyse the alternatives
   - Feasibility
   - Benefits
   - Costs
   - Risks
5. Select the best choice
6. Create a plan for implementation of ideas

Communicate your case

STEP 1

1. Define the Business Problem or Opportunity

STEP 1

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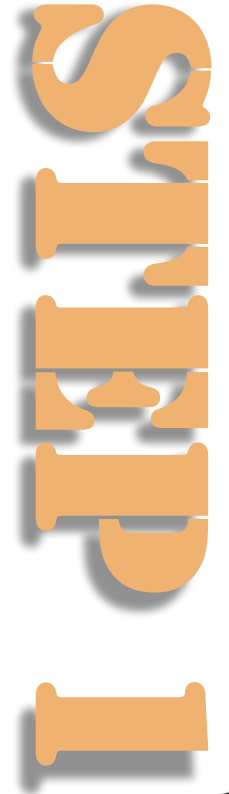
Five Steps in Defining Problem/Opportunity

1. Identify a problem or an opportunity
2. Craft an opportunity statement – organisational value
3. Identify your business objectives
4. Prioritise your objectives – based on stakeholders
5. Assign metrics to each objectives

STEP 1

```
Vision
   ↓
Mission → Objectives →→ External Analysis
                    →→ Internal Analysis
                                        → Strategic Choice → Strategy Implementation → Competitive Advantage
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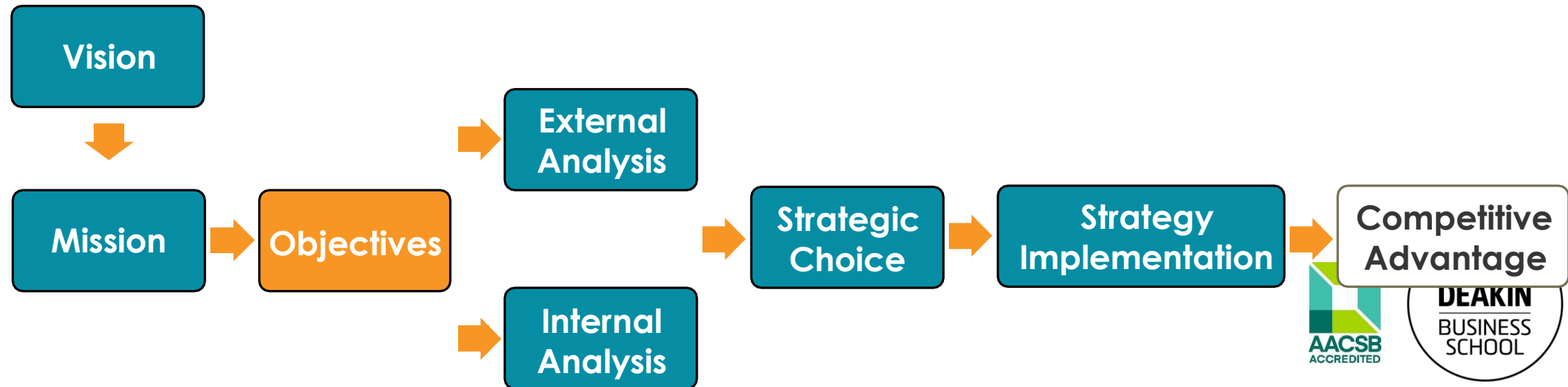
Define the Organizational Value

The overall goal and measure of business case success is referred to as Measurable Organizational Value (MOV)

MOV must:

- Be measurable

- Provide value for the organisation

- Be agreed on

- Be verifiable

STEP 1

MOV and Strategic Management Process
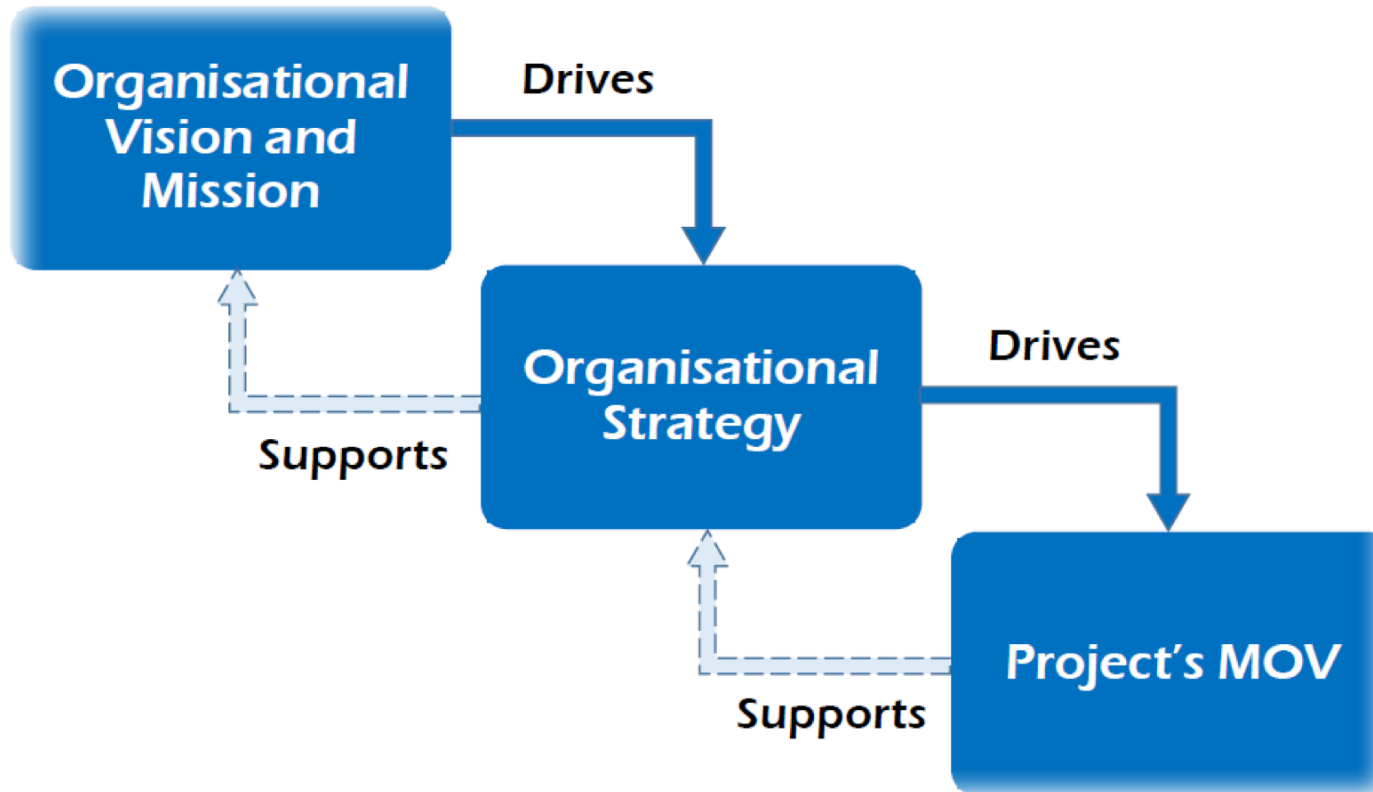
The Business Case Framework

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Communicate your case

STEP 2

STEP 2
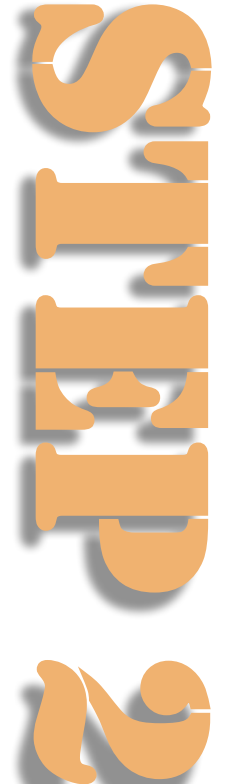
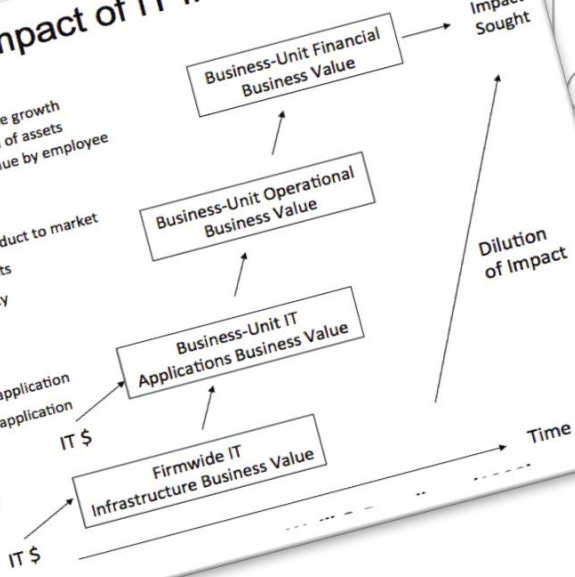Strategic Alignment Model
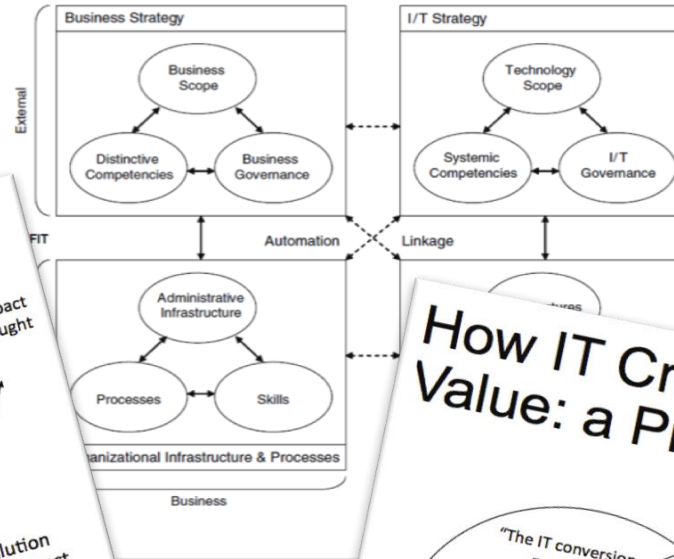
Hierarchy of Impact of IT Investments
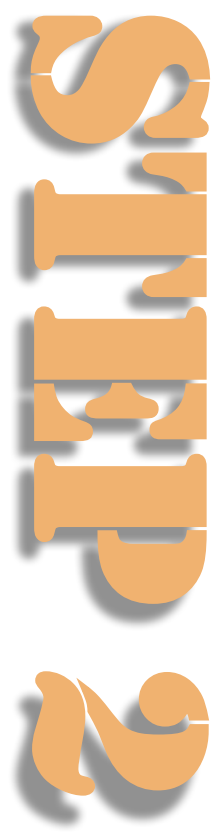
How IT Creates Business Value: a Process Theory
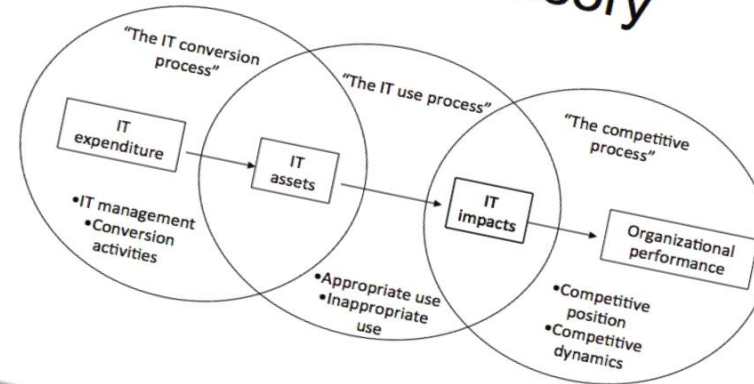
(Soh & Markus, 1997)

Aligning IT and business value

- What needs to change to achieve the business value?

- Is the IT Portfolio a useful tool here?

- How can you frame this opportunity within the RBV and VRIO?

- How can one maximise competitive advantage from this investment?

The Business Case Framework

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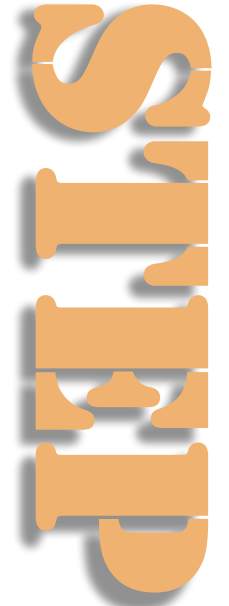6. Create a plan for implementation of ideas

Communicate your case

3. Identify Alternatives

1. Generate a list of options or alternative courses of action, such as:
    - *Re-engineering the existing system*
    - *Off-the-shelf software vs. custom-created software*
    - *In-house IT maintenance department or outsourcing*
2. Gather input from stakeholders – their values
3. Narrow your choices down to a few especially promising ones:
    - *Combine alternatives that can be implemented together*
    - *Eliminate visibly high-risk options*
    - *Favour easy-to-implement option over complex*

Should we include 'doing nothing' as one of the options in a business case?

STEP 3

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The Business Case Framework

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5. Select the best choice
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Communicate your case

STEP 4

4. Analyze the Alternatives

1. Define feasibility
2. Benefits (tangible and intangible)
3. Costs (tangible and intangible)
4. Compare feasibility & benefits against costs; cost-benefit analysis
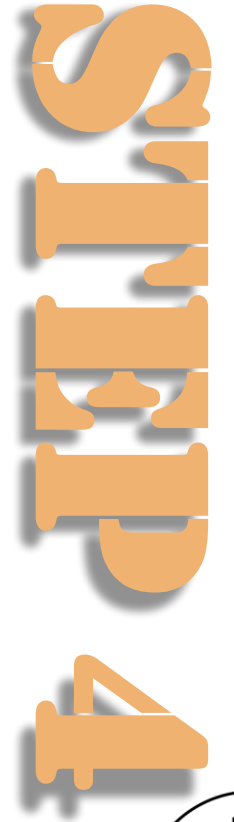
STEP 4

Define Feasibility

- Question: Is the IT investment doable and worth doing?

- How can we assess this?

STEP 4.1

Feasibility

Feasibility can be any or all of:

- **Economic** feasibility (resources and capabilities)
- **Technical** feasibility (existing technology infrastructure)
- **Organizational** feasibility (organizational impact)
- Other (e.g. legal or ethical)

Define the Benefits

Question: In what ways will we benefit from this investment?

Identify the desired value of the IT project:

- Better
- Faster
- Cheaper
- More

According to the previous modules, what tools can we use to assess benefits?

STEP 4.3

IT Portfolio and RBV

Benefits according to the IT portfolio	Tangible/intangible benefits
Strategic • New markets, physical or web-based **Informational** • Upselling to customers based on past behavior **Transactional** • Increase profit **Infrastructural** • Implementing Cloud infrastructure	*Tangible benefits* • Name of tangible, quantifiable benefit • Numeric value attached *Intangible benefits* • Name of intangible, unquantifiable benefit • Business impact on organization • Special assumptions

Define the Costs

Direct or up-front costs

- Initial purchase price of all hardware, software, and telecommunication equipment, all development or installation costs, outside consultant fees, etc.

Ongoing costs

- Fixed – not dependent on the value of output/sales

- Variable – depend upon output/sales.

- Salaries, training, upgrades, supplies, maintenance, etc.

Indirect costs

- Initial loss of productivity, time lost by users when the system is down, the cost of auditing equipment (i.e. finding out who has what and where), quality assurance, and post implementation reviews.

STEP 4.3

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Costs can take the form of:

- Pre-analysis (including business case)
- Internal resources (Full-time employees (FTEs), capital, project management, etc.)
- External resources (Consultants, industry reports)
- Software/hardware (non-existing in the organisation)
- Other costs (compliance costs)
- Contingency costs (e.g., 5% of the total cost of the project)
- Operation and maintenance costs
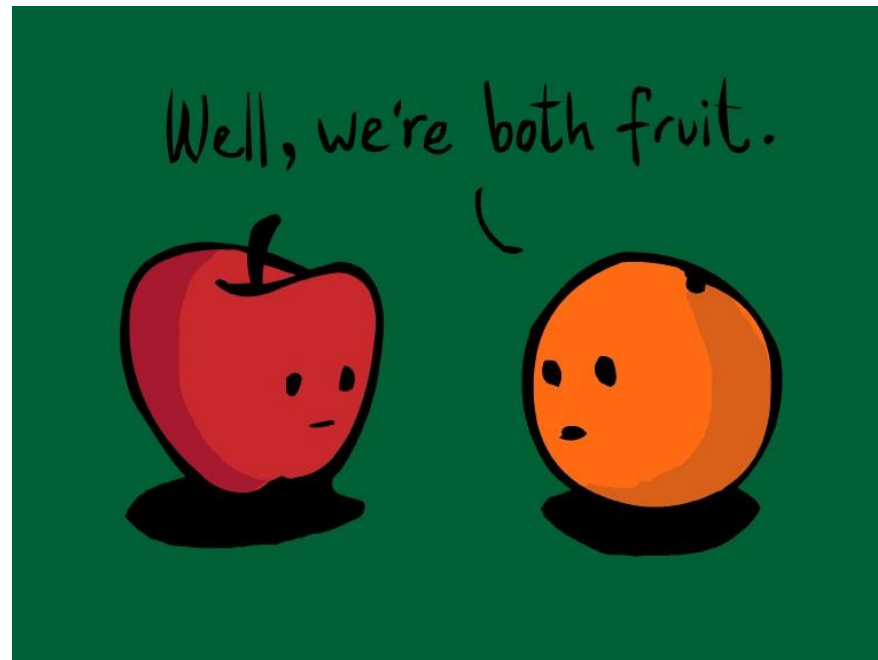
- What other costs could you take into consideration?

STEP 4.3

Compare the Alternatives

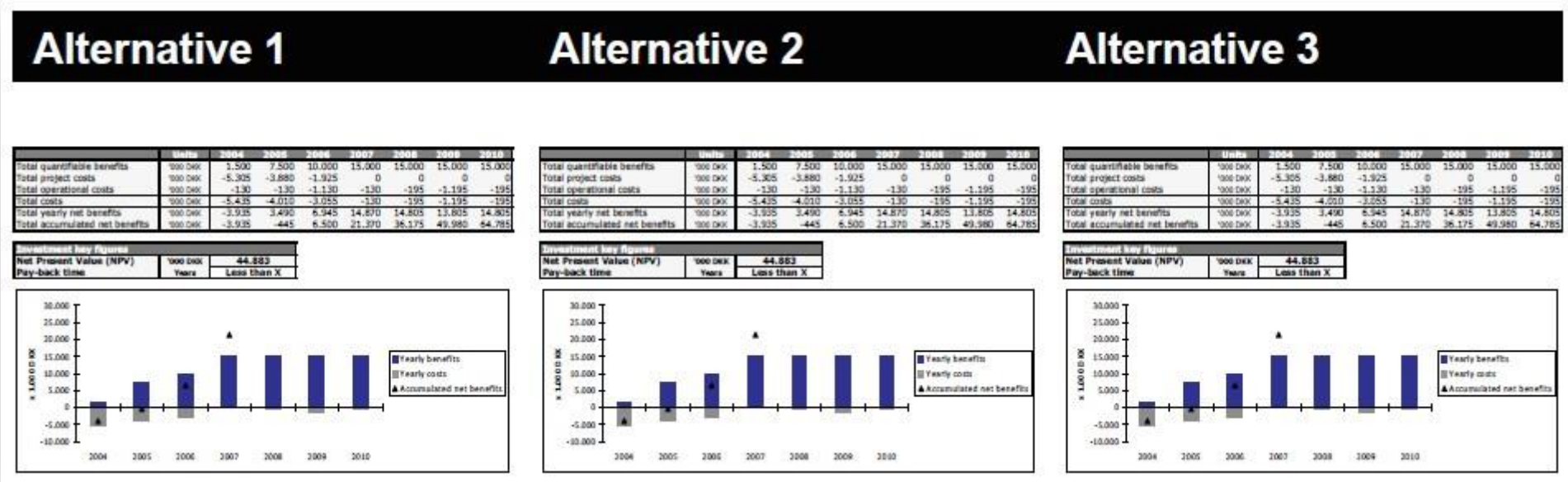How can we compare the feasibility, benefits and costs of each alternative?

STEP 4.4

Compare the numbers: costs and benefits

How do you propose comparing intangible benefits and costs?

Risks

1. Selecting the best options based on feasibility, costs and benefits
2. Identifying the risks - each alternative
   - Access to the right people?
   - Possible to meet schedule?
   - Realistic budget?
   - Resistance towards opportunity?
3. Assessing the risks
   - What is the probability of something going wrong?
   - What is the impact if it goes wrong?
4. Mitigating risks

STEP 4.5

# Using the risk matrix below, how would you assess the risks of:

1. An upgrade to your operating system?
2. Investing in social media analytics?

Ask:
- What are the risks?
- How likely is it that this risk will eventuate?
- What will be the impact on our business?
- How will we deal with this event?

Visualising the risk matrix:

		A Negligible	B Minor	C Moderate	D Significant	E Severe
E	Very Likely	Low Med	Medium	Med Hi	High	High
D	Likely	Low	Low Med	Medium	Med Hi	High
C	Possible	Low	Low Med	Medium	Med Hi	Med Hi
B	Unlikely	Low	Low Med	Low Med	Medium	Med Hi
A	Very Unlikely	Low	Low	Low Med	Medium	Medium
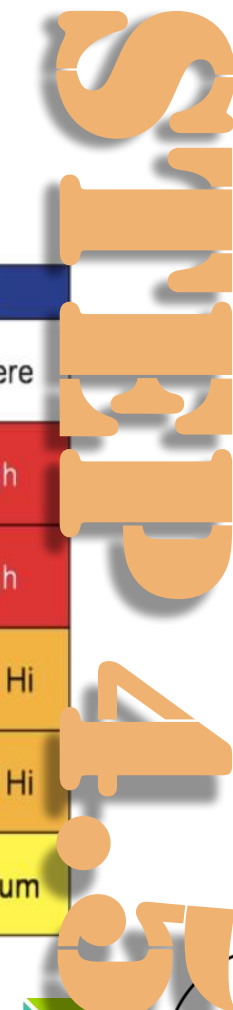
The Business Case Framework

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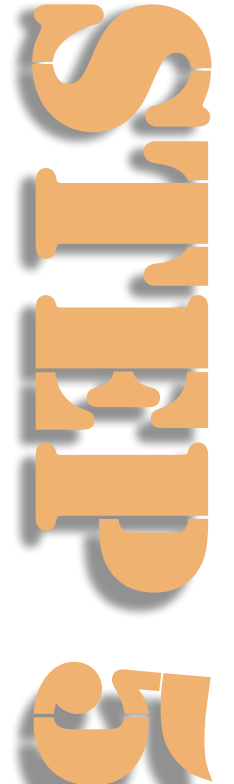6. Create a plan for implementation of ideas

Communicate your case
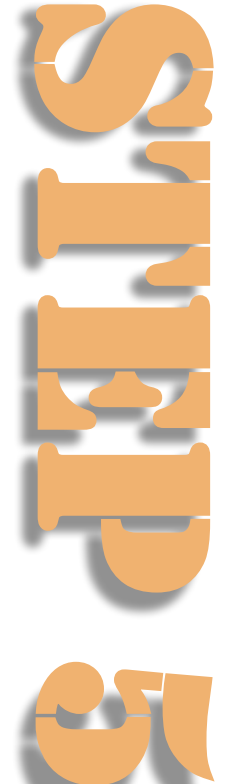
5. Select Best Choice

Provide sound arguments based on analysis of the recommended alternative:

- State explicitly which alternative is recommended
- Summarize briefly why this alternative should be chosen

STEP 5

The Business Case Framework

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   - Costs
   - Risks
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6. **Create a plan for implementation of ideas**

Communicate your case
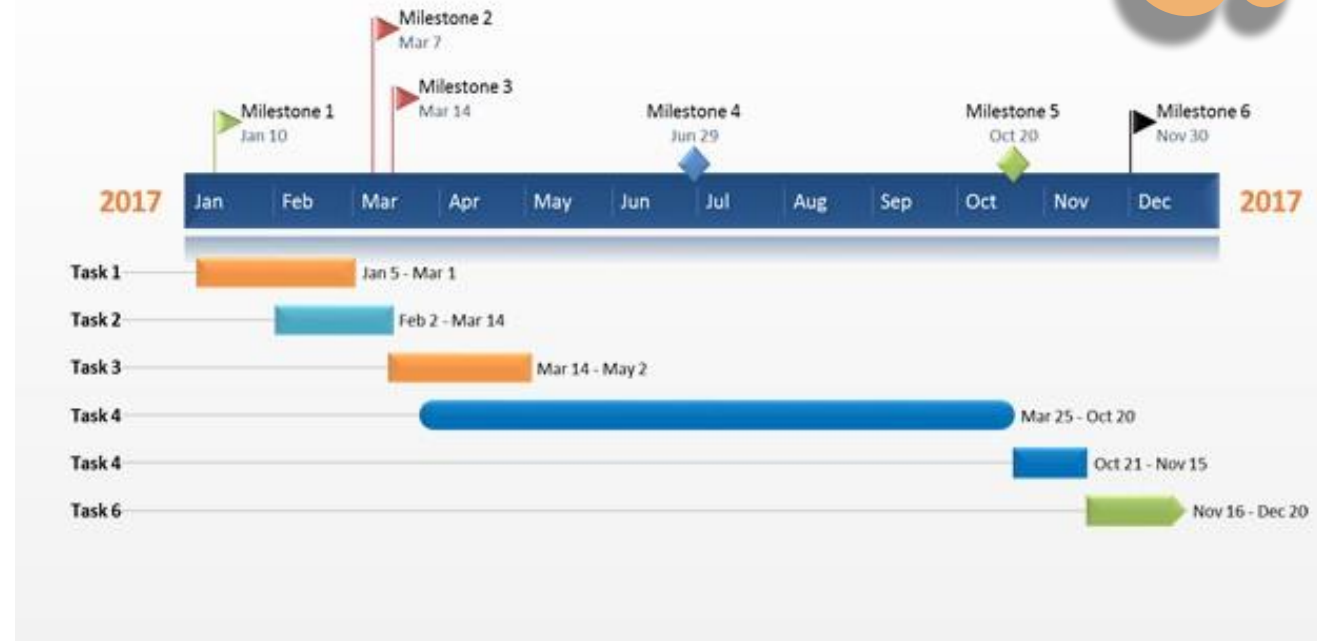
6. Create an Implementation Plan

The business case report should include a high-level project plan

- Schedule
  - Project start date
  - Project completion date – including roll-out
  - Benefit realisation date
- Milestone plan
  - All major milestones

6. Create an Implementation Plan

The business case report should include a high-level project plan

- Project Key Performance Indicators (KPIs)
  - Description of indicator
  - Past performance
  - Future performance
- User satisfaction survey
  - Description of indicator
  - Past performance
  - Future performance
- Transfer to operations

STEP 6

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The Business Case Framework

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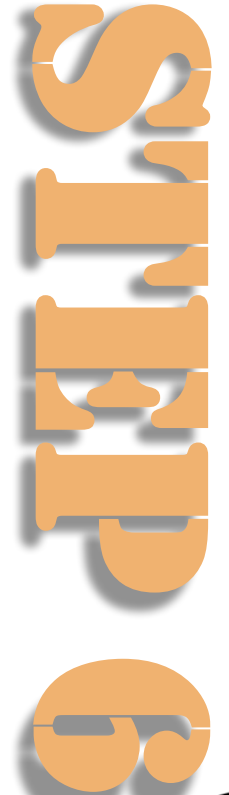6. Create a plan for implementation of ideas

Communicate your case

Communicate

- Format: document, presentation, visuals
- Remember who your audience is:
    - What do they value? What do they care about? (ROI? Customer satisfaction? Innovation?)
    - Articulate clearly what they can gain from this opportunity
    - Assess their level of risk tolerance
    - Back up content with facts (numbers)

The arguments of Fact, Faith and Fear.

AT LAST

Assignment 2

- Where is assignment 2?

Go to our unit site,

Content → Assessment Resources → Assignment 2

- What will happen if I do not have a group, or my group has only two members?

We will assign a group to you.

Assignment 2 Part A (Video Presentation) Seminar in Week 8 (after the break)

- Provide a summary of your business case for an emerging technology investment.

- This should be treated as a **"pitching"** exercise. The aim is to sell/persuade your business case proposal to the management of Nvidia.

- The presentation should be **less than 5 minutes** long.

- The presentation thus may have short summaries of the first **five** steps we recommended to write a business case (**no need** to elaborate on analysis of the alternatives, but some justification for selected choice for implementation should be given).

- Video file or link uploaded in CloudDeakin Assignment Task 2 Dropbox.

- Sample video presentations will be played in Seminar!