A meta-analysis on the effects of IT capability toward agility and performance:

New directions for information systems research

S2 - Examples of studies on the relationship between IT capability and performance

Table S2 gives an overview of different reasons found in the literature for the effect of reactive and proactive IT capability toward organizational performance. The table presents exemplary studies in support of our conceptualization of reactive and proactive IT capability and their varying effects toward performance.

Table S2 – Overview of exemplary studies, their concepts and reasoning for the effects of reactive and proactive IT capability toward performance

| Author (Year) | ITC Concept | Reasoning for ITCR-OP relationship | Reasoning for ITCP-OP relationship |
|---------------|-------------|-----------------------------------|-----------------------------------|
| Bharadwaj, 2000 [1] | ITCR: IT infrastructure, human IT skills, intangible IT benefits | Organizations differentiate themselves through effective combination of IT resources that are complex and difficult to imitate. |  |
| Wade and Hulland 2004 [2] | ITCR: Inside-out IS capability ITCP: Outside-in IS capability, spanning IS capability | Inside-out IS capabilities, such as infrastructure, technical skills, development, and cost-efficient operations improve sustainable advantage through their imitability, substitutability, and mobility characteristics. | Outside-in IS capabilities, such as external relationship management and market responsiveness, and spanning IS capabilities, such as IS-business partnerships and IS management/planning, improve advantage creation through their value, rarity, and appropriability characteristics. |
| Bhatt and Grover 2005 [3] | ITCR: IT infrastructure ITCP: IT business experience, relationship infrastructure | IT infrastructure represents an effective source of value through information sharing across functions, innovation, exploitation of business opportunities, and the flexibility to respond to changes in business strategy. | IT groups’ understanding of the business and a positive relationship between IT and business cannot easily be replicated by competitors. IT groups with superior business strategy, competition, |
and opportunities can continue to leverage these advantages based on their absorptive capability.

| Author(s)                  | ITCR: | ITCP:          | Description                                                                                                                                                                                                 |
|----------------------------|-------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ravichandran and Lertwongsatin 2005 [4] | IS planning, IS development, IS support maturity, IS operations |                           | Strong functional capabilities in the IS department are required to use IT to develop and enhance an organization’s core competencies, providing a competitive advantage.                                                                                       |
| Karimi et al. 2007 [5]          | ERP capability |                | ERP capability enables cost-effective IS operations and market responsiveness, leading to cost and cycle time reduction, as well as quality, productivity, and customer service improvements.                                                                 |
| Aral and Weill 2007 [6]          | IT skills, IT use, digital transactions, internet architecture |                | Systems of IT practices and competencies enable greater business value generation while reducing internal and external integration costs.                                                                                                                           |
| Bharadwaj et al. 2007 [7]        | Integrated IS capability |                | Integrated IS capability provides visibility to relevant customer, production, order, and market data, facilitates process integration, and provides seamless and consistent access to data. Improved visibility and information flow, centralized services, integrated and standardized activities reduce errors and delays in order processing. |
| Zhang et al. 2008 [8]            | IT management | IT business partnerships | IT management capability helps to coordinate multifaceted activities that are needed for successful IT implementations, making the organizations more successful.                                                                                             |
| Stoel and Muhanna 2009 [9]       | Internally-focused IT capabilities | Externally-focused IT capabilities | Internally focused IT capabilities provide reliable services and products and minimize overhead costs.                                                                                                                                                                |
| Wang et al. 2012 [10]            | IT support for core competencies, IT support for competitive strategies, IT capabilities |                | IT is used to support the planning and implementation of competitive strategies as well as to enhance and develop competencies. Strong IT capabilities can select and prioritize IS portfolios, ensure appropriate IT investment patterns, and align IT strategies with business strategies. |
| Chakravarty et al. 2013 [11]     | IT competencies |                | Increased IT competencies increase the business value derived from business functions, ensuring timely information availability. Information processing enables information utilization, which facilitates firm performance. |
| Chen et al. 2014 [12]            | IT capability |                | IT capability improves business processes by infusing them with swiftness, robustness, and flexibility, indicators for business process agility, which in turn helps organizations to improve different performance measures. |
| Reference          | ITCP:                          | ITCR:                          | Summary                                                                                                                                 |
|-------------------|--------------------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Lee et al. 2016   | IT-based knowledge management |                                | IT-based knowledge management enables organizational units to share their capabilities and know-how to achieve better performance.       |
| [13]              |                                |                                |                                                                                                                                          |
| Chen et al. 2017  | ITCR: IT support for functionality-related competency | ITCP: IT support for market-access competency | IT support for functionality-related competency increases strategic flexibility to refocus resources and improve performance.          |
| [14]              |                                |                                | IT support for market-access competency improves strategic flexibility to recalibrate strategy for performance gains.               |
| Mikalef and Pateli 2017 | ITCP: IT-enabled sensing capability |                                | IT-enabled sensing capability improves capitalizing on the market by new or improved value propositions through focused deployment.   |
| [15]              |                                |                                |                                                                                                                                          |
| Queiroz et al. 2018 | ITCR: IT application orchestration capability |                                | Building new combinations of IT resources and continuously updating portfolio of IT applications has positive performance implications. |
| [16]              |                                |                                |                                                                                                                                          |
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