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AIS Paradoxes

Toward an AIS paradigm

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Scope

AIS studies the structuring and operation of control processes which are aimed at:

- Providing information for decision making and accountability to internal and external stakeholders that complies with specified quality criteria
- Providing the right conditions for sound decision making
- Ensuring that no assets illegitimately exit the organization

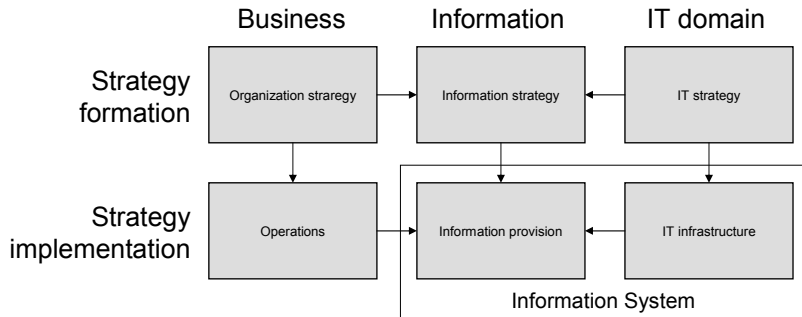
AIS Anomalies

- Accounting and information systems are different in many respects, yet they merge in AIS
- There is a need for rich information, yet our current accounting information systems can only provide lean information
- The relationship between AIS and internal control is entirely different from the relationship between AIS and management control, yet management control and internal control are partially overlapping and are partially complementary
- The alignment between AIS research, AIS education and AIS practice seems to be the result of a randomized process
- There are international differences in AIS notions, yet accounting information systems have become increasingly boundary crossing
- Control hampers innovation, yet innovation and control goals must be simultaneously realized to realize performance targets in contemporary organizations
- Efforts to demarcate the boundaries of AIS have resulted in many different definitions
- When developing internal control systems for AIS support, man type X is assumed, but after implementation of such systems behaviour is assumed to be dominated by type Y characteristics
- Built-in controls such as application and general controls are considered superior to built-around controls such as user controls because computers, unlike humans, make no mistakes

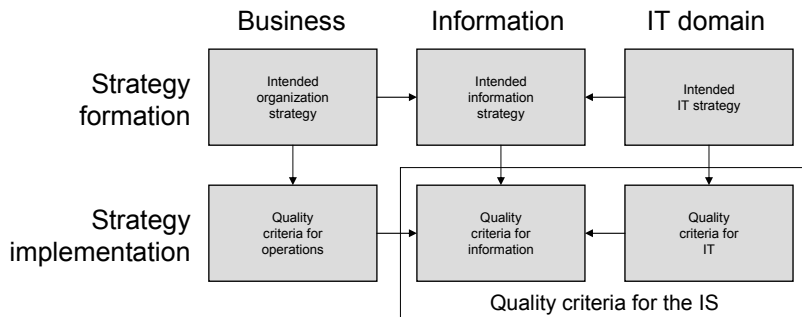
First.....

AIS and the organization

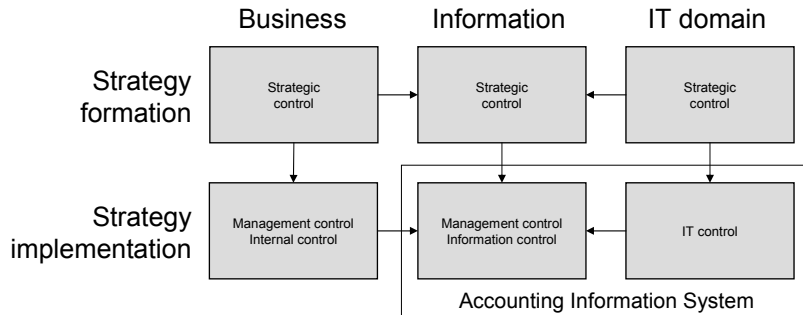
A model of the Organization: what is



A model of the Organization: what should be



A model of the Organization: control concepts



(1) Accounting versus IS

Differences with respect to

- research training
- phenoma under study
- types of player

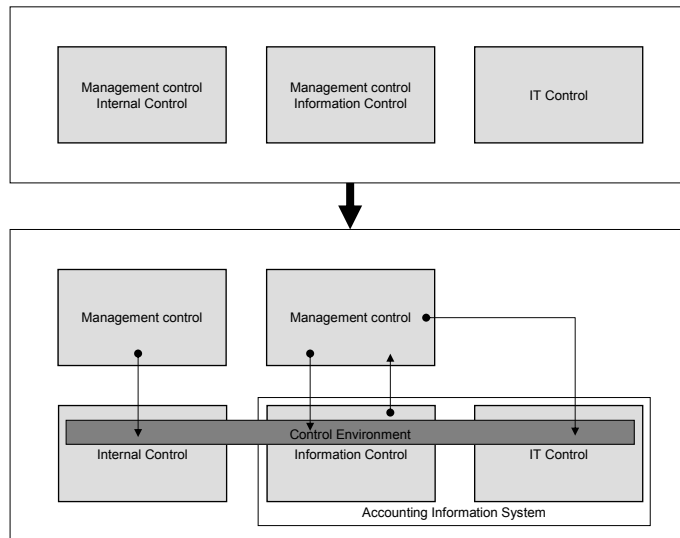
(2) Rich versus Lean Information

- Information richness theory
 - Rich information consists of the information content as well as the audiovisual signals that the sender gives while informing and communicating
 - Rich information, in many instances, is more effective if uncertainty and ambiguity must be reduced
- Often, failures of management systems are due to failures of information systems
- Situationally-derived ('soll') and systems-supplied ('ist'):
 - Multimedia AIS
 - Replace the dichotomy situationally-derived/systems-supplied by the dichotomy free-format/pre-format
- The AIS must provide pre-format information that in addition contains audio-visual signals

(3) Internal Control versus Management Control

- The AIS provides information for management control
- Internal control enhances the quality of information as provided by the AIS
- Management control influences the control environment

Management Control and Internal Control



(4) AIS Research, Education and Practice

- Alignment seems to be random
- Dependent upon the subjective preferences of players
- Alignment is key to improve organizational performance

(5) International Differences

- Just one example:
 - Europe: early developments in internal control, accounting and administrative organization, managerial information provision, later on IT
 - US: databases, computerized information systems, later on internal control
- Yet, we have interorganizational information systems that cross boundaries

(6) Control versus Innovation

- Control hampers innovation
- Control improves effectiveness of the AIS and operations
- Improved effectiveness leads to more innovation
- Theory of requisite internal control (invented here, not even stolen with pride)

(7) Definition Safari

- There is hardly any consensus about the definition of AIS
- AIS as a discipline or AIS as a collection of systems
- There is hardly any consensus on what AIS research should be

(8) Man Type X versus Y

- Type X has an innate aversion to work, responsibility and effort, and will do anything to avoid these
- Hence we need control systems that segregate duties and that put checks and balances in place
- This will only work if people do not conspire
- Only type Y people will not conspire

(9) Built-in Controls versus Built-around Controls

- Enterprise systems lead to less measurement points, which leads to weakened internal controls
- So, contemporary AIS – enterprise systems – require built-in controls
- Also, computers don't make mistakes, humans do
- Yet, because of various factors – e.g., IT anxiety, costs savings, time pressure, myopic behavior – controls become built-around

Paradigm?

- Anomalies point at issues to resolve
- Turn anomalies into paradoxes; this requires a balancing act
- So, the AIS paradigm may be: balance and alignment
- Balance to create paradoxes out of anomalies and resolve these
- Alignment of the IS, the business and strategy

Moving the Research Domain Forward

