

ICT Company Standardization and Business Process Performance

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Agenda

Introduction

Research Question

Research Scope

A priory model

Product Standard case study

Process Standard case study

Contribution to Theory and Practice

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Q&A

Introduction

Technology Risk Specialist at ABN AMRO

Wholesale Clients SBU

Information Security standardization

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Faculty of Economics and Business Administration

Department of Information Systems and Management

Promotor: Piet Ribbers, Co-promotor Henk de Vries (EUR)

ICT Standardization

- Effects for companies has few attention in academic literature
- So far: macro-economic perspective, IPRs, SDO processes, etc
- Uncertainties in factual costs and benefits
- Minimize costs & facilitate flexibility?

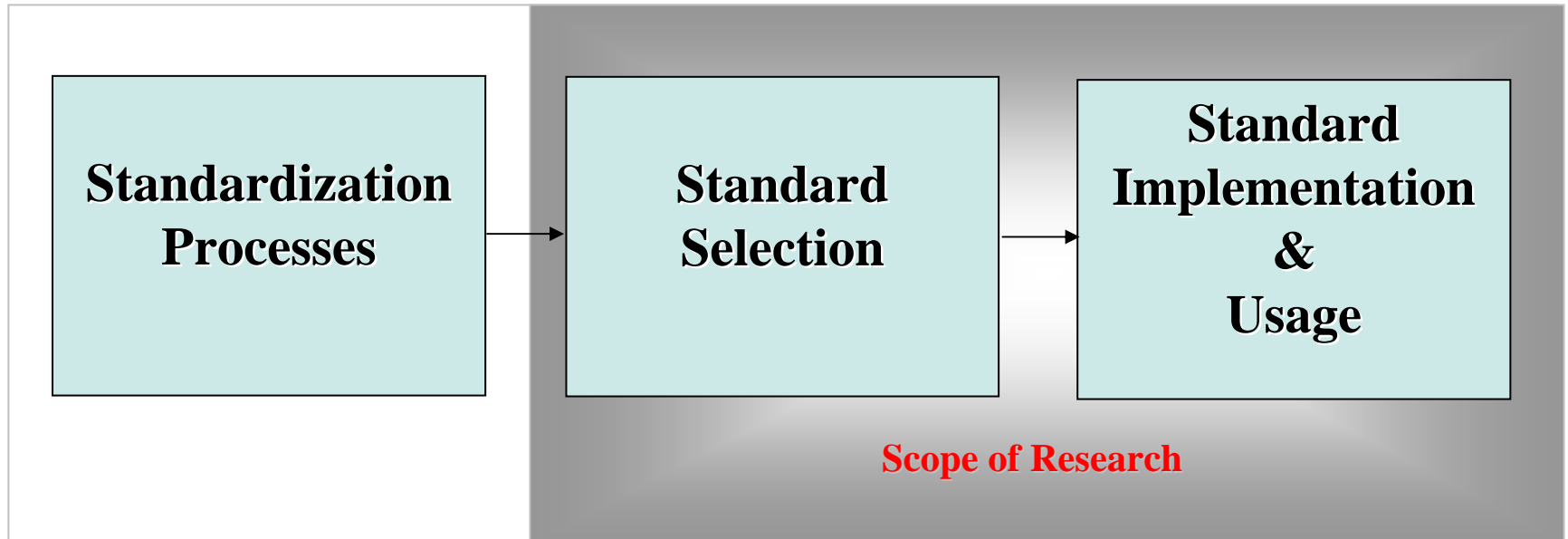
Research Question

What are the effects of standardization of ICT processes and products, on business process performance?

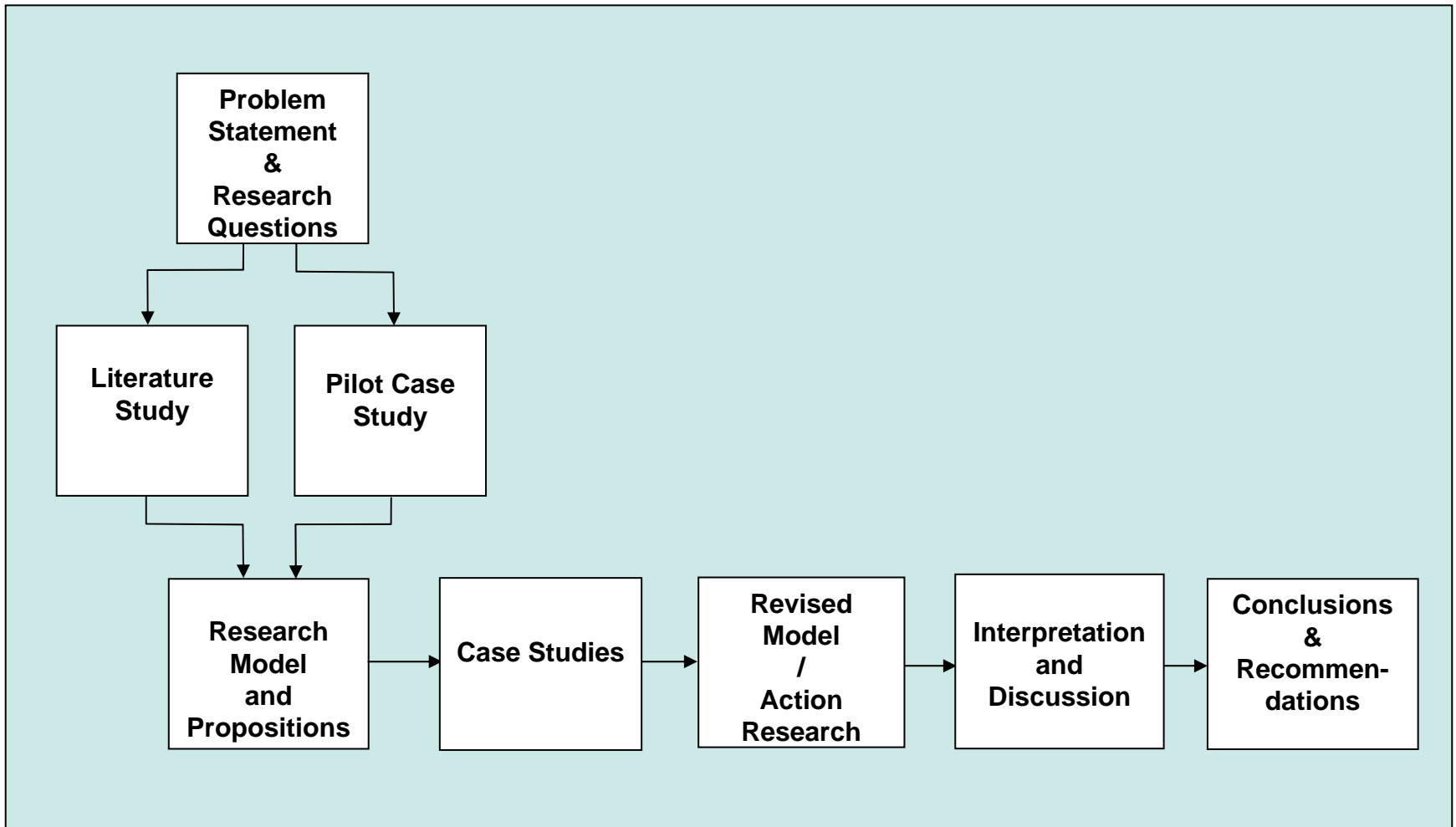
Sub questions:

- Relationship selection of ICT company standards, implementation and usage ?
- Factors that influence management and governance of ICT company standards?
- How to control business process performance with ICT company standards?

Research Scope – Company ICT Standards

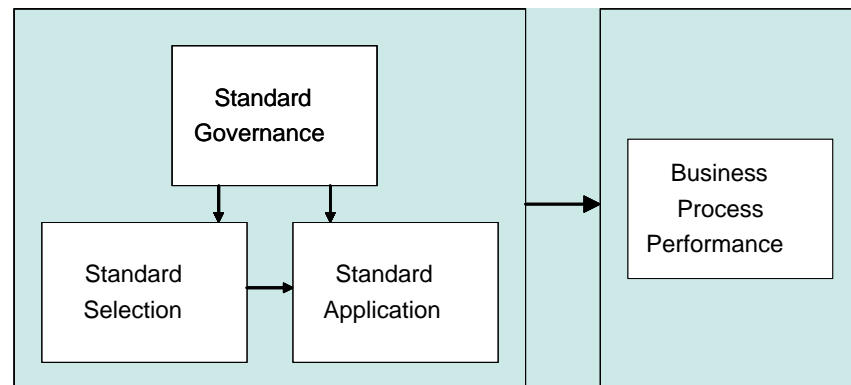


Research Methodology



A priory model - ICT company standard

- *Standard selection process*: stakeholder involvement when determining the ICT company standard.
- *Standard governance*: procedures, organizational embedding and techniques for implementation and usage.
- *IS Standard Application*: defines the company standard and way of implementation and usage.
- *Business process performance*: tangible and intangible consequences of the application.



Product Standard case study

- De-facto C/S Product Standard, WINTEL
- 2-year timeframe, 10.000 end users.

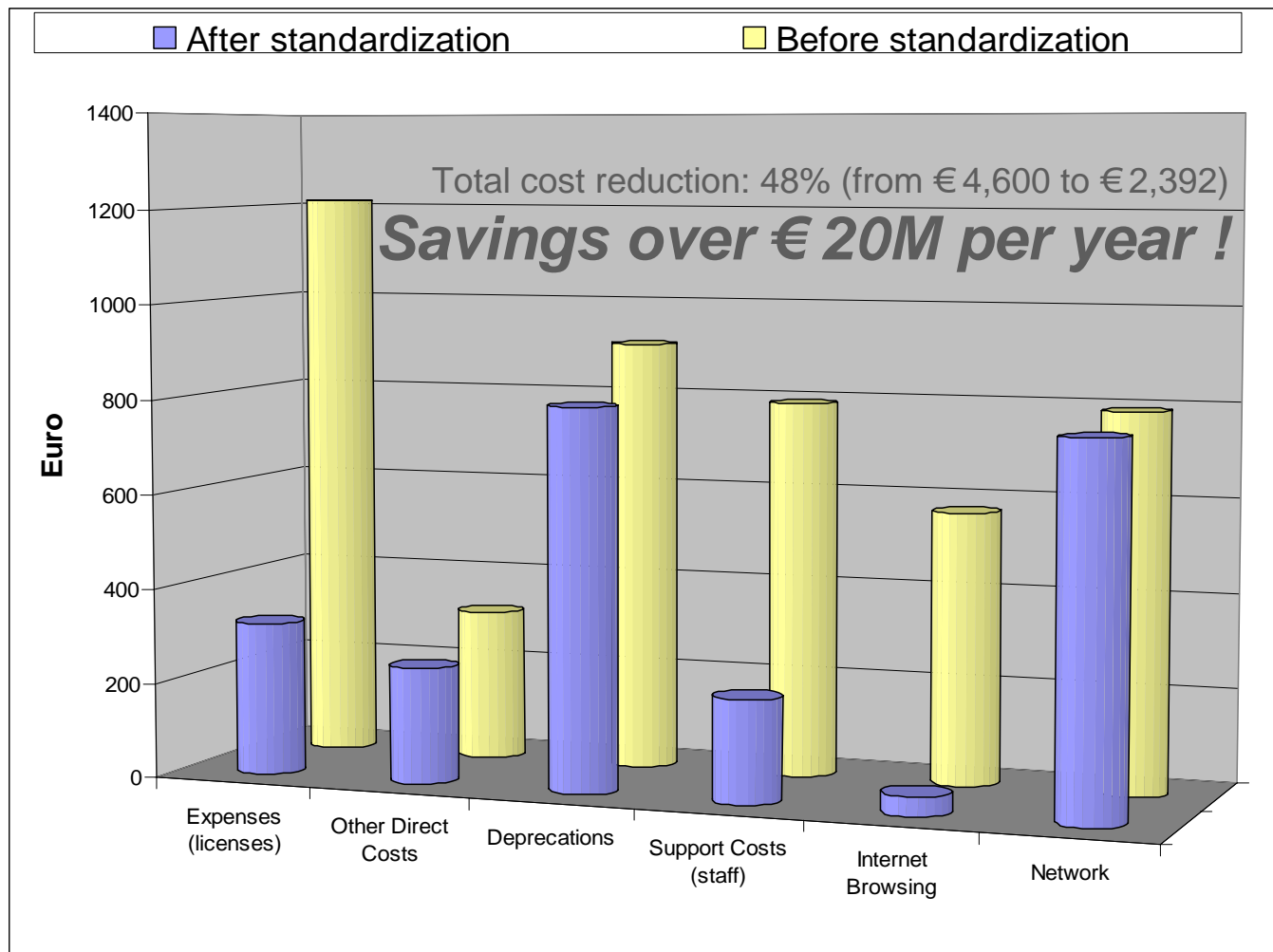
Main objectives:

- 1) reduce TCO with 18%
- 2) facilitate flexibility

Implementation characteristics:

- ✓ *balance between functionality and support/license costs;*
- ✓ *application software rationalization, downsized from 6000 to 265 !;*
- ✓ *decrease complexity by minimal integration;*
- ✓ *browser based.*

Product Standard case study



Costs per 2004/1/1 in Euro per desktop per year

Product Standard case study

Area	Result
Improved customer satisfaction	<ul style="list-style-type: none">• Satisfaction increased (for 60% of end-users)• Throughput time end-user service requests decreased.
Reduced costs	<ul style="list-style-type: none">• Development costs and time decreased (no tailoring or unnecessary integration).• Support cost decreased (reduction of 48%).
Improved quality	<ul style="list-style-type: none">• Easy and fast introduction of new applications.• Straightforwardness and less errors.
Increased flexibility	<ul style="list-style-type: none">• Easier organizational, financial and technical flexibility
Overall improvements in operations	<ul style="list-style-type: none">• More stable and fewer interdependencies (modular architecture).• Increased security (patches, integrated key cards, anti virus).

Improvements resulting from the standardized ICT C/S environment

Process Standard case study

- Merger of two de-facto standards:
 - Capability Maturity Model (CMM) - staged model / quality system
 - Dynamic System Development Method (DSDM) - RAD
- 4-year timeframe, 2000 FTE

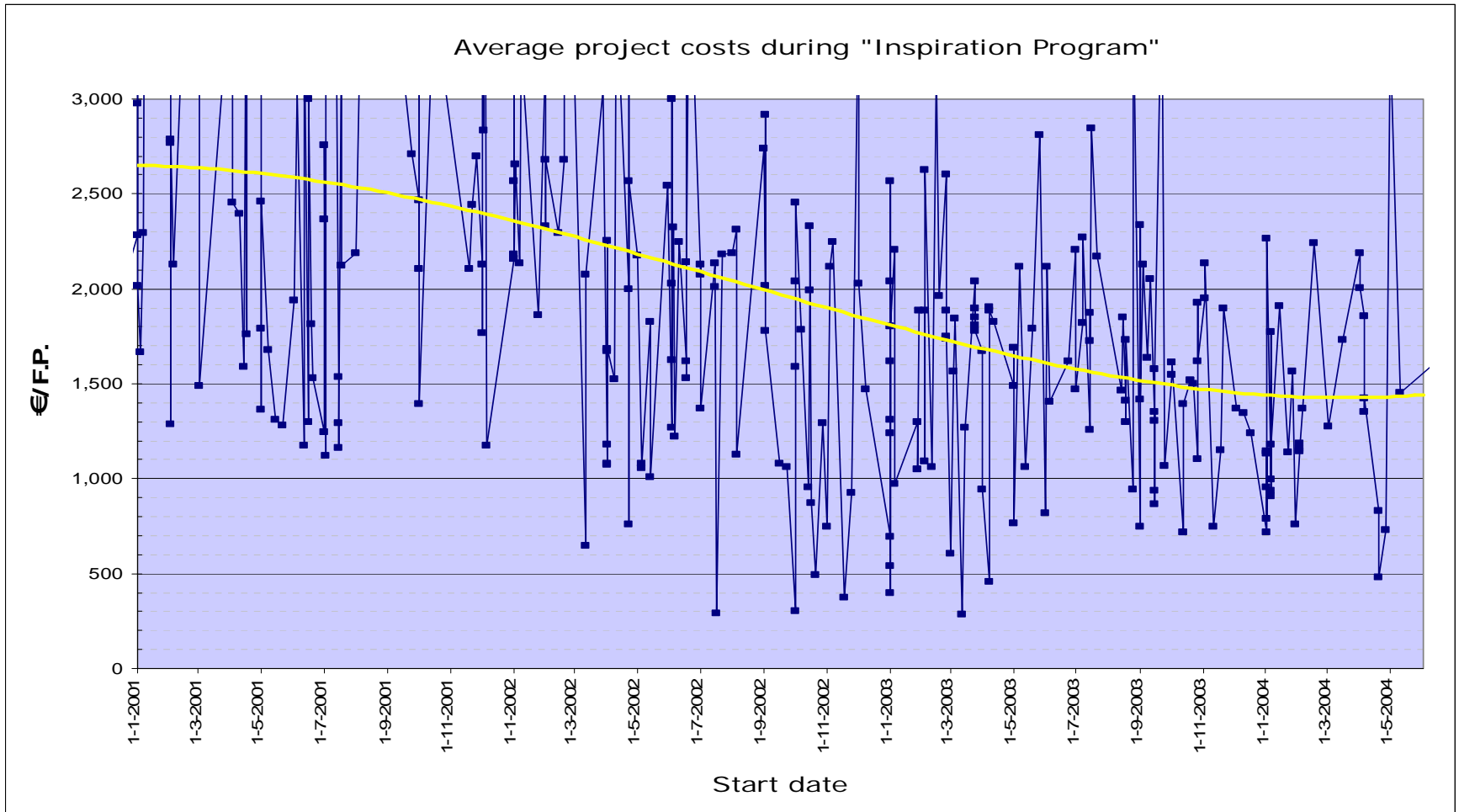
Main objectives:

- 1) Increase productivity
- 2) Respond more rapidly to change
- 3) Improve quality

Implementation characteristics:

- *Strong sponsorship; Attitude change required;*
- *Reuse of best practices/processes;*
- *Implementation per department; Incorporating earlier experiences.*

Process Standard case study



Improvements resulting from the standardized software development process.
(Expressed in Euro per Function Point)

Process Standard case study

Area	Result
Improved customer satisfaction	<ul style="list-style-type: none">• Business more satisfied with end result,• Although time required during initial phases increased.
Reduced costs	<ul style="list-style-type: none">• Development costs decreased (increase in productivity between 10 to 20 %).
Improved quality	<ul style="list-style-type: none">• Requirements better discussed during workshops.• Drop follow-up changes after project completion.
Increased flexibility	<ul style="list-style-type: none">• Responsiveness & adaptability improved (through prototyping and workshops).• Rollback only 2 weeks max.
Overall improvements in operations	<ul style="list-style-type: none">• Not acknowledged in this case study. (e.g. availability improvements or reduced throughput time of service requests)

Improvements resulting from the standardized software development process.

Contribution to Theory

- Causal relationship between ICT company standardization and business process performance (profit, flexibility, innovation, customer satisfaction, etc); how does it look like?
- The relationship between and factors that influence the selection, governance and application of ICT company standards.
- What type of ICT processes and products are most suited for company standardization.
- How and under what sort of conditions should ICT company standardization be applied.
- Generalizability limited to ICT product and process standards, facilitating business processes used in bureaucratic organizations.

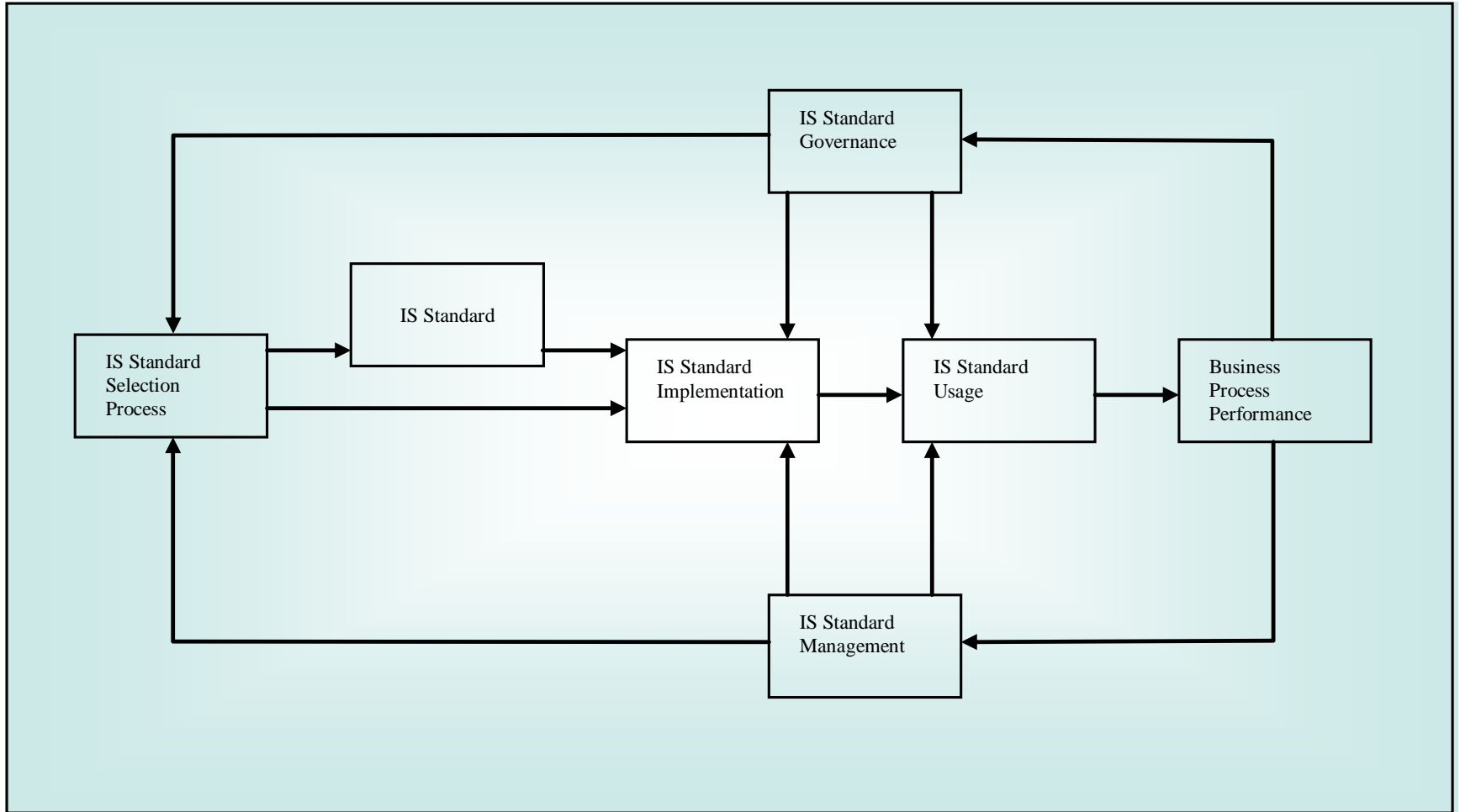
Contribution to ABN AMRO

- Insight how ICT standardization influences the business process performance, including (technological) risks;
- Able to demonstrate cost and time effectiveness of ICT company standardization;
- Best practices - knowledge on relationship between selection, implementation, usage of company standards;
- Know when conditions are beneficial for ICT company standardization and act accordingly.

Next...

- Completed third case study and will perform further cross case analysis.
- Enhance provisional propositions.
- Action research on Information Security Process Standard **ISO 17799**;
enhanced research model:
 - **How to influence business process performance ?**
 - **Tangibles and Intangibles ?**
 - **Advantages and Disadvantages ?**

Next...



Discussion, Comments, Questions.

