Corporate entrepreneurship in a dispersed setting: actors, behaviors, process

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Summary

Although conceptual models of corporate entrepreneurship process are numerous, our current empirical knowledge regarding it remains fragmented, especially when contributions of individual employees to corporate entrepreneurship are concerned. Thus, an important question remains unanswered: How do employees from different managerial ranks of an organization contribute to the corporate entrepreneurship process and how these contributions change as the project unfolds over time? In the current research we aim at filling this gap and offer an integrative framework of corporate entrepreneurship process that would account in a dynamic way for the contributions of multiple actors through their activities and behaviors. We approach these questions in a specific context by studying three cases within a large company in a dispersed corporate setting.

Keywords : Corporate entrepreneurship; Entrepreneurial behaviors; Framework; Case study.

JEL Classification: C61, etc.

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CORPORATE ENTREPRENEURSHIP IN A DISPERSED SETTING: ACTORS, BEHAVIORS, PROCESS

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Accepted for the Workshop “The Role of Corporate Entrepreneurship in the Current Global Economic Turmoil”
(July 19th, 2012 San Sebastian)

Although conceptual models of corporate entrepreneurship process are numerous, our current empirical knowledge regarding it remains fragmented, especially when contributions of individual employees to corporate entrepreneurship are concerned. Thus, an important question remains unanswered: How do employees from different managerial ranks of an organization contribute to the corporate entrepreneurship process and how these contributions change as the project unfolds over time? In the current research we aim at filling this gap and offer an integrative framework of corporate entrepreneurship process that would account in a dynamic way for the contributions of multiple actors through their activities and behaviors. We approach these questions in a specific context by studying three cases within a large company in a dispersed corporate setting.

Keywords: Corporate entrepreneurship; Entrepreneurial behaviors; Framework; Case study.

1. Introduction

This paper presents a qualitative in-depth study of corporate entrepreneurial behaviors in a dispersed setting. We do it in a context of a large industrial company which has been active for more than 140 years and is now represented in more than 50 countries worldwide. In such a context corporate entrepreneurs will likely be most contrasting to the rest of the organization (and therefore facing most rigidity from it). At the same time, it is for the large established organizations employing thousands of potential corporate entrepreneurs, that a dispersed approach can bring most benefit.

Corporate entrepreneurship (CE) can be defined as a combination of formal and informal activities aimed at creating new business ventures, products, services or

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technologies within established firms based on individual initiative to extend firm’s activities in areas marginally related to the current domain of competence (Antoncic and Hisrich 2003; Burgelman 1983; Zahra 1991). In recent time CE has received a lot of attention as an activity important for firms’ vitality (Dess et al. 2003). Indeed, the benefits associated with it can be significant: it may improve organizational performance and/or enhance strategic value (Birkinshaw and Hill 2003; Ireland et al. 2006; Hornsby et al. 2002), allow organic growth and constant learning (Biggadike 1979); stimulate continuous innovation (Tidd et al. 2005; Dougherty and Hardy 1996) and eventually lead to portfolio/risk diversification (Birkinshaw and Hill 2003). Moreover, the need for obtaining and developing entrepreneurial skills in addition to the skills of managing the existing business was stressed in numerous works on ambidextrous organizations (e.g. Tushman and O'Reilly III 1996; O'Reilly III and Tushman 2008). Therefore, the companies may not only want to, but need to set up and stimulate CE initiatives.

Birkinshaw (1997) noted two types of CE settings within corporate walls: dispersed and focused. The focused approach assumes that new ventures are developed within dedicated units, such as New Business Development (NBD) departments, and its most notable example is internal corporate venturing. The dispersed approach to CE assumes initiative of employees who are not specifically dedicated to developing innovations and engaging in CE activities. In this paper we discuss the latter, dispersed, approach.

Indeed, there seems to be a gap in our current knowledge on this topic. Studies of CE activities outside of the dedicated units traditionally devote a lot of attention to the individual contributions of bottom-up intrapreneurs (Pinchot 1985; Antoncic and Hisrich 2001; Carrier 1996; Lumpkin 2007; Sayeed and Gazdar 2003) and middle-level innovation champions (Howell et al. 2005; Markham 1998; Howell and Boies 2004; Day 1994), while the contributions of other organizational members to the entrepreneurial process remain largely overlooked. However, if we rephrase Day (1994, p.149): to assume that one function ‘is the most important is to ignore the realities that in different situations, other functions may be much more critical’. Therefore, we need to pay attention to how different CE actors contribute to the creation of the final result. A few studies have started developing this multi-level focus (Floyd and Lane 2000; Hornsby et al. 2009). However, there are two issues linked to their approaches. First of all, the framework proposed by Floyd and Lane (2000) and adopted by some CE scholars (Dess et al. 2003; Kuratko 2007) stems from the strategic management literature and needs to be empirically anchored in the CE field. Second, the authors do not take into consideration that the roles of different management layers may change over time. As CE projects take on significant times for their development (MacMillan et al. 1986) it seems logical that the contributions may vary as the process unfolds. Therefore, we need to develop an empirically grounded model of CE behaviors at different hierarchical levels which would include a process dimension, allowing these behaviors to change over time.
To do so we develop a conceptual analytical framework allowing simultaneous analyzing of hierarchical and process dimensions of CE. It, on the one side, reflects the key categories of entrepreneurial action: discovery of ideas, evaluation of their feasibility, legitimation among other organizational members and exploitation by deploying resources and bringing up novel businesses for the company; on the other side it reflects the contributions of different hierarchical levels within each of the categories.

The rest of the paper is organized as follows: we first present an overview of the literature regarding the dispersed CE process; second, we describe the methodology of the study and briefly present the cases; we then present the results and offer a discussion.

2. Corporate entrepreneurial behaviors in the literature

To achieve the goal of the study we formulate two research questions: “what activities constitute the CE process?” and “how different management levels may contribute to this process?” The literature review on these two dimensions (the process dimension and the hierarchical dimension) allows us creating canvas for our further empirical analysis.

2.1. Behaviors within the dispersed CE process

The process of developing entrepreneurial initiatives within established organizations has been a subject of considerable scholar attention, and a variety of views on its elements has been introduced. To start with, we identified and selected studies that described the process aspect of dispersed CE. We understand “process” as a sequence of events or activities. That said the selected studies contributed to answering the first research question.

In our review we found a diversity of (dispersed) CE process conceptualizations. To be able to build on these studies we felt a need to bring them under a common classification. Thus, we looked into the definitions of the different activities highlighted in the selected studies and brought under the same label those, whose definitions looked similar. For example, we decided that “identify opportunity” and “generate ideas” belong together. Similarly, we grouped together “project definition” and “define business concept”. To the newly formed types we then gave names. In order to avoid creating new labels, we decided to refer to an existing classification. As resorting to one of the established (dispersed) CE approaches would mean using the same label while changing its definition, we opted for taking the generic entrepreneurial process conceptualization of Shane and Venkataraman (2000). They describe the entrepreneurial process as consisting of discovery, evaluation and exploitation of entrepreneurial opportunities. Their approach is both accepted in the CE literature (e.g. Kuratko et al. 2005), and defined very clearly, which facilitates classification. Still, some of the activities identified in the CE literature did not fit this three-tier typology. To accommodate them we added a fourth category. It was linked to promoting and legitimating of CE initiatives (Hornsby et al. 1993; Kanter 2004; Kuratko et al. 2005; Hornsby et al. 1999). Table 1 provides the definitions.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Accumulated definition</th>
<th>Behaviors</th>
<th>Suggesting studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discovery</td>
<td>Why, when, and how opportunities for the creation of goods and services come into existence</td>
<td>Think about new work-related ideas</td>
<td>Hornsby, 1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Suggest ideas</td>
<td>Hornsby, 1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Generate ideas</td>
<td>Damanpour, 1991; Mumford et al., 2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Decide to act entrepreneurially</td>
<td>Hornsby, 1993</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Initiate</td>
<td>Russel, 1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identify opportunity</td>
<td>Kuratko, et al., 2011</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Normative assessment of an idea and its development into a valuable project</td>
<td>Project definition</td>
<td>Kanter, 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Development</td>
<td>Damanpour, 1991; Mumford et al., 2002; Russel, 1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Business feasibility planning</td>
<td>Hornsby, 1993</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Endorse and refine opportunities</td>
<td>Kuratko, et al., 2005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Define business concept</td>
<td>Kuratko, et al., 2011</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identify resource needs</td>
<td>Kuratko, et al., 2011</td>
</tr>
<tr>
<td>Legitimation</td>
<td>Getting attention, recognition and approval from the organizational members</td>
<td>Build coalitions</td>
<td>Kanter, 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Talk outside the department about new ideas</td>
<td>Hornsby, 1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Overcome barriers</td>
<td>Hornsby, 1993</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Navigate opportunities</td>
<td>Kuratko, et al., 2005</td>
</tr>
<tr>
<td>Exploitation</td>
<td>Different action modes directed towards gathering resources and bringing the project to the market</td>
<td>Action</td>
<td>Kanter, 2004</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Idea implementation</td>
<td>Hornsby, 1993; 1999; Damanpour, 1991; Mumford et al., 2002; Russel, 1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bypass normal channels to pursue idea</td>
<td>Hornsby, 1999</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identify, acquire and deploy resources</td>
<td>Kuratko, et al., 2005; Kuratko, et al., 2011</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implement &amp; manage the concept</td>
<td>Kuratko, et al., 2011</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Harvest</td>
<td>Kuratko, et al., 2011</td>
</tr>
</tbody>
</table>

As results from the discussion above, discovery, evaluation, legitimation and exploitation comprise the process dimension of our analysis. It is necessary to say that these categories of activities form “dominant logics” (Venkatraman 1997), or categories of activities. To our knowledge, potential sequences of CE activities have not yet been
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conceptualized. In attempt to open this “black box” we depict in time the sequence of corporate venture creation.

2.2. **Actors of the dispersed CE process**

Studying the roles of different management ranks in the CE process contributes to the second part of the research question we answer in this study. According to the dispersed CE approach “every individual in the company has the capacity for both managerial and entrepreneurial behavior more or less simultaneously” (Birkinshaw 1997, p. 209). A common approach in the literature is to consider organizational actors through their hierarchical position. When doing so, scholars focus on three main levels: top, middle, and operating. In the CE literature much of the scholar attention has been devoted to the role of the middle-level managers. Being the intermediates between the top-level executives’ perspectives and implementation issues surfacing at lower organizational levels allows them to keep their hands on the “pulse of the organization” (Hornsby et al. 2002; Kuratko et al. 2005; Dutton et al. 1997). Nevertheless, there is evidence for the importance of the contributions of other levels. For example, Vesper (1984) associates capturing of entrepreneurial opportunities with “individual subordinates from below in the organization”. Ireland et al. (2009) look at the entrepreneurial activity of “organizational members” as opposed to the “top management”. A series of works (Kuratko et al. 1990; Covin and Slevin 1991; Hornsby et al. 1993; Hornsby et al. 2002; Kuratko et al. 2005) argues in favor of an interaction between senior and middle management.

In structuring our literature review along the different hierarchical levels we faced one difficulty. It was caused by the definitional issues. Most papers would not include an explicit definition of the managerial level they studied. Furthermore, a variety of labels assigned to the managerial levels have been used by scholars. This diversity of labels and understandings may limit the capacity of academic community to exchange their results and may lead to wrong conclusions in case where works use the same label, but understand it differently. Therefore, below we offer workable definitions for the three key levels of management within the organization and then show how we classify the different labels according to this three-tier structure.

Under the **top-level** management we understand the inner circle of executives who collectively formulate, articulate, and execute the strategic and tactical moves of the organization (Eisenhardt et al. 1997). In the **middle-level** management category we assign a very broad layer of employees, who are in a direct line of formal authority between the top management and the operating level (Dutton and Ashford 1993; Wooldridge et al. 2008). An important defining feature of middle managers is that they supervise supervisors and are supervised by others. Functionally, this level may include general line managers, functional line managers and team- or project-based executives (Wooldridge et al. 2008). The **operating-level** management are those managers responsible for specific
functions and operations, and their direct reports, who themselves produce the basic products and services of the organization, or directly support their production (Mintzberg 1983). Table 2 shows the way we structured our analysis and which labels were associated with any of the three levels.

Table 2: Labels associated with top, middle and operating management

<table>
<thead>
<tr>
<th>Level</th>
<th>Labels associated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Top</td>
<td>Top, Corporate, Strategic, or Senior managers, Higher levels of management;</td>
</tr>
<tr>
<td></td>
<td>General Manager, Chief Executive, Top Management Team, Steering Committee</td>
</tr>
<tr>
<td>Middle</td>
<td>Middle-level managers</td>
</tr>
<tr>
<td>Operating</td>
<td>Professionals; First-level, or lower managers; Task force; Functional, technical and product innovators</td>
</tr>
<tr>
<td></td>
<td>Managers, Individual contributors, Organizational members</td>
</tr>
</tbody>
</table>

Thus, in the further analysis we suggest to use this three-tier structure. Together with the four basic CE activity types (discovery, evaluation, legitimation and exploitation) they build up to an integrative framework of CE behaviors at different hierarchical levels of the company.

3. **Methodology**

3.1. **Research approach**

To develop an empirically grounded model of CE behaviors at different hierarchical levels and trace how these behaviors change over time, we employ a multiple case study approach. Yin (1994) suggests that case studies are useful in the situations where ongoing activities need to be studied within their context, are hardly separable from this context and the parameters of this context cannot be manipulated by the researcher. Indeed, “entrepreneurial behavior does not occur in a vacuum” (Kuratko et al. 2005, p. 704), and thus an in-depth engaged investigation in a real-life context is an appropriate method.

The privacy agreement signed by the authors precludes disclosure of specific details concerning the projects and the company. Therefore, the names of the people, products and entities have been disguised.

3.2. **Research setting and sample selection**

The research is conducted in collaboration with a large Europe-based industrial company (ChemCo) founded more than 140 years ago. Nowadays ChemCo is operating in more than ten different areas concentrated in two business sectors. It employs more than 25,000 employees in about 50 countries worldwide and generated between EUR 7 and 13
billion in net sales in each year of the study. ChemCo holds world leading positions on several products in each of its core business sectors.

The study combined convenience and theoretical sampling approaches. Convenience sampling assumes that the generalizability of the results may be traded off against a more in-depth insight regarding the object under the study. That said we initially approached nine teams, who either won an Innovation Contest of the company, or whose leaders were part of the semi-informal network of Innovation Champions of the company. Then we proceeded with the theoretical sampling and selected three teams (out of nine). Theoretical sampling assumes that the researcher has a number of criteria derived from the literature and seeks to study cases that respond to these criteria. To be selected a case should have corresponded to the following criteria:

1. originated and developed within an existing unit other than NBD department;
2. was new to the company on at least two of the three dimensions of products, markets, or technologies;
3. required creation of new capabilities to add new possibilities for positioning in markets.

Similar criteria are used by Stopford and Baden-Fuller (1994); Day (1994); Biggadike (1979).

Table 3. Description of cases

<table>
<thead>
<tr>
<th></th>
<th>New product</th>
<th>New market</th>
<th>New technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>x</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Case 2</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Case 3</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
</tbody>
</table>

When the interviews were held, none of the projects had achieved commercial success, defined as generating enough revenues to cover costs and produce a profit. Also, none of the projects was observed from the beginning to its end. Such an observation would require a process of 7 to 12 years.

Case1 describes development of a GreenVenture initiative that took place between 2003 and 2012. The business unit (BU) in focus employed about 1500 people and operated in ten countries. The main purpose of this BU is producing “Alpha” and “Beta” family of products. There were issues in the classical process of producing Alpha: its environmental unfriendliness and progressive erosion of profitability. The initiative aimed at dealing with them; it was developed by a team of five people in two countries in Europe, and then passed to one of the Asian countries (three more people).

Case2 describes development of a Dreams initiative which took place between 2006 and 2012. The owning BU employed more than 2000 people and functioned in 20
countries, while being headquartered in the US. A starting idea was proposed by the business management in the US, and developed by a team of four people each of whom was residing in either of two European countries, or in two different states of the US involved.

Case 3 describes development of an Ivo initiative which took place between 2005 and 2012. It was developed in the same BU as in the Case 2. However, this initiative involved another group of products and technologies, and was developed by a different group of people in a different setting. The development started bottom-up in Europe (two consecutive leaders in two European countries) and was finalized in the US (a third leader).

3.3. Data collection

We collected data from several sources: (1) interviews with the teams and their management; (2) active participation in numerous meetings regarding CE together with a member of the Board of the Company, the Corporate Innovation Champion and Corporate HR learning officers; (3) multiple secondary sources such as press communications, internal presentations, personal observations and participation in other meetings.

Similar to O’Connor and Veryzer (2001) the interviews occurred in three phases:

- In Phase I initial interviews were conducted with one or two lead members of the project team to understand the background of the project and verify whether it meets the criteria for selection.
- In Phase II available project team members were interviewed. Interviews were semi-structured, partially guided by questions generated earlier in the process.
- Phase III involved sending to all the participants the summaries of their interviews for confirmation, most of which ended up with follow-up conference calls of about one more hour to provide additional details. At this stage secondary data was used to confirm/contest the initial interview data.
- Additionally, to increase the validity of the research, for each case a narrative was written.

For the majority of data a retrospective analysis is combined with ongoing (about 2 years) observations of the project developments. Where possible, we triangulate the data by using different sources of information.

3.4. Analysis

We recorded and fully transcribed all of the interviews, which lasted between 1.5 and 3 hours each; the research notes and emails were systematized as well. All data sources
were coded accordingly to the three types of analysis: contextualized critical incident analysis, thematic coding as well as double coding.

The critical incident analysis aimed at reconstructing the stories of the cases. For each case we reviewed all of the interviews and created a common storyline. We assembled a chronological list of “events”, defining them as critical incidents in major functions related to the development (Garud and Rappa 1994), and verified it against the archival data evidence. To place these events in a larger context we adopted the approach of Minnesota Innovation Research Program (MIRP, Van de Ven and Poole 1990), which suggests that an innovation development should be studied along six dimensions: ideas, people, transactions, context, outcomes and process.

The thematic coding targeted the topics that representatives from each management level introduced during the interviews. The coding process started as completely open, and evolved by going back-and-forth between the data and the coding structure until the grid of codes stabilized. The grid was later compared to one of the recently suggested frameworks of CE behaviors (Floyd and Lane 2000; Dess et al. 2003; Kuratko 2007).

The double coding was about simultaneous coding of the stage, level and CE actions. We depict it in the form of the integrative framework and show how this framework may enable a deeper analysis of the contributions to the CE process from different managerial levels.

4. Findings

4.1. The critical incident analysis

4.1.1. Discovery

Discovery is about how entrepreneurial opportunities come into existence. In short, ideas for each of the cases came from different levels: middle (Case1), top (Case2) and operating (Case3). Cases 1 and 3 were launched as having a specific goal, Case2 started as very open and broad search for opportunities. Nevertheless, for each of the projects several iterations were necessary before a stable version of the product (process) was brought up. These iterations had various natures: they could refine the project (provide additional details), substitute some aspects of the project (change the format of the project or a structure of partners), or add to the core of the project (provide additional features). The content analysis of the cases shows that the key factor of keeping the initial idea “unchanged” was the ability of entrepreneurs to legitimate it in the eyes of the decision makers. The project launched at the top level did not appear to have more a-priori legitimacy than two others.
Evaluation

Evaluation is defined as normative assessment of an idea and its development into a valuable project. Our literature review identified two types of activities within it: gathering the necessary information and transformation of the idea into a structured project.

In the CE literature scholars mostly talk about three types of information to be gathered: technical, marketing and political (insider) information (Shane et al. 1995; Garud and Van de Ven 1992; Gupta et al. 2004; Howell and Boies 2004; Hayton and Kelley 2006; Shane 1994; Kanter 2004). A recent research by Zahay et al. (2011) uncovered eight types of information for the new product development: strategic, project management, financial, market and customer, wants and needs, technical, competitor, and regulatory information. We coded the information from the cases according to both classifications, taking the three-category typology as our basis.

The types of the information clearly included market and technical information. Technical information mostly included infrastructural search for facilities and partners. Market information was mostly used in the later stages and involved information about competitors/benchmark rather than search for the needs of the customer. The three innovations described in the cases were technology-driven. It should be noted that the teams have not mentioned any gathering of political information that would allow them to promote their projects later, but used it extensively. This finding suggests either that corporate entrepreneurs are politically savvy people; or that we need a specific methodology for extracting this information. Regarding the timing of the information gathering (IG), it included at least four stages in each case. Also the information gathered had different nature. VanderWerf (1993) suggested that the information is being gathered in two main stages – early, or initial, information gathering and more intensive one when the venture aims at resource acquisition. Our analysis augments his results, suggesting that dispersed CE initiatives that do not possess as large budgets as their NBD colleagues, have to proceed in smaller steps, gathering support information and demanding for resources several times.

Defining the project is essentially focusing and structuring the idea in order to present it to the higher levels of management and to the team. Steering committees were formed for each of the teams. Nevertheless, only one team (Case2) spoke about writing and presenting a business plan. The first team prepared ‘a note to the Board of the Company’, the third dealt with most of the problems through meetings with the management. The content analysis of the interviews has shown that this could have been influenced by the initial project leader’s attitude to entrepreneurship. For example, in the Case1 the leader of the project perceived entrepreneurship mostly through the risk taking perspective. The document submitted to the management of their organization was perceived as a
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necessity to obtain resources. In the Case2 the leader perceived entrepreneurship through creation of a business and thus writing a business plan was a goal in itself.

4.1.3. Legitimation

Legitimation is about endorsing, navigating and championing the identified opportunities through the crucial organization stages (Floyd and Lane 2000; Sandberg 1992; Gupta et al. 2004; Kuratko et al. 2005; Hayton and Kelley 2006).

In the literature we can trace back two approaches: the strategies approach of Suchman (1995) and legitimacy crises approach of Van Dijk (2009). One suggests that the teams have a legitimacy strategy (LS), such as conformation (matching with existing norms, beliefs and interests); selection (freely choosing an appropriate institutional group that would welcome the development); and finally transformation (shaping and stimulating new norms, interests and beliefs). The other approach suggests that establishing legitimacy happens as a response to the “gaps” or legitimacy crises (LCs).

The current study shows that the teams were following specific LSs from the beginning of their projects. However, at different points of time external or internal conditions would cause a gap in the perception of the project thus creating LCs. These LCs would normally need a short-term appropriation of “resolution” LSs (RLS). Type of RLSs would be determined by the nature of the crisis (see Table.4).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discovery</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of innovation</td>
<td>Process</td>
<td>Product</td>
<td>Product</td>
</tr>
<tr>
<td>Type of search</td>
<td>Problem driven</td>
<td>Opportunity driven</td>
<td>Problem driven</td>
</tr>
<tr>
<td>Type of conception</td>
<td>Refinement</td>
<td>Substitution</td>
<td>Addition</td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Type of information</td>
<td>Technical/Regulatory</td>
<td>Market/Technical</td>
<td>Technical/Partner</td>
</tr>
<tr>
<td>Type of proposal</td>
<td>2 notes to the Board</td>
<td>2 business plans</td>
<td>-</td>
</tr>
<tr>
<td>Legitimacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Main LS</td>
<td>Transformation</td>
<td>Non-conformation</td>
<td>Conformation</td>
</tr>
<tr>
<td>Type of LC</td>
<td>Internal/General</td>
<td>Internal</td>
<td>External/General</td>
</tr>
</tbody>
</table>
### 4.1.4. Exploitation

The projects presented in this study have just started entering the phase of exploitation and no in-depth analysis can be done with the available data.

Table 4 above summarizes the results of the analysis.

### 4.1.5. Sequencing of corporate venture creation

The analysis presented above suggests that each of the activities required a number of iterations which were changing the final result. To understand the exact sequencing of the activities, we developed the Fig. 1. To make it we imagined that the projects started at the same time: year 0, and mapped the main events on two axes: one describing time (year 1, 2, …) and another – describing the type of activity (discovery, evaluation, legitimation and exploitation).

![Fig. 1 Development timelines](image)

On Fig. 1 we can see that in the starting two years all three projects iterated between discovery and evaluation by shaping and refining their ideas. Further, two out of three cases failed at the first legitimation and had to come back to the evaluation stage and gather additional data or re-shape their initiatives. The Case1 initiative passed the first legitimation thanks to the preliminary informal screenings of top management’s attitude to the project. They have started going towards exploitation when a LC put them back to re-evaluation and re-legitimation. The Case2, where the leader aimed at showing ‘company within a company’ has formally passed only the third legitimation attempt.
Having been in development for five years all projects went to the market-adjustment period.

Based on the discussion above and Fig.1 we may highlight three distinct stages: first 2-3 years of adjustment of the idea by the team, second 2-3 years of adjustment of the project by the management, and a third period of 2-3 years of adjustment of the offer by the market. The “adjustment by the team” period includes “travelling” between the evaluation and the discovery activities; the “adjustment by the management” period involves legitimation, failure to achieve which can push the project back to evaluation or even discovery; the “adjustment by the market” is the most vulnerable as a project may go back to any of the three activities mentioned before: discovery, evaluation, and legitimation.

4.2. Actors

Our literature review provided evidence for using a three-tier structure of management levels. However, to reflect the nature of the company under study we had to split the “top management” category in two: “top-corporate” category and “top-business” category. This decision was driven by the presence of the corporate parent (“top-corporate” level). The “top-business” level reflects the behaviors of the strategic decision makers of the BU. Our results show two different patterns of behaviors.

Compared to the literature (e.g. Floyd and Lane 2000; Dess et al. 2003; Kuratko 2007) we saw that the top-business management level shows more hands on behaviors. On the other hand the operating managers were demonstrating innovative or autonomous behavior and were much more engaged with considerations of the corporate strategy, competitiveness and environmental posture than it was suggested by the previous authors who rely on the findings from the strategic management literature. These results (although they may indicate the specificity of the current company) suggest that CE is done by the people who step beyond what is expected from them by their functions, even if these are top level managers. Further, as we show later, the development of CE initiatives is a team work. More specifically – at least two different managerial levels jointly contributed to bringing the project further.

4.3. Double coding

Double coding traced activities of employees at each stage of the development. It resulted into Fig.2.

On Fig.2 we can see the exchanges of different managerial levels as they develop CE opportunities. The arrows depict the direction of action. For example, if a development starts at the middle level, they spot an idea and come to the operating management who starts learning about and experiment with it. As soon as the experimentation brings
results, they formulate their findings (re-discover this idea in new terms and a better detailed design) and return to the middle management. They link this technical development with the market by synthesizing both own and operating level information and define the strategy of the venture to fit with the organization’s strategy. Two-edged arrows symbolize that through this action the innovation may go to another stage. This depiction of the information exchange is simplified for a better understanding of the process, while in reality the communication between levels may take place very smoothly without clear borders.

Fig.2 Model of CE behaviors

We have highlighted three periods (see Fig.1): team adjustment, management adjustment, and market adjustment. These three periods are diverse in the number of management levels participating in the development as well as the types of activities involved.

4.3.1. Discovery to evaluation

The first period “discovery-evaluation” is characterized in our study by a joint work of middle and operating management who discover, experiment, learn, synthesize and strategize about the project. The business and even corporate management may be involved indirectly by recognizing future areas of development, facilitating and ratifying the decisions of the middle and operating level teams.
4.3.2. **Evaluation to legitimation**

During the second period “evaluation-legitimation” the idea of the future product or process is formulated in a proposal and presented to the management. The top-business management starts being actively involved in shaping the initiative. Our research demonstrates that the middle level managers champion the idea up and the top management either ratifies it or directs it to conform to their expectations. In case of ratification, the top management sponsors the further development. Otherwise, the team is given directions on how to re-design the initiative. If the modifications which are required by the top management are significant, it may involve a change in the design of the CE project and lead to re-discovery. In case when the top management decides to sponsor the initiative the development loop is similar with the only difference is that it sooner gets into the third period “legitimation to exploitation”. This is possible because the team, having the funds of the top management, may perform more tests and accelerate the development to sooner approach the production and bring the project to the customers.

The role of the middle management is to link the demands of the management and the potential of the project. They further coach the operating level by formulating a challenge for them and encouraging them to work on the changes. The coaching is necessary. First, because the non-linearity of the development may decrease the motivation of the team members as they have to design and redesign the innovation. Second, because of the increasing complexity of the project new members join the team and need to be enrolled on the project. Thanks to the learning and coaching the operating level becomes more independent and starts engaging in external gatekeeping – getting information from the outer world. They also get a better picture of the development, the management requirements and the technological readiness of the project in their area.

4.3.3. **Legitimation to exploitation**

During the third period the team still continues on the finalization of the technology, but they normally collaborate with the future customers to fine-tune the innovation to the market. Here, the operating level management takes the lead on the implementation (production) side, while the middle level management together with the top level management champions the project and presents it to the corporate management.

The analysis presented here above answers the question of how contributions of different managerial levels to the dispersed CE process change over time.

5. **Discussion and conclusion**

This paper holds a number of contributions to the existing research. First, by studying the behavioral aspect of CE we are contributing to a better understanding of the nature of this process at different hierarchical levels of organizations. We highlight different strategies
and approaches for each of the stages of the CE process. We have identified different modes for products to come into existence and proposed that they are determined by the ability of entrepreneurs to legitimize the envisioned initial product. In their turn, LSs of the teams also differ. We have identified that the most used strategy for resolving internal LCs is conformation. We have further noted a few discrepancies with the literature. For example, we have seen that the top management may demonstrate a rather hands-on behavior by helping in creating a team or performing a role to exchange information with the external partners. Further, our study shows that in large organizations the term “corporate entrepreneur” is becoming a collective image. Indeed, Hayton and Kelley (2006) state that different behaviors may be performed by one person (in a smaller organization) as well as by several persons (in a larger organization). This suggests that scholars should focus more on the functions and behaviors included in this process rather than trying to describe entrepreneurial personality.

Still, this study has a number of limitations. First, the case describes an entrepreneurial developments within only one (though large) company. The company may have a specific profile which would not be “smoothened” by using multiple case studies covering different contexts. A second limitation concerns the nature of the data collected which might suffer from the retrospectivity bias, when only successful interaction strategies are remembered and reported by the participants. However accepting all the possible limitations of our approach, we still hope to obtain a useful insight into corporate entrepreneurial behaviors.

References


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