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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].

Building Absorptive Capacity through Internal Corporate Venturing

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Abstract: *Twenty years after the Cohen and Levinthal 1990 paper, the field of absorptive capacity is characterized by a wide array of theoretical perspectives and a wealth of empirical evidence. The conventional focus in the corporate venturing literature is on evaluating ventures based on business growth and financial performance. This view completely ignores the important role of internal ventures in capability development. The purpose of this article is to advance understanding of absorptive capacity by focusing on a firm's capability to acquire, assimilate and transform external knowledge through the actions of its corporate venturing units. The relationship between absorptive capacity and corporate venturing might explain why some companies are better than others in acquiring and assimilating new external knowledge. It might also lead practitioners to question current views in internal venture evaluation and add routines and processes for transferring newly acquired capabilities between new ventures and existing business units.*

Keywords: *Absorptive capacity, Organizational capabilities, Corporate entrepreneurship, Co-evolution.*

I. INTRODUCTION

The contribution by Cohen and Levinthal (1990) is generally accepted as the founding paper of absorptive capacity. It defined absorptive capacity as “the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends”. The authors put R&D at the centre of firms’ innovative processes by linking it to both learning and innovation. In doing so, they positioned absorptive capacity (AC) as a key concept in the literature and laid the groundwork for theoretical developments over the subsequent 19 years. However, the absorptive capacity theme overlaps with other themes and fields, such as cognition, knowledge and dynamic capabilities. Moreover, the theoretical development of absorptive capacity ranges from the psychological emphasis on cognition and learning to the economic perspective on innovation and competition to the sociological orientation towards co-evolution.

II. THE ANALYSIS

A. Building Absorptive Capacity

Various research topics have influenced over the years the development of the absorptive capacity framework. The roots of absorptive capacity are found in the organizational learning literature of the 1980s. In line with Cohen & Levinthal (1990), scholars strongly link absorptive capacity to learning, innovation and performance of firms. Cohen and Levinthal (1990) also posit that distinct organizational mechanisms can influence the level of absorptive capacity, such as the transfer of knowledge across and within units, the structure of communication between the external environment and the firm, a broad and active network of internal and external relationships, and cross-function interfaces. However, their main argument is that the learning potential for AC is primarily determined by prior related knowledge and R&D investments, labeled as the “cumulativeness feature”. Many empirical studies support this notion of AC (Ahuja & Lampert, 2001; Shane, 2000; Tsai, 2001). Zahra & George (2002) expanded Cohen and Levinthal’s definition of AC (recognition, assimilation, and exploitation) in four (acquisition, assimilation, transformation, and exploitation).

Insights from the innovation literature, which grows out of both the management and the economics literatures, clearly play an important role in understanding the notion of absorptive capacity. The primary conclusion of that paper is that while investments in R&D are clearly aimed at generating innovations and also fulfil this task, an important by-product is the expansion of firms’ “capabilities to assimilate and exploit externally available information” (Cohen and Levinthal, 1989: 593). In line with this, Feinberg and Gupta (2004) studied the role of knowledge spillovers in R&D location choice by multinational corporations and suggested that such large organizations anticipate knowledge spillovers from their competition when they make decisions about R&D responsibilities abroad. They found that “...the MNCs view the assignment of R&D responsibilities to a subsidiary as an investment in the subsidiary’s capacity not only to create new technical knowledge but also to absorb spillovers of external knowledge from competitors” (2004: 842).

Besides learning and innovation theories, researchers have explored the role of managerial cognition in a firm's AC capability. Managerial cognition suggests that managers perceive things through their own cognitive lenses. This dominant logic evolves over time, directly influencing the organizational form. Lenox and King (2004) show that managers can however directly affect a firm's absorptive capacity for a new practice by providing information to potential adopters in the organization.

The effectiveness of these managerial actions is contingent on the degree to which other sources of information are available to individuals. Previous adopters and past events seem to dampen the effect of central information, while related experiences seem to amplify it. Minbaeva et al. (2003) emphasize the importance of individuals' ability (education and skills) as well their motivation to absorb external knowledge. As managers continuously develop theories about the world around them and embed them in their dominant logic (Sanchez, 2001), firm absorptive capacity will be strongly influenced by cognitive processes on the managerial level.

The knowledge-based view considers knowledge to be the most important resource of the firm and the main determinant of competitive advantage. This view strongly influences the relevance of the absorptive capacity construct, as absorptive capacity is key to developing and increasing a firm's knowledge base. In the particular case of knowledge-intensive firms, learning at the organizational and individual level is of prime importance (Starbuck, 1992). Thus, absorptive capacity involves individuals, groups, and organizational levels. Individuals are involved in the knowledge sharing and recognition aspects, but at the organizational level, routines, histories and stories, documentation, procedures, heuristics and know-how are important in creating shared understandings of the knowledge at the firm level (Grant, 1996b).

In their 1990 paper, Cohen and Levinthal point out that "...an organization's absorptive capacity is not resident in any single individual but depends on the link across a mosaic of individual capabilities" (Cohen and Levinthal 1990: 133). In their 1994 article, they argued that sustaining this capability over time requires investments, but results in the ability to not only "exploit new, valuable developments, but also to envision better their emergence" (Cohen and Levinthal, 1994). Extending this dynamic nature further, Zahra and George (2002) introduce a "dynamic capabilities" perspective of absorptive capacity and distinguish among four dimensions of absorptive capacity that constitute potential and realized absorptive capacity. The distinction highlights the separate, but complementary roles of both subsets of absorptive capacity. Firms focusing

on acquisition and assimilation of new external knowledge are able to continuously renew their knowledge stock (potential absorptive capacity), but they may suffer from the costs of acquisition without gaining the benefits of exploitation. Conversely, firms focusing on transformation and exploitation (realized absorptive capacity) may achieve short-term profits through exploitation but fall into a competence trap. Todorova and Durisin (2007) provide a review of Zahra and George's (2002) reconceptualization of absorptive capacity and suggest that Cohen and Levinthal's 1990 model provides important implications left out in Zahra and George's model. They identify important antecedents such as social integration, appropriability regimes, feedback loops, and power relationships. Moreover, they suggest going back to the component capabilities (recognition, acquisition, assimilation or transformation depending on the current cognitive frame of reference, and exploitation) instead of the subsets of potential and realized absorptive capacity. Jansen, Van den Bosch, and Volberda (2005) provide evidence of the distinct effects of organizational antecedents on the components of absorptive capacity. They show in an empirical study within a multi-unit firm that coordination capabilities, such as "cross-functional interfaces, participation in decision-making, and job rotation" (Jansen et al., 2005) enhance potential absorptive capacity, while systems capabilities such as "formalization" and socialization capabilities, such as "connectedness and socialization tactics" strengthen

realized absorptive capacity at the business unit level.

Finally, according to co-evolutionary theory, firm change is the joint effect of managerial intentionality, institutional and environmental effects (Lewin and Volberda, 1999). Many co-evolutionary studies suggest that absorptive capacity enables or restricts the level and range of exploration adaptations. For instance, Cohen and Levinthal (1994) suggested that firms can benefit from investing in absorptive capacity to pre-empt changes in the environment. Furthermore, Van den Bosch et al. (1999) study the co-evolution of a firm's path-dependent absorptive capacity and the knowledge environment. They show various co-evolutionary effects, such as the higher absorptive capacity, the more likely a firm's expectation formation will be defined in terms of the opportunities present in its environment, independent of current performance criteria. All in all, most co-evolutionary theories suggest that a firm's level of absorptive capacity is the joint outcome of managerial actions and developments in the knowledge-environment.

B. An Overview of Corporate Venturing

The studies on the effects of corporate venturing, while not great in number, are great in variation. Studies on corporate venturing fit naturally to the studies on corporate entrepreneurship, innovation management, and organizational learning. These can be seen as firm processes, which are in systemic interaction with corporate venturing. Corporate ventures require these processes and promote development of these processes. The studies on diversification, competence development, and new product development fit also naturally to the studies on corporate venturing. These aspects can be seen as outcomes of corporate venturing behavior.

The first studies on corporate venturing focused on diversification effects of corporate ventures. Corporate ventures can lower the risk of a lock-in in a declining industry. As the interest in diversification as a corporate strategy diminished, the studies on corporate venturing focused on other, indirect, effects. These effects are result of, for example, systemic nature of corporate venturing in relation to corporate entrepreneurship, organizational learning, and innovation management. Corporate ventures can also be seen as a method for competence development, in relation to research and development activities, competence acquisition or joint development with other firms. Corporate ventures can provide a platform for new product development, especially in the commercialization phase. Corporate ventures can be seen as a form of organizing new product development teams. Corporate ventures can provide for enabling entrepreneurial persons to exploit their innovative capabilities without leaving the corporation. Also, corporate ventures cannot exist without corporate entrepreneurship, which provides the venture with ideas and committed people. In studies of organizational learning, corporate ventures are seen as a method for learning through exploration. They provide organization opportunities for adapting to and understanding the changing environment.

Corporate ventures are closely linked to studies on innovation. As innovation is seen as a departure from status quo, an opportunity to not face the restricting control of mature operations is a prerequisite. In innovation studies, corporate ventures are forms of separating the new venture from the routinization of the parent, probably mature, organization. Some studies compare corporate ventures with independent ventures. Corporate ventures compete and cooperate in market environment in similar factor endowments as independent ventures. In some new venture studies corporate environments are separated only by a dummy variable denoting the origin of the venture. One of the important characteristics of corporate venturing is its operation on two fronts

simultaneously. The success in product or service markets and success in establishing legitimacy and exploiting resources of the parent company are very much intertwined.

III. CONCLUSIONS

In conclusion we could stress that understanding absorptive capacity by focusing on a firm's capability to acquire, assimilate and transform external knowledge through the actions of its corporate venturing units is an evolving discipline. Moreover, the relationship between absorptive capacity and corporate venturing might explain why some companies are better than others in acquiring and assimilating new external knowledge. It might also lead practitioners to question current views in internal venture evaluation and add routines and processes for transferring newly acquired capabilities between new ventures and existing business units.

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