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INTEGRATED INFORMATION

International Conference on Integrated Information

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Preface: Proceedings of the International Conference on Integrated Information (IC-ININFO 2011)

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Aims and Scope of the Conference

The International Conference on Integrated Information 2011 took place in Kos Island, Greece, between September, 29 and October, 3, 2011. IC-ININFO is an international interdisciplinary conference covering research and development in the field of information management and integration.

The conference aims at creating a forum for further discussion for an Integrated Information Field incorporating a series of issues and/or related organizations that manage information in their everyday operations. Therefore, the call for papers is addressed to scholars and/ or professionals of the fields of Library and Archives Science (including digital libraries and electronic archives), Museum and Gallery Studies, Information Science, Documentation, Information Management, Records Management, Knowledge Management, Data management and Copyright experts the latter with an emphasis on Electronic Publications. Furthermore, papers focusing on issues of Cultural Heritage Management and Conservation Management are also be welcomed along with papers regarding the Management of Nonprofit Organizations such as libraries, archives and museums.

One of the primary objectives of the IC-ININFO will be the investigation of information-based managerial change in organizations. Driven by the fast-paced advances in the Information field, this change is characterized in terms of its impact on organizations that manage information in their everyday operations.

Grouping emerging technologies in the Information field together in a close examination of practices, problems and trends, IC-ININFO and its emphases on integration and management will present the state of the art in the field. Addressed jointly to the academic and practitioner, it will provide a forum for a number of perspectives based on either theoretical analyses or empirical case studies that will foster dialogue and exchange of ideas.

Topics of general Interest

Library Science, Archives Science, Museum and Gallery Studies, Information Science, Documentation, Digital Libraries, Electronic Archives, Information Management, Records / Document Management, Knowledge Management, Data Management, Copyright, Electronic Publications, Cultural Heritage Management, Conservation Management, Management of Nonprofit Organizations, History of Information, History of Collections, Health Information

Symposia

The Conference offered a number of sessions under its patronage, providing a concise overview of the most current issues and hands-on experience in information-related fields.

- Symposium on Integrated information: Theory, Policies, Tools
- 4th Symposium on Business and Management and Dynamic Simulation Models supporting management strategies

- Session on Open Access Repositories: Self-archiving, Metadata, Content policies, Usage
- Session on Evidence-Based Information in Clinical Practice
- Session on Business Management and Communication Strategies supporting Decision Making Process in Tourism Sector
- Session on Electronic Publishing: A Developing Landscape
- Session on Information and Knowledge Management
- Session on Information Content Preservation as Outcome of Conservation of Cultural Heritage: Ethics, Methodology and Tools
- Session on Advances Information for Strategic Management
- Session on Information History: Perspectives, Methods and Current Topics
- Session on Divergence and Convergence: Information Work in Digital Cultural Memory Institutions
- Session on Contemporary issues in Management: Organisational Behaviour, Information Technology, Education & Hospital leadership.

The wide range of aspects that the sessions covered, highlighted future trends in the Information Science.

Paper Peer Review

More than 300 papers had been submitted for consideration in IC-ININFO 2011. From them, 91 were selected for presentation, after peer review in a double blind review process. The accepted papers were presented at IC-ININFO 2011.

Thanks

We would like to thank all members that participated in any way in the IC-ININFO 2011 Conference and especially:

- The famous publishing house Emerald for its communication sponsorship.
- The co-organizing Universities and Institutes for their support and development of a high-quality Conference scientific level and profile.
- The members of the Scientific Committee that honored the Conference with their presence and provided a significant contribution to the review of papers as well as for their indications for the improvement of the Conference.
- All members of the Organizing Committee for their help, support and spirit participation before, during and after the Conference.
- The Session Organizers for their willing to organize sessions of high importance and for their editorial work, contributing in the development of valued services to the Conference.
- PhDC Marina Terzi for her excellent editorial work, contributing in the production of the Conference proceedings.

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KEYNOTE SPEAKER



Professor Amanda Spink

Professor Amanda Spink has published over 340 scholarly journal articles, refereed conference papers and book chapters, and 6 books. Many of her journal articles are published in the Journal of the American Society for Information Science and Technology, Information Processing and Management, and the Journal of Documentation. She is Editor of the Emerald journal Aslib Proceedings. Amanda's research has been published at many conferences including ASIST, IEEE ITCC, CAIS, Internet Computing, ACM SIGIR, and ISIC Conferences. Her recent books include Information Behavior: An Evolutionary Instinct and Web Search: Multidisciplinary Perspectives, both published by Springer. Amanda's research focuses on theoretical and empirical studies of information behavior, including the evolutionary and developmental foundations. The National Science Foundation, the American Library Association, Andrew R. Mellon Foundation, Amazon.com, Vivisimo. Com, Infospace.com, NEC, IBM, Excite.com, AlltheWeb.com, AltaVista.com, FAST, and Lockheed Martin have sponsored her research. In 2008 Professor Spink had the second highest H-index citation score in her field from 1998 to 2008 [Norris, M. (2008)]. Ranking Fellow Scholars and their H-Index: Preliminary Survey Results. Loughborough University, Dept of Information Science Report].

A conceptual framework for analyzing knowledge-based entrepreneurship

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Abstract: *The concept of knowledge-based entrepreneurship (KBE from now on) has recently appeared in the literature and, therefore, its investigation is still at a very early stage. This article presents a conceptual framework for analyzing the phenomenon of KBE and its impact on innovative behavior and growth of greek firms active in high-tech sectors. Linking knowledge-based entrepreneurship, innovativeness and growth of newly established greek firms can draw useful conclusions for both the firms themselves, and for formulating public policies to promote innovation and foster entrepreneurship in general.*

Keywords: *Knowledge-based entrepreneurship, knowledge management, innovation, dynamic capabilities.*

I. INTRODUCTION

The KBE is a very important socio-economic phenomenon that drives innovation, economic growth and development, and is at the base on the competitiveness of all economies (Groen, 2005). This article presents a conceptual framework which will form the basis for designing a structured questionnaire to examine the characteristics of KBE in new greek firms active in high tech sectors.

Initially we define the KBE and explain basic concepts. Then bundle the literature of KBE into three broad categories and summarize the results of a literature review in each of them. The next section contains the proposed KBE model, and the article closes with a summary of some final conclusions.

II. KBE: DEFINITIONS AND MAIN CONCEPTS

The KBE associated with the so-called knowledge economy is characterized by the crucial role of information and communication technologies, the high proportion of knowledge-intensive activities, the greatest asset of intangible resources in relation to the relevant chapter material resources on the total share capital and the increased spending on research and development (R&D) (Stam & Garnsey, 2008; Foray, 2004). When talking about KBE we refer to activities where the role of creating new knowledge is central to value creation (KEINS, 2006).

Many argue that a better term for KBE is innovative entrepreneurship. This is because this form of entrepreneurship includes innovation of product or process through the creation of new knowledge (Radosevic *et al.*, 2010). Of course, this knowledge does not automatically lead to innovation and economic

growth. Carlsson *et al.* (2007) report that: a) the factors that facilitate or hinder the transformation of knowledge into economically useful knowledge and b) the presence or absence of a mechanism that will allow this conversion, significantly determine the efficiency of converting the knowledge into innovation and new economic activity. Such a mechanism may be KBE.

Starting from a broader definition of entrepreneurship and incorporating into it the concept of knowledge, we pose that “entrepreneurship is the process of creating something new with value by devoting the necessary time and effort in knowledge-intensive economic activities, assuming the accompanying financial, psychic, and social risks and receiving the resulting rewards of monetary and personal satisfaction and independence” (Hisrich *et al.*, 2005; Bosma, 2010). Defining KBE at the enterprise level, we focus on five key features. KBE is (Malerba & McKelvey, 2010):

1. New firms.
 2. Innovative firms (in terms of production processes based on knowledge).
 3. Firms with significant knowledge intensity in their activities.
 4. Firms that exploit innovative opportunities in various sectors.
- And (Teece, 2007b):
5. Firms, through appropriate strategic choices, achieve competitive advantage.

Therefore, KBE is new and innovative firms with high knowledge intensity in their activities, involved in a process of conversion knowledge into innovation. That is, these firms are transforming knowledge into new or significantly improved goods and services that may hit the market. They are still firms that exploit innovative opportunities in various fields and achieve through their strategy a competitive advantage.

III. KBE AND THE EXISTING LITERATURE

We group the literature related to KBE into three broad categories: knowledge-based entrepreneur, knowledge management and strategy of knowledge-based firms.

A. Knowledge-based entrepreneur

Unlike entrepreneurship studied academically since the late '30s, the concept of knowledge-based entrepreneur (KE) is relatively new (Cooke and Porter, 2007). The study of the characteristics of KEs has recently appeared in the literature (Carayannis & Formica, 2006) and is linked to the multifaceted nature of knowledge. Interest

in KE stems from the common assumption that such entrepreneurs belong to the cream of the economy of every country and contribute positively to them through their successful entrepreneurial performance (Szalavetz, 2007).

Skrzeszewski (2006) defines the KE as the person that “specializes in the creation and use of cognitive resources to create new ventures or services that will lead to personal and social well-being, or will improve and enhance services.” The KE should have adequate personal knowledge capital to be able to create value and wealth of knowledge. He also creates value in knowledge markets, through the unlimited resources of knowledge introduced in order to progress in society, economy and environment.

The literature focuses on the study of types of capital (financial, human, social) that is available to the KE establishing a new firm (e.g. Madsen *et al.*, 2008), level of experience and education held (e.g. Christensen *et al.*, 2000), the networking forming before and during the business process (e.g. Brüdel and Preisendörfer, 1998; Ruef *et al.*, 2003), the factors that determine success or failure (e.g. Szalavetz, 2007) and even the proximity of the KE experience between them, depending on the sector of activity (e.g. Cooke and Porter, 2007).

B. Knowledge management

In the literature of KBE the concept of knowledge management (KM) is considered as a business tool that leads a firm to improved performance, competitive advantage and higher levels of innovation. The KM refers to the recognition, activation, registration, distribution and transportation between people's explicit and tacit knowledge, to increase the efficiency of the business and creating a business environment that supports and facilitates the processes of growth knowledge and which leads in turn to create business value.

Coulson-Thomas (2004) talking about the “challenge” of knowledge entrepreneurship highlights the need to move to a stage after the sharing of knowledge, which will also includes the creation and exploitation. Firms can better utilize their expertise and create new tools based on knowledge to increase productivity and improve performance. However, as emphasized in much of the literature, these tools are not best practices for all firms and therefore, depending on their own merits, the KM will always be adjusted accordingly.

In today's “new economy” the firm's success depends not only on the shares held by the market, customers and the market size, but also on a successful KM (Hejduk, 2005), while knowledge workers are the value of firms of the 21st century.

C. Strategy of knowledge-based firms

A firm can be understood as a set of unique resources and capabilities, which is the basis of shaping strategy

(Hitt *et al.*, 1999). Technological knowledge is a resource that can generate superior business value and the exploitation of this knowledge is central to KBE. According to Strand (2006), knowledge is one of the most important resources of the firm and its implementation is at the heart of value creation. On the same wavelength by Grant (1996) believes that knowledge is the most important strategic resource of the firm, stressing the role of the individual and the firm held and implementation.

The concept of dynamic capabilities is a dynamic theory of enterprise resource that helps us understand how a firm's resources (human, technological, economic, organizational) evolve through time, and therefore, it maintained its competitive advantage (Konstantopoulos, Sakas, 2010, Teece, 2007b). Associated with elements of KBE, like innovation, organizational learning and knowledge management, providing a perspective based on knowledge. Besides, there are many who argue that it is an extension of the visa based on knowledge. Also, procedures for the development of dynamic capabilities include methods for building R&D, information technology helpful to codification procedures, problem solving, knowledge sharing, knowledge development and absorptive capacity.

IV. A MODEL OF KBE

Our model of knowledge-based entrepreneurship is called “The KBE model”. The overview is as follows:

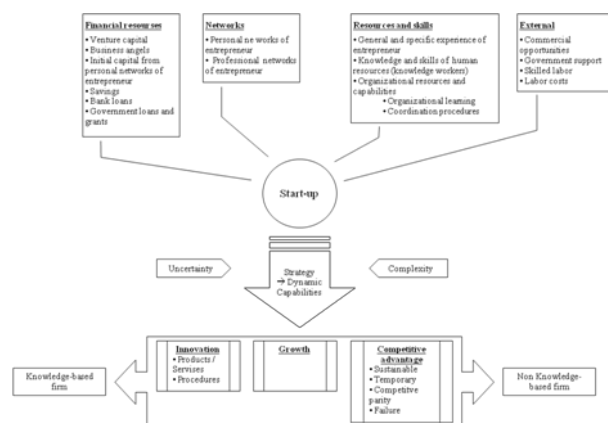


Figure 1. The KBE model.

At the core of the model is the creation of new venture (start-up). The strategic choices of the firm held a central role in our conceptual model, and refer mainly to the dynamic capabilities of the firm and the role of the entrepreneur during the initial development. Indeed, the study of the dynamic capabilities in new firms serves also the innovativeness of the model, as up to now the literature of dynamic capabilities focuses on existing firms. Firms according to the yields achieved (in terms of innovation, growth and competitive advantage), are divided into knowledge-based firms, those that grow strongly, consolidating their market

position and "simple" firms that simply survive without achieving a particularly innovative performance.

Each firm depends on a set of factors required for its creation, such as economic capital (venture capital, business angels, original capital from private networks operator, savings, bank loans, government loans and grants), the resources and skills (general and specific experience and education of entrepreneur, knowledge and skills of human resources, organizational resources and capabilities, organizational learning, coordination and control procedures), the external environment (market opportunities, government support, provision of skilled labor, labor costs) and the networking (personal and professional networks of entrepreneur). The transformation of these factors on business performance and growth is determined by the strategic choices of firm, affected by uncertainty and complexity.

Conducting extensive field research will try to identify the characteristics of KBE and gain an overview of the factors that shape knowledge-based firms. More specifically, using a structured questionnaire which will be handled on a representative sample of new firms belonging to different sectors of high technology and complemented by strains of the founding team, we look to industry experience, knowledge and skills of the founder or founding team of the firm, the process of creating the firm and the necessary resources required, the strategies followed by the firm, its evolution through time, and the innovative and economic performance. This will create a typology of these firms, based on particular characteristics.

V. CONCLUSIONS

The systemic approach attempting through this theoretical work differs from most of the literature, which often studied specific variables or levels of variables rather than connections between them. Exploring the role of dynamic capabilities is of great importance for research and to conduct meaningful conclusions about the new knowledge-based firms because they largely determine the growth, gain competitive advantage and general development. Furthermore, the association between KBE, innovativeness and growth of newly established greek firms can contribute to shaping public policies to promote innovation and foster entrepreneurship.

The creation of an appropriate conceptual framework for studying the phenomenon of KBE will have no essential if not combined with empirical research. The aim of the conceptual framework was created to provide a basis for designing structured questionnaire to examine the characteristics of KBE in greek firms.

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