Knowledge Management:
An Instrument for the Development of the Knowledge Society

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ABSTRACT

Building a knowledge-based society is widely recognized as leading to human, social and economic benefits. This paper explores the issue of using knowledge management as an instrument for the development and sustainability of this knowledge society. The paper attempts to achieve its purpose through four main integrated steps: providing a brief review of knowledge management and the knowledge society; viewing knowledge management according to the STOPE "strategy, technology, organization, people and the environment" scope; incorporating knowledge management into the six-sigma DMAIC "define, measure, analyze, improve, and control" process; and deriving observations on the outcome, and producing guidelines for future work. The paper emphasizes the claim that developing and continuously sustaining the knowledge society can be achieved by applying knowledge management through building it into the STOPE scope and the six-sigma process, and by considering the multi-level nature of the society. The paper enjoys a high potential as a guide to knowledge management driven development and sustainability of the knowledge society at all levels. This would be beneficial to all those interested and concerned with supporting the role of knowledge in their own societies.

Keywords: *Knowledge, Knowledge Activities, Knowledge Circle (KC), Knowledge Culture, Knowledge Economy, Knowledge Management, Knowledge Society, Six Sigma Process, Strategy-Technology-Organization-People-Environment (STOPE) View*

1. INTRODUCTION

The "knowledge society" has been the development target of many ambitious countries, as it provides human, social and economic benefits (Bakry, 2008; Sharma et al., 2010). In the mean time, "knowledge management" has been viewed as an important tool for responding to change and achieving development (Awad & Ghaziri, 2004; De Burn, 2005). In this respect, we are in front of a knowledge target: the "knowledge society," and a knowledge tool: "knowledge management." The obvious issue that comes as a result is: the use knowledge management as an instrument for the development of the knowledge society. This paper is concerned with exploring this combination at the various levels of the society from the level of the individual to the levels of social and professional life, and up to the national and global levels.

DOI: 10.4018/jksr.2012070105

For achieving its purpose, the paper goes through four main steps.

- The first is concerned with providing a background on knowledge management and the knowledge society, with reviews of recent publications.
- The second is associated with viewing knowledge management through the five domains of the STOPE scope "strategy, technology, organization, people and the environment" previously used to framework the knowledge society ecosystem. This scope has been in use for the investigation of various issues concerned with technology planning and management, especially where ICT "the information and communication technology" is involved (Bakry, 2008).
- The third is related to emphasizing the implementation of knowledge management for the development and sustenance of the knowledge society using the five phases of the six-sigma development approach, known as DMAIC "define, measure, analyze, improve, and control". The approach has been previously considered by the knowledge society ecosystem (Bakry & Alfantookh, 2010), and is widely used for the promotion of quality and efficiency in organizations working toward the achievement of their goals (Pyzdek, 2003).
- The fourth and last step is concerned with deriving observations and guidelines that need to be taken into account in using knowledge management for the development of the knowledge society.

The outcome of the work is useful in various ways. Using the framework of the knowledge society ecosystem, it sets-up the "scope" that lays-out the issues where knowledge management can be used for the development of the knowledge society; and it specifies a suitable development "process" to be used for this purpose. It emphasizes the application of both: the scope and the process to the various levels of the society. Understanding the problem considered and knowing how to deal with it would support future practical work on different issues associated with the development of the knowledge society from which human, social and economic benefits can be achieved.

2. BACKGROUND AND REVIEW

This section is concerned with the first step toward exploring the issue of using knowledge management as a suitable instrument for the development of the knowledge society and the acquisition of its benefits. It provides a background on "knowledge management" and its potential as a "driving force" toward building and sustaining the "knowledge society." It considers the basic conceptual aspects of the terms: "knowledge," "management," and "knowledge management"; and it addresses recent publications on both knowledge management and the knowledge society.

2.1. Knowledge

The term "knowledge management" combines two important words; a view of these words would give a useful start. "Knowledge (K)" is defined by Oxford dictionary as the "theoretical or practical understanding" of objects (Flower & Flower, 1974)"; by Longman dictionary as "facts, skills and understanding that one gains through learning or experience (Longman, 2001)"; and by Webster's dictionary as "familiarity gained by actual experience" (Merriam-Webster, 1961), which includes "practical skills." In the eyes of the International Standards Organization "ISO," "information," which conveys knowledge, is defined as consisting of "facts, concepts and instructions" (ISO, 1984).

The acquisition of knowledge usually involves "cognitive" processes, such as: observation, perception, learning, communication, analyzing, comparing, reasoning, and other related activities. The result of such processes would lead to "confident understanding of a targeted object," and this is usually described as acquired knowledge (Wikipedia, n.d.).