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Firm capability, corporate governance and competitive behaviour: a multi-theoretic framework

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Abstract: In this paper, we propose two possible remedies for corporate governance research. First, when examining the effects of corporate governance, researchers may want to simultaneously consider the role of firm resources and capabilities. Second, linking corporate governance with firm-level competitive behaviour rather than with firm-level performance may enable researchers to detect more nuances about the effects of corporate governance. We base our propositions on the notion that 'capability' and 'motivation' are the two fundamental drivers of firm competitive behaviour. Firm resources/capabilities, which correspond to the capability driver, define the potential level of a firm's competitive activity. Further, corporate governance, by virtue of affecting managers' motivation to take actions, moderates the relationship between firm resources/capabilities and performance. In addition, viewing from the capability-motivation lens, we also observe that some elements of the corporate governance system supplement firm-level resources and capabilities, thus having direct effects on firm competitive behaviour as well.

Keywords: corporate governance; firm resources and capabilities; competitive behaviour; motivation; agency theory.

1 Introduction

Conventional corporate governance research based on agency theory generally focuses on identifying mechanisms that can achieve effective alignment of interests between managers and owners and on studying the effects of such mechanisms on firm performance or strategic decisions that may lead to increased benefits for firm owners. The key underlying logic is that efficient governance mechanisms lead to reduced agency costs, thus improving firm financial performance (Eisenhardt, 1989). While this basic economic reasoning is sound, it is not complete. At least two logical gaps need to be filled before systematic inquiry into the roles and effects of corporate governance can be carried forward in the field of strategic management.

First, a corporate governance system rightly directs its efforts on the firm's resources and capabilities because inefficient accumulation and deployment of these resources and capabilities are the key costs of agency problems. Such inefficiency results from the misalignment of managers' motivation with that of the firm owner, which hinders the utilisation of firm resources and capabilities towards realising their full value. Thus, the effects of corporate governance need to be examined on the basis of the firm's profile of resources and capabilities. *Second*, the firm must undertake competitive actions to achieve economic again. Therefore, it is necessary to first understand the effects of corporate governance on firm competitive actions rather than simply linking corporate governance directly with firm financial performance. And, since firm competitive actions are interconnected, it is more appropriate to examine the governance effects on the *overall* patterns of firm-level competitive actions than to only investigate how firm strategies in specific areas (e.g. R&D, internationalisation, etc.) are influenced by corporate governance. Therefore, in this paper we address a two-fold research question: *How do corporate governance mechanisms interact with firm resources and capabilities? And, how are the overall patterns of firm-level competitive actions affected by such interactions?*

In the process of answering these questions, we identify that firm resources/ capabilities and corporate governance system correspond respectively to the *capability* and *motivation* drivers for firm-level competitive actions (Chen, 1996; Gimeno, 1999). Analogically, corporate governance can be viewed as a valve that is installed to control the flow of firm resources/capabilities towards economic value-increasing deployments by reducing inefficient managerial diversions of firm resources/capabilities. Further, among various mechanisms of corporate governance (Mahoney, 1992; Rediker and Seth, 1995), the board of directors is likely to affect *both* the motivation *and* capability of the firm to undertake competitive actions. On the one hand, the board of directors, along with other governance mechanisms, is established to mitigate managers' motives of deploying firm resources and capabilities towards inefficient uses (Seth, 2004). On the other hand, the service and advisory functions of the board (Mace, 1986; Chatterjee and Harrison, 2001) suggest that directors themselves can be a valuable supplement to firm resources and capabilities, which may directly affect the firm's capacity for undertaking competitive actions.

This paper may potentially contribute to three literatures of strategic management: *corporate governance, competitive dynamics* and the *resource-based view of the firm*. First, according to corporate governance research literature, empirical findings concerning the relationship between corporate governance and firm-level financial performance are quite mixed.[1] Theoretically, the hypothesised positive relationship between effective corporate governance and firm financial performance is based on *agency theory*, which focuses exclusively on the *motivation* of firm decision-making processes and assumes away potential capability problems. The mixed empirical findings on the relationship between corporate governance and firm-level financial performance may partially be attributed to the lack of an integrative framework that examines the effects of corporate governance mechanisms on *both* motivation *and* capability drivers of firm-level competitive behaviour. Yet, the current paper maintains that the 'motivation-capability' distinction, which is well grounded in the competitive dynamics research literature (e.g. Chen, 1996; Smith et al., 2001), can provide a logical foundation for theory integration in corporate governance research. Thus, the current paper's framework serves as a direct response to those who advocate a more integrative approach for the study of corporate governance (Zahra and Pearce, 1989; Hillman and Dalziel, 2003).

Second, the application of the 'Motivation-Capability' logic to competitive dynamics research assumes that there are no agency problems. However, potential agency problems may blur the firm's strategic vision and therefore induce sub-optimal competitive actions. This paper extends competitive dynamics research by examining how divergent motives and conflicts of interest between the firm's decision-makers and owners can alter its pattern of competitive actions and how corporate governance may mitigate the firm's undertaking of sub-optimal competitive actions.

Third, the resource-based view highlights heterogeneous resources and capabilities in generating and sustaining competitive advantage (Wernerfelt, 1984; Barney, 1986; Dierickx and Cool, 1989; Barney, 1991; Mahoney and Pandian, 1992; Peteraf, 1993; Makadok and Barney, 2001). Recently, however, it is emphasised that these capabilities define only the *potential* economic value that can be generated by the firm, but the extent to which the *actual* economic value generated by the firm matches potential economic value is highly influenced by the motivations of organisation members – managers in particular – to effectively and efficiently deploy firm resource and capabilities including their own skills (Kim and Mahoney, 2002; Makadok, 2003; Gottschalg and Zollo, 2004). The current paper acknowledges the key role of firm resources and capabilities in affecting firm competitive behaviour and views motivational mechanisms of corporate governance as moderating such a relationship. Thus, this paper provides a framework to test the interaction between corporate governance and firm capabilities.

This paper is organised as follows. First, a review is provided concerning corporate governance and competitive dynamics research literatures and how they are complementary and reinforcing. Second, the integrative theoretical framework is developed, along with specific propositions. Finally, we conclude with implications, limitations and directions for future research derived from the theoretical framework developed in this paper.

2 Literature review

2.1 Corporate governance

Agency theory has been the dominant logic for corporate governance research due primarily to its effective characterisation of *some* key governance issues. Numerous empirical studies of corporate governance emerged employing both informal and formal principal-agent logic. The foundational premise is that effective governance needs to better align managers' own interests with those of owners, thus leading to (1) firm behaviours that are consistent with owners' expectations and (2) superior firm-level financial performance due to reduction of agency costs (Fama, 1980; Fama and Jensen, 1983a; Fama and Jensen, 1983b; Eisenhardt, 1985; Eisenhardt, 1989).

When examining the effects of corporate governance, empirical research has been conducted at outcome and behaviour levels. At the *outcome level*, researchers have employed various operationalisations of firm-level performance and tested hypotheses derived from the agency-theoretic model in numerous empirical settings.[2] A large number of review papers and meta-analyses sum up conflicting empirical findings concerning the relationship between corporate governance effectiveness and firm financial performance (see footnote 2). Two possible explanations for such conflicting empirical findings are considered here.

First, the expected positive relationship between governance effectiveness and firm-level financial performance ignores key linkages between these two constructs. Pettigrew (1992, p.171) observes that: 'great inferential leaps are made from input variables, such as board composition to output variables such as board performance with no direct evidence on the processes and mechanisms which presumably link the inputs to the outputs'. At the firm level, the apparent link between input variables (e.g. corporate governance mechanisms) and output variables (e.g. firm financial performance) is the competitive behaviour of the firm. And, the relationship between competitive behaviour and firm performance is still subject to the influence of contingent forces such as industry environment. Therefore, it would be more logical if we do not bypass firm-level competitive behaviour as the key linkage between corporate governance and firm financial performance.

Second, the single theoretic approach employed in extant research, with agency theory being dominant, offers an incomplete understanding of governance effectiveness, especially what the board does and how the board affects firm-level financial performance. For example, an overemphasis on directors' oversight role fails to recognize the potentially contradictory effects of board independence on monitoring *and provision of resources* (Hillman and Dalziel, 2003, p.392). Only recently have some empirical studies begun to use multi-theoretic lenses (see Carpenter et al., 2003; Jensen and Zajac, 2004). On the one hand, compared with insider directors whose personal interests are tied with the firm, outside directors are more *likely* to be *motivated* to serve their fiduciary functions. On the other hand, outside directors may lack the necessary information and ability in effectively monitoring managers even though these directors are *supposedly* strongly motivated to do so (Hoskisson et al., 2002). Thus, the proposed multi-theoretic approach needs to recognise how different dimensions (such as motivation and capability) of the governance system influence firm-level competitive behaviour.

At the *behaviour level*, firms' pursuits of strategy in specific areas such as R&D (e.g. Graves, 1988; Hill and Snell, 1988; Baysinger et al., 1991; David et al., 2001; Lee and O'Neill, 2003), internationalisation (Sanders and Carpenter, 1998; Carpenter et al., 2003; Tihanyi et al., 2003), risky investments (Sanders, 2001; Sanders and Hambrick, 2007), and diversification (Amihud and Lev, 1981; Lane et al., 1998; Amihud and Lev, 1999; Lane et al., 1999) have been examined using the agency-theoretic lens. Although, divergence of interests between managers and owners is likely to be directly manifested in these areas, empirical research in this stream has also generated largely mixed findings, which can also be partially attributed to its over-reliance on agency theory. In this paper, we propose that a firm's competitive actions in specific areas must be treated as systematically interrelated. Such interrelatedness can be captured by aggregate measures of firm competitive behaviour (e.g.; Smith et al., 1992; Young et al., 1996; Smith et al., 1997; Ferrier, 2001; Ferrier and Lee, 2002). Thus, a review of the theoretical constructs of competitive behaviour is considered.

2.2 Firm competitive behaviour

Firm competitive behaviour is defined here as the overall patterns of purposeful, observable and specific moves that a firm deploys in seeking competitive advantages or benefits. Decisions on competitive behaviour can lead to substantial organisational changes. Competitive dynamics research has long considered firm-level competitive moves as its unit of analysis to identify antecedences and patterns of firm-level competitive behaviour. This stream of research represents a key intellectual development towards combining the contents and processes of strategic management (Huff and Reger, 1987; Montgomery et al., 1989; Rajaopalan et al., 1993).

Variables employed in competitive dynamics research characterise firm competitive behaviours at least at three levels:

1. Variables that characterise *individual* actions such as magnitude (MacMillan et al., 1985; Smith et al., 1991; Chen et al., 1992; Smith et al., 1992), speed or timing (Smith et al., 1991; Smith et al., 1992; Ferrier et al., 1999), visibility (Chen and Miller, 1994), and response likelihood (Chen and Miller, 1994; Chen, 1996; Gnyawali and Madhavan, 2001).
2. Variables that correspond to *sequential* moves, e.g. volume (Ferrier, 2001), duration (Ferrier, 2001; Ferrier and Lee, 2002), sequencing (Lee et al., 2000), complexity (Ferrier, 2001; Ferrier and Lee, 2002), and unpredictability (Ferrier, 2001; Ferrier and Lee, 2002).
3. Variables that summarise the firm's overall competitive behaviour at an *aggregate* level such as total competitive activity (Ferrier et al., 1999), competitive simplicity (Miller and Chen, 1994; Miller and Chen, 1996), and competitive aggressiveness (Ferrier et al., 2002).

Individual actions (and their characteristics) serve as the building blocks of firm competitive behaviour measured at sequential and aggregate levels. However, focusing exclusively at the individual action level of analysis has limited managerial implications, because patterns of competitive moves unfold dynamically (Ferrier and Lee, 2002, p.163). In a given time period, individual competitive actions are likely to be interconnected with each other to serve a unified strategic intent. It would be more meaningful to study firm competitive behaviour at the aggregate level, which corresponds to the conceptualisation of strategy as patterns or consistencies in firm competitive moves (Miller and Chen, 1994; Miller and Chen, 1996).

The current paper focuses on the impacts of corporate governance on firm-level competitive behaviour. Thus, constructs at the aggregate level are essential for our research purposes. Particularly, we focus on the overall *level* of competitive activity. Level of competitive activity refers to the extent to which a firm carries out a collection of competitive actions in a given time period. Traditionally, competitive dynamics literature has employed the construct 'total competitive activity' (Young et al., 1996; Ferrier et al., 1999) to capture the scale of firm competitive behaviour. This construct is typically interpreted as reflecting firm competitive aggressiveness and has been found as the most robust construct in the competitive dynamics literature (Ferrier et al., 2002, p.303). In highly competitive industry contexts aggressive competitive behaviour characterised by a large number of initiated moves and competitive responses can pre-empt vital strategic positions and weaken rivals' capability to respond (Smith et al., 1992; D'Aveni, 1994). Ferrier and Lee (2002) find empirically that the rival firm experiences a significant decrease in stock price when a focal firm carries out more total actions per unit time. Similarly, Ferrier's (2001) empirical test on rival firms in 16 different industries over a seven-year time period suggests that firms that carry out a high number of actions per attack experience a gain in market share. It should be noted that the count of number of actions does not include information on the magnitude of each individual action. Actions vary in their levels of resource requirement and strategic impacts (Chen et al., 1992; Hambrick et al., 1996). To capture the scale of firm competitive behaviour, we use the term of level of competitive activity, which can be measured by weighting each individual action with its magnitude.

2.3 *The 'Motivation-Capability' logic and its connection with corporate governance research*

Connecting corporate governance with firm competitive behaviour also equips researchers with another important insight. In competitive dynamics literature, the key research logic is that: 'competitors can offer *responses* to a competitive move (i.e., a *stimulus*) only if they are *aware* of the move, if they are *motivated* to respond to the move and if they are *capable* of responding to this move' (Chen et al., 1992, pp.442–443). Thus, there are three elements – *awareness*, *motivation* and *capability* – that provide the theoretical foundation for analysing factors that can influence characteristics of competitive reaction at various levels. Lacking any one of these three elements will predictably result in non-response or an inefficient response to a competitive action. Because, 'awareness' is usually related to a firm's informational capability, it can be regarded as a special kind of firm-level capability. Therefore, competitive dynamics researchers usually consider 'motivation' and 'capability' as the two fundamental drivers of firm-level competitive behaviour (Gimeno, 1999). The undertaking of any competitive action requires the presence of *both* drivers. Similarly, Nelson and Winter (1982) also discussed explicitly these two key drivers of firm behaviour in their evolutionary theory of economic change.

Motivation accounts for the incentives that drive a firm to undertake action (Smith et al., 2001, p.320). Competitive dynamics research assumes that competitive actions need to be motivated by their net benefits to the firm. Such a view is consistent with the basic premise of contemporary micro-economics. Furthermore, in discussing whether the firm has a unified motive, organisation theorists such as Cyert and March's (1963, pp.27–32) submit that organisational goals are set by a negotiation process – rather than solely by the owner of the firm. Rather similarly, agency theory recognises the *divergence* and *alignment* of motivations among various organisational members, especially firm owners and managers.

Capability focuses on strategy perception and implementation, which is consistent with the role of firm resources and capabilities in strategy (Barney, 1986; Barney and Arikan, 2001). If resources or capabilities required for perceiving and implementing a strategic action are not readily accessible by the firm, then the firm may delay or even abandon its implementation of the planned action. Such logic corresponds to resource-based (Penrose, 1959; Wernerfelt, 1984; Barney, 1986; Dierickx and Cool, 1989; Barney, 1991; Mahoney and Pandian, 1992; Peteraf, 1993) and dynamic capabilities research (Teece et al., 1997; Makadok, 2001).

The linkages between these theories and the 'Motivation-Capability' logic suggest that this reasoning can be employed to analyse *systematically* various strategic phenomena – such as corporate governance in the current paper – and to reconcile conflicting views. Indeed, motivation, capability and the interconnections between these two key drivers of firm behaviour provide corporate governance research with a systematic framework that can facilitate the integration of multiple theories (e.g. Chatterjee and Harrison, 2001; Hillman and Dalziel, 2003; Daily et al., 2003a).

Current governance theories such as agency theory (Fama and Jensen, 1983a) and social capital theory (Lin et al., 2001) target two *simultaneously coexisting* mechanisms that influence the behavioural and (consequently) financial outcomes of the firm: (1) the motivation of the executives to serve shareholders' interests through effective competitive actions and (2) the organisational capability to undertake competitive actions that is possibly enhanced by corporate governance arrangements. In particular, this paper emphasises that the board of directors can influence both motivation and capability of the firm, while non-board components of the corporate governance system such as executive compensation and institutional ownership are mainly motivation-aligning instruments. We discuss this fundamental difference between board and non-board governance mechanisms below.

2.3.1 The motivation- and capability-related functions of the board of directors

Mace (1986) documents that boards play at least three major roles: (1) serving as a source of discipline; (2) providing advice and counsel; and (3) taking action in crisis situations. The disciplinary role is largely consistent with the monitoring function suggested by agency theory. With regard to the advice and counsel provision role, the following examples provide useful insights:

> Several years ago the president of a large insurance company came on our board and began looking over our financial operations. After one of his early board meetings he stopped by my office and observed that our stock was rather low in price, that we had some convertibles that were going to mature, that maybe a good thing to do would be to buy out some of our own stock. We followed his suggestion and saved, I think, over $7 million. If he never does one more thing for this company, he deserves directors' fees for the rest of his life. Clearly he was of enormous help to me, and to our financial people, and the company … [Also], one of my outside directors is a real pro on acquisitions, and he has been most helpful to me. He does not know much about our operations or our problems, but he does know a lot about the process of identifying and acquiring other companies. Also he knows the people involved, and this is useful. There is a lot of stuff on acquisitions that is common in all acquisitions. He has been through a bundle of them and has helped me through some rough spots – in negotiating, for example (Mace, 1986, pp.18 & 22).

The above examples illustrate the processes through which board directors improve the firm's capability in perceiving and implementing strategies. Such non-motivational and cooperative roles of the board of directors are conceptualised more formally in the social capital research literature[3] (Granovetter, 1985).

Social capital theory considers the significance of firm relationships (including board interlocks) with other entities as a resource for social action (Nahapiet and Ghoshal, 1998). Social capital is largely informational (Koka and Prescott, 2002) and opportunity oriented (Burt, 1992), thus facilitating effective firm actions. Specifically, directors and their social networks serve as uniquely important conduits of information flow due to their high social status and closeness to the core of firm-level decision-making bodies (Mizruchi, 1996). In addition, dynamic relations between social capital and firm resource accumulation may signal a firm's resource position as well as its pattern of resource flow (Gnyawali and Madhavan, 2001).

Thus, the role of the board of directors cannot be fully understood without consideration of (1) social capital theory (for the firm's capabilities in perceiving and implementing strategies that are enhanced by its board members); (2) agency theory (for the firm and its managers' motivations); and (3) resource-based theory (for the firm's capabilities available for deployment by its managers). Extant classification schemes of board role/function strongly correspond to such a view (See Table 1). However, a research challenge with this multi-theoretic approach emerges. That is, *how can the theories be logically integrated to systemically inform meaningful academic research, managerial practice and policymaking?* Discussion on this issue follows next.

2.3.2 Corporate governance mechanisms reclassified based on a 'Motivation-Capability' view

As indicated in the call for multi-theoretic approaches (Hillman and Dalziel, 2003), corporate governance should not be viewed merely as an agency remedy for at least two reasons: (1) the interactive effects between economic incentive systems and firm-level capability and (2) the direct information and resource flows from governance structure. Particularly, among various governance mechanisms, the board of directors constitutes an information-exchanging mechanism and a source for supplemental capability.

Table 1 Summary of classification schemes for board function/role

Author(s)	*Board function/role*	*Description*
Mace (1986)	Provides advice and counsel	Depending upon the abilities, skills and experiences represented on the board, directors can advise managers in general areas (e.g. pension plans, management compensation, acquisition, capital appropriation, etc.) and specific areas (e.g. technology, finance, government relationship, real estate, etc.)
	Serves as some sort of discipline	Boards are 'corporate conscience'. The very requirement of appearing before directors forces managers to think and conduct self-review.
	Acts in crisis situations	Boards take active decision-making roles when there are accidents with general managers or management performance becomes unsatisfactory.
Zahra and Pearce (1989)	Service	Involves enhancing company reputation, establishing contacts with the external environment and giving counsel and advice to executives.
	Strategy	Directors can aid managers by mapping or reviewing strategic actions.
	Control	Requires evaluating company and CEO performance to ensure corporate growth and protection of shareholders' interest.
Johnson et al. (1996), Dalton et al. (1998)	Control role	Entails directors monitoring managers as fiduciaries of stockholders. Directors' responsibilities in this role include hiring and firing the CEO and other top managers, determining management compensation, and otherwise monitoring managers to protect shareholder interest from managerial expropriation.
	Service role	Involves directors advising the CEO and top managers on administrative and other managerial issues, as well as more actively initiating and formulating strategy.
	Resource dependence role	Boards are a means for facilitating the acquisition of resources critical to the firm's success. Directors fulfilling this role are often representatives of specific institutions, but may also serve a legitimising function.
Chatterjee and Harrison (2001)	Control of managerial behaviour	Monitoring managers, specifically top managers, for the benefit of the corporation is the primary legal responsibility of the board.
	Services provided to top management	Directors are involved in providing advice and counsel to top executives.
	Acquisition of essential resources	Boards are one mechanism that firms may use to enhance their abilities to acquire critical resources such as scare raw materials or components, knowledge, capital and legitimacy.
Hillman and Dalziel (2003)	Monitoring function	Activities include monitoring CEO, monitoring strategic implementation, planning CEO succession and evaluating and rewarding the CEO/top managers of the firm.
	Provision of resource function	Directors possess both human capital and relational capital. Activities include providing legitimacy/bolstering the public image of the firm, providing expertise, administrating advice and counsel, linking the firm to important stakeholders or other important entities, facilitating access to resources such as capital, building external relations, diffusing innovation and aiding the formulation of strategy or other important firm decisions.

Therefore, what is unique about the board of directors is that it simultaneously functions as (1) *a motivational mechanism* through outsiders' monitoring of managerial behaviour, (2) *a resource (including information) acquisition or securing mechanism* through social capital generated by directors themselves and their social contacts, directorship by key suppliers (of raw material, capital, technology as well as legitimacy), and directors' immediate involvement in a firm's strategy perception and implementation. Accordingly, it is necessary to re-classify the various governance mechanisms to reflect each mechanism's actual role in affecting a firm's motivation and capability to undertake competitive actions.

Except for the dual-purpose board, all other governance mechanisms such as institutional ownership, market for corporate control and executive compensation are a bundle (Rediker and Seth, 1995) aimed to better align managers' personal interests with those of firm owners. Furthermore, each of these mechanisms can be classified into one of the three categories: *inducement*, *direct external enforcement* and *external pressure for self-enforcement* (See Table 2).

Table 2 Logically restructured typology of corporate governance mechanisms based on the 'motivation-capability' logic

		Specific Mechanisms
Motivational mechanisms ('Motivation')	*Inducements*	Managerial ownership
		Management compensation package
	Direct external enforcements	Monitoring by blockholders
		Monitoring by boards of directors
		Mutual monitoring by managers
		Competition for corporate control (e.g. threat of takeover)
	External pressures for self-enforcement	Managerial labour markets
		Product market competition
		Multidivisional organisational form
		Corporate culture
Resource acquisition/securing mechanisms ('Capability')		Boards of directors (composition, characteristics, structure, process)
		Interlocking directorates (direct, indirect, reciprocal)

The principal-agent approach focuses solely on the motivational effects of those corporate governance mechanisms on aligning managers' interests with those of the owners. Such an approach neglects the information and capability-enhancing effects of corporate governance.[4] The influence of corporate governance goes beyond the motivational issues of interest alignment, since corporate governance can enhance a firm's capabilities (Chatterjee and Harrison, 2001). The current paper considers each governance mechanism using the 'Motivation-Capability' logic embodied in competitive dynamics research (Chen et al., 1992; Chen, 1996; Gimeno, 1999), and examines how each mechanism influences a firm's motivation and capability to undertake competitive actions.

3 Theoretical model

3.1 The interrelationship between 'Motivation' and 'Capability'

Prior to developing specific propositions, we first discuss how motivation and capability are connected. The mechanisms through which corporate governance influences firm-level competitive behaviour depends not only on how each governance variable *individually* contributes to a firm's motivation and capability but also on the internal *linkages* that connect motivation and capability factors. Such interrelationships further explain corporate governance mechanisms as belonging to an integral system (Mahoney, 1992; Zajac and Westphal, 1994; Rediker and Seth, 1995; Aguilera and Jackson, 2003).

It has long been recognised that the firm, as a domain of incentives (Barnard, 1938; Teece et al., 1997), can purposefully develop motivational programmes to enhance its capability. However, the firm's strategic motives can also be constrained by its existing resources and capabilities. Firm-level motivations cannot be formulated independent of its capabilities. Hence, when studying firm strategy (a sequence of competitive actions) or firm-level competitive behaviour (an aggregation of competitive actions), we perceive complex interactions between motivation and capability drivers as well as blurred temporal orders. For simplicity, we can regard these two fundamental drivers as functioning *simultaneously*.

Motivation or capability alone cannot result in competitive actions. The firm undertakes no action if it is not motivated or if it is constrained by its capability. The direct relation between firm capability and firm competitive actions is thus moderated by firm-level motivation. Accordingly, we treat 'capability' as the independent construct that affects firm competitive behaviour, and we consider 'motivation' as moderating such a relationship (cf. Hillman and Dalziel, 2003; Gottschalg and Zollo, 2004).

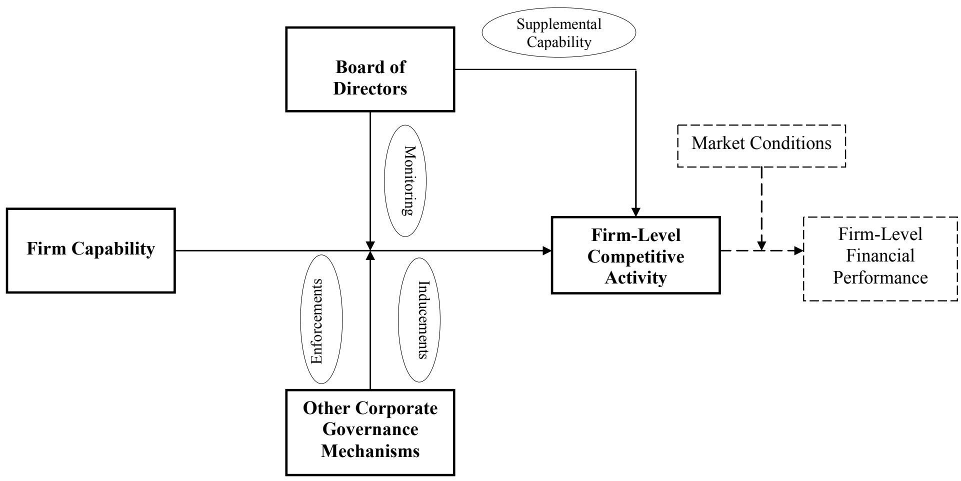
Still, there exists another complication that needs to be carefully clarified. That is, most board related variables – such as size of the board, board independence and CEO duality – have both 'capability' and 'motivation' effects. Typically, effects of the two types do not function in a mutually enforcing manner. For example, an 'oversized' board would be regarded by agency theory as an inefficient governance mechanism because of potential free-riding problems and may result in inadequate or even failed monitoring of managerial behaviour (Jensen, 1993a). Yet, on the other hand, according to social capital theory, social contacts and resource securing benefits offered by a large board can enhance the firm's resources and capabilities (Lin et al., 2001).

Thus, it is necessary to make a distinction between the capability directly possessed by the firm and that accessible only through the board of directors. The former refers to the resources and competencies that a firm may access independent of contributions from the board of directors, such as firm-level tangible and intangible resources and managers' skills (Eisenhardt and Schoonhoven, 1996; Knott et al., 2003). The link between firm-level capability and competitive behaviour is moderated by the motivational mechanisms of corporate governance including board monitoring, managerial compensation and institutional ownership. We term the latter type of capability as *supplemental capability*, which includes access to useful information and resources that are based on directors' own relational and human capitals. Thus, the board of directors provides its own supplemental capability to the firm and in the meantime affects how well managers base their decisions on firm-level economic value rather than their own self-interests.[5]

The theoretical model of the current paper is depicted below (Figure 1). The key logics embodied in the overall research model are:

1. *The resource-based view logic*: Absent agency problems, firm-level capability provides the foundational forces that define the potential level of a firm's competitive activity;
2. *The agency logic*: The motivational components of corporate governance (e.g. board monitoring, executive compensation and institutional ownership) will affect a firm's *actual* level of competitive activity by *moderating* the relation between firm capability and its competitive activity; and
3. *The social capital logic*: The board of directors, being a unique mechanism of corporate governance, can supplement the firm with accesses to useful information and resources, thus having *direct* impacts on firm competitive activity.

Figure 1 Corporate governance and firm-level competitive behaviour: the theoretical framework



Note: Researching the relationships among firm-level competitive behaviour, market conditions and firm-level financial performance is beyond the scope of this study. The reason why 'Market Conditions' and 'Firm Financial Performance' are included in the overall model is to illustrate the connections among *resource-based view*, *competitive dynamics* and *corporate governance* literatures.

Explanations of the specific propositions are provided below.

4 Propositions

4.1 Firm capability

Firm capability includes factors that contribute to the firm's awareness of strategic opportunities/threats and its ability in implementing strategies (cf. Barney and Arikan, 2001). Firm capability can be viewed as a (subjective) production set that contains the possibilities of resource transformations (Nelson and Winter, 1982, p.60). A firm's capability determines a firm's *potential* level of competitive activity as availability of firm capability can either facilitate or constrain firm activity (Penrose, 1959; Mahoney and Pandian, 1992; Kim and Mahoney, 2002).

We maintain that in competitive contexts a firm that can apply its overall capability to launch a greater level of competitive actions, on average, achieves a better position in the market. This reasoning is in line with at least two research literatures. First, resources and capabilities accumulated and developed by the firm serve as a driving force for the firm to engage in various exploitation and exploration activities (March, 1991). Lack of activities may simply indicate inefficient use of firm resources and capabilities. Thus, we expect managers – in the absence of agency problems such as managerial self-dealing or shirking – to utilise fully the firm's resources and capabilities to engage in economically profitable competitive activities. Second, competitive dynamics research literature recognises the existence of Red Queen competition, whereby an industry observes 'the continuous and escalating activity and development of participants trying to maintain relative fitness in a dynamic system' (Derfus et al., 2008, p.61). This Red Queen effect has been suggested as the most powerful mechanism driving economic growth in the capitalistic world (Baumol, 2004). Based on such a fundamental logic of competition, one would expect managers to engage the firm in aggressive actions to defend and advance the firm's position in the competitive landscape and to provide long-term benefits for firm owners.

Further, establishing the relation between firm capability and its competitive activity serves two foundational purposes. First, examination of the motivational (moderating) roles of corporate governance mechanisms will not be enabled without the establishment of a baseline relation between firm capability and firm competitive behaviour. Second, when testing the direct association between board supplemental capability and firm competitive behaviour, firm capability serves as an important control in the model. Paralleling the resource-based view and the research tradition of competitive dynamics literature, the following propositions are generated:

Proposition 1: *A firm's overall capability will be positively related to its level of competitive activity.*

Given the above resource-based proposition, we develop propositions reflecting the impacts of corporate governance on firm competitive activity. We choose governance constructs that have been empirically inconclusive such as board size, outsiders' representation, CEO duality, managerial ownership and institutional ownership, and illustrate how corporate governance research can be conducted employing the integrative 'Motivation-Capability' logic.

4.2 Board size

Quite frequently, board reform advocates have called for reduced board size to improve board effectiveness (see Kesner and Johnson, 1990). Hermalin and Weisbach (2003) maintain an agency logic to explain the empirical finding that board size and firm-level economic value are negatively correlated. This logic, however, raises some puzzling questions: why, if large boards are destructive to firm-level economic value, do we see large boards and why does the market permit large boards to exist?

Using a meta-analysis of 131 samples, Dalton et al., (1999) provided systematic evidence of *positive* estimates of board size-performance relationships. Such contradictory findings in the research literature suggest a need to disentangle competing forces embodied in board size. The current paper posits that agency-based effects of board size are related to the firm's *motivation* to undertake competitive actions as the effectiveness of board monitoring can affect managers' willingness to engage the firm in aggressive behaviours. Yet, on the other hand, social capital theory provides justification for the existence of *supplemental capability of the board*, which can enhance a firm's own capability. Thus, board size can simultaneously have both direct and indirect (moderating) effects on firm competitive behaviour. In terms of direct effects, the board provides direct assets that can enrich those already possessed by the firm. Increased number of directors is likely to improve both the volume and diversity of board supplemental capability (cf. Haleblian and Finkelstein, 1993). Adding a member to the board provides potentially useful information and resources. Thus, increasing board size directly enhances the firm's capability to undertake competitive actions:

Proposition 2: *There will be a direct and positive relation between the size of a firm's board of directors and its level of competitive activity.*

As to effective monitoring of managerial decision-making by the board, it usually requires timely and cohesive efforts by the directors. Communication and coordination problems commonly associated with large groups (Haleblian and Finkelstein, 1993) may complicate and delay the process for the board to approve or disapprove certain firm-level actions recommended by managers. Also, when the board becomes too big, problems such as director free-riding increase (Lipton and Lorsch, 1992; Jensen, 1993b). In all, the board may not perform the monitoring role effectively but 'become more symbolic and less a part of the management process' (Hermalin and Weisbach, 2003, p.7). In such cases, the CEO has strong *de facto* control over the board. As active engagement in competitive activity requires substantial investment and may post a negative sign on CEO capability measured by short-term performance, the CEO may thus have an economic incentive to reduce the firm's investment in competitive activities. Such reduction in competitive activities signifies inadequate utilisation of firm capability. Hence,

Proposition 2: *Large board size will weaken the positive relationship between a firm's capability and level of competitive activity.*

4.3 Outsiders (vis-à-vis insiders)

A board that has a majority of outsiders provides viable links with different sectors of the external environment (Pfeffer and Salancik, 1978; Zahra and Pearce, 1989). Outsiders can be crucial in securing essential resources for the firm. Moreover, an increased number of outsiders are likely to bring in more heterogeneous perspectives and skills.

Empirically, however, researchers have not been able to observe any systematic and significant effect of outsiders' representation on firm financial performance (Dalton et al., 1998). Therefore, we need to investigate this issue first from capability-related perspectives at an even finer level, anticipating limits regarding the types of resources that outside directors can provide (Aguilera, 2005). Harris and Shimizu (2004) suggest that outsiders serve different but complementary roles on the board to insiders. Outsiders can bring in different information to the management and offer new insights (Mace, 1986). However, outside directors may not have specific knowledge of the focal industry and the focal firm and their ability in providing service and advice to the firm is thus limited (Hillman and Dalziel, 2003) even though these outside directors might be strongly motivated to do so. However, outsiders are more likely to help the firm realise new, explorative opportunities and directly supply *some* resources that are needed for commercialising such opportunities.

In contrast, insiders provide the firm with a different set of knowledge-based assets. Their knowledge of daily operations of the firm (Baysinger and Hoskisson, 1990) and their ability in integrating intra-firm functions (Hill and Snell, 1988) help them make more concrete contributions to technical or operational aspects of firm activity. The knowledge and skills possessed by insiders may be more likely to help the firm better exploit its existing capability than engage in explorative activities (March, 1991). In sum, dominance by either outsiders or insiders has some negative implications for the firm's pursuit of competitive activity. An optimal board composition – purely from the capability point of view – may require a viable combination of both insiders and outsiders:

Proposition 3: *There will be an inverse U-shaped relationship between proportion of outsiders and the level of a firm's competitive activity.*

However, for the motivational point of view, the primary suggestion derived from agency theory is a board of directors dominated by outsiders (Lorsch and MacIver, 1989; Zahra and Pearce, 1989). With no conflict of interest in evaluating managers' performance, outside directors can maintain their independence, ensure adequate supervision of managerial decisions, and increase board objectivity. Thus, the control or monitoring role of the board is likely to be effectively performed only by outside directors. Given the motivational function of monitoring vis-à-vis capability-related functions, outside directors can ensure the firm to be sufficiently assertive when it comes to inter-firm competition and that outside directors can use their power of ratification and monitoring (Fama and Jensen, 1983b) to reduce managers' under-investment in key strategic areas that have long-term influences on firm-level competitive advantage (e.g. Makadok, 2003). Therefore,

Proposition 3: *Increased proportion of outsiders will strengthen the positive relation between a firm's capability and level of competitive activity.*

4.4 CEO duality

Some researchers have suggested CEO duality (i.e. CEO also holding the position of chairperson of the board) as 'a double-edged sword' (Finkelstein and D'Aveni, 1994). Expectations about the positive effects of CEO duality emerge from the capability side (Finkelstein and D'Aveni, 1994; Harris and Helfat, 1998), as the most frequently cited reason for maintaining CEO duality is the so-called 'unit of command' (Finkelstein and D'Aveni, 1994). Strong leadership represented by duality can issue commands or orders to lower levels so that critical strategic decisions can be implemented as directed (Barnard, 1938; Andrews, 1987; Finkelstein and D'Aveni, 1994). Also, having one person holding the two positions can avoid internal political struggles between the CEO and the board, further enhancing the firm's capability in implementing strategies (Baliga et al., 1996). Such a view is also consistent with the general belief of stewardship theory (Davis et al., 1997). As Boyd (1995, p.304) states: 'duality would increase chief executive discretion by providing a broader power base and locus of control, and by weakening the relative power of other interest groups'. *Absent agency problems*, such as increased executive discretion can be interpreted as a plus to the firm's capability by making it easier to carry out necessary competitive actions. Accordingly,

Proposition 4: *There will be a direct and positive relationship between CEO duality and the level of a firm's competitive activity.*

When the CEO and chairperson positions are held by the same individual, the monitoring function of the board is in potential jeopardy (Beatty and Zajac, 1994; Finkelstein and D'Aveni, 1994; Zajac and Westphal, 1996; Sundaramurthy et al., 1997). Allocating both roles to the same person not only presents a conflict of interest but also opens up opportunities for management entrenchment because of the removal of some checks-and-balances mechanisms (Finkelstein and D'Aveni, 1994). Therefore, the separation of CEO and chair of the board can help align the interests of managers and shareholders better and possibly prevent firm-level resources from being diverted from necessary strategic investments or towards inefficient applications, thus improving firm performance (Kosnik, 1987; Baysinger and Hoskisson, 1990; Seth, 2004). CEO duality eliminates a key mechanism of external enforcement and can weaken the monitoring function of the board in regard to strategic investments in competitive actions. Empirical results, in general, support such an agency-based view (Daily and Dalton, 1994; Sundaramurthy et al., 1997). Thus, consistent with previous propositions predicting moderating effects of agency-based, motivational mechanisms, the following proposition about the moderating effects of CEO duality is put forth:

Proposition 4: *CEO duality will weaken the positive relationship between a firm's capability and its level of competitive activity.*

4.5 Managerial ownership

The logic employed throughout this paper suggests that the motivational mechanisms of corporate governance moderate the relationships between firm capability and firm competitive behaviour. Predictions about the directions of *moderating* effects are grounded in agency theory.

Table 2 summarises the various motivational mechanisms that can be deployed by a firm to align its managers' interests with those of the owners. Being an 'inducement' mechanism, managerial ownership is an effective goal-aligning technique (Morck et al., 1990), and numerous empirical studies have included managerial ownership as a key construct (for recent reviews see Dalton et al., 2003; Daily et al., 2003a; Daily et al., 2003b). The key agency logic is that high managerial equity holdings should bond managerial actions to shareholder interests (Jensen and Murphy, 1990) and thus problems created by the separation of ownership and control are mitigated (Fama and Jensen, 1983b). Ownership can motivate managers to compete with rivals and invest in strategic areas that have long-term benefits to the firm. Thus, the motivational obstacles hindering full utilisation of firm capability are more likely to be removed. Managers are expected to have less economic incentive to divert the firm's resources for non-productive activities such as managerial perquisites. Particularly, many researchers suggest the increased managerial incentives to engage the firm in more R&D activities (Hansen and Hill, 1991; Johnson and Greening, 1999). Thus, the following are proposed:

Proposition 5: *Managerial ownership will strengthen the positive relationship between a firm's capability and level of competitive activity.*

4.6 Institutional ownership

One of the more dramatic changes in corporate governance practices is the active involvement of institutional investors (Charan, 1998; Daily et al., 2003b). Shleifer and Vishny (1997) suggest institutional ownership to be an essential component of effective governance. The general implication of institutional ownership is that institutional investors holding large amounts of firm equity are not able to easily divest because in doing so it could substantially affect share price (Pound, 1992; Johnson and Greening, 1999). Therefore, institutional investors have strong incentives to monitor a firm's activity to make sure that decisions are made in ways that enhance the economic value of their investment. Empirical research on the relation between institutional ownership and firm R&D strategy corresponds to such a rationale (Graves, 1988; David et al., 2001; Lee and O'Neill, 2003). Institutional investors' monitoring functions in a similar manner as board monitoring and may be more effective. We expect institutional owners to ensure efficient utilisation of firm capability in engaging in competitive actions:

Proposition 6: *Institutional ownership will strengthen the positive relationship between a firm's capability and level of competitive activity.*

5 Conclusions and discussion

The current paper identifies two of the more important reasons for the mixed empirical results regarding the relationship between corporate governance and firm-level financial performance. *First*, linking corporate governance directly with firm financial performance tends to neglect some important processes that mediate between the two sides. Such processes may include the firm's decision-making process and firm competitive activities. *Second*, extant research literature recognises the limitations of agency theory in addressing different corporate governance issues but has yet to develop an integrative approach that can effectively synthesise the various theoretical perspectives (Hillman and Dalziel, 2003; Daily et al., 2003a).

To address the first concern, we maintain that the effects of corporate governance need to be studied primarily at the level of firm competitive behaviour as opposed to the firm's financial performance. Firm financial performance is then determined by firm competitive actions, market conditions, and their interactions (as illustrated in Figure 1). Corporate governance influences firm financial performance by virtue of first influencing firm competitive behaviour, which has traditionally been one of the key units of analysis in competitive dynamics research literature.

Competitive dynamics literature highlights the simultaneous presence of two drivers of competitive behaviour – 'motivation' and 'capability' (Chen et al., 1992; Chen, 1996; Gimeno, 1999). Competitive dynamics research integrates multiple theories to explore the antecedences of firm-level competitive behaviour. Capability, as maintained in resource-based theory, influences the *potential* scale and scope of firm-level competitive activity (Penrose, 1959; Kim and Mahoney, 2002). Motivation then moderates such a relationship as economic and/or social considerations provide the rationales with respect to how available resources/capabilities are utilised (Gottschalg and Zollo, 2004). This distinction has been the key logic that frames the theoretical model of this paper.

Indeed, 'motivation' and 'capability' are two different but closely related mechanisms through which corporate governance can affect firm-level competitive behaviour (and eventually financial performance). A multi-theoretic approach to corporate governance research needs to recognise how different governance mechanisms relate to the firm's motivation or capability (or both) to engage in competitive activities. Specifically, the board of directors can affect both the motivation and the capability behind firm competitive behaviour. By monitoring managerial decision making, the board exists as an 'enforcement' mechanism making sure that firm actions are undertaken to utilise firm capability in effective and efficient ways, thus serving shareholders' interests when managers' own interests are not perfectly aligned with those of shareholders. Meanwhile, directors can supplement the firm with their own managerial and relational capitals, which enhance the firm's ability to undertake competitive actions.

The reclassification of the various corporate governance practices based on the 'Motivation-Capability' view makes possible a systematic approach to studying the effects of corporate governance on firm-level competitive behaviour. This reclassification also helps integrate some previously disconnected theoretical perspectives, i.e., *resource-based*, *agency* and *social capital* theories. By integrating corporate governance and competitive dynamics, the two research streams that have so far been largely disconnected, the current paper advances our knowledge of the antecedences of firm-level competitiveness, since competitive dynamics research has not discussed agency problems explicitly. In addition, this paper analyses interactions between firm-level resources and firm-level motivational factors.

This paper is one of the first attempts towards disentangling the effects of corporate governance mechanisms on firm motivation and capability respectively (cf. Hillman and Dalziel, 2003; Makadok, 2003; Gottschalg and Zollo, 2004). Leveraging the 'Motivation-Capability' logic requires finer constructs and measures that can directly capture the governance effects on firm-level motivation and firm-level capability (e.g. Kosnik, 1990; Hillman et al., 2000). Empirical testing of the theoretical model developed in the current paper requires careful research design that can reflect concerns of the multiple theories involved and the research traditions of competitive dynamics, corporate governance and the resource-based approach. Particularly, it would be useful if the context for empirical tests were industries that are characterised as competitive, dynamic and knowledge-intensive (Helfat, 1994; Zander and Kogut, 1995; Mayer and Argyres, 2004; Cattani, 2005).

Studying firm-level competitive activity requires a way of developing a large set of longitudinal data of actual competitive actions undertaken by each firm in the sample, since individual competitive action events are the building blocks for analyse the patterns of firm-level competitive behaviour. To identify individual action events, researchers will usually need to employ structured content analysis, which is based on a formal coding analysis that is applied to secondary data, such as corporate archives, newspapers, magazines and other published materials. The contents of events are then extracted according to pre-defined codes. Such a method has been widely practiced and well documented by competitive dynamics researchers (see Smith et al., 2001 for a comprehensive review).

After the longitudinal data of actual firm actions are generated, researchers can re-classify and characterise the action events based on the conceptual framework that serves their research purposes (van de Ven, 1992). As presented in this paper's integrative framework, we consider *competitive* actions as reflecting efficient deployment of firm resources and capabilities (Kogut and Zander, 1992; Mosakowski, 1998; Zollo and Winter, 2002; Kor and Mahoney, 2005). Event study methodology can be applied by measuring the direction and magnitude of stock market reaction to the announcement of each competitive action event (McWilliams and Siegel, 1997).

To measure our baseline construct, i.e. firm capability, a researcher can follow the recent development in the resource-based research literature, which has effectively employed patent, human resource and market-based data. To control for effects that may be caused by other factors, control variables that have been identified in competitive dynamics research literature as having significant effects on firm competitive behaviour need to be included in the empirical model.

The next generation of researchers in the evolving science of organisation will achieve a greater understanding in the Strategic Management field through empirical research generated by the integration of organisational economics and organisation theory. Towards this objective, the integrative framework developed here (and illustrated in Figure 1) can be readily operationalised and appears promising both in terms of theoretical refinements and in terms of generating a cumulative body of empirical research.

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Notes

1 See, for example: Bhagat and Black (2002), Daily et al. (2003a), Dalton et al. (2003), Dalton et al. (1998), Dalton et al. (1999), Hermalin and Weisbach (2003), Hutchinson and Gul (2004) and Lane et al. (1998).

2 For extensive reviews see: Chatterjee and Harrison (2001), Daily et al. (2003a), Daily et al. (1999), Dalton et al. (2003), Dalton et al. (1998), Dalton et al. (1999), Hermalin and Weisbach (2003), Johnson et al. (1996), Pettigrew (1992), Shleifer and Vishny (1997) and Zahra and Pearce (1989).

3 We are fully aware of the fact that researchers have applied resource dependence theory to explain the cooperative roles of the board of directors (e.g. Pfeffer and Salancik, 1978; Hillman and Dalziel, 2003). Yet, in characterising the function of the board of directors to supplement and enhance the firm's resources and capability, resource dependence theory focuses relatively narrowly on directorship as a cooptation tactic. In contrast, social capital theory provides a more accurate and comprehensive conceptualisation. Therefore, we apply social capital theory hereof for the sake of effective theory integration.

4 Also, agency theory assumes no problems with the directors' capability in effectively monitoring mangers. Yet, in reality, while outside directors – who are typically viewed approvingly in the agency literature – may have strong *motives* to monitor managers' decision-making, these directors may have little *capability* to do so due to their unfamiliarity with the industry.

5 The extent to which directors can effectively perform their monitoring and capability-supplementing roles will also be affected the incentive programmes provided to the directors and their interpersonal relations with the managers (Mace, 1986; Westphal, 1999; Hillman and Dalziel, 2003). Further discussion on this issue is beyond the scope of the current paper.