

Abstract of PhD thesis “Risk management in cloud-based solutions to maximize the performance and security of the business operations”

This study concerns risk management in the context of cloud-based solutions that are displacing on-premises environments and becoming an integral part of business operations. Cloud computing provides compelling incentives for businesses to modernize their current services and improve their competitiveness, but it also entails risks that organizations must identify and effectively address to successfully pursue innovative initiatives. This leads to the increasing attention of scholars and practitioners toward risk management that allows businesses to mitigate risks associated with cloud computing and maximize the performance and security of business operations. Cloud-based solutions simplify the operation and management of an organization's technology infrastructure and enable transforming technological capabilities into a competitive advantage and financial performance. It also enhances the effectiveness of IT and business processes, increases service availability and continuity, and facilitates the flexibility and scalability of the business. However, technology availability and resource readiness are seen as critical success factors in the transition to cloud computing. Hence, the implementation of cloud-based solutions should be in line with business objectives and take into account not only technology opportunities but also potential risks and threats. Based on empirical studies, it has been recognized that key risks arising from cloud-based solutions include security, data privacy, technology, reputational, financial, organizational, and compliance risks. Risks associated with cloud computing radically change the approach organizations should perform risk management. Hence, this doctoral dissertation contributes to expanding the knowledge and exploring the understanding of risk management phenomenon in the context of cloud computing. Considering the selected research object, results of both qualitative and quantitative studies have been applied to develop a customizable proposition of a risk management model for ICT organizations that either implemented or plan to adopt cloud-based technologies. In the quantitative study, the research sample was strongly differentiated between small and medium-sized enterprises (SMEs) and large enterprises. Surveyed representatives were mainly subject matter experts experienced with software-related and IT consulting activities. Empirical findings provided insights into the risk management model that could assist practitioners and academics in assessing and proactively mitigating emerging risks. The proposed risk management model offers an adaptable and intuitive solution that could guide business executives and serve as a baseline for the risk management process for cloud computing. Since cloud computing remains a rapidly developing technology, businesses may identify further emerging risks specific to their organizational context and tailor the proposed risk management model to meet their expectations or requirements. This guarantee that organizations assess and treat risks with appropriate internal controls and countermeasures to prevent their impact on the business objectives.

Domisik Banat