The Impact of Knowledge Management System on Business Intelligence Optimization

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Abstract:
The importance of Knowledge Management is now being realized and businesses are starting to formulate strategies and to invest in systems that will enable them to manage their corporate knowledge. Beside to that, the systems optimization becomes a key issue for the organization. For that, new business intelligence systems demands new efficient and effective Optimization must be implemented to measure the success and to counteract erroneous trends, because of that, the researcher use the complex system measurement(CSM) as a tool to measure the optimization. The overall aim of my paper is to investigate the effect of knowledge management system on business intelligence optimization using the complex system measurement. This paper aims to provide a summary about what the researcher will do the research question and a brief idea about the research methodology.

1. Introduction:
The business environment is experiencing a shift from labor-based industries to knowledge-based industries where know-how and skills stand as "the only sources of long-term sustainable competitive advantage" (Davenport and Prusak, 1998). In the knowledge-based, innovation is driven by the interaction of producers and users in the exchange of both codified and tacit knowledge; the term "*knowledge-based economy*" results from a fuller recognition of the role of knowledge and technology in economic growth. Knowledge, as embodied in human beings (as *"human capital"*) and in technology, has always been central to economic development. But only over the last few years has its relative importance been recognized, just as that importance is growing As societies are moving towards an era where knowledge is recognized as one of the most important assets in the organization, organizations realize that "their competitive edge is mostly the brainpower or intellectual capital of their employees" (Liebowitz, 1999).
Market globalization, competition and the fast rate of technological development are having a direct impact on business organizations which are required to have the know-how that allows them to compete locally and globally. According to Kwang, et al. (1999) organizations know that in order to be in the top they have to view knowledge as an asset and manage it effectively. Indeed, many organizations are "turning themselves into knowledge specialists" (Drucker, 1988). For these organizations, knowledge management is an innovative management tool that enables them to benefit from the current interest in the subject in academia and practice as a new approach to development.
The center of attention in the theoretical section is the creation and sharing of knowledge in an MNC setting, and thereto-related aspects of knowledge management. In doing so, emphasis is placed on the shift from only using information technology to also creating organizational structures supporting interaction among employees to adapt better decision making and increase the capabilities, and above all improves optimization. In view of this, many organizations realize that in knowledge economy, there is a new approach to optimization improvement linked to their ability to engage in activities specifically designed to facilitate the creation and sharing of knowledge and the ability to translate it into new products development and services that enhance organizational optimization. In a fast-paced business environment, organizations in developed societies are striving to increase their market share and profit by making efficient use of their intellectual capital to generate competitive products and services.
The literature review focus on a number of real stories of firms resulting from the implementation of knowledge management working in business intelligence and data warehouse in Jordan filed. These companies benefited from knowledge Management practices in gaining competitive advantage and increasing their market share.
This paper presents the development of a framework for Improving Business intelligence Optimization through knowledge management structure and discusses findings from the application of the framework based on literature review about Business intelligence Optimization through knowledge management structure.

2. Problem and Research Questions:
Several researchers emphasize the important role of knowledge management in business intelligence (El Sawy, 2001; Fahey et al., 2001; Tsai et al., 2005). Garud and Kumaraswany (2005) argue that knowledge has emerged as a strategically significant resource for the firm. Accordingly, knowledge creation and transfer become key factors to gain and sustain a competitive advantage (Sambamurthy & Subramani, 2005). Business intelligence can create additional customer value through knowledge creation with customers (Kodama, 2005).

Based on research into leading business intelligence companies and their measurement practices, Plant, et..al, (2003) introduces approach to modifying the complex system measurement, applicable to the management of business intelligence units in which the customer perspective of the traditional complex system measurement is supplemented by the incorporation of four additional perspectives (data mining, Prediction, adaptability, and technology) that have been found to be critical to the development and execution of business intelligence strategies.
This approach facilitates a clearer understanding of the customer perspective, which consequently benefits the process of selecting the goals and measures associated with
The other three perspectives, improving the quality of the overall decision-making and managerial processes as a whole.
In the light of limited empirical work which captures the nature and essence of knowledge management and their effect on business intelligence optimization through complex system measurement, the researcher aims to identify the effect of knowledge management process on business intelligence optimization.
Depending on the above, the research questions will be as the following:
1. What is the impact of knowledge Identification on the business intelligence complex system measurement perspectives?
2. What is the impact of knowledge Generation on the business intelligence complex system measurement perspectives?
3. What is the impact of knowledge storing on the business intelligence complex system measurement perspectives?
4. What is the impact to knowledge distribution on the business intelligence complex system measurement perspectives?
5. What is their impact to knowledge application on the business intelligence complex system measurement perspectives?

3. Literature Review:

3. 1. Knowledge Management Process

Many theorists recognize that knowledge is the only source for economic development of knowledge societies arguing that in today's changing environment, organizations that can effectively leverage knowledge will be more efficient in gaining competitive advantage than those which focus on tangible assets. This calls upon managers to establish an organizational culture that encourages the creation, dissemination, sharing and utilization of knowledge for business improvement. Al- Busaidi and Olfman (2005) examined the effects of knowledge culture, organizational infrastructure, technical infrastructure, management support, vision clarity, reward policy, and economic return on optimization measures such as organizational efficiency, customer satisfaction, decision-making, quality improvement and financial benefits. Abu Khadegeh (2011)
The authors found evidence of significant correlation with knowledge management practice. Several studies relatively confirmed these findings (Hung et al, 2005; Skyrme and Amindon, 1997). On the other hand, Mason and Pauleen (2003) reported the findings a survey in New Zealand revealing five barriers that inhibit successful implementation of knowledge management including lack of organizational culture, management support, vision clarity, reward, and poor management practices. Al-Athari and Zairi (2001) found that knowledge management in Kuwait increases customer satisfaction and leads to increased organization's profit margin. The authors also found that the biggest problem was getting employees to share their knowledge. For it is the sharing of knowledge that will allow generation and transfer of ideas that enable resources to be used efficiently, and benefit the organization by increasing its profit margin and market share. Abu Khadegeh (2011)
A study conducted by Yahya and Goh (2001) in Malaysia revealed that knowledge management practices would result in improved work quality, organizational efficiency, better decision-making, up-to-date information and customer satisfaction. The authors also reported that the employee's approach to knowledge sharing is a major obstacle to knowledge management success. In fact, knowledge generated as a result of daily workflows this will enhance the organization's know-what. Largely contribute to the organization's competitive advantage. Indeed, knowledge management practices enhance organization's improvement and support innovation through ongoing integrating the internal process with external to increase the revenues.

Knowledge management can be defined as "leveraging" the intellectual assets of the company to meet defined business objectives (Sveiby, 1997). This definition brings an interesting issue: (KM) solutions should be measured according to the business objectives. Many pieces of research have taken place in the optimization measurement domain. A optimization system can be defined from three points of view (Shan, 1998):
Using the optimization measures to make adjustments to the course of an organization in order to achieve the vision of the company. It is a continuous and ongoing process that begins with the setting of objectives and the development of the mission and vision.

3.2. Business intelligence Optimization

Optimization measurement system allows not only monitoring of the business optimization according to the business objectives but also assess the optimization in comparison with similar company optimizations by benchmarking. However, knowledge within the business context can fall with the spectrum of explicit knowledge and tacit knowledge.
The information technology enables knowledge management, and knowledge management improves firm optimization. From this point complex system measurement (CSM) as a new management system seems to be the approach for the demands of an business intelligence Optimization.
With the new business intelligence systems the demands have changed and new efficient and effective Optimization must be implemented to measure the success and to counteract erroneous trends. The influence of business intelligence is wide spread and brings changes in different fields:

- Business processes are optimized and should bring cost cutting effects.
- Improved customer satisfaction.

With the new information technology (IT) new systems are installed and the skill profile of the employees increased their knowledge by training.

3. 3. Knowledge Management Process & Business intelligence Optimization

(Hendriks et al, 1997) developed a framework in which companies can measure their current situation with respect to intellectual capacity and related management structure: (Roy et al, 2000) proposed a framework to develop optimization indicator for knowledge management solutions as a present business manager often identified that some knowledge must be solved in order to improve the optimization of the organization.
Managers are trying to uncover which specific business contributions are down to knowledge solutions. By knowing the real contribution of those knowledge processes managers obtains information about the achievement of the business objectives and on the other hand a clear relationship between the knowledge management and the business improvement (Chamorro, 2003). Managers use optimization measurement to monitor key issues in business. These measures provide the most relevant information of the company. Showing managers how business is performing.
Knowledge management strategies are more likely to be successfully implemented if a optimization-based approach is adopted that explicitly shows the interactions between knowledge management initiatives and a set of optimization measures (Carrillo et al, 2000) suggested that knowledge management could be integrated into key optimization indicators, and other optimization measurement approaches.
Several researchers emphasize the important role of knowledge management systems in business intelligence (El Sawy, 2001; Fahey et al., 2001; Holsapple & Singh, 2000; Malhotra, 2000, 2002; Plessis & Boon, 2004; Singh et al., 2004; Tsai et al., 2005). Garud and Kumaraswany (2005) argue that knowledge has emerged as a strategically significant resource for the firm. Accordingly, knowledge creation and transfer become key factors to gain and sustain a competitive advantage (Sambamurthy & Subramani, 2005). Business intelligence processes can create additional customer value through knowledge creation with customers (Kodama, 2005). Plessis and Boon (2004) argue that the knowledge management value proposition with reference to business intelligence is not very different from the generic value proposition of knowledge management.
Knowledge-based competition. In this era, an organization must be able to secure various types of knowledge assets and maximize their strategic value. To do so, many organizations have begun to re-examine and rearrange their business strategies, process, information technologies and organizational structures from a knowledge perspective. This task has been complicated in the Internet-enabled business environment. With the advances of Internet and technologies, the worldwide economy is fast changing. Lower cost, customized product/service and quick response have become the critical success factors for

most businesses. More and more competing firms are adopting collaborative work and knowledge management to create and maintain these critical success factors. Collaborative works within an organization and between organizations can not only share the work based on each member's expertise, but also achieve a seamless information flow among the collaborative team members. Such sharing of knowledge has proven to improve productivity and decision quality of the participating organizations. In order to have effective collaborative work in electronic business, the management of knowledge is essential and critical (Li & Lai, 2005).

Malhotra (2002) studied ways of enabling knowledge exchanges for business intelligence communities, arguing that unsuccessful attempts of e-commerce models have increased interest in online communities as critical enablers of business intelligence success. Collaborative technologies need to account for the dual nature of knowledge management processes. The dual nature defines KM in terms of KM by design (such as corporate intranets) and KM by emergence (such as communities of practice). Applications of traditional collaborative systems such as group support systems, shared calendaring applications and document management systems belong to KM by design.

Malhotra (2002) argues that there is a greater need for understanding how collaborative technology applications can support KM by emergence that is necessary for business model innovation. KM by emergence is characterized by creation of cultural infrastructure for enabling continuous knowledge sharing, knowledge renewal and knowledge creation.

Malhotra (2000) also posits that advancing IT strategy to Internet time is needed. Strategic IT planning must focus on knowledge management for e business optimization. There is a need for synergy between capabilities of advanced information technologies and human creativity and innovation to realize the agility demanded by emerging business environments.

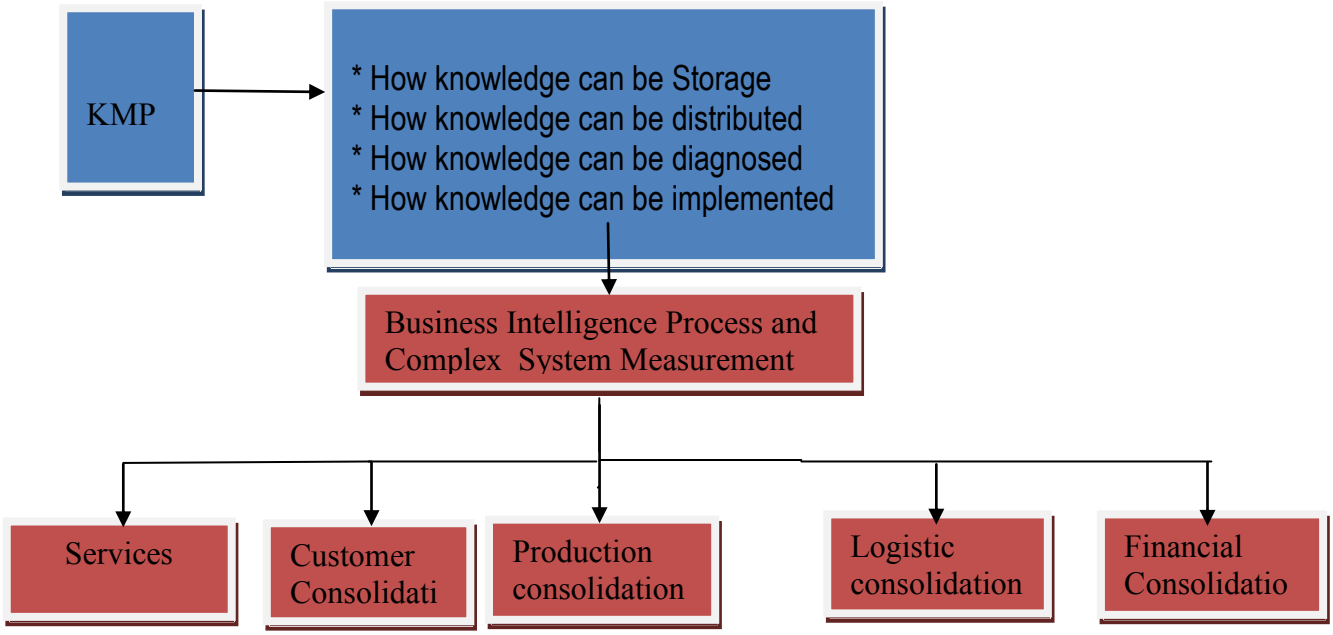
4. Research methodology:

The aim of this research is to propose a conceptual model describing an Integrated Model for KM process and the business intelligence optimization. Therefore, Quantitative research is employed in the study hypothesis that must be proved or disproved. This research begins with a presentation of the research model about the topic of the relationship between knowledge management and business intelligence optimization, then with the specific hypotheses that can be tested Also, Collect related data to address the hypotheses; This ultimately enables us to test the hypotheses with specific data that could result in confirmation or verification of our original theories drawing on the whole research approach with deductive trait. Quantitative research approach tends to support the Positivism philosophy. The researcher will use questionnaire and uses the statistical techniques to identify facts and causal relationships among variables.

On the other hand, the researcher uses the complex system measurement for the purpose of optimization measurement. Beside to that,

the complex system measurement used to focuses on the vision and the strategy of the organization, which make the researcher use the Qualitative method in the research. The suitable way is to make interviews with the top level management which concern about the vision and the strategy.

Typical descriptive studies are concerned in the assessment of attitudes, opinions, demographic information, conditions, and procedures. The research design chosen for current study is the literature review This model work by answering five questions shape the strategic perspective of Jordanian banks, and to identify strategic objectives which seek to achieve in the future, and the role of Knowledge Process as an effective element in this framework and supportive of the management activities at Jordanian banks, and this perspective has been reached it through the Banks mission or future plans and objectives identified in the plans at various levels. The philosophy of the model based on the principle of verification for each phase should be completed within the framework of Business intelligence Optimization Scorecard designed for the purposes of optimization measurement and coherence required for each of the indicators adopted, as is the vision of the banks to a group of strategic objectives and in accordance with the four perspectives (financial, customer, internal processes, learning and growth), which make up the designed card, which contains a set of measures (indicators) established for each perspective, and aims to determine the level of optimization of the banks for his activities as a prelude to pointing the weaknesses and imbalances in order to avoided and promote the positive aspects of optimization in line with the strategic objectives and to reach an interim target of organizational success of the reality of the banks and its future strategy.



This framework the result by answering five questions from the general perspective of Jordanian complex companies, and to identify strategic objectives which seek to achieve in the future, and the role of Knowledge Process as an effective element in this framework and supportive of the management activities at Jordanian complex companies, and this perspective has been reached it through the mission or future plans and objectives identified in the plans at various levels. The principle of the model based on the verification for each phase should be completed within the framework of Business intelligence Performance complex system measurement designed for the purposes of performance measurement and coherence required for each of the indicators adopted, as is the vision of the companies to a group of strategic objectives and in accordance with the all perspectives (financial, customer, services, internal and external logistics).

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