A Review of Implementation of Knowledge Management Models in the Organizations

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Abstract- During crises and other extreme weather events citizens need instructional information in order to learn about risks and take protective action. Although prior studies have employed various theoretical perspectives to explain user resistance behavior, the research on the resistance to KMS has been lacking. It includes information related to varieties of disasters, roles descriptions, plans and operations. The results indicate that loss aversion, transition costs and social norms have a positive effect on KMS resistance intention. Meanwhile, inertia positively moderates the impact of status quo bias (i.e., loss aversion, transition costs and social norms) on KMS resistance intention. If managers better understand the mechanisms and antecedents of KMS resistance, they can take actions to reduce the employee's perceived status quo bias or inertia to reduce resistance behavior. Conclusion Based on empirical findings from previous studies, the objective of this work was to analysis, synthesize and present a comprehensive SLR on the role of information, knowledge and collaboration in decision-making for internationalization processes of SMEs.

Keywords- knowledge management, research model, Organizations

I. INTRODUCTION

In recent years, awareness about the strategic importance of knowledge of an organization that has its strategic value is linked to its knowledge and its exploitation. The potential damage caused by the loss of a key competence and the volume of departures, scheduled or not, most experienced staff alert, in a manner becoming stronger, the need to adopt management strategy knowledge. Indeed, tact/explicit knowledge management is extremely rich and dynamic and it has become necessary to model them. This modeling is used to transform large amounts of data, from interviews (Ermine and Boughzala, 2005; Grundstein, 2012).

With experts to searching documents in multiple repositories that are related to trades activities

Robert G. Rice and Patric R. Spence in 2016 studied on Thor visits Lexington: Exploration of the knowledge-sharing gap and risk management learning in social media during multiple winter storms. During crises and other extreme weather events citizens need instructional information in order to learn about risks and take protective action. Social media are being increasingly utilized in crisis situations for information seeking and acquisition. Future research should test knowledge-sharing gaps between cities where winter storms are normal, and cities where winter storms are rare. Areas such as Boston MA, frequently experience significantly larger amounts of snowfall than Lexington KY. Boston officials may be more readily prepared to share safety information because they are situated in an area where snow storms are much more common. This experience with snowstorms may keep instructional information more readily available. Jia Li and et al in 2016 investigated on why do employees resist knowledge management systems? An empirical study from the status quo bias and inertia perspectives. Resistance to KMS (Knowledge Management Systems) is one of the major reasons frequently cited for the failure of knowledge management initiatives. Although prior studies have employed various theoretical perspectives to explain user resistance behavior, the research on the resistance to KMS has been lacking. Furthermore, extant studies on the resistance to information systems in an organization focus mainly on the mandatory use context. This research employs the status quo bias perspective to investigate the KMS resistance phenomenon. The results indicate that loss aversion, transition costs and social norms have positive effects on KMS resistance intention. Meanwhile, inertia positively moderates the impact of status quo bias (i.e., loss aversion, transition costs and social norms) on KMS resistance intention. Siti Hajar Othman and Ghassan Beydoun investigated on a metamodel-based knowledge sharing system for disaster management. This paper makes a crucial contribution to address the knowledge sharing challenge by providing a knowledge based systems approach to facilitate structuring, storing and reusing DM knowledge. The contribution of this paper is three folds: Firstly, it presents a metamodel-based architecture suitable for various distributed knowledge sharing settings; secondly, it presents an actual implementation of such a system, the Disaster Management Knowledge Repository (DMKR1.0). DMKR facilitates collaboration and DM knowledge sharing using a tailored DM language. the results is facilitated by a specific a DM language. DMKR facilitates the derivation of new DM solution models using the DM language, underpinned by the metamodel DMM. DMKR successfully

combines the use of DMM for storage, retrieval and modeling to describe modeling capability for any specific disaster. To DM practitioners therefore, the paper offers a coordinated approach and activities to achieve DM goals where DMKR can act as a central tool for creating, organizing and managing DM modeling knowledge. Through fragmenting DM knowledge experience for reuse, DMKR guides DM users to achieve specific DM goal.

Review Eric Costa et al in 2016 investigated on Information, knowledge and collaboration management in the internationalization of SMEs: A systematic literature review. Information and knowledge can be seen as key resources for improving the internationalization processes of small and medium-sized enterprises (SMEs). Collaboration has also been considered as an important facilitator of these processes, particularly by nurturing information and knowledge sharing. This analysis provided valuable input for the development of research suggestions and directions for future work in this area. One can hope that the results of this study will assist both academics and professionals to develop new tools and methodologies, based on state-of-the-art technologies. Additionally the development of collaborative decision-making models and approaches seems to be an important requirement of SMEs to manage collaboration in international strategies, mainly for partner selection. Governments and institutional supporting agencies are likely to play an interesting role in practically supporting international strategies of SMEs, mainly through experiential learning and network development industry Filipe Ferreira et al. in 2016 investigated on Product lifecycle management in knowledge intensive collaborative environments: An application to automotive industry. To handle this complexity, new knowledge-based methods and technologies are needed to model, simulate, optimize and monitor manufacturing systems. Product lifecycle management research tends to focus on situations that are responsive to formal analysis and modeling. However, in several domains such as knowledge intensive collaborative environments, it's not possible to model processes using formal notations. Knowledge based and collaborative process management involves a combination of structured and non-structured processes. Structured processes management can be reduced to a set of fully-defined rules leading to high efficiency but also low flexibility, whereas the management of non-structured processes is not prone to a full formalization. This paper introduces a set of concepts, methods and tools of an innovative Hybrid Process Management approach validated by a real world business case in the automotive industry. The introduction of the solution developed in the knowledge intensive collaborative environment proves to be very effective and efficient, leading to good results in terms of savings. The introduction of the solution made possible that managers avoid asking for reports and a lot of time and paperwork is now saved. The solution allowed stakeholders to concentrate in important issues improving products and processes avoiding non-value added efforts and time on collateral activities. Lidia Hernandez Lopez et al in 2016 studied on Students' perceptions of the lecturer's role in management education: Knowledge acquisition and competence development. Based on the need for new paradigms fostered by the European higher education

framework, this study explores the influence of the lecturer's role on knowledge acquisition and competence development in undergraduate management students. The lecturer's role is analyzed through students' perceptions of the lecturer's ability to build a good relationship and use appropriate teaching methods. The results indicate that the perceived ability of the lecturer to create a good relationship with students positively influences their perception the suitability of the teaching methods used, and the suitability of these methods, in turn, influences the students' level of knowledge acquisition and competence development. Cheng Ling Tan and Aizzat Mohd Nasurdin in 2011 investigated on Human Resource Management Practices and Organizational Innovation: Assessing the Mediating Role of Knowledge Management Effectiveness Organizational innovation has been viewed as an essential weapon for organizations to compete in this competitive business environment. Particularly, Malaysia manufacturing firms strive to transform their business model from labor-intensive to knowledge-intensive, which aim to immerse themselves in higher value added activities such as, developing new products, processes, and services, to continual sustain the competitiveness within the rivalries. One of the ways to heighten the organizational innovation is through effective human resource management (HRM) practices and effective knowledge management. This study examined the direct relationships between HRM practices (performance appraisal, career management, training, reward system, and recruitment) and organizational innovation (product innovation, process innovation, and administrative innovation).The regression results showed that HRM practices generally have a positive effect on organizational innovation. Kumaresan Chidambaranathan and Swarooprani B.S. in 2015 investigated on Knowledge Management as a Predictor of Organizational Effectiveness: The Role of Demographic and Employment Factors. This paper seeks to examine how the demographic and employment-related factors affect the knowledge management process in higher educational libraries in Qatar. The study is based on a wider research conducted to determine the relationships between organizational culture and knowledge management. The survey covered 122 employees from 16 higher educational libraries in Qatar. The results of the study revealed that knowledge management activities are not affected by the demography of the respondents.

II. RESEARCH MODEL AND HYPOTHESIS DEVELOPMENT

To bridge the gap, address the limitations of prior research and answer the proposed research questions, a research model was developed, as shown in Fig. 1. Status quo bias is conceptualized as loss aversion, transition costs and social norms. Inertia is conceptualized as a second-order construct consisting of affective, behavior and cognitive components. The control variables include gender, age, education, work experience and workload. Status quo bias theory aims to explain people's preference for maintaining their current status or situation. Individual has a statuesque bias — doing noting or maintaining current or previous status. This bias has been well established in economics, psychology and rational decision theory (Samuelson & Zeckhauser, 1988). Therefore, status quo

bias theory provides a useful theoretical explanation for the phenomenon where individuals disproportionately make decisions to continue an incumbent method, rather than switching to a new (potential better) system. According to the status quo bias theory, status quo bias can be explained in terms of three main categories: rational decision making, cognitive misperceptions, and psychological commitment. The first construct for status quo bias is the cognitive misperception of loss aversion (Samuelson & Zeckhauser, 1988). Loss aversion is a psychological principle that has been observed in human decision making in that losses loom larger than gains in value perception (Kahneman, Knetsch, & Thaler, 1991). Loss aversion can result in status quo bias because even small losses from changing the current situation could be perceived to be larger than they actually are. Previous findings suggest that individuals will typically seek to avoid losses instead of maximizing gains (Kahneman & Tversky, 1990). In an organization, any employee more or less has his/her own strategy or tools to manage knowledge.
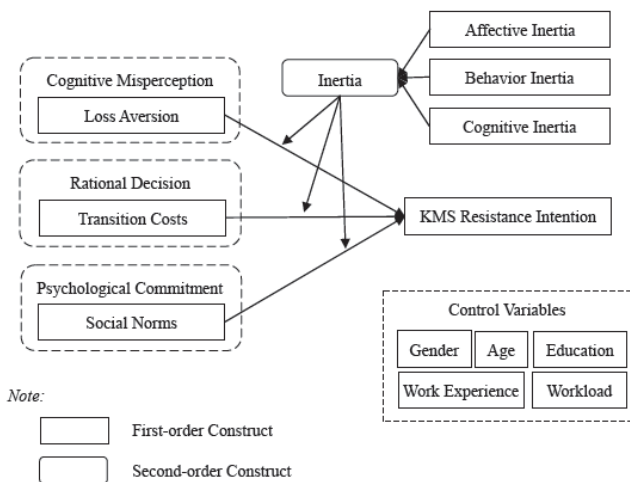

Figure 1. The research model

III. THE DISASTER MANAGEMENT KNOWLEDGE REPOSITORY SYSTEM (DMKR)

This section describes the architecture of the knowledge system, DMKR 1.0. The system utilizes DMM as a representational infrastructure to store and structure complex DM knowledge and processes. DMKR integrates the met a model with retrieval and modeling support components. It has a model driven interface to ensure that users can easily access and reuse the stored knowledge. The stored knowledge can be reused to develop varying DM solutions as DM contexts vary. It has a modeling tool to develop variety kinds of new DM models based on past DM problems and knowledge retrieved. New DM models can be derived through operationalization of vertical model transformations from DMM.

IV. FOUNDATIONS AND RESEARCH TOPICS

A. Semi-structured processes

Processes Workflow management research tends to focus on situations that are prone to formal analysis and modeling. However, in several business areas, there are domains, such as knowledge intensive work environments and collaborative engineering environments(Moody et al., 2006; Faria, Silva, & Marques, 2010; Faria & Nóvoa,2015), in which it is not possible to fully structure and model processes using formal notations (Kammer et al., 2000; Hill et al., 2006).The flow of so called semi-structured processes is not known a priori, and many times, only the main phases and baselines may be specified a priori (Lu et al., 2009; Mangan & Sadiq, 2002). Efforts have been made to classify this kind of processes based on formal approaches, but the results achieved so far are limited (Paola SotoRojas, Barros, de Azevedo, & Batocchio, 2012).The characteristics of a structured process include (Adams, Hofstede, Edmond, & Van Der Aalst, 2006): low efficiency and control (typical ad-hoc managed processes (Tolioet al., 2010)). A process is semi-structured when it contains both structured and non-structured sub processes thus requiring hybrid approach providing the right balance between efficiency, flexibility and controllability (Fig. 2) (Zelm, Kosanke, & Vernadat, 1999; Doumeingts, 1984). This process distinction has many implications in process management systems design, including the allocation of processes to humans and automation (Kemppilä & Mettänen, 2004; Weber, Reichert, & Rinderle-Ma, 2008).
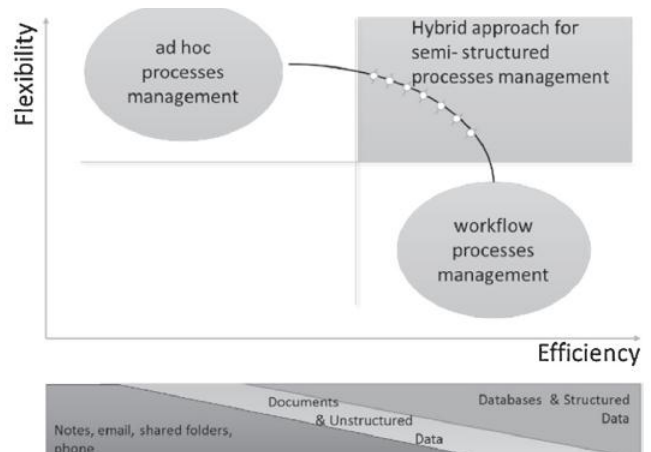

Figure 2. Flexibility vs. Efficiency in Process Management

B. Human Resource Management (HRM) practices

As the world is becoming more competitive and unstable than ever before, manufacturing-based industries are seeking to gain competitive advantage at all cost and are turning to more innovative sources through HRM practices (Sparrow, Schuler, & Jackson, 1994). HRM practices have been defined in several aspects. Schuler and Jackson (1987) defined HRM practices as a system that attracts, develops, motivates, and retains employees to ensure the effective implementation and the

survival of the organization and its members. Besides, HRM practices is also conceptualized as a set of internally consistent policies and practices designed and implemented to ensure that a firm's human capital contribute to the achievement of its business objectives (Delery & Doty, 1996). Likewise, Minbaeva (2005) viewed HRM practices a set of practices used by organization to manage human resources through facilitating the development of competencies that are firm specific, produce complex social relation and generate organization knowledge to sustain competitive advantage. Against this backdrop, we concluded that HRM practices relate to specific practices, formal policies, and philosophies that are designed to attract, develop, motivate, and retain employees who ensure the effective functioning and survival of the organization. Among the main approaches to develop HRM: universal or best practice approach (Huselid, 1995); strategic HRM practices approach (Delery & Doty, 1996); contingency approach (Dyer, 1985; Schuler, 1989); and configuration approach (Wright & McMahan, 1992), previous studies revealed that HRM practices, which were related to organizational innovation, mainly focused on universal or ―best practice approach. A review of the literature demonstrates five common practices that have been consistently associated with innovation, encompassing performance appraisal, career management, reward system, training, and recruitment (Gupta & Singhal, 1993; Jiménez-Jiménez & Sanz-Valle, 2005; Kydd & Oppenheim, 1990; Laursen & Foss, 2003; Shipton, Fay, West, Patterson & Birdi, 2005).

V. KNOWLEDGE MANAGEMENT EFFECTIVENESS

The learning process occurred to improve the stock of knowledge available to the organization and to amplify the value of its intellectual assets, such as innovation capital when knowledge is acquired and applied. If an organization demonstrates competence in knowledge management, it can be considered as having a knowledge management-orientation (Darroch & McNaughton, 2002). Knowledge management has been broadly defined from many perspectives. Wiid (1997) viewed as a set of activities that lead an organization in acquiring knowledge both internally and externally. According to Salisbury (2003), knowledge management is defined as the deployment of a comprehensive system that enhances the growth of an organization's knowledge. In an effort to expand the knowledge management discipline, knowledge management can be defined as the management functions that encompass the creation of knowledge, management of the flow of knowledge within the organization, and usage of knowledge in an effective and efficient manner for the long-term benefit of the organization (Darroch & McNaughton, 2001). Hence, knowledge management effectiveness is regarded as a management discipline which focused on the development and usage of knowledge to support the achievement of strategic business objectives Knowledge management effectiveness can be analyzed from a process perspective (Gold, Malhotra & Segars, 2001; Zheng, 2005). In general, knowledge management effectiveness can be conceived as the effectiveness of an organization in managing the knowledge

acquired, shared, and applied by its employees. In summary, knowledge management effectiveness is conceived as a process to enhance knowledge application to achieve organizational innovation for improving business performance. Organizations that effectively manage their knowledge within organization will have higher organization innovation in turn to achieve breakthrough competitive advantage.

VI. INTERACTIVE VIDEO TO SUPPORT ONGOING PROFESSIONAL DEVELOPMENT

In medium or large organizations, especially those that are spread out over several geographical locations, but not limited to that scenario, face-to-face trainings and traditional knowledge sharing could become prohibitively expensive. Real-time interaction needs to be replaced with media produced for training that is readily available for employees, on demand, often called the just-in-time training paradigm that allows continuous employee improvement. Organizations have long realized the importance of a knowledge repository - an internal knowledge library that allows newer employees, or those that have limited insight into a particular field, to learn from more experienced colleagues, or even reuse available internal company information that was created by other employees for other purposes. With regards to content integrity and conformity to organizational standards, a verification and approval system should be employed for leaders and managers to use for validating the trainings. Since content-creators are most likely to be either senior staff, specialists or decision makers, the resulting interactive video content would most likely conform to organizational standards, and thus be trusted by employees to serve as officially approved guidelines. Another benefit of creating a usable interactive video sharing platform is to support collaboration of remote workers, especially high value experts on external consultants, that would no longer be required to travel for face-to-face trainings to various locations, while maintaining a high-quality training standard via rich interactive media presentations.
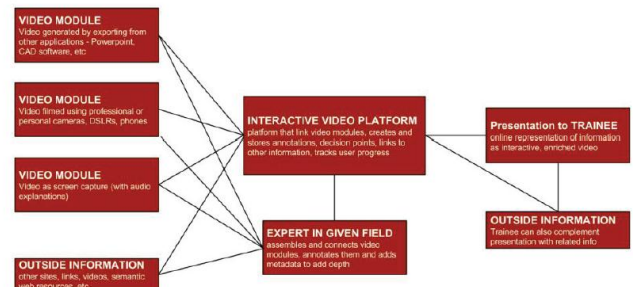

Figure 3. Interactive video platform structure - How videos become interactive

VII. CONCLUSION

Resistance to KMS is one of the major reasons frequently cited for the failure of the knowledge management initiative

(Hahn & Subramani, 2000; Pfaff & Hasan, 2006). Although prior studies have employed various theoretical perspectives to explain user resistance behavior, the research on the resistance to KMS is still lacking. Furthermore, extant studies on the resistance to the information systems in the organization focus mainly on the mandatory use context (Fichman et al., 2011; Xue et al., 2011). Considering that the adoption or resistance of KMS is basically an individual decision and should be based on the employee's previous personal knowledge management practice, this study employs the status quo bias perspective to investigate the KMS resistance phenomenon. The results indicate that loss aversion, transition costs and social norms have a positive effect on KMS resistance intention. Meanwhile, inertia positively moderates the impact of status quo bias (i.e., loss aversion, transition costs and social norms) on KMS resistance intention. If managers better understand the mechanisms and antecedents of KMS resistance, they can take actions to reduce the employee's perceived status quo bias or inertia to reduce resistance behavior. Conclusion based on empirical findings from previous studies, the objective of this work was to analyze, synthesize and present a comprehensive SLR on the role of information, knowledge and collaboration in decision-making for internationalization processes of SMEs. The SLR methodology proved to be a useful tool for moving away from descriptive reviews of the literature, with contributions including the synthesis of main findings of the literature, the identification of gaps, and the establishment of a basis for future research. One can hope that the results of this study will assist both academics and professionals to develop new tools and methodologies, based on state-of-the-art technologies. Additionally the development of collaborative decision-making models and approaches seems to be an important requirement of SMEs to manage collaboration in international strategies, mainly for partner selection. Governments and institutional supporting agencies are likely to play an interesting role in practically supporting international strategies of SMEs, mainly through experiential learning and network development. The introduction of the solution made possible that managers avoid asking for reports and a lot of time and paperwork is now saved. The solution allowed stakeholders to concentrate in important issues improving products and processes avoiding non-value added efforts and time on collateral activities. Other advantage is the data collection built in the solution storing historic and experience retrieval modules, allow access to expertise, knowledge and best practices collected from previous activities and available to incorporate in future as a factor of knowledge sustainability. The dynamics of work culture changes dramatically with changes in people at the helm. This makes it all the more important to not only manage knowledge but tap the pertinent tacit & organizational knowledge of the employees. Library directors and managers in higher educational libraries in Qatar should start to think of innovative ways to capture, organize, store and use employee's knowledge to augment organizational effectiveness. As Qatar moves from a hydrocarbon-based economy to the knowledge economy, responsibility is placed on managers to understand knowledge management systems

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