

MANAGING IT IN THE DIGITAL AGE

SESSION 3 – TRADITIONAL IT MANAGEMENT 2/2

Thomas Kude



COURSE CONTENT

Digital ecosystems



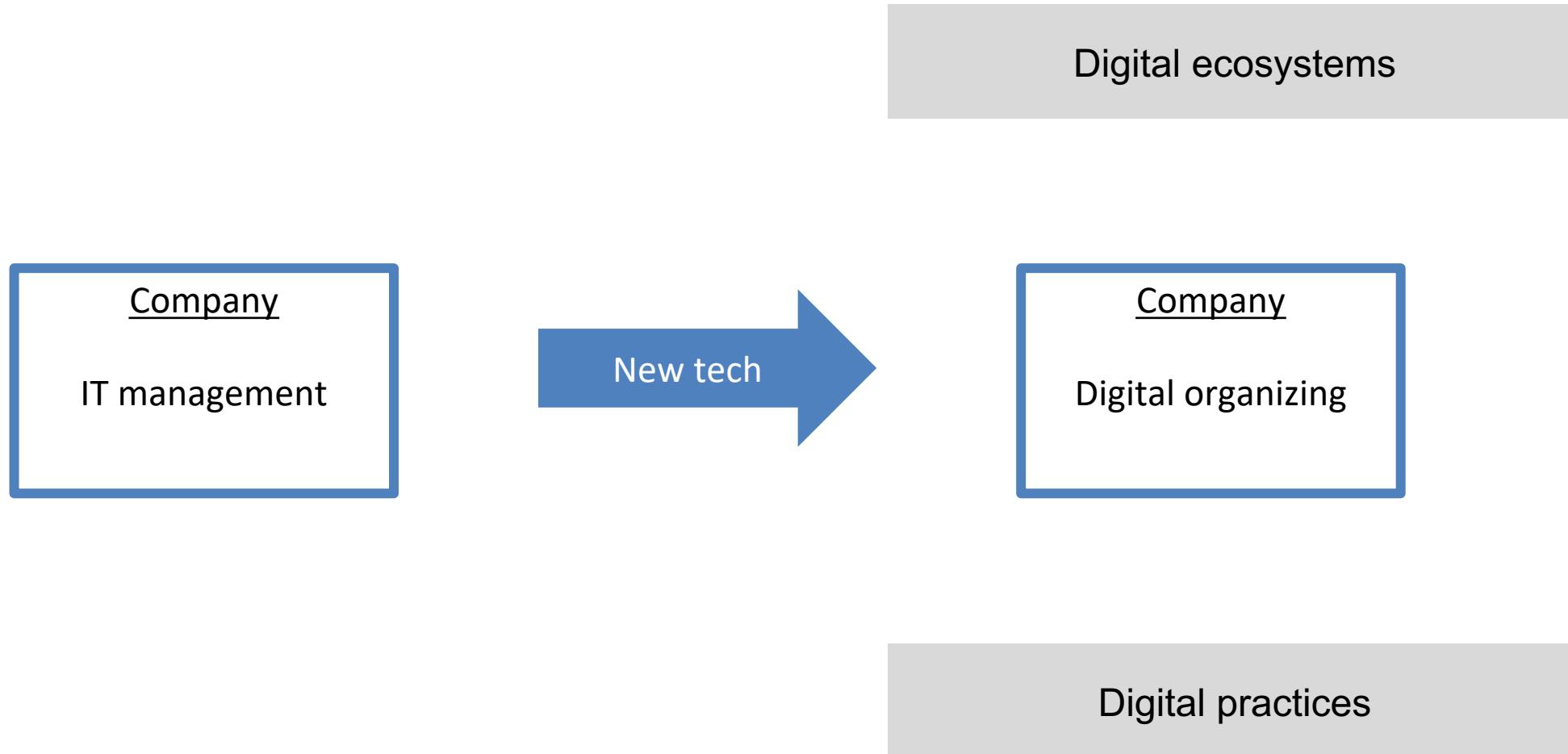
New tech



Session	Topic
1 15/04	Introduction
2 29/04	Traditional IT Management 1/2 (Enterprise systems)
3 06/05	Traditional IT Management 1/2 (IT sourcing and governance)
4 17/05	Tech talks: IoT and edge computing, Quantum computing, 5G, Digital markets act, Corporate digital responsibility
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Digital practices

FRAMEWORK: DIGITAL DISRUPTION



What did technology/IT management look like before digitalization?

What types of systems have organizations used?

What were related organizational challenges?

Today: Traditional IT management – IT organization

GOAL OF THIS PART

With this session you will be able to...

- ...explain the traditional role of the IT function in the organization
- ...explain what IT governance is and assess IT governance arrangements in given situations
- ...describe and delineate different forms of outsourcing
- ...make informed recommendations about adequate sourcing decisions, vendor selection, and governance mechanisms

IT Governance

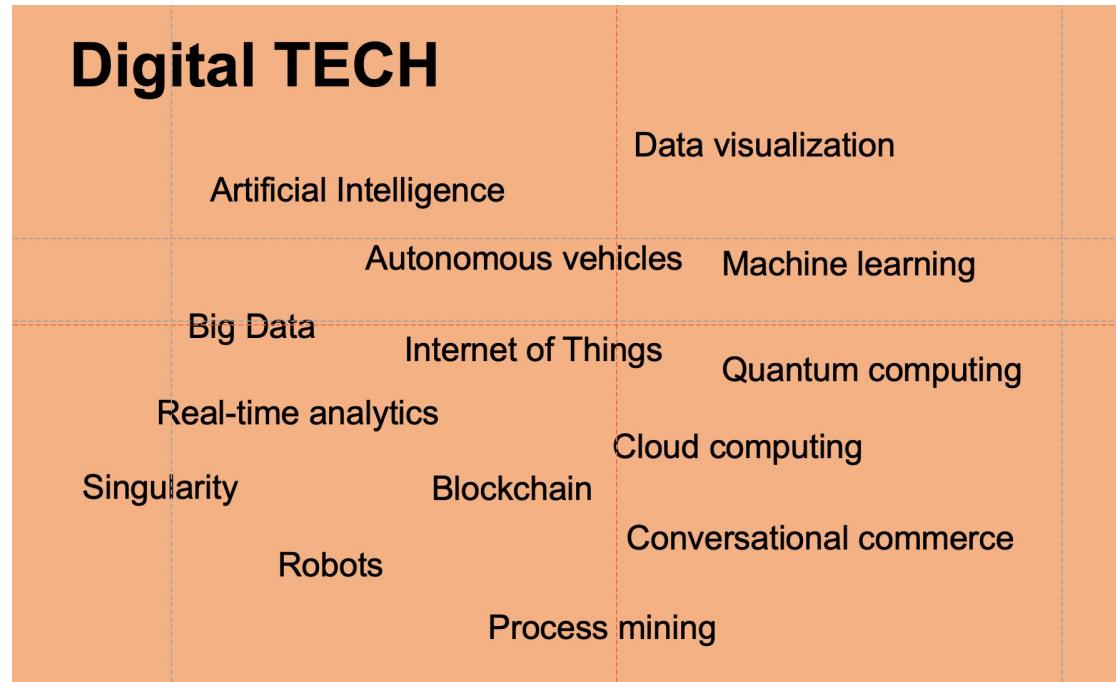
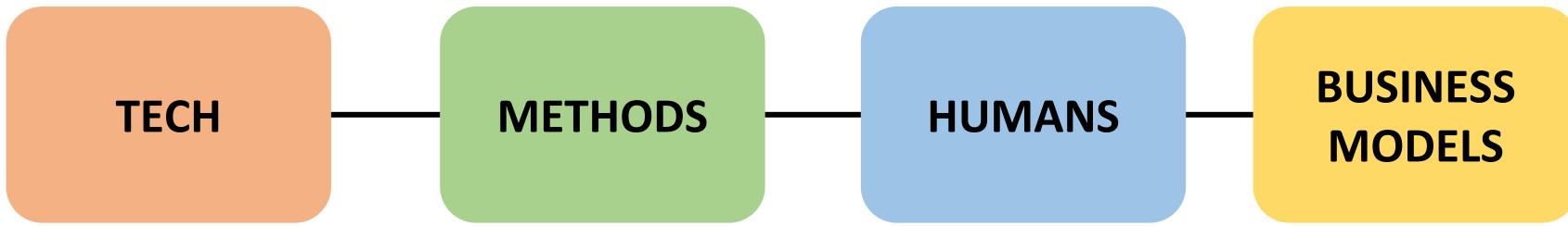
IT GOVERNANCE

- The framework for **decision rights and accountabilities** to encourage desirable behavior in the use of IT (Weill, 2004)
- Not about specific decisions to be made but about **where, by whom, and how** such decisions should be made and who is accountable for the decisions
- Embedded in corporate governance

CHIEF INFORMATION OFFICER (CIO)

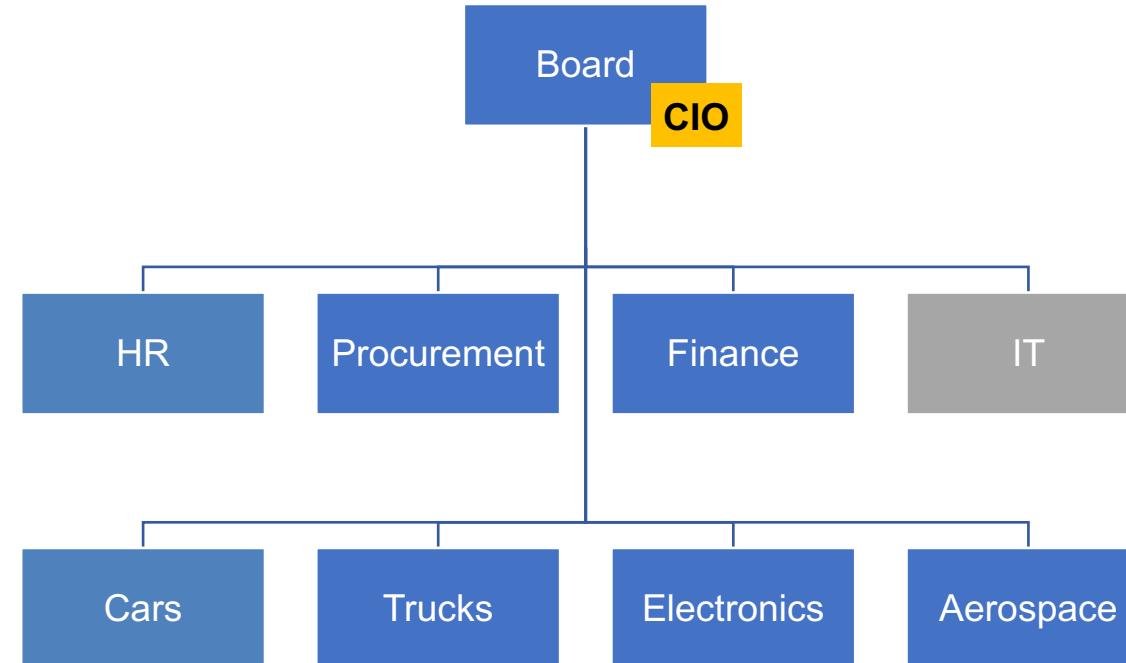
- Highest ranking executive with primary responsibility for information management
- Usually the head of IT function
- CIOs are supposed to be both **managers and technologists**

THE DIGITAL AGE



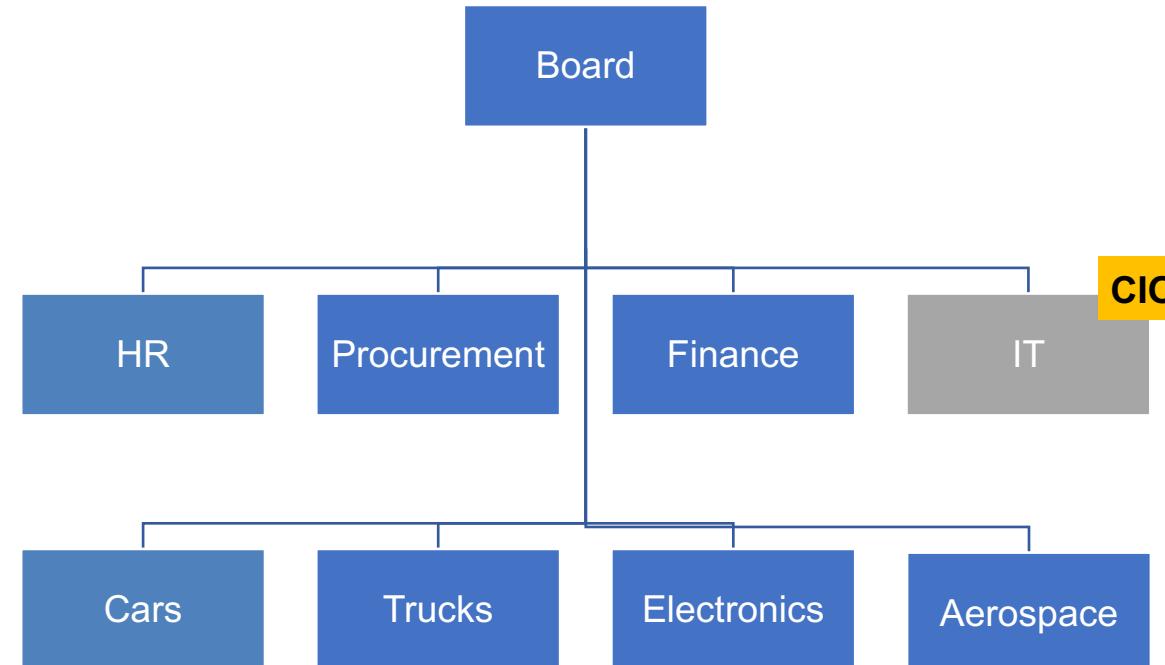
LOCATIONS OF CIO AND IT FUNCTION

CIO as a board member



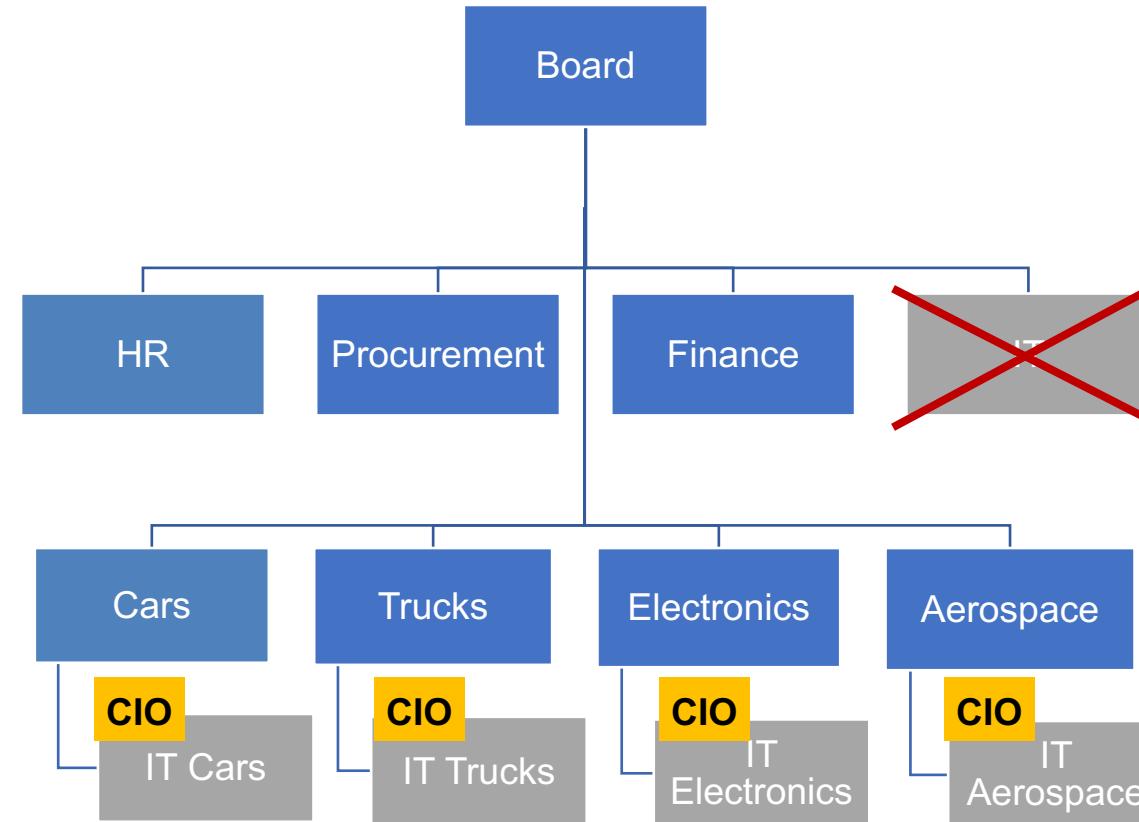
LOCATIONS OF CIO AND IT FUNCTION

CIO as the director of an IT unit



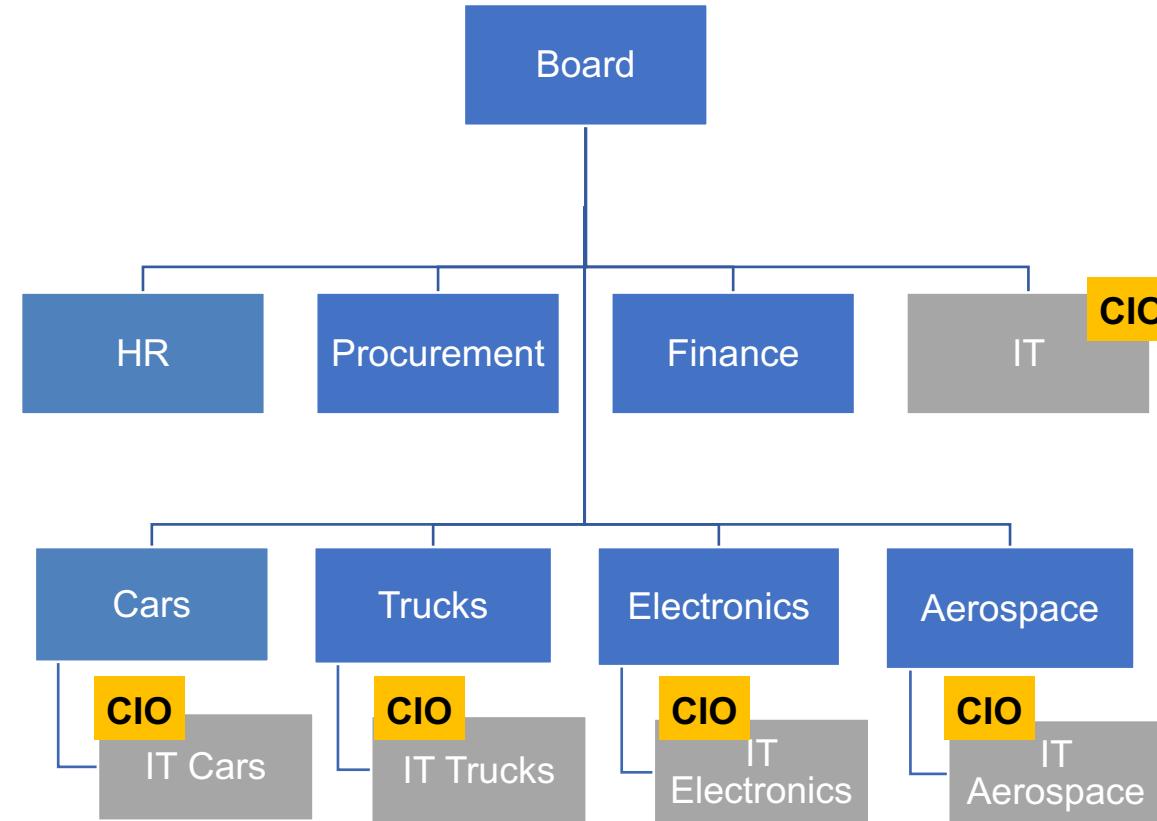
LOCATIONS OF CIO AND IT FUNCTION

CIOs reporting to the business heads



LOCATIONS OF CIO AND IT FUNCTION

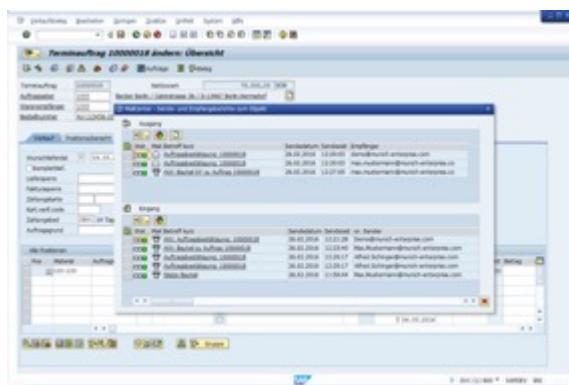
Federal structure



Why is this so important?
Recap last week

ENTERPRISE SOFTWARE AS AN EXAMPLE OF REPRESENTATIONAL COMPUTING

Representational
computing



Imagined computing



Experiential
computing



ENTERPRISE SYSTEM AS A MODEL OF THE REAL WORLD

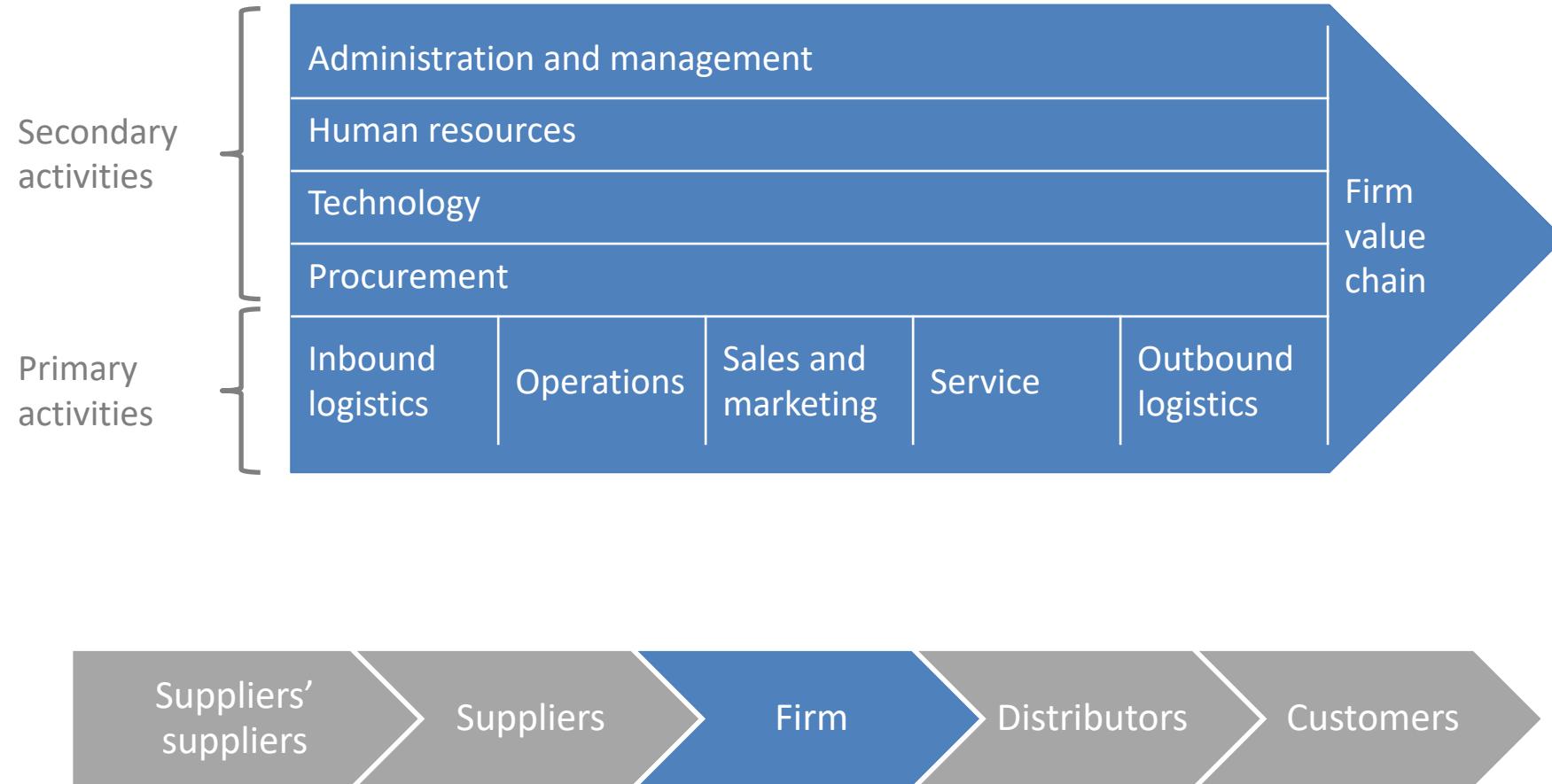
Real world



Enterprise system

Account	Street	City	Country	Email
400331	Allee Erkenn	BERLIN	Deutschland	destr@tech202
400518	Andreas Lachner	Berlin	Deutschland	destr@yahoo
501048	Anja Rosenfeld	Kolbeplatz 66	Berlin	destr@tech202
501055	Anke Gryczki	Str. am Friedrichshain 3	Berlin	destr@yahoo
400320	Anja Kasten	BERLIN	Deutschland	destr@tech202
400313	Anja Olschok	BERLIN	Deutschland	destr@tech202
400318	Anna Stellmach	BERLIN	Deutschland	destr@tech202
400716	Archibald Klaus Schling	BERLIN	Deutschland	destr@tech202
400708	Achim Hines	BERLIN	Deutschland	destr@tech202

VALUE CHAIN AND ENTERPRISE SYSTEMS



TYPES OF KNOWLEDGE MANAGEMENT SYSTEMS

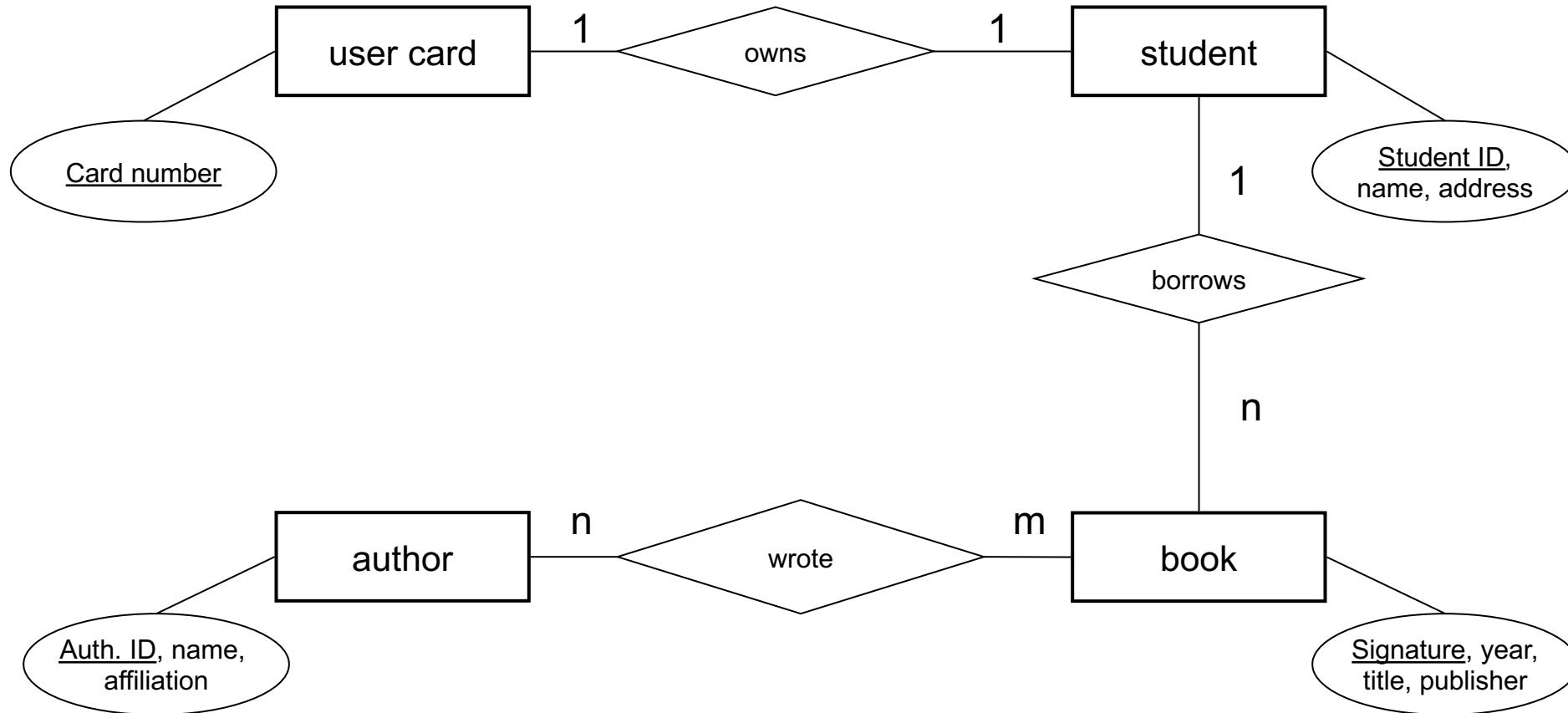
(1) Expert finders

(2) Communication tools

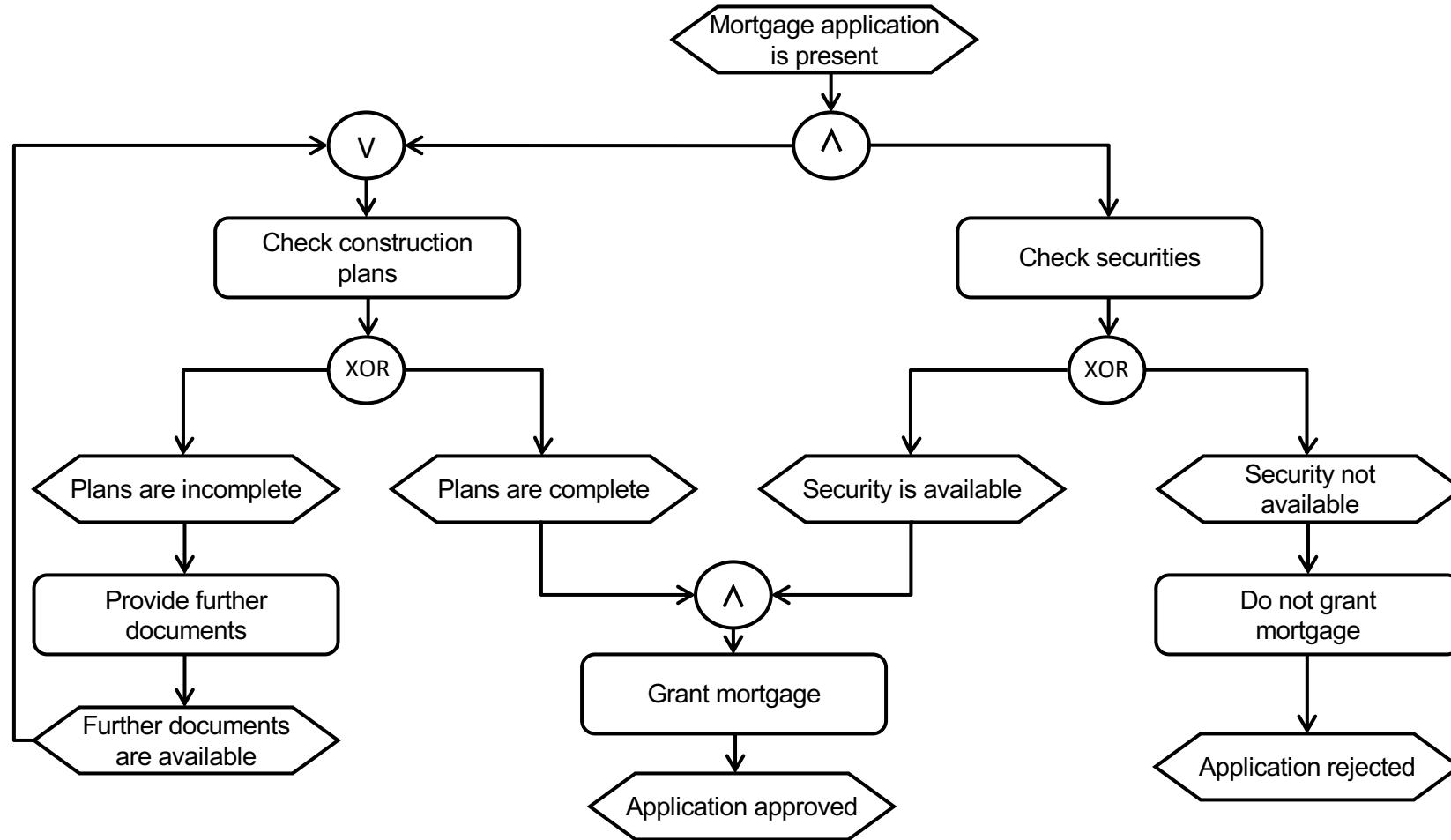
(3) Knowledge repositories

(4) Analytics tools

DATA MODELING EXAMPLE



EXAMPLE PROCESS—PROCESSING A MORTGAGE APPLICATION





TARGET

STOP

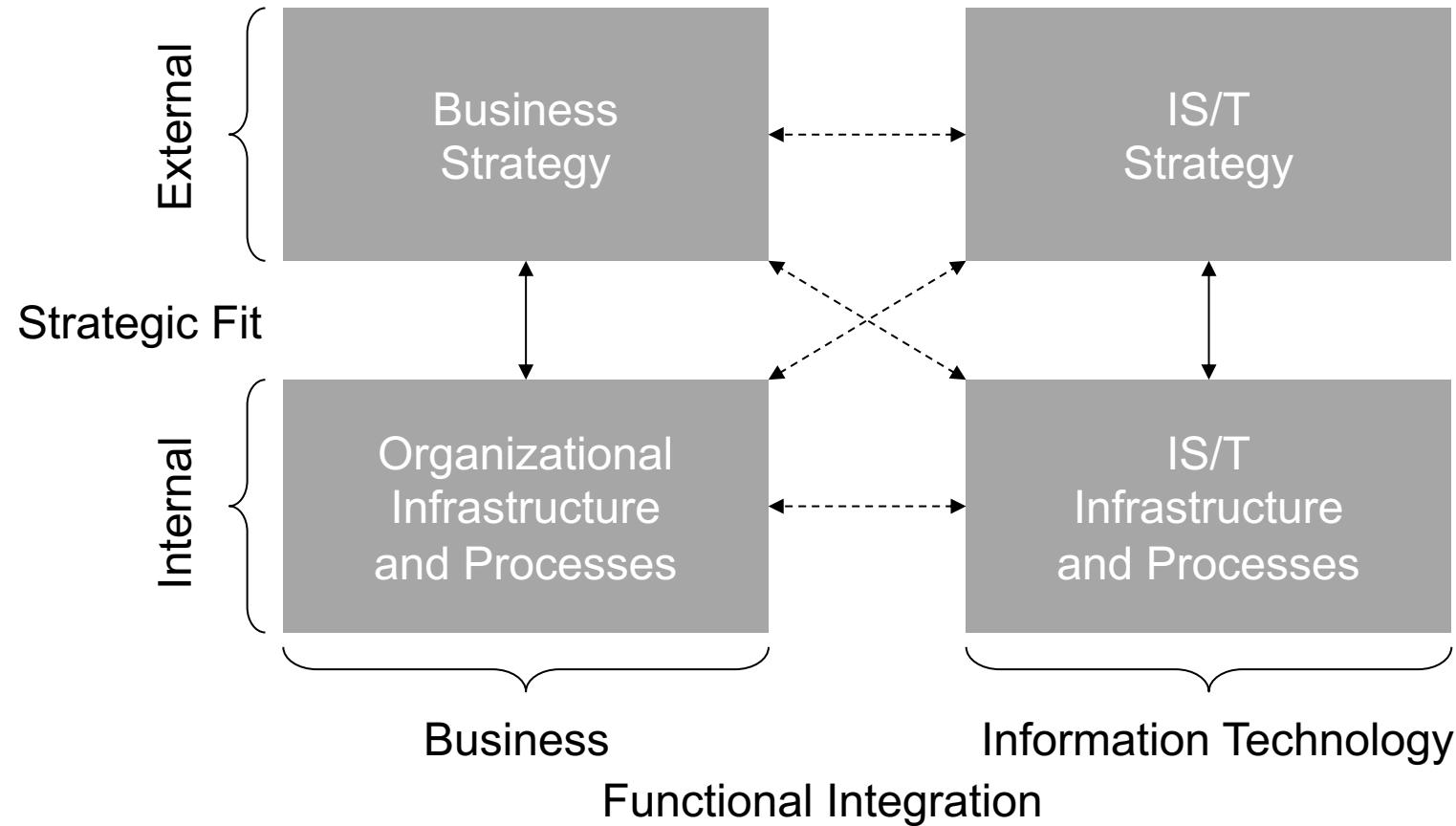
PARKING
REGULATIONS

LINTON
604-592-4133

Trotter & Morton

How is this linked to
IT organization?

BUSINESS-IT ALIGNMENT



BUSINESS-IT ALIGNMENT

Process-level measures of alignment	Operational excellence	Customer intimacy	Product leadership
Supplier relations			
Production and operations			
Product and service enhancement			
Sales and marketing support			
Customer relations			



: Tightest alignment expected



ZARA

ZARA

ZARA

STARBUCKS
COFFEE



EVOLVING IT FUNCTION

- Chief digital officers (CDO)
 - Tasked to lead digital transformation
 - Link to IT function and CIO?
- Two-speed/bimodal IT
 - Balance rapid, digital innovation with the day-to-day requirements of keeping the business running
 - Window dressing? How to integrate the two “speeds”?

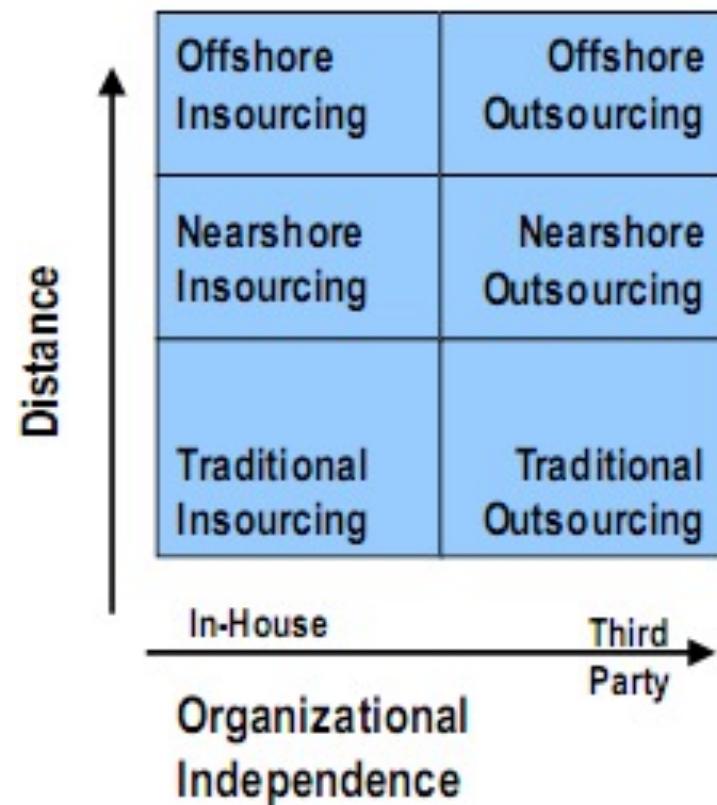
IT Outsourcing

WHAT IS OUTSOURCING?



The commissioning of a third-party to manage an organization's IT assets, activities, services, and/or people, to a defined result

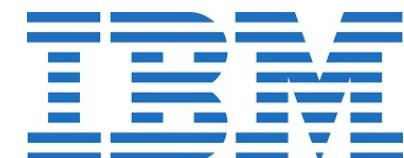
OFFSHORE, NEARSHORE, ONSHORE



Infosys®

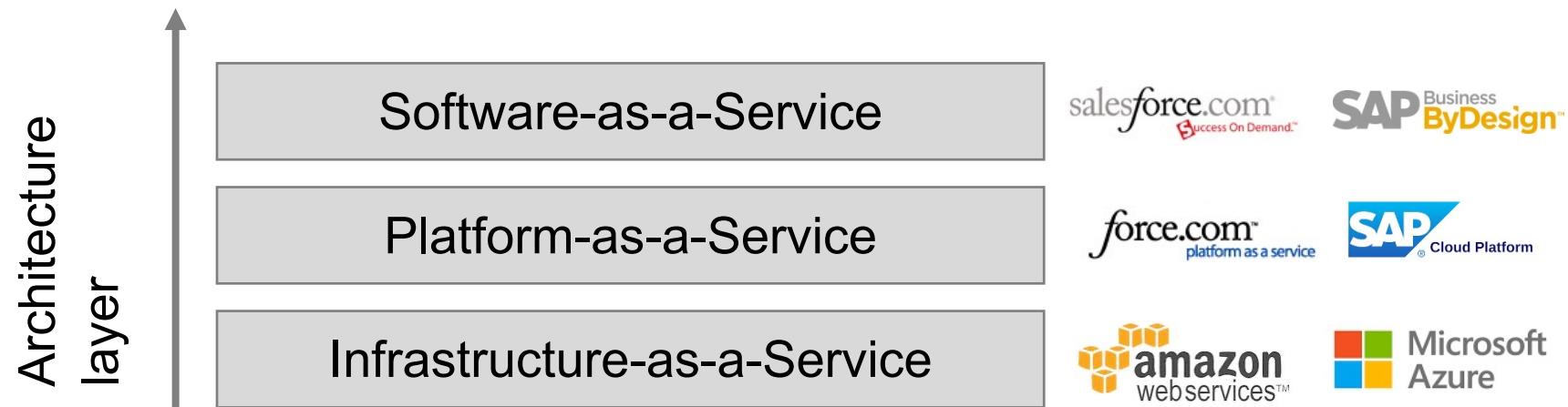


Capgemini



accenture

CLOUD COMPUTING



CROWDSOURCING

- "Simply defined, crowdsourcing represents the act of a company or institution taking a function once performed by employees and outsourcing it to an undefined (and generally large) network of people in the form of an open call." (Jeff Howe, 2006)



OUTSOURCING SUCCESS—OR FAILURE!

Hertz Wanted a Cool Website: It Ended Up With a \$32 Million Legal Nightmare

Isaac Carey, Skift - Apr 26, 2019 4:45 pm



<https://skift.com/2019/04/26/hertz-wanted-a-cool-website-it-ended-up-with-a-32-million-legal-nightmare/>

15 minutes reading + 20 minutes group discussion:

- Why did Hertz outsource the development of its website and apps?
- Should they have done it in-house?
- What went wrong in the project?
- How could this have been avoided?

OUTSOURCING STEPS



WHY TO OUTSOURCE AND WHY NOT

Why outsource?

- Save cost
- Refocus on core business
- Flexibility
- Access to new technology and talent

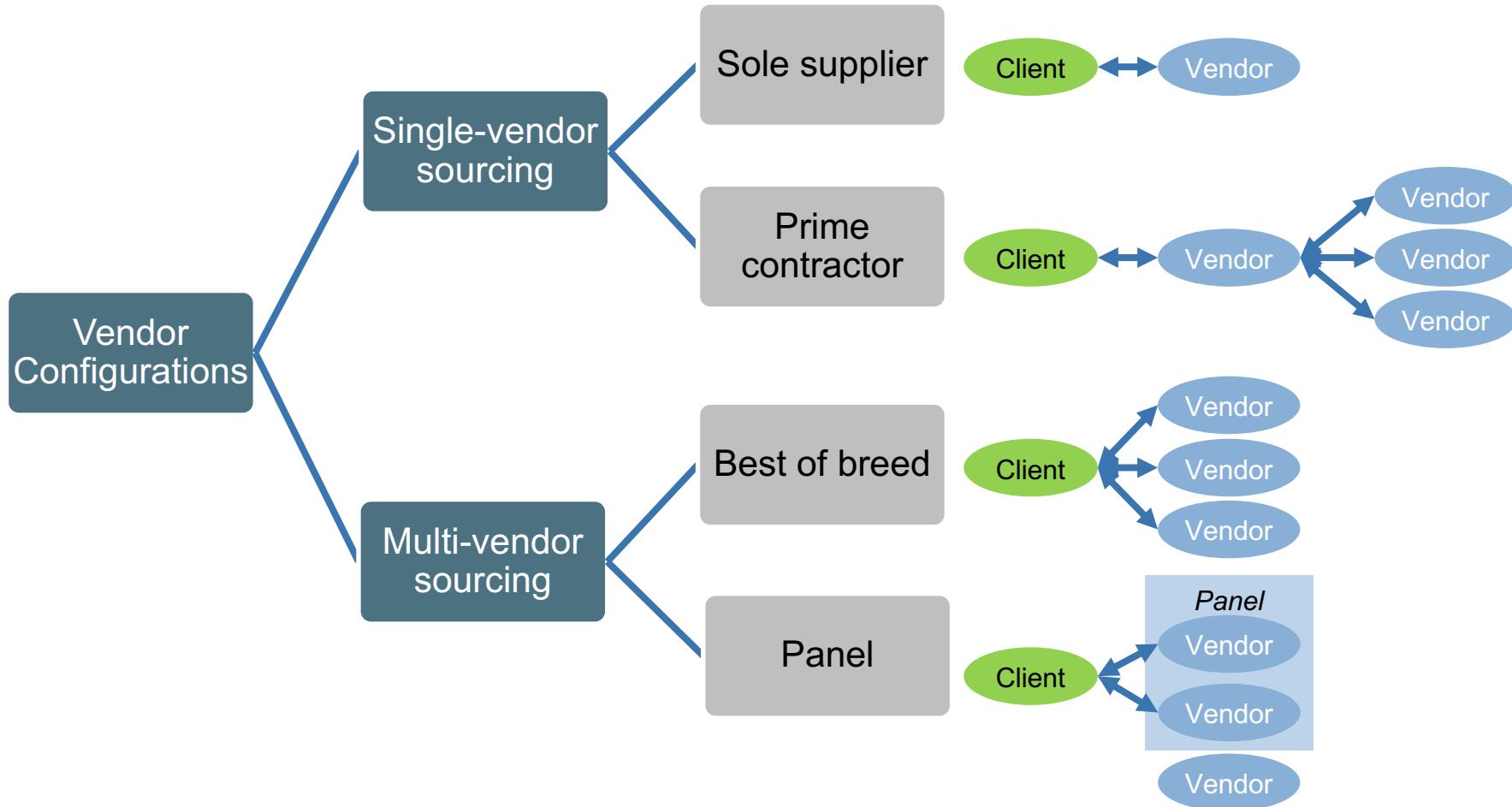
Why not to outsource?

- Dependence on vendor
- Transaction costs
- Loss of control over critical resources
- Hinders development of in-house capabilities

OUTSOURCING STEPS

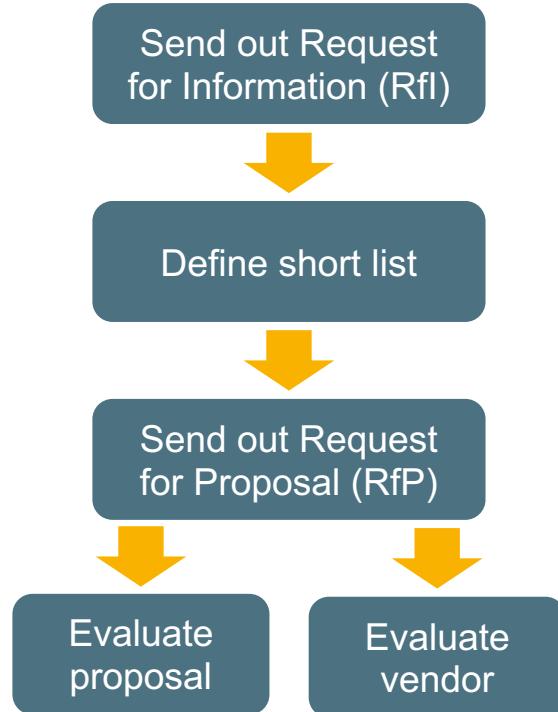


VENDOR CONFIGURATIONS



VENDOR SELECTION PROCESS

Vendor Selection Process



Best Practices

Widely broadcast RFI

Joint evaluation of responses by business and IT

Perform workshop with vendor in addition to RfP

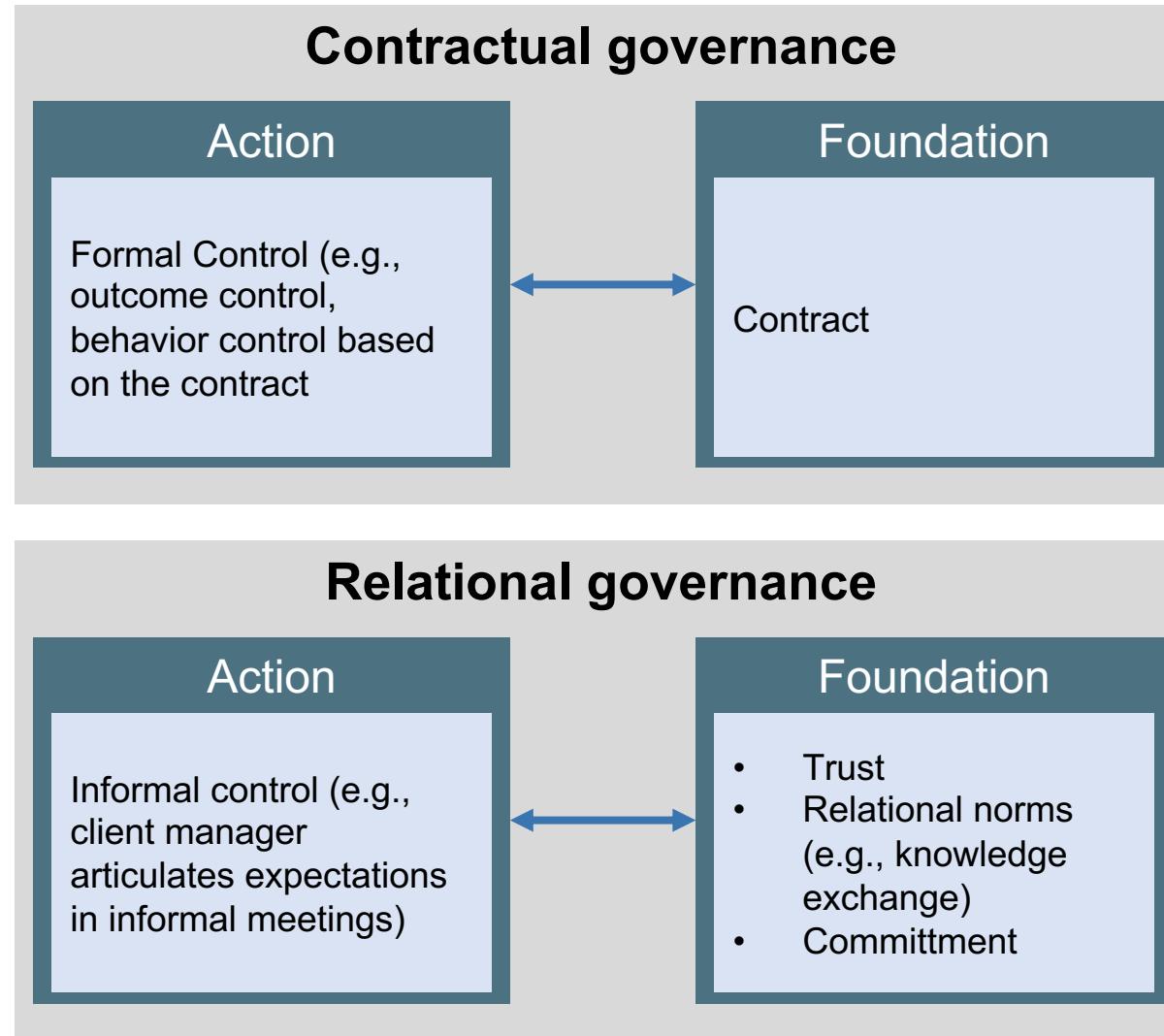
Evaluate vendor proposals against criteria that reflect the firm's strategic objectives and desired benefits

Assess the vendor's capabilities

OUTSOURCING STEPS



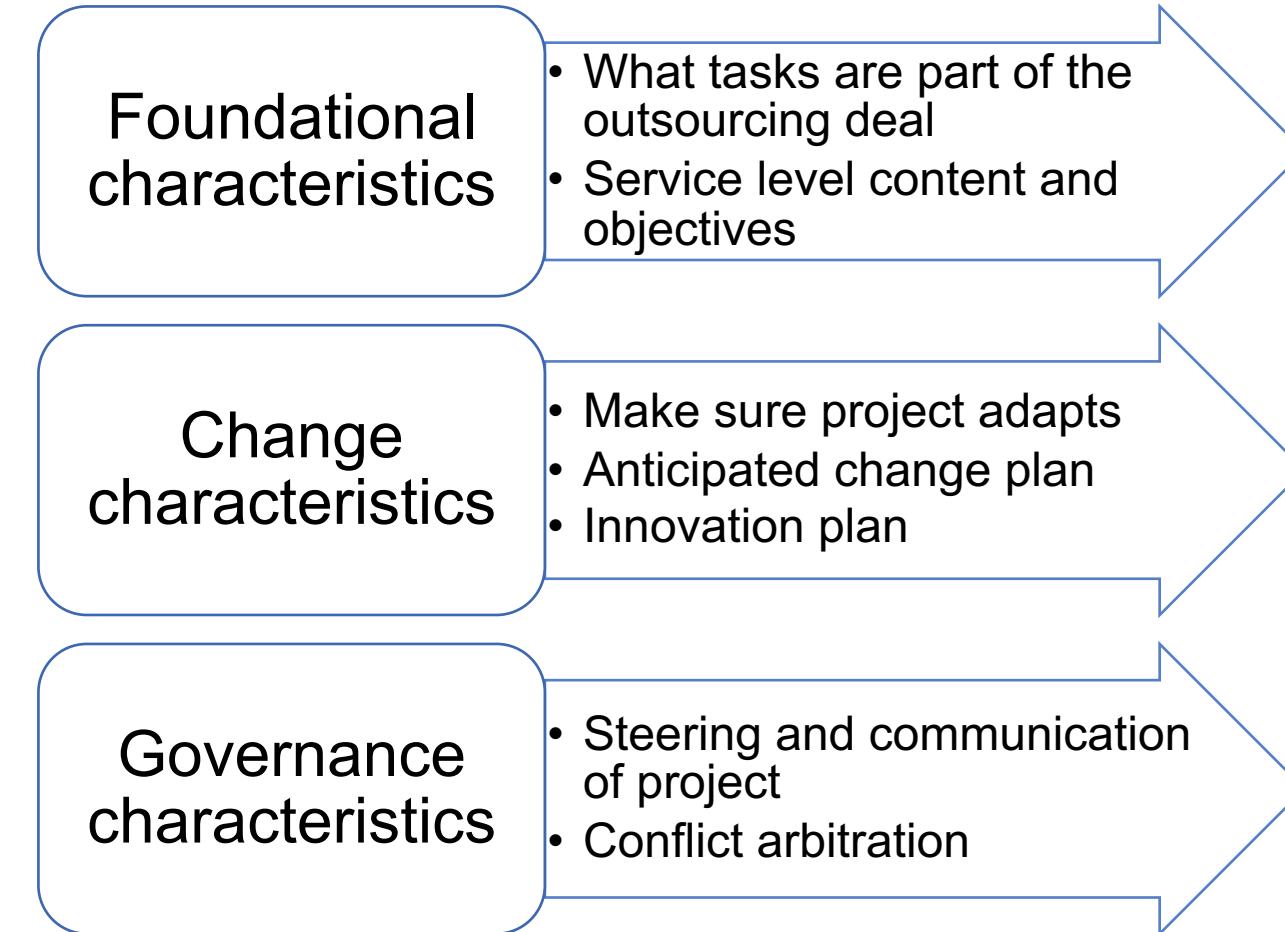
OUTSOURCING GOVERNANCE—CONTRACTUAL AND RELATIONAL



GENERIC TYPES OF OUTSOURCING CONTRACTS

	Time-and-materials contract	Fixed-price contract
Vendor's responsibility	Provide human and/or physical resources in specified quality	Deliver a specific outcome (e.g., software design, code)
Remuneration	Based on resource utilization (e.g., billable hours worked)	Based on delivered outcomes (e.g., per milestone reached)
Major portion of risk borne by	Client	Vendor

ELEMENTS OF OUTSOURCING CONTRACTS



OUTSOURCING ANALYTICS

20 minutes group discussion:

- What are the pros and cons of outsourcing data science and AI?
- What are specific challenges in the outsourcing relationship?
- How should the relationship be governed?



<https://blog.dataiku.com/data-science-at-scale-make-or-buy-in-house-or-outsource>



**Data Science and AI at Scale:
Make or Buy, In-House or
Outsource?**

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Digital ecosystems

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Company
IT management (org and tech)

New tech

Company
IT management (org and tech)

Digital practices

**Online quizz
available until May 16**

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Company
IT management (org and tech)

Digital practices

**SLIDES FOR ALL
TECH TALKS DUE
ON MAY 16!**

SUMMARY

- IT governance specifies decision rights and accountabilities related to IT
- Traditional IT management tries to consider digitization through new roles and structures, e.g., CDO, two-speed IT, but more fundamental changes necessary
- Outsourcing involves decisions related to which tasks to outsource, what vendor and location to select, and how to govern outsourcing relationships
- Offshore and nearshore outsourcing, cloud-sourcing, and crowdsourcing are different types of IT outsourcing

Thomas KUDE

Associate Professor

Information Systems, Decision Sciences and Statistics

ESSEC Business School

kude@essec.edu

