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THE DYNAMICS OF SUSTAINABILITY OF ELECTRONIC KNOWLEDGE REPOSITORIES

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Abstract

Electronic knowledge repositories (EKR) are the most common form of knowledge management system implemented by organizations. After inception, some EKRs become self-sustaining successes but others atrophy from lack of use. The literature has identified multiple factors that contribute to the success or ultimate demise of EKRs, such as incentives, system capability, and management promotion. However, it is unclear how these factors interact over time in determining the sustainability of EKRs. We use the system dynamics methodology to develop a holistic causal model of this interaction among the different factors. The model helps identify the mechanics underlying the usage patterns experienced by EKRs. The model structure is first verified through a focus group consisting of KM academics and practitioners. We then report initial results from simulating this model under different scenarios of management interventions and technology features to better understand the conditions that lead to self sustaining, and therefore successful, EKRs.

Keywords: Electronic knowledge repositories, sustainability, system dynamics, modeling.