

# KNOWLEDGE MANAGEMENT TOOLS: RECOGNITION FOR THE SUPPORT TO HEALTHCARE PRACTITIONERS

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**Abstract—** *Health Care Management is the fastest growing economics areas in the past 20-30 years. But at the same time, the field faces overwhelming challenges such as financing the growing offerings with scarcer funding, new technologies, and changes in the physical environment. These may affect patterns of consumption (utilization of assets and resources), the distribution of incomes and wealth, the way in which people behave (in terms of making decisions, the way in which they choose to spend time on completing task) and the overall quality of life. These challenges can be overcome if knowledge is managed as a strategic resource<sup>1</sup>. Past researchers show that there is direct relationship between new ideas and human capital. As a result, investment in human capital led to growth in economic capital. The paper discusses about incorporating the tools and techniques in executing knowledge management processes in healthcare in order to make healthcare delivery more effective and efficient, and thereby maximize the full potential of all healthcare knowledge assets. The research question is “Is it a good job to put importance on Knowledge Management tools and techniques which encourages creation, use and sharing of knowledge in healthcare?”*

**Keywords—** *Healthcare Organizations, Healthcare Professionals, Knowledge, Knowledge Management, Knowledge Management Tools*

## I. INTRODUCTION

Healthcare workers can be thought of in terms of very sophisticated knowledge workers (Wickramasinghe, 2000). Like other knowledge workers, physicians “make sense” of this wealth of knowledge (Borghoff & Pareschi, 1998), they own the means of production (i.e., their specialized knowledge), they possess specialized skills and training which they have acquired by investing significant resources towards their education, and they make decisions that have far reaching consequences both for their organizations and their patients (Wickramasinghe, 2000).

As the stakeholders of the healthcare organizations, the healthcare workers faces the challenges such as lack of knowledge and appreciation of the roles of other health professionals, the need to make compelling arguments for team

building to senior decision-makers, hierarchical administrative and educational structures that discourage interprofessional collaboration, lack of appropriate mechanism for timely exchange of information, lack of framework for problem discovery and resolution, reluctance to accept suggestions from team members representing other professions; and lack of trust in the collaborative process.<sup>2</sup> (Grant RW, Finocchchio LJ, and the California Primary Care Consortium Subcommittee on Interdisciplinary Collaboration. (1995). Interdisciplinary Collaborative Teams in Primary Care: A Model Curriculum and Resource Guide. San Francisco, CA: Pew Health Professions Commission, 1995.) Hence the researcher attempts to find out the solution in terms of knowledge management tools to solve these challenges of healthcare workers.

## II. KNOWLEDGE

Following Davenport and Prusak (2000): "Knowledge is a fluid mix of framed experiences, values, contextual information and expert insight that provides a framework for evaluating and incorporating new experiences and information." Knowledge originates and is applied in the mind of individuals, whereas in organizations it can be embedded in routines, processes, practices, and norms. .

Knowledge can be split into two types: explicit and tacit (Polanyi 1997 and Nonaka and Takeuchi 1995). Tacit knowledge is held by experts, having topic specific as well as cognitive skills that contain patterns of thought or notions, beliefs, institution and mental models. Explicit knowledge can be articulated in an artifact of some type outside a human being and be transferred e.g. to non-experts. Explicit knowledge is rational and includes theoretical approaches, problem solving, manuals, and databases. The transfer of knowledge from tacit to explicit or explicit to tacit can be viewed as a continuous learning process becoming the so-called knowledge spiral (Nonaka and Takeuchi 1995; Senge 1990).

### III. KNOWLEDGE MANAGEMENT

In recent years Knowledge Management (KM) practices and Intellectual Capital (IC) as an asset became more and more important in the world economy. KM is not only a science but also an economic sector, made by practitioners<sup>3</sup>.

Knowledge can be the most valuable resource in any society. It empowers us to think, evaluate, analyze and act. Without knowledge development, the potential for progress is greatly limited. People must therefore be innovative in creating and sharing knowledge with one another, through knowledge management practices that recognize the value of knowledge in various forms.

Knowledge is also a key to economic development and sustainability (Rooney *et al.*, 2008). People have always shared knowledge with one another and applied it in an economic context. With the development and the introduction of the knowledge economy, knowledge management has become an important scientific concept in organization and management theory, and many disciplines have laid some claims to it. For instance, the re-discovery of knowledge as a means for gaining a competitive economic advantage in business has been evident mostly in commerce and industry.

The knowledge management trend has developed into a discipline with many applications, including the areas of sustainability and economic development. As such, it is considered in terms of both a business practice and a theoretical field of study (McInerney, 2000: 1009). Both the theory and the practical applications are still in the development stage, with many different descriptions and working definitions of knowledge management (Dalkir, 2005). According to the authors, McInerney provides the best working definition of knowledge management:

“Knowledge management is an effort to increase useful knowledge within the organization. Ways to do this include encouraging communication, offer[ing] opportunities to learn, and promoting the sharing of appropriate knowledge artifacts” (2000: 1014)

Based on this working definition, it is possible to separate the following main variables within knowledge management discussion: 1) Internal and external intellect; 2) Creating, culturing and capturing; 3) organizing, storing, accessing, sharing, transferring; 4) Facilitating, motivating, synergizing; 5)

tracking, monitoring, measuring, evaluating, managing; and 6) using, reusing<sup>4</sup>.

### IV. RELEVANCE OF KNOWLEDGE MANAGEMENT IN HEALTHCARE SECTORS

The public healthcare system is knowledge intensive environment<sup>5</sup>. The employees in this environment are knowledge workers who are involved in a high-tech industry and high-level work, involving the creation, sharing, transfer and application of knowledge. Healthcare practitioners and managers increasingly find themselves in clinical situations where they have to think fast and process many diagnostic test results, medications and past treatment responses in order to make decisions. Effective problem solving in the clinical environment or classroom simulated lab depends on a healthcare professional's immediate access to fresh information. Unable to consult a library for information, the healthcare practitioner must learn to effectively manage knowledge while thinking on their toes the very nature of which implies the knowledge-intensive nature of the employees' work.

The health of a population is influenced by both its social and its economic circumstances and the health care services it receives<sup>6</sup>. By combining a theoretical background with practical experience, health care management trainees are able to learn the crucial skills. Development is possible only if the proper understanding is available. It let people to play a part meticulously if the appropriate knowledge is available to them. Knowledge leads to innovation that further improves the efficiency of firms to function.

Knowledge and knowledge management is significant to development sectors on the basis of<sup>7</sup>

1. Sense of association for a specific group of people which make it productive view for knowledge sharing but are given less importance.
2. Knowledge is applied as a critical prerequisite to tackle urgent situations or to support people for their better living.
3. To do away with reinventing the wheel.
4. Concerning community growth tendency and their balanced requirements which need to be taken into account in an understanding of socio-economic development view.

## V. PROBLEMS IN HEALTHCARE THAT MAKE IMPACT ON ECONOMIC PERFORMANCE

The causes of the disparity in various provinces are inclined towards population growth, illiteracy, lack of basic infrastructure, poor governance<sup>8</sup>. Underdevelopment is when resources are not used to their full socio-economic potential, with the result that local or regional development is slower in most cases than it should be.

The other reasons for underdevelopment are an absence of precise information, absence of skills, corruption and a lack of political will<sup>9</sup>, high levels of unemployment; over population and low standards of health; lack of technological skills; inadequate growth in national income; lack of external resources<sup>10</sup>.

The growing government health costs, however, are the direct result of a larger economic problem. Economies are further becoming dependent upon effective gathering and utilization of knowledge and the creation and sharing of knowledge are rapid in the new economy.

**Following are the tools which will be used in each of the KM variables listed Below.**

Sr. No.	KM Variables	Non-IT Tools	IT Tools
1)	Internal and external intellect	Customer complaint desk, Mind Mapping, <sup>4</sup> Brainstorming, Learning and Idea Capture, <sup>9</sup> External knowledge sharing, Internal knowledge capturing <sup>12</sup>	Communities of practice, Electronic chat rooms, Video Conferencing, Audio Conferencing, Wikis, Social Networks, Knowledge map <sup>9</sup>
2)	Creating, culturing and capturing	Traditional R & D, Documentation of tacit knowledge, <sup>4</sup> Lessons learned, Mentoring and apprenticeship <sup>4</sup>	Knowledge Bases, Collaborative virtual workspaces, Expertise Locator <sup>9</sup>
3)	Organizing, storing, accessing, sharing, transferring	Peer Assist, Story Telling, Collaborative physical workspaces, Mentor-Mentee scheme <sup>9</sup>	Document libraries, Social networking services, Video sharing, VOIP,
4)	Facilitating, motivating, synergizing	Process ownership, Team learning including dialog, Employee innovation program and productivity awards, Incentive system	Communities of practice, Electronic chat rooms, Video Conferencing
5)	Tracking, monitoring, measuring	Learning history, process documentation, After Action review,	Knowledge scorecard, KM Assessment tool, Process documentation. <sup>4</sup>
6)	Using, reusing	Action learning, transfer of best practice, <sup>3</sup> process documentation <sup>3</sup>	Knowledge bases, knowledge portal

## VI. SOLUTIONS IN TERMS OF KNOWLEDGE MANAGEMENT

Knowledge management tools enable organizations tackle all the problems related to knowledge management more effectively at reduced costs. Also, these tools help to leverage the collective knowledge and experience of an organization to accelerate innovation and sharpen competitive advantage.<sup>11</sup>

Economic development in the information age requires better use of information and knowledge. It requires unlocking the information and knowledge assets of a community as the driver of local economic development. It also requires unlocking the hidden information and knowledge about a community and about the process of economic development.

The factors such as diffusion of knowledge, multiple networks, creation of opportunities for organizational learning, greater collaborations, gathering and utilization of information and knowledge, sharing of knowledge, development of a strategic know how. All these determine the socio-economic positions of industry, business organizations and firms.

The tools and techniques of Knowledge Management can help healthcare practitioners face this new environment. Healthcare practitioners can use KM tools to uncover local information assets, to enhance the external communications, and can also promote the use of KM tools and techniques to help local businesses capture and utilize their knowledge and information assets.

KM tools and techniques can be used by economic development practitioners and entrepreneurial activities that can serve as the bases for future economic development. Finally, economic development practitioners can use these tools to enhance knowledge sharing among key members of the community and to capture and share tacit knowledge within their own organizations.

To improve the implementation of techniques the following suggestions are provided<sup>13</sup>:

1. Promote ICT literacy through training programs that teach people to locate and evaluate the quality of information, store and retrieve information, make effective use and ethical use of inform and apply information to create and communicate knowledge (UNESCO, 2008). For example, InfoLit, a South

African initiative, helps to promote IL to key regional players and recommends one-time and continued user education programs (Lau et al., 2007).

2. Utilize Internet and e-mail technologies to foster community and communication via discussion groups, mailing lists, interactive websites and live chats.

3. Invest more financial resources in R & D activities, which would positively expand Africa's wealth creation beyond the export of its raw materials.

4. Develop metrics for outcome assessment of knowledge management practices.

## VII. CONCLUSION

Knowledge management can be a powerful tool in economic development in healthcare but only if we can explore the power of knowledge to the unique needs of economic development activities. These tools will also help the healthcare practitioners to take the faster decisions. Healthcare organizations need to learn and experiment with these tools and techniques for economic development. It will be a good job to put importance on Knowledge Management tools and techniques which encourages creation, use and sharing of knowledge in healthcare. Healthcare practitioners should be encouraged and supported in their efforts to use and tailor these tools to meet their own needs and be encouraged to share their successes and failures.

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