

## **Facilitating Global Economy Process through Human Resource Re-engineering and Knowledge Management**

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### **Abstract**

*Finding the nexus between human resource re-engineering and knowledge management is vital in facilitating the economic process. This is due to the need for the knowledge management system to be in place as the component in the new training system that is skill-enhancing. To achieve this, three approaches of re-engineering process have to take place namely thinking capital improvement based on business process re-engineering, changing organizational values based on knowledge management categories and outcome approach to training. To play a major role in human resource re-engineering in knowledge management, there is a need to attend to the whole scenario encompassing the concept of providing education or learning on demand, leveraging information and expertise to improve organizational innovation, responsiveness, productivity and competency. Additionally, factors concerning critical knowledge management can be identified as culture, management, incentives and measurements of cost and service. It is very clear from the various implementation on case studies that by applying good management framework and expediting improvement in innovations; productivity and competency have been achieved by major organizations through adopting re-engineering, re-tooling and re-literating the human resource. Furthermore, it has become a crucial requirement in facilitating the organizing, gathering, structuring, analyzing and making information available for decision makers to devise and implement various economic development programmes. This paper reviews the components of knowledge management that emphasize knowledge environment concepts with leading organizations which will enable new paradigms for assessing and measuring the country's economic empowerment in the global economy. The salient features described in this paper also cover knowledge management, knowledge categories, knowledge types and strategic business objectives in which knowledge management plays a leading role in the years to come in promoting global economy.*

**Keywords:** human resource, knowledge management, re-engineering

### **Introduction**

The purpose of this article is to examine some of the issues in the relationship between re-engineering and knowledge management for the making of a global economy. Both re-engineering and knowledge management are seen as basic processes being used to manage a particular environment in order to improve processes and create value from the processes. Although, re-engineering is focused with changing processes to make use of the available technology, there are inevitable interactions between human resource re-engineering and knowledge management.

Usually, knowledge management and re-engineering in economic science are not used in the same settings, either simultaneously or sequentially (O'Leary, 1999). This paper presents the argument that greater improvement and value creation could occur in the process of re-engineering and then knowledge management factors which then develops the world economy.

Re-engineering is distinguished as a combination of changes in organization and concerning about who performs a given process with those using the output performing the process of change (Malhotra, 1998). Early in the 21<sup>st</sup> Century, everyone knows that the global economy is increasingly knowledge-driven. If there is most characterizes the competitive features of the world economy today, then it is the global race for knowledge. These factors pertain to specific attributes of 'knowledge', the role of networking as a one of the most important of knowledge management is implemented in human resource re-engineering, the value of knowledge and networking, and the impacts on workplace (O'Leary, 1999).

While scholars and observers similarly can differ on the actual role of knowledge, everyone agrees that we have already embarked on a transformation of such pervious important information and data for reengineering economic parts that it may be compared to different period of time. The enhancing of efficiencies in information management, the management of knowledge is rapidly assuming the status of core competence for institutions and enterprises, key to the performance of governance at all levels, and central to the efficacy of individuals (O'Leary, 1999). The new possibilities for knowledge generation and knowledge sharing, and greatly expands the potentials for knowledge distribution. The use of the re-engineering, as a technique of "strategic self-improvement," within the competitive and financial context, needs to be qualified by organization culture as a key contingency in knowledge management. A lot of organizations have significantly changed their business processes in order to remain competitive in the global market. Such process improvements are obtained mainly by business process reengineering (BPR) efforts (Iles & Sutherland, 2001).

### **Re-engineering the human resource**

Based on Georgeta (2009), re-engineering has been defined that the power of modern information technology to radically redesign our business processes in order to achieve dramatic improvements in their performance. There are two basic approaches to reengineering, the obliteration approach and the best practices approach. Consistent with Hammer (1993), the obliteration approach seeks to start from ground zero and build the right processes. Hammer elaborated seven basic principles of re-engineering that are useful in analyzing how re-engineered systems differ from their predecessors:

- (1) Have those who use the output perform the process
- (2) Organize around outcomes, not tasks
- (3) Subsume information processing work into the real work that produces the information
- (4) Rapture information once and at the source
- (5) Put the decision point where the work is performed
- (6) Treat geographically dispersed resources as though they were centralized
- (7) Link parallel activities instead of integrating their results

Hammer and Champy (1993) defined re-engineering as "the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance such as cost, quality, service and speed" (p. 32).

Several organizations have significantly changed their business processes in order to remain competitive in the global market. Sometimes in the context, made by multiples changes that occur, has forced decision makers to undertake strategies of reengineering, restructuring and downsizing. They mentioned, logically BPR and restructuring are the inevitable consequence of external exigencies. So, BPR and restructuring are forced strategies associated with asset to use of rates and cost reduction.

In 2009, Georgeta asserted that the re-engineering cannot be done without appropriate capability, well-trained and properly motivated managers. Eventually, they are a key strategic asset to the enterprise in human resource re-engineering. In that way, the following roles such as thinkers and planners, leaders, visionaries, managers of quality and service, agents of change, sources of continuity and stability in times of change,

reservoirs of knowledge and experience, competitors, entrepreneurs, cultural exemplars, human resource managers, centers of individual personal excellence; mentors and coaches; arbitrators and disciplinarians; controllers and stewards; guardians of standards and ethics should be performing within the specific culture and context of the organization. Additionally, managers as an individual and a collective basis can add value to customer and enterprise in a manner which is unique to that enterprise, and that cannot be copied by competitors (Georgeta, 2009).

### **Knowledge management adding the economic values**

Based on Webster's dictionary, to "know" is to "hold something in one's mind as true or as being what it purports to be"... "implies a sound logical or factual basis". By extension, knowledge refers to the "fact or condition of knowing something with familiarity gained through experience or association; acquaintance with our understanding of a science, art, technique, condition and context (Choucri 2007). In 2007, Choucri asserted that the power of knowledge is, fundamentally, the power of leverage and influence derived from the provision, access, diffusion and expansion of knowledge – as well as its utilization. This composite leverage is contingent on the interaction between the content of knowledge and the value of knowledge and both are significantly enhanced by knowledge-networking practices made possible through innovative uses of cyber venues (Hendler, 2005, Choucri, 2007 & O'Leary, 1999).

The present definition on knowledge broadly tends to use a set of terms interchangeably, like manpower resources, human resources, human capital, intellectual capital, manpower, and combinations of them. According to Choucri (2007), some of identified factors are difficult to understand in the knowledge management process. Among the important factors are (a) the nature of knowledge as an intangible; (b) the codification of content capturing the meaning of knowledge; and (c) the utilization of knowledge by individuals and/or institutions. Among the most fundamental attributes of knowledge as an intangible, is that its acquisition and utilization follows a law of increasing returns.

Critical feature knowledge as an asset is its input into the nature of economic and social relations. By now everyone recognizes the contributions of advances in information technology to the entire process of knowledge creation, production, distribution and diffusion. Even though, similarities are being drawn between the properties of 'knowledge' and those of 'environment' – not only in terms of their 'elusive' nature, but equally important in terms of the challenges in capturing their essence for a wide range of purposes as an instrument of leverage and power, as an asset and a resource and as an instrument of policy (Hendler, 2005; Choucri, 2007).

What is the content of knowledge? It can be gone without saying that the content of knowledge is highly variable in nature, character, scale and scope. From the perspective of economists, knowledge is a privately produced public good. Choucri (2007) elicited that knowledge supplied to one person is available to others at no added cost (i.e. non-rival consumption), and the producer of knowledge cannot prevent anyone else from consuming it (i.e. non-excludability). This attribute is a property of knowledge; it does not mean that knowledge is produced or owned by the public sector. While it is privately produced by individuals the supporting and enabling conditions are more and more connected to, and contingent upon, available organizational and social mechanisms, as well as the communication and infrastructure systems in place.

Investigation of the critical role of human capital or in any aspect of knowledge development, provision, and distribution are the useful evidence of the increasing knowledge intensity of economic activity in industrial countries reinforces what has become close to a new orthodoxy, namely that knowledge matters and so does technology. Precisely how and in what way remains unclear (Choucri, 2007). In this connection, the concept of the "knowledge economy" has gained considerable circulation. As Foray noted in *The Economics of Knowledge* (2004), knowledge economy is one in which "... the proportion of knowledge-intensive jobs is high, the economic weight of information sectors is a determining factor, and the share of intangible capital is greater than that of tangible capital in the overall stock of real capital" (Foray, 2004). By definition it is also one in which there is enhanced access to knowledge in all of its form and to knowledge bases.

The concept of knowledge chain in the nature of a proposition is that it consists of the value-added to the content of knowledge created by the institutional and managerial activities and functions that protect and enhance knowledge-items and thus increase its overall 'worth'.

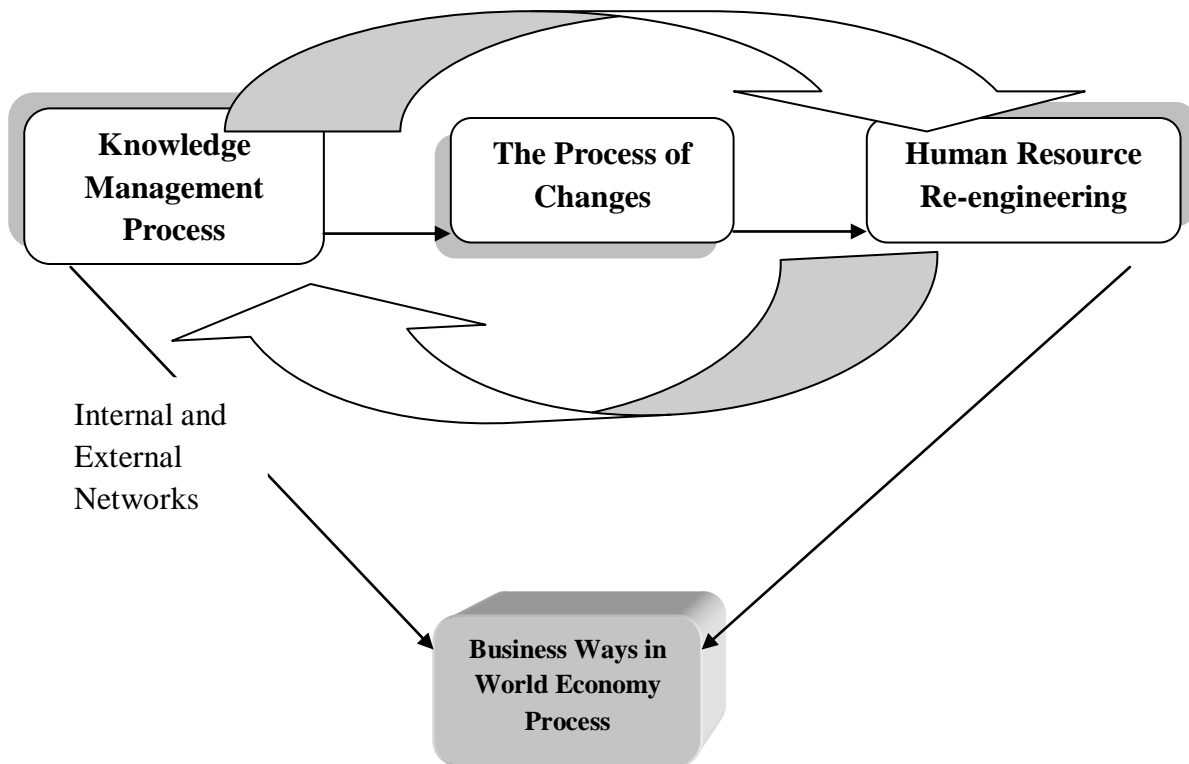
Given that knowledge can no longer be viewed simply as a ‘residual’ companion to the proverbial ‘technology factor’ in the production function in economics. Then, it is now recognized as central to economic performance and that in some sectors it is a driving force. The global race for knowledge, distinguished earlier, leads us to understand that learning how to gain the power of knowledge requires us to learn about knowledge and about how to generate knowledge of relevance (Choucri, 2007).

**Knowledge management support in the re-engineering process**

O’Leary (2000) asserts that knowledge management systems and artifacts are being set up to support re-engineering processes increasingly. Such substantial re-engineering is going on in the development and implementation of enterprise resource planning (ERP) systems. Knowledge management systems are being developed to support use and development of the ERP systems; and reports from ERP databases are being developed and put on Intranets as a means of distributing information.

If a knowledge management system is developed for a process it will be designed to provide information to the existing process (O’Leary, 2000). He further stated that if the system is re-engineered that can change on the processes involving how to do, who does what tasks and who needs what information and data. While, the knowledge management system is prepared into the process, then the changes have to come into the system. Consequently, re-engineering will change the requirements of the knowledge management system, and hence, requiring re-design. Accordingly, re-engineering the human resource comes first, followed by knowledge management as presented in the framework below.

Before the term knowledge management (KM) surfaces, many organizations examined alternative ways of doing business (O’Leary, 2000). Information and communications technology (ICT) has extended their internal and external networks, which enables different and more flexible arrangements with staff, suppliers, and customers.



**Figure 1 : The Conceptual Framework**

Since the turn of the new century, Abell (2000) stated that management themes have developed and have been explored in the first half of the decade. Crucial factors have been particularly influential in changing the way people as human resource and organizations work.

These are the re-engineering processes encompassing total quality management, business process re-engineering, intangible assets, learning organizations and knowledge management. The growing demand for knowledge-based products and services is changing the structure of the global economy that points to the role of knowledge in achieving competitive advantage is becoming an important management issue in all sectors.

Scholars believe that knowledge is increasingly taking a front seat to the traditional factors of production, that is, physical and fiscal assets. Therefore, the gap between a company's market value and its tangible asset value is expanding. This is the key variable explaining the gap in a firm's stock of knowledge. Unlike land, labour, and capital - the economist's traditional, finite factors of production, knowledge and ideas are infinite economic goods that can generate increasing returns through their systematic use (Kim & Mauborgne, 1999; Amlus et al., 2001). Subsequently, the world economy has been rapidly shifting into an era of the global workforce that is unparalleled in history. While, economies continually move towards global networking, the need for integrative multidisciplinary research on service innovations has become critically important.

Peters (2001) claims that to identify characteristics has recently helped the shaping of national policy constructions of the 'knowledge economy' in the West (United States of America, the UK, Ireland, Australia, Canada and New Zealand) and in the developing world (most notably in China and Southeast Asia). For instance, in the 1998 white paper issued by the UK's Department of Trade and Industry 1998, it acknowledged the fact that knowledge was included by the World Bank as a theme in its 1998 World Development Report. For countries in the frontline of the world economy, the balance between knowledge and resources has shifted so far towards the former that knowledge has become perhaps the most important factor in determining the standard of living. Although charting the ways in which education and technology are now viewed as central to economic growth, it is not specified how knowledge gathering occurs and thus cannot acknowledge externalities. They also fail to consider human capital, such that education has no direct role. Solow (1956, 1994) said that, in contrast, new growth theory has highlighted the role of education in the creation of human capital and in the production of new knowledge. As a result, it has explored the possibilities of education-related externalities.

Scottish Office (1999) released a white paper entitled Targeting Excellence: Modernizing Scotland's Schools (<http://www.scotland.gov.uk/library/documents -w6/edsp-00.htm>) which stated that knowledge economy would pose challenges and opportunities, knowledge and know-how, besides buildings and machinery, as the most valuable assets of business. Also, the speed at which information can cross the globe, the sophistication of modern products and services, and the sophistication of the modern consumer all point to increasing globalization of the economy, and to increasing customization of goods and services to meet the individual's needs as human resources. Consequently, application of re-engineering to enhance innovation, fresh thinking, attainment and application of knowledge management and high levels of customer awareness are likely to be among the critical factors in achievement in the future. A number of countries that have encouraged their people through education and life-long learning and by investing heavily in research and development (R&D) are well positioned to take advantage of these new global markets. Australia, Finland, Ireland, Canada, Singapore, and the United States are countries which have embraced the knowledge economy (Peters, 2001, <http://www.knowledge.gen.nz/>).

### **Managing human resource re-engineering process**

In its contribution to managing unemployment and its intensification of work processes, Willmott (1994) reiterated the significance of human resource management specialists in responding to the challenges of BPR (Business Process Re-engineering). It could be viewed that professional understanding of the distinctive qualities of human resource was to be applied to ease the passage for the change management which is conflict-ridden in terms of its effects upon employment. Additionally, there has been the concern to synergize the individuality of the human resource. He mentioned that challenging the pressures to reduce human beings to commodities has to be the role undertaken by human resource management specialists to engineer the use of their specialist knowledge of the 'human resource' to represent as well as to develop and apply their expertise in ways that expose and explore the basic conflicts between a system driven by impersonal imperatives for profit and growth.

Amlus et al. (2001) reiterated organizational knowledge to be reckoned as a valuable strategic asset. In order to remain competitive, an organization must efficiently and effectively create, locate, capture, and share knowledge. Hence, knowledge management expertise has the obligation to apply that knowledge to solve problems and exploit opportunities.

As more firms begin to incorporate knowledge management into their overall business strategy, many are showing incredible interest in implementing knowledge management processes and technologies for human resource. Despite the fact that knowledge management is gaining wider acceptance, few organizations today are fully capable of developing and leveraging critical organizational knowledge to improve their performance that can re-engineer human resource. Many organizations are so complex that knowledge is fragmented, difficult to locate and share, and therefore redundant, inconsistent, or not used at all (Amlus et al., 2001). A knowledge economy is defined as an economy in which the creation of wealth is predominantly driven by the use or exploitation of knowledge. In order to survive or quickly adapt with the new economy there is an urgent need for a nation to enhance its capabilities by building its strategy around knowledge management theme.

### **Conclusion**

In today's environment of rapid change and technological discontinuity for facilitating world economy, even knowledge and expertise that can be shared often quickly becomes obsolete. Therefore, knowledge management has more detailed than intellectual capital management and it focuses on facilitating and managing knowledge with related activities, such as creation, capturing, transformation and use of knowledge in global economic era. Through applying a good management framework, fastening improvement in innovations; productivity and competency has been achieved by major organizations through the adoption of re-engineering, re-tooling and re-literating the human resources. Meanwhile, facilitating in organizing, gathering, structuring, analyzing and making information available for decision makers to devise and implement various economic development programmes that make for improving the economy of the new millennium is greatly required.

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