Knowledge Management for Competitive Advantage During Economic Crisis

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Chapter 13
The Quest for Economic Recovery:
Innovative Development and KM Perspectives

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ABSTRACT

Most organizations respond to an economic crisis by focusing on operational efficiency and/or on intellectual capital utilization and innovation. The conjecture is that intellectual capital confers distinct competitive advantage to an enterprise via knowledge management and knowledge spillovers and improved innovation capacity. Despite mixed empirical evidence to support this claim, intellectual capital and knowledge management remain at the forefront of an organization's agenda during an economic downturn. Recent surveys from the field indicate some dissatisfaction with practical knowledge management. These findings are difficult to interpret because at the same time organizations appear to adopt the position that management of knowledge resources is extremely important from a strategic perspective. The objective of this chapter is to provide some new perspectives on what drives success in the knowledge economy and to demonstrate how knowledge management is the ideal response to the challenge of innovation.

INTRODUCTION

The greatest challenge that businesses, markets and countries are facing today is the continuing international financial crisis (Pressman, 2011). In order to assess the impact of the crisis on economic performance, there is a need to clarify the concept and identify its structural characteristics by borrowing elements of systems theory.

In any complex system, a crisis is a period during which the system functions poorly (but does not break down); an immediate corrective action is necessary to stop further disintegration of performance; and yet the causes of the dys-

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function are not known (or are so many) that it is difficult to take an informed decision to reverse the situation (Dayton, 2004).

In systems theory, an "attractor" is a subset of the state space of a dynamic system, i.e. a set of physical properties towards which a system tends to evolve, irrespective of any starting conditions. Parameter values that get close enough to an attractor remain close even if slightly disturbed. A crisis is the sudden appearance of a new "attractor" or the disappearance of an existing one. The parameters of a dynamic system converge towards the new attractor or diverge away from their previous values leading to a qualitatively different behavior. In general, crises result in discontinuous changes in the attractor, and different types of crises may be distinguished on the basis of the different types of changes that they induce (Ruelle, 1981).

While crises are unexpected and of an unknown cause, the dynamics of the system may exhibit slow transients over time before parameter values exit the neighborhood of the old attractor. This is the primary reason why the onset of crisis conditions is rarely recognized early and certainly not before system performance is seriously degraded (Santella et al. 2009).

More broadly, crises are defined as non-routine events that create high levels of uncertainty and are perceived as threats to an organization's goals (Seeger et al. 1998). At the organization level, crises are thought of as imposed processes of transformation when the old system can no longer be maintained and there is a need for change. (If change is not needed, the crisis has led to systemic failure.)

In this context, an economic crisis can be described as a period of dismal economic performance for a business, a market or a country. The economy is a very complex system, and for it to dysfunction, the transient conditions have to be present over a long period of time. While an economic crisis is perceived as part of the business cycle, most economic crises are unexpected and it is usually difficult to determine their exact cause. Handling an economic crisis is thus a very complicated affair, and the need for change often contrasts with the ingrained organizational reaction to simply improve efficiencies.

Most organizations respond to an economic crisis by adopting one of two extremes: focus on operational efficiency or on intellectual capital utilization and innovation. Unfortunately there is a strong preference for the former. The majority of organizations in an economic crisis try to downsize and to improve their productivity by cutting costs across the board and choosing to reduce their innovation capacity. While many organizations may merely survive an economic downturn via such conservative approaches, most will not be better prepared during the recovery period and they will not be able to keep up with the competition. On the other hand, organizations that switch to the knowledge economy may eventually become winners, but they risk their survival when gambling their resources exclusively on innovation. Those rare organizations that focus on both efficiency and innovation typically survive an economic crisis smoothly.

Empirical evidence suggests that organizations should start considering an economic crisis as an opportunity rather than as a threat: an opportunity to reflect and to stimulate innovation. An opportunity to reconfigure business processes by eliminating outdated or unprofitable processes and products and by adopting new technologies (Caballero & Hammour, 1994).

Developing an effective knowledge management strategy is key to surviving an economic crisis and to prepare for the future. Yet the period of economic downturn is a time of uncertainty and ambiguity, and an organization is often hard-pressed to take stock of its intellectual capital and to make a switch that would require behavioral changes, while drastic cuts are being pursued at all levels. In order for knowledge management to succeed as a tool during economic crises, it has to

be approached in a results-oriented format with clear directions and transparent methodologies that have been proven effective in the marketplace.

In this framework, the objective of this chapter is to provide a knowledge management perspective and to suggest ways that organizations should allocate their resources to investments, and especially to intangibles (intellectual capital), in their quest for economic recovery. When operating in a downturn context, it is always important to develop long-term strategies while applying specific tactics as soon as a crisis is detected (Caballero & Hammour, 1996).

INTELLECTUAL CAPITAL AND ORGANIZATIONAL VALUE

The general consensus is that effective management of intangible (intellectual or knowledge) assets within an enterprise often serves as a source of competitive advantage and hence value creation for the organization (Bonfour & Edvinsson, 2005). Intellectual capital -from intellectual property and patents through staff technical skills to relationships and networking with customers- has been identified as a critical business success factor. National governments, international organizations and professional accounting associations have promoted the development of intellectual capital reporting to assist with company valuations (Hofmann, 2008).

The causal relationship between intellectual capital and organizational value has been the subject of significant academic research. However, there are mixed results. While the majority of the studies demonstrate that intellectual capital is positively and significantly associated with organizational performance, some authors claim that the linkage has been generally weak, if at all present (Pulic, 2004). For example, recently (Diez et al, 2010) found no evidence of a significant relationship between the use of intellectual capital and value creation and (Chang and Hsieh, 2011) found that a company's intellectual capital in general, surprisingly, has a negative impact on its financial and market performance.

This mixed picture is due to the fact that there is no widely accepted definition of intellectual capital (OECD, 2008). Defining intellectual capital as a set of intangibles ("knowledge") that drives organizational performance ("value") assumes a priori an existing correlation between IC and organizational value. In fact, in almost all definitions of intellectual capital all irrelevant intangibles (i.e. those that are assumed to have no association with the firm's future potential) are excluded; this renders the weak linkage even more problematic. On the other side of the equation, the concept of organizational value is equally vague, ranging from the narrow (use of financial indicators) to the broad (inclusion of non-financial, operational indicators). The situation is exacerbated by the fact that measuring intellectual capital variables is difficult and the objectivity of information is often doubtful (Pulic, 2000). Indeed intellectual capital is a complex phenomenon of interactions, transformations and complementarities.

Recent surveys from the field indicate that a similarly confusing picture exists within organizations. A common observation is that there is some dissatisfaction with knowledge management in terms of its application (Griffiths & Moon, 2011) and that the concept of KM itself could be in decline (Griffiths, 2011).

These findings are difficult to interpret because they co-exist with a deeply ingrained position within organizations that management of knowledge resources is extremely important from a strategic perspective. In the quest to provide some fresh knowledge management perspectives during an economic downturn, there is a need to codify the views in the field and present them in a coherent and succinct manner.

KNOWLEDGE MANAGEMENT: THE VIEW FROM THE FIELD

By focusing on surveys that were completed during an economic crisis one can capture the view from the field at a critical juncture. The following observations reflect the results of premier international surveys in knowledge management (KMO, 2011; Rigby & Bilodeau, 2013; Heisig P. & Samuel A., 2013) as well as evidence presented by the industrial partners of the Knowledge Management and Innovation Research Center (KMIRC) at Hong Kong Polytechnic University. The relationship between KM and the society and the economy today is presented along four main themes:

- What is the importance placed on knowledge management within organizations?
- What are the relevant questions and concerns in applied knowledge management?
- Which methodological approach would be most feasible in practice?
- What timeline would be appropriate for knowledge management interventions?

In the sequence, each of these questions is addressed separately.

What Is the Importance Placed on Knowledge Management within Organizations?

While most organizations claim that research in knowledge economy and knowledge society is important or highly important, their comments reflect lukewarm support. From those who believe that the knowledge society is well established (and thus no distinct activities need to be undertaken) to those that dismiss the concept as something that belongs to the field of sociology, it is clear perceptions in the field vary greatly. Nevertheless, even in this milieu some social issues emerge naturally.

- **Democratization of knowledge:** in today's world more people know more things than ever before in human history, and that has huge implications for society.
- **Proliferation and influence of open source knowledge:** The knowledge society presupposes a kind of openness that is needed for a thriving free flow of ideas and creativity.
- **Varied levels of openness worldwide:** many societies today have issues from freedom of expression to cultural impediments to the flow of knowledge.
- **Open education initiatives:** From open software to open-access databases, adjusting our higher education systems is of paramount importance in creating an environment that recognises knowledge as a commodity.

As regards the economic domain, the pertinent issues are:

- **Knowledge is becoming more important as an input, as a product:** Codified knowledge is becoming more significant as a component of economic relations.
- **Knowledge disparity is a driver for business and innovation:** Institutions and companies able to derive and apply more knowledge win; organisations that fail to build capabilities enabling them to participate in the evolving global networks of knowledge stay behind.
- **Recognizing knowledge as the main organizational asset:** This changes the economic framework of businesses and makes firms see intellectual capital as their main investment.
- **Varied stages of development in the knowledge economy:** As the world economy is evolving into a knowledge-based

model, not all countries are at the same level of development.

- **Not all knowledge-based societies have a knowledge-based economy:** Having however a KM strategy is essential to succeed in any of the two.

What Are the Relevant Questions and Concerns in Applied Knowledge Management?

The majority of the firms understand that so far KM has been explored mostly at the organisational level, and that future research should include the societal, political and economic levels as well. The relationship between knowledge and economic development is presumed clear, but the relationship between knowledge management in companies and organizations and the macroeconomic environment is not so clear. The core issue is the understanding of the dynamics of knowledge-based value creation, regarding the new theory of the firm, and from that the knowledge economy and knowledge society.

KM is about bridging the right knowledge to the right people at the right time. This can be done at the organizational level, the inter-organizational level and even at the regional, national or international levels. It is probably a reflection of the pedigree and experiences of the firms that they think that basically taking the same propositions and hypotheses that exist at the firm level analysis, and just extrapolating them up to the region, province, or country level will suffice. Within this context, the following questions and concerns appear under a multitude of guises:

- Significance of KM as a value driver in today's competitive world:
  - Defining the extent that KM contributes to the social-economic development of a society.
  - Measures through which KM can help organizations and the society in general in times of demographical change.
  - Identifying the impact the KM strategy of major company can have at the societal level.
- KM and regional development policy:
  - How to deploy KM as a strategic economic lever for regional or national development.
  - Knowledge cities, knowledge innovation zones and government policies.
  - Problems in integrating regional knowledge strategies into political agendas.
  - Assessment and diagnosis of various aspects/dimensions of KM applicable to a wider context - cities, regions, countries.
- Required competencies of the knowledge managers in the knowledge economy:
  - Role of the knowledge manager in informal learning and lifelong learning in the organizational context.
  - What are the barriers to sharing of insights and good practice in KM.
  - Organizational KM as a stimulus for social innovation.
- Business clusters and KM:
  - Identifying the interactive links between KM, organizational learning and clustering.
  - Methods through which KM can help improve a cluster's performance.
  - Macroeconomic studies and comparisons between clusters.

Which Methodological Approach Would Be Most Feasible in Practice?

Most firms recognize that it is difficult to quantify and measure knowledge, especially since they invest so much in it. How can one measure the intellectual wealth of a knowledge society? Intellectual capital is seen as the national driver of the

economy, yet the lack of adequate quantification means that it is easy to cut down on the knowledge part of a business since it cannot be measured. There is an overwhelming call for an increased emphasis on quantitative methods focusing on:

- **A new generation of intellectual capital reporting:** Integrating value reporting as well as the techniques and the resources to understand the specific value dimensions of the knowledge economy.
- **Competitive benchmarking:** Quantitative benchmarking of successful cases so that good practices can be shared among enterprises and within enterprises to improve performance.

What Timeline Would Be Appropriate for Knowledge Management Interventions?

Most firms are split between short and medium timelines for intervention. Their comments reveal that there is not much significant difference between the two groups. In essence, everybody agrees about the urgency of attacking the problems related to the economic crisis (hence the short-term horizon) but many understand the practical difficulties involved and propose a more realistic (medium-term) timeline.

CONCLUSION

The quest for economic recovery places increased emphasis on developing knowledge. Knowledge management is perfectly positioned to respond to the challenges of innovation, yet most firms struggle with practical applications of the concept. While at the strategic level the management of knowledge resources is deemed very important, this is often not communicated effectively through the layers of the organization. Knowledge management appears to be functioning in isolation and primarily addressed through technology-based solutions.

During an economic crisis, organizations have to cope with increased demands for higher-quality services and products. Effective organizations in the knowledge economy succeed by basing their adaptive capacity and their ability to innovate on their people empowered by new technologies. Balancing operational costs and the need to innovate appears to be the solution for knowledge-driven organizations.

There is a significant need to stop viewing knowledge management as a technology function and academic debate should shift towards addressing real-world challenges. Innovative development depends on knowledge management being fully tuned with the processes of the firm, deeply ingrained in the human resources strategies of the organization and totally integrated in practical solutions and best practices identified in the field.

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KEY TERMS AND DEFINITIONS

Economic Crisis: A sustained and significant decline in many parts of the economic activity. The term economic activity encompasses macroeconomic variables such as GDP, employment, national output, prices, investments etc.

Intellectual Capital Reporting: The accounting scheme that highlights the way intellectual assets create value. The quantitative mapping of the human, relational and structural capital of an organization.

Intellectual Capital: The difference between book value and market value of a firm; the intangible assets of the firm that can be used to increase organizational value and confer competitive advantage.

Knowledge Economy: A system of consumption, production and services that is based on knowledge operations that permeate the entire economic spectrum.

Knowledge Resources: The know-how, the expertise, the current information on a topic including research and the best practices used to support the storage, distribute and reuse of organizational knowledge.

Knowledge Society: A society that is based on the understanding that the capability for creation,

distribution and use of information and knowledge is needed to compete and succeed in the current economic world.

Organizational Value: Any concept, idea or activity that is considered by the organization as a procurer of added financial output.