IT Business Value – A Literature Review Based on Text Analysis

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As a result of digitisation, information technology (IT) has become a driving force for economic growth and, at the same time, an increasing emphasis has been placed on measuring IT's performance in recent decades (Gartner, 2019). Global IT spending is projected to reach USD 3900 billion in 2020 (Gartner, 2020), highlighting that the relationship between IT spending and business value creation is an important topic for researchers and practitioners alike.

The aim of our research was to review the last fifteen years of scientific literature regarding IT business value using quantitative and qualitative text analysis methods. We wanted to review the trends and topic of this research stream published since Melville et al.'s (2004) powerful theoretical review. As the scientific community has not reached consensus regarding many issues during these last fifteen years, an objective analysis to explore key patterns in the literature may also set a path for future research.

The literature corpus consisted of 13 582 scientific papers (English language conference papers and journal articles) from the field of computer science and business studies, published between 2004 and 2018, filtered from the Scopus database based on IT business value specific keywords in title, keywords or abstract. The applied methods of text analysis included word frequency analysis, n-grams, collocation and concordance analysis.

By objective analysis of the corpus the central concepts, themes, technological and industrial focus of this scientific field were mapped. These included the predominance of the expenditure-based value concept, the process and project approach and the attention to user-centric technology adoption and user satisfaction. Then, choosing the 26 most cited articles of the corpus, we were able to get a deeper understanding of the theoretical approaches that dominated the literature of IT-based business value creation over the past 15 years – including, in particular, the dominance of resource-based view, dynamic capabilities theory and knowledge-based approach.

Keywords: IT business value, IT management, information system success

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