

Abstract (English)

The complexity and management of the IT landscape has been a continuous challenge for enterprises for decades. With rising company size, more business units and organizational diversity these challenges are becoming more and more severe. To manage the existing IT complexity, a strong IT governance is claimed as one important instrument. The questions remain what is meant specifically with „a strong IT governance“ and „IT complexity“ and how IT governance can work as an effective instrument in detail. Those questions are addressed by this research.

To answer the questions this research builds reference models for both aspects based on state-of-the-art literature and 9 expert interviews. Focus for the IT governance part lies on business-IT responsibility sharing using a „RACI“ matrix and the organizational setup of IT. For IT complexity the focus is on IT architecture complexity, i.e. complexity of IT applications and infrastructure. The reference models are tested with an explorative study with 24 large enterprises, the results are analyzed and potential instruments are discussed with 5 more experts from the participating companies.

On this basis, one of the instruments is detailed: The impact of responsibility sharing of IT project portfolio management on IT redundancy. For this purpose a detailed theoretical model is developed and probed with a multiple case study research approach. The case study results show clear instruments in responsibility sharing to reduce undesirable functional IT redundancies and foster instances of applications instead that are preferred.

Key words: IT, complexity, governance, heterogeneity, diversity, synergies, redundancy, simplicity, responsibility sharing, RACI, project portfolio management, accountability, organization