

CEF 512: ERP System Engineering

Presenting the paper: ***Financial impacts of enterprise resource planning implementations*** (Robin Poston & Severin Grabski)

By

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Outline

- What is ERP?
- Background review
- Reasons why firm Adopt ERP
- ERP effects of firms over time
- ERP and firm performance
- Future research model

What is ERP?

- ERP Systems is customizable, standard application software which includes integrated business solutions for the core processes (e.g. production planning and control, warehouse management) and the main administrative functions (e.g., accounting, human resource management) of an enterprise.
- ERP is expected to
 - Reduce cost by improving on efficiencies through computerization
 - Enhance decision making by providing accurate and timely enterprise-wide information

Background Review

- 1999 survey of large multinational companies conducted by META Group
 - US\$15 million per year to implement and own and ERP.
 - Time to deploy it has averaged 23 months.
 - So approximately, it means the company will spend US\$30 to implement and deploy and ERP system in 23 months.
- ERP system development follows standards (modular, central database, etc...)
- Key: Integration between modules, data storing/retrieving processes, and management and analysis functionalities

Reasons why firms adopt ERP

- Reduce redundancy
- Reduce inconsistency in data
 - By creating and maintaining a central database of cooperate information.
- Accommodation of quick change and configure the business in response to the change.
- Boost customer satisfaction through integration and consistency.

ERP effects of firms over time

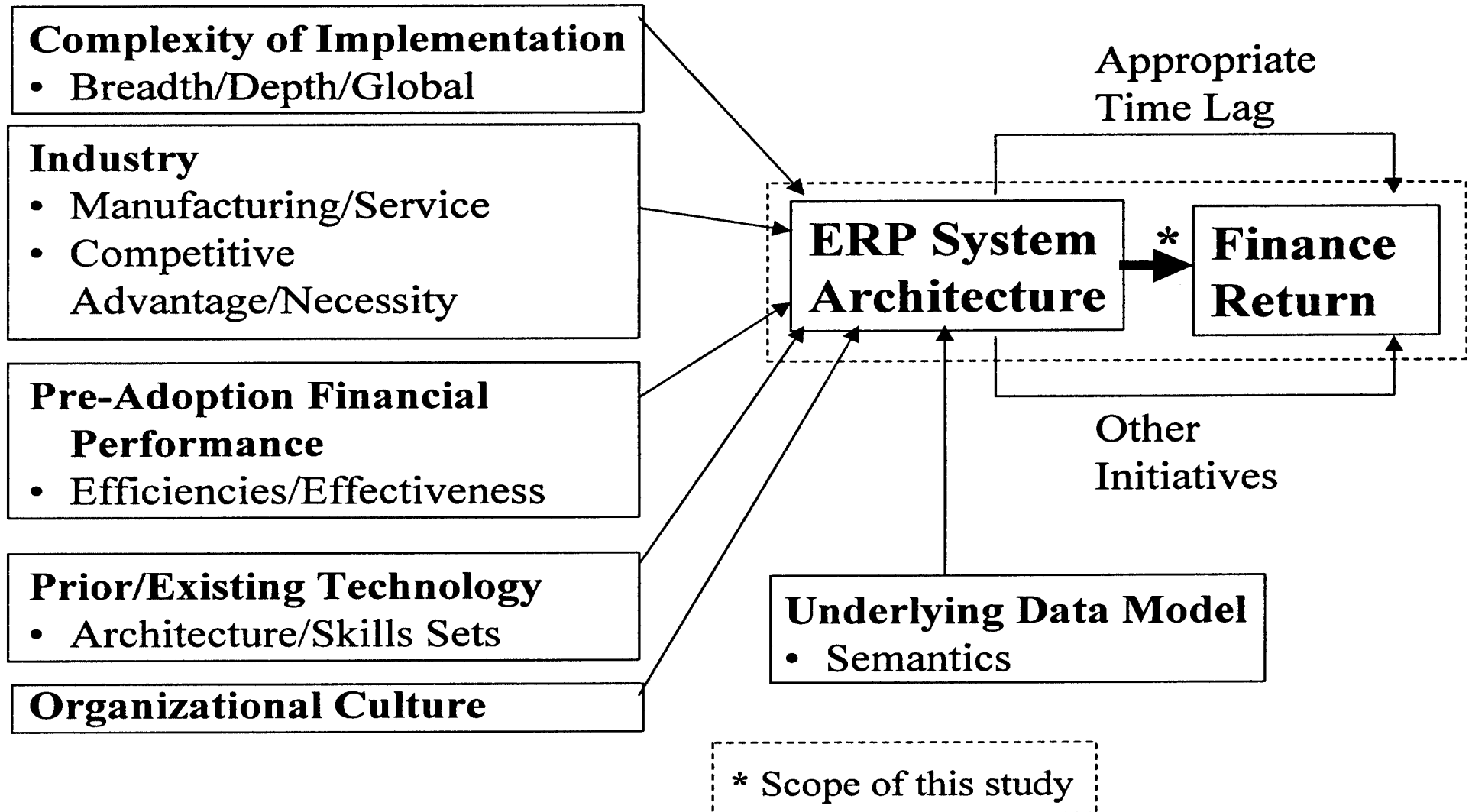
- Mostly on Cost and Revenue
 - Internal and external cost
- Internal cost is decreased in general and external cost too
- Increase in revenue and enhancement of decision-making

ERP and firm performance

- ERP implementation is associated with no significant decrease in selling.
- ERP improves on the performance of the firm since
 - Redundancy is reduced,
 - Cost is decreased
 - Decision making is enhanced and revenue increases.

Note: after 3 years of implementation

Future Research Model



Future research model

- ERP system start having returns (increase revenue) after 3 years of implementing the ERP system
- Limited connection between ERP system architecture and firm performance – Why it takes 3 years to start getting returns.
- Additional in-dept research has to be done to other important constructs influencing the relationship of an ERP system and financial returns.