



Aalto University  
School of Business

# Learning diary questions

Learning diary 1: IT Investments

March 21, 2024

# Evaluation of IT investments

- Is it really justified to consider IT investments separately from other types of investments – as if they were a special case?
- Is it actually beneficial to spend resources on creating an extensive business case for each IT investment?
- How big a role should the Financial department play in IT investments or is it something so knowledge specific that it should be executed mainly by the IT department?
- In what circumstances companies should put into practise IT- investments that look financially unprofitable?

# Evaluation of IT investments

- How will (or already have) generative AI technologies impact IT investment appraisal processes
- What potential advantages or challenges can be foreseen in integrating these tools into investment decision-making frameworks?
- The framework created by Joshi & Pant classifies the IT projects into purely/mainly mandatory and purely/mainly discretionary. Does this classification offer a possibility for gameplaying in case managers (proposers) intentionally classify all projects as purely mandatory?

# Evaluation of IT investments

- Currently many IT software are sold in SAAS form with monthly/yearly license cost and then a whole bunch of service cost. Have this transition make it easier/more difficult to analyze the feasibility of investment.
  - *SAAS: Software as a service*
- As organizations increasingly adopt cloud computing, how does the shift from capital expenditure to operational expenditure impact the appraisal of IT investments, and what new considerations should be factored into decision-making processes?

# Measurement of benefits

- Is there any available method which gives points to intangible benefits and evaluates the total project in conjunction with financial figures?
- How can the qualitative benefits of IT investments be compared with the quantitative benefits of non-IT investments?
- Could you give some examples on how the benefits of IS investments could actually be measured?

# Appendix: Multicriteria methods for evaluating IT investments

1			BUILD	BUILD	BUY	BUY
2	Factors	Weight	Score	Wt-avg Score	Score	Wt. Avg Score
3	Processing Speed	0.50	4	2.00	2	1.00
4	DB ease of retrieval	0.10	3	0.30	5	0.50
5	Maintainence	0.25	1	0.25	3	0.75
6	Customer Satisfaction	0.10	5	0.50	1	0.10
7	Supplier Satisfaction	0.05	5	0.25	1	0.05
8		1.00		3.30		2.40
9						
10						
11						
12						
13						

These scores are subjective.

# IT investment evaluation in practice

- What kind of studies have been published in this area in the past five years?
- Do we know how Finnish companies evaluate the IT projects?
- How might the size of the company affect practices used in ICT investment appraisals?
- What are the IT investments companies are considering currently?
- Has the framework that Joshi and Pant presented been corroborated in later studies?

# Key Trends in IT Technology (Info Tech – Research Group, 2023)

## 1. The Metaverse

A platform that combines multiple technologies to enable social and economic activity in a digital world that is connected to the physical world.

## 2. Generative AI (Artificial Intelligence)

AI can be trained by feeding content into generative adversarial networks, transformers, and variational autoencoders to create new content that is meaningful to people.

## 3. Industry-led data models

Industry-specific expertise is helping turn data into insights, pushing more back-office operations to find analytics-driven efficiencies, and creating new revenue-generating opportunities.

## 4. Sustained digital processes

Ensure your organization is executing the digital transformation it planned with business process mining and discovery.

## 5. ESG analytics and reporting

Preparing for a heightened regulatory environment with timely and accurate reporting on ESG metrics.

## 6. Zero-trust security

The shift from securing network boundaries to a focus on verifying users, assets, and resources



# Joshi & Pant + Ward et al. frames used in Master thesis (supervised by Jari Huikku)

- Hyötyjen merkitys viraston tietojärjestelmäinvestoinneissa; Tapaustutkimus julkishallinnollisesta IT-investointimallista (Saajo, 2021)
- Towards better prioritization and portfolio management practices with ICT investments – Case X Oyj (Toikka, 2020)
- Improving business case quality for ICT investments – Assessing benefits arising from investments (Kemppainen, 2018)
- Managing Stakeholder Involvement in Companywide IT Investment Project: Case study Evidence from Finnish Outsourcing and Software Company (Yli-Honkaluoma, 2018)
- How to appraise benefits and costs of ICT investments – Construction of a sensible business case (Niskanen, 2018)
- Strategisten IT-investointien arviointi ja IT-liiketoiminta-linjaus: Case-tutkimus (Lappalainen, 2016)

# IT investments: Conclusions

Typically a lot of non-financial benefits involved

Also, costs are not always clear

Not only one correct approach for all IT projects

- Try to find the appropriate evaluation approach for each IT project

In practice, often

- Benefits are overestimated
- Costs are underestimated
- Appropriate evaluation neglected

IT investments should be derived from strategy

Must be driven by business (business ownership)

Think what will happen if we do not make this investment