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HEC | INFORGE | Reading Exam - 07.07.06

An integrative model of IT business value

Agenda

- Definitions
 - IT Artifact
 - IT Business Value Research
- Integrative Model of IT Business Value
 - Ressource Based View (RBV) of the Firm
 - IT Business Value Model
- Literature Synthesis and Proposition Derivation
 - Focal Firm
 - Competitive Environment
 - Macro Environment
- Limitations and Future Research

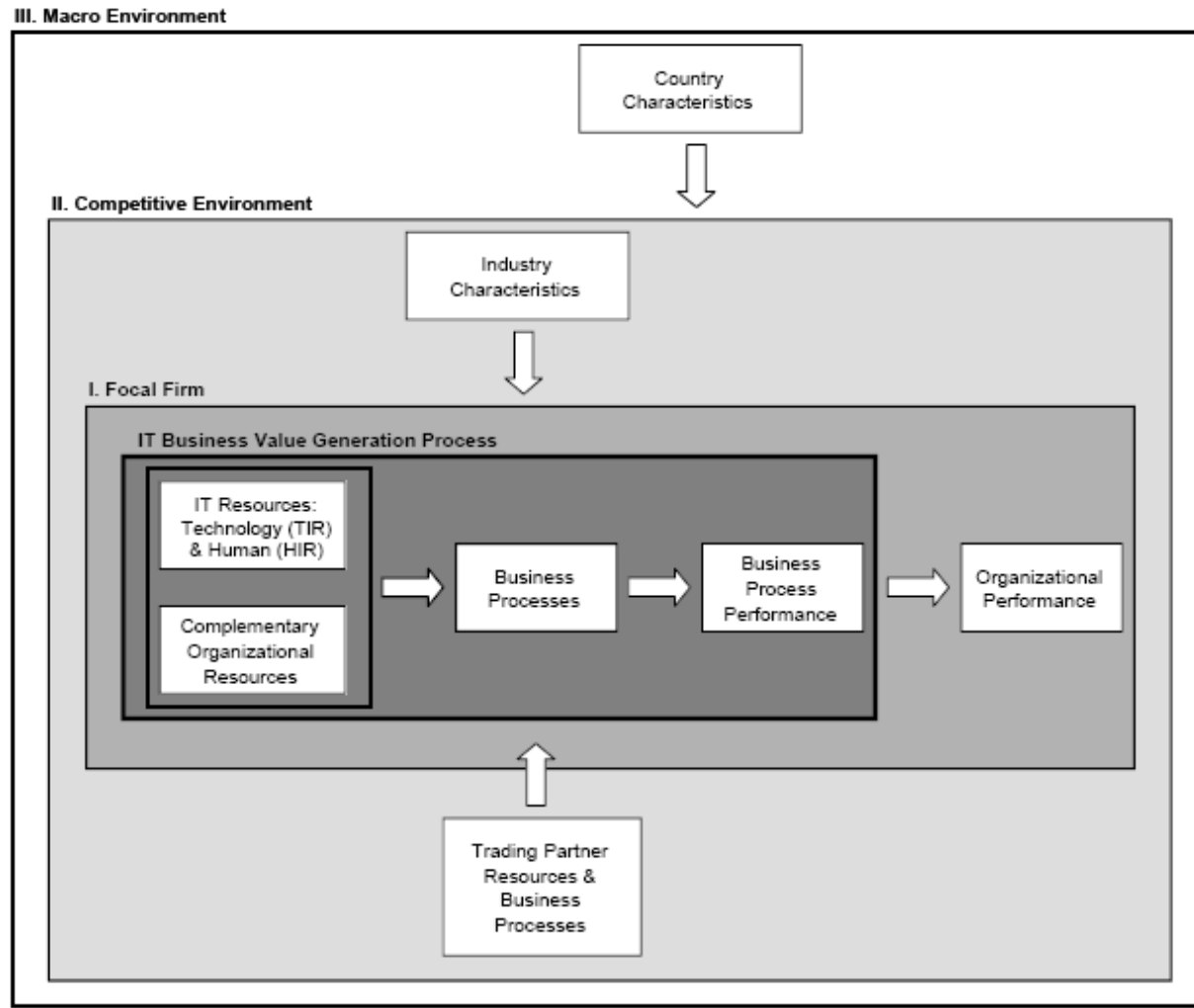
Definitions

- IT Artifact
 - Tool View -> Tool intended to generate value
 - Proxy View -> Operationalized via proxies (capital stock, ...)
 - Ensemble View -> Interactions with the organization
 - ~~Computational View~~ - > Algorithm and systems development
 - Nominal View -> Appears in name but not in fact
- IT Business Value
 - Organizational performance impacts of information technology at both the intermediate process level and the organizationwide level, and comprising both efficiency impacts and competitive impacts
- IT Business Value Research
 - Any conceptual, theoretical, analytic, or empirical study that examines the organizational performance impacts of IT

Ressource Based View of the Firm

- RBV examine the efficiency and competitive advantage implications of specific firm resources
- Prior IT business value models reveals that:
 - IT impacts organizational performance via intermediate **business processes**
 - other **organizational resources** such as workplace practices interact with IT, whether as mediator or moderator, in the attainment of organizational performance impacts
 - the **external environment** plays a role in IT business value generation
 - it is important to disaggregate the IT construct into meaningful **subcomponents**

Integrative Model of IT Business Value



Literature Synthesis and Proposition Derivation - Focal Firm (I)

1. Is the IT resource associated with improved operational efficiencies or competitive advantage?
 - A) The IT resource - including both technology and human expertise - creates economic value for a focal firm by conferring operational efficiencies that vary in magnitude and type depending upon the organizational and technological context
 - B) Human IT expertise complementary to technological IT resources may create temporary competitive advantages that underlie performance differences among firms

Literature Synthesis and Proposition Derivation - Focal Firm (II)

2. How IT resource generate operational efficiencies and competitive advantage?

- A) Certain organizational resources are complementary to the IT resource in the generation of IT business value for the focal firm; the existence and magnitude of the complementarity between any two specific instantiations of these resources varies depending upon the organizational and technological contexts
- B) The greater the inimitability of rare organizational resources that are complementary to IT and lacking substitutes, the greater the degree to which the focal firm can obtain a sustained competitive advantage.

Literature Synthesis and Proposition Derivation – Competitive Env. (I)

1. What is the role of industry characteristics in shaping IT business value?

- A) Industry characteristics moderate the ability of firms to apply IT for improved organizational performance and to capture the resulting benefits
- B) The greater the degree of competition in an industry, the greater the extent to which firms achieve efficiency gains via IT
- C) The greater the degree of competition in an industry, the lower the extent to which firms are able to capture the benefits of efficiency gains and achieve profitability gains via IT

Literature Synthesis and Proposition Derivation – Competitive Env. (II)

2. What is the role of the resources and business processes of electronically linked trading partners in impacting the value generated and captured by the focal firm?

- A) The IT and non-IT resources and the business processes of electronically connected trading partners shape the focal firm's ability to generate and capture organizational performance impacts via IT
- B) The greater the degree of focal firm power relative to its trading partners connected via interorganizational information systems, the greater its share of net value from deployment of the systems

Literature Synthesis and Proposition Derivation – Macro Env.

1. What is the role of country characteristics in shaping IT business value?

- A) The macro environment shapes the degree to which firms can apply IT for organizational improvement
- B) Telecommunications infrastructure - a complementary and potentially co-specialized asset with the IT resource - moderates the economic value of an interorganizational information system to the focal firm and its trading partners; the extent of moderation varies depending on the organizational and technological context.

Limitations and Future Research

- RBV is sometimes criticized as drawing too heavily from economics
- several aspects of the research questions remain relatively understudied
 - relations between organizational performance and the deployment of different types of IT
 - quantitative empirical studies of emergent forms of IT
 - synergies between human IT expertise (HIR) and technological IT resources (TIR)
 - which resources are synergistic with which types of IT and in what contexts
 - how industry characteristics moderate the degree of IT business value