MIS782 Value of Information

Class Week 2 (Module 1)

Deakin's acknowledgement

Deakin wishes to pay respect and acknowledge the traditional custodians of our land. Deakin is committed to recognising, building and sustaining understanding and respect between Aboriginal and Torres Strait Islander and non-Indigenous Australians.

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Phenomenon, Abstraction, Application

Phenomenon (Business Value of Information):

- Information as Competitive Resource
- IT investments - Automation

Abstraction:

- Informate
- The IT Portfolio

Application of concepts through:

Class discussion, industry presentation

Assignment 1

- **Learn to use IT Portfolio for business value returns**
- **Understand several management objectives for the IT portfolio**

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Automate

- Task:

Consider a Supermarket (e.g. Woolworths):

  - Can you think of a way to introduce automation?

- Task:

Consider a convenient store (e.g. 7Eleven)

  - Could you introduce the same automation solution(s) mentioned above?
  - What are the benefits?

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Informate

- Does automate always lead to informate?
- What are some benefits flowing on from informate in our supermarket example?

Think about McDonalds and the types of IT systems/investments they have made.

Portfolio Theory

- Portfolio Theory is a sophisticated investment decision approach that permits an investor to classify, estimate and control both the kind and amount of expected risk and return.
- The portfolio theory approach has four basic steps:
  - Valuation: describing assets in terms of expected risk and return
  - Asset allocation: determining how assets are to be distributed among different classes of investment
  - Balancing the portfolio: selecting assets to be included/excluded from the portfolio given risk/return profiles
  - Assessing effectiveness: comparing portfolio against sector/industry benchmarks

Could this notion be extended to IT investments?

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The IT Portfolio:
What are the asset classes?

Automate
- **Transactional Assets**

Informate
- **Informational Assets**
- **Infrastructural Assets**
- **Strategic Assets**

Transactional IT Investments

- IT that processes and supports the basic, repetitive transactions of the firm
- Uses underlying infrastructure services
- Examples:
  - Order processing
  - Inventory control
  - General Leger, Account Receivables, Account Payables
- AIM:
  - Cut costs by substituting capital for labour (i.e.. Automate)
  - Handle higher volume of transactions with greater efficiency

What are some transactional assets at the Deakin University?

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Informational IT Investments

- IT applications that provides information supporting decision making & management control
- Examples:
  - Date warehousing/data mining
  - Knowledge management systems
  - Business Analytics, Decision Support Systems, Social Media Monitoring, Intelligent agents, etc
- Relies upon IT infrastructure & transactional systems
- AIM:
  - Combine data, information, and knowledge as input to decision making & taking control

What are some informational IT assets at Deakin University?

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IT Infrastructure Investment

- Foundation for IT capability
- **Conceptualise as services**, shared throughout the firm
- Not only technical, but as managerial expertise
- **Standardized and shared** throughout firm, used by different applications
- AIM:
  - If right infrastructure is in place, then increases speed to develop new applications to support new strategies, thus increasing firms agility.

Can you list IT infrastructural assets at Deakin?

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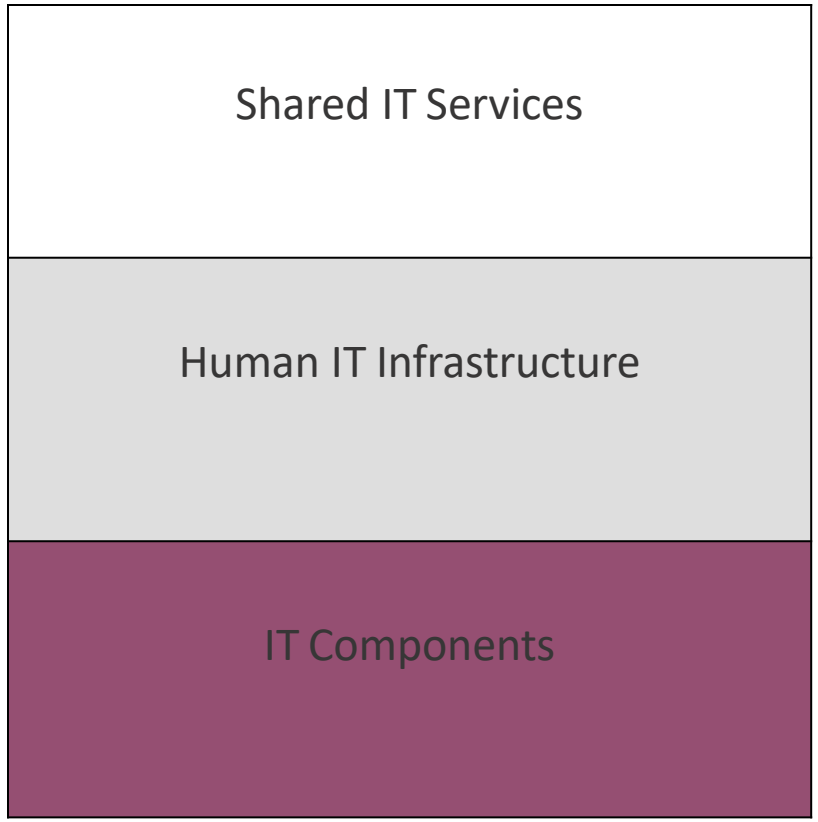
The Structure of IT Infrastructure



Services that are stable over time, e.g. management of shared customer databases, PC/LAN access

Knowledge, skills, policies, standards, experience

Commodities (computers, printers, routers, database software, Credit card swipers)

Source: Weill & Broadbent (1998)

Strategic IT Investments

- Aim:
  - Provide firm with a competitive advantage
  - Position firm in marketplace (e.g. gain new market share & sales)
- Acid test: look at competitors response (ultimate compliment = imitation)

Can you think of any Strategic IT investments at Deakin?

What happens to some of the assets in this category as time decays the strategic value?

- What was once strategic, can become transactional and even public/industry infrastructure (e.g., mobile banking)

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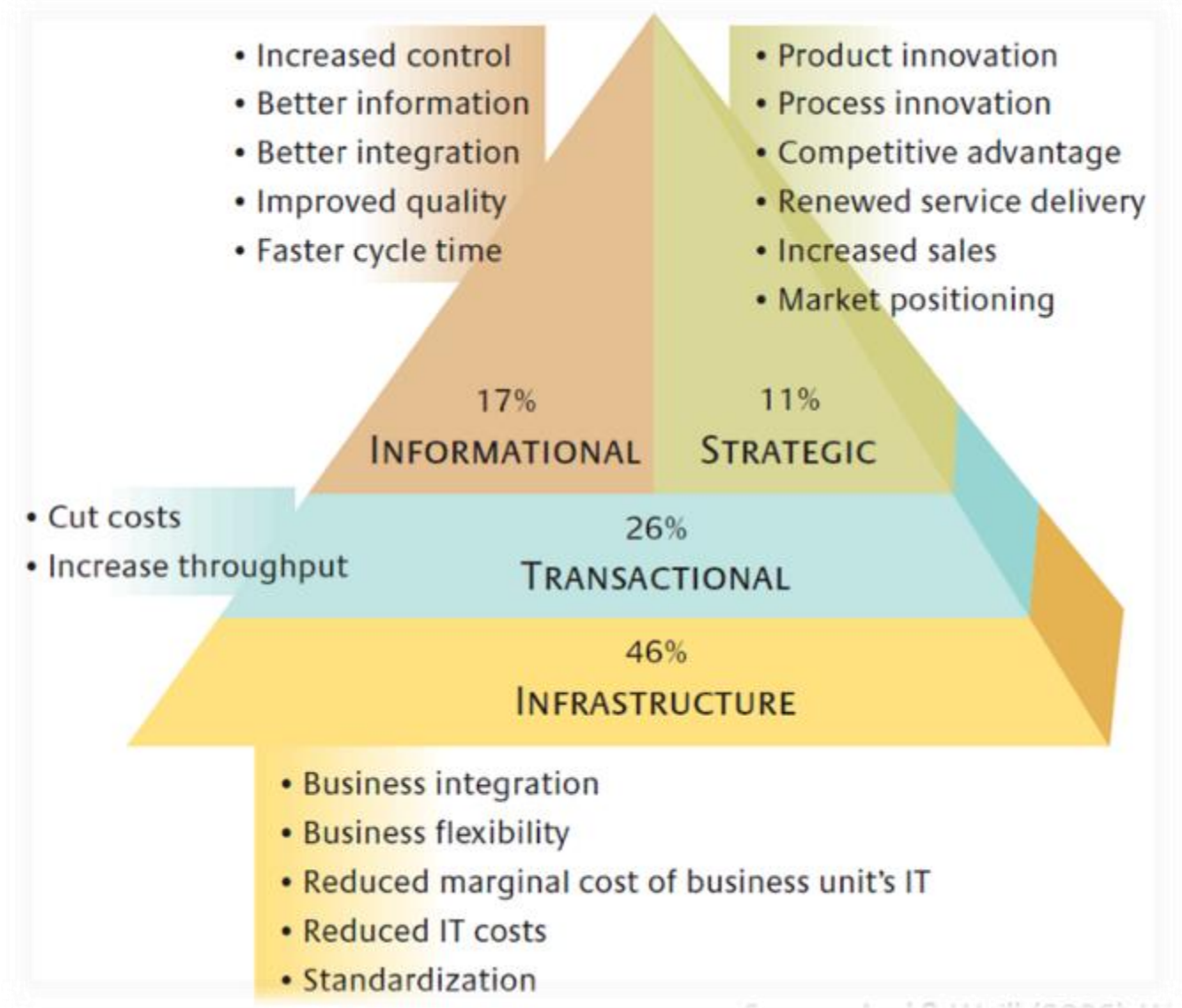
IT Portfolio:
Is that all there is to it?

Can an asset belong to multiple classes?

What business value returns do you think we could derive from each of the asset classes?

Business Value Returns from the IT Portfolio



IT Portfolio:
Is that all there is to it?

- What about risk of investments versus the return on investment?

- Which are the risky classes of assets? Which are rather ‘safe’ assets?

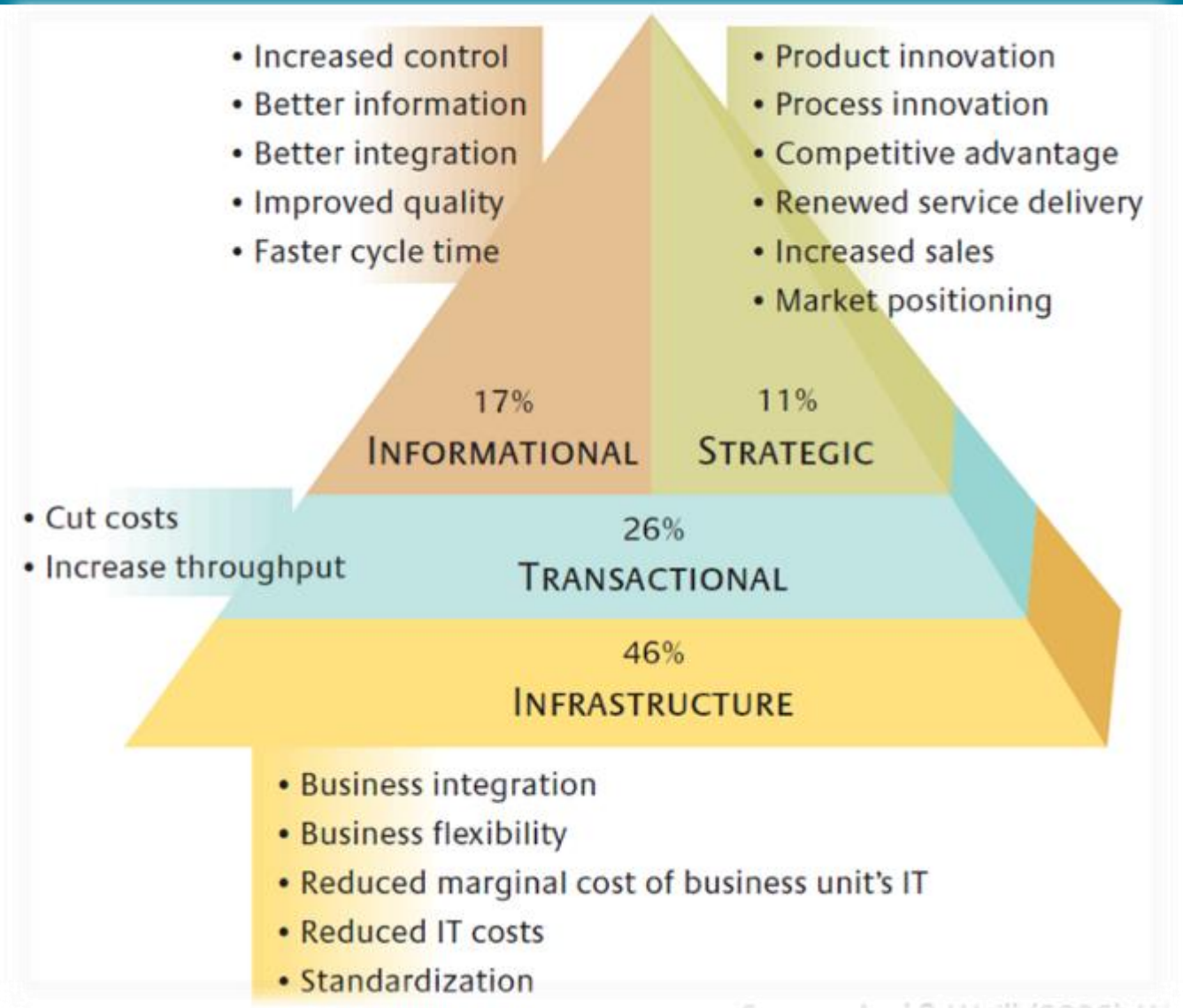
- How should one combine assets from each of the IT Portfolio asset classes to get a balenced portfolio: Risk versus Return?

Balancing the portfolio for risk/return

- Four asset classes have different risk/return profiles
  - Strategic IT: high risk, potentially high returns
  - Transactional IT: low risk, solid returns
  - Informational IT: moderate risk, moderate return, context specific, essential for information intensive businesses
  - Infrastructural IT: moderate risk, moderate return, necessary, but no real value of its own; risk of lock- in, return = agility and responsiveness

Source: Weill & Broadbent

IT Portfolio – Risk versus Return



DISBA Panel discussion: Value of data, analytics and AI in times of crisis

1. Marie Johnson GAICD, Managing Director and Chief Digital Officer, Centre for Digital Business

2. Dr Sankalp Khanna, Research Team Leader, Health Intelligence at CSIRO

3. Steve Iatropolos, Client CTO, Microsoft

Hosted by: A/Prof Sultana Lubna Alam

Recording: https://cloudstor.aarnet.edu.au/plus/s/xEFB0Aslv2NxuNv

Next Class in week 3……

Module 2: How to understand, measure, and grow competitive advantage!