

Influence of Enterprise Systems on Business Process Agility

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Overview

- Concept of agility
- Process agility – concept & significance
- Business process change & enterprise systems
- Research framework
- Conclusions & future research



Agility in literature

- Agility analysed across economics, strategic management, operations/manufacturing management, supply chain management, and information technology/systems
- Builds on 'flexibility' concept and used in agile manufacturing context; an umbrella term for all world class practices
- Perspectives of agility
 - Internal – operational perspective with focus on resources, capabilities and business processes
 - External – strategic perspective with focus on partnerships, alliances and relationships
- Operational or business process agility - Ability of firm's business processes to accomplish speed, accuracy, and cost economy by redesigning and reconfiguring individual components, tasks and capabilities



Significance of process agility

- Quality, cost efficiency and speed – traditional measures sufficient in the past
- Today, processes must be agile and respond to market dynamics
- Business process agility – increasingly becoming an important weapon to achieve competitive advantage and to support new & evolving business models
- Static business processes – difficult for the enterprise to be responsive
- Recent advances such as Web services, SOA, BPM tools, grid computing etc. – are designed to provide requisite agility to enterprises



Agile processes

- Requires commitment to process-oriented thinking or ('trasnversality')
- Involves realignment and redesign of processes, information systems and structures
- Information systems and technologies – a platform for agility; but not enough, requires other non-IT/IS attributes
- Difficult to implement and develop



Process agility depends

- Organizational factors (industry, size, change management capability, integration achieved, and skills)
- Environmental factors (external competition, industry type/nature, regulatory & legal)
- Technological factors (IT capabilities, infrastructure adaptability, application transformation) and
- Process factors such as process management capability, BPM tools, process complexity and skill sets available to reconfigure and redesign



ES & Process agility

- Long associated with process change are expected to contribute to flexibility and process efficiencies
- Fit between organizational processes and software – a challenge for many
- Not easy and not cost effective to change processes after ES implementation; prefer to leave the well-tested configuration as it is
- Building process agility may be antithesis to standardization
- Processes embedded in ES software – outdated, not best practices; could limit integration



ES characteristics

- Standardization of business processes
- Best practice processes embedded in software
- Horizontal integration (information and processes)
- Vertical integration (between hierarchical levels)
- Technology integration (IS, databases, hardware etc.)
- Automation of transactions
- Process orientation or transversality (include customer focus, integrated/holistic view, use of common language, enhanced process knowledge, coordination)
- Organizational impacts (decentralization of controls, improved quality of decision making, delayering etc.)
- Tight link between organizational structures, business processes, business rules, IS and IT



Research framework

- **Research questions:**
 - What is the influence of various ES characteristics on process agility
 - Is it possible to achieve process agility and process efficiency simultaneously in ES context ?
 - How do these factors influence process agility (process characteristics, technological, process management, environmental and organizational factors)
- **Research approach:**
 - Exploratory multi-case study approach
 - Some propositions/research framework
 - Unit of analysis – organizations with ES



Propositions (1)

No	ES characteristic	Influence
1	Standardization of processes	Negative
2	Best practice processes embedded in ES software	No effect
3	Horizontal integration – Process	Positive
4	Horizontal integration - Information	Positive
5	Technology integration	Negative
6	Vertical integration – hierarchical levels	Positive



Propositions (2)

No	ES characteristic	Influence
7	Automation of transactions	Negative
8	Transversality – customer focus	Positive
9	Transversality – enhanced process knowledge	Positive
10	Transversality – Integrated view	Positive
11	Real-time visibility	Positive
12	Accessibility of data	No effect
13	Decentralization of control	Positive



Conclusions & future research

- Building agile processes – combining speed and flexibility are difficult, though important in future, depend on several factors
- Existing ES – though contributed to standardization, simplification and automation, cannot offer process agility
- Future ES with web services, open standards, component-based process models may facilitate better in building agile business processes
- More research needed..

