

A Good Start for Digital Transformation of the Companies: A Literature and Experience-Based Predefined Roadmap

Authors : Batuhan Kocaoglu

Abstract : Nowadays digital transformation is a hot topic both in service and production business. For the companies who want to stay alive in the following years, they should change how they do their business. Industry leaders started to improve their ERP (Enterprise Resource Planning) like backbone technologies to digital advances such as analytics, mobility, sensor-embedded smart devices, AI (Artificial Intelligence) and more. Selecting the appropriate technology for the related business problem also is a hot topic. Besides this, to operate in the modern environment and fulfill rapidly changing customer expectations, a digital transformation of the business is required and change the way the business runs, affect how they do their business. Even the digital transformation term is trendy the literature is limited and covers just the philosophy instead of a solid implementation plan. Current studies urge firms to start their digital transformation, but few tell us how to do. The huge investments scare companies with blur definitions and concepts. The aim of this paper to solidify the steps of the digital transformation and offer a roadmap for the companies and academicians. The proposed roadmap is developed based upon insights from the literature review, semi-structured interviews, and expert views to explore and identify crucial steps. We introduced our roadmap in the form of 8 main steps: Awareness; Planning; Operations; Implementation; Go-live; Optimization; Autonomation; Business Transformation; including a total of 11 sub-steps with examples. This study also emphasizes four dimensions of the digital transformation mainly: Readiness assessment; Building organizational infrastructure; Building technical infrastructure; Maturity assessment. Finally, roadmap corresponds the steps with three main terms used in digital transformation literacy as Digitization; Digitalization; and Digital Transformation. The resulted model shows that 'business process' and 'organizational issues' should be resolved before technology decisions and 'digitization'. Companies can start their journey with the solid steps, using the proposed roadmap to increase the success of their project implementation. Our roadmap is also adaptable for relevant Industry 4.0 and enterprise application projects. This roadmap will be useful for companies to persuade their top management for investments. Our results can be used as a baseline for further researches related to readiness assessment and maturity assessment studies.

Keywords : digital transformation, digital business, ERP, roadmap

Conference Title : ICEISIT 2019 : International Conference on Enterprise Information Systems and Information Technology

Conference Location : New York, United States

Conference Dates : June 04-05, 2019