Editorial

Tim Weitzel · Armin Heinzl

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Information systems (IS) permeate essentially all areas of private and business life. They have enabled substantial transformations of business processes, firms, supply chains and the ways we work and live. Still, understanding and creating success in IT-related contexts has remained a challenge for both IS research and practice (Bharadwaj 2000; Santhanam and Hartono 2003). Accordingly, IT business value creation is very important to the IS research field as it links IT to firm value, which is at the core of strategic management (Peppard and Ward 2004).

After earlier struggles to disclose any IT related business performance impacts at all, the matured literature now offers useful insights into the *if* and *how* of IT value creation. In the second half of the 20th century, we witnessed an unprecedented increase in both IT spending and computing power while at the same time the prices for computing went down. To illustrate how strong these IT advances actually were, MIT's Erik Brynjolfsson wrote in 1993 that if the rest of the world had shown analogous advancements, the price of a new Cadillac would be mere \$ 4.98 (Brynjolfsson 1993). But the widely expected value impact of IT was surprisingly hard to detect on an industry, firm or individual level. Comparing industries with strong IT usage to others, for example, did not show the expected productivity differentials. Overall, there were inconsistent and contradicting findings on the relationship between IT investments and business success or performance. Some studies showed negative correlations (Berndt and Morrison 1995), others positive

T. Weitzel (✉)

Lehrstuhl für Wirtschaftsinformatik, Otto-Friedrich-Universität Bamberg, Kapuzinerstr. 16,
96047 Bamberg, Germany
e-mail: tim.weitzel@uni-bamberg.de

A. Heinzl

Business School, University of Mannheim, L15, 1-6, 68131 Mannheim, Germany
e-mail: heinzl@uni-mannheim.de

(Brynjolfsson and Hitt 2003) or no relations at all (Strassman 1990; Harris and Katz 1991). This phenomenon—increasing IT investments and IT diffusion with exponential growth of computing power on the one side and no discernible productivity increase or competitive advantage for IT-reliant industries or organizations on the other—has been termed the IT productivity paradox. In the aftermath, many explanations for the paradox have been found, including measurement errors.

The literature on IT business value creation now largely agrees that IT can have a substantial and measurable economic impact and that a firm's IT capability is solidly related to business process performance and firm success. A recent overview of IT value research summarizes that IT does create value under certain conditions, manifests itself in many ways and at many levels, and that there are numerous factors mediating IT and value (Kohli and Grover 2008, p. 26f.). Two key insights from this research strand are that organization level impacts should be understood through intermediate constructs such as business process performance (Melville et al. 2004) and that it is not IT spending but actual IT usage that makes the difference (Chan 2000; DeLone and McLean 1992). The role of actual and adequate IT usage is so fundamental that it has been called the missing link in IT value research (Devaraj and Kohli 2003). Therefore, theoretical and empirical studies focusing on IT value creation on a process level and focusing on drivers and consequences of amount and type of IT usage have turned out to offer most useful perspectives on understanding and managing the IT business value creation process (Wagner et al. 2014).

The papers in this special issue strictly follow this path. They were selected from a total of 24 submissions in multiple rounds of double-blind reviews to meet the quality standards of the contributing reviewers and the journal. As a result, we are proud to present an international set of authors who break new grounds in understanding drivers and consequences of IT usage in the context of an aging workforce, enterprise wikis, and technostress, by scrutinizing the compound impact of IT and business process management approaches on HR processes performance, and by suggesting ownership structure as a completely new capital market mediated impact variable for a firm's IT capability.

The first paper "*The Role of Age in Task Performance: Examining Curvilinear and Interaction Effects of User Age, Expertise, and Interface Design on Mistake-making*" by Chris Zimmer (LeMoyne College, Syracuse, NY), Kevin Craig (Baruch College, NY), Stefan Tams (HEC Montréal), Jason B. Thatcher and Richard Pak (both Clemson University, SC) challenges the notion prevalent in the literature that age is an impediment for IT usage. The authors use a laboratory experiment with 107 IT users of different age to examine age-related differences in the use and performance of organizational IT. They analyze three-way interactions of age, subject-area knowledge, and interface design and find that, indeed, age is not always the detriment it is expected to be. The paper thereby contributes significantly to our understanding of an important context variable for IT usage and to the OECD wide debate on challenges and opportunities when facing a graying workforce.

In "*Information technology as daily stressor: pinning down the causes of burnout*", Christian Maier, Sven Laumer (both Bamberg University) and Andreas Eckhardt (Frankfurt University) look at a possible dark side of IT usage.

Contributing to the emerging research field of technostress, they analyze IT-related stressors in daily work life and how those can cause low job satisfaction, low organizational commitment, and high turnover intention. Distinguishing between techno- and work-stressors and using an empirical survey with 306 employees they show that work-exhaustion directly impacts job satisfaction, organizational commitment, and turnover intention while techno-stressors only exert an indirect influence on these psychological and behavioral responses mediated through work-exhaustion. Beyond offering theoretical and empirical evidence *that* and *how* IT at work can cause exhaustion, one implication of the study is that future techno- and workstress research needs to distinguish between IT professionals and non-IT professionals as the latter are more receptive to suffer from technostress while the former perceive stronger work-home conflicts.

“Untangling Knowledge Creation and Knowledge Integration in Enterprise Wikis” by Roman Beck (IT University of Copenhagen), Arun Rai, Mark Keil (both Georgia State University), and Kai Fischbach (Bamberg University) is the third paper on IT usage. Reflecting the emergence and opportunities of enterprise social media the authors aim at better understanding why individuals contribute to a knowledge management system—in this case an enterprise wiki—which is often suggested as the major success factor for such systems. They theoretically and empirically reveal knowledge creation and knowledge integration activities as distinct types of knowledge-sharing behaviors. Using insights from a financial institution’s wiki, the authors find different motivating and cost factors and suggest ways how to influence those behaviors. The results are promising to better understand and govern knowledge management systems and a wide array of social interactions platforms and their success.

The paper *“The impact of business process management and applicant tracking systems on recruiting process performance: An empirical study”* by Sven Laumer, Christian Maier (both Bamberg University) and Andreas Eckhardt (Frankfurt University) follows a recent thread in JBE that focuses on the intersection of Human Resources and IS (Eckhardt et al. 2012; Froese and Peltokorpi 2011; Tumasjan et al. 2011) and shows how different business process management (BPM) approaches and a type of human resources information system (HRIS) co-create measurable improvements in HR processes. Using data from large German firms they show that, among others, business process analysis, improvement and standardization, together with the use of an applicant tracking system, significantly decrease process cycle time and costs while at the same time improving process quality and stakeholder satisfaction. The paper contributes to the BPM literature by making explicit which BPM components have an effect on which outcome variables of a business process and by illustrating the joint impact of BPM and IT on the success of an Information System.

In *“Exploring the capital market effects of IT capability: the case of ownership structure”*, André Schäfferling and Heinz-Theo Wagner (both German Graduate School of Management and Law, Heilbronn) explore the possible effect of a firm’s IT capability on investor behavior. By arguing that particularly long-term oriented institutional investors see a firm’s IT capability as a valuable intangible asset, they expect a capital market mediated impact of a firm’s IT capability on its ownership

structure. Using a combination of secondary data, their analyses show that, indeed, firms with a superior IT capability show an ownership structure composed of more long-term oriented investors than comparable firms across all industries. The results suggest a completely new impact variable for IT value research and have implications for executives and investors.

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Tim Weitzel, Armin Heinzl

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