The Importance of Knowledge-Based Risk Processes to Risk Analysis

Amine Nehari-Talet, King Fahd University of Petroleum and Minerals, Saudi Arabia

[iD] https://orcid.org/0000-0003-3242-8610

Louay Karadsheh, Higher Colleges of Technology, Dubai, UAE

Samer Alhawari, World Islamic Sciences and Education University, Jordan

Hana Hunaiti, World Islamic Sciences and Education University, Jordan

ABSTRACT

Knowledge-based risk processes are suitable key elements within organizations since they can minimize the possibility and impact of an information technology (IT) project. The aim of this paper is to explain how the alignment between knowledge-based risk processes to validate risk analysis. A questionnaire was developed and distributed to a sample of 135 respondents who were actively engaged in IT. The proposed research model explained that 50 to 62% from of the variance in knowledge-based risk processes to risk analysis. The results showed that the two selected factors (identification and sharing) have a partially mediate and significant impact on risk analysis by knowledge-based risk repository. On the other hand, the examination is not mediated and not a significant impact on risk analysis. The findings of this study imply the understanding of knowledge-based risk processes to risk analysis This study will contribute to the field by examining the effects knowledge-based risk on risk analysis for IT projects.

KEYWORDS

IT Projects, Knowledge, Knowledge-Based Risk Repository, Risk, Risk Analysis

INTRODUCTION

Knowledge and its creation are vital competitive advantage and business opportunities bases of for most modern organizations (Alavi & Leidner, 2001). On the other hand the new technologies provide opportunities for sharing knowledge that it is considered among scholars in order to create strategic benefits to the organizations (Schniederjans et al., 2020).

Risk can have a major impact on the operation (Mees, 2007), whereas risk management (RM) involves a number necessary managerial processes that companies apply in managing and controlling risks in any projects. Furthermore, Management of risks by repetitive process that addresses the planning, analysis, implementation, control and supervision of the policies and measures of security policy implementation can reduce the risk (Suroso & Fakhrozi, 2018).

Additionally, RM is described as a systematic and iterative process of identifying, analyzing, and responding to project risks in order to reduce the potential negative events and maximizing the positive events in terms of consequences and probabilities (Kasap & Kaymak, 2007). Thalmann & Ilvonen (2020) defined that the concept of knowledge risk as severity of adverse effects, or in other terms, the consequences of knowledge risk incidents that can have serious effects for firms and that both preventive and reactive measures.

Many projects failed due the lack of knowledge sharing during project development. Therefore, KM processes become a strategic resource to reduce organizations' risks (Karadsheh et al., 2008; Nehari Talet et al., 2018).

Jennex, & Durcikova (2014) noted that if knowledge management (KM) and information security are combined well enough to protect knowledge assets from the persistent threats of disclosure, modification, and destruction in order to support KM managers to be familiar with organizational Information Security

An effective RM process model can't be completed without the support of a well-established KM process model Rodriguez-Montes & Edwards (2008). Then, a well-defined and designed integrated KM and RM framework is essential to improve decision-making in IT projects. Additionally, Aven & Kristensen (2019) mentioned that the RM is viewed as the procedure of making sure that the overall knowledge is adequately and professionally used, including the identification of the detailed knowledge needed, and guaranteeing sufficient specific knowledge and control when evaluating risk and decision-making. Therefore, partners in such relationships must continually assess collaboration risks and approach risk management depending on needs and resource endowments by shared, acquired, and deployed the knowledge (Singh et al., 2018). Durst et al. (2019) noted that the concept of risks related to knowledge would form an important fragment of any organization's RM and therefore, knowledge. Also, Teklemariam & Mnkandla (2017) stated that there is limited knowledge on the part of project managers when it comes RM properly.

Additionally, the separation between KM and RM is part of current organizational reality by perceived quality of risk control to representing the operational level of RM; and perceived value of the Enterprise RM implementation to representing the strategic level (Rodriguez & Edwards, 2014). Thus, organizations must minimize risk from managing Knowledge-Based risk Processes and Knowledge-Based risk Repository appropriately.

There was a significant lack of literature focusing on the Knowledge-Based risk Processes impact and risk analysis model. So, this study will seek to contribute to this area by providing a reliable technique of employing the risk analysis as an effective model.

This study first started with an overview of the literature review includes analysis of previous research, then followed by the proposed research model, hypotheses, the research methodology, results, and discussions. Finally, conclusions, limitations and possible directions for future research are highlighted.

LITERATURE REVIEW

Knowledge Management and Risk Processes

Today's modern, industrialized society is based on globalization. Therefore, Dickinson (2001) presented knowledge as a reason to reduce the risk; for that reason risk modeling Knowledge is one of the pieces to make use of it. Zhang et al. (2018) classified the different types of risks and KM capabilities (Cultural, technological, and structural) level KM should be matched to achieve effective RM (Social system risk, Technical system risk, Project management risk. Be aware of knowledge risks and the effects of them eventually requires understanding real world incidents, but empirical work on the topic is limited; a lot of the work so far has been conceptual or theoretical in nature (Durst, 2019). According to Durst & Zieba (2020) knowledge risk is a measure of the likelihood and gravity

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