



Board information: meeting the evolving needs of corporate directors

Evolving needs
of corporate
directors

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773

Abstract

Purpose – Amid ongoing criticism that corporate boards do not receive adequate information to help them fulfill their current and emerging roles, the purpose of this paper is to focus on the type of information directors receive. Specifically, to examine whether greater board independence and greater board expertise were associated with receiving more information, in five specific categories.

Design/methodology/approach – Hypotheses about the relationships between the composition of corporate boards and the various types of information they receive were tested by means of a survey of 161 Canadian companies listed on the Toronto Stock Exchange.

Findings – The authors findings indicate a strong association between board expertise and each type of information received and suggest a weaker relationship between board independence and information received. Specifically, the results demonstrate that more independent boards do not receive larger amounts of information that is more forward-looking in nature.

Research limitations/implications – These findings contribute to the literature on governance by providing relevant empirical evidence, based on primary data on board information issues. However, these results must be interpreted within the context of the use of various perceptual measures.

Practical implications – Now that the composition of corporate boards has changed considerably, the findings of this study underline the need to re-examine the supporting information processes. Hence, this study should help provide guidance to organizations examining the content of their current information strategy.

Originality/value – An important contribution of this study is its detailed characterization of the information provided to corporate boards, including financial and non-financial information and reflecting the five traditional stages of the strategic management process.

Keywords Canada, Boards of directors, Board information, Board performance, Corporate governance

Paper type Research paper

1. Introduction

Over the past decade, stakeholders' expectations of corporate boards have changed dramatically. Governance activists, corporate shareholders, and government regulators are asking directors to play a more significant and active role in creating and protecting shareholder value (Adams and Ferreira, 2007). As a result, there has been an increased focus on the composition of corporate boards, particularly regarding the independence and the qualifications of board members. Many have argued that independent directors possess greater detachment and objectivity and are more likely to question management decisions and exercise vigilance (Fama and Jensen, 1983; Ryan and Wiggins, 2004; Weisbach, 1988). Accordingly, a number of securities markets around the world,



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such as the New York Stock Exchange and the Toronto Stock Exchange (TSE), are now recommending that boards be comprised of a majority of independent directors. However, with most North American listed companies having a majority of independent directors on their boards (Business Roundtable, 2008; Spencer Stuart, 2009), qualification issues have become more significant. Indeed, independent directors typically do not have the same access to company information as executive directors, nor do they have the same company-specific knowledge (Roberts *et al.*, 2005; Rutherford and Buchholtz, 2007). Hence, some securities markets have introduced specific requirements for board development programs, performance evaluations, and nomination processes for directors, in order to build and maintain the boards' level of skills and knowledge.

Now that the composition of corporate boards has changed considerably, the processes used to support their activities need to be re-examined (MacAvoy and Millstein, 2004). Since an imbalance in access to information can have a significant impact on a board's ability to create and protect shareholder value, processes meant to reduce this information asymmetry between companies and their independent boards have been the focus of particular interest. Indeed, pressures to reduce information asymmetry have been mounting. Several prominent organizations such as the Organization for Economic Co-operation and Development (OECD), the Business Roundtable, and the International Corporate Governance Network have developed principles and codes that specifically address information issues. In these documents, it is argued that in order to fulfill their responsibilities, directors must have access to accurate, relevant, and timely information. Pressures from corporate directors themselves are also growing. Boards are now increasingly implementing formal procedures to evaluate the quality of information flow and to assess director satisfaction. For instance, Mattel's *Governance Guidelines* stipulate that during their executive sessions, independent directors should advise the board chair as to the "quality, quantity, and timeliness of the flow of information from the Company's management that is necessary for the independent directors to effectively and responsibly perform their duties" (Mattel, 2010).

This study focuses on the type of information directors receive. In the context of significant changes to the composition of corporate boards, this study was undertaken to examine whether companies provide their directors with information that is consistent with their evolving needs. Specifically, we investigated whether greater board independence and board expertise were associated with an improved information strategy. An examination of these issues should make a contribution to the literature on governance by providing much-needed empirical evidence on board information issues. Very few studies have focused on the actual type of information directors have at their disposal (Johanson, 2008; Rutherford and Buchholtz, 2007). No doubt, the sensitive nature of internal corporate information has created significant barriers to access. Nevertheless, improving the quality of the information directors receive is critical, as it can play a key role in enhancing overall board effectiveness (Roberts *et al.*, 2005; Thomas *et al.*, 2009; Waldo, 1984). Furthermore, with most surveys reporting that directors still do not have appropriate information to help them fulfill their current and emerging roles and responsibilities (Deloitte and the Economist Intelligence Unit, 2007; Johanson, 2008; McKinsey, 2008), the results of this study may provide guidance to organizations as they evaluate their directors' information needs.

Consistent with agency theory arguments (Fama and Jensen, 1983; Rutherford and Buchholtz, 2007), we posited that in the face of increased pressure to reduce

information asymmetry, companies would provide their directors with improved information to ensure that independent directors have access to the same information as executive directors. Similarly, based on arguments from research on knowledge management (Cohen and Levinthal, 1990), we expected that boards with higher skill and knowledge levels would be better equipped to appreciate and assimilate information productively. Hence, we posited that boards with greater expertise would also receive better information. These hypotheses were tested through a survey of 161 Canadian companies listed on the TSE.

2. Conceptual framework

In order to investigate whether specific board variables were significantly linked to the type of information boards receive, we developed a conceptual framework that focuses on the relationships between two board characteristics (independence and expertise) and five categories of information (Figure 1).

Much has been written about the key role information plays in improving overall board effectiveness and particularly in counteracting board passivity (Kosnik, 1987; Roberts *et al.*, 2005; Thomas *et al.*, 2009; Waldo, 1984). In response to new legal and regulatory requirements and higher expectations regarding directors' involvement in strategy processes, boards now require more detailed and comprehensive information (Boulton, 1978; Lawler and Finegold, 2006; McNulty and Pettigrew, 1999; Tashakori and Boulton, 1983). The Sarbanes-Oxley Act of 2002 (SOX) has had a major impact on information management issues of listed American companies, their foreign subsidiaries, and foreign companies with a US listing. Requirements concerning enhanced financial disclosures have significant impact on the timeliness (Section 409), accuracy (Section 404), and relevance (Section 401) of the information companies provide their stakeholders. Listed companies in Canada and the USA have also been under pressure to improve the quality of disclosures, such as the management discussion and analysis (MD&A), in periodic reports. For example, the US Securities and Exchange Commission (SEC) has emphasized the need for better identification and discussion of key performance indicators, including non-financial performance indicators (US SEC, 2003). The SEC also argued that the MD&A should include information related to the external environment and industry-specific information. Since the audit committee is ultimately responsible for the MD&A, these new legal and regulatory requirements necessitate a complete re-examination of the content and flow of information provided to boards and other stakeholders.

Notwithstanding increased expectations and regulatory pressure, surveys have shown that many directors still do not receive the information, they need to help them

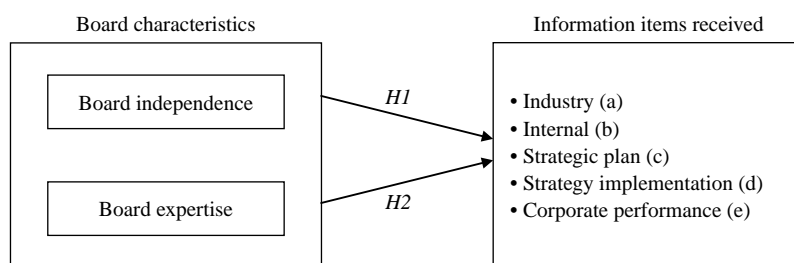


Figure 1.
Conceptual framework

fulfill their roles and responsibilities (McKinsey, 2008; Deloitte and the Economist Intelligence Unit, 2007; Johanson, 2008). For the most part, the information provided to boards still includes traditional accounting-based performance measures such as earnings and return on investment, which are designed to assess corporate performance. However, many researchers have criticized the limitations of financial accounting information as a management tool, because it focuses on historical data (Kaplan and Norton, 1992; Ittner and Larcker, 1998). Traditional financial measures are typically viewed as lagging indicators, i.e. they measure current and past performance, but do not adequately predict future performance. However, with increased pressure to participate actively in strategy formulation and implementation (Brauer and Schmidt, 2008; Pugliese *et al.*, 2009), directors require relevant information that provides insight into the company's future competitive position. The role of corporate boards has indeed evolved significantly over the years (Anderson *et al.*, 2007); whereas they used to focus primarily on monitoring management, they are now increasingly expected to assume an advisory role as well and to participate actively in the strategic process (Adams and Ferreira, 2007). Understandably, the information provided to corporate boards must now be consistent with these emerging roles and responsibilities.

Deciding on an appropriate information strategy that will assist directors in carrying out their duties presents certain challenges, since the strategy must satisfy and balance the interests and needs of management as well as those of the directors. Chief executive officers (CEOs) often fear that providing too much information may lead to the board interfering unduly in the company's day-to-day management. Furthermore, arbitrary increases in information may burden directors with excessive data that they might not be able to assimilate due to lack of time or expertise (Cohan, 2002). Information overload may, therefore, prevent directors from focusing on key strategic issues.

To improve the quality of the information boards receive, Epstein and Roy (2007) proposed an information package which would include both financial and non-financial information and which would reflect the five traditional stages of the strategic management process: situation analysis (industry and internal competency information), strategy formulation, implementation, evaluation, and control. Providing information about the industry, key internal performance metrics, and strategic plans would ensure that directors had access to information that is more forward-looking in nature. This type of information could result in a better understanding of the various steps and decisions leading to the formulation of a coherent mission strategy, while facilitating the development of an implementation plan and control mechanisms.

In assessments of the quality of information strategies, three fundamental criteria are widely recognized in the literature: timeliness, reliability, and relevance (Maltz, 2000; Rutherford and Buchholtz, 2007). While all these elements should be considered when crafting an information strategy for boards, this study focuses on the "relevance" of the information directors receive. Indeed, in recent years, companies have placed increasing importance on the development of relevant performance metrics to provide a better basis for assessing and managing corporate performance. Information systems have been developed to aid in the evaluation and implementation of corporate strategies. However, while there have been significant developments in the use of broader strategic management systems and a more careful identification of the drivers of value in organizations, few boards have put these improved information systems and metrics into practice (Cornell, 2003; Drew and Kaye, 2007; Epstein and Roy, 2003).

Hence, a better understanding of the types of information directors are receiving is of paramount importance.

As shown in Figure 1, the proposed model takes into account both historical data – such as financial and operational performance information and information about the implementation of the strategic plan – as well as more forward-looking information – such as industry, internal, and strategic planning information.

2.1 Independence and information processes

The independence of corporate directors has been examined extensively in the governance literature as a potential driver of board and corporate performance. While pressure to increase the representation of independent directors on boards continues to mount, the impact of independence on board and corporate performance is still being challenged (Bhagat and Black, 2002; Daily *et al.*, 2003; Deutsch, 2005; Hermalin and Weisbach, 2003; Korac-Kakabadse *et al.*, 2001). Indeed, although there is a broad consensus that independent directors have proven to be good monitors (Helland and Sykuta, 2005; Ryan and Wiggins, 2004), some have suggested that independent directors may not be able to fill the role of active counselors. Some have explained the inconsistent results regarding the impact of board independence on board performance by emphasizing the potential trade-offs associated with boards comprised essentially of independent directors, who may lack the necessary knowledge about the firm that would allow them to contribute meaningfully to the development and evaluation of strategies (Harris and Shimizu, 2004; Judge and Dobbins, 1995; Lawler and Finegold, 2006).

Others have explained the inconsistent results in the context of the neo-institutional theory (Dimaggio and Powell, 1983; Filatotchev and Boyd, 2009; Meyer and Rowan, 1977): some organizations, in appointing independent directors, have done so only as a means of gaining and maintaining legitimacy *vis-à-vis* their stakeholders, not as a means of increasing board performance (Judge and Zeithaml, 1992; Luoma and Goodstein, 1999; Young *et al.*, 2000). In these cases, appropriate supporting processes intended to reduce information asymmetry between management and their independent boards had not been implemented.

Only a few studies have examined the relationship between board independence and information processes. Using an agency framework, Rutherford and Buchholtz (2007) examined whether boards with a greater proportion of outside directors were provided with better information, as assessed using a three-item quality index including the reliability, timeliness, and relevance of the information. They found that increases in the proportion of outside directors were indeed associated with increases in the quality of the information the board received. Pressure for boards to become more independent and more active in corporate oversight have dramatically changed the directors' information needs. Various stakeholders are now demanding that companies empower their boards by providing them the data, they need to evaluate and monitor corporate strategies and performance.

Based on the arguments presented above, we posited that independent boards would be more likely to receive more information as a means of reducing information asymmetry. Hence, we formulated the following hypotheses:

H1a. Greater board independence will be associated with receiving larger amounts of industry information.

- H1b.* Greater board independence will be associated with receiving larger amounts of internal information.
- H1c.* Greater board independence will be associated with receiving larger amounts of strategy-related information.
- H1d.* Greater board independence will be associated with receiving larger amounts of information about the implementation of the strategic plans.
- H1e.* Greater board independence will be associated with receiving larger amounts of corporate performance information.

2.2 Expertise and information processes

Researchers have increasingly examined directors' skills and knowledge as potential determinants of board performance. Inconsistent findings regarding the impact of independence on board performance have drawn attention to the limitations associated with using an agency-based approach to characterizing directors, which relies solely on the distinction of inside vs outside director (Hillman *et al.*, 2000; Kroll *et al.*, 2008). In order for boards to provide strong oversight and relevant input into strategic decisions, many have argued that companies must ensure that board members have the right mix of skills and knowledge. Board members should possess both functional knowledge in the traditional areas of business expertise such as accounting, finance, legal, or marketing, as well as industry-specific knowledge that would enable them to truly understand specific company issues and challenges (Forbes and Milliken, 1999; Roberts *et al.*, 2005).

In keeping with resource dependency arguments, Hillman *et al.* (2000) suggested that board characterization should include a rigorous evaluation of the board's ability to provide key resources to their organization, such as access to key stakeholders, as well as strategic advice (Hillman and Dalziel, 2003). Using the notion of "board capital", Hillman and Dalziel (2003) describe the types of human capital (experience, expertise, and reputation) and relational capital (access to networks/stakeholders) that directors may possess and contribute to the company. Examining the impact of board capital on board performance, researchers have found evidence of a positive correlation between directors' knowledge and skills and the board's monitoring role and strategic involvement (Carpenter and Westphal, 2001; Zona and Zattoni, 2007). These studies suggest that knowledge and skills play a critical role in increasing board involvement in strategy, since more knowledgeable directors should be in a better position to understand strategic issues and contribute meaningfully to strategy development and evaluation.

To our knowledge, no empirical studies have explicitly examined the relationship between the board's overall expertise and information processes. However, evidence from the knowledge management literature appears to indicate that pre-existing expertise plays a critical role in the ability to understand, assimilate and use new information productively (Cohen and Levinthal, 1990). Furthermore, Baysinger and Hoskisson (1990) have argued that relevant knowledge is essential to truly appreciate detailed corporate strategic plans and that directors lacking relevant expertise are more likely to rely exclusively on financial-based indicators. A strong knowledge base is critical to understanding, evaluating, and contributing to discussions about complex corporate issues.

Hence, while companies are experiencing pressure to provide their boards with more relevant information, the above arguments suggest that, because they can absorb

and evaluate information more effectively, boards with higher levels of expertise would be more likely to receive more information. Hence, we formulated the following hypotheses:

- H2a.* Greater board expertise will be associated with receiving larger amounts of industry information.
- H2b.* Greater board expertise will be associated with receiving larger amounts of internal information.
- H2c.* Greater board expertise will be associated with receiving larger amounts of strategy-related information.
- H2d.* Greater board expertise will be associated with receiving larger amounts of information about the implementation of the strategic plans.
- H2e.* Greater board expertise will be associated with receiving larger amounts of corporate performance information.

3. Methods

3.1 Data collection and sampling

A sample consisting of the 600 largest Canadian public companies listed on the TSE (based on sales) was selected from standard and poor's Compustat database. This group included service, natural resource, and manufacturing firms. The survey was conducted via telephone by a specialized survey research firm over a three-month period. The pre-tested questionnaire used for this study was computerized using the interviewer system, which allows for 100 percent authentication of data entry. Administration of the questionnaire took 19.7 minutes on average. The respondents were corporate secretaries, who were selected because of their key role in corporate and board issues, particularly information-related issues (Leblanc and Gillies, 2005; Stiles, 2001).

Of the 600 companies in the sample, 369 were excluded because of discontinued or incorrect telephone numbers ($n = 29$) or because the contact person was unreachable after 55 attempts ($n = 340$). This difficulty in gaining access to boards and directors is well recognized in the literature (Daily *et al.*, 2003). Furthermore, as corporate secretaries are not necessarily full-time employees, they can be more difficult to reach. Although the number of unreachable contact persons was quite high, it is consistent with similar studies (Stiles, 2001). The final sample, therefore, comprised 231 companies. Of these, 12 did not complete the questionnaire and 58 refused to participate. The survey thus generated 161 usable questionnaires, for a response rate of 26.7 percent.

3.2 Metrics

Expertise. Expertise was measured using the Pearce and Zahra (1991) construct. Using Likert-type scales (where 1 = poor and 5 = excellent), respondents were asked to evaluate the overall level of expertise of their board regarding four specific items (see Table I for a list of all the constructs, associated items, and measures of reliability). The items were then averaged to produce an index value.

Independence. Board independence was measured as the ratio of the number of independent directors to the total number of directors on the board. To provide

MRR
34,7

780

Table I.
Construct items
and reliability

Variables	Items	α
Board expertise	Familiarity with industry conditions	0.69
	Familiarity with company operations	
	Overall level of board professionalism	
Industry information	Overall director's expertise	0.81
	Technological forecast	
	Industry information and trends	
	Regulatory, political, and economic information	
Internal information	Competitor intelligence (major initiatives and positioning)	0.63
	Employee satisfaction (e.g. retention and turnover)	
	R&D investments	
Strategic plan information	Analysis of company strengths and weaknesses	0.80
	Five-year strategic plan (long-term corporate strategy)	
	Operating plans	
	Annual strategic plan	
Implementation information	Major capital expenditures, acquisitions, and divestures	0.71
	Reports of major risk factors	
	Progress report on major capital expenditures, acquisitions, and divestures	
Performance information	Progress report on strategic plan	0.71
	Reports on operating variances (deviation/shortcomings from original plan)	
	Reports on operating performance (e.g. productivity or quality data)	
	Reports on financial performance (overall corporate financial performance)	
	Competitive positioning of the company (market share, pricing, quality)	

a uniform base-line definition of “independent”, the following text was read to the respondent when asking about the number of independent directors: “A director is considered independent if he or she is free from any interest and any business or other relationship which could, or could reasonably be perceived to, materially interfere with the director’s ability to act without bias and with a view to the best interests of the Corporation”.

Information type. A list of information items that operationalized the categories introduced by Epstein and Roy (2007) was presented to the respondents. Using a Likert-type scale (where 1 = very little and 5 = very much), the respondents were asked whether directors received each of the information items. The items were grouped into five categories based on the typical strategic management process. Within each category, the scores for each information item were averaged to produce an index value: industry information ($\alpha = 0.81$), corporate performance information ($\alpha = 0.71$), internal competency information ($\alpha = 0.63$), strategy-related information ($\alpha = 0.80$), and strategy implementation information ($\alpha = 0.72$).

The reliability and uni-dimensionality of the various constructs were also examined. Statistical reliability was assessed by computing Cronbach’s alpha (α). Ahire and Devaraj (2001) recommend a threshold of 0.50 for emerging construct scales and 0.70 for maturing constructs. The coefficient values for the multiple-item scales employed in this study, met these requirements and were, therefore, considered reliable (Table I). The uni-dimensionality of the construct scales was assessed using principal component factor analysis. In each case, only one factor explained the observed variance.

4. Results

4.1 Descriptive statistics

The sample consisted primarily of large companies with an average of 3,529 employees (SD = 7,181). Various sectors were represented, including natural resources (21.7 percent of sample), manufacturing (37.9 percent) and services (40.4 percent). Table II presents the means and SDs for all variables.

A number of general conclusions can be drawn from Table II. First, the average percentage of independent directors was relatively high (68.11 percent), which is consistent with recent-survey results from Canada and the USA. Second, the types of information directors received were also consistent with most survey results reporting that directors are primarily provided with historical data. The results suggest that directors receive (in decreasing order):

- performance-related information (including reports on operating and financial performance and competitive positioning);
- information concerning company strategy (including strategic plans and acquisition projects);
- strategy implementation information (including progress reports and operating variance reports);
- internal information (including internal data on key performance drivers); and
- information concerning the industry (including technological forecasts and competitor information).

4.2 Examining the hypotheses

To investigate the relationships between each of the two board variables (expertise and independence) and the information variables, we performed an one-way analysis of variance (ANOVA). For each board composition variable, the survey sample was first grouped into three categories or levels (Tables III and IV). For “board independence”, the firms were grouped by their board’s percentage of independent directors: the first level included firms with less than 63 percent independent directors; the second, firms with ≥ 63 percent and ≤ 81 percent; and the third, firms with greater than 81 percent independent directors. For “board expertise”, the firms were grouped by expertise index value: the first level included those, whose expertise index value was < 3.70 ; the second, index values ≥ 3.70 and ≤ 4.5 ; and the third, firms whose index value was

Variables	Mean	SD
Board size	8.92	2.53
Company size	3,529	7,181
Age	35.92	32.17
Expertise	4.11	0.45
Percentage of independents	68.11	0.18
Industry information	3.69	0.82
Internal information	3.58	0.79
Strategy information	4.13	0.68
Implementation information	4.03	0.70
Performance information	4.33	0.60

Table II.
Descriptive statistics

greater than 4.5. The levels were determined following an examination of the variable distributions, in order to form groups representing approximately 33 percent of the sample each. The ANOVA test was then used to determine whether the means of the independent variables were statistically equal for the three groups. When the ANOVA results indicated that at least two groups had significantly different means, the Duncan multiple comparison test was performed to identify the groups that were indeed different. This test was used to compare the means for the three groups and identify the different homogeneous subsets (the results of the Duncan test are given as letters, where two means identified by the same letter indicates that they are not significantly different). It is important to point out that before the hypotheses were examined, the relationship between board independence and board expertise was investigated; that analysis did not reveal any significant differences between the groups in each case (see the bottom lines of Tables III and IV). We also did not find any significant differences in the size of the board or the company between the groups for either board independence or board expertise.

With respect to *H1*, the results indicate limited links between board independence and the amount of each type of information the board received. Indeed, in the case of information about the industry, corporate performance, and internal metrics, greater board independence was not associated with greater index values for information received (Table III). The results do not show a linear relationship between increases in board independence and the amount of information received for any of the three levels. However, in the case of information about company strategy and its implementation, the results indicate a positive correlation. That said, increases were not seen for all three levels of board independence.

Although the data provided only partial support for *H1*, they indicated strong support for *H2*. For each of the five types of information, the results show that higher levels of board expertise were associated with receiving greater amounts

Table III.
ANOVA results:
independence and
information processes

Constructs	Level 1	Level 2	Level 3	Significance level <i>p</i>
Industry information	3.58	3.64	3.77	n/s
Internal information	3.46	3.57	3.68	n/s
Strategic plan information	3.94 (a)	4.08 (a,b)	4.30 (b)	0.039
Implementation information	3.79 (a)	4.02 (a,b)	4.24 (b)	0.006
Performance information	4.19	4.30	4.44	n/s
Expertise	4.12	4.11	4.13	n/s

Table IV.
ANOVA results:
expertise and information
processes

Constructs	Level 1	Level 2	Level 3	Significance level <i>p</i>
Expertise				
Industry information	3.20 (a)	3.61 (b)	4.14 (c)	0.000
Internal information	3.33 (a)	3.51 (a)	3.85 (b)	0.005
Strategic plan information	3.73 (a)	4.16 (b)	4.41 (b)	0.000
Implementation information	3.70 (a)	3.97 (b)	4.38 (c)	0.000
Performance information	3.97 (a)	4.32 (b)	4.61 (c)	0.000
Independence (%)	69.89	69.77	72.70	n/s

of information (Table IV). The relationship was particularly strong for industry information, corporate performance information, and information about implementation of the strategic plan, with the results indicating increased amounts of information received with each increase in expertise level. However, the amount of information received about internal metrics was greater only for boards with the highest level of expertise (Level 3); boards with Level 1 or Level 2 expertise did not receive significantly more key internal metrics. Also, in the case of strategy-related information, Level 3 boards did not receive significantly more information than did Level 2 boards.

5. Discussion and conclusion

Pressure to nominate independent and competent directors to play a more active role in oversight has created an urgent need for companies to examine whether they are providing their boards with appropriate information. This study demonstrates that board characteristics can have a significant impact on the information companies provide to their corporate directors. However, the results offer only partial support for links between board independence and information types (*H1*), as greater board independence was not significantly associated with increased amounts of three of the five types of information. Indeed, our findings indicate that, while there is evidence to suggest a positive relationship for information in general, this does not apply to corporate performance, industry, and internal information.

The nature of these three types of information may provide some insight toward explaining why a positive relationship was not found for all types of information. It is important to restate that the particular construct of corporate performance information consists mainly of operational and financial data (Table I), which is a type of historical data that directors, whether independent or not, would typically receive (Deloitte and the Economist Intelligence Unit, 2007; Johanson, 2008; McKinsey, 2008). Indeed, of the five types of information we examined, this type of information was most commonly provided to all boards (Table II). Hence, one possible explanation may be that this relatively high score was already considered satisfactory.

The nature of industry and internal information differs considerably from that of corporate performance information: performance information is mostly historical, whereas industry information and internal information are considered more forward looking in nature. In this study, performance information was commonly provided to boards, but industry information and internal information were the least commonly provided of the five types of information we examined. Indeed, information about the industry (e.g. trends and key competitors) and about key internal metrics (e.g. employee satisfaction and R&D investments) provide the valuable data from which strategic plans are typically developed. As such, these two types of information should be of value to directors in the process of evaluating proposed strategies. Our results may suggest that these two types of information are regarded as pertinent to strategy formulation and are thus considered to be the domain of management, not the board. These types of information may also have been considered too abstract and disjointed to be useful to independent directors.

Our data provided strong support for *H2*, regarding the links between board expertise and the various types of information received. The ability of directors to understand, assimilate and use new information appears to play an important role in a company's decisions, concerning their board information strategy

(Cohen and Levinthal, 1990). This is consistent with Baysinger and Hoskisson's (1990) argument that relevant knowledge is essential to understanding detailed corporate information. For example, while greater board independence was not associated with receiving more forward-looking information about industry and internal metrics, greater board expertise was. It is possible that directors with greater expertise have sufficient knowledge and experience to use this additional, more detailed information.

These findings contribute to the literature on governance by providing relevant empirical evidence, based on primary data on this complex topic. These results will certainly fuel the ongoing debate about the intricate relationships between governance, so-called "best practices", and board performance (Bhagat and Black, 2002; Daily *et al.*, 2003; Deutsch, 2005; Hermalin and Weisbach, 2003). As has often been reported, expectations regarding the impact of having independent directors on boards may have been unrealistic. Independent boards require appropriate supporting processes to help them fulfill their roles. Although there is considerable pressure to increase the percentage of independent directors on boards, merely increasing this percentage without a thorough examination of current board processes may not prove useful. Neo-institutional theory would suggest that the superficial adoption of practices aimed essentially at responding to outside pressures, disconnected from a true willingness to improve overall governance practices, can lead to inefficiencies and missed opportunities. Another important contribution of this study is its detailed characterization of board information, drawing on insights from strategic process research. Amid ongoing criticism that boards are overly reliant on financial information, this study explicitly examined the types of information directors receive.

The results of this study will also have implications for management. It is hoped that these results will help promote a dialogue between management and directors concerning the examination of their current information strategy and evaluation of whether directors are receiving the information, they need to thoroughly understand the decisions involved in developing and implementing the company's mission, values, and strategy. In the past, when boards were only asked to review past corporate performance and to either accept or reject management's plans, historical information was often sufficient. However, new expectations for directors' involvement in strategy create a new need to provide them with more complete information. That said, merely providing more information is not the solution: information overload is a genuine problem that can divert directors' attention away from important issues. Moreover, it is not the board's responsibility to micro-manage the company, and making unreasonable requests for information could be time-consuming and generate tension with management. Indeed, access to information has been identified as a critical element in determining board power (Maitlis, 2004; Pettigrew and McNulty, 1995).

By identifying expertise as an essential board characteristic, we have also drawn attention to the importance of processes that can enhance board expertise, such as educational programs, performance evaluation systems, and a rigorous nomination process. Companies that are willing to provide more information clearly must also evaluate whether their directors are able to grasp and assimilate that information. Directors who are unable to do so may not be able to understand the issues discussed at board meetings and may feel too intimidated to ask questions. Leading companies are increasingly establishing explicit and rigorous board membership criteria that, in addition to independence, include specific skills, personal traits, and relevant

business knowledge (Roy, 2008). The growing popularity of external training programs, some of which are accredited, is further evidence of the importance now given to board expertise (Magan, 2007; McIntyre and Murphy, 2009).

6. Limitations and future research

Although this study enhances our knowledge of the challenges and consequences associated with decisions regarding board characteristics, the results obtained must be interpreted in the context of the study's limitations. First, the study relies heavily on perceptual measures. Although perceptual measures are often used in the management literature (Ketokivi and Schroeder, 2004), perceptions may lead to bias. In order to limit the occurrence of such bias, we selected the corporate secretary as respondent. Because corporate secretaries are not typically directors, it was assumed that they might respond in a less self-serving fashion (Stiles, 2001). However, single-respondent surveys have certain inherent limitations. Second, board performance variables were not incorporated into the conceptual framework. Hence, the impact of board characteristics and board information strategies on board effectiveness were not examined. Third, this study focused on large Canadian firms, listed on the TSE. Given the importance of the regulatory environment in governance decisions, caution should be exercised when generalizing to non-Canadian firms: cross-country comparative analyses could help to identify potential differences.

This study's findings and limitations point to several interesting avenues for future research. Consistent with our results and with resource dependency arguments, more attention should be paid to board expertise and the associated measures. Whereas this study used a broad measure to evaluate board expertise, more detailed measures – including knowledge (both industry-specific and firm-specific), skills, and the directors' external contacts, access to resources and personal traits – would provide more insight into which specific aspects of board expertise have the strongest link with key board behaviors. The concept of "board capital" used by Hillman and Dalziel (2003), could provide a sound basis on which to develop in this line of inquiry. In addition, supporting processes that can affect overall board expertise – such as the selection process, educational programs, and performance evaluation systems – should also be examined closely. Indeed, if well integrated, these processes could pinpoint specific board member skills that need to be obtained either by naming new directors or through supplemental training of existing board members.

Also, since the processes surrounding the development of the board's agenda can greatly influence the types and amounts of information board members receive, these processes should be thoroughly examined. Although boards should and typically do receive information and updates from management about company operations, the majority of the information boards currently receive relates to topics discussed during board and committee meetings. If the CEO controls the agenda, the board hears, discusses, and votes on the issues brought forward by the CEO. This may limit the opportunity to learn about controversial issues, hear both supporting and dissenting positions on major strategic decisions, and fully explore difficult topics. Hence, directors should be given the opportunity to add other topics to the agenda. Finally, as more attention is being paid to the information directors receive, increased focus should also be placed on the directors' personal and professional qualities, such as their diligence. Indeed, even if better information is provided to directors, there is no guarantee that

they will devote enough time to examining the material provided or take advantage of additional information sources. Directors usually have multiple demands on their time; some cannot or do not devote enough time and effort to carrying out their responsibilities. In addition to near-perfect attendance at board and committee meetings, significant advance preparation is essential in order to meet the new expectations for board performance.

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Further reading

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