This paper aims to reflect the importance of a knowledge management strategy for organisations facing organisational change, as response to crisis. As resource for development, for sure knowledge becomes an inexhaustible power. It is also one of the most important forms of capital - the foundation for innovation and also the drivers that lead to growth and expansion. An organization cannot compete with others in this ever-changing environment without proper knowledge and lack of capacity for renewal. Many managers would like to have a strategic approach in preparing the organisation to avoid crisis. There is a lack of strategic information management and the effect is the degradation of information resources and failure in strengthening employee’s potential. It is vital for the companies to develop a dynamic knowledge management strategy to be integrated.
into the organization, enhancing the performance of the system and processes. However, organizations need to see knowledge management as a strategy, because knowledge is the key to making the right decisions in guiding the organization. One of the key benefits of approaching knowledge management strategy within organisations is its positive impact on organisational performance, ensuring not only the survival during crisis but even providing a competitive advantage.

Keywords: knowledge management, knowledge strategy, knowledge management strategy, business strategy, crisis

JEL Classifications: M10,M12

INTRODUCTION

In today's economy, the new economy or knowledge economy, there are a number of important forces acting today in sense of changing the rules of business and national competitiveness: globalization, the intensity of the use of knowledge and information, computer networks and connectivity, and the growth of knowledge workers at more than 80% of the employed population (in developed countries).

In this type of society, learning and knowledge have become key success factors internationally and intangible resources are of vital importance. The struggle between competing firms moved from tangible resources (capital, raw materials, land, machinery and equipment, etc.) to intangible resources, where items such as knowledge and ability to use the knowledge (knowledge management) have a crucial role. Knowledge has become the basic resource within companies, the way they gain power, prestige and wealth in modern economy and society. The generation, acquisition and the use of
knowledge are extremely important for economic, social and cultural sustainable development. This principle applies equally to individuals, organizations, public institutions, companies, regions or states.

Modern economic environment is characterized by volatility, high income brought by the employees and rapid mutations in political or international competition. Therefore, the methods that companies use to manage the knowledge, also the processes and technologies specific to their domain of activity are extremely important.

Nowadays all business organizations aiming at top performance suddenly (somewhat) became interested in the field of knowledge management (KM). How to explain this interest occurred among executives over the past two decades? Along with other trends observed in global competition, we believe that interest in KM is induced by the following aspects:

- organizations are more global, multilingual and multicultural
- people must work smarter and faster adopting and managing a large workload
- labour is more flexible, which causes problems for the continuity of knowledge within organization and determines the new pressures for learning among knowledge workers. Employees do not spend the entire active life in the same organization, this leading to corporate amnesia.
- technology advance – people are more connected (it changes expectations, people are expected to be "on" all the time, and the response time is measured in minutes, not in weeks) [6].

So today's work environment is more complex, as we witness daily to the exponential growth of the subjective knowledge elements; each of us is placed suddenly in a position to process / understand a
large volume of knowledge. Employees working with information (knowledge workers) are required increasingly to take decisions on their own, having little time to process and analyse the data and information received, not to mention the acquisition, access, and application of experimental relevant knowledge. This is due to the large amount of tasks to be fulfilled and the limited time response.

In this complex environment, every day, businesses are threatened by vulnerability, uncertainty and crises that could have been prevented or, at least, their impact lessened if only knowledge of causal and influencing factors were known and better managed. Better KM can help firms anticipate these factors and design thoughtful strategies to lessen the impact of such influences or events.

Although management methodologies and technologies that support business managers faced with crisis events are continuously being improved, organizations are still quite vulnerable to both man-made and natural crises [28].

Many managers would like to take a strategic approach when preparing the organisation to avoid impending crisis but instead they find themselves fire-fighting to avoid the crisis impact. In order to prevent crises from adversely affecting the firm, organizations need effective plans to prevent if possible or to mitigate crises effects when they do occur [28].

Following the issues raised, we believe that a separate strategy on KM can support corporate executives to better manage the complex, chaotic and non-predictable environment, in which companies must achieve performance.
Moreover, in this paper we explore the utilization of KM strategies and examine the role that KM plays in improving a company’s effort to obtain performance.

1. MOTIVATIONS LEADING ORGANISATIONS TO FOCUS ON KM

It is important to note that many experts underline the need to focus on knowledge, viewed as a basic resource, stressing that the only advantage a company can have is the ability to exploit the knowledge gained by anyone, anywhere.

Knowledge is represented by all the capital owned by people of a company: meaning competencies, expertise, know-how, market experiences etc. KM role is to help companies to turn this human capital into intellectual capital by creating value.

KM is important because it provides the necessary elements to solve critical problems related to adaptation of the organization, survival and competence to cope with changes in the business environment. KM must identify the organizational processes that achieve a synergistic combination between the data processing capacity of information technologies and human capacity to create and innovate.

There are many approaches related to KM, but we can say that KM allows organizations to maximize their return and generate value from intellectual and knowledge-based assets. Most often, generating value from such assets involves capturing what employees know and sharing that information to drive a competitive advantage [10].

Early practice has been criticised for treating KM as the short-term implementation of IT-based projects, considering knowledge just a little different to information [13], [24].
KM has often been described as comprising three elements: people, processes and technology. KM is often facilitated by technology, but is more about people, and processes. Figure 1 shows how these three elements link together, each of them having a reciprocal relationship with each of the other two. For example, People help design and then operate Processes, while Processes define the roles of, and the knowledge needed by People [9].

**FIGURE 1**

**PROCESSES AND TECHNOLOGY, TAKEN FROM EDWARDS (2009)**


It is now widely accepted that approaches to KM fall into two distinct perspectives: people-centred and technology-centred [1], [24]; [12]. Despite emphasis on the use of IT to mobilise KM practices, there is widespread acceptance that knowledge is inherently personal. As knowledge is inherently personal, KM initiatives need to focus first on nurturing the people who have the knowledge and the organisation needs to foster appropriate processes by which the knowledge of its
individual members can interact for the benefit of the whole organisation [11]. The process focus is regarded as a way of bridging this apparent dichotomy between the people-oriented and the technology-oriented approaches [15]. A number of organisations have recognised the balance between people, processes and technology as a framework for organising their KM activity.

As regard to its content, KM consists in various practices and tools which ensure that organizational objectives are achieved through effective knowledge creation, knowledge communication and sharing, knowledge capturing and storing, and knowledge re-use. It requires, above all, a supportive corporate culture, and also technical systems that enable linking people to people, people to information and content, and content to content. KM approaches is vital in order to process knowledge effectively within organisation, in order to enhance organizational performance, obtaining and sustaining the competitive advantage. KM supports the identification of strategically critical knowledge areas for organization and provides the framework for creating a culture where collaboration for knowledge transfer and innovation is a way of life. Among the benefits of implementing effective KM we mention the organisational culture devoted to continuous improvement and the capacity of an organisation to be resilient and adaptable in the face of change [5].

According to some researches [23], the maturity of knowledge-management is positively correlated with long-term growth and sustainability. Companies with a more comprehensive and strategic approach to knowledge-management are growing more than those who lack this.

Despite the ideal of these advantages and benefits of KM, the reality of creating and sustaining the momentum of KM in business is
often difficult. Storey and Barnett [27] presented a case study of a firm affected by an external crisis who dropped the KM initiative, although the initiative is central to the need for cultural change. The firm is forced into a mode of fighting for survival, leading Storey and Barnett to conclude that KM is often seen as a ‘nice-to-have’ rather than a mission-critical activity (in this case KM is viewed as something easy to ‘drop’ and not as something properly embedded into business processes or integrated into organisational strategy).

2. RESPONDING TO CRISIS THROUGH STRATEGIC KM

2.1. Crisis definition and classification

Crisis is defined as “a process of transformation induced by a major disruption that forces the restructuring of social, human and natural systems” [21]. In contrast, Kim (1998) presents two types of crisis, those which are proactively constructed by the firm in order to precipitate organisational change, and those which are evoked by the external market, technological or regulatory environment to which the firm must reactively respond [14].

Since not all crises are the same, different crisis management strategies and different knowledge related strategies will depend on the unique characteristics of the specific event. For this reason we must be able to distinguish crises according to characteristics that distinguish them.

Shrivastava and Mitroff [25] proposed a crisis typology that categorizes crises into four types. The framework consists of two dimensions, an internal-external dimension and a technical-social dimension. The internal-external dimension determines the sources of
the factors that result in a crisis, which can result from either the failures of internal organizational systems or the failures of the external environment of organizations. The technical-social dimension is employed to investigate the characteristic of the factors that cause a crisis. These can be either technical /economic failures, or matters associated with human, organizational, and social concerns. The four types of crisis as well as some sample crises are presented in Table 1.

**TABLE 1**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th><strong>Internal</strong></th>
<th><strong>External</strong></th>
</tr>
</thead>
</table>
| Technical/Economic   | Cell 1  
- Major industrial accidents  
- Product injuries  
- Computer breakdown | Cell 2  
- Widespread environmental destruction  
- Natural disasters  
- Hostile takeover |
| Human/Organizational | Cell 3  
- Failure to adapt/change  
- Sabotage by insiders  
- Organizational breakdown | Cell 4  
- Symbolic projection  
- Sabotage by outsiders  
- Terrorism, executive kidnapping |

Belardo, Chengalur-Smith, and Pazer [4] proposed a framework of information technology-based strategies based on crisis types. In this model, the type of a business crisis can be determined by evaluating its degree of similarity to each of five major natural and
man-made disasters, *Earthquakes, Floods, Hurricanes, Nuclear Accidents, and Oil Spills*. Such an evaluation is done by examining the crisis characteristics such as *exposure, Destructive Potential, Scope of Impact, Duration, Predictability, Controllability, Speed of Onset, and Length of Forewarning*. Business strategies for each type of business crisis are then presented in the table 2.

**TABLE 2**

**BUSINESS STRATEGIES AS RESPONSE TO DIFFERENT BUSINESS CRISSES**

<table>
<thead>
<tr>
<th>No.</th>
<th>Business Crises type parallel</th>
<th>Characteristic</th>
<th>Business strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><em>Earthquake</em></td>
<td>low predictability, low controllability, short forewarning, and fast onset</td>
<td>mitigate the impact of crises by hardening the business environment</td>
</tr>
<tr>
<td>2.</td>
<td><em>Flood</em></td>
<td>high predictability, medium controllability, slow speed of onset, and long forewarning</td>
<td>establish a permanent ad hoc forecasting group</td>
</tr>
<tr>
<td>3.</td>
<td><em>Hurricane</em></td>
<td>medium predictability, low controllability, medium speed of onset, and long forewarning</td>
<td>constantly monitoring the environment and selectively activating localized contingency plans</td>
</tr>
<tr>
<td>4.</td>
<td><em>Nuclear Accident</em></td>
<td>high controllability, medium speed of onset, and medium forewarning</td>
<td>develop “incremental intervention strategies” supported by feedback/feed-forward control systems</td>
</tr>
</tbody>
</table>
In order to better manage the crisis, organizations must do more than identifying the contributing factors, especially because certain factors in different conditions can lead to different types of crises. As a result, organizations need to develop different strategies corresponding to certain characteristics in terms of controllability and predictability [28].

### 2.2. Crisis management strategies

Different crisis management frameworks have been proposed in order to support organizations in times of crisis, but they typically not employ knowledge-based resources [28]. In many organisations, strategic thinking and strategic planning are often replaced with the reliance on emergent solutions [26].

For the purpose of simplicity, crisis management strategies can be categorized according to those that focus on **why** crises happen (*operation-oriented strategies*), and those that focus on **how** crises impact

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5. **Oil Spill**

| low predictability, low destructive potential, and small scope of impact |
| develop data/knowledge repository to provide information sources and to identify individuals with key knowledge in order to support the deployment of an in-house consulting group |

organizations and the tasks that need to be performed in order to lessen their impact (process oriented strategies) (Figure 2).

**FIGURE 2**

**CRISIS MANAGEMENT STRATEGIES**

Operation-oriented crisis management strategies reflect crises that result from the regular operations of organizations [7], [20]. According to some authors [7] some things are more likely to lead to crises than others, so the recommendation for organizations is to
evaluate the crisis potential regarding organizational issues in terms of immediacy, uncertainty, and importance.

When confronted with crises some organizations suffer from three kinds of management problems [20]: problems regarding the communication process and information flow, problems concerning the exercise of authority and decision-making, and those arising from the coordination and weakening of the command structure.

An operation-oriented framework can provide recommendations to organizations to help improve or modify the operational factors that could result in business crises in order to decrease or even eliminate an organization’s vulnerability to business crises [28].

Process-oriented crisis management strategies, on the other hand, focus on how organizations can eliminate vulnerabilities to a crisis that they encounter at different stages of a crisis life cycle. It is important for managers in organizations to have the capability to recognize the warning signals of crises so that they can act proactively.

Even if both operation-oriented and process-oriented crisis management strategies are the implicit need for learning and feedback, we will focus on the process-oriented strategy proposed by Mitroff, which explicitly identifies the need for learning and the need for KM and knowledge strategies.

Mitroff’s crisis management model consists of five main crisis phases based on what are the most crucial tasks to be performed by the organization at a particular phase of a crisis, and the major tasks
appropriate to each stage [16], [17], [18]: Signal Detection, Prevention / Preparation, Containment/Damage Limitation, Recovery, and Learning. In the Signal Detection phase, organizations are seeking signals that might warn of a crisis, and isolate these from other signals that occur in the daily operations of organizations. In the Prevention/Preparation phase, the main task of organizations is to minimize or eliminate their weaknesses based on the warning signals so as to be well prepared. The Containment/Damage Limitation phase occurs when a crisis is unavoidable so organizations are preparing the best plans in order to control the damage (This is crucial, since organizations usually have limited time to plan for damage control while a crisis is unfolding). In the fourth phase (Recovery), organizations mostly focus on fixing the damage caused by the crisis. The final phase is Learning. Organizations should examine and the phases before and after the crisis, and then identify the lessons learned. In this way, organizations can use the experience of a crisis to enhance the organizations’ capabilities to prevent and mitigate the effects of a similar crisis [28].

As we can see, Mitroff’s framework incorporates the concept of “Learning”, which is crucial if organizations are to improve their chances of surviving the next crisis. Learning from previous experiences would help organizations minimize uncertainty about similar business crises. In addition, the learning process is critical in which regards the utilization of the knowledge of experienced crisis managers. Through learning, organizations can enrich their knowledge, and better employ it so as to enhance their capabilities. By learning from previous crisis events, organizations can create, among
other knowledge assets, repositories of best practices that will be valuable in helping them manage their business crises [19].

2.3. KM strategies and business strategies alignment for long-term success

First it is necessary to distinguish between knowledge strategies and KM strategies. Asoh et al. [2] argue that knowledge strategies are used to help organizations determine “what to do” with their knowledge. On the other hand, KM strategies are used to address the “how to do it” question.

Zack [29] proposed a framework of knowledge strategies that he contends should be aligned with the organization’s business strategies. Zack [29] argues that exploiting internal knowledge is the most conservative knowledge strategy that organizations primarily focus. These organizations (named internal exploiters) have sufficient knowledge resources to keep themselves competitive in their industries. Organizations that focus both on exploring external knowledge resources to develop new knowledge bases and exploiting internal knowledge bases to seek business opportunities can be thought of as employing the most aggressive knowledge strategies. These organizations (unbounded innovators) focus on both acquiring knowledge capitals from their external environment and creating benefits by utilizing it. Zack contends that organizations in knowledge-intensive industries would have better performance compared to their competitors if they use relatively aggressive knowledge strategies.
But, according to McKinsey Management Consultant Company [3], some companies cut R&D costs in order to economise. Cutting costs in this area may seem to be an easy solution, as R&D produces no short-term revenue and profit.

According to different empirical studies, headcount cutting is frequently used among lower-skilled workers at the beginning of a crisis, but later this may be extended to highly educated employees and also managers.

Of course, these short-term solutions are to be further analysed, as some of them proved to be unsuccessful; moreover, crisis should be seen as an opportunity and organisations should consider a more strategic approach to R&D costs and retain key employees. [3]

Because knowledge-based organisations are based on knowledge processes, KM should be embedded in the organisation’s working practices and business strategy. In knowledge-based firms, strategy cannot be treated as an exclusively top-down process, but knowledge workers should be represented and involved in strategy formulation. Some authors [2],[22] also argued that organizations can improve organizational performance by strategically aligning business strategies with knowledge strategies. Employing different knowledge strategies and KM strategies at the different stages of crises is essential since organizations have different knowledge needs at different stages of crises. As such, the alignment of crisis management strategies with knowledge strategies and KM strategies can help eliminate the difficulty of learning and lead to better organizational performance. Organizations should capitalize on the expertise of individuals from
various operational areas in order to use their expertise to plan for and manage the crisis. This creates the need to develop a type of knowledge repository to store the knowledge of employees.

3. CONCLUSIONS

Much of the value of a company lies in its human capital, a crucial factor for competitiveness and improved corporate performance. In a crisis situation, however, companies pay insufficient attention to retaining knowledge workers. Managing knowledge well is the key to enhance an organization’s ability to deal with business crises.

The literature review has suggested that effective KM should be a balanced focus on people, process and technology which features at the core of the firm’s strategy. As such a firm’s strategic approach to KM should improve the reaction to crisis. The response to the crisis is to recognise the importance of the people and their knowledge to the organisation, and to build a strategy to improve business processes, communication and knowledge transfer.

While some organisations are reacting to externally evoked crises others are generating crisis in order to learn. In both cases the aim of crisis management is to ensure organizational survival. Since business crises have the potential to destroy or significantly reduce the capacity of the organizations to achieve their goals, crisis management strategies are crucial to their survival.
Knowledge and knowledge-sharing have become most important factors of organisational potential in this environment of rapid change and unpredictability, since it increases competitiveness. This paper demonstrates the importance of building a KM strategy during times of crisis and gives important lessons to organisations facing organisational change.

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