

HC5 ICTSM

- **ICT/S as Intellectual Capital Investment Portfolio** (slide 2)
 - **Four management objectives that motivate firms' investments in IT**
 - Transactional – to cut costs or increase throughput for the same cost (e.g., a trade processing system for a brokerage firm).
 - Informational – to provide information for any purpose including: to account, manage, control, report compliance, communicate, collaborate or analyse (e.g., a sales analysis or reporting system).
 - Strategic – to gain competitive advantage or position in the market place (e.g., ATMs were a very successful strategic IT initiative for the innovating banks increasing market share).
 - Infrastructure – the base foundation of shared IT services used by multiple applications (e.g., servers, networks, laptops, customer databases).
 - → Investment for any single project can be allocated over one or more asset classes.

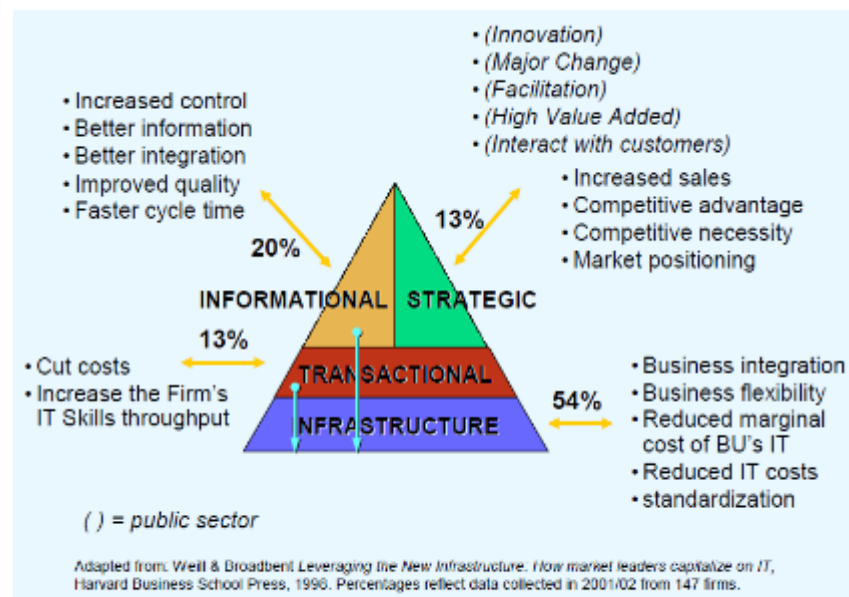


Figure 1: four IT asset classes

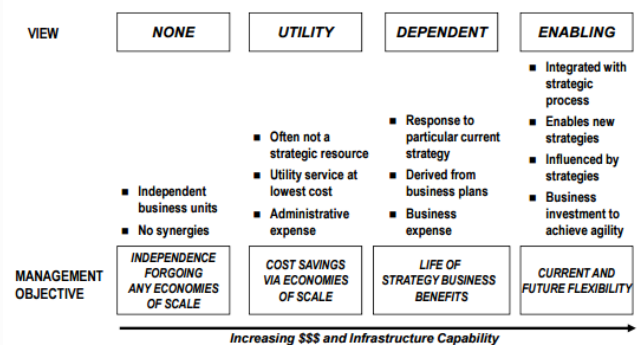
- **Degree of infrastructure** (slide 5)
 - Infrastructure as % of Total ICT: $73 * 0,69 = 50\%$; $52 * 0,64 = 33\%$; ...
 - Infrastructure as % of revenues: $50\% * 7\% = 3,5\%$; $33\% * 1,7\% = 0,6\%$; ... → this represents the degree of infrastructure
- **Capital transformation** (slide 6)
 - Transform human capital (tacit knowledge) into structural capital (explicit knowledge)
- **ICT Infrastructure** (slide 7 + **SLIDE 8 !** → core IT infrastructure Services)
 - Shared and standard IT applications: change less regularly, such as accounting, budgeting, HRM
 - Shared Information Technology Services: services that are stable over time, such as management of shared customer databases, PC/LAN access
 - Human Information Technology infrastructure: Human infrastructure of knowledge, skills, policies, standards and experience
 - IT components: Commodities, such as computers, printers, routers, database software, operating systems, credit card swipers

- **FOUR VIEWS ON INFRASTRUCTURE** (slide 10) → **EXAMEN!** → compare what you see here with the strategic grid of McFarlan!!!

- Four Views

- **None**
- **Utility:** lower than average firm-wide IT infrastructure investment and provide basic infrastructure services centrally. Primarily take a cost reduction focus during the justification process. IT is viewed as a utility that provides a necessary and unavoidable service which incurs administrative expenses.
- **Dependent:** attempt to balance cost and flexibility in the justification process which results in an average investment in IT infrastructure for their industry. Provide basic infrastructure services centrally plus several that are key to their strategic objectives, such as a shared customer database.
- **Enabling:** focus on strategic flexibility in the justification process. Over-investment in IT infrastructure (in terms of current needs) The purpose is to provide flexibility to achieve the firm's long-term goals and to enable the quick development of new products.

Four views on Infrastructure



Characteristics of Firm Wide Infrastructure	None	Utility	Dependent	Enabling
IT as a % of Expenses Relative to competitors	Lowest	Low	Just below average	Highest
Firm-wide IT Infrastructure as a % of Total	Lowest (0%)	Low (37%)	Just above average (45%)	Highest (50%)
Approach to Justification	Never supported	Cost saving	Balance flexibility and cost saving	Flexibility
Infrastructure Services	None	Basic services (average of 13)	Basic services plus strategic services (average of 16)	Extensive infrastructure services (average of 20)

???Mijn idee van plaatsing binnen grid van McFarlan (misschien niet juist)???

- Support : none
- Factor: utility
- Strategic: dependent
- Turnaround: enabling
- **ICT ambition : REACH/RANGE model** (Peter Keen) (slide 11-14)
 - More complex systems are kept local

- By taking the range dimension beyond multiple cross linked transactions as organization interact with other organizations
- Reach : to whom can we easily connect?
- Range: what services can be shared automatically and seamlessly? → time & space! (4 soorten zie slide 12)
- Importantly, the reach and range model focuses not only on the underlying architectures and infrastructures – but also the applications base that enables the business value to be generated
- Berekeningen zie slide 13 & 14
- Slide 15: responding fast is more important than focus on the cost
- Slide 22-25:
 - a Shapley type of allocation mechanism is proposed, that confronts every user with the situation of being an “incremental”, or marginal user for a particular subgrouping amongst the users. In particular, situations where users have joint demands and costs can be shared, or even reduced due to economies of scale, are treated well in this technique.
 - Fair share

