Boards, Management and the Information Asymmetry Paradox

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Abstract

This paper examines information asymmetry between boards and management to establish the characteristics of management and board information and how these differ. This is one of the few papers to focus solely on the issue of board-management information asymmetry. We analyse the characteristics of board information and management information by reference to the writings of Henry Mintzberg**.** This provides new insights into the dynamics of information sharing between boards and management, which we characterise as a two-way process, back-and-forth between executives and non-executive directors. As such, we take an interdisciplinary governance and management perspective on the issue rather than the governance only approach in most prior research. In addition, using the work of educationalist and philosopher John Henry Newman, we consider information at multiple levels, invoking the literature on tacit and explicit knowledge. We reach a more benign conclusion than some alarmist commentators about the implications of information asymmetry for board effectiveness.

Keywords: Information asymmetry, boards of directors, management

"I know nothing – nobody tells me anything".
(James Forsyte in *The Forsyte Saga* by John Galsworthy (1906))

1. INTRODUCTION

At the heart of corporate governance is the need to address information asymmetry between various parties. This is acknowledged by Huse et al., (2011) when they state: "*...no board member is likely to possess the full complement of information and knowledge necessary to achieve desired goals"*. This paper proposes a new way of "*seeing*" (Gioia et al. 2000) the issue of information asymmetry between boards and management based on the difference between implicit and explicit information processes. The information asymmetry to be considered is "*the difference between the information available to management and what is presented to the board*" (Thomas et al. 2009: 69).

Prior research tends to consider management-board information asymmetry from an agency theory perspective. This leads, for example, to conceptualisations of managers as gatekeepers, as engaging in deception.

We conceptualise the information asymmetry problem through a different lens - by reference to the nature and type of information. The purpose of the paper is to develop a conceptual framework to examine the nature and quality of information at the level of managers and at board of directors' level. The questions addressed by the research are: (1) how does the nature of managerial and board work influence information? (2) how does the nature and quality of managerial-level and board-level information differ? (3) how does the type of knowledge differ between managerial-level and board-level information? The paper uses the insights from Mintzberg (1973) and from Newman (1901) to address the three research questions, culminating in a conceptual framework.

This is one of the few papers to focus solely on the issue of management-board information asymmetry (Rutherford 2002 is an exception). In this paper, we consider information by reference to its importance for decision making (O'Reilly 1972). The paper provides a comparative analysis of the work of management and of boards, based on Mintzberg's (1973) consideration of the nature of managerial work. This leads to a consideration of tacit/implicit versus explicit knowledge. The writings of the educationalist and philosopher, John Henry Newman, are applied in considering individual human cognition and its effect on transitioning from individual implicit personal knowledge to explicit shared knowledge. Following the work of Newman, we view information as coming to us primarily from our "*experience…. about the concrete*" (Newman 1901: 23) and of "*concrete facts*" (Newman 1901: 268). We view this information derived from direct, personal experience as giving rise to implicit knowledge We also recognise that through analysis the mind has the power "*of bringing before it abstractions and generalizations*" (Newman 1901: 9) which go beyond the immediate and concrete and which, precisely because it involves conscious reflection and analysis, gives rise to explicit knowledge. Smith (2001: 314) describes tacit/implicit knowledge as "*practical, action-oriented knowledge of 'know-how' based on practice, acquired by personal experience, seldom expressed openly, often resembles intuition*" and explicit knowledge as "*...knowledge or "know-what" that is described in formal language, print or electronic media, often based on established...processes, uses people-to-documents approach*" (i.e., knowledge is gathered from individuals and is put into documentary format).

The paper makes three contributions to the prior literature. First, information asymmetry between boards and management is usually considered from a board, particularly a non-executive director, perspective. Using the research of Mintzberg (1973) on the work of management, this paper also considers information asymmetry from the perspective of management. Second, the nature of information asymmetry is teased out in more depth than previously by reference to tacit/implicit and explicit knowledge. Finally, the consideration of tacit/implicit and explicit knowledge is taken one step further using the work on cognition of Newman (1901).

The paper proceeds as follows. Theories that explain the specific nature of information asymmetry are considered in Section 2. Prior conceptual and empirical research is discussed in Section 3.The primary focus in the prior literature has been on the level of information asymmetry between managers and investors but the management-board relationships have also been considered (Stiles and Taylor 2001). The characteristics of management information and board information are reviewed in Section 4 to clarify the actual dynamics of the information asymmetry which can arise between board and management. The analysis of the characteristics of management-board information is then tested against a wider literature review of tacit/implicit and explicit knowledge, exploring how John Henry Newman (1801 – 1890), in his analysis of implicit and explicit knowledge, anticipated and corroborated much of the contemporary literature reviewed in this paper. The transition from implicit to explicit in the management-board information exchange is mapped. Section 6 draws the arguments together to suggest a new way of looking at management-board information asymmetry based on the implicit-explicit distinction, culminating in a conceptual model.

2. THEORY

Information asymmetry can be viewed in a number of ways: (i) through an agency theory lens, (ii) as a dependency of non-executive directors on executives and (iii) as a resource non-executive directors bring to boards given that such asymmetry is the corollary of board independence. The context in which boards operate influences the perspective taken, from the large and dispersed shareholding of listed companies (where an agency theory perspective might be relevant), to the largely non-executive boards of state or not-for-profit bodies, to family firm boards (where non-executive directors may be recruited for the expertise and information they bring to the board).

2.1 Agency theory

Berle and Means (1932) observe that as ownership of corporations becomes dispersed, insiders gain control because of their specialist knowledge. Mace (1971) shares this managerialist view, finding that many information and decision-making roles conventionally ascribed to boards were in fact retained by management. O'Reilly (1972) highlights the importance of information for decision-making. Mizruchi (1983) reports the view of most theorists that management power is a function of superior management information and knowledge. Rutherford and Buchholtz (2007) state that information asymmetry is a vitally important concept in the logic of agency theory. Asymmetry is seen as intrinsic to a relationship where one party (the principal) delegates work to another party (the agent). In the context of companies, the delegation is from the owners to the managers and this involves the separation of ownership and control (Stiles and Taylor 2001). This separation, in turn, gives rise to information asymmetry because the principal cannot verify that the agent has behaved appropriately (Eisenhardt 1989).

Agency theory assumes that "*when the principal has information to verify agent behaviour, the agent is more likely to behave in the interests of the principal*" (Eisenhardt 1989: 60). However, when the shareholder is removed from the decision making process, information asymmetry will prevent shareholders from fully verifying the actions of managers (Eisenhardt 1989). Given such asymmetry, this leads to the question of how boards can perform their role, described by Fama and Jensen (1983) as the apex of the organisation's decision control systems.

The agency theory solution to shareholder-management information asymmetry looks to the board to oversee the verification process:

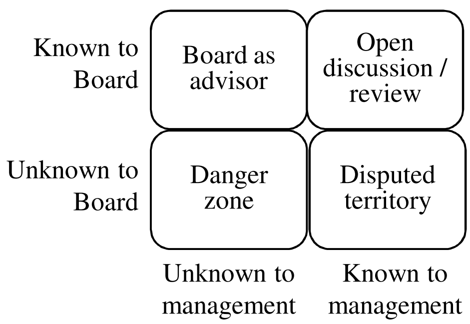
> "The board is viewed as a market induced institution … whose most important role is to scrutinize the highest decision makers within the firm … [and] to provide a relatively low-cost mechanism for replacing or re-ordering top management" (Fama and Jensen 1983: 294).

Under this perspective the board is therefore the instrument of verification and scrutiny available to shareholders to deal with the problem of information asymmetry. If the board itself is susceptible to information asymmetry, it risks being an ineffectual control mechanism. The view of the board as a control mechanism derives from the agency theory treatment of information and, in particular, its view of information as a commodity which has a cost and can be purchased (Eisenhardt 1989).

If we are to follow agency theory's logic, it is argued that one of the few remedies available to boards is to increase the information they possess (Rutherford and Buchholtz 2007). A key implication of Eisenhardt (2001) and Rutherford and Buchholtz (2007) is that, if information is a purchasable commodity, board members can invest in information sources which are independent of management. In this way, the problem of both the quantum and the source of information are solved at a stroke since board members can "top up" their information independently of management. However, this neat solution assumes that information has an independent existence, i.e. it can be depersonalised. Eisenhardt (1989) accepts that the assumption of depersonalised information is consistent with the logic of agency theory where "*the essential metaphor is that of the contract*" (p. 63). This metaphor of the (necessarily explicit) contract has a direct relevance to the information asymmetry issue. For Dawson et al. (2010), agency theory implicitly assumes that <u>explicit knowledge</u> [our emphasis] is the dominant knowledge base. Further, because explicit knowledge can be codified, the additional assumption is made that a specific contract can be prepared to govern the behaviour of all participants in the firm.

In the context of information as a commodity and of explicit knowledge as the dominant knowledge base, Thomas et al. (2009) argue that boards need to get more information and they need to get it independently of management. In this management-free information zone they envisage that board members could run "what-if" analyses with credit crunch scenarios. Armed with their very own information, board members will be enabled to help management as advisers on external factors such as competitor strategies. This notion of the board as an originator of business information and strategy is contested in this paper. Contested precisely because it is managers' expertise which makes them a unique source of business ideas and intuitions/insights and which thereby creates information asymmetry issues for shareholders and board. This perspective calls into question the agency theory assumption that information is a [depersonalised] commodity, as will be more fully considered in Section 3 and in considering implicit and explicit knowledge.

Figure 1: Risks of Information asymmetry



Agency theory, as applied to organisations, highlights the dilemma of trust/distrust, leading Eisenhardt (1989: 71) to link information asymmetry with deception. Clearly, the absence of trust or, worse, the presence of deception between board and management would undermine the board's role as a critical governance mechanism. Therefore understanding the nature, causes and impact on board effectiveness of information asymmetry is essential. Figure 1 is taken from Thomas et al. (2009: 71) who observe that when boards are not properly informed about critical management issues, the resulting information asymmetry can lead to disputes or worse – the creation of "danger zones" in which the board and management are equally unaware of looming problems. This is what Hendry (2002) refers to as “honest incompetence”.

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; Roy 2011; Rutherford and Buchholtz 2007).

2.2 Stewardship theory

Stewardship theory recommends boards composed of inside executive directors because of their greater information levels and depth of knowledge of the business.

2.3 Resource dependency of boards on management for information

Huse and Rindova (2001) characterise non-executive directors as information resources, highlighting the importance of director connections – the ability of directors to supply management with useful and strategically valuable information from the external environment and to convey to the environment information about the company. From their resource dependency perspective, a key board (non-executive) role is to provide advice and information which complements management’s company-specific focus. Under a resource dependency perspective, if trust and communication between board and management is absent, then information asymmetry undermines boards’ ability to advise, i.e., one of the core roles of non-executive directors.

Boards of directors, and non-executive directors in particular, have been characterised in the prior literature as having dual roles as monitors of management (Fama and Jensen 1983; Forbes and Milliken 1999; Minichilli et al 2009) and as advisors (Hung 1998; Nicholson and Kiel 2004; Roberts, McNulty and Stiles 2005; Sundaramurthy and Lewis 2003). Given this dual role, CEOs face a trade-off in disclosing information to boards. If they reveal their information, they receive better advice. However, informed boards will also monitor management more intensively. Since independent boards are tougher monitors, CEOs may be reluctant to be fully open with them (Adams and Ferreira 2007). Too much emphasis on monitoring tends to create a rift between non-executive and executive directors, whereas advising on strategy requires close collaboration. In both activities – advising and monitoring – independent directors (many of whom have full time positions in other organisations) face the same problem: they depend largely on chief executives and company management for information (*The Economist* [Anonymous 10 February 2001: 68], describing a survey by PriceWaterhouseCoopers of British boards).

The better the information provided by CEOs, the better is the boards' advice (Adams and Ferreira 2007) but also the greater the risk to CEOs that boards will interfere in decision making. As a result, CEOs may be reluctant to communicate firm-specific information to boards that are too independent. In practice, there is likely to be a continuum between value-adding board advice on the one hand and board engagement (viewed positively) or interference (viewed negatively), on the other hand. Building on the "*independence paradox*" of Hooghiemstra and van Manen (2004), this is what we call the "*information asymmetry paradox*".

Table 1: Theory to explain management-board information dynamics

Paper	Insights
Agency theory	
Fama and Jensen (1983: 314)	Board of directors is an information system to monitor executives. The most influential members are internal managers because they have valuable specific information about the organisation's activities. Internal managers appoint outside board members with complementary knowledge. The board uses information from top managers about their decision initiatives and the performance of other managers. The board seeks information from lower level managers about the decision initiatives and performance of top managers. Information is used to reward top managers, to rank them and to choose among decision alternatives.
Eisenhardt (1989: 58)	Under agency theory assumptions, there is information asymmetry between principals and agents and information is a commodity that can be purchased. No distinction is made on information between managers and boards of directors, implicitly treating it as the same.
Hendry (2002: 101; 104-105)	In a management context, knowledge is often tacit and incommunicable...and information inherently ambiguous. In a management context, information asymmetries between layers of management are most likely to arise in such areas as research and development (where critical knowledge may be tacit and incommunicable) or in politically sensitive sales negotiations (where the principal may now even want to know what the agent knows).
Rutherford and Buchholtz (2007: 577)	The relationship between boards and CEOs can be viewed as an agency relationship where boards are viewed as principals and CEOs as agents. Boards of directors typically possess far less information than CEOs, due to the limited amount of time boards spend with their firms. It is largely this asymmetrical distribution of information that allows CEOs to act opportunistically. One of the few remedies available to boards is to increase the information they possess. Board behaviours that increase the information they possess are likely to play a central role in determining boards' ability to effectively monitor and discipline CEOs. Boards and CEOs are heavily impacted by the way information is distributed between them.
Roy (2011: 774)	In the face of increasing pressure to reduce information asymmetry, companies would provide directors with improved information to ensure that independent directors have access to the same information as executive directors.
Stewardship theory	
Muth and Donaldson (1998: 6)	Insider dominated boards are favoured for their depth of knowledge and access to current operating information.
Nicholson and Kiel (2004: 588)	Studies have examined the superior amount of information and quality of information possessed by inside directors. Because inside directors know the company intimately, they have superior access to information and are therefore able to make more informed decisions. If there were few inside directors on the board, the board would not be in a position to fully understand the company. It would only have access to information provided by management and would lack the contextual nature to make more informed decisions.
Resource dependency theory	
Muth and Donaldson (1998: 6)	Directors who are prestigious in their professions and communities can be a source of timely information for executives.
Huse and Rindova (2001: 156)	Directors are resources to companies' management through their contacts or connections with stakeholder groups and through their professional and personal prestige in these groups. Connection refers to the ability of directors to supply management with timely information and to convey the environmental information about the company.

Table 1: Theory to explain management-board information dynamics

Paper	Insights
Dual roles of boards	
Sundaramurthy and Lewis (2003: 400; 402; 403; 405)	Consensus seeking further validates team effectiveness, demonstrating the team's decision making prowess. Information gathering and processing efforts may suffer. As executives and directors build strong social ties and mutual trust, pressures towards cohesion grow. Members, acting as "mindguards", exert pressure on those whose opinions contradict the majority, protecting the team from information contrary to its beliefs...Studies suggest that groupthink fuels threat-rigidity responses during decline. Low performance intensifies stress, causing managers to restrict their information gathering and to rely instead on familiar knowledge to reduce communication complexity and anxiety...Yet directors also must collaborate with managers and trust their ability to handle daily operations and implement board initiatives. This tension sparks defences that suppress stewardship, inhibit information flow, and engender the very behavours the approach seeks to curb....Polarization, however, constricts information flow, impeding communications between board and management and intensifying their mutual distrust...Likewise, information asymmetry may increase as managers seek credit for the firm's success and downplay the boards' role, hording critical information to solidify their growing power base.
Roberts, McNulty and Stiles (2005: S10; S12; S14; S18)	Control may be read as distrust, and set up a self-fulfilling cycle that produces the very behaviours it is designed to prevent. Executive frustration may rise, motivation may be damaged and information flows may become restricted, thereby feeding mutual distrust and providing the rationale for a further increase in controls....By contrast, a negative dynamic is possible, in which executives come to resent or be frustrated by non-executive contributions that they perceive to be either ill-informed or inappropriate. This in turn can contribute to a dynamic of deteriorating board relationships, characterised by withholding of information and mistrust....Without appropriate information it is impossible for non-executives to develop a confidence that management are focused on the most appropriate indicators of business conduct and performance....Framing the non-executive directors' work in terms of accountability respects the complexity of relationships within groups and the multifaceted nature and demands of board work, which are often characterized by uncertainty, incomplete information and interdependency, and where patterns of trust and distrust are often shifting.

3. PRIOR RESEARCH

Measuring information asymmetry between managers and boards of directors is difficult, if not impossible, due to challenges in researching the "black box" that is the boardroom. Much prior empirical research does not factor information asymmetry into the research design. Table 2 summarises the limited research on board information.

3.1 Importance of board information on board effectiveness

One explanation for information asymmetry is that non-executive directors are too busy to think about the company's affairs or to collect information about the company independently of management (Hart 1995). Management, in contrast, are always immersed in the company's affairs. In his survey of managers, Mintzberg (1973) found that work accounts for almost every minute of the manager's day. In particular, chief executives are unable to escape from the work environment and search continually for new information.

The part time dimension of the non-executive role has implications for board effectiveness, particularly in the crucial area of strategy. Because non-executive directors have limited involvement in the day-to-day decision making processes of the company, their ability to monitor the quality of top management's strategic decisions is often limited to board interactions, at which point the strategic plans may have been finalised, needing only ratification by the board (Baysinger and Hoskisson 1990). The level of company-specific information which is necessary to evaluate strategic decisions may exclude non-executive directors from the process (Baysinger and Hoskisson 1990; Johnson et al. 1996). This exclusion of boards from strategy because of information asymmetry could undermine corporate governance architecture. The first principle (A1) of the UK Corporate Governance Code (Financial Reporting Council (FRC) 2010) provides that the "*board should set the Company's strategic aims*". In extreme cases, information asymmetry could make non-executives all but redundant in the strategy-making process (Stiles and Taylor 2001: 41).

Information asymmetry is associated with the "*independence paradox*" (Hooghiemstra and van Manen 2004). The paradox indicates that non-executives are unable to monitor managers because the information they need to do so comes from those same managers. Furthermore, to the extent that board members seek to deepen their knowledge of their company, they stray into another dimension of the independence paradox. This relates to the conflict between good judgement, which requires in-depth knowledge, and independence, which requires a more detached attitude.

In our view, information asymmetry is unavoidable because strategic decisions are non-programmable (Finkelstein 1992) and therefore are reserved to managers' expertise. Lorsch (1995) goes so far as to suggest that the primary purpose of board meetings is for the board to learn from the CEO. As though emphasising this dependency, Finkelstein and Boyd (1998) contend that boards pay greater compensation to managers where there is greater managerial discretion in decision-making and, by implication, greater potential for management-board information asymmetry. However, we do not believe that information asymmetry inevitably leads to paradox.

For some commentators, to be truly effective, directors should overcome information asymmetry so that they will have a firm grasp of the business and its risks (Thomas et al. 2009). However, our position is that any demand for information equivalence between boards and management fails to recognise that much of the valuable knowledge in organisations is specific to individuals and is tacit, i.e., is not readily communicable (Leonard and Sensiper 1998). Further, we contend that it is precisely this failure which gives rise to the independence paradox and which also obscures rather than illuminates the management-board information dynamic.

3.2 Empirical research: board characteristics and board information

Empirical research on board characteristics and board information is summarised in Table 2. Most such research is qualitative, using questionnaires, surveys or case study methods.

In a survey of directors of Australian listed companies, directors perceived the CEO and management to have a controlling power over information, resulting in information asymmetry (Nowak and McCabe 2003).

Table 2: Measuring management-board information asymmetry in prior empirical research

Paper	Research methods	Measuring management-board information asymmetry	Findings
Rutherford (2002)	Survey questionnaire: 145 board chairperson of US listed companies	Quality of information (on a seven-point Likert scale): Board information is (i) very reliable; (ii) accessible; (ii) accurate; (iii) relevant; (iv) timely; (v) useful; (vi) suitable for effective decision making Information gathering (on a seven-point -point Likert scale): (i) Time spent searching for information; (ii) Actively search for information before board meetings; (iii) Decisions made without requesting additional information; (iv) Active probing for information at board meetings; Frequency of board interaction: (i) Number of board meetings ; (ii) Number of board committees	Larger firms and firms in certain industries have higher quality information. The more outsiders on the board the higher the quality of board information.
Nowak and McCabe (2003)	In-depth interviews with 45 directors of Australian listed companies	Grounded theory approach taken, such that questions on directors access to information emerged during the research, generating the question "How does the independent director access critical information".	CEO and executives control the information to director, questioning the behavioural assumption of full and free access to information by boards implicit in agency theory.
Rutherford and Buchholtz (2007)	Survey questionnaire: 149 board chairperson of US listed companies	Quality of information (on a seven-point Likert scale): Board information is (i) very reliable; (ii) relevant; (iii) timely Information gathering (on a seven-point -point Likert scale): (i) Active probing for information at board meetings Frequency of board interaction: (i) Number of board committees	The proportion of non-executive directors is associated with boards' information quality
Rutherford, Buchholtz and Brown (2007)	Survey questionnaire: 149 board chairperson of US listed companies	Quality of information (on a seven-point Likert scale): Board information is (i) very reliable; (ii) relevant; (iii) timely Information gathering (on a seven-point -point Likert scale): (i) Time spent searching for information; (ii) Actively search for information before board meetings Frequency of board interaction: (i) Number of board meetings	

Table 2: Measuring management-board information asymmetry in prior empirical research

Paper	Research methods	Measuring management-board information asymmetry	Findings
Johanson (2008)	Case study based on archival board records + unstructured interviews with four boards members and the company secretary	Board accounts – information supplied to boards of directors by top management	A substantial part of the board accounts was information disclosed in external financial reports; there was also subjective non-financial information communicated by word of mouth. There was a weak link between content and use of board accounts.
Roy (2011)	Survey questionnaire to 161 board secretaries of Canadian listed companies	Type of information on a five-point Likert scale: (i) Industry information; (ii) Internal information; (iii) Strategic plan information; (iv) Implementation information; (iv) Performance information	Greater board expertise is strongly associated with the five types of board information; Greater board independence is only weakly associated with the five types of board information.
Li, Yin, Yuan and Jin (2011)	Survey questionnaire: 104 Chinese board chairpersons	Quality of information on a seven-point Likert scale: Board information is (i) very reliable; (ii) relevant to the board's needs; (iii) timely	Quality of information is significantly related to measures of board monitoring and board advice/counsel
Boxer, Perren and Berry (2013)	Case study of four directors of information differences in one SME	Lived experiences and behavioural processes examined through a combined Johari window and set theory	The generative mechanisms of power, trust, achievement motive and face saving are drivers to explain information similarities and differences.

3.3 Empirical research: directors' talk

In an ethnographic study, Samra-Fredericks (2000a, 2000b) considers talk-based interpersonal routines by tape-recording monthly board meetings of a manufacturing company. The board comprises only executive directors, so the information asymmetry issue addressed in this paper does not arise. She focuses on linguistic aspects of talk-based interpersonal routines inside and outside the boardroom. Acknowledging that such talk involves tacit knowledge, she observes "that a lot of important talk [amongst executive directors] occurs outside the boardroom, in corridors, car-parks, persona l offices and the men's toilets" (Samra-Fredericks (2000a, p. 251). If the issues were important, the talk found its way back to the more formal setting of the boardroom.

4. NATURE OF MANAGERIAL AND BOARD WORK AND INFORMATION

4.1 Henry Mintzberg And *"The Nature of Managerial Work"*

A practical way to test the information-as-commodity assumption of the agency theory literature described above is to analyse the nature of management information. Mintzberg's *The Nature of Managerial Work* is a good starting point because it "*focuses on the basic question - what do managers do?*" (Mintzberg 1973: 4). Mintzberg's work has particular value for the purposes of this paper because the "*book is based exclusively on the evidence from empirical studies of managerial work*" (Mintzberg 1973: 4).

The empirical data collected by Mintzberg – in particular data on the characteristics of management information – helps in our analysis of the information asymmetry paradox. For Mintzberg (1973: 4–5), the manager has "*access to many sources of information, some of them open to no one else in his organizational unit…unfortunately the manager receives much information verbally*[1]*…Managers work essentially as they always have – with verbal information and intuitive (non-explicit) processes*". For that reason "*There is no science in managerial work*" (p.5). He evokes the possibility "*in theory at least, to programme all the decision making behaviour of the manager*" only to effectively dismiss it on the grounds that "*managerial work is so complex that this will constitute an enormous undertaking*"

[1] Mintzberg uses the term "*verbally*" to mean "*orally*" or "*not in writing*". Newman (1901: 264) – as we shall see in Section 4 – gives the term its wider meaning of "*in words*" whether spoken or written.

(Mintzberg 1973: 135). In fact "*the analyst will no doubt conclude that many sources of information will remain open only to the manager*" (Mintzberg 1973: 150).[2]

Similar insight on managerial knowledge is available in more recent research. For example, Storey and Salaman (2005) find that managerial knowledge is multi-faceted, provisional and subject to change. Senior management teams have unique business knowledge which outsiders do not share, comprising unique mixture of deeply-embedded knowledge accumulated over decades and not easily changed and other knowledge which they quite readily chop and change as fashion demands.

4.2 Characteristics of management and board work (RQ1)

The characteristics of the manager's work set out by Mintzberg include:

- Much work at unrelenting pace
- Activity characterised by brevity, variety and fragmentation
- Preference for live action
- Attraction to verbal media

A fuller description of these characteristics, particularly as they relate to management information, is set out in the Table 3, which includes a contrasting description of the characteristics of boards' work.

[2] Interestingly, what Mintzberg is implying here is that there is a real and irreducible information asymmetry between the manager and the management scientist.

Table 3: Comparison of management and board work characteristics and their influence on information

Management characteristics	**Board characteristics**
①<u>Work at unrelenting pace</u> • "Studies of Chief Executives suggest they seldom stop thinking about their jobs …[with] no break in the pace of activity" (Mintzberg 1973: 29-30) • "After hours the Chief Executive … appears to be able to escape neither from an environment that recognises the power and status of his position nor from his own mind, which has been well trained to search continually for new information" (Mintzberg 1973: 30). • "The manager must always keep going, never sure when he has succeeded, never sure when his whole organization may come down around him because of some miscalculation. As a result, the manager is a person with a perpetual preoccupation … hence he assumes an unrelenting pace …"(Mintzberg 1973: 30).	①<u>Episodic involvement</u> • "… the time devoted to the company's affairs is likely to be significantly less for a non-executive director than for an executive director" (Higgs 2003: 64). • The non-executive will have "relative distance from day to day matters" (Higgs 2003: 29). • "A non-executive director's role usually involves a commitment of between 15 and 30 days a year" (Higgs 2003: 54). • "Boards of directors can be characterised as large, élite and episodic decision-making groups" (Forbes and Milliken, 1999: 492).
②<u>Activity characterised by brevity, variety and fragmentation</u> • "The manager's activities are of brief duration of the order of … minutes for chief executives" (Mintzberg 1973: 51) • "… managers were seldom able or willing to spend much time on any one issue in any one session" (Mintzberg 1973: 33) • "…the manager becomes conditioned by his workload … to avoid too great an involvement with any one issue. To be superficial is, no doubt, an occupational hazard of managerial work. In order to succeed, the manager must, presumably, become proficient at his superficiality" (Mintzberg 1973: 35).	②<u>Activity characterised by adequate time, predictability and due process</u> • The chairman should ensure that "adequate time is available for discussion" (FRC 2010, Provision A3) • Issues at board should be given "thorough consideration" (FRC Guidance 2011: 6). • The non-executive director should insist on "full and satisfactory answers within the collegiate environment of the board" (Higgs 2003: 29).

Table 3: Comparison of management and board work characteristics and their influence on information (continued)

Management characteristics	**Board characteristics**
③Preference for live action, i.e. current and immediate activities and tolerance for gossip	③Preference for processed and validated information
• Some of the manager's sources of information are "open to no one else" (Mintzberg 1973: 4–5)	
• "A most interesting phenomenon was that of instant communication – the very current 'hot' information that flowed frequently and informally by telephone or unscheduled meeting. It received top priority, often interrupting meetings. Because he wants his information quickly, the manager seems willing to accept a high degree of uncertainty. In other words, gossip, speculation and hearsay form a most important part of the manager's information diet"(Mintzberg 1973: 36)	• "The emphasis in all information … should be on clarity and transparency. The Chairman, supported by the Company Secretary should assess what information is required. The executive directors should assemble it and be ready to validate its accuracy…" (Higgs 2003: 50). • "… a considerable amount of time at most board meetings is devoted to a discussion of the financial statements" (LeBlanc and Gillies 2005: 55).
• The job of managing does not develop reflective planners, rather it breeds adaptive information manipulators who prefer a stimulus–response milieu. (Mintzberg 1973: 5)	• "… a key point raised by a number of non-executive directors was … that the board meeting remained focused on strategic, rather than operational, issues" (Stiles and Taylor, 2001: 112).
• "… rare to see a chief executive participating in abstract discussion or carrying out general planning" (Mintzberg 1973: 37)	
④ Attraction to verbal media	④ Preference for formal communication
• "… managers demonstrate very strong attraction to the verbal media…" (Mintzberg 1973: 38)	• Board members tend to get much of their information from "formal and official sources" … such as "regular board operating reports … [and] financial reports" and "presentations to the board" (Tricker 2009,: 289).
• The manager is not attracted to "documented communication" because it "requires the use of a formal sub-set of the language, and involves long feedback delays" (Mintzberg 1973: 38)	• "Most formal board and board committee reports are still provided on paper" (Tricker 2009: 289).
• "The manager's productive output can be measured primarily in terms of verbally transmitted information" (Mintzberg 1973: 44)	• "Good decision making … facilitated by: - high quality board documentation" (FRC Guidance 2011: 8)
• Managers work … "with verbal information and intuitive (non-explicit) processes" (Mintzberg 1973: 5)	• "For significant decisions, therefore, a board may wish to consider extra steps, for example: - describing in board papers the process … to arrive at and challenge the proposal" (FRC Guidance 2011: 8)
• The manager prefers verbal communication because written communication "moves slowly to the target, and much time elapses before there is feedback … for much of his important information, the manager must use other media" (Mintzberg 1973: 41)	• Non-executive directors should insist on receiving high quality information sufficiently in advance so that there can be thorough consideration of the issues prior to, and informed debate and challenge at, board meetings. High quality information is that which is appropriate for making decisions…it should be accurate, clear, comprehensive, up to date and timely; contain a summary…and inform the director what is expected of him or her" (FRC Guidance 2011: 6).
• "… the manager demonstrates a strong thirst for current information, and, conversely, that he tends to do little with the really routine reports that his organisation provides for him" (Mintzberg 1973: 36)	• "Information must be provided sufficiently in advance of meetings to enable non-executive directors to give issues thorough consideration and must be relevant, significant and clear" (Higgs 2003: 50) • Empirical research has "highlighted the importance of … the comprehensiveness and explicitness (formality) of board proceedings and actions" (Zahra 1989: 324)

4.3 Principal differences between board and management information (RQ2)

What emerges from Mintzberg's analysis is the stimulus-response directness in managers' information experience contrasted with the formalism of board experiences (summarised in Table 4) – "rush hour" compared with the "Rules of the Road".

Table 4: Management and board information experiences

Manager Information	Board Information
• Intuitive	• Reflective
• Implicit	• Explicit
• Non-verbal	• Verbal
• Individual/Personal	• Collective/Social
• Informal	• Formal
• Concrete	• Abstract
• Immediate	• Mediated
• Primary	• Processed/Secondary
• Expert	• Generalist

The significant difference between management and board information as set out in Tables 3 and 4 is that management information is based on primary, direct experience. Board information, on the other hand, is derived from secondary sources, i.e. papers, reports and presentations. It is the difference between <u>originating/initiating</u> the information and <u>receiving/formally processing</u> that information.[3] This view of management as originators and board members as recipients of information may provide a framework for resolving the information asymmetry paradox. The difference between the live, primary and personal information of management and the processed and collective information of the board is essentially the difference between tacit/implicit and explicit knowledge.

4.4 Tacit/implicit and explicit knowledge (RQ3)

Dawson et al. (2010) distinguish between two types of knowledge – explicit and tacit/implicit. They point out that explicit knowledge admits of systematic expression and collective appropriation. It is easily codified and is readily accessible to anyone willing to undertake the time and effort to learn it. Board information exhibits these characteristics.

[3] It is interesting to note that such a division of information roles is consistent with an "*effective system for decision control [which] implies, almost by definition, that the control (ratification and monitoring) of decisions is to some extent separate from the management (initiation and implementation) of decisions.*" (Fama and Jensen 1983, p.304).

For Jones (2005), tacit/implicit knowledge, by comparison, is knowledge that exists within the heads and experiences of individuals and is difficult to separate from those individuals. Management information exhibits these characteristics. Tacit/implicit and explicit knowledge are not totally separate (Leonard and Sensiper 1998). Knowledge exists on a spectrum. At one extreme it is the almost completely tacit: semi-conscious and unconscious knowledge which is held in people's heads. At the other end of the spectrum, knowledge is almost completely explicit, or codified, structured and open to all. While tacit/implicit knowledge can be partially codified, Leonard and Sensiper (1998) point out that it is unlikely to ever be fully so.

4.4.1 Tacit knowledge a personal attribute

Consequently, valuable tacit knowledge is protected from competitors unless key individuals leave the firm. For O'Dell and Jackson Grayson (1998), this competitive advantage arises because tacit/implicit knowledge contains the know-how, judgement and intuition that may be the difference between success and failure. O'Reilly (1982) considers explicit, documented information to be less useful the greater the critical or strategic the issues facing the company. Finkelstein (1992) agrees that at times of uncertainty, the tacit/implicit knowledge of individual managers, rather than the shared explicit knowledge of the organisation, has greater value. In effect, for Finkelstein (1992), managers' power derives from their expertise in an area critical to an organisation. Such expertise is not available to boards independently of the management precisely because it is not available as a depersonalised commodity.

Much of managerial critical information is tacit. However, it does not follow that management's expertise inevitably gives information dominance to management. Uncertainty will not be reduced simply by the personal, inner vision of the manager. The strategic response to uncertainty must be articulated and shared with the organisation as a whole. It is precisely here that boards – with their appetite for explicit, socialised knowledge – have a distinctive role to play. It is also here that the clue to resolving the information asymmetry paradox may lie. To pursue this further we have to develop some understanding of human cognition and, in particular, of the transition from tacit/implicit to explicit knowledge both for individuals and groups. The writings of John Henry Newman (1901) are relevant in this regard.

4.5 Newman and individual human cognition

The analysis presented so far indicates the primary role of explicit knowledge in the board process and of implicit knowledge in the management process but it does not establish how these are associated in practice. Our contention is that these distinguishing characteristics of board and management information are complementary. In support of this contention, the role of implicit and explicit knowledge at the level of individuals is considered by reference to Newman's (1901) *An Essay in Aid of a Grammar of Assent*. The role of implicit and explicit information at the level of groups (boards) is then considered. If the two types of knowledge – tacit/implicit and explicit – are shown to be complementary, this will have significant implications for our understanding of the information asymmetry paradox.

Newman's writings on cognition are a good source because, like Mintzberg, his approach is empirical: "*We must take the constitution of the human mind as we find it and not as we may judge it ought to be*" (Newman 1901: 216). Newman anticipates much of the contemporary thinking on explicit and implicit knowledge. As regards explicit knowledge, he considers that it is simply impractical to let "*language have a monopoly of thought; and thought go for only so much as it can show itself to be worth in language*" (Newman 1901: 263). It is a fallacy to assume "*that whatever can be thought can be adequately expressed in words*" (Newman 1901: 264).

For Newman, it is not explicitly verbalised arguments which determine important questions. It is rather "*the living mind*" and "*the reasoning faculty, as exercised by gifted, or by educated or otherwise well prepared minds*" (Newman 1901: 360–361). Newman believes that we must look to our own judgement in plotting our course through uncertainty. Our own judgement is a rule to itself. It is adapted to dealing with complexity and uncertainty in a way which is "*impossible to a cumbrous apparatus of verbal* [i.e. explicit] *reasoning*" (Newman 1901: 362). Here Newman and Mintzberg are in agreement.

As an example of individual judgement at work, Newman cites Napoleon's "*power of judging with extraordinary accuracy…the enemy's force opposed to him in the field…He looked around him for a little while with his telescope and immediately…could…calculate in a few minutes…the numerical forces of armies of 60,000 or 80,000 men*" (Newman 1901: 334). The Napoleon example indicates that for Newman there is always a "*personal element*" in our judgements when we "*arrive at these conclusions – not…by a scientific necessity independent* *of ourselves – but by the action of our own minds*" (Newman 1901: 317). Mintzberg (1973) reaches a similar conclusion about managers' work – that it cannot be reduced to a scientific description. Both Newman and Mintzberg articulate what we call the "*locked-in*" dimension of human experience and the associated communication/information asymmetry problem. Newman suggests the solution may lie in the human instinct to understand and be understood.

According to Newman, individual judgement, because it is implicit and personal, "*supplies no common measure between mind and mind as being a personal gift or acquisition*" (Newman 1901: 362). Therefore, for Newman, even though we are sure of the accuracy of our intuitive conclusions "*we instinctively put them into words, as far as we can; as preferring, if possible, to have them in an objective shape which we can fall back upon, – first for our own satisfaction, then for our justification with others*" (Newman 1901: 286). In recounting our personal experiences and justifying our position with others we should "*avail ourselves of language as far as it will go, but to aim mainly by means of it to stimulate, in those to whom we address ourselves, a mode of thinking and trains of thought similar to our own, leading them on by their own independent action*" (Newman 1901: 309). This, we argue, is effectively the management-board information dynamic.

Newman points to a spontaneous and instinctive transition at the level of the individual from implicit, personal knowledge to explicit, shared knowledge. This natural transition at individual level suggests that we can also develop a solution at group level to the information paradox – a solution which recognises and respects the distinctive roles and characteristics of board and management information outlined earlier. It now remains to be seen if such a transition exists in the management-board relationship and this is considered in the next section.

4.6. Accountability and resolution

Management-board information asymmetry has been presented as the problem of boards having less information than management and, in addition, of their dependence on management for that information. What emerges from Mintzberg's analysis is the radical difference between the types of information characteristic of managers and of boards. For Mintzberg, managers' information is not "*documented information that is widely available …. but the current undocumented information transmitted largely by word of mouth …. This kind of information, not that carried in formal reports, forms the heart of the manager's* *information system. The manager develops an understanding of his milieu by piecing together all the scraps of data he can find*" (Mintzberg 1973: 69). Much of managers' information comes from "*intuitive (non-explicit) processes*" (Mintzberg 1973: 4–5) and results in a deep substratum of tacit/implicit knowledge which "*remains only in his natural memory*" unless the manager makes "*concentrated effort*" to disseminate it. (Mintzberg 1973: 178). As we have seen, board information by contrast is typically written, formal and explicit.

Newman anticipates contemporary research on tacit/implicit knowledge. For Newman "*personal experience…is proper to the individual, and, as such, thwarts rather than promotes the intercourse of man with man. It shuts itself up as it were, in its own home, or at least is its own witness and its own standard*" (Newman 1901: 83). However, as individuals, we seek to break out of this isolation by analysing our thoughts and, as far as we can, rendering explicit what is implicit in them. A similar transition from tacit/implicit to explicit knowledge also exists at group level.

This transition from personal/implicit to collective/explicit information and knowledge is the challenge that exists for managers – to share their <u>implicit</u> information with boards by giving an <u>explicit</u> account of it and thereby, subjecting it to challenge and review. At a general level, to be accountable for one's activities, is to "*explicate the reasons for them and to supply the normative grounds whereby they may be justified*" (Roberts et al. 2005, S10). Specifically, in a board context, "*The unique potential of face-to-face board accountability is that it offers an opportunity for active enquiry extended over time, for talking and asking questions, for listening and seeing whether what is said and promised is actually delivered*" (Roberts et al. 2005: S11). In looking for accountability, non-executive directors must accept that "*their knowledge of a company will never match that of … executive colleagues. However, what a non-executive can bring to the relationship is the objectivity that their relative distance from day-to-day matters allows, along with the experience and knowledge* ***acquired elsewhere*** [our emphasis]. *The key non-executive skill is to draw upon this objectivity and experience as the basis for questioning and challenging the executive. Such questioning from a position of what will always be relative ignorance requires the courage to speak out or to make an issue of something*" (Roberts et al. 2005: S14).

These quotations from Roberts et al. highlight that it is specifically the non-initiating role of non-executive directors that gives them their unique value. Independence is not only a control mechanism – it is also a resource. "*Relative ignorance*" or information asymmetry is no disadvantage – in fact, paradoxically, the opposite! "*In practice such experienced ignorance can be a very valuable resource for a board*" (Roberts et al., 2005: S14). Notwithstanding the sheer weight and depth of management's tacit knowledge, non-executive directors may make their contribution by eliciting explanation and explication. The logical starting point for such questioning is, by definition, ignorance, in some sense of the word. It is clearly not general ignorance but rather ignorance of the company-specific, primary knowledge of managers. Thus, board members may not have detailed knowledge of the business but through other knowledge and points of reference (e.g., professional functional knowledge such as law or accounting) they discharge critical advisory and monitoring roles. This is the secondary knowledge we have ascribed to the board: secondary not because it is inferior but because it is knowledge "*acquired elsewhere*", as complemented by the company-specific information provided by management.

From this standpoint of "*experienced ignorance*", non-executive directors will ask for an account and explanation, which, left to their own devices, managers might have avoided. However, in a board context, managers must engage in "*open dialogue* [which] *can promote reciprocal understanding and…dialogue through which* ***the often tacit assumptions*** [our emphasis] *that inform plans and proposals are challenged, developed and refined*" (Roberts et al., 2005: S19). Just as at the level of the individual there is a natural transition from tacit/implicit to explicit knowledge, so too the management-board information dynamic is a transition from the individual and implicit to the collective and explicit. This is the raison d'etre of the board: "*the very existence of the board as an institution is rooted in the wise belief that the effective oversight of an organisation exceeds the capability of any individual and that* ***collective knowledge*** [our emphasis] *and deliberation are best suited to the task*" (Forbes and Milliken 1999: 490).

5. A CONCEPTUAL MODEL

Similar to the work of Brodbeck et al (2007) on the use of information by decision making groups, we present a conceptual model of management-board information asymmetry containing the following elements: (i) provision of information from managers to boards, (ii) information acquisition by boards, (iii) provision of information by expert non-executive directors to managers, (iv) quality of information from managers to boards (reliability; accessibility; accuracy; relevance; timeliness; usefulness; suitability for effective decision making), (v) type of information from managers to boards (industry information, internal information, strategic plan information, Implementation information, (vi) Performance information) (vii) management / board characteristics, (viii) management/board information experiences, (vii) management/board knowledge,

6. SUMMARY AND CONCLUSION

Management-board information asymmetry refers to the perception that boards have less information than the management which they are meant to monitor. On the face of it this is alarming. It is less so when we realise that board information and management information are different but complementary. It is a fundamental contention of this paper that management information is primarily tacit or implicit and board information is primarily explicit and that the one complements the other. The "*information asymmetry paradox*" refers to the apparent contradiction of boards depending on management for the information they need to monitor that same management. Such a characterisation misses the point. Accountability, i.e. the process of transition from the individual judgement of managers to the collective judgements of boards, is the real management-board information dynamic.

6.1 Applying the conceptual framework in future research

Some solutions to management-board information asymmetry are based on increasing the amount of board information and doing this independently of management. This purported solution views information as a tradable, depersonalised commodity. This view – in our view – is mistaken. Management information is largely tacit or implicit and board information is largely explicit. The tacit-explicit knowledge distinction in contemporary business literature and in the works of John Henry Newman provides an explanatory framework for the differences and the inter-dependence between management and board information and knowledge.

Based on the foregoing we can say that management information is primary and direct; board information and knowledge is secondary and mediated. Managers by engaging with boards are required to account for their actions and to make explicit what otherwise would be implicit and inaccessible.

Information asymmetry between board and management is a fact. Management does have more firm-specific information. Boards depend on management for much of their information.

We must accept these realities of individual experience and group dynamics as we find them rather than seek to invent some idealised governance process. Some commentators however have adopted a different approach. They regard information asymmetry as a serious threat to board effectiveness. A few have concluded that it results in paradox and contradiction at the heart of the management-board relationship.

This paper has questioned these alarmist views. It has argued that care is needed in drawing such adverse conclusions from the facts as stated. Instead, it proposes that a more benign information paradigm can be deduced from the same facts; namely that management-board information processes, while different, are complementary. The largely implicit information of managers finds its confirmation and validation in the accountability discourse of the board room. The two distinct information streams join in a common outcome and a shared judgement as expressed in the time honoured minute of decision: "It was resolved…"

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