

THE CONCEPT OF BOARD CAPITAL IN CORPORATE GOVERNANCE RESEARCH: A STRUCTURED LITERATURE REVIEW

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Abstract

The purpose of this paper is to review and critically evaluate the extant academic research employing the concept of board capital, which was introduced by Hillman and Dalziel (2003) in order to explain the antecedents of effective board functioning and the resulting impact on firm performance. The emergence of a growing body of empirical literature based on the concept of board capital and the goal of identifying the main research topics and empirical strategies triggered the structured review presented in this paper. This study analyses 64 empirical articles encompassing the concept of board capital using a structured literature review methodology. We narrowed the search to articles published from 2003 to July 2019 and listed in the Scopus database. The selected articles mainly focused on the impact of board capital on firm performance and corporate social responsibility (CSR) disclosure. Other relevant but less numerous works focused on the impact of board capital on firm innovation and firm internationalization. This research also highlights the need for qualitative studies examining the actual process of board monitoring and advising on strategic issues. Additionally, findings revealed a scarcity of empirical studies addressing certain national contexts, including Italy. This study is limited with

respect to the analysed time period (2003-July 2019) and to the methodological approach employed to review the selected articles. We found no evidence in published academic journals of any previous literature review on board capital research.

1. INTRODUCTION

In the field of corporate governance the functions of the board of directors have been largely studied among scholars. Traditionally corporate boards have been assigned two main functions:

1. Monitoring management on behalf of shareholders, which is the perspective of the agency theory (Langevoort, 2001; Sundaramurthy & Lewis, 2003; Letza et al., 2004).

2. Advising and counseling CEO and management on strategic issue (Donaldson, 1990; Donaldson & Davis, 1991; Davis et al., 1997) and provision of other critical resources to the firm, which is the perspective of the resource dependence theory (Pfeffer & Salancik, 1978; Boyd, 1990; Thompson, 1969; Hendry & Kiel, 2004; Hillman et al., 2000).

Hillman and Dalziel (2003) effectively combined the agency perspective and the resource dependence perspective and introduced the concept of 'board capital' in order to explain how boards affect firm performance by leveraging on both monitoring and resource provision. They define board capital as encompassing the human and social capital of corporate boards. The human capital consists of a set of skills and knowledge that directors collectively bring to the board, derived from their investment in education and experience inside and outside the firm (Stevenson & Randin, 2009; Nicholson & Kiel, 2004; Wincent et al., 2010; Kor & Sundaramurthy, 2009). Social capital is the sum of actual and potential resources embedded within, available through, and derived from, the network of relationships possessed by an individual or social unit (Nahapiet & Ghoshal, 1998).

The authors emphasized the interdependent nature of human and social capital, arguing that each director simultaneously provides human and social capital, what they referred to as "board capital". Board capital – they contended – affects both the monitoring and resource provision functions, which in turn impact on firm performance.

Starting from the aforesaid perspectives, this paper presents a review of a selection of empirical articles which addressed the impact of board capital on firm performance and other organizational outcomes.

This paper is organized as follows. Section 2 describes the research questions of this study and the methodological approach used to (i) choose the articles and (ii) find a logical connection among them in order to build a citation impact index and a coherent analytical framework based on five different categories. Section 3 explains the analytical framework resulting from collecting and classifying data. The final section provides the authors' conclusions based on the findings of the literature review, its limitations and a view on the future of board capital research.

2. RESEARCH METHODOLOGY

This study uses a structured literature review (SLR) methodology (Guthrie et al., 2012; Dumay & Cai, 2014; Dumay et al., 2016) which involves a multi-step review process to categorize articles which fell in the scope of the research theme of board capital. Each step of the process is explained in the following sections.

2.1. The literature review protocol

The first step of the review process concerned the description of the research project: its goals and scope. To this regard, we decided to review the board capital academic literature having acknowledged that to date there is no evidence of such an investigation on published journals. The scope of this review was limited to the collection and analysis of empirical studies. The selection was also restricted to those papers employing key measures of board capital in line with its core definition of combined human and social/relational capital such as: functional and educational background, industry or firm-specific experience, number of interlocking directorates. Accordingly, we excluded those papers employing 'rough' measures of board capital such as board size, board independence, CEO duality or gender diversity.

The review process also implied the creation of a citation index and the definition of different categories in order to classify the selected papers. The indexation and categorization of the reviewed papers provides a useful understanding about the pathway followed by researchers.

2.2. Research questions

The second step of the review process concerned the definition of the research questions. According to Massaro et al. (2016) researchers use structured literature reviews in order to map the existing intellectual territory and identify future research needs. Following this rationale, our paper addresses three research questions:

RQ₁: How is research on board capital developing?

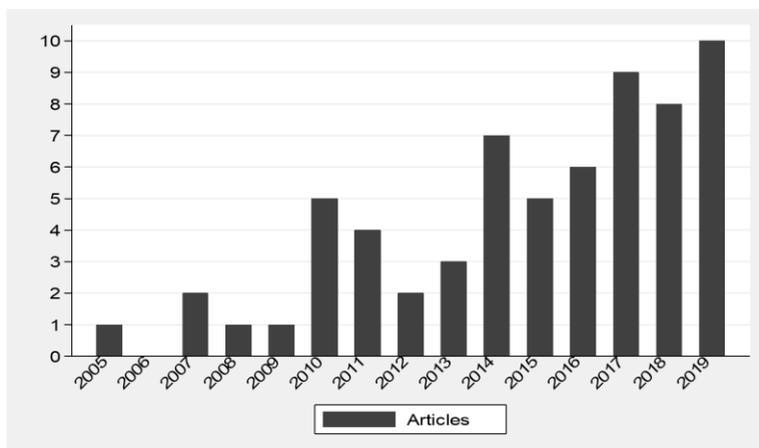
RQ₂: What is the focus of board capital research?

RQ₃: What is the future for board capital research?

2.3. The literature search process

The third step of the review process implied the selection of the data source used for the structured review. By using the Scopus database we selected articles from internationally-recognized academic journals covering different topics, including, but not limited to, business economics, corporate finance, integrated reporting, corporate social responsibility and intellectual capital disclosure. We limited the scope of the research to empirical studies that had the terms "board capital" appearing in the title, abstract or set of keywords of the article.

Figure 1. Number of publications and trend



As a result of this search, we identified 64 articles meeting the aforesaid criteria, 70 per cent of which were published from 2014 to July 2019 suggesting a growing trend (Figure 1).

2.4. Articles citation impact

The fourth step of the review process concerned the analysis of articles' impact based on the number of Scopus citations.

We chose to use two different approaches in order to rank the sample articles by their citation impact. To this regard, Table 1 shows the top ten sample articles ranked by the absolute number of citations and Table 2 shows the top ten articles ranked by citations per year (CPY).

As Dumay and Cai (2014) suggested, the problem with determining the impact from citations standalone is that older articles can accumulate more citations. Therefore, in order to counterbalance this tendency, we used CPY to analyze the citation impact of board capital research.

As a result of this combined approaches we found out there are five articles in common to both rankings (Bear et al., 2010; Liao et al., 2015; Tian et al. (2010); Hillman, 2005; Kor & Sundaramurthy, 2009).

Moreover, the CPY index highlighted a growing interest over time on the theme of board capital. As shown in Table 2, the top ten articles ranked by CPY are the most recently published: Cucari et al. (2018) was cited 22 times, Fuente et al. (2017) 19 times, and Chang et al. (2017) 15 times.

Table 1. Top ten articles ranked by Scopus citations

<i>Reference</i>	<i>Article</i>	<i>SCOPUS citations</i>
Bear et al. (2010)	The impact of board diversity and gender composition on corporate social responsibility and firm reputation	374
Hillman (2005)	Politicians on the board of directors: Do connections affect the bottom line?	274
Tian et al. (2010)	The effects of board human and social capital on investor reactions to new CEO selection	200
Kor and Sundaramurthy (2009)	Experience-based human capital and social capital of outside directors	164
Kroll et al. (2008)	Board vigilance, director experience, and corporate outcomes	142
Liao et al. (2015)	Gender diversity, board independence, environmental committee and greenhouse gas disclosure	141
Dalziel et al. (2011)	An integrated agency-resource dependence view of the influence of directors' human and relational capital on firms' R&D spending	110
Wincent et al. (2010)	Does network board capital matter? A study of innovative performance in strategic SME networks	74
Li et al. (2012)	The effect of audit committee characteristics on intellectual capital disclosure	73
Barroso et al. (2011)	Board influence on a firm's internationalization	70

Table 2. Top ten articles ranked by citations per year (CPY)

<i>Reference</i>	<i>Article</i>	<i>CPY</i>
Bear et al. (2010)	The impact of board diversity and gender composition on corporate social responsibility and firm reputation	41
Liao et al. (2015)	Gender diversity, board independence, environmental committee and greenhouse gas disclosure	35
Cucari et al. (2018)	Diversity of board of directors and environmental social governance: Evidence from Italian listed companies	22
Tian et al. (2010)	The effects of board human and social capital on investor reactions to new CEO selection	22
Hillman (2005)	Politicians on the board of directors: Do connections affect the bottom line?	20
Fuente et al. (2017)	The role of the board of directors in the adoption of GRI guidelines for the disclosure of CSR information	19
Khanna et al. (2014)	Director human capital, information processing demands, and board effectiveness	19
Kor and Sundaramurthy (2009)	Experience-based human capital and social capital of outside directors	16
Chang et al. (2017)	Exploring the relationship between board characteristics and CSR: Empirical evidence from Korea	15
Jermias and Gani (2014)	The impact of board capital and board characteristics on firm performance	15

3. ANALYTICAL FRAMEWORK

The fifth step concerned the codification of the selected articles and the subsequent analysis of the resulting framework. This codification process

was based on the criteria developed by Guthrie et al. (2012). In an attempt to adapt their codification system to our research goal we chose five different coding criteria (instead of six as in Guthrie et al., 2012).

Table 3. Analysis of board capital articles

<i>Code</i>	<i>Category</i>	<i>Number of articles</i>
A	<i>Jurisdiction</i>	64
A1	Supra-national	10
A2	National	54
B	<i>Organizational focus</i>	64
B1	Publicly listed companies	53
B2	Private - SMEs	3
B3	Private - others	3
B4	Not-for-profit	4
B5	Public	1
C	<i>Country of Research</i>	64
C1	USA	21
C2	Europe	16
C3	Asia	14
C4	UK	5
C5	Africa	1
C6	Australia	1
C7	Intercontinental	6
D	<i>Research method</i>	64
D1	Case study	3
D2	Survey	2
D3	Regression model with panel data analysis	40
D4	Regression model with non-panel data analysis	19
E	<i>Research focus</i>	64
E1	Impact of Board Capital (BC) on firm performance	18
E2	Impact of Board Capital on CSR Disclosure/Performance	14
E3	Impact of Board Capital on firm innovation	9
E4	Impact of board capital on firm internationalization	4
E5	Others	19

Note: Adapted from Guthrie et al. (2012)

3.1. Jurisdiction

We first categorized the selected papers by jurisdiction – that is, according to their research setting – into either supra-national or national. After tagging to each article a research setting, we counted only ten ‘supra-national’ papers. Among these, Filatotchev et al. (2018) examined the impact of interlocking directorates of CEOs, internal and external board members on investor perceptions of initial public offering (IPO) firms in the United States and the United Kingdom. Oehmichen et al. (2017) found a positive impact of prestigious boards on firm operating performance approximated by the return-on-asset (ROA) ratio using a sample of firms based in 15 different countries (Belgium, Switzerland, Germany, Denmark, Spanish, Finland, France, Ireland, Greece, Netherlands, Norway, Italy, Sweden, UK, USA).

Notwithstanding these notable exceptions, the great majority (51) of articles has a national focus. We reckon the tendency of limiting empirical research on a single country resides on the difficulty of collecting and comparing information on the 'board capital' (educational, functional background, networks of contacts) of foreign companies.

3.2. Organizational focus

The second criterion is the 'organizational focus' and classifies the sample articles according to the types of organizations being researched into five categories: B1 - Publicly-listed companies; B2 - Private - Small Medium Enterprises (SMEs); B3 - Private - others; B4 - Not-for-profit organizations; B5 - Public organizations.

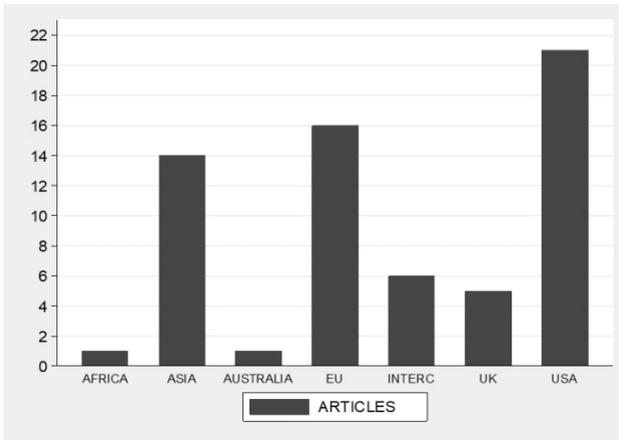
As expected, most of the examined researches retrieved data from listed companies who make available to the general public their financial and other company reports which are a viable source of information when analyzing board capital, whereas we found very few (six) studies on non-listed private companies. Among them, only three articles were empirical researches focused on SMEs, based in Sweden (Wincent et al., 2010), Norway (Pugliese & Wenstøp, 2007) and USA (Garg & Eisenhardt, 2017) respectively. It comes as no surprise since SMEs have less disclosure requirements in terms of their (board) governance relative to listed companies. Likewise, we found only four studies on not-for-profit organizations (Brown, 2007; de Andres et al., 2010; Boesso et al. 2017; Hinna & Monteduro, 2017) and only one paper on public sector organizations (Kirkpatrick et al., 2017).

3.3. Country of research

The third criterion is country of research. We adapted the criterion developed by Guthrie et al. (2012) and divided the country of the research into seven regions: C1 – USA; C2 – Europe; C3 – Asia; C4 – UK; C5 – Africa; C6 – Australia; C7 – Intercontinental (INTERC). We found that most articles (21) were empirical researches involving organizations based in the USA (see Figure 2).

Other regions of great interest for researchers were Europe (16 papers) followed by Asia (14 papers). Less papers (5) were UK-based although it is worth mentioning an article investigating on the relationship between board capital and intellectual capital disclosure (Li et al., 2012). Furthermore, we found one paper that investigated the impact of board capital on Corporate Social Responsibility Disclosure (CSR) in Australia (Hollindhale et al., 2019) and one paper that investigated the impact of board capital on strategic change in Africa (Tarus & Aime, 2014). Eventually six papers combined data from different continental settings which we refer to as INTERC.

Figure 2. Articles by country of research



3.4. Research method

The fourth criterion is the research method (D) divided into four attributes each representing a different empirical approach: D1 – Case study; D2 – Survey; D3 – Regression model with panel data; D4 – Non panel data regression model. As already mentioned we selected empirical studies and excluded conceptual and theoretical papers and literature reviews. To this regard, we found that the most employed method within the selected articles was the multiple regressions with panel data analysis. We had evidence that only two studies were based on surveys (Boesso et al., 2017; Brown, 2007) and three papers used the case study method (Garg & Eisenhardt, 2017; Hoppmann, Naegele, & Girod, 2019, Klarner, Probst, & Useem, 2019). The low number of case studies is not surprising given the difficulties to observe and measure directors' knowledge application since it takes place behind 'closed doors'. Consequently, most researchers revert to using the board human capital composition as a proxy for its actual involvement in the process of monitoring and advising managers on strategic issues. Indeed, only a few studies examined via the multiple case method how board capital influence strategy development, analyzing the interactions between directors and the CEO (Garg & Eisenhardt, 2017) or among board directors (Hoppmann, Naegele, & Girod, 2019) as well as the interactions between directors and organizational members (Klarner, Probst, & Useem, 2019).

3.5. Research focus

The fifth criterion is the research focus (E) of sample articles. We classified them into five categories, each group addressing a specific

relation between: E1 – Board capital and firm performance; E2 – Board capital and CSR disclosure/performance; E3 – Board capital and firm innovation; E4 – Board capital and firm internationalization; E5 – Others. As well expected, the predominant category is composed of (18) articles addressing the impact of board capital on firm performance, measured as either accounting performance (e.g. ROA, ROE, Sales growth) or stock market performance (Tobin's Q, Market-to-book value or Cumulative abnormal returns) or a combination of the two. The second predominant category is made of (14) articles examining the impact of board capital on CSR disclosure and performance, with particular stress on environmental management disclosure. This is followed by (8) articles examining the effect of board capital on firm innovation; and by (4) articles examining the relation between board capital and firm internationalization.

4. DISCUSSION, LIMITATIONS AND CONCLUSIONS

This article aimed to critically review the available empirical literature on board capital as conceptualized in the seminal work of Hillman and Dalziel (2003). They asserted that board capital such as expertise, experience, and ties to strategically relevant organizations affects both the functions of monitoring and resource provision, suggesting that best practices for board composition emphasizing board capital will positively influence both board functions and thereby firm performance.

By employing a multi-step literature review process, 64 articles were selected, examined in order to determine their impact and then classified according to their: 1) jurisdiction, 2) organizational focus, 3) country of research, 4) research method, and 5) research focus.

In the first part of our paper we answered to RQ_1 and RQ_2 . First, we found out that the CPY index highlighted a growing interest over time on the theme of board capital. Then, we showed that in the last sixteen years empirical research on board capital has 1) mainly examined national contexts, particularly the regions of the USA, Europe and Asia; 2) mostly used data from publicly listed companies; 3) mostly employed quantitative research methods (regression models); and 4) predominantly examined the impact of board capital on firm performance and CSR disclosure.

The aim of this section is to address the RQ_3 : "*What is the future of board capital research?*" and then highlight the limitations of this study together with some final remarks.

We advocate that board capital has not yet been fully investigated and that scholars should be committed to develop those areas not yet covered or underexplored by the existing board capital research. Considering the findings showed in this article, the latter assertion has four implications.

First, the association of board capital with financial performance and other organizational outcomes (internationalization, innovation) needs to be empirically tested in various other countries, including Italy.

We reckon that the lack of board capital research in these countries resides on certain factors such as the limited number of listed companies available (as a consequence of smaller equity markets) and the difficulties of collecting raw data from non-listed companies.

Secondly, future developments in this field imply a higher degree of cooperation between scholars located in different countries. International cooperation may stimulate a productive dialogue between scholars of different cultural backgrounds leading to unique more creative outcomes (Normaler et al., 2013). Interestingly we found that internationally co-authored papers have a higher citation impact than nationally co-authored papers.

The third implication concerns the need of broadening the research focus regarding the impact analysis of board capital. Although limited to our sample of 64 articles, we showed that empirical researchers have mainly examined the performance impact of board capital (18), and its association with CSR disclosure and performance (14) and firm innovation (9). Some also examined the link between board capital and firm internationalization but studies of this kind appear to be in relative short supply, as we found only 4 articles addressing this association. Furthermore, we didn't find any study on board capital and intellectual capital (IC) performance and only one paper on the issue of board capital and IC disclosure. These all represent potentially fruitful paths for future researches in the field.

The fourth implication is about 'case study' as an alternative and much needed research methodology to be used within the board capital field. We reckon that the shortage of case studies derives from the objective difficulty to collect information directly from the board of directors particularly by observing their factual behavior. Because of this hurdle, scholars only assume that directors who are well-endowed with human (knowledge) and social capital are value-enhancing to firms but they seldom provide direct evidence on how they deliver advice and counsel to managers on strategic matters.

Only a few recent studies have addressed this issue examining the interactions between either directors and the CEO (Garg & Eisenhardt, 2017) or among board directors (Hoppmann, Naegele, & Girod, 2019) as well as the interaction process between directors and other organizational members (Klärner, Probst, & Useem, 2019). Following these path-breaking efforts, future empirical researches should examine how directors actually engage in the process of monitoring and counselling managers on strategic issues.

Our study has limitations. First, the selected articles (64) descended from certain search criteria and thus results may vary according to different search criteria. The primary and most relevant criterion of selection was the empirical nature of the articles. We excluded theoretical and conceptual papers. Second, the chosen coding criteria cannot be considered an exhaustive framework for describing board capital research.

Finally, as with all interpretative research, the findings are limited to the breadth and depth of the data analyzed and our interpretation of the results. Although the structured literature review method may be deemed more reliable than other traditional authorship literature reviews, researchers using the same method and dataset may come up with different conclusions.

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