

Agile Knowledge-Based E-Government Supported By Sake System

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EXECUTIVE SUMMARY

The evolution of e-Government services is fast. There is a limited time for adaptation to the new environment in terms of legislation, society, and economy. Maintaining reliable services and a secure IT environment is even more difficult with perpetual changes like mergers and acquisitions, supply chain activity, staff turnover, and regulatory variation. Nature of the changes has become discontinuous; however, the existing approaches and IT solutions are inadequate for highly dynamic and volatile processes. The management of these challenges requires harmonized change management and knowledge management strategy. In this paper, the selected change management strategy and the corresponding knowledge management strategy and their IT support is analysed from the public administration point of view. SAKE project (FP6 IST-2005-027128 funded by the European Commission) approach and IT solution are detailed to demonstrate the strategic view and to solve the knowledge management and change management related problems and challenges in public administration. The current situation of economic downturn and political change forces public administration to follow the reconfiguration of existing resources strategy, which is appropriate on the short run, moreover the combined application of personalization and codification strategy can result in long-term success.

Keywords: *Change Management Strategy, e-Government, Knowledge Management Strategy, Public Administration, Semantic-based Knowledge Management*

BACKGROUND

Public administration (PA) has to cope with permanent changes in the political, economic and legal environment. Additionally, previous years' economic crisis has hit Eastern-European countries, like Latvia, Hungary and Poland particularly hard, since the vulnerability of their economic environments. These fluctuations affect public administration processes and systems as well and require fast, agile responses in decision making. Public servants suffer from increasing information overload, which jeopardizes the organizations' capability to adapt to economic or market

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changes, endangers competitive edge or can also cause overloading of employees. The increasing complexity of information, the rising amount and the various alternatives of information systems available for a certain problem area make information management more difficult (Bray, 2008; Himma, 2007). New decisions, regulations have to operate fast; “time-to-market” is reduced, so public administration needs support to produce agile responses to changes. Changes in one part of the information assets can cause difficulties in other part of the e-government system; therefore change management should be done in a systematic way (Abrahamson, 2000; Kotter, 1995). The unpredictable and volatile environment requires adaptive, fast and knowledge-based decisions (Riege, 2006). Knowledge has been and is still government’s most important resource (Heeks, 2006), so its management is a crucial task. Several examples illustrate the high priority of knowledge management in public administration, like the UK Government’s Knowledge Network, which is a government-wide electronic communication tool helping government department to share knowledge and collaborate online with colleagues across government; or the knowledge management initiatives in the Federal Government in US (Barquin, 2010).

In order to comply with the permanent renewal need of knowledge, special knowledge management techniques and systems are needed (Jashapara, 2004; Kó & Klimkó, 2009). These systems have to cope with the fast changing, context-sensitive character of knowledge; meanwhile they have to support the externalization of knowledge (Holsapple, 2003).

Our research aimed to a) analyse change management and knowledge management related challenges of public administration; b) investigate the change management and knowledge management strategies’ relationship from public administration view and c) provide a holistic framework and tool for an agile knowledge-based e-government that is reflecting the challenges collected in a) and expected to be sufficiently flexible to adapt to changing and diverse environments and needs for public administration.

The proposed holistic framework and tool is the result of SAKE project (IST-2005-027128 funded by the European Commission’s 6th Framework Programme), which comprised: (a) a semantic-based change notification system, (b) semantic-based content management system, (c) a semantic-based groupware system (d) a semantic-based workflow system (e) a semantic-based attention management system. The paper will be structured as follows:

First, knowledge management and change management related problems and challenges in public administration are detailed. Next, relationships between change management and knowledge management strategies are discussed and analysed from the public administration perspective, followed by their appropriate IT support. SAKE project approach and IT environment is presented as an example of compliance with needs arising from change management and knowledge management strategies. Finally, an overview about the Hungarian trial is provided, validating the SAKE solution in real life situations.

SETTING THE STAGE

Change management, knowledge management and information technology are overlapping each other, they are interwoven in practice. The change management strategy applied by the organization influences the types of knowledge that it will draw upon, which will take effect on the knowledge management strategy, which, in turn, determines information technology used in the organization.

This section discusses the nature of changes and change management issues, main knowledge management strategies, and relationships between change and knowledge management strategies while highlighting their IT support.

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