The Effect of Board of Directors Capital on Innovation Outputs

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ABSTRACT

The current study conceptualizes how the Board of Directors’ Depth and Breadth will impact the firm’s innovation outcomes (types of innovation and degree of novelty). The paper proposes the firm’s strategic orientation (exploration vs. exploitation) and transformational leadership as moderators to the relationships between board capital and innovation outcomes.

Key Words: Board of Directors, Board Composition, Innovation, Transformational Leadership, Exploitation, Exploration.

Purpose: The current study aims to assess how the board of directors of an organization, as a firm’s resource, will help organizations increase its innovation capability. The study will draw a parallel design analyzing the impact of board formation (breadth and depth) on innovation outputs. The relationship between board capital and innovation outputs will be moderated by the firm’s strategic orientation and transformational leadership.

Research Questions: The study will investigate the impact of board of director’s capital as a firm’s resource on the innovation capabilities and how it will be reflected in financial performance. Moreover, we will study the contingency factors of explorative and exploitative orientations. Finally, this study will draw a parallel structure analyzing board breadth and board depth impact on innovation.

Research Gap and Contribution: The concept of board capital is relatively new. No prior study addressed the relationship between innovation as a capability and a board capital as a firm resource. The study will contribute the existing literature by addressing the research questions. This will provide more insights about the optimal board composition that will lead to particular type of innovations.
INTRODUCTION

“Innovation distinguishes between the leader and the followers”. Steve Jobs

Innovation has proven itself as the new business religion and main driver of competitiveness in business landscape (The Economist, 1997). Organizations are showing a great emphasis on innovation as a driver of sustainable competitive advantage. The topic of innovation outcomes is capturing both practitioners and academic. Innovation’s mechanisms and the resources needed to insure innovation success are among the questions that always need further research.

Top management commitment to innovation path is important to the success of the any innovation initiative. In large companies, top management will follow the board member instructions and directive influencing the firm’s results.

In this paper, we are viewing the board of directors as a firm resource derived from the human and structural capital. The board of director capital was divided into board depth and board breadth (Haynes & Hillman, 2010). The firm capital will impact the firm’s strategic decisions. We propose that the board capital represents an interesting area of research that requires more detailed research. One venue of research would be how the resources are transformed into capabilities. In fact, firm’s resources are bundled together creating firm’s specified routines that will lead to capabilities (Barney, 1991). These capabilities are considered to create and sustain firm’s competitive advantage. One of these capabilities is innovation outcomes.

Innovation represents the firm’s ability to transfer an idea into useful outcomes. The topic of innovation was studied for almost a century with multiple perspectives. In this study we will focus on the nature of innovation (process vs. radical) and the degree of novelty (incremental vs. radical). The innovation outcome is related to the organization management style and the firm’s strategic orientation.

Miles at al. (1978) addressed the issue of business strategic orientation. The firm strategic orientation will influence the firm’s results. This paper will draw on March (1991) work to conceptualize exploitative and explorative strategic orientation. We will attempt to assess the contingencies between the strategic orientation and capital board. To our knowledge, no prior studies examined board capital and innovation capabilities and assessed this issue in the context of strategic fit.

The current study will attempt to draw a parallel design assessing how the board capital structure as a resource will impact the innovation outcomes. We will investigate the impact of board of director’s capital as a firm’s resource on the innovation capabilities and how it will be reflected in financial performance. Moreover, we will study the contingency factors of explorative and exploitative orientations. Finally, this study will draw a parallel structure analyzing board breadth and board depth impact on innovation.

The paper will be presented as follows: the next section will address the conceptual section and construct definition. Then, we will address the theoretical background and hypotheses building. Finally, we will provide the future directions of the current research.
CONCEPTUAL PART

The following section will focus on the literature review and the conceptualization of the study constructs. The study will mainly draw on the intellectual capital perspective to better understand and conceptualize the board capital construct.

Intellectual Capital

Intellectual Capital is defined as the collection of elements of intangible assets that consist of or utilize human intellect and innovation to create wealth (Johnson, 1999). Researchers have classified organization intellectual capital as: Human Capital, Structural Capital, and Social Capital.

*Human capital* reflects the human capability to solve work related issues and problems. In advanced manufacturing and technology management literature, human capital is defined as tacit and explicit knowledge manifested through the technical skill levels of the work force and relative organizational learning capabilities (Maddocks & Beaney, 2002; Menor, Kristal, & Rosenzweig, 2007). Hillman and Dalziel (2003) argued that firm’s board of directors represents a firm human capital by the nature of knowledge and know how it contributes.

*Structural Capital* is defined as the supportive infrastructure, processes and databases of the organization facilitating human capital to function (Maddocks & Beaney, 2002). Structural capital includes tangible assets such as buildings, hardware, software, as well as intangible like processes, patents, and trademarks. In addition, structural capital includes such things as the organization’s culture, organization, and information technology capabilities. Some researchers classified structural capital into organization, process and innovation capital. The board of directors’ documented inputs during the meeting has a significant impact on the organizational structure. In this case, the board of directors’ capital does not represent a structural capital on itself; however, the board of capital input can be viewed as structural capital.

*Social capital* is an intermediary form of intellectual capital consisting of knowledge resources embedded within, available through, and derived from networks of relationships (Adler & Kwon, 2002; Nahapiet & Ghoshal, 1998). Recent researches emphasize the importance of social capital in achieving sustainable competitive advantage. Hillman and Dilzel (2003) argued that the board of director’s relationships and connections represents a firm’s social capital and therefore a valuable asset to the firm.

Board Capital

Board capital is conceptualized as the combination of the human and social capital of the board of directors which is reflected by the board’s ability to provide resources to the firm (Hillman & Dalziel, 2003). The board of directors has mainly two functions. First, it monitors the work of the managers in order to preserve the stockholders investment (Dalton, Daily, Certo, & Roengpitya, 2003). Second, the board of directors represents a valuable resource for the firm’s management team providing strategic and technical advice (Dalton, Daily, Johnson, & Ellstrand, 1999). More recent studies have built on the previous research to conceptualize the board capital as the breadth and the depth of the director’s human and social capital (Haynes & Hillman, 2010).
paper will draw on Haynes and Hillman (2010) study and elaborate on the concept of board capital breadth and board capital depth.

**Board Capital Breadth** reflects the board member demographics and expertise heterogeneity which can be drawn from previous research of management team heterogeneity (Pegels, Song, & Baik, 2000). The management team diversity is reflected by educational and functional diversity (Pegels, et al., 2000). Haynes and Hillman (2010) extrapolated the concept of heterogeneity to the board member and created and validated a new construct, Board Capital Breadth. In this study, board capital breadth is defined as the portfolio of directors’ functional occupational, social, professional experiences and extra-industry ties. This construct will capture the diversity of the directors’ human and social capital (Haynes & Hillman, 2010).

**Board capital depth** reflects the board member embeddedness in the firm’s principal industry. The board member embeddedness can be reflected through the “industry interlocking directorates” (Haynes & Hillman, 2010). Interlocking directorates happens when members of a firm board of director serves in multiple corporations (J. Scott, 1997). Interlocking is possible via three main ways: (1) horizontal—among competing organizations; (Gilmore & Pine 2nd) vertical—among organizations located in adjacent stages of production; and (3) symbiotic—among complementary organizations (Pennings, 1980). In this paper, board capital breadth refers to the embeddedness of directors in the firm’s primary industry through interlocking directorships, managerial positions, or occupational experience in the primary industry of the firm. It is also measured by the sum of the directors’ intra-industry human and social capital (Haynes & Hillman, 2010).

**Classification of innovation**

For almost 100 years, scholars investigated innovation and defined it in multiple ways emphasizing different features e.g. (Galunic & Eisenhardt, 2001; Knight, 1967; Schumpeter, 1934). For example, innovation has been defined based on the outcomes (Tushman & Nadler, 1986). Moreover, innovation was identified as the process of transforming ideas into new outcomes (Baregheh, Rowley, & Sambrook, 2009).

Scholars have studied innovation from a content perspective and as a process. The content perspective is reflected by the type of innovation (product, process, organizational…) and the nature of innovation (radical, incremental, modular, and architectural) (Damanpor, 1996; Henderson & Clark, 1990). The process perception includes the generation, development, adoption, implementation, and eventual termination of a new idea or behavior. The majority of the studies emphasized the content perspective: type of innovation, breadth of innovation, depth of innovation time to market (Argyres & Silverman, 2004). The current study focuses on content aspect (product and process) and the degree of novelty (incremental vs. radical) as a part of the firm capability or outcome. In fact, this study focuses on the transformation of resources into capability and therefore we view the firm’s ability to innovate as a capability that can be measured by the outcomes.

**Radical product innovation** is defined as the introduction of new products (services) with significant technological difference from the existing products. On the other hand, **incremental product innovation** is defined as the introduction of products (services) with minor
improvements to the existing product (Chandy & Tellis, 1998; Herrmann, Gassmann, & Eisert, 2007; Valle & Vázquez-Bustelo, 2009).

Radical process innovation refers to the introduction of new or significantly improved practices into the firm’s operations aiming to reduce the cost of operations and/or improve the quality of products (services). In contrast, incremental process innovation reflects the implementation of minor practices with the goal to achieve lower cost and/or improved quality of product (services) (Ettlie, 1983; Gatignon, Tushman, Smith, & Anderson, 2002; Kim, Kumar, & Kumar, 2012; Reichstein & Salter, 2006).

Firm’s Strategic Orientation

The firm strategic orientation interested scholars who attempted to identify different approaches to assess and measure the strategic orientation. Organizations are identified as prospector, defender, analyzer, and reactor (Miles, Snow, Meyer, & Coleman, 1978). Miles et al. classification reflects the firms’ aggressiveness in the market. Other than the aggressiveness, the firm’s strategic orientation is reflected in the firms’ intentions (Venkatraman, 1989).

Organizations are required to maintain a balance between exploration and exploitation is a primary factor in system survival and prosperity (Levinthal & March, 1993; March, 1991). The concept of exploration and exploitation is widely researched in multiple for the past two decades. Exploitation and exploitation was mainly assessed as a firm’s competence. The concept of exploitation and exploration was after moved into different context other than learning. More recent studies approached the exploitation exploration area of research from strategic point of view (Kristal, Huang, & Roth, 2010; Yalcinkaya, Calantone, & Griffith, 2007). In fact, exploitation and exploration can be view as strategic decision that firms will adopt.

Exploitative and Explorative Strategies

Previous researches did not provide a clear definition of exploitative strategy. However, drawing from similar studies, we can define exploitative strategy as the firm’s deployment of the resources (material and non-material) to improve continuous improvement of the operations. The resources can be investment on material aiming to improve the processes or extensive employee training aiming to improve their current tasks. In contrast, we will define exploratory strategic orientation as the firm’s deployment of resources (materiel and non-material) to seek new ways of operations and enhancing the organizational external know how. For example, firms’ with strong exploratory strategic orientation will invest in employees cross training so they can acquire new competencies. The strategic orientation will also be manifested in the firm’s general guidelines and employees’ job description.

Transformational leadership

Many scholars consider leadership as one of the most important aspects determining organizational learning and organizational success (Bryant, 2003). Most leadership literature has focused on leader traits, style, behavior, power, transactional leadership, and transformational leadership (Northouse, 2012). Transformational Leadership began with Burns (1978) when he tried to find relationships between leadership and followership amongst political leaders (Burns, 1982). Then his work was expanded by (Bass, 1985) who considered the first scholar to apply
TL theory in business. Bass labeled transformational leaders those who are successful in managing their organizations via radical changes (Bass, 1985).

Transformational practices can increase employees’ trust in the leaders and this trust leads to improved individual performance (Ismail et al., 2010). Transformational leaders try to make changes that reach and increase performance and organizational effectiveness. The existence of this kind of leadership is reflected in subordinates who are enthusiastic about the leader’s opinions and ideas (Schermmerhorn, 2008).

Transformational Leadership consists of four elements. First, idealized influence: transformation leader acts as role model and display charismatic personality that influences others to want to become more like the leader. Second, Inspirational motivation: refers to the leader’s ability to inspire, confidence, motivation, and a sense of purpose in his followers. Third, Intellectual stimulation: is when the leaders encourage the followers to try new approaches. Fourth, Individualized consideration: the degree, to which the leader attends to each follower's needs, acts as a coach to the follower and listens to the follower's needs. These four behavioral patterns positively affect followers by elevating them to the best they can be, motivated by achievement and self-development (Bass, 1985).

**Firm’s Performance**

Firm’s ultimate goal is generating profit and satisfying its stakeholders. The studies investigating firm’s financial performance are numerous and have investigated the firm’s financial performance from multiple facets. Firms’ performance can be evaluated from long term results versus short term. For example, the firm’s financial performance was conceptualized in term of growth and profitability (Venkatraman, 1989). The growth dimension reflects the performance trend of the business in terms of sales gains and market share gains, while profitability dimension reflects an efficiency view of current performance. This conceptualization fits perfectly in our framework of assessing the exploration exploitation tandem.

**THEORETICAL DEVELOPMENT**

The paper mainly assesses the classical transformation of resources into capabilities. In this case, we have conceptualized the board capital as a firm specific asset composed of human and structural capital. The resource based view of the firm is adequate theory strengthening the link among the constructs.

**Resource Based View of the Firm**

The resource based view (RBV) of the firm suggests that organizations compete and create value on the basis of resources that are unique, rare, valuable, and not easily imitable or substitutable (Barney, 1991). Firm Resources is defined as set of “... all assets, capabilities, organizational processes, firm attributes, information, knowledge, etc. ...” that a firm controls and that facilitates the implementation of strategies that create value for the firm (Barney, Wright, & Ketchen Jr, 2001). Capabilities are developed when these resources are combined to create a firm specific ability. Therefore, a capability is the firm’s ability to deploy resources to create a capability. The
organization board represents a firm specific resource that can be deployed in an effective way to lead to capability. The board capital in fact provides the organization with the strategic orientations which will influence the firm’s output.

In this paper, we will focus on the innovation as firm capability. The resource based view of the firms helps understand the transition from resources to capabilities (Board capital into innovation outcomes). Therefore, we will argue that RBV is the main driver for the translation of board capital into innovation.

Contingency Theory

Contingency theory is widely used in the Management of Information System field and its impact on innovation capabilities (Weill & Olson, 1989). The contingency theory however was the subject of multiple debates and generates numerous critiques about its validity. The contingency theory was developed first at the organization level in the middle of the 20th century to explain the relationship between the different components of the organization. “The contingency approach attempts to understand the interrelationships within and among organizational subsystems as well as between the organizational system as an entity and its environments. It emphasizes the multivariate nature of organizations and attempts to interpret and understand how they operate under varying conditions.” (Kast & Rosenzweig, 1973). In the case of this paper, both board of directors and strategic orientation are considered as subsystems. Board of director structure and firm’s strategic orientation must have proper fit to ensure organizational success.

The contingency theory has been widely criticized by scholars because the variables used in a study are small compared to all the factors that might influence the firms’ performance (Weill & Olson, 1989). Because of the narrowed scope of the study (Innovation outcomes), the theory can be adopted to justify some of the theoretical linkage between the variables.

**PROPOSITIONS DEVELOPMENT**

Board Capital and Innovation Type

Board capital depth implies a greater understanding of the firm’s industry. The board member will show high knowledge of the industry practices. Previous study showed that the board capital depth will lead to less strategic change and more focus on incremental improvement (Haynes & Hillman, 2010). The board depth will favor more incremental changes and will make the firm strategic position more as a defender. Drawing on Miles and Snow (1978) typology, we can argue that the board depth is tightly related defenders strategy. In fact, more “deep” board will promote activity aiming to improve firm’s effectiveness by focusing mainly on the practices available on the firm’s acting industry. Therefore, we expect that firms with high capital depth will lead to more process innovation inside the organizations in comparison with product innovation.

In contrast, the board breadth will lead to more strategic change such as expanding in new markets or diversifying the available product and services offered (Haynes & Hillman, 2010). The diverse background and expertise as shown in the board members will provide firms with different perspectives as targeting different markets. Moreover, drawing on the strength of weak
ties perspectives (Granovetter, 1973), board breadth will reflect the diversity of resources such as different industry backgrounds or diversified expertise. In fact, the strength of weak ties states that a relationship made of two or more entities that are different will represent a source of extra knowledge and will make the relationship more beneficial. The same logic can be applied to the board member made of people with different backgrounds and expertise. The board will be expected to generate more diversity will help the company explore more opportunities. Previous studies associated the relationship between explorative depth will impact exploration potential which will lead to product innovation (Bryant, 2003). Therefore, we expect that board capital breadth will create more product innovation in comparison with process innovation.

In the light of the previous paragraphs, we formulate the following:

- P1a: Board Depth will be more associated with process innovation in comparison with product innovation.
- P1b: Board breadth will be associated with product innovation in comparison with process innovation

**Board Capital and Innovation Novelty**

Our second set of propositions will relate to the relationship between board capital and the degree on innovation novelty. In the conceptual section, we have mentioned that we will address incremental and radical innovation as main novelty typology.

Board capital depth will favor exploitative activities as they seek to improve the firm’s current practices and will be reluctant to strategic change (Haynes & Hillman, 2010). Exploitative activity is by nature tied with more incremental change (Bryant, 2003). The level of expertise and embeddedness to the focal industry will manifest in a continuous emphasis in small incremental improvement. This aspect will lead to incremental innovation. On the other side, the board breadth will provide the company with more diverse perspectives. The explorative aspect will call for more openness to the external world. The firm will increase its knowledge capital diversity making it more likely to innovate radically. Therefore, we propose the following:

- P2a: Board Depth will be more associated with incremental innovation in comparison with radical innovation.
- P2b: Board breadth will be associated with radical innovation in comparison with incremental innovation

**Moderating Effect of Strategic Orientation**

Moderating relationships are very interesting since they provide organizations with factors that influence the strength of the relations. In this study, we will attempt to assess the impact of firm’s strategic orientation on the innovation capability formation. Board depth has an impact on the firm’s process and incremental innovation. In case the organization has an exploitative strategic orientation, we expect that the relationship will be stronger. Analogically, we expect that exploratory strategic innovation will strengthen the relationship between broad breadth and radical and product innovation. The rationale behind these relationships is derived from contingency theory. The strategic orientation will provide a “fit” to the nature of resources provided by the board of directors and the expected innovation capability.
• P3a: Exploitative strategic orientation will moderate the relationship between BC depth and process innovation and the relationship between BC depth and incremental innovation.

• P3b: Explorative strategic orientation will moderate the relationship between BC breadth and product innovation and the relationship between BC breadth and radical innovation.

**Moderating Effect of Transformational Leadership**

According to Scott and Scott and Bruce (1994), organizational climate is a crucial factor for innovation. Organizational climate when the employees' perceptions of the extent to which creativity is encouraged at the workplace and the extent to which organizational resources are allocated to supporting innovation influence innovation performance (S. G. Scott & Bruce, 1994). An employee's perception of an innovative climate encourages risk taking, and the challenge to use creative approaches at work. Transformational Leadership will create a climate promoting innovation. The board of director focus and strategic decision will be craven by the leader’s transformational spirit. Paulsen et al. (2009) argued that Transformational leader who can use inspirational motivation and intellectual stimulation is necessary for organizational innovation. Such leaders have the vision to motivate their employee’s, set increasing challenges, overcome crises, and stimulate innovation. The stimulation will not be limited at the employee level, but it will also be reflected at the board of directors. For example, Apple Inc. though Steve Jobs leadership was be apple to put its self as innovative firm and embedding the innovative culture inside the organization.

Organization with leadership focusing on changes and promoting initiative as reflected in the transformational leadership will have greater chances in achieving higher innovation outcomes. Haynes and Hillman (2010) emphasized the role of CEO power in implementing strategic changes inside organizations. Drawing on this, we can argue that the transformational leadership level will play a moderating role in transforming the firm’s resources (board of director capital) into capabilities (innovation outputs).

The following propositions can be formulated:

• P4: Transformational leadership will positively moderate the relationship between BC capital (depth and breadth) and innovation outputs (type and novelty)

**Innovation Capabilities and Performance Outcomes**

We have conceptualized outcomes from growth and profitability point of view. Process and incremental innovation are generally small improvement aiming mainly the reduction of costs and better utilization of the existing firm’s capital. Therefore, we expect that this will impact the firm’s profitability. In contrast, product innovation helps meet existing customers demand and attract more customers. For example, apple’s innovative products and continuous product improvement helped the company increase its customers and therefore its sales. Moreover, radical innovations are associated with high technological newness and high customer fulfillment (Chandy & Tellis, 1998). Radical innovation is characterized by high investment making it not profitable on the short term. However, it improves the firm’s financial growth (Sorescu, Chandy, & Prabhu, 2003).

Based on the previous assumptions, we propose the last two propositions.
- P5a: Process and incremental innovation will positively impact the firm’s profitability.
- P5b: Product and radical innovation will positively impact the organization growth.

Figure 1: Conceptual Model

METHODOLOGY

The set of hypotheses will be tested using secondary data from S&P 500 companies. A list of companies will be identified as primary targets. These companies will be from industries that are innovation concentrated such as high tech companies and pharmaceutical firms. The board of director depth and breadth will be measured by assessing the board of directors’ criteria as shown in table 1. The innovation outcome will be measured by coding the firm’s patented innovation and decided whether they are product or process and the incremental or radical. We plan to have 3 to 5 coders from the industry and the academia to help us code the patents.
## CONSTRUCTS DEFINITIONS AND MEASUREMENT ITEMS

Table 1: Constructs Definitions and Measurement Items

<table>
<thead>
<tr>
<th>Constructs</th>
<th>Definition</th>
<th>Metrics</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Board Capital Depth</td>
<td>The embeddedness of directors in the firm’s primary industry through interlocking directorships, managerial positions, or occupational experience in the primary industry of the firm, and is the sum of the directors’ intra-industry human and social capital.</td>
<td>Depth and linkage to the industry</td>
<td>(Haynes &amp; Hillman, 2010)</td>
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<td>Industry embeddedness</td>
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<td>Industry expertise</td>
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<td></td>
<td>Years of expertise in the focal Industry</td>
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<td>Board Capital Breadth</td>
<td>The portfolio of directors’ functional occupational, social, professional experiences and extra-industry ties and captures the heterogeneity of the directors’ human and social capital.</td>
<td>Functional heterogeneity</td>
<td>(Haynes &amp; Hillman, 2010)</td>
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<td></td>
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<td>Occupational heterogeneity</td>
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<td>Product Innovation</td>
<td>The introduction of new product lines satisfy existing or new customer needs</td>
<td>Product differentiation</td>
<td>(Kim, et al., 2012)</td>
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<td>Product innovation frequency</td>
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<td>Frequency of product innovation in comparison with competition</td>
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<td>Reputations for product innovation</td>
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<td>Product innovation contribution to sales</td>
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<td>Process Innovation</td>
<td>The implementation of new processes aiming cost reduction and/or quality improvement.</td>
<td>Process differentiation</td>
<td>(Kim, et al., 2012)</td>
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<td>Reputation for process innovation</td>
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<td>Process innovation cost reduction/quality</td>
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<td>Radical Innovation</td>
<td>The adoption of new technologies to create a demand not yet recognized by customers and markets.</td>
<td>Seeking new technologies for improvement purpose</td>
<td>(Jansen, Van Den Bosch, &amp; Volberda, 2006)</td>
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<td>Exploring external resource for innovation purpose</td>
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<td>Radical Innovation as part the innovation outcomes</td>
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<tr>
<td>Incremental Innovation</td>
<td>Minor changes of existing technologies in terms of design, function, price, quantity, and features to meet the needs of existing customers.</td>
<td>The use of existing technologies for improvement purpose</td>
<td>(Jansen, et al., 2006)</td>
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<td>Exploiting existing resource for innovation purpose</td>
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<td>Incremental innovation as part of the innovation outcomes</td>
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<td>Firm Performance</td>
<td>The firm’s financial performance in term of growth and profitability (long and short term)</td>
<td>Sales growth position relative to competition</td>
<td>(Venkatraman, 1989)</td>
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<td>Market share gains relative to competition</td>
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<td>Net profit position relative to competition</td>
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<td>ROI position relative to competition</td>
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CONCLUSION

This conceptual paper aims to provide a grounding work on assessing the relationship between organization resources or inputs as manifested on the board of director capital and how it can lead to capabilities shown by innovation outputs. The study also aims to explore the moderating effect of the firm’s strategic orientation and the level of transformational leadership in moderating the relationship. Finally, we are looking into the impact of innovation on the financial performance at the short run (profitability) and the long run (market positioning). We are currently working on data collection and coding part to measure the different constructs.

One of the limitations that we are facing is the difficulty to capture process innovation. Analyzing the patents, it was hard for us to capture as much process innovation as product. We are afraid that the number obtained will not help us support our hypotheses. Second, transformational leadership is mainly measured via primary data through questionnaire. Using secondary data to assess the transformational leadership of a company might be hard to realize given that some contradictive assessment of leader are available in the press.

The future steps of this paper will be to refine the results obtained and attempt to find more adequate measure for the moderating variables. We also intend to put the study in cultural context by addressing some difference between western and eastern society and how this might affect the model. Another area of future assessment is to capture the level of ambidexterity inside the board of directors. Can a board of director balance both explorative and exploitative activity and how this might affect the organization’s performance?

REFERENCE LIST


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