Competitive institutional strategies : development and testing of a new generic typology

Krishna Udayasankar

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**Competitive Institutional Strategies:
Development and Testing of a New Generic Typology**

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Nanyang Business School

**A thesis submitted to the Nanyang Technological University in fulfilment
of the requirement for the degree of Doctor of Philosophy**

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This dissertation is dedicated to the memory of my father,

A.R. Udayasankar (1944-2005).

*His belief, that knowledge is the surest means to self-realization, continues to
inspire me.*

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There are journeys, and there are adventures. To me, my dissertation process has been undoubtedly the latter. Yet adventures, they say, are merely tales of ordinary people through extraordinary times. To all those who made these times extraordinary, in the best of ways, here is my little note of thanks, which shows but an inkling of my gratitude.

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Krishna Udayasankar

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ABSTRACT

This dissertation aims to address extant lacunae in literature, in the fields of competitive strategy, institutionalism and corporate governance, by developing an integrated framework of the business environment and a generic typology of strategies therein.

Current research mainly does not acknowledge that firms can act strategically, as opposed to deterministically, in the context of institutional influences, to achieve competitive outcomes, alongside compliance outcomes. Also, competitive strategy typologies rarely acknowledge such interaction with institutions, and further, such typologies do not take into account the strategic nature of corporate governance activities.

The Competitive Institutional Environment (CIE) framework offered in this dissertation addresses all three lacunae. It identifies the role of institutional factors, and corporate governance motivations, in shaping the business environment of a firm, thereby supporting the identification of a typology of firm strategy that specifically identifies institutional and governance-based initiatives as strategies, with emphasis on the competitive and compliance outcomes thereof. The CIE is constructed as an integrated framework, in terms of two axes: Support and Governance. The multiple levels of analysis are highlighted by identifying four components that affect Support, namely Market, Financial, Regulatory and Resource Support, and three components that influence Governance: Ownership, Community & Stakeholder, and Market influences. Based on these components, the

interaction of firms, with the environment, results in idiosyncratic firm positions on the two axes. The performance implications of these four kinds of strategies, Market Domination, Niche Consolidation, Access Creation and Governance Optimization, are outlined, to hypothesize that one type of strategy is more suited to firms in different positions, in the CIE.

The hypothesized relationships were tested using data from India and Singapore, over the period 2001-2003. Empirical testing provided support for the construction of the CIE, in terms of the two axes, inasmuch as the relationship between firm position on the axes, and firm performance was positive, as hypothesized. However, only two of the four strategy-performance hypotheses, postulating the positive effects of Domination strategy for firms in the $H_S H_G$ quadrant, and that of Consolidation strategy for firms in the $L_S L_G$ quadrant, received support.

Implications for policy makers and managers are identified in conclusion, the latter through using four examples of firms in the CIE, over the period 2001-2003. This study is fundamental in nature, and therefore offers much scope for future research. Potential future streams of research, as well as specific projects that arise from the current study are discussed.

CHAPTER ONE

INTRODUCTION

“There is nothing so powerful as an idea, the time for which has come.”

- Victor Hugo, 1852

1.1. WHY DO WE NEED AN ALTERNATIVE GENERIC STRATEGIES THEORY?

In December 2002, United Airlines, the second largest airline world over, filed for bankruptcy, a result of increased spending, and inability to meet debt obligations. By 2004, United Airlines had increased revenues and decreased costs, and was one of the few airlines to improve its services, as per the Airline Quality Ratings (AQR), despite the adverse environmental conditions surrounding the airline industry. How did this company move from bankruptcy to regaining a favorable position in the market? The activities that accompanied the move to file for bankruptcy, such as service downsizing, and reduction in wages and benefits, resulted in a completely different corporate structure. Consequently, United Airlines was more competitive than before, despite the reputational and financial baggage caused by its bankruptcy.

Could this undoubtedly strategic move have been predicted or explained by extant theories in strategic management? Generic typologies, such as Porter's (1980) and Miles & Snow's (1978) would have pegged United Airlines, based on its activities, as lacking resources, and following

hybrid, 'stuck in the middle' (Porter, 1980) or reactor (Miles & Snow, 1978) strategies. These typologies would not be able to account for the corporate governance and institutional activities that United Airlines that brought it to its position of bankruptcy, or subsequently resulted in a favorable change in its position in the market environment. Similarly, institutional theories would suggest that such a situation is puzzling, given the high levels of monitoring prevalent in the airline industry. Corporate governance theories would have led us to expect that United Airlines, with its governance endeavours, would not reach such a position of bankruptcy. However, an integrated view of all three views can explain both the fall and rise of United Airlines. This anecdote therefore showcases what has been hitherto neglected in academic research: Institutional dealings and corporate governance-related actions of firms can be of a strategic nature, with competitive implications.

Motivated by such emergent phenomena in the business world, this research has the ambitious, but well-intentioned aim, of suggesting an alternative paradigm of strategic management. In this thesis, I propose to explore a new framework of the business environment, in the form of the Competitive Institutional Environment (CIE). Specifically, I construct a framework that integrates governance, institutional and competitive perspectives of strategy, discuss the influences that affect firms in such an environment, and finally, identify firm strategy and examine the performance implications thereof. This framework therefore addresses novel situations such

as that of United Airlines, which may not be adequately explained by using extant theories and frameworks.

1.2. WHAT IS THIS ALTERNATIVE FRAMEWORK, ANYWAY?

The theory advanced in this dissertation is in the nature of a paradigm. It tells, as it is, a complete story, beginning with the fundamentals that constitute the business environment, and sees the evolution through to strategy and firm performance. This research is fundamental, as opposed to being incremental. The aim of this endeavour is not to fill a gap in extant research, but to suggest an alternative ‘world-view’ of the business environment, as it were. The CIE framework offers better ways of approaching the conduct of business. The construction of an integrated model of a CIE sets up what can be considered an alternative playing field for businesses, leading to the identification of what would be the corresponding ‘rules of the game’ in the form of influences that operate on firms, and outlines how firms can strategically act to ‘win the game’. This, however, raises a further question. Does this integrated theory offer enough innovative insights to be considered an alternative paradigm?

Extant literature, outlined in detail in the following chapter, has three lacunae. First, it rarely acknowledges firms can act strategically, as opposed to deterministically, in the context of institutional influences, towards achieving competitive outcomes. Secondly, competitive strategy typologies do not acknowledge such interaction with institutions, and thirdly, such typologies do

not take into account that corporate governance activities may also be in the nature of competitive strategy. The CIE framework offered in this dissertation addresses all three lacunae. It identifies the role of institutional factors, and corporate governance motivations, in shaping the business environment of a firm. This environment would necessitate dual aims of competition and consonance, for firms, thereby supporting the identification of a typology of firm strategy that specifically identifies institutional and governance-based initiatives as strategies, with emphasis on the competitive and compliance outcomes thereof.

1.3. SO HOW IS THIS FRAMEWORK DEVELOPED?

The process of theory building adopted herein follows Meyer's (1994) prescription for building institutional theory. Meyer (1994, p. 33) suggests that there are four elements to a general institutional model: the origins of environmental rationalization, the dimensions of the rationalized environment, the mechanisms influencing organizing situations, and institutionalized organization structure, and further suggests that these elements come together to form a causal chain. Meyer (1994) also iterates that the focus of research has been on the latter two elements, and that little research has taken into account the origins or dimensions of the rationalized environment, or the model as a whole. In this research, the attempt is to address all four elements of theory building to present a model of the environment. However, the focus of the theory at hand goes beyond the institutional, to take into account the

competitive. The origins and dimensions of the environment are constructed using perspectives from governance, competitive and institutional domains. Similarly mechanisms influencing organizations are identified as competitive and/or institutional, and organizational structure and activity are considered in terms of the consequent governance-based, institutional and competitive strategies available to firms. Following closely Meyer's (1994) diagrammatical representation of institutional theory, I present a structural overview of this research overleaf.

FIGURE 1.1
Elements of the Competitive Institutional Environment Model

1.4. RESEARCH QUESTIONS

Based, on the aforementioned motivation, structure and aims of this research, the broad research questions that are considered for testing in this dissertation are:

- What affects firm performance, and thereby motivates firm action within the framework of the Competitive Institutional Environment?
- What strategies are likely to enhance firm performance in such a Competitive Institutional Environment?

1.5. WHAT LIES AHEAD: AN OVERVIEW OF THE DISSERTATION

Towards answering the aforementioned research questions, this dissertation is organized as follows: In Chapter Two I present a review of literature in all three domains, namely competitive strategy, institutionalism, and corporate governance, to draw on the relevant work in these three domains, as well as establish the basic strategic linkages of these elements with firm performance. This review also forms the basis for the precepts that are referred to subsequently in developing the theoretical postulates.

In Chapter Three, I proceed to construct the CIE, as an integrated framework, in terms of two axes: Support and Governance. The multiple levels of analysis are highlighted by identifying four components that affect Support, namely Market, Financial, Regulatory and Resource Support, and three

components that influence Governance: Ownership, Community and Stakeholder, and Market influences. Based on these components, the interaction of firms, with the environment, results in idiosyncratic firm positions on the two axes. The performance implications of these four kinds of strategies, Market Domination, Niche Consolidation, Access Creation and Governance Optimization, are outlined, to hypothesize that one type of strategy is more suited to firms in each quadrant than in the other three quadrants.

Chapter Four identifies the data and methods used to construct the CIE. It also outlines the processes used to test the hypotheses, using OLS regression. Post-hoc tests are carried out to explore the effects of country and industry on firm strategy choice. The consequent findings are presented in Chapter Five, wherein the hypotheses are confirmed or rejected.

Chapter Six presents a discussion of the empirical results, with a view to elaborate, explain, and revisit, the theoretical foundations of the CIE framework, and firm strategy therein. Despite the mixed support for the hypotheses, the results present some interesting insights. In general, the framework of the CIE and the effects of the processes operating therein are validated. However, the strategy hypotheses were not all supported. Consequently, the distinction among the four kinds of strategies is re-examined.

In Chapter Seven, the conclusion, I identify the potential contribution of this research to both the research and practice of strategic

management, using four illustrations of firms in the CIE, to elaborate on the latter.

I also highlight the fundamental assumptions that run through the paper, and finally, identify the limitations. Finally, this document ends with some thoughts on the future research avenues that emerge as a consequence of this study.

CHAPTER TWO

REVIEW OF LITERATURE

In this chapter, I trace the evolution of research in the competitive strategy, institutional and corporate governance domains. The broader field of strategic management has grown over the years to incorporate all three streams of literature, to the point where similarities across the three domains support the construction of an integrated view of competition, institutionalism and corporate governance, with particular focus on the lacunae therein. All three domains inherently support an underlying logic, which suggests that performance advantages, or benefits to the firm, accrue from internal efficiencies; as well as an external logic, which highlights the role of environmental factors in deriving advantage.

However, the broad field of strategic management is noteworthy for the absence of an integrated generic strategy typology that is located at the intersection of the three domains. In general, institutional literature explores the relations between the firm and its larger environment, but without adequate emphasis on the element of competition. The trend in institutionalism has been to restrict typologies to primarily cover non-market strategies, and the consequences thereof. Corporate governance research focuses on the internal elements of firms and relates these to firm strategy. It also explores the impact of the larger business

environment on the governance of firms, but is not considered a significant strategic initiative in its own right. What is missing, therefore, is the competitive linkage that would connect institutional, governance and competitive aspects. Based on this, the main aim of this research is to construct a model of the business environment as a Competitive Institutional Environment, and test firm strategies therein.

2.1. REVIEW OF PAST RESEARCH: STRATEGIC MODELS

Competitive strategies have formed the cornerstone of research in the strategy domain for many years. Intrinsically linked to the fundamental aims of performance enhancement and gaining competitive edge, various theories have been offered till date, which take into account the changing nature of the competitive environment, the evolution of firms, industries and economies, as well as the growing body of knowledge in the area. I briefly present the evolution of some of the main theories in the domain, in order to better locate the context of this work.

Parnell (2002) suggests that the roots of business strategy research can be traced to the industrial organization (I/O) tradition. The work of Bain (1956) and Mason (1939) resulted in the structure-conduct-performance view of strategy, which held as its basic premise that performance was a result of the industry, and not of firm characteristics. The attraction of this view, till even recent times, has been the compelling influence of industry on firm profitability (Seth & Thomas,

1994). However, the shortcomings of this view were its inability to account for large performance variances within a single industry (Parnell, 2002), as well as the debate on order of causality of the elements of structure, conduct and firm performance (Mazzeo, 2002).

An attempt to account for these within-firm differences led to the development of vast amounts of research in the 'strategic groups' (Hunt, 1972) area. Strategic groups have been described as clusters of firms with similar behavior in heterogeneous industry environments (Fiegenbaum, McGee, & Thomas, 1987). The distinctions between behaviors of, and resources available to, strategic groups were offered as a rationale for variation in firm performance within the same industry, and many studies sought to demonstrate the linkages between groups and performance (e.g. Fiegenbaum & Thomas, 1990; Hambrick, 1983; Hatten, Schendel, & Cooper, 1978). However, Ketchen, Combs, & Russell (1997) used meta-analysis to demonstrate that only eight percent of performance could be accounted for by group membership. While this evidence is comparatively recent, the attempts in research to identify and explain firm-level variables, which may moderate such industry-performance or group-performance relationships, can be considered reasonably contemporaneous for the development of the strategic groups theme in strategy.

The attempt to classify similarities across strategic groups led to recognition of generic strategy approaches, and firm-level characteristics (Parnell,

2002). Porter's (1980) framework suggested that firms have the option of low-cost leadership or differentiation, both of which were augmented through focus on a given segment of the market. Miles and Snow's (1978) typology offered a fourfold classification of firm strategy based on the firms' perceptions of the environment, as well as their response to it. These two typologies held sway for a considerable period of time, given especially their efficacy in practice.

Attempts to refine these models took the attention of some researchers (Miller, 1988), while others tried to integrate existing perspectives on generic strategies (Chrisman, Hofer, & Boulton, 1988; Kotha & Orne, 1989; Miller, 1987). Similarities between the Porter's (1980) typology, and the Miles & Snow (1978) typology were often explored. For example, Porter's "stuck in the middle" firms were compared to Miles and Snow's (1978) "reactors" (Segev, 1989). Recent research continues to emphasize the contribution of business-level strategies to firm heterogeneity (Noda & Collis, 2001). Aulakh, Kotabe & Teegen (2000) specifically linked Porter's (1980) generic strategies to firm export performance, and Kim, Nam, & Stimpert, (2004) demonstrate the relevance of these generic strategies to the context of online businesses.

Parallel to these developments was the growing influence of Transaction Cost Economics (TCE) on strategic thinking. Williamson (1975; 1985) suggested that a firm's performance was linked to the transaction costs it incurred, offering a theory that focused on firm structure, but nevertheless considered firm

characteristics as integral to performance. The macro-level market element, however, was also a part of this discipline, suggesting a perspective that seemed deterministic, in what is now known as Coase's law, that "the limit to the size of the firm is set where its costs of organizing a transaction become equal to the cost of carrying it out through the market." (Coase, 1990 p.7).

The precepts of TCE remain relevant in the contemporary context, and have been applied in great depth to issues such as alliance formation (Gimeno, 2004), and the impact of technological change on firms (Afuah, 2001). Particularly, TCE has provided a strong rationale for the function of inter-firm alliances, with researchers viewing alliances as a means to reduce transaction costs (Osborn & Hagedoorn, 1997). This view has also contributed strongly, in a historical sense, to the development of competitive strategy research. Such developments have taken forward research at multiple levels, with focus both on firm-level, as well as environmental elements.

2.1.1. Firm-level Elements and Competitive Strategy

While the development of generic strategies and transaction cost perspectives sought to balance firm and environment, it seemed that there was still room to further explore firm level attributes, particularly from the perspective of firm resources. Mintzberg (1978) called for a "dynamic" view of strategy, which would consider the contribution of strategic processes to a firm's

performance. Drawing from the earlier view of Penrose (1959) and Wernerfelt (1984), researchers such as Barney (1991) contributed greatly to the evolution of the resource-based view (RBV) of the firm, which contended essentially that the performance of a firm was subject to its ability to develop, maintain and utilize valuable resources, resulting in sustained competitive advantage for the firm (Barney, 1991). The consequent 'dynamic capabilities framework' (Teece, Pisano, & Shuen, 1997) was an answer to Mintzberg's (1978) call for a more dynamic view of strategy, with the former framework placing emphasis on firm processes as evolving over time, rather than the more stagnant view of strategy as based on existing firm resources.

More recent advances in management have taken to exploring resources and competitive advantages, sometimes at the 'within-firm' level. This development led to understanding the creation of competitive advantages, which would have necessitated a minute examination of firm internal processes. The much lauded development of recent concepts, such as the balance scorecard (Kaplan & Norton, 1997) as a measure of firm performance, and the importance of knowledge and information (e.g. Drucker, 1997), highlight the fact that, in theory and in practice, the emphasis is on the ways and means by which firms, internally, go about strategically creating and sustaining competitive advantages, and thereby improving performance.

Business strategy research seems to have predominantly followed a trend towards the micro level of analysis. Strategy research, as linked to the theorized drivers of performance, has been traced from the industrial level, such as in the I/O tradition, to firm specific levels, as observed in the Resource-Based View. Nevertheless, the precept that increasing internal efficiencies and competencies can serve to provide and enhance performance advantages, forms the underlying logic of this stream of research, across all its theories.

2.1.2. The External Environment and Competitive Strategy

Evolution in strategic research arises from a re-examination of elements within the environment, whereby new elements are often introduced, and older elements re-evaluated, as opposed to redefinition of the environments themselves. While some authors, such as Brandenberger (2002), insist that the original form of some generic competitive strategy models remain relevant in today's context, others draw caveats, in the light of modern trends. Reid (1993) and Reid & Jacobsen (1988) have iterated a need to modify Porter's (1980) framework, in the context of Small and Medium enterprises (SMEs). Lee, Lim, Tan & Wee (2001) identify three strategies available to SME's: free-riding, substitution and deterrence, which call for a modified view of Porter's (1980) model. Studies on transitional economies such as China, (Lukas, Tan, Hult, & Tomas, 2001), show that strategic fit is found only under certain environmental conditions, such as

levels of environmental uncertainty. Khanna & Palepu (1999) provide a more general caveat against the application of “western corporate strategies”, such as dismantling of diversified, large business groups, to emerging economies. Others such as Miller (1988) and Campbell-Hunt (2000) stand as examples of the process of refinement, which allows generic strategy models to remain relevant, without losing the insights and utility captured in the original models. Miller (1988) discusses the relations between generic strategies and structure of firms, and the environment, and Campbell-Hunt (2000) aimed to take the analytical framework of generic strategies further through meta-analysis.

These studies are often prompted by the emergence of new concepts, and new business environment trends, which require, in practice, organizations to reconsider many aspects of their strategic choices, whereas for the researcher they represent the challenge of a dynamic and ever-evolving domain. One such new factor has been the expansion of the business arena from homogenous domestic markets, to more heterogeneous global markets. This has had an impact on many fields of study, none less than the area of generic strategy models, because of the variety of environments, contexts, cultures and markets that globalization has brought together. Such internationalization has resulted in a need for extensive studies, alongside those with intensive or inward-looking foci. Biggart & Delbridge (2004) suggest that variation across economies can be understood in terms of the different types of exchange arrangements such as moral, price,

associative and communal systems, therein. Hrebiniak and Joyce (1985) specifically take into account the interaction between firm strategic choice and environmental determinism. The network form of governance (Jones, Hesterly, & Borgatti, 1997) also highlights the conduct of business as based on social systems. Studies such as these therefore reiterate the need to take into account the external environment, but in a wider sense than as having implications only for firm structure. In addition, studies (McGahan & Porter, 1997; Powell, 1996) suggest that macro factors such as industry, and firm level factors, are both important for understanding firm performance.

The internationalization of business and the growing technological development of recent times have both contributed to the rising opinion that the domain of institutionalism has implications for strategy, and deserves scholarly attention as such (Ingram & Silverman, 2002). The most recent phase of research into strategy typologies has taken into account the evolution of institutionalism as a definitive area of research. Whitley, in a stream of work (1992; 1999; 2002), takes the view that market economies with different institutional environments coordinate economic activity in different ways, leading to differences in firm characteristics and strategy, across these environments.

Institutional factors have been considered as one of the elements in the larger business environment, and have been studied for their effects on firm action and strategy, (e.g. Das & Van de Ven 2000; Peng, 2003; Ramaswamy, Li, &

Veliyath, 2002; Tihanyi, Johnson, Hoskisson, & Hitt, 2003), firm structure and organization (Kostova & Roth, 2002), foreign expansion (Laurila & Ropponen, 2003), foreign entry mode choice (Yiu & Makino, 2002) and firm evolution and change (Barnett & Hanges, 1996; Baum & Haveman, 1997; Fox-Wolfgramm, Boal, & Hunt, 1998), particularly in the context of institutional differences in economies, such as those in Asia (Lee et al., 2001; Reid, 1993; Reid & Jacobsen, 1988). The underlying logic of this stream of research, therefore, seems to be that institutional elements must be addressed as part of competitive strategies only so far as they affect internal efficiencies, and such institutional elements do not determine the focus of competitive strategies. This offers much scope for potential research. For example, Peng, Seung-Hyun & Wang (2005) suggest that relatedness has been traditionally measured using market factors, but adding an institutional dimension in the form of institutional relatedness, has great explanatory potential, and Young, Peng, Ahlstrom and Bruton (2002) suggest that institutional dimensions, such as informal constraints, which are unique to transitioning economies, dominate the operative notion of governance in such economies. Such instances are indicative of how institutional perspectives can deepen our understanding of strategy research (Peng et al, 2005), and explanatory of the more explicit articulation of the role of the institutional environment that can be observed in recent research (e.g. Peng, 2006).

This development has its corollary in the domain of institutionalism, where the focus on strategy has been correspondingly restricted to non-market strategies. In the following sections I trace the evolution of institutional research from across multiple domains, and then specifically examine the literature in the strategy context, thereby demonstrating that there exists a similar gap in institutional literature, inasmuch as the focus of research is restricted to non-market institutional strategies.

2.2. REVIEW OF PAST RESEARCH: INSTITUTIONALISM

North (1990) defines institutions as “the rules of the game in a society or, more formally, the human devised constraints that shape human interaction” (p. 3). Scott (2001) provides a wide all-encompassing definition of institutions as “multi-faceted, durable social structures, made up of symbolic elements, social activities, and material resources”. These definitions take into account the presence of institutions as unit or entities, such as political, social and legal (Wan & Hoskisson, 2003); processes (DiMaggio & Powell, 1983); or determinants of outcomes (DiMaggio & Powell, 1983; Meyer & Rowan, 1977; Zucker, 1977). The multiplicity of perspectives on the nature and role of institutions is, in part, attributable to the evolution of this domain over multiple disciplines, including economics, sociology and political science.

Scott (2001) attributes the ascendance of institutional theory to the conception of open systems in the study of organizations. Evolution of research in the institutional domain was also spurred on by the evolution of transaction costs, a concept that also influenced the strategy domain, as was discussed in the earlier sections. In retrospect, this simultaneous influence may have been a precursor of the high interrelation that was to be seen between the two domains of strategy and institutionalism. While Ronald Coase (Coase, 1937) is by consensus considered as the pioneer of new institutionalism (Scott, 2001), his ideas received new impetus with the works of Williamson (1975; 1985). The examination of economic systems at industry and nation-state levels, that were concurrent with this development in economics, looked to institutionalism, particularly to elaborate on the exchanges between various actors in such systems. For example, Orru, Biggart & Hamilton (1991; 1997) show that economic activity is embedded in the cultural context, with specific reference to the Asian region.

This evolutionary use of institutionalism was also seen amongst the political science institutionalists, such as March & Olsen (1984), who examined the political role of actors within such systems. Meyer & Rowan (1977), and Zucker (1977) emphasized the organizational sociology uses of institutionalism, drawing upon the conception of cultural rules that impacted organizational forms.

2.2.1. The Influence of Institutions on Firm Strategy

With the seminal work of DiMaggio & Powell (1983), institutionalism established itself as a domain, which could provide strong theoretical concepts relevant to the study of organizations in general, including businesses. In their work, DiMaggio & Powell (1983) essentially suggested that organizations tend towards isomorphism, due to the mimetic, normative, and coercive influences in the environment. This work heralded the more direct application of institutional precepts to the study of organizations, and businesses in particular, by contributing important explanations for organization (or firm) structure. Research then turned specifically to address questions relating to the nature of interaction between institutions and firms.

Studies that looked into the reasons and conditions under which firms responded to institutional influences offered propositions which linked institutional precepts to firm performance. Kelly & Amburgey (1991) suggested that firms may not always react to institutional change, and instead may continue to comply with an older form of influence. Such observations formed part of the larger literature on inertia and context-bound rationality of firms. Ingram (1998) suggests that organizations exhibit some degree of inertia, implying that they may not always change or adapt to changes in the institutional environment effectively, or quickly. Similarly, organizations also exhibit context bounded rationality, whereby they may continue to follow certain institutional influences simply

because they were effective, or positively impacted performance in the past (Macy, 1997; Nee, 1998). Organizations may also ritualistically follow routines determined by institutional influences, even when such routines may clash with organizational efficiency (Nee, 1998).

Studies such as Oliver (1997) suggest that firm performance is often dependent on consonance with the institutional environment, thereby postulating the essential linkage between institutionalism and strategy, from both cause and effect perspectives. Lee & Pennings (2002) bring together population ecology and institutional theory to suggest that institutional processes affect organizational forms. Thornton (2002) also finds support for the hypothesized effects of institutions on organizational structure. Goodstein (1994) finds that strategic responsiveness to institutional pressures is dependent on certain institutional and technical determinants. Neilsen & Rao (1987) suggest that strategy formulation is linked to the establishment of legitimacy. Ring, Lenway & Govekar (1990) argue that the 'strategic predisposition' of firms affect the strategies that firms employ in dealing with political environments. These perspectives offered a balanced outlook on strategy, wherein both firm actions, as well as elements of the environment were thought to affect firm performance.

With the advent of technology-oriented studies in the field of strategy, institutional concepts were further reiterated (e.g. Das & VandeVen, 2000; Katz & Shapiro, 1986). This interactive perspective led also to the creation of

institutional strategy typologies, which examined how firms can interact with institutions, and how firms can employ non-market institutional strategies towards their benefit. Studies such as those by Oliver (1991) and Baron (1995; 2001) looked at strategic options available to firms in the context of institutional processes and influences. Deephouse (1996; 1999) identifies and finds support for the role of organizational isomorphism as a strategic initiative to gain legitimacy, and Zimmerman & Zeitz (2002) advocate a typology of strategies by which, firms can acquire legitimacy. Very recent research by Bonardi, Hillman & Keim (2005) presents a typology of political strategies firms can use in varying institutional environments, and Schuler, Rehbein & Cramer (2002) explore the firm characteristics and industry conditions which affect implementation of political strategies.

However, these typologies of institutional strategy address institutional influences from an exclusively non-competitive perspective. Strategy typologies are directed specifically towards how firms interact with or influence institutions, or respond to influences from institutions, but do not explore deeply the inter-firm competitive aspects of institutional strategies. The fundamental logic of this domain seems to be that firm institutional strategies are necessarily distinct from firm competitive strategies.

2.2.2. Effects of Firms on the Institutional Environment

While, on the one hand, the role of institutions in influencing firm strategy and performance was strongly argued for, on the other, researchers also sought to explore the ways in which firms affect and change the institutional environment. The concepts of deinstitutionalization (Oliver, 1992), institutional conflict, and institutional entrepreneurship (DiMaggio, 1988; Fligstein, 1997) all suggested that firms played an active role in the creation, erosion and change of institutions. The implicit variation in the roles firms play creates interesting opportunities for the examination of performance implications of firm participation in institutional change.

DiMaggio (1988) notes that “new institutions arise when organized actors with sufficient resources see in them an opportunity to realize interests that they value highly” (p.14). Aldrich & Fiol (1994) suggest that entrepreneurial firms’ quest for legitimacy also reshapes industry and institutional environments. Kraatz & Moore (2002) show that the migration of leaders, with different skills and values, has the effect of changing institutionalized organizations and fields. Acting towards creation and change of institutions can provide firms with advantages, accruing from structural elements of the environment, such as standards (Garud, Jain, & Kumaraswamy, 2002). These studies suggest that firms will act towards institutional change in order to maximize benefits that arise from the institutional environment. Such benefits may accrue from capital resources,

such as knowledge and skill, as well as institutional resources, such as legitimacy,

and structural advantages. However, not all actors in the institutional environment

are equally equipped (DiMaggio, 1988). Firms have different types and amount of

resources available to them, consequently affecting their actions and interpretations, in the environment (Oakes, Townley, & Cooper, 1998). This potential for variation amongst firms leads to the logical conclusion that processes of institutional change, when viewed from the perspective of the firm, are necessarily competitive processes, as they are both dependent on, and motivated by the gain of resources and other forms of advantage.

Consequently, the vistas of firm strategy are expanded from response to existing institutions and ongoing institutional processes, to include processes of institutional change, whereby firms can aim to gain advantage from the structure of the institutional environment, as well as their own position therein. Despite this potential inherent in the field of institutionalism, as noted before, institutional strategy typologies do not fully exploit the possible competitive implications of firm interaction with institutions.

While institutionalism offered new insights into the environments within which firms operated, another area of research has made strong contributions to strategy literature. Corporate governance was, and continues to remain, an important area of research. Corporate governance emerged as a response to the need to ensure greater management efficiency and accountability, particularly to

shareholders, as regards the internal operation of firms, though it has since grown in its purview to mean much more. This stream of research is also uniquely placed as being of interest to both institutional and competitive strategists. The debate on governance spreads over multiple levels, ranging from the environmental, to the within-firm level, and over many foci, from shareholder value maximization, to stakeholder orientations, as discussed in the following section.

2.3. REVIEW OF PAST RESEARCH: CORPORATE GOVERNANCE

The origins of the domain of corporate governance are typically traced to the classical work of Berle & Means (1932, c.f. Bainbridge, 1995), in which the authors emphasize that while the ownership of capital is dispersed, control is concentrated in the hands of managers. Jensen (1986) and Jensen & Meckling (1976) formalized the issue by identifying the ‘agency costs’ of such separation of ownership and control, to highlight a fundamental problem with the notion of an incorporated entity with dispersed ownership, as is the modern day corporation. The conflict of interest centers, in this perspective, on the payout of cash to shareholders, in the form of dividends. Jensen (1986) identifies free cash flow as “the cash flow in excess of that required to fund all projects that have positive net values when discounted at the relevant cost of capital” (p. 323). While shareholders (owners) would prefer to maximize their profits, managers may

invest the free cash flow at a return below the cost of capital, or use it inefficiently, in order to increase their control and power.

In recent times the domain of corporate governance has grown to take into account concurrent developments in the competitive strategy domain, as well as the institutional domain. Denis & McConnell (2003) identify two levels of examination, which have dominated corporate governance research in the field of strategic management: internal and external governance mechanisms. New theories, such as the resource dependency theory, focus on how corporate governance can provide critical resource advantages to firms. Institutional perspectives, on the other hand, suggest that macro-environmental factors significantly influence corporate governance. The underlying logics of these two streams serve to link the domain of corporate governance to both competitive and institutional strategy literature.

2.3.1. Internal Mechanisms of Corporate Governance

Corporate governance research has not been without strong links to the competitive aspects of business, with particular emphasis on the gains from internal efficiencies, though these links have formed generally the underlying assumptions of theories, rather than been stated as explicit links. Particularly, agency and resource dependency theories strongly contextualize the operation of governance in the context of a competitive environment, suggesting as the

underlying logic the precept that corporate governance can enhance firm performance through internal efficiencies.

Agency Theory. Tsipouri & Xanthakis (2004) suggest that the main issue addressed by the domain of corporate governance is the 'agency problem'. As aforementioned, the agency problem captures the conflict that is assumed to persist between shareholders and managers, as regards the use of free cash flows of a firm. The existence of agency is also considered to lead to a "risk differential" (Jensen & Meckling, 1976). Principals can own shares in more than one company, making them less risk averse, as compared to managers, since the latter are concerned about stable employment (Wiseman & Gomez-Mejia, 1998). The agency issue became the central focus of a body of literature that was to become the foundation of the domain of corporate governance. The primary concern of corporate governance, at this time, was the question of how to maximize shareholder value, in the face of agency costs.

In keeping with the more classical views of the agency theory, researchers have sought to examine the internal aspects of firm operation. Such research includes work on the conflict between management and ownership, predominantly framed in the form of issues relating to management and the board of directors. Therefore, issues relating to board size (Dalton, Daily, Johnson, & Ellstrand, 1999), board composition and structure (Daily & Dalton, 1994), board diversity (Carter, Simkins, & Simpson, 2003), board control and vigilance

(Canyon & Peck, 1998) and interaction between the board and management (Hoskisson, Johnson, & Moesel, 1994; Johnson, Hoskisson, & Hitt, 1993) have received and continue to receive attention.

Alongside the aforementioned testing of governance antecedents was also the development of the idea that ownership and managerial interests could be aligned, if managers were also given a stake in the ownership, and their remuneration was linked to firm performance (Jensen & Murphy, 1990). Equity-based remuneration and stock options were proposed as incentives which could resolve the agency conflict to some extent. However, in recent times this view has come under question (Dalton & Daily, 2001). Miller (1995) suggests that the diversity of finding on this issue may be a result of the variety of samples used, and finds that the relationship between CEO compensation and firm performance is convex. Pollock, Fisher & Wade (2002) find that CEO power, and duality can affect the re-pricing of executive stock options. Tosi Jr. & Gomez-Meija (1994) conclude that monitoring of CEO compensation can contribute positively to firm performance.

Strong links to competition can also be observed in the free-rider theory, which extends agency theory to consider the dichotomous interests of insider and outsider shareholders (Fama & Jensen, 1983). Outside shareholders may prefer consumption of profits over investment of profits, thereby reducing the potential of a firm to otherwise use those profits towards competition (Schulze, Lubatkin,

& Dino, 2003). Recent research also brings together agency and behavioral theories. This perspective seeks to explore agency as it plays out, and demonstrates how the behavior of managers, given the expectations of shareholders, may further compound agency (Sanders & Carpenter, 2003).

Studies have also examined the relationship between corporate governance and firm strategy. For example, Goodstein & Boeker (1991) look at the effects of ownership and board of directors on strategic change. Ellstrand, Tihanyi & Johnson (2002) examine the relationship between board structure and the political risk of a company's foreign direct investments (FDIs), and Sanders & Carpenter (1998) find internationalization of a firm leads to changes in its governance structure, including board structure and CEO compensation. Lee & O'Neill (2003) consider the effects of ownership on R&D investment, using the precepts of stewardship and agency theories. Institutional ownership affects internal corporate governance characteristics, which in turn affect firm innovation strategy (Hoskisson, Hitt, Johnson, & Grossman, 2002). Despite these links between corporate governance and firm strategy, governance tends to be considered a firm characteristic that influences strategy, rather than being an element of firm strategy, in itself.

Resource-Dependency Theory. The resource-dependence view of corporate governance stems from the fundamental logic that various elements of corporate governance can act as critical resources for a firm. While based on the

more general form of the resource-dependence theory (Pfeffer & Salancik, 1978), in the context of corporate governance, this theory can be applied to suggest that firm corporate governance can lead to generation of resources. Particularly, boards of directors contribute to a firm through their expertise and their linkages to other firms and institutions. Directors can also contribute to the positive valuation of a firm, through their reputation. Boards of directors can be a key source of various resources (Pfeffer, 1972), based on human capital, such as advice and expertise, and social capital, such as legitimacy and links to other organizations, cumulatively described as board capital (Hillman & Dalziel, 2003). The relationship between board capital and firm performance is well documented (Dalton et al., 1999; Pfeffer, 1972), thereby making the resource dependency view a key theory in corporate governance. Recent research constructs the relational link between directors of different boards as a network, to show that such links can contribute to firm decision-making (Carpenter & Westphal, 2001). Human capital is also linked to governance-related events and characteristics, such as post-acquisition CEO departure (Buchholtz, Ribbens, & Houle, 2003).

The strong research attention given to the relations between the board of directors and managers (Hoskisson et al., 1994; Johnson et al., 1993) suggests that internal efficiency is a strong concern in this perspective of corporate governance. Relational capital, such as channels of communication, can offer firms a competitive edge or increased advantage over their competitors, as can the

favourable effects of reputation on firm valuation, as well as the unique knowledge-based competencies that accrue to firms from the knowledge and experience of the directors. In the course of their jobs, CEOs develop an array of specific knowledge (Harris & Helfat, 1997). This knowledge can be treated as human capital, consequently raising investment decisions for firms, centred on acquiring or retaining this knowledge. In general, therefore, the resource dependency theory of corporate governance views governance as a means to acquire, generate or maintain resources which result in competitive advantage for the firm.

2.3.2. External Mechanisms of Corporate Governance

Much research takes into account the external determinants of corporate governance, identifying a variety of exogenous entities and processes that affect the governance standards, and orientations of firms. Captured quite comprehensively by the institutional and stakeholder views of corporate governance, this stream of research provides a strong bridging link between the internal features of the firm, and the external environment. Consequently, the logic underlying this stream of research is simply, that exogenous entities and processes affect firm corporate governance.

Institutional Theory. As part of the growing research on the role of external factors on corporate governance, in recent times, the role of institutions

in corporate governance has come under the scrutiny of research. Researchers have considered the influence of macro-environmental, institutional factors on corporate governance, including the effects of country legal systems (LaPorta, Lopez-de-Silanes, Shleifer, & Vishny, 1998), governance regimes, such as worldwide and regional trade agreements (Levy & Prakash, 2003), country variations in ownership (LaPorta, Lopez-de-Silanes, & Shleifer, 1999), and country economic environments, such as the presence of co-operatives and state ownership (Shleifer & Vishny, 1997). Gillian & Starks (2001) identify institutional investors as “an increasingly important external control mechanism affecting corporate governance worldwide” (p.3). As observed by Shleifer & Vishny (1997) “if legal protection does not give enough control rights to small investors to induce them to part with their money, then perhaps investors can get more effective control rights by being large” (p. 753).

La Porta et al. (1998) note the difference in governance standards perpetuated by common and civil law systems. The same authors find that firm value is higher in countries with better protection of minority shareholders, (LaPorta, Lopez-De-Silanes, Shleifer, & Vishny, 2002), and that legal rules and quality of law enforcement with respect to investor protection have an effect on the size of capital markets (LaPorta, Lopez-De-Silanes, Shleifer, & Vishny, 1997). These findings are in keeping with the fundamental postulates of Jensen & Meckling (1976), that higher cash-flow ownership would lead to lower

managerial expropriation. Wurgler (2000) finds that in countries with strong protection of minority investor rights, overinvestment in declining industries is curbed. This would lead to the conclusion that the type, nature and function of legal authorities can have a strong influence on the levels of governance in an environment, as well as on the standards of governance followed by firms in that environment. Standardization of and similarities in market practices, such as the operation of stock exchanges, also influences the increased convergence of global governance practices (Mar & Young, 2001). Recent research also suggests that not only regulation, but deregulation also affects the adaptation of corporate governance measures, and consequently affects firm performance (Kim & Prescott, 2005).

Alongside the role of exogenous entities, the role of environmental processes, particularly the influence of competitive forces operational in the environment, has also been of interest to corporate governance researchers. Particularly, researchers highlight the competitive role of other firms in the environment, through the mechanism of the market for corporate control (Jensen & Ruback, 1983). Walsh & Kosnik (1993) suggest that the market for corporate control can have a disciplinary effect on firms, since raiders look to acquire firms that may not be adequately governed. Firms would therefore be inclined to improve their governance procedures in order to avert such takeovers. Research also provides strong evidence for the effects of social and cultural institutions on

the governance of firms. Jones (1999) discusses, at length, the institutional determinants of social responsibility, highlighting determinants at the national, social and industry levels. Nationality has been found to influence corporate ethical codes (Langlois & Schlegelmich, 1990) and ethical issues perceived as important by managers (Jackson, 2000) and organisations (Alderson & Kakabadse, 1994).

Stakeholder Theory. Corporate governance literature, has over the years, expanded to include within its fold a more fundamental debate: Is shareholder value maximization the only focus of a corporation? Recent literature, particularly in the domain of stakeholder theory, sought to question this notion. Freeman, (1984) in his work on stakeholders, proposes the concept of stakeholder management to address the ethical and moral considerations of business alongside the more competitive ones. Stakeholders were defined as “any group or individual who can affect or is affected by the achievement of the organization’s objectives” (p.30). Stakeholders, could therefore, in keeping with this view, include suppliers, consumers, employees and other social communities. These groups or entities also exert significant influences on corporate governance standards, in addition to the more traditional entities and processes that are identified under institutional theories of corporate governance.

Stakeholder theory has gained much force with suggestions that the practice of stakeholder management will contribute positively to the performance

of firms (Donaldson & Preston, 1995; Hillman & Keim, 2001). Stakeholder orientation, even in its most expansive form of social responsibility, is viewed by managers as contributing to an increase in market share (Owen & Scherer, 1993). Howard-Grenville & Hoffman (2003) suggest that firm participation in environmental protection can be positively regarded from the perspectives of risk management, capital acquisition, market demand and strategic direction.

While the debate on shareholder value maximization vs. stakeholder orientations persists, with scholars putting forth arguments that suggest shareholder value maximization can be a pro-stakeholder approach (Inkpen & Sundaram, 2004), there is no doubt that it adds further institutional dimensions to the domain of corporate governance. Christmann (2004) identifies specifically governments, industry participants, and customers, as stakeholders exerting influence on firms. The inclusion of such expansive perspectives into corporate governance literature strengthens the case for institutional linkages thereto. As various stakeholder groups, including consumer groups, employee groups, and others, gain more force, they act as institutions exerting influence on firms. This reiterates the need to take into account the issue of corporate governance, in any meaningful construction of a competitive and institutional business environment and strategies therein.

2.4. CONSOLIDATION OF LITERATURE

The review of literature, above, has served to demonstrate that there are overlapping logics in the three domains of competitive strategy, institutionalism and corporate governance, that offer great potential for the development of new theories. Both competitive strategy and corporate governance emphasize the performance outcomes of internal resources and efficiencies. Institutional literature and corporate governance literature take into account the impact of external environments on firm-level elements. Similarly, both the institutional and competitive strategy streams of research suggest that generic strategies are available to firms, to guide firm action within the organizational field. However, these overlaps are not without lacunae: Competitive strategies tend to focus on internal efficiencies, with less emphasis on strategically dealing with institutions. Institutional literature, though documenting the interaction of institutions with firms, restricts strategy typology offerings to non-market strategies, despite the acknowledgement that organizational fields can be considered as structured systems, within which struggles take place over resources, stakes, and access, sometimes to the exclusion of other players (Bourdieu & Wacquant, 1992; Maguire, Hardy, & Lawrence, 2004). Corporate governance literature offers a conceptual bridge between this interaction of exogenous environment and endogenous firm-level action, but has not traditionally been considered as a strategic initiative.

Despite the overlaps, current state of the art in these fields does not advocate an integrated view. The question then arises, why is this so? On the one hand, I propose that such an integrated view is a novel approach, and on the other, I suggest that it is well-grounded in extant theory. The fact remains that many of the overlaps identified are a product of recent research, which has reached the inevitable critical mass that allows for the joint analysis of trends in the three domains, and the construction of an integrated view thereupon. Consequently, the current study is a product of the accumulated body of research that precedes it, but lays claim to being innovative, by virtue of its timing.

These lacunae offer ample scope for a novel contribution to the body of academic research, based on an integrated view, while the extant similarities and congruence substantiate and theoretically support such a view. It is therefore at the intersection of these three domains of research that the current study is located. Both institutional and corporate governance domains offer novel parameters to be used in the construction of a model of the business environment, and the well-documented links between these two streams, and competitive strategy offers a means to explore the processes that would operate in the context of such a framework.

In this chapter, I have outlined both historical and recent research in three domains in the broad field of strategic management, with a view to identifying the similarities and distinctions, and thereby present a case for an integrated, yet

novel, view of firm generic strategies. Based on this review of literature and the synthesis of findings across the domains, I proceed, in the next chapter, to outline a model of the Competitive Institutional Environment, and offer a generic typology of firm strategies therein.

CHAPTER THREE

DEVELOPMENT OF THEORY

In the earlier chapter, I have identified the importance of both institutional and corporate governance perspectives to better understand firm strategy, in the current business context. These two streams of research have been shown to further mainstream strategy literature, by taking into account external environments, and internal factors of the firm, respectively. In this chapter, I construct a theoretical framework that brings together the competitive and institutional elements of firm strategy, to propose a new generic typology. To do so, I propose that institutional aspects and governance aspects can be represented as two distinct axes, and that competitive elements are captured by interactive conditions of the two axes. While firms compete for institutional aegis and increased legitimacy, institutions can affect competitive orientation, particularly in the form of corporate governance motives. The synthesis of these two perspectives leads to the formulation of strategy types, which are both competitive and institutional in nature.

The chapter is organized as follows. I first identify the origins and dimensions of the Competitive Institutional Environment (CIE), construct the framework and discuss its properties, including the actors and influences operating therein. I then discuss how the framework enables the identification of a firm's position in terms of the four quadrants of the CIE, and suggest how

competition creates a preference for certain quadrants. The actions of firms in the CIE, to either maintain their position in a given quadrant, or to move to another, form the basis of four distinct types of firm strategy. After elaborating on the aim and scope of these strategies, I discuss general competitive conditions in the CIE, on the basis of these strategies, and proceed to draw out a generic typology, which proposes that for firms in a given quadrant, one of the four strategies is more suited than the others. Propositions are advanced relating the position of a firm, and its strategy, to performance. While this research focuses on these relationships in general sense, in order to present a holistic theory, I conclude this chapter by discussing the temporal context of this framework.

3.1. A MODEL OF THE COMPETITIVE INSTITUTIONAL ENVIRONMENT

The expansive interpretations of what institutions are, provided by North (1998) and Scott (2001), were presented in the preceding chapter. These definitions suggest that institutions play multi-faceted roles: they affect the business or market environment, firm position within such an environment, and also firm competition in the same context. Therefore, in order to construct a framework as proposed, it is important to take into account multiple levels of analysis, and bring them together as part of the same framework. To put it simply, how can we distinguish firms from one another on the basis of a given

institutional environmental context, and firm-level differences? Biggart (1991) draws attention to the need to consider micro and macro levels in any analysis in the institutional context. In the particular context of the CIE, the consideration of multiple levels of analysis becomes a necessity, given the need to integrate competitive perspectives with the effects of the institutional context. It is also imperative that all dimensions of the framework constructed are at the same level, and that analysis under this framework would be possible at the firm level.

In this research I therefore link the environmental context of business, to firms, by identifying the varying levels of Support and Governance that such context can offer to firms. In keeping with the dual emphasis on the exogenous and internal contexts of firm strategy, the first dimension, Support, predominantly captures the exogenous context, while Governance represents the internal mechanisms and processes that dominate firm strategic action. Broadly, the environmental context of this research extends over the complete organizational field, the latter defined by Bordieu (1990 c.f. Maguire et al., 2004) as “structured systems of social positions”, and described by DiMaggio & Powell (1983) as “those organizations that, in the aggregate, constitute a recognized area of institutional life: key suppliers, resource and product consumers, regulatory agencies, and other organizations that produce similar services or products” (p.148); within which various entities and processes operate as institutions. I adopt this broad definition of the environment, in order to encompass both socio-

economic structures and related processes, such as product markets, and entities at various levels, the latter ranging from governments to entities which act as providers of finance to firms, within the purview of the term 'institutions'.

Differences in the external environment lead to heterogeneity of organizational practices, across countries (Kostova, 1999; Rosenzweig & Singh, 1991; Xu & Shenkar, 2002). This heterogeneity is further compounded by the interaction of firms with the institutional environment, resulting in idiosyncratic firm positions. Authors have advanced the concept of 'institutional duality' which suggests that the firms seek both internal and external legitimacy (Hillman & Wan, 2005; Kostova & Roth, 2002), thereby establishing the importance of the firm-specific component of the institution-firm interrelation. As actors in the CIE, firms vary in their ability to access Support, leading to inter-firm variation on this dimension. The standards of corporate governance that firms exhibit have varying impact on different entities external to the firm, and their consequent influences on the firm. This variation at the environment level serves to further distinguish firms from each other, on the basis of Governance. I discuss below the four types of Support: financial, market, regulatory and resource support, and the three types of influence on Governance: market, community-stakeholder, and ownership, which contribute to inter-firm variation in the CIE.

3.2. ORIGINS OF THE COMPETITIVE INSTITUTIONAL ENVIRONMENT

3.2.1. Support

Scott (1987) suggests that institutional theories are not antithetical to efficiency, but complement and contextualize it. This offers a linkage to the competitive context of firm conduct of business, through the mechanisms that operate within the business environment. As the expansion of markets brings different business environments together to form a larger global market, the effects of institutions become more important and pronounced. Institutions play a key role in supporting firms, and the business environment as a whole. The functions of institutions are varied, and not all firms may enjoy a similar type, or extent, of institutional support. Henisz & Delios (2002) discuss the impact of variation in institutional environments on the entry strategies of organizations. In developing economies, informal institutions are known to play a more important role as compared to formal institutions (Khanna & Palepu, 1999), and social institutions often substitute for more formal, legal ones (Walters & Samiee, 2003). Further, the concept of environmental munificence (Castrogiovanni, 1991), defined by Wan et al. (2003) as “the availability of crucial factors and institutions in the environment” (p. 28) suggests that all environments are not equally institutionalized, or not institutionalized in the same manner. The Support

available to a firm therefore, varies in its nature, as well as its availability and importance, as discussed under four categories below:

Financial Support. Financial Support is provided by a variety of institutions, formal, such as banks, and informal, such as business groups; as well as strictly financial and non-financial. These institutions can constitute sources of finance, and also act as market intermediaries which affect a firm's access to other sources of finance. Institutions may also influence the cost of finance, in addition to its availability. Whitley (1990) suggests that state initiative or 'co-ordination' of business includes indirect manipulation of credit and financial incentives. The supportive role of formal financial institutions is both well researched and pervasive (Carleton, Nelson, & Weisbach, 1998; George & Prabhu, 2000; Holland, 1998).

In addition to such formal institutions, many informal and social institutions may act as financial intermediaries. Khanna & Palepu (1999) suggest that business groups in emerging economies such as Korea, Chile, and India substitute for financial intermediaries, such as venture capital institutions and labor market institutions.

Market Support. Institutions can provide different types of Market Support, including mitigation of risk and support of remote commerce (Clay & Strauss, 2002), affect market success (Spicer & Pyle, 2002) and legitimize of new industry entrants (Rao, 2002). Institutional arrangements can also serve to create

tie-ins and relational links with suppliers and distributors, thereby ensuring cost advantages, as well as access to customers.

While markets, particularly highly regulated ones, are in themselves institutions mediating the conduct of business by firms, many markets are yet not completely open to the effects of market forces. In such a case, social institutions may play a key role in supporting or substituting for market functions. For example, Carpenter & Westphal (2001) find that network ties, in the form of board interlocks, contribute to the strategic decision making process, through provision of strategic knowledge and perspective. Networks often substitute for market support mechanisms, particularly in the Asian context (Peng, 2001). Keinzle & Shadur (1997) observe that in the Korean economy, the existence of networks positively affects the consequent bargaining power of organizations, particularly Small and Medium Enterprises.

Regulatory Support. Ramaswamy, Thomas & Litschert (1994) show that despite high levels of regulation in the environment, firms can nevertheless strategically maximize performance. In fact, government regulation can play a positive role, when it takes the form of Regulatory Support. Firms with higher Regulatory Support often have fewer concerns with permissions and compliance (McLarney & Dastrala, 2001). Delios & Henisz (2000) identify the concept of threat of public expropriation, as a concern for foreign firms. Regulatory Support can reduce such uncertainties in the environment. Laws and regulations are often

the result of collective action by professional or business association, which in turn are formed from industrial replication and homogenization of business practices through informal norms (Nee & Ingram, 1998). Firms which are able to participate effectively in such collective action can stand to benefit from the introduction of favorable regulation.

Where the formal institutional mechanism dealing with regulation may be complex or inadequate, informal institutions play a role. Walters & Samiee (2003) discuss the importance of Guanxi, the concept of networks built on mutual favors in China, and stress its relation to the existence of a complex bureaucracy and legal system. Peng & Luo (2000) identify that networks with government officials have a positive impact on firm performance.

Resource Support. Institutions can also support the resource needs of firms, in the case of both tangible and intangible resources. As with the case of Financial Support, institutions may provide, or moderate the provision of access to tangible resources, including infrastructure, and intangible resources, such as information. Institutions may also play a supportive role by ensuring the competitive allocation and utilization of scarce business resources, or, in the converse, impede such efficient use. Mimetic institutional processes can fill in informational voids, and guide firm strategy under conditions of lack of information (Henisz & Delios, 2001), and learning from the experiences of other firms in the population can reduce organizational failure rates (Baum & Ingram,

1998). Zenger, Lazzarini & Poppo (2002) identify the function of formal relationships in creating procedures to adapt to change. Network intensive organizations, such as family business, have shown resilience to information poverty (Haley & Haley, 1998), and networks also promote learning (Kraatz, 1998). These findings suggest that various institutions play a key role in providing Resource Support.

3.2.2. Governance

Institutional arrangements, such as worldwide and regional trade agreements (Levy & Prakash, 2003), country variations in ownership (LaPorta et al., 1999), and country economic environments, such as the presence of co-operatives and state ownership (Shleifer & Vishny, 1997) significantly impact corporate governance standards. While such forces, particularly regulation, can serve to homogenize corporate governance standards, unique relations between a given firm, and certain institutions peculiar to the former, persist, allowing for distinction between firms on this basis. In this research, the market, community and stakeholder groups, and finally owner-shareholders, are identified as three institutional entities, which share such unique relationships with a given firm. These institutions interact with and influence firms as follows.

Market Influences. In general, the market environment places a premium on better corporate governance, as reflected in the fundamental concern of the

domain of corporate governance, to resolve the agency issue (Daily, Dalton, & Rajagopalan, 2003; Tsipouri & Xanthakis, 2004). The market environment also exerts a disciplinary effects on firms, through the market for corporate control, whereby corporate raiders seek to acquire firms that may not be adequately governed (Walsh & Kosnik, 1993).

Firms may also change their governance perspectives due to isomorphic influences from other firms in the industry, or for seeking legitimacy within the industry. Isomorphism refers to the tendency of organisations to become more similar to each other, due to the competition for social and economic fitness, political power, legitimacy, resources and customers (DiMaggio & Powell, 1983; Shepard, Betz, & O'Connell, 1997). Changing social norms, public pressure and media attention require organisations to seek legitimacy through corporate social reporting (Hooghiemestra, 2000). Corporate social performance can also serve to increase the attractiveness of an organisation to the job seeking population (Albinger & Freeman, 2000).

Community and Stakeholder Influences. The practice of stakeholder management has been found to contribute positively to the performance of firms (Donaldson & Preston, 1995; Hillman & Keim, 2001). Sanchez (2000) identifies politicians, regulators and the public as institutional actors, who motivate the practice of “corporate philanthropy”. Stakeholder activism has been identified as a salient reason for the increase of corporate social responsibility (Shepard et al.,

1997). Jawahar & McLaughlin (2001) suggest that organizations will be concerned about those groups who have control over the use and allocation of resources in the environment, especially those stakeholder groups that are more important to a firm, relative to other stakeholders, given the firm's position in a certain stage of its organizational lifecycle.

Stakeholders may also take it upon themselves, to advocate issues beyond those concerned with their own welfare, and put forth additional issues that may affect other groups or entities (Maignan & Ralston, 2002). Baron (2003) suggests that firms must also take into account, strategically, potential conflict with activists, and resolution of such conflict without reliance on law or government. Therefore, organizations may be encouraged to adopt from a wide range of corporate governance priorities based on these influences, such as the co-option of activists to the board of directors, increase the number of independent directors, and reconsider the use of free cash flows towards the benefit of various stakeholder groups.

Ownership Influences. Ownership has also been well studied as a significant influence on corporate governance standards (Dalton, Daily, Certo, & Rengstrief, 2003). Global markets are characterised by a variety of ownerships of firms, as well as firm types, with strongly defined governance orientations, which may also affect a firm's openness or resistance to institutional influence. Institutional owners, and other ownership groups, can affect business activities

and priorities, such as diversification (Tihanyi et al., 2003), corporate innovation (Hoskisson, Hitt, Johnson, & Grossman, 2002) and corporate social performance (Johnson & Greening, 1999). Ryan & Schneider (2002) suggest that investor groups engage in 'investor activism, to affect both processes and performance outcomes of firms.

Government-owned and controlled companies play a key role in many Asian economies (Haley & Haley, 1998), and economies such as Bangladesh and India are salient for the existence and success of co-operative movements (Taimini, 1997). Such government-owned and cooperative organizations also have higher governance standards, including transparency, by public policy and statute. In many economies, small-scale and 'cottage' industries are prevalent as highly competitive organizations (Vachani, 1990). The role of Small and Medium Enterprises (SMEs) in Malaysia (Muhamad, 1993), Indonesia, (Rondinelli & Kasarda, 1993) and Singapore, (Lee, 1993) has been highlighted. Family firms are major investors in many countries, and such smaller and family-based organizations may be committed to different governance standards, or are oriented around cultural and family value systems. Sharma, Chrisman, Pablo & Chua (2001) suggest that there is a strong link between family businesses and stakeholder approaches. Picard & Reis (2002) discuss the difference in management control systems, based on cultural dimensions (Hofstede, 1980), and Fisher, Shirole & Bhupatkar (2001) present arguments that Western professional

ideas and education can lead to conflict with local cultural and social values, leading often to the predominance of the latter ethic.

3.3. DIMENSIONS OF THE COMPETITIVE INSTITUTIONAL ENVIRONMENT

3.3.1 Structure of the Competitive Institutional Environment

In the preceding section, I have identified that Support and Governance embody interactive processes between the firm and its environment. Firms can therefore be distinguished on the basis of the support that each firm enjoys, and the governance standards that it follows. Consequently, I represent Support and Governance as two axes, thereby giving structure to the CIE proposed. The vertical axis represents the levels of Support that are enjoyed by firms, and the horizontal axis represents the differences in Governance. The model is a reasonably holistic representation of the institutional environment, given that it captures elements of the demand from, and benefits of, the institutional environment. While it may be easier to adopt comparative scales, from the viewpoint of developing a model it becomes necessary to have certain absolute definitions of the structure of the environment. In practice, however, firms are more likely to be differentiable along a range excluding the absolute extremes of the axes. I therefore identify two aspects to each axis: theoretical maxima and minima, and an 'in-practice range'.

The maxima and minima of both axes are by necessity theoretical points, identified only to fix the boundaries of the axes. For both Support, and Governance, the ends of the axes are possible, but not probable points. For the Governance axis, the minimum is a point defined by the total non-compliance of a firm with even the minimum mandatory legal requirement. Setting any other level of compliance as the minimum makes it essentially a comparative rating, and not an absolute point. Similarly, for the maximum point, I identify a theoretical point where the firm is synonymous with all identifiable interest groups, and every interest associable with the firm is addressed through its governance practices. Along similar lines, it is possible to identify the minimum for Support as a point characterised by the total absence of institutions in the business environment. The maximum is characterised again by a point of synonymy: where both the firm, and all possible institutions, are the same.

The defining extremes, though improbable, are not irrational. It would not be accurate to conceptualise either axis without the theoretical boundaries as proposed. Over time, levels of Support and Governance are likely to change, both distinctly and jointly. Since it is not possible to predetermine the rate or extent of such change, it is desirable to conceptualise the structure of the model as allowing for all possible expansion of the axes. It is towards this end that theoretical, but absolute, boundaries are imposed on the axes. Using any existing comparative methods of classifying the levels of Support or Governance to determine the axes

is temporary when constructing such a model, as such scales may have little long-term efficacy. On the other hand, the concept of an 'in-practice range' allows proximity to ground realities, and ensures the relevance and utility of this model.

Essentially, the in-practice range captures the boundaries of the CIE, as constructed for any given temporal and environmental context. The exact levels of Support and Governance that firms hold, in such a context, determines the upper and lower bounds of the two axes. Furthermore, I define the two axes as intersecting each other at the mid-points of the in-practice range. This allows for relative grading of lower and higher levels of Support, and lower and higher Governance, based on the position on the axes, relative to the intersection point. This also divides the area of the model into four distinct quadrants.

The proposed framework of the CIE is applicable across different contexts and can be used to analyze firm position at the country, industry, or group level. In order to do so, the axes must reflect the practical range of Support and Governance applicable to the level at which the CIE is to be constructed. That is, the firms included to form the 'in-practice range' would determine the level or specific context of the constructed CIE. This allows for the advantage of using the framework across and within sub-environments. Construction at the country level would allow for comparison of firms from all sectors, across the country economy.

Constructing the CIE at the industry level would take into account both institutional and competitive specificities of the given industry. For example, it can be argued that some industries such as biotechnology, pharmaceuticals, and banking, are subject to higher regulation than other industries, resulting in different levels of Support and Governance. The CIE would allow for in-depth comparison of such firms, given these specificities, if constructed at the industry level. Furthermore, the construction of multiple CIEs of different industries could also facilitate comparison of firms across industries, taking into account the environmental variation due to industry.

Also, these fundamental propositions are set in the context of a single cyclical sequence of the CIE, but would hold over multiple cycles. To explain further, the CIE is not static, but dynamic. Firm movement through the quadrants affects the position of the axes, by raising or lowering country averages. In addition to this, the in-practice range is independently subject to expansion and contraction within the theoretical limits of the axes. Firm strategy itself, therefore also causes the axes to shift. This suggests that the CIE undergoes cyclical change. Institutions go through a process of change over time (DiMaggio & Powell, 1991; Seo & Creed, 2002), resulting in field-level changes (Galvin, 2002). Institutions also adapt to resolve inefficiencies and distributional inequities in the environment (Nickerson & Philips, 2003). If, over time, all firms were to reach positions within a single quadrant, it is most likely that the in-practice range

will be recast to redistribute firms over the four quadrants. A second cycle of the CIE would begin, and firms would continue to compete within this environment.

Once the structure of the environment is denoted in terms of the Support and Governance axes, it becomes possible to identify a firm's position in the larger environment, within the model. Secondly, it also becomes possible to generalise and compare firms, in the Competitive Institutional Environment, in terms of their position within the four quadrants. In keeping with standard convention, the quadrants are numbered clockwise from the bottom-left position. The first quadrant ($L_S L_G$) therefore, contains firms, which are low on both Support, and Governance. The second quadrant, ($H_S L_G$), on the other hand, would cover firms, which are high on Support, and low on Governance. Quadrant three ($H_S H_G$) contains firms that are high on both Support and Governance, and finally, the fourth quadrant ($L_S H_G$) covers firms high on Governance, but low on Support. The structure of the CIE is presented in Figure 3.1:

FIGURE 3.1

Structure of the Competitive Institutional Environment

3.3.2 Actors in the Competitive Institutional Environment

Institutions. As aforementioned, Support and Governance are multi-level constructs. Institutions, in general, represent the environmental component, and determine the exogenous conditions that influence a firm’s position on the axes of the CIE. This exogenous component is generally defined as *availability*. The distinct amount of resources and related elements that are provided by institutions, in a given environment, affect the availability of Support. In the context of Governance, it is possible to identify the environmental standards of corporate

governance, and the firm standards, distinctly. The environmental standards refer to the levels of governance that are expected in a given country environment, based on the regulatory and legal framework that is in operation. Firm standards, on the other hand, refer distinctly to the firm's own internal standards of corporate governance that are operationalized through its activities and compliances. Bradley (2003) suggests that a relative comparison of environmental and firm standards of corporate governance is imperative to truly assess the corporate governance standards of any firm. Institutions function within the environment, and as exogenous to firms in the environment, and are therefore relevant only to the determination of the availability of factors, in a given CIE.

Firms. The individual ability of each firm to harness exogenous levels of availability is defined as *accessibility*, and is endogenous to the firm. These endogenous components of Support and Governance reflect the within-firm conditions that interact with the exogenous component, to result in a unique position for a given firm, in terms of the two axes of the CIE. For example, firms differ in terms of their propensity to buffer themselves from external stakeholders, or bridge issues with them (Meznar & Johnson, 1996; Meznar & Nigh, 1995). Firms also differ in the absorptive capacity or their ability to identify, assimilate and apply new information (Cohen & Levinthal, 1989; 1990) and would consequently show different responses to exogenous factors. The notion that firms differ in terms of their internal components, which leads to differences in their

decision-making has been long espoused through the behavioural theory of the firm (Cyert & March, 1963; Cohen, March & Olsen, 1972). An increase in accessibility would lead to a redistribution of exogenous factors in favor of a firm. The actions involved in the process of redistribution are completely endogenous to the firm and lead to specific tactics, or strategy, by the firm.

In many cases, firms may not be in a position to directly influence the availability of Support and Governance in the environment, given that this may require a variety of resource-intensive activities, which may also be very specific to the context. For example, increasing the environment levels of support availability may involve increasing the munificence of resources, increasing the institutions that can effectively channel these resources, in order that firms can use these resources, or reducing institutions that restrict firms' access to resources. In the first case, firm action involves resource creation, in the second, institution creation, whereas in the third case, firm action involves deinstitutionalization. DiMaggio (1988) notes that institution creation occurs when institutional entrepreneurs come together to achieve or realize interests that they value highly. Furthermore, the increase in munificence through creation of resources, as well as the process of deinstitutionalization, may also involve group efforts, given that a single firm may not be in a position to devote internal, firm-level resources required to increase environmental munificence. This may also not be a viable option for a single firm, given that the benefits of increased

environmental munificence may be available to all firms in the environment, while the costs of increasing such munificence, or creating institutions, as the case may be, will be borne by a single firm, thereby influencing the efficacy of various strategic options in the CIE.

3.4. MECHANISMS IN THE COMPETITIVE INSTITUTIONAL ENVIRONMENT

In the preceding sections, I have proposed that a firm can be represented, in the context of the larger business environment, in terms of its position relative to the two axes of the CIE. However, in order to go beyond this representation to understand firm action in the CIE, and consequently propose a strategy typology, it is imperative to examine the forces that drive firm action, in the CIE. DiMaggio & Powell (1983) suggest that isomorphism is of two kinds: competitive and institutional. Gimeno, Hosikisson, Beal & Wan (2005) distinguish between competitive and institutional explanations of inter-organizational mimicry. In this research, I specifically consider the concurrent operation of competitive and institutional forces. That is, firms may act, for competitive reasons, to enhance profit, or for reasons of consonance with the institutional environment, and consequent loss avoidance. I therefore propose that both competitive and institutional influences extend beyond isomorphism to the proposed CIE framework as a whole.

3.4.1. Competitive Influences

Literature suggests that there is a positive link between the institutional environment and firm performance (Oliver, 1997). The adoption and legitimization of institutionally led work-family initiatives positively affected shareholder returns (Arthur, 2003). The political behaviour of firms and firm interaction with the political environment can lead to better market power (Boddewyn & Brewer, 1994). Institutions, therefore, can provide firms with a competitive edge, providing firms with access to resources. Firms can also participate in institution creation and building activities, such as customer sensitization, market awareness creation, to their gain (Carpenter & Nakamoto, 1989, 1990).

A positive relationship also exists between corporate governance and firm performance (Black, Jang, & Kim, 2003; Durnev & Kim, 2003). Corporate governance is related to competition for resources (Palepu, Khanna, & Kogan, 2002), and governance initiatives aimed at higher environmental performance were found to lead to superior financial performance (Aragon-Correa, 1998). Firms can benefit from access to human and relational resources (Hillman & Dalziel, 2003), and reduced agency costs (Jensen & Meckling, 1976), from better corporate governance. Increasing attention to stakeholders, as well as efficient stakeholder management, also contribute to firm performance (Hillman & Keim, 2001).

This then suggests that firms would prefer to enjoy high levels of Support, and Governance, in order to enjoy the competitive benefits thereof. This impetus is a consequence of competitive influences, which prevail upon firms to increase Support and Governance, in order to enhance their profits.

3.4.2. Institutional Influences.

Societal norms can affect organizational operation (Brown & Deegan, 1998). Institutional influences are the effects and pressures that firms face in the CIE, to increase their levels of Support, and/or Governance, for reasons other than gaining competitive edge alone. Firms comply with the institutional environment, in order to receive the benefits thereof, such as legitimacy and stability. Institutions play an important role in ensuring the legitimization, stability and persistence of enterprises (Hart & Milstein, 2003; Suchman, 1995). Lack of consonance with the institutional environment may therefore result in threats to firm survival.

Similarly, failure to comply with regulatory mandate on corporate governance may result in the imposition of punitive costs. Institutions may also exert influence on firms to better govern their corporate affairs. Gillian & Starks (2001) identify institutional investors as “an increasingly important external control mechanism affecting corporate governance worldwide” (p.3). The appointment of outside directors to the board is seen as a form of compliance with

institutional pressures (Peng, 2004). Institutional action can lead to reduced “earnings management”, or the alteration of firms’ reported economic performance by insiders (Leuz, Nanda, & Wysocki, 2003). High levels of Governance also provide legitimacy and enhance survival, since institutions may view firms with high Governance as providing increased transparency, stability and ease of transaction (Holland, 1998). Institutional influences therefore, prevail upon firms in the CIE to achieve consonance with institutional demands, and thereby avoid loss.

Consequently, firms would prefer to hold high levels of Support and Governance, thereby ensuring consonance with institutional pressures to maintain high levels of Support and Governance, and thereby avoid loss.

Based on these effects of competitive and institutional influence, I propose generally that within any given CIE, at a given point in time, firms with higher Support, and higher Governance, will have better performance. Furthermore, I propose that this relationship is persistent across time. That is, at different points of time, those firms with higher levels of institutional support, and standards of governance would have better performance. The CIE is subject to change and to a redistribution of firms across the four quadrants based on such change. I generally argue that the aforementioned argument linking Support and Governance to performance is resilient to such change. If such a redistribution of firm does occur, the firms with a new position of increased Support and Governance will

exhibit enhanced performance. These arguments also lead to the general proposition that across any single environment at different points in time, firms with higher Support and higher Governance will have better performance.

Hypothesis 1. Support is positively related to firm performance.

Hypothesis 2. Governance is positively related to firm performance.

So far, I have constructed a model of the CIE, by representing the environment in terms of two axes: Support and Governance. I have then identified the actors, and the competitive and institutional influences that operate within the CIE. In the following sections I address the issues of strategy and performance in the model of the CIE, and advance related propositions.

3.5. FIRM STRATEGY IN THE COMPETITIVE INSTITUTIONAL ENVIRONMENT

3.5.1 Firm Movement in the CIE

Given the competitive and institutional influences in the environment, firms would aim to enjoy the performance benefits of increased Support and Governance, and much firm effort may be dedicated towards holding constant a certain high level of Support and Governance, or towards affecting an increase in

such levels. Strategies used by firms to so move across quadrants can be referred to as movement strategies. Firms may also wish to maintain their position in a given quadrant, especially if such firms are already enjoying high performance benefits by virtue of their position in the $H_S H_G$ quadrant, through the use of maintenance strategies. These strategies are discussed in detail.

3.5.2. Types of Strategy in the CIE

Firms in a CIE may compete with rivals through the more traditional market mechanisms, on the basis of elements such as price, product and quality. Such competitive strategies are captured by existing strategy paradigms such as Porter (1980). These strategies, I propose are best suited to maintenance of a firm's position, in a given quadrant. In order to effect movement across quadrants, however, firms may need to deal specifically with institutional and governance aspects, necessitating the creation of strategy types that have not been offered in prior literature. Based on this, I propose that four types of strategies are available to firms in a CIE: Market Domination, Niche Consolidation, Governance Optimization and Access Creation.

Market Domination Strategy. Market Domination Strategy, or Domination Strategy, for short, is conceptualized as a strategic initiative followed by firms towards taking a competitive lead in the market, usually through aggressive business tactics. The main aim of firms following this strategy would

be to maintain the firm's position as a market leader. Firms following this strategy would be noteworthy for their high growth, and their pioneering efforts in innovation and R&D. Such firms would also exhibit aggressive market tactics, such as acquisition. Since these firms aim to maintain their position as a market leader, they are more likely to acquire competitors and expand their business operations. These firms are likely to seek monopolistic control over the market segments that they operate in.

Access Creation Strategy. Firms aiming to secure the benefits of Support are likely to follow a strategy aimed at changing the status quo of Support in the CIE. Firms may attempt to do the latter by reducing the overall levels of Support available to all firms. While this may reduce the environmental levels of Support available to competitors, it is also detrimental to the interests of the firm in question. Such an overall reduction of Support requires commitment of large resources on the part of the firm, and has the effect of reducing the firm's own level of Support. Access Creation, or Creation Strategy, is therefore a strategy whereby the firm aims specifically to increase the level of Support it enjoys distinctly and individually, particularly by increasing its accessibility. For example, firms may attempt to increase financial accessibility, by improving their capital structure towards greater liquidity. Firms following Creation strategy may also be distinguished by activities with high levels of interaction with institutions,

such as lobbying, negotiation with institutions, political activism through petitioning, and formation of alliances.

Governance Optimization Strategy. Firms competing for the advantages of higher Governance are distinguished by ongoing internal processes aimed at raising the Governance levels of the firm. These processes and activities have the effect of optimizing the use of resources by the firm, through increased access to critical resources, or through reduced agency costs, resulting in the nomenclature for this set of strategic activities as Governance Optimization (Optimization Strategy). Firms also have the option, particularly if they enjoy strong Support, of attempting to reduce the mandated standards of Governance. This may provide certain benefits in the short-run, but is likely to be detrimental to the interests of the firm in the longer run, if the firm chooses to comply with the new mandate. Competitor firms may not choose to cut back to the new mandated standards. These competitor firms would continue to enjoy the benefits of better corporate governance, such as reduced agency costs, legitimacy and a positive social image amongst consumers. For this reason, I associate Optimization Strategy with activities that aim to increase the levels of Governance of the firm distinctly.

Niche Consolidation Strategy. The main aim underlying Niche Consolidation Strategy (Consolidation) is to maintain the firm's position as a player in the market, through occupation of a niche. This strategy therefore falls

into the category of maintenance strategies, and firms would use it to consolidate a given position in the market, as opposed to expanding their power therein.

The possible use of the movement strategies, from different quadrants of the CIE is as diagrammatically represented below, in Figure 3.3.

FIGURE 3.2
Movement Strategies in the CIE

3.5.2. Competition in the CIE

Strategy preference in the CIE is affected by the following competitive considerations. Generally, all firms benefit from Domination strategy against

firms in the same quadrant, or in quadrants typifying lower levels of Support and Governance. Firms within the same quadrant are, to some extent, within the same level playing field. In such a case, firms will maximize their performance by adopting an aggressive strategy. Firms are also well placed to do so in such a context, since they need not devote many resources towards increasing Support or Governance. Firms benefit from Consolidation strategy against competitors with higher levels of Support and Governance. Firms competing against such rivals are likely to be more concerned about survival and sustenance of their own market position. Such firms may also face the threat of acquisition from strong rivals, and as such are unlikely to adopt an aggressive, stance. Conversely, firms in competition with firms with lesser levels of Support and Governance are likely to adopt a Domination Strategy, in order to capture as large a share of the market and profits as possible. High institutional environments support more aggressive tactics such as diversification (Wan & Hoskisson, 2003), individual political participation (Hillman & Hitt, 1999) and development of new retailing practices in host countries (Goldman, 2001).

Firms will benefit from a movement strategy that aims to increase either Support or Governance, but not both. That is, firms maximize their performance by moving either horizontally or vertically into quadrants but not diagonally. For example, $H_S L_G$ firms will benefit from moving horizontally to $H_S H_G$, using an Optimization strategy. Similarly, $L_S H_G$ firms will also benefit from moving

towards $H_S H_G$, using a Creation strategy, even if their competitor firms are in the $H_S L_G$ quadrant. This is because for $H_S L_G$ and $L_S H_G$ firms, moving diagonally will imply gain on one axis, but a loss on the other. Therefore, firms in these quadrants will benefit from adopting either one of the movement strategies, but not both. Using an interactive strategy, which combines both movement strategies, may also prove to be far too resource-intensive, without providing commensurate benefits, particularly for $L_S L_G$ firms. Firms are therefore likely not to benefit from such a strategy, irrespective of their quadrant position.

3.6. FIRM STRATEGY AND PERFORMANCE

However, the quadrant position of a firm would affect the efficacy of a particular strategy type, given the extent of resources firms must commit to that particular strategy, as well as the number and different types of competitors against whom a single strategy can be used. I therefore use the aforementioned rules of competition to draw general performance implications, based on quadrant positions of firms, and thereby offer a generic strategy typology.

3.6.1. $L_S L_G$ Firm Strategy

$L_S L_G$ firms, I argue, will benefit the most from a Consolidation strategy, as compared to other strategies. $L_S L_G$ firms may not be in a position to follow Creation or Optimization strategies, given that firms in this quadrant have

relatively less competitive or institutional resources that they can use. That is, these firms have neither the benefits of high Support nor high Governance, and would therefore be hard pressed to follow these strategies using their internal resources alone. While a Domination strategy would usually be preferred in the context of competitors with similar, or lesser, levels of Support and Governance, $L_S L_G$ being the quadrant where firms have least levels of both, firms in this quadrant would be in a position to use Domination strategy only vis-à-vis competitors within the same quadrant.

Moreover, if $L_S L_G$ firms compete directly on the basis of market domination, with $H_S H_G$ firms, it is possible that this may provoke the latter firm to takeover the former firm, as a competitive measure on the part of the $H_S H_G$ firm. For $L_S L_G$ firms, a Consolidation strategy is likely to be the preferred strategy, particularly since it can be effectively used against competitors in all three other quadrants. $L_S L_G$ firms will also find it most efficient to follow this strategy, in order to maintain their position pending a change in the CIE, which results in redistribution of firms over the four quadrants. Such redistribution is likely particularly when firms exit or enter the business or industry environment. Based on these arguments I hypothesize as follows:

Hypothesis 3: For firms in the $L_S L_G$ quadrant, Niche Consolidation Strategy will have a positive effect on performance.

3.6.2. H_SL_G Firm Strategy

H_SL_G firms aim essentially to compete by increasing their standards of corporate governance. For this reason, they are most likely to prefer Optimization strategy. Furthermore, an Optimization strategy can be applied in the context of firms in all other quadrants. That is, H_SL_G firms can use this strategy to compete with firms in both H_SH_G and L_SH_G quadrants, on the basis of increased legitimacy and favorable attention from institutions, drawing on their high levels of Governance. An Optimization strategy also allows H_SL_G firms to effectively compete with firms in the same quadrant, as well as L_SL_G quadrants, since it allows for the creation of resource efficiencies. That is, such a strategy would allow H_SL_G firms to maintain their existent competitive edge over firms in the same, or in L_SL_G quadrants. For these reasons, I hypothesize as follows:

Hypothesis 4: For firms in the H_SL_G quadrant, Governance Optimization Strategy will have a positive effect on performance.

3.6.3. L_SH_G Firm Strategy

The arguments for firms in the L_SH_G quadrant are along similar lines as for H_SL_G firms. Generally, firms in the L_SH_G quadrant are likely to benefit from a Creation strategy. A Creation strategy is suited to firms in this quadrant, since it facilitates competition with H_SH_G and H_SL_G firms on the basis of increased levels of

Support, and the consequent access to resources, including legitimacy. This strategy allows $L_S H_G$ firms to maintain their competitive edge over firms in the same, and in $L_S L_G$ quadrants. While this strategy may be comparatively resource-intensive, the benefits of the widespread applicability of this strategy, for firms in the $L_S H_G$ quadrant, would prompt firms in this quadrant to follow this strategy. Moreover, the less resource-intensive option, Consolidation strategy, is essentially a maintenance strategy, and would not support firm movement across the quadrants, particularly into the $H_S H_G$ quadrant. While free-rider problems are likely to arise whenever firms pursue non-market strategies (de Figueiredo and Tiller, 2001; Esty and Caves, 1983; Schuler, 1996), the aggregate effect of activities that are associated with Creation strategy, such as lobbying, may override the free-rider effect (Henisz & Delios, 2002). For these reasons, $L_S H_G$ firms are likely to prefer and benefit from a Creation strategy, leading to the following hypothesis:

Hypothesis 5: For firms in the $L_S H_G$ quadrant, Access Creation Strategy will have a positive effect on performance.

3.6.4. $H_S H_G$ Firm Strategy

Firms in the $H_S H_G$ quadrant are, by definition, firms with high levels of Support and Governance. These firms are therefore likely to have the twofold aim

of maintaining their position, and maximizing the advantages thereof by dominating the market. These firms are likely to benefit from aggressive market competition tactics, including high diversification, and acquisition. I therefore suggest that firms in the $H_S H_G$ quadrant are likely to benefit from a Domination strategy. Furthermore, for firms in this quadrant, a Domination strategy is optimal, since firms can use this strategy effectively in the context of competitors in all quadrants, including their own. While a Domination strategy is a relatively resource-intensive one, this may not be a key concern for firms in the $H_S H_G$ quadrant. These firms are more likely to benefit from the widespread applicability of this strategy. I therefore hypothesize:

Hypothesis 6: For firms in the $H_S H_G$ quadrant, Market Domination Strategy will have a positive effect on performance.

3.6.5. The Temporal Context of Firm Strategy in the CIE

As discussed earlier, the axes of the CIE are not static but dynamic. I have earlier proposed that these axes are subject to movement over time. That is, the theoretical bounds of the axes have been set so as to take into account any potential change in the axes over time. Since the axes themselves reflect the environmental standards, any change in the levels of Support and Governance would cause a shift in the axes, and affect the position of firms relative to the

axes. For example, the introduction of a new regulatory authority could change the environmental levels of Support and Governance, which would affect all firms in the CIE in varying ways, and may cause a redistribution of firms over the quadrants of the CIE. Such a change is somewhat theoretical, since every construction of the CIE is also defined by the in-practice range.

However, what is a related, but practical, possibility is a change in the average value of Support and Governance, in a given construction of the CIE, based on the strategic movement of firms from one quadrant to another, causing the axes to shift downwards or upwards as compared to their earlier positions, which would relate to an increase and decrease in the average, respectively.

The effects of expansion and contraction are twofold. First, there could be a redistribution of firms over the quadrants. If the average value of Support and/or Governance reduces over time, the general effect would be that firms move to a position of relatively higher Support and/or Governance, over time. Similarly, if the average value of Support and/or Governance were to move up, this would have the effect of relegating some firms to positions with relatively lower levels of Support and/or Governance. This possibility reiterates the need for firms to follow the strategy that is best suited to their quadrant position. The second effect of the movement of axes is of specific relevance to two sets of firms – those in the $H_S H_G$ quadrant and those in the $L_S L_G$ quadrant. While in the case of an increase in the average value of Support and/or Governance, or upward movement of the

axes, some firms in the $H_S H_G$ quadrant may face relegation to a position of relatively lower Support and/or Governance, for firms in the $L_S L_G$ quadrant; this may constitute a far more serious situation.

For firms with the lowest levels of Support and Governance, this may result in a situation where they are locked out of the environment. These firms may no longer be in a position to effectively defend their niche positions, nor are they in any position to increase their levels of Support or Governance. The firms then become the targets of acquisition actions, become financially unsound and unviable entities, or may eventually exit the market through liquidation. The exit of such firms would then cause another a shift in the axes, resulting in a less extreme distribution of firms over the CIE.

It is important to note, that in some economies, particularly protected or welfare economies, it is not unusual for governments to step in to rescue such 'sick' companies. This may happen when one or more firms reach a position where they are financially unviable, commensurate with their low levels Governance and Support. The action of the government, in such a case, constitutes an increase in the Support available to these firms. The associated change in managerial aim, particularly emphasized by the need to turn around such sick companies, would also result in a change in the levels of Governance. These firms, therefore, would be accordingly located in a new position, even though they may still occupy the $L_S L_G$ quadrant. This change would again result

in a change in the average values of Support and/or Governance, and a redistribution of firms over the CIE.

The reduction in the average value of Support and/or Governance (or downward movement of the axes), on the other hand, affects $L_S L_G$ firms positively, since it is likely that many firms will find themselves in a position of relatively higher Support and/or Governance, following the redistribution of firms. However, for $H_S H_G$ firms, it may mean that a certain amount of loss in their competitive lead, or market dominance, since more firms may enter the $H_S H_G$ quadrant. The theoretical possibility does exist that all firms in the environment may reach the $H_S H_G$ quadrant. However, in such a case, the market would no longer tend towards monopolistic competition, since the competitive differences between firms, in terms of levels of Support and Governance, is negligible. A more likely eventuality is the increase in the number of firms in the $H_S H_G$ quadrant, which again reduces the monopolistic control of firms in that quadrant. In such a case though, as the environment becomes less monopolistic, it is likely to foster entrepreneurship and promote the entry of new firms. That is, given the reduction in monopolistic barriers to entry, new firms may be willing to enter the environment. A related possibility is the spin-off of businesses by corporations, particularly those in the $H_S H_G$ quadrant, which are being challenged by the new entrants into the quadrant. In both cases, the effect is the same. The entry of new firms into the environment is likely to result in a change in the average value of

Support and/or Governance yet again, resulting in the redistribution of both old and new firms over the four quadrants of the CIE.

The dynamic nature of the axes is of importance to all firms, given the opportunities it holds for strategic realignment, as well as the inherent threat of relegation. It is also of particular importance to firms in the $L_S L_G$ quadrant, since it offers unique opportunities for these firms to garner the basic levels of Support and Governance that could greatly ameliorate their position. Once these basic levels are established, $L_S L_G$ firms may find the opportunity to strategically increase their levels of Support or Governance, towards reaching a comparatively better quadrant.

In this chapter I have outlined the fundamental tenets of a new theoretical perspective on generic strategies. This process has involved the development of a framework that is an accurate representation of today's business environment, including identification of constituent elements, construction of the framework, and identification of actors and forces operating therein. Going further, I have explored the nature of competition in this environment, and identified the potential strategies that firms may implement. These strategies are then related to firm performance. In the next chapter, I outline the details of how the CIE was constructed for two countries, over different time periods, and how the proposed strategy-performance relationships were tested.

CHAPTER FOUR

RESEARCH METHODS

In the earlier chapter, I have outlined a case for the theoretical construction of the business environment as a Competitive Institutional Environment, and hypothesized the implications thereof, for firm performance and strategy. In this chapter, I outline the methods used for the construction of the CIE, in given environments, during given periods of time, based on firm and environmental data. I also outline the methods employed for testing the hypotheses presented earlier.

This chapter is structured in two parts, in alignment with the two tasks of construction and testing, that are involved. In the first part, I outline the data and methods used to construct the CIE in a given country environment, in a given year, and to locate the position of an individual firm therein. In the second part, I identify the data, measures and variables used to test the hypotheses.

4.1. ENVIRONMENTAL AND TEMPORAL CONTEXT OF THIS STUDY

This research has been carried out as a two-country study, over a three year time period. The countries chosen for this study were India and Singapore. The choice of these countries has been motivated by more than one reason. First, the two countries are diametrically different in many ways. While India is pegged as a developing nation, Singapore falls into the category of a developed nation.

Also, India is geographically large; approximately 2500 times the size of Singapore and the former has a population that is 225 times that of the latter. The testing and validation of the model of the CIE, as well as the hypothesized relationships between firm strategy and performance in the CIE, have greater potential for generalization when found to hold good over two such diverse environments. Furthermore, both India and Singapore are markets of interest to academics and practitioners internationally. While India is of interest for its recent economic changes, and its future potential, the Singapore economic model is of interest for its success in the past.

The Singapore model has consistently emphasized imitation of Western, or international, standards with strict enforcement of business and accounting practices, and promotion of strategic globalization by firms (Tsui-Auch, 2004). The Indian model, on the other hand, has placed more emphasis on the domestic context of firms, a result of the need to reach self-sufficiency. This emphasis is likely to be a consequence of the rural and agrarian economy that continues to operate in India. Combined with geographic expansiveness, and high population, for a long time, the priority for Indian policy-makers is likely to have been to achieve a more equitable distribution of resources, towards ensuring self-sufficiency and basic development for India's rural, and economically weaker, segments of population. While the presence of a strong bureaucratic system served to enhance regulatory efficacy, in the Singapore context, in the Indian

context, this impedes state cohesion, and consequently, state efficacy (Chibber, 2002; Tsui-Auch, 2004). Such socio-economic factors are of particular importance to the current study, given the emphasis in this dissertation on the role of the institutional environment, and interaction of firms and institutions. The diversity of institutional environments, both in the historical and contemporaneous contexts, supports the generalizability of the precepts, and findings, of this study.

Despite these differences, certain similarities between Singapore and India support all potential comparisons of findings, across these two environments. India and Singapore are both Asian countries, with political systems and rules of law that are based on a legacy of British colonialism. Further, the educational background of post-colonialism leaders tends to be similar, since leaders in both countries were mostly educated in Western, particularly, British systems. These similarities are fundamentally critical to any comparison between these two countries. In addition, both countries have stressed a state-led development model, for many years.

The choice of country environments is therefore motivated by the similarity in legal systems, and the diversity in demographic, economic and socio-political elements of both countries, as the latter would contribute to increasing the general validity of this study. In terms of the temporal aspect, this study spans over three years – 2001 to 2003.

4.2. CONSTRUCTING THE CIE

The CIE is constructed on the basis of two axes: Support, and Governance. The firm's position within the CIE is given by the firm's score on each of these axes. The method used to arrive at the firm's score on each axis is detailed below.

4.2.1. Support

The Support component has been earlier theorized as having two elements: availability and accessibility. Furthermore, in this research I have identified the four elements of Support as regulatory, financial, resource and market support. I identify the country-level score for each of these elements, as well as a firm-level score for each element. I thereafter multiply the country level score, which represents the exogenous (availability) element, and the corresponding firm-level accessibility score, to arrive at the firm regulatory, financial, resource and market support scores. These scores are then averaged to arrive at the firm Support score. I further elaborate on the sources of data, and the procedures used below.

Data. For the country level availability scores, the sources of data are the World Competitiveness Report (WCR), and the Political Environmental Risk Consulting (PERC) Report. The WCR is an annual report, which covers approximately 43 countries. The report is based on both statistical data, as well as survey data, the latter involving grading of items on a scale of 1 to 6, with 6

representing the highest score for an item. From the year 2002, the countries have been divided into high and low population groups, and are ranked within the groups. Since the study runs across 2001 to 2003, this change is made provision for, as elaborated in detail in the following sections on computation of scores. The WCR has been used in earlier studies (Glaeser, Johnson, & Shleifer, 2001; Wan & Hoskisson, 2003; Yiu & Makino, 2002), particularly to calculate the levels of institutionalism present in a country environment (Wan & Hoskisson, 2003). The PERC report is also published annually and covers countries in the Asia-Pacific region. However, the United States is also included in this report for purposes of comparison. The PERC report is based on survey data, using a scale-based response format to assess the level of risk for a particular element, where the highest level of risk is given by a value of 10, and the lowest risk is captured by a value of 0. Firm-level data used to determine the regulatory, resource, financial and market support accessibility were taken from the WorldScope database.

Support Availability. The country-level availability of each of the four components of Support was calculated as follows.

i) *Financial Support Availability.* Since the WCR gives country-wise rankings, these rankings were converted to scores. For this, I first inverted the rankings, based on the total number of countries covered in the ranked set. For the 2001 WCR rankings, the ranked set comprises 47 countries. However, from the year 2002 onwards, the countries have been divided into two sets, based on the

size of the environment. Therefore, the number of countries in the particular set was used to convert the rankings to scores. The inversed rankings were then scaled to a score on 10. The highest-ranking country in the set would therefore get a score of 10, and other countries would get a score corresponding to their rank. For each of the WCR components a corresponding score was calculated. To calculate the financial support availability score for a country, the WCR section used was 'financial markets'. This includes components dealing with bank efficiency, stock market efficiency and self-financing.

The PERC report gives a country-wise score on 10, with a lower score representing a better environment. As with the WCR, the PERC scores were also inversed. I also adjusted the scores by the score for the U.S., and converted the adjusted score to a scale of 10, in order to get both WCR and PERC scores on an equivalent scale, so that they could be averaged. To calculate the financial support availability score for a country, the banking and financial system, discrimination against new foreign direct investment (FDI) and transparency of the investment approval process components are converted to a score as detailed above, and then averaged to get the PERC financial support availability score. To get the final financial support availability score for a country-time environment, both the WCR and PERC financial support availability scores are averaged.

ii) Market Support Availability. A similar calculation procedure is adopted, as described for the financial support availability calculations. The

components included, however, are different. To calculate market support availability, the WCR section used is the 'business framework' component, with the components of openness/market regulation, competition regulations, labor regulations and capital market regulations. The PERC components used are: existence of monopolies or cartels, level of competition between the public and private sectors, ease of establishing a company, official and unofficial barriers to imports, and, regional competitiveness.

iii) Regulatory Support Availability. To calculate regulatory support availability, the WCR section used is 'institutional framework'. This includes the following components: Central bank, state efficiency, and justice and security. The PERC report components used are twofold. The components dealing with overall legal system, judiciary, legislature/parliament, stock market regulatory authority, overall institutional sophistication, bureaucracy/red tape and central bank/monetary authority are taken into account. In addition, the entire overarching section dealing with the domestic political environment is taken into consideration. Since this section includes twelve components, I weight this accordingly, when calculating the average of all components, to arrive at the PERC regulatory support score. Other calculation procedures, such as inversion, remain the same as detailed above.

iv) Resource Support Availability. The process used to calculate resource support availability differs slightly from the procedures described above.

Resource support is conceptualized as involving two kinds of Support. First, there is a basic resource support which involves the physical infrastructure involved in any environment, such as availability of electricity, travel and logistic infrastructure, basic amenities and so on. The second kind of resource support conceptualized is technological infrastructure support, including availability of telecommunications. Basic infrastructure support includes the 'basic infrastructure' section from the WCR and the local road system, container port facilities, freight forwarding facilities, rail facilities, airports, access to airports, electric power, and water and other utilities components from the PERC reports. Technological infrastructure takes into account the 'technological infrastructure' section from WCR and the telecommunications system, and internet and support services components from the PERC report. The same procedure of inversion, scaling and score calculations as described above was carried out to arrive at an averaged basic resource support score (Resource 1 score), and a technological resource support score (Resource 2 score). These scores are further combined, as is elaborated in a later section. An overview of the different sections and components used from both reports is presented overleaf, in Table 4.1.

TABLE 4.1

Support Availability: Components of Data

Support Availability	WCR Sections	PERC Components/Sections
<i>Financial Support</i>	Financial Markets	Banking and financial system
	Bank efficiency	Discrimination against new FDI
	Stock market efficiency	Transparency of investment approval process
	Self-financing	Domestic political environment (section)
<i>Regulatory Support</i>	Institutional Framework	Overall legal system
	Central Bank	Judiciary
	State efficiency	Legislature/parliament
	Justice & Security	Stock market regulatory authority
		Overall institutional sophistication
		Bureaucracy/Red tape
<i>Market Support</i>	Business Framework	Central bank/monetary authority
	Openness or Market regulations	Existence of monopolies and cartels
	Competition regulations	Level of competition between public & private sector
	Labour regulations	Ease of establishing a company
	Capital market regulations	Official/unofficial barriers to imports
		Regional competitiveness
<i>Resource (Physical) Support</i>	Infrastructure	Local road system
	Basic Infrastructure	Container port facilities
		Freight forwarding facilities
		Rail facilities
		Airports
		Access to airports
<i>Resource (Tech.) Support</i>		Electric power
		Water and other utilities
	Infrastructure	Telecommunications system
	Technological Infrastructure	Internet and support services

Support Accessibility. The firm-level accessibility score was calculated for four components, corresponding to the four types of Support identified previously.

i) Market Support Accessibility. The market support accessibility of a firm is calculated by using the scaled market capitalization of a firm. This score is arrived at as a ratio of market capitalization of a firm, to the largest market capitalization figure, in the same country-time environment. That is, the largest firm in the country-time sample is identified on the basis of its market capitalization, and the market capitalization of this firm is used to divide the market capitalization of all firms in the country-time environment. The largest firm in the environment would therefore have a scaled market capitalization of 1, whereas all other firms in the environment would have varying scaled market capitalization of less than 1. This scaled market capitalization score is taken as the market support accessibility score of a firm.

ii) Regulatory Support Accessibility. I use a very similar method and procedure of calculation for the resource support access score. In this case, the scaled assets of a firm are calculated using the same process of division by the largest assets figure in the country-time environment. I use assets to measure the accessibility of a firm, given that the more the assets of a firm, the more the firm has reason, and points of interaction, to deal with regulatory authorities, for the maintenance and use of its asset base. This figure, which is 1, for the firm with the

largest asset value, and less than 1 for all other firms, is the regulatory support accessibility score of a firm.

iii) Financial Support Accessibility. In this study, I use the debt coverage ratio of a firm, as an indicator of its ability to access financial support. The coverage ratio, in is general a measure of liquidity, and is calculated as EBDIT/Net Income. This particular variable measures the ability of firms to take on debt, and their repayment capacity. Providers of finance are likely to scrutinize the debt coverage ratio of a firm, in order to determine its credit worthiness. Consequently, the credit worthiness of a firm, as represented by the debt coverage ratio, represents the firm's individual ability to capture levels of financial support present in the business environment. As with the variables for Market and Regulatory support, coverage is scaled, to ensure that the firm with the highest coverage in the particular country-time construction of the CIE has a score of 1, and all other firms have scores of less than 1.

iv) Resource Support Accessibility. I use the number of employees, of a firm, to capture resource support accessibility, for two reasons. First since this is also a representation of the size of a firm, it captures some element of the overall accessibility of a firm, through its size. In addition, employees themselves form a significant resource for the firm, and a source of competitive advantage (Collins & Clark, 2003; Delery & Doty, 1996; Lado & Wilson, 1994). Using the number of employees in a firm therefore, captures the resource accessibility of the firm.

The number of employees of a firm is scaled, as with the previous accessibility components, to arrive at a figure ranging from 0 to 1, for each firm.

Calculation Procedure. The four environmental availability scores are multiplied by the corresponding accessibility score for each firm. To illustrate, the financial support availability score multiplied by the financial support accessibility score of a given firm, gives the financial support score of the said firm. For resource support, both availability scores are first multiplied by the resource accessibility score of a firm and the resultant products are then averaged to get one score for the firm. This is in order to ensure that the use of two scores for the resource support component does not result in unequal weight to this component, when the overall support score is calculated. All four support scores are then averaged to get one Support score for a firm. This procedure of averaging the different components to get an aggregated score has been followed in an earlier study using WCR and other similar data, by Wan & Hoskisson (2003). However, in this study, I do not follow their procedure of standardizing the scores, since the current study covers only two-countries, as compared to their multi-country study.

A diagrammatical representation of the procedure used to calculate the final Support score of a firm follows, in Figure 4.1.

FIGURE 4.1
Overview of Firm Support Score Calculation

4.2.2. Governance

The relative comparison of country and firm level corporate governance has been earlier recommended as a means to understand the actual levels of corporate governance (e.g. investor protection) that is afforded by a firm (Bradley, 2003). Furthermore, the aforementioned author also suggests that such a framework is relevant to understanding governance standards and governance-related risk across country environments. Therefore, in keeping with the multi-level conceptualization of this axis, I use a two-level calculation for the

Governance scores of a firm, on lines similar to those used for calculation of the firm Support score. I use the country level scores from the corporate governance components of the PERC, Credit Lyonnais Suisse Asia (CLSA) and WCR reports, as representative of the exogenous component, and multiply each of these country-level scores with the CLSA firm rating for each firm to get three Governance scores. These three scores are then averaged to get a final Governance score for each firm, in a given year. I elaborate on the data and procedure below.

Data. Both PERC and WCR include components, which capture the corporate governance environment, in their calculation of country rankings. The CG components in both reports are not included in calculation of the Support scores, above. CLSA conducts an annual corporate governance survey, which covers emerging markets. The CLSA reports have been earlier used in studies which look at corporate governance (Black et al., 2003; Chen, Chen, & Wei, 2003; Doidge, Karolyi, & Stulz, 2004; Durnev & Kim, 2003; Klapper & Love, 2002; Krishnamurti, Sevic, & Sevic, 2003). Palepu et al. (2002) provide an evaluation of the CLSA data, based on which they proceed to conduct their study using the dataset. CLSA offers the most comprehensive ranking in the Asian context, which other CG rating agencies, such as Standard and Poor do not. For these reasons, the CLSA reports are taken as the source of country and firm level CG data.

Country Scores. I use data from more than one source, to calculate the country scores, in order to increase the validity of this measure. Three country scores are calculated, based on the WCR, PERC and CLSA reports. These scores are then multiplied with the firm score, and the result averaged, to arrive at a single Governance score, for each firm.

i) Country Score 1. The CLSA environmental scores are as drawn from the CLSA report. The CLSA report takes into account 5 macro factors: clear, transparent, and comprehensive rules and regulations, committed and effective enforcement of rules and regulations, political and regulatory environment affecting CG and ability of corporations to maximize value without arbitrary restrictions, adoption of IGAA accounting principles, and institutional mechanism to promote awareness and a culture of good governance; to arrive at a score for each country or regional environment. These five factors are unequally weighted, in arriving at the country level score. I retained the weights as they were. The country-level scores are distinct from the average country scores, the latter calculated as the average of the scores of all firms in the country environment. I therefore draw on both the country level scores, as well as the firm scores from the CLSA report, since these are conceptually, and by measurement, distinct variables.

ii) Country Score 2. For the PERC-based environment governance score, the procedure used to calculate institutional support scores based on PERC

components, is replicated. A similar process of inversion of scores, adjustment for U.S. scores, and scaling is followed. In the context of corporate governance, the components of the PERC report that are used are quality of corporate governance, transparency with which key institutions conduct their affairs, and corruption.

iii) Country Score 3. In order to calculate the governance environment score using the WCR, the process of inversion, scaling and re-computation of a score, based on the ranking is followed as described for the Support component. The section of the WCR used is 'management practices'. This section includes many components dealing with effective corporate governance, including ethical practices, corporate boards, shareholder value, and social responsibility, to name a few.

Firm Score. The firm score is directly taken from the CLSA report. The report gives a weighted average score of the seven components of CG, for each firm. In this study, since the environmental Governance standards are considered distinctly, the firm Governance score is not adjusted for country effects. This adjustment would have been made by standardizing the firm scores, based on the average firm score for a country. Also, given the expansive operationalization of the OECD guidelines in the CLSA report, the weighting of elements is retained. The weight applied in the CLSA report is that while the social responsibility component is given a weight of 10%, all the other 6 components are given a

weight of 15% respectively. Table 4.2 summarises the different components and items used to calculate the country scores.

TABLE 4.2

Country-level Governance: Components of Data

Governance	CLSA Items	PERC Sections	WCR Sections
Country Score	Rules and regulations	Quality of corporate governance	Management Practices
	Enforcement	Transparency with which key institutions conduct their affairs	Adaptability
		Corruption	Ethical practices
	Political and Regulatory environment		Corporate credibility
	Adoption of IGAA accounting principles		Corporate boards
	Institutional mechanism for good governance		Shareholder value
			Customer satisfaction
			Entrepreneurship
			Creation of firms
			Marketing culture
			Social responsibility
			Health, safety and environment

Calculation Procedure. The three country level scores are multiplied by the firm score to get three different firm scores. These firm scores are then averaged to get the final Governance score of a firm, which is expressed on a scale of 0-1. The procedure used to calculate the final Governance score of a firm is given diagrammatically in Figure 4.2.

FIGURE 4.2

Overview of Firm Governance Score Calculation

4.3. DATA AND SAMPLE FOR HYPOTHESES TESTING

The sample of firms for the testing of hypotheses was constructed using firms from India and Singapore, covered in the CLSA report on Corporate Governance, for the years 2001 to 2003. While some firms were covered in all three years, some were not. Also, firms were excluded for non-availability of data from WorldScope. The final dataset covered 238 firms. This dataset was partitioned into Panels, in order to test Hypotheses 1 and 2, and then into quadrants, in order to tests Hypotheses 2 to 6, using procedures described later in this document.

4.4. MEASURES

4.4.1. Support and Governance Scores/Quadrant Position of Firms

For the testing of Hypotheses 1 and 2, the Support and Governance scores for each firm, for each year, were used. The procedure used to calculate these scores has been elaborated on the preceding pages. Since Hypotheses 1 and 2 were tested across various country-time panels, as well as using a cross-sectional dataset, the relativity of Support and Governance were maintained as captured in the scores during calculation, for each country-time environment. In keeping with Hypotheses 1 and 2, the test criteria used were as follows:

$$\beta(\text{Support}) > 0 \text{ and significant}$$

$$\beta(\text{Governance}) > 0 \text{ and significant}$$

In addition, to test hypotheses 4-6, firms were classified into the four quadrants of the CIE, on the basis of median splits of Support and Governance scores. The median was calculated for each county-time panel, in order to maintain the relativity of each construction of the CIE. The medians for Support and Governance were calculated, and firms were assigned into the four quadrants as follows: If both Support and Governance were below the median scores calculated for each of the two components, the firms were assigned into the $L_S L_G$ quadrant. Conversely, firms above the medians for both Support and Governance

were assigned to the H_SH_G quadrant. Firms with Support scores below the median score for Support, in the given CIE, but with Governance scores above the median score for Governance, were assigned to the L_SH_G quadrant, and vice-versa, for firms assigned to the H_SL_G quadrant.

The Support and Governance scores, and quadrant position variables, were lagged by a period of one year, as compared to the other variables. The scores/quadrant positions of firms were taken as at the beginning of the time period for which strategy and performance are measured.

4.4.2. Strategy Types

Venkataraman & Grant (1986) state that strategy constructs are typically measured using single-item or nominal scales. Indeed, many renowned strategy classifications have been based on such single-item indicators (Miles & Snow, 1978; Rumelt, 1974). These single-item or nominal scales have also been extensively used in empirical testing (Hitt, Ireland, & Palia, 1982; Hitt, Ireland, & Stadter, 1982; Snow & Hrebiniak, 1980). Hambrick (1983) specifically used a classification based on a single objective variable to classify Miles & Snow's (1978) typology, and Phillips, Chang & Buzzell (1983) use single item measures to classify competitive strategy. Snow & Hambrick (1980) identify some key concerns in the context of formulation of strategy typologies. They identify the trade-offs between subjective and objective indicators of strategy, and highlight

the relative merits and demerits of both. Snow & Hambrick (1980) also distinguish between strategic change and adjustment, to suggest that a change in strategy actually occurs when there is major modification in the firm's alignment with the environment, and substantial alternation in internal processes to fit the new alignment. Strategies also change incrementally, (Quinn, 1978; Snow & Hambrick, 1980) particularly if they are meta-strategy, or an underlying relationship between the firm and the environment (Mintzberg, 1978). Similar perspectives can be seen in Mintzberg and Water's (1982) study, where they take into account both incremental processes and significant shifts, in their study of the entrepreneurial and planning phases of firms. Fredrickson (1983) highlights the difference between incremental and synoptic approaches to strategy. Furthermore, Boyd, Dess & Rasheed (1993) distinguish between archival and perceptual measures, and suggest that it is important to use perceptual measures to understand how managers have perceived the environment, and have consequently responded strategically.

Taking into account these concerns I identify variables that capture firm action as it is being implemented, rather than the outcome as it is achieved. Also, since I have earlier identified three influences on Governance, and four types of Support, I use multiple indicators for Optimization and Creation strategies, to take into account the varying emphasis firms may place on each of these elements.

These indicators were aggregated to form a single variable each, for the two movement strategies.

Market Domination Strategy. The competitive intent that forms the focus of Domination strategy can be measured from a variety of perspectives. Competitive activity can, in some cases be inferred from the level of growth that a firm aims for. Growth has been viewed as an outcome of firm capacities (Penrose, 1959). Growth involves high accumulation of capital and resources (Florin, Lubatkin, & Schulze, 2003). Autio, Sapienza & Almeida (2000) found knowledge intensity of the firm to be a determinant of the speed at which a firm could grow. Consequently, high growth is a strategic initiative, which, though generally desired by all firms, cannot be effectively carried out by many firms. However, in the context of this study, growth may be a function of increase in the level of Support, as well as increased domination of a niche market. Growth, therefore, may form a part of not only Domination, but also Consolidation and Creation strategies. For this reason, this measure is not appropriate to this study.

Acquisition can be considered an aggressive and highly competitive strategic initiative. From this initiative it is also possible to infer the acquiring firm's intent to emerge as a leader, or even monopolist, in the market. Acquisitions also give a firm control over both the market share, as well as cost efficiency and synergistic use of resource and production capabilities of the acquired firm (Ansoff, 1965; Montgomery, 1985), and increase market power in

general (Harrison, Hitt, Hoskisson, & Ireland, 2001), thereby consolidating the acquiring firm's dominant position in the market. Furthermore acquisitions have a comparatively higher level of risk than alliances , and require a longer-term commitment of assets and investment (Harrison et al., 2001). However, acquisition data are not easily available.

With emphasis on the monopolistic aim of firms following Domination strategy, I used monopolistic power to capture the implementation of this strategy. I measured monopolistic power using a modified version of the Lerner Index (Lerner, 1934). The Lerner Index is traditionally defined as the difference between the (output) price and marginal cost divided by the price, that is, $(\text{price} - \text{marginal cost}) / \text{price}$. However, given the constraints of data, and the development of econometric techniques, in recent times researchers have used variants of this measure. Chung (2001) notes that since price information may not be available, the proxy usually assumed in calculation of the Lerner Index, is sales. Furthermore, in keeping with previous research (Kim & Lyn, 1986), I assume that returns to scale are constant, and therefore average cost equals marginal cost. Given these observations by researchers, I used the formula to calculate the Lerner Index for a firm, used by Lindenberg & Ross (1981). The Lerner Index is therefore computed as the difference between sales and operating expenses, divided by sales, that is, $(\text{Sales} - \text{Operating expenses}) / \text{Sales}$.

The Lerner Index was preferred to similar measures, such as the concentration ratio and the Herfindahl-Hirschman Index, since the two latter measures assess concentration of industry, which is related to, but not the same as market power. Chang & Tremblay (1991) find that the firm-level index that they develop equals the Lerner Index, and the industry-level index that they develop equals the Herfindahl-Hirschman Index. The Lerner Index however, provides a distinct index score for each firm, and not just for an industry-level score. Therefore, in this research I prefer the Lerner index to the Herfindahl-Hirschman Index. Furthermore, the Lerner Index is based on the basic economic conceptualisation of monopolistic competition, and is therefore best suited to capture a completely market-based competitive strategy, such as Domination. Kim & Lyn (1986) find that the Lerner Index contributes significantly to explaining excess market value, but the concentration ratio does not.

The test of the hypothesized positive relationship between Domination Strategy and firm performance was:

$$\beta(\text{Domination}) > 0 \text{ and significant}$$

Niche Consolidation Strategy. The point of distinction for a Consolidation strategy has been focus, rather than variation in any other competitive tactics or activities. For this reason, very low levels of unrelated diversification, in a firm, would capture the implementation of Consolidation strategy. In this study, I use the level of unrelated diversification as a measure of Consolidation strategy, for

the following reasons. Recent research showcases diversification as a strategy, particularly in response to environment influences (Hoskisson et al., 1994; Wan & Hoskisson, 2003) . Lubatkin & Chatterjee (1994) examine the link between diversification and risk, to suggest that firms aiming to minimize risk may not benefit from diversifying into businesses different from their current business. In the content of this study, their findings would imply that firms with a comparatively risk averse aim, such as those following a Consolidation strategy, would not prefer high levels of diversification, particularly into unrelated businesses.

I use an imputed weighted diversification measure (Gedajlovic & Shapiro, 1998; Wan & Hoskisson, 2003). This measure is based on the WorldScope database, which lists SIC codes in order of revenue, though the actual data on segment-wise revenue may not be available. The measure is calculated as follows:

$$\text{Degree of diversification} = \sum_i P_i * dij$$

Where

i = a firm's primary market segment

j = a firm's secondary market segment

dij = 0 if the firm operates in only one four-digit industry

1 if j is in the same three-digit industry as i,

2 if j is in the same two-digit industry as i,

3 if i and j are in different two-digit industries.

P_i = a weight imputed to each industry, assumed to decline geometrically.

While other measures, such as the modified Herfindahl index (Montgomery, 1982) and other entropy measures (Palepu, 1985) have been popular in research, these measures require sales data at the firm segment level. Such segment data may not be available and accurate, particularly in the Indian context. In fact, Sambharya (2000) notes the reliance on sales data, and the complexity of calculation as a particular limitation of the entropy measure. Furthermore, Gedajlovic & Shapiro (1998) found a high correlation between a Herfindahl-based measure of diversification, and the imputed weight diversification measure. For these reasons, I use the imputed weighted diversification measure as detailed above.

Hypothesis 3 postulates a positive relationship between Consolidation and firm performance, for firms in the $L_S L_G$ quadrant. However, since a Consolidation strategy is captured by lower levels of diversification, whereas the measure of this strategy increases in value with higher levels of diversification, the test for this hypothesis is framed negatively as follows:

$\beta(\text{Consolidation}) < 0$ and significant

Access Creation Strategy. Baron (2001) observes that non-market strategies are “frequently directed at government policies that affect the structure and functioning of markets and the competitive advantages of their participants” (p. 47). As theorized earlier, firms may therefore aim, through Creation strategy, to increase the levels of Support that they enjoy. While political activity (e.g. Keim & Zeimthal, 1986) is a well-researched means of enhancing Support, the notion of Support used in this research takes into account multiple types and sources of support, which go beyond the political-regulatory context. Further, de Figueirido & Tiller (2001) state that the difficulty in measurement of lobbying activity has restricted studies to examining the role of corporate political action committees, or to using case-based methods. This casts doubt on the suitability of lobbying-focussed measures, to capture Creation strategy. I therefore identify four different measures, to capture each element of Creation strategy, as detailed below.

i) ***Financial Support: Financial Leverage.*** Increased debt is a strong indicator of the firm’s intent to project a credible image, and thereby to attract support. Beiner, Drobertz, Schmid & Zimmerman (2003) draw on the classic arguments of Jensen (1986; 1993), to suggest that debt creates value by indicating the willingness to be monitored. Furthermore, such change is not easily brought about by changes in the general business environment, and therefore would indicate a committed, strategic action on the part of the firm, allowing for an

inference of strategic intent on the firm's part. In keeping therefore with earlier literature, I measure this emphasis on debt through the leverage of a firm. Financial leverage, in the context of the current study has been defined as total (non-equity) liabilities/ total assets, in keeping with recent empirical studies (Beiner et al., 2003).

ii) Market Support: Minority Interest. Institutional theory suggests that firms may seek association with other entities, in order to gain legitimacy (DiMaggio & Powell, 1983). Firms that have strong ties to other firms are likely to benefit, not only from an institutional perspective, but also from a competitive perspective. Increased ties can facilitate greater access to markets and substitute for market intermediaries. I therefore identify income from minority interest as a percentage of net income, as a measure of this element of Creation strategy. In many cases, minority interest precludes control, creating a passive interest, which in itself may be an asset, both financially and strategically. The purpose of using minority interest therefore, was to capture the inter-linkages with other firms, which do not fall into the category of large shareholders, but share common links with a given firm, nevertheless. The level of minority interest that a firm carries on its books of accounts is therefore a strong indicator of its linkages to other firms in the market, and the consequent levels of support and legitimacy these entities would offer. In order therefore, to capture this level, I contextualized the minority interest of a firm as a percentage of its total income.

iii) Resource and Regulatory Support: Operating Leverage. In this study, I propose that both resource and regulatory support related strategy will be captured by the same variable. This is because, in countries such as India and Singapore, access to resources is often determined by government authorities and regulatory bodies. Therefore any initiative by firms to increase one will also affect the other. That is, if firms act strategically to increase their regulatory support, this will also result in an increase in the levels of resource support. For this reason, strategic initiative dealing with both these elements was measured using the same variable.

Strategic initiative aimed at resource and regulatory support elements was measured through the operating leverage of a firm. Operating leverage is calculated as $(\text{Operating expenditure} - \text{cost of goods sold}) / \text{Operating expenditure}$. Duett, Merikas & Tsiritakis (1996) specifically identify operating leverage as related to a firm's 'decision variables', thereby iterating its endogenous, strategic nature. In general, the operating leverage reflects the relative extent of fixed and variable costs in a firm, thereby capturing the capital intensity of a firm (Prasad, Bruton, & Merikas, 1997). As mentioned earlier in this chapter, the higher the assets of a firm, the more points of contact a firm has with regulatory agencies. In this context, the operating leverage of a firm captures the asset and resource intensity of its operation, with reference to the profits derived from such asset intensity. Firms aiming to follow a Creation strategy would therefore have higher operating leverages than firms which are not.

Governance Optimization Strategy. With increasing regulation and legislation related to corporate governance, many standard indicators of corporate governance have come to be widely accepted. Common indicators outlined by the Leading Corporate Governance Indicators™ Report (2002) are board structure, including board independence and split chairman/chief executive, shareholder voting rights, disclosure, including accounting standards and executive pay disclosure and takeover defences. Literature also considers similar indicators, including the specifically the presence of outside (independent) directors (Daily & Dalton, 1994; Kosnik, 1987), separation between the CEO and Chairman positions (Boyd, 1995; Rechner & Dalton, 1991), board size (Dalton et al., 1999), board composition and structure (Daily & Dalton, 1994), board diversity (Carter et al., 2003), and interaction between the board and management (Hoskisson et al., 1994; Johnson et al., 1993). Hermalin & Weisbach (2003) provide a general review of the research literature on board of directors. Other issues that have received consideration in research include the effects of equity-based compensation (Dalton & Daily, 2001), and CEO compensation (Gray & Cannella, 1997).

However, the limitation of these commonly-used indicators is that they are in the nature of antecedents. That is, these measures capture elements which are determinants of corporate governance standards. From the view of the current research, the requirement is for indicators that capture the strategic element of

corporate governance. In a sense, it is the consequences of corporate governance, and the process of change involved therein that must be considered. Furthermore, such indicators are the focus of many studies which measure the standards of corporate governance of a firm (e.g. Standard & Poor's Transparency and Disclosure studies, and CLSA's Corporate Governance in Emerging Markets studies). While these indicators can clearly indicate whether a firm's standards of corporate governance have improved or declined, they offer no insight into the strategic processes that are involved in such change. I therefore measure strategic initiative dealing with each of the three identified influences on corporate governance, as elaborated. Market influences tend to overlap with both ownership influences, as well as with stakeholder influences. Consequently, I use two measures to capture all three elements.

i) Ownership and Market Influence: Percentage of profits declared as dividends. I use the percentage of profits declared as dividends, by a firm, as one of the items measuring Optimization strategy. Firms with commitment to the element of governance are likely to declare higher dividends than firms which are not. Dividends lie at the heart of the agency theory, and the issue of corporate governance. The classical arguments of Jensen & Meckling (1976) suggest that ownership and managerial interest may not be aligned. In such a case, while owners as shareholder would prefer to receive their share of profits from the company's enterprises, in the form of dividends, this may be against managerial

interest. While the concepts of managerial equity-based remuneration and management stock options were put into place primarily to address this agency conflict, recent research notes that these practices have not adequately served their function particularly since the top management is, in many cases, the body that determines its own compensation (Dalton & Daily, 2001). Research also indicates that managerial equity, is, beyond a point, detrimental to performance (McConnell & Servaes, 1990; Morck, Shleifer, & Vishny, 1988). These findings suggest in general, that the presence of the agency issue in any firm is still an indicator of the governance interests and orientation of the firm.

In general, the dividend returns that a firm provides also works as a signal to the market in general, as to the financial health of the firm. Particularly, dividends declared can affect the valuation of a firm on the stock market, as well as its overall corporate value in the business arena in general. Companies that initiate or increase their dividends are signalling to the market that they expect to be financially healthy enough to continue to make these cash payouts at the same or a higher rate (Levinsohn, 2005). Dividends, therefore, act as an indicator of efforts the firm may be making to satisfy market influences, through the use of an Optimization strategy.

Furthermore, declaration of dividends is a distinctive indicator of commitment to the element of corporate governance. Firms, which aim to dominate the market through high growth, are more likely to retain profits and

increase their free cash flows (Deshmukh, 2003). Firms, which aim to increase institutional support, are also likely to retain their profits, in order to increase their access to resources. It is important to note at this point that declaring dividends is not proposed as an indicator of whether or not a firm has 'good' or 'bad' corporate governance practices. The declaration of dividends captures the strategic intent of the firm. Firms which aim to follow a strategy focused on corporate governance are likely to declare better dividends, irrespective of their existing standards of corporate governance. In this study, the focus is on strategic intent of the firm, as opposed to technical measures of dividends and returns. For this reason, I use a simple, but effective measure, in the form of the percentage of profits declared as dividends, by a firm, in a given year, as opposed to the more complex, and technical measure of daily or other dividend yield.

ii) Market and Community-stakeholder Influences: Percentage of profits paid as tax. Taxes can be construed as a means of corporate contribution to society and the country of business, at large. Consequently the larger public, as well as consumers, financiers and other organizations in the market would view taxes paid as a fundamental indicator of a firm's commitment to corporate governance principles. Furthermore, many of these latter organizations fulfil the twin role of exerting market influences, as well as stakeholder influences. Consequently, I use the same measure to capture both these elements.

It is possible for corporations to avoid tax liability in legal ways, such as tax benefits, holidays and other schemes, as well as illegal ways. Therefore, in this study, I measure the willingness of a firm to contribute to the larger social environment, as well the said firm's focus on maintain minimal standards of legitimacy in the market context, through its tax liability as a percentage of its profits, as an indicator of corporate governance. While payment of taxes has been used as an indicator of the governance quality and intention of firms by Palepu, Khanna & Kogan (2002) in the construction of their 'scandal index', such a perspective takes into account tax violations, rather than the willingness to meet the actual tax liability incurred as a socially responsible action on the part of the firm. It is essential to distinguish this willingness from firm compliance, and other legally mandated firm activities, as indicators of governance standards, for which reason, I use percentage of profits paid as taxes as a measure of the firm's strategic intent to respond to market and community-stakeholder influences on governance.

Furthermore, the measure also captures the strategic intent of a firm, vis-à-vis corporate governance standards in another way. Firms are not likely to pay taxes on any fraudulent earnings that are reported. A discrepancy between the profit figures and the taxes paid would therefore capture either an inflated report of earnings, or a failure to meet incurred tax liabilities, indicating in either case, a lack of strategic emphasis on corporate governance standards.

4.4.3. Aggregation

The three sub-variables for Creation strategy were aggregated to form a single measure of this strategy, and similarly, I aggregated the two sub-variables for Optimization strategy, to form a single measure of this strategy. This aggregation was done by calculating the average of all components, for a given strategy. The average values so calculated formed the final variables each for Creation and Optimization strategies. The tests used for the hypotheses relating Creation and Optimization strategies positively to firm performance, for firms in specific quadrants, were as follows:

$$\beta(\text{Optimization}) > 0 \text{ and significant}$$

$$\beta(\text{Creation}) > 0 \text{ and significant}$$

4.4.4. Control Variables

Given the diverse impact of different characteristics of a firm on its performance, it becomes important to control, or account for, some of these characteristics, and their possible influence. In this study, many of the firm level characteristics which may impact performance are inherently considered in the model. Since the characteristics contribute to the position of a firm, in terms of its position on the Support and Governance axes, these firm level characteristics are implicitly accounted for when the firm's position in the CIE is determined.

Therefore, these characteristics are identified, but are not distinctly included as variables, for the testing of hypotheses. I elaborate on these characteristics below.

Size can have an impact on the performance of a firm. In this study, elements of size are important to determining the Support accessibility of a firm. I have used both market capitalization and assets in order to capture the Support accessibility of a firm, in calculation of the Support score of a firm. Therefore, a distinct control variable to control for size was not included in the tests.

Similarly, while R&D is a factor which can affect the performance of a firm, it is also a factor that affects firm strategy (Lam, 2003). Firms can, through institutional forces, promote some forms of knowledge over others, through the process of legitimization (Deephouse, 1996). This form of control also increases the power of the 'holder' (Tregaskis, 2003). The distinctive position of such firms can increase their competitive edge (Deephouse, 1999). R&D is considered important in testing of performance related hypotheses, since it is considered as an investment in the future, thereby affecting the free cash flows (FCFs) of a firm. In this case, FCFs are indirectly captured through the sub-variable based on declaration of dividends, and therefore, I did not distinctly control for R&D investment.

On similar lines, ownership has been theorized, in the preceding chapter, as a distinctive element, which affects the governance orientation of a firm, and consequently the levels of Governance. This element is therefore represented,

though not distinctly, in the Governance score of a firm. For this reason, a distinct control variable for the effects of firm ownership on performance is not included in the model to be tested.

I also discuss below control variables not inherently accounted for in the CIE model that are included in this study, and identify the measures thereof.

Industry. In general, industry is considered as having a significant effect on performance (McGahan & Porter, 1997). I therefore use a simple indicator of industry, in keeping with the environmental emphasis of this study. I used a dummy variable to indicate whether firms were high-technology or low-technology¹. The categorical variable took a value of “1” in the former case, and “0” in the latter.

Age of Firm. Age of a firm can have indirect implications for its strategic orientation, as well as its performance. Black, Jang & Kim (2003) in their recent work on corporate governance and firm value, suggest that younger firms are more likely to have higher growth. They also note that $\ln(\text{years of listing})$ as the measure of age is better than the use of $\ln(\text{firm age})$, since it is easier to find

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¹ The following were considered as ‘high-technology’ industries, as per the SIC-based classification used by the American Electronics Association: high-tech manufacturing, communications services, and software and computer-related services. The broad category of high-tech manufacturing covered firms producing equipment and peripherals related to computers, semiconductors, communications, and consumer electronics. A total of 45 SIC codes are covered by this classification. Firms in all other industries were classified as ‘low-technology’.

accurate information on the former. In the context of this study, this particular point must be stressed. Given the prevalence of family-owned firms in Asia, using the actual firm age as a measure, may lead to inaccuracy and confusion. It may not be possible to distinguish clearly the original family-based business entity from the more modern corporation that it is today. I therefore use $\ln(\text{years of listing})$ as the measure of firm age.

Time and Country Controls. In addition to these control variables, in order to account for the effects of time and of country, given particularly that the data were combined to form a cross-sectional dataset, I included categorical variables to control for the year, and for the country. India was represented by the value “0” and Singapore by “1”. The years were represented by the values “0”, “1” and “2” for 2001, 2002 and 2003 respectively. These controls were included in all tests using cross-sectional data.

4.4.5. Dependent Variable: Performance

Since this study involves elements of strategic change, as well as incremental strategic processes, using different indicators of performance may provide wider-ranging explanations, as well as support the validity of the model. Therefore, in order to increase the validity of the findings, I check for the robustness of the model against different measures of performance. These measures are elaborated upon below.

Operational and Resource-based Performance: ROA. I used return on assets (ROA) as a measure of operational and resource-based performance. Operational performance is particularly important to the proposed model, given that a number of strategic elements are centered on internal, incremental changes in the firm's operations, and its use of resources. The identified strategies may work to augment performance by increasing resource efficiencies. In order to capture such benefits to the firm, it is important to consider a specific measure of this notion of performance, as distinct from other possible conceptualizations. In this study, ROA is defined as net income/total assets, in keeping with recent literature that uses this measure (Klapper & Love, 2002).

Firm Value and Market Performance: Tobin's Q. Tobin's Q is generally considered a measure of the market valuation of a firm. I propose to calculate Tobin's Q as (book value of debt + market value of equity)/book value of assets, in keeping with extant literature (Beiner et al., 2003; Loderer & Peyer, 2002). This measure of 'approximate' Q explains about 96.6% of the variability of the more theoretical Q statistic in Lindenberg and Ross' (1981) model (Chung & Pruitt, 1994). Tobin's Q is a measure of performance relevant to this research, primarily since it has been earlier theorized that firms are concerned about the response of the environment to their strategic initiatives, and will therefore aim to showcase their actions. Market valuation, therefore, captures generally whether or

not the market has responded to such firm initiative. For this reason, I propose to test the model using Tobin's Q as one of the measures of the dependent variable.

The chapter has been devoted mainly to specifying the construction of the CIE, as well as the identification of measures used in the testing of hypotheses. Construction of the CIE, in itself, forms a significant empirical contribution of this research, though it also forms the process of calculation of key variables in this study. The development of measures of strategy is also strongly grounded in theory and conceptual rigor, and seeks to measure strategy as it is implemented and intended, in order to see the temporally immediate linkages to firm performance. In the following chapter, I describe the results of the tests performed to validate the conceptualization of the CIE, and to seek support for the hypothesized strategy-performance linkages.

CHAPTER FIVE

RESULTS

The preceding chapter outlined the construction of the CIE, as well as the identification of measures and variables for testing the hypotheses offered. In this chapter, the results of empirical testing are sequentially outlined. The results of phase one testing, which validate the proposed conceptualization of the CIE, and the positive relationships between Support and Performance, and Governance and Performance, are presented first, followed by the post-hoc tests that were necessitated. This is followed by the results of phase two testing, which was aimed at understanding the performance implications of the generic strategy typology proposed in the theoretical sections.

5.1. PHASE ONE: TESTING THE RELATIONSHIP OF SUPPORT AND GOVERNANCE WITH PERFORMANCE

Phase one testing was aimed at validating the positive relationships proposed between Support and Performance, and Governance and Performance. Tests using OLS regression were run on each of four CIE panels, constructed for each country-time environment. OLS regression allows for the comparison of the results over groups of data with different numbers of observations. This was an important consideration given the different number of observations in each of the panels, for phase one testing, as well as the quadrants of the CIE, for phase two

testing. OLS regression is also advantageous, since it allows for the introduction of control variables, and more accurate interpretations of the effects thereof. Finally, the most important advantage of using OLS regression is that the parameters estimated thereby are unbiased point estimates and can therefore be considered as robust.

It was not possible to run the tests on panels for both India and Singapore, for the year 2003, given that the number of firms in each of these panels was less than statistically required. The India 2003 panel had only 29 firms, and Singapore 2003 had 16 firms. The final number of firms in each of the panels is given in Table 5.1.

TABLE 5.1
Panel-wise Distribution of Firms

Panel	Number of firms (n)
<i>Panel 1 (India, 2001)</i>	63
<i>Panel 2 (India, 2002)</i>	63
<i>Panel 3 (Singapore, 2001)</i>	31
<i>Panel 4 (Singapore, 2002)</i>	36

5.1.1. Variables

Support and Governance scores were the independent variables entered. Age and a categorical variable for Industry control were also included. The

industry variable took a value of “0”, for low-technology industries, and a value of “1”, for high-technology industries. Tobin’s Q and ROA were the dependent variables. All correlations between the independent variables were within acceptable levels (less than 0.40). These correlations are presented in Table 5.2.

TABLE 5.2**Phase One Testing: Descriptives and Correlations**

Variables	Mean	S.D	1	2	3	4	5
1 <i>Age</i>	1.32	0.42					
2 <i>Industry</i>	0.21	0.41	-0.333***				
3 <i>Support</i>	0.19	0.22	-0.043	0.035			
4 <i>Governance</i>	0.71	0.15	-0.266***	0.064	0.235***		
5 <i>Tobin's Q</i>	1.68	1.71	0.052	0.225***	0.121	0.146*	
6 <i>ROA</i>	0.08	0.08	0.150*	0.179**	0.016	0.090	0.364***

***p < 0.001, **p < 0.01, *p < 0.05. N = 238.

The panel-wise summary statistics, and correlations are presented in tables 5.3a to 5.3d.

TABLE 5.3a**Panel One: Descriptives and Correlations**

Variables	Mean	S.D	1	2	3	4	5
1 <i>Age</i>	1.44	0.34					
2 <i>Industry</i>	0.21	0.40	-0.340**				
3 <i>Support</i>	0.14	0.17	0.121	0.112			
4 <i>Governance</i>	0.60	0.11	-0.084	0.216*	0.109		
5 <i>Tobin's Q</i>	1.79	1.41	0.038	-0.265*	0.259*	0.105	
6 <i>ROA</i>	0.09	0.08	-0.111	0.391**	-0.106	0.342**	-0.501***

***p < 0.001, **p < 0.01, *p < 0.05. N = 61.

TABLE 5.3b**Panel Two: Descriptives and Correlations**

Variables	Mean	S.D	1	2	3	4	5
1 <i>Age</i>	1.51	0.32					
2 <i>Industry</i>	0.22	0.42	-0.471***				
3 <i>Support</i>	0.15	0.17	0.06	0.202			
4 <i>Governance</i>	0.68	0.10	-0.020	0.074	0.360**		
5 <i>Tobin's Q</i>	1.93	2.14	-0.079	0.309**	0.441***	0.492***	
6 <i>ROA</i>	0.10	0.08	-0.086	0.163	0.210	0.381**	0.729***

***p < 0.001, **p < 0.01, *p < 0.05. N = 63.

TABLE 5.3c

Panel Three: Descriptives and Correlations

Variables	Mean	S.D	1	2	3	4	5
1 Age	1.02	0.47					
2 Industry	0.16	0.37	-0.371**				
3 Support	0.29	0.27	-0.065	-0.072			
4 Governance	0.76	0.10	-0.139	0.089	0.420**		
5 Tobin's Q	1.51	1.98	-0.156	0.565***	-0.085	0.165	
6 ROA	0.06	0.06	0.042	0.272	-0.072	0.173	0.224

***p < 0.001, **p < 0.01, *p < 0.05. N = 31.

TABLE 5.3d

Panel Four: Descriptives and Correlations

Variables	Mean	S.D	1	2	3	4	5
1 Age	1.01	0.43					
2 Industry	0.22	0.42	-0.462**				
3 Support	0.23	0.24	0.075	-0.078			
4 Governance	0.81	0.14	-0.270	0.061	0.146		
5 Tobin's Q	1.21	0.95	-0.204	0.576***	-0.156	-0.096	
6 ROA	0.03	0.08	0.065	-0.108	0.145	-0.10	0.354*

***p < 0.001, **p < 0.01, *p < 0.05. N = 36.

5.1.2. Results.

Normality was assessed using P-P Plots, as well as residual plots, and found to be satisfactory. Given particularly that data were spread over more than one year, independence was assessed using the Durbin-Watson statistic. The said statistic was close to 2, for all models, leading to the conclusion that the observations were independent, and the data had no autocorrelation. VIF values, for each regression model, were less than 10, leading to the conclusion that the data were free from multicollinearity.

The results generally support Hypotheses 1 and 2. Support had a positive relationship with Tobin's Q, whereas Governance had a positive relationship with ROA. All regression results are presented in Table 5.4. The panel-wise findings are as follows:

The model for Panel 1a (India, 2001, with dependent variable Tobin's Q), was significant with R^2 of 0.204 ($F = 3.653$, $p = 0.01$). The coefficient of Support score was significant and positive ($\beta = 0.298$, $p = 0.017$); however the coefficient of Governance scores was insignificant. The coefficient of the control variable age is insignificant, but the coefficient of the industry control variable is significant and negative ($\beta = -0.303$, $p = 0.026$). The results of this model support Hypothesis 1, but not Hypothesis 2.

The model for Panel 1b (India, 2001, with dependent variable ROA), was significant with R^2 of 0.257 ($F = 5.003$, $p = 0.002$). The coefficient of Governance score was significant and positive ($\beta = 0.288$, $p = 0.016$); however the coefficient of Support was insignificant, thereby supporting Hypothesis 2, but not Hypothesis 1. The coefficient of the control variable for age is insignificant, but the coefficient of the industry control variable is significant and positive ($\beta = 0.371$, $p = 0.004$).

The Panel 2a model (India, 2002, with dependent variable Tobin's Q) was significant with R^2 of 0.372. The coefficients of both Support and Governance were significant and positive ($\beta = 0.252$, $p = 0.033$ and $\beta = 0.384$, $p = 0.001$,

respectively), thereby providing support for both Hypotheses 1 and 2. The coefficients of both the control variables, age and industry, were insignificant.

The model for Panel 2b (India, 2002, with dependent variable ROA), was significant with R^2 of 0.167 ($F = 2.904$, $p = 0.029$). The coefficient of Governance score was significant and positive ($\beta = 0.349$, $p = 0.009$); however the coefficient of Support was insignificant. Consequently, Hypothesis 2 stands supported, while Hypothesis 1 found no support, under this model. The coefficients of the control variables, age and industry, were also insignificant.

The model for Panel 3a (Singapore, 2001) was significant with R^2 of 0.350 ($F = 3.507$, $p = 0.020$). However, only the coefficient for industry control was significant and positive ($\beta = 0.574$, $p = 0.002$). Neither Hypothesis 1 nor Hypothesis 2 was supported. The high explanatory power of this model, however, may be attributable to the number of independent variables included, relative to the sample size. The results for this model therefore must be interpreted with caution.

The Panel 3b model (Singapore, 2001, with dependent variable ROA) was insignificant, thereby offering no support for either of the hypotheses.

The model for Panel 4a (Singapore, 2002) was significant with R^2 of 0.359 ($F = 4.348$, $p = 0.007$). In this model too, only the coefficient for industry control variable was significant and positive ($\beta = 0.599$, $p = 0.001$). Again, this model offers no support for Hypotheses 1 and 2, and the results for this model must be

interpreted with caution, given the number of independent variables included, relative to the sample size.

Finally, the model testing Panel 4b (Singapore, 2002, with dependent variable ROA) was also insignificant, thereby offering no support for either of the two hypotheses.

TABLE 5.4
Phase One Testing: Results of Regression

Predictors	India 2001			India 2002			Singapore 2001			Singapore 2002		
	Panel 1a (Tobin's Q)	Panel 1b (ROA)		Panel 2a (Tobin's Q)	Panel 2b (ROA)		Panel 3a (Tobin's Q)	Panel 3b (ROA)		Panel 4a (Tobin's Q)	Panel 4b (ROA)	
Age	0.107	0.062		0.028	-0.032		0.090	0.188		0.052	-0.026	
Industry	-0.303*	0.371**		0.242	0.109		0.574**	0.326		0.599**	-0.101	
Support	0.298*	-0.186		0.252*	0.064		-0.124	-0.008		-0.098	0.157	
Governance	0.089	0.288*		0.384**	0.349**		0.179	0.174		-0.104	-0.124	
R ²	0.204	0.257		0.372	0.167		0.350	0.126		0.359	0.044	
R ² _a	0.148	0.205		0.329	0.109		0.251	-0.008		0.277	-0.79	
F-statistic	3.653*	5.003**		8.605***	2.904*		3.507*	.938		4.348**	.359	
N	63	63		63	63		31	31		36	36	

***p < 0.001, **p < 0.01, *p < 0.05.
Standardized Beta Coefficients are shown

5.2. POST-HOC TESTS FOR PHASE ONE

The insignificance of the models based on Panels 3b and 4b may be a result of the low number of firms, in these panels, rather than due to theoretical inaccuracy, given that there were only 36 and 31 firms respectively, in the two Singapore panels, whereas the number of independent variables exceeded the statistically recommended thumbs rule of a minimum ratio of 10 observations for every independent variable. Also, as seen from Table 5.4, the Tobin's Q variable in Panel 4 lacks adequate variance, possibly as a result of the reduced sample size. Therefore, in order to further test the hypotheses, I ran a model, using OLS regression, using a dataset created by combining all the four panels. Time and Country dummy variables were introduced as further controls. The year 2001 was coded as '0' and 2002 as '1'. Similarly, India was coded as '0' and Singapore as '1'. The results are presented in Table 5.5. Durbin-Watson statistics for both models were close to 2, leading to the conclusion that there were no autocorrelation problems in the data.

The first model, with dependent variable Tobin's Q, was significant with R^2 of 0.119 ($F = 4.172$, $p = 0.001$). The coefficient of Support was insignificant, but that of Governance was significant ($\beta = 0.210$, and $p = 0.015$). The coefficients of the control variables for age, and for time, were insignificant, but the industry and country control coefficients were significant and positive ($\beta = 0.187$, and 0.261 , $p = 0.014$ and 0.005).

The second model, which had ROA as the dependent variable, was also significant with R^2 of 0.161 ($F = 5.968$, $p = 0.000$). The coefficient of Governance was significant and positive ($\beta = 0.255$, $p = 0.003$); however, Support was insignificant. The coefficients of the control variables for age, and for time were insignificant, but the industry and country control coefficients are both significant and positive ($\beta = 0.188$, $p = 0.012$, and 0.355 , $p = 0.000$, respectively).

TABLE 5.5

Phase One Testing: Results of Post-Hoc Regression

Predictors	Post-Hoc Model 1 (Tobin's Q)	Post-Hoc Model 2 (ROA)
<i>Time</i>	-0.053	-0.109
<i>Country</i>	0.261**	0.355***
<i>Age</i>	0.014	0.075
<i>Industry</i>	0.187*	0.188*
<i>Support</i>	0.124	0.013
<i>Governance</i>	0.210*	0.255**
<i>R²</i>	0.119	0.161
<i>R²_a</i>	0.090	0.134
<i>F-statistic</i>	4.172**	5.968***

***p < 0.001, **p < 0.01, *p < 0.05. N= 193.
Standardized Beta Coefficients are shown

This model confirms the results of the panel-wise testing, inasmuch as Hypothesis 2 was fully supported. In addition, it suggests that Governance may also contribute to favorable market evaluation, though to a lesser extent, as compared to Support. In general, both sets of tests allow for the conclusion that conceptualization of the business environment as a CIE, is valid, and that Support and Governance do affect firm performance, as hypothesized. The lack of support for the hypotheses, in the context of the Singapore panels, may be attributed more to the nature of the data, rather than to the inapplicability of the theoretical precepts to the Singaporean context. However, the results also show that that Support is positively linked to Tobin's Q, but is not linked to ROA. Governance, on the other hand is strongly linked to ROA, and also to Tobin's Q. As before, the

control, age, was insignificant. The control, time, was also insignificant, suggesting that there are no discernible temporal effects. Country control was significant and positive, in both models, suggesting that Singapore firms had better performance than Indian firms. The control for industry was also significant and positive, suggesting that high-technology firms had better performance than low-technology ones.

5.3. PHASE TWO: TESTING THE RELATIONSHIP BETWEEN STRATEGY TYPES AND PERFORMANCE

Phase two testing was aimed at validating the hypothesized performance implications of each of the four strategy types. The combined dataset, covering firms from both India and Singapore, over the years 2001-2003 was partitioned using median splits, to place firms into the four quadrants of the CIE. The Support scores ranged from a value of 0.01, to a value of 1. The lowest Governance score was 0.43 and the highest score was also 1.

5.3.1. Variables

Tests using OLS regression were then run on these data-subsets, each data-subset reflecting one quadrant of the CIE. Tobin's Q and ROA formed the dependent variables. The four strategy variables were entered as the independent variables. The variable measuring Domination Strategy was the Lerner Index of

market power. Consolidation strategy, whereby firms would maintain their position in niche markets, was measured using the imputed weighted measure of diversification. Both the movement strategies, that is, Optimization and Creation, were measured using variables constructed by aggregating sub-variables. In the case of Optimization strategy, whereby firms would aim to increase their Governance score and benefit from the resource optimization that occurred, the sub-variables used were percentage of profits paid as dividends, and percentage of profits paid as taxes. In the case of Creation strategy, which was advocated as the strategy firms would use to increase their levels of Support, the sub-variables aggregated were financial leverage, operating leverage, and minority interest as a percentage of income. The correlations between the variables and sub-variables for firm strategy are presented in Table 5.6, overleaf.

TABLE 5.6
Strategy Variables: Descriptives and Correlations

Variables	Mean	S.D	1	2	3	4	5	6
1	0.32	0.36						
2	20.11	45.09	-0.160*					
3	0.01	0.32	0.75	0.041				
4	0.46	1.46	-0.043	-0.015	-0.008			
5	0.21	0.13	-0.024	-0.052	0.050	-0.039		
6	0.15	0.16	0.115	-0.058	0.013	-0.075	0.170**	
7	1.10	0.40	-0.021	-0.051	0.121	-0.045	0.035	0.119

***p < 0.001, **p < 0.01. N = 238

Only two of the correlations among the strategy measures were significant, and they were less than 0.40. The measures for Creation strategy were not strongly correlated with each other. This provides evidence that each measure captured a facet of Creation strategy distinct from those captured by other measures for the same strategy. The two measures for Optimization strategy were also not significantly correlated with each other, again emphasizing that the two measures captured different facets of Optimization strategy. The lack of strong correlations between the measures for the four strategies demonstrates the divergent validity of these measures.

Given that control variables were mostly insignificant in Phase one testing, as well as the constraints of sample size, only a control for country was used in phase two testing. Indian firms were represented by a value of "0", whereas Singaporean firms were represented by a value of "1". Despite this, the models, where significant, have strong explanatory power. All correlations between the independent variables were within acceptable limits. These correlations are given in Table 5.7 overleaf. Correlations between variables were also explored for firms in each quadrant of the CIE. These correlations are given in Tables 5.8a to 5.8d.

TABLE 5.7
Phase Two Testing: Descriptives and Correlations

Variables	Mean	S.D	1	2	3	4	5	6
1 Country	0.65	0.47						
2 Creation	6.81	15.05	-0.005					
3 Optimization	0.33	0.73	-0.002	-0.020				
4 Consolidation	1.10	0.40	-0.321***	-0.051	-0.042			
5 Domination	0.15	0.16	0.016	-0.057	-0.060	0.119		
6 Tobin's Q	1.68	1.71	0.168**	0.054	-0.055	-0.126	0.029	
7 ROA	0.08	0.08	0.328***	-0.230***	-0.069	-0.161*	0.384***	0.364***

***p < 0.001, **p < 0.01, *p < 0.05. N = 238

TABLE 5.8a
LsLc Quadrant: Descriptives and Correlations

Variables	Mean	S.D	1	2	3	4	5	6
1 Country	0.66	0.47						
2 Creation	9.32	26.58	0.045					
3 Optimization	0.29	0.25	-0.042	-0.034				
4 Consolidation	1.09	0.40	-0.303**	0.262*	0.142			
5 Domination	0.15	0.20	-0.085	-0.075	0.081	0.224*		
6 Tobin's Q	1.36	1.03	0.289**	0.392***	-0.246	-0.350**	-0.083	
7 ROA	0.06	0.07	0.390**	-0.195	0.176	-0.229*	0.285**	0.337***

***p < 0.001, **p < 0.01, *p < 0.05. N = 68

TABLE 5.8b
H₅L_G Quadrant: Descriptives and Correlations

Items	Mean	S.D	1	2	3	4	5	6
Try	0.66	0.47						
ion	6.54	6.22	-0.079					
ization	0.51	1.63	0.077	-0.054				
ulation	1.17	0.33	-0.331*	0.271*	-0.262*			
nation	0.15	0.11	-0.142	-0.066	-0.226	-0.204*		
's Q	1.38	1.07	0.051	0.053	-0.044	-0.270*	-0.011	
	0.07	0.06	0.099	-0.452**	-0.193	-0.299*	0.484**	0.392**

**, *p < 0.01, *p < 0.05. N = 42

TABLE 5.8c
H₅H_G Quadrant: Descriptives and Correlations

Items	Mean	S.D	1	2	3	4	5	6
y	0.60	0.49						
on	5.92	6.08	-0.104					
ation	0.28	0.34	-0.215*	-0.071				
ulation	1.15	0.38	-0.385***	0.281*	-0.069			
nation	0.16	0.12	0.160	-0.211**	-0.125	-0.166		
Q	2.12	2.35	0.375***	-0.182	-0.081	-0.065	0.165	
	0.09	0.09	0.337**	-0.572***	-0.125	-0.184	0.398***	0.489***

***p < 0.01, *p < 0.05. N = 75

TABLE 5.8d
L_sH_G Quadrant: Descriptives and Correlations

Variables	Mean	S.D	1	2	3	4	5	6
1 Country	0.60	0.49						
2 Creation	5.92	6.08	-0.113					
3 Optimization	0.28	0.34	0.024	0.046				
4 Consolidation	1.15	0.38	-0.242*	0.289*	0.192			
5 Domination	0.16	0.12	0.146	0.128	0.132	0.289*		
6 Tobin's Q	2.12	2.35	-0.205	-0.139	-0.049	-0.081	-0.042	
7 ROA	0.09	0.09	0.466***	-0.309*	0.018	-0.035	0.538***	0.072

***p < 0.001, **p < 0.01, *p < 0.05. N = 53

5.3.2. Results

P-P plots and residual plots showed that the distribution of the data were normal. The Durbin-Watson statistic, for each of the models, was close to 2, leading to the conclusion that the observations were independent, and the data had no autocorrelation. VIF values, for each regression model, were less than 10, showing that the data were free from multicollinearity. The results of all regression models are given in Table 5.9, and are described below.

Model 1a was run, with Dependent Variable: Tobin's Q, on firms in the L_SL_G quadrant of the CIE. The model is significant with R² of 0.434 (F = 9.371, p = 0.000). The coefficient for Creation strategy is positive and significant ($\beta = 0.373$, p = 0.000). The coefficients for Optimization and Domination strategy are insignificant. The coefficient for Consolidation strategy is negative and significant ($\beta = -0.235$, p = 0.032). This indicates that Consolidation strategy has a positive relationship with performance, for firms in this quadrant, since the diversification measure used increases in value as firms are more diversified, and is smaller, when firms adopt a Consolidation strategy. The control, country, is positive and significant ($\beta = 0.315$, p = 0.003). This model supports Hypothesis 3.

Model 1b included firms in the same L_SL_G Quadrant, but with ROA as the dependent variable. The model was significant with R² of 0.417 (F = 8.718, p = 0.000). The control, country, is significant and positive ($\beta = 0.348$, p = 0.003). The coefficients for both Optimization and Domination strategies are positive and

significant ($\beta = 0.226$, $p = 0.026$, and $\beta = 0.375$, $p = 0.000$, respectively). The coefficients for Creation and Consolidation strategy were both negative and significant ($\beta = -0.262$, $p = 0.012$, and $\beta = -0.291$, $p = 0.01$, respectively). While in the case of Consolidation strategy, this indicates a positive impact of the strategy, on performance, in the case of Creation strategy, it implies to a negative impact. This model also supports Hypothesis 3.

Model 2a tested H_{SLG} Quadrant firms, with the dependent variable Tobin's Q. The model was insignificant. Hypothesis 4 is therefore not supported.

Model 2b also tested firms in the same quadrant, using ROA as the dependent variable. The model was significant with R^2 of 0.453 ($F = 5.967$, $p = 0.000$). Country control, Optimization, and Consolidation strategies were found to be insignificant. Domination was positive and significant ($\beta = 0.412$, $p = 0.004$).

Optimization and Consolidation strategies remained insignificant. The coefficient for Domination strategy was positive and significant ($\beta = 0.540$, $p = 0.000$), and the coefficient for Creation strategy was negative and significant ($\beta = -0.337$, $p = 0.002$). Hypothesis 5 therefore received no support.

Model 4a was run using firms in the H_SH_G Quadrant, with Tobin's Q as the dependent variable. The model was significant with $R^2 = 0.186$ ($F = 3.150$, $p = 0.013$). However, all strategy variables in this model were insignificant. Country control was significant and positive ($\beta = 0.401$, $p = 0.001$). This model therefore fails to support Hypothesis 6.

Firm strategies in the H_SH_G quadrant were tested against ROA as the dependent variable, in Model 4b. The model was significant, and had high explanatory power, with $R^2 = 0.482$ ($F = 12.838$, $p = 0.000$). The coefficients for Optimization and Consolidation strategies were not significant. The coefficient for Domination strategy was positive and significant ($\beta = 0.252$, $p = 0.007$), thereby offering the support for Hypothesis 6, whereas the coefficient of Creation strategy was negative and significant ($\beta = -0.529$, $p = 0.000$).

In summary, Hypothesis 3 was completely supported, whereas Hypothesis 6 was supported only when ROA served as the dependent variable. Hypotheses 4 and 5 received no support, and are consequently rejected. The results generally suggest that Optimization and Domination strategy all serve to increase performance by creating resource efficiency, whereas Creation strategy works to

increase market valuation. Consolidation strategy has a positive linkage with both performance variables. The results also show that Domination strategy is significant and positive across all quadrants, and exclusively has a positive effect for firms in $H_S H_G$, $H_S L_G$ and $L_S H_G$ quadrants. These results suggest that prima facie, Support and Governance may be substitutable for each other, and that to have a high score on either places a firm in a position similar to that of firms in the $H_S H_G$ quadrant. This proposition is supported by the fact that the correlation between the two variables, Support and Governance, is within acceptable limits (0.235, from Table 5.2), thereby reiterating the independence of the two axes of the CIE.

TABLE 5.9

Phase Two Testing: Results of Regression

Predictors	L _S L _G		H _S L _G		L _S H _G		H _S H _G	
	Model 1a (Tobin's Q)	Model 1b (ROA)	Model 2a (Tobin's Q)	Model 2b (ROA)	Model 3a (Tobin's Q)	Model 3b (ROA)	Model 4a (Tobin's Q)	Model 4b (ROA)
Country	0.315**	0.348**	-0.075	0.101	-0.254	0.329**	0.401**	0.268**
Creation	0.373***	-0.262*	-0.113	-0.393**	-0.141	-0.337**	-0.164	-0.529***
Optimization	-0.172	0.226*	-0.162	-0.160	-0.022	-0.045	-0.006	-0.081
Consolidation	-0.235*	-0.291*	-0.334	-0.117	-0.112	-0.006	0.151	-0.115
Domination	0.050	0.375***	-0.134	0.412**	0.048	0.540***	0.091	0.252**
R ²	0.434	0.417	0.116	0.453	0.080	0.541	0.186	0.482
R ² _a	0.388	0.369	-0.007	0.377	-0.018	0.492	0.127	0.440
F-statistic	9.371***	8.718***	0.941	5.967***	0.815	11.074***	3.150*	12.838***
N	68	68	42	42	53	53	75	75

***p < 0.001, **p < 0.01, *p < 0.05.
Standardized Beta Coefficients are shown

5.4. POST-HOC TESTS FOR PHASE TWO

5.4.1. Country Effects

By definition, a country effect on the Support and Governance scores of firms is expected. This is because the calculation of these scores, for firms, includes components that take into account the environment levels of availability of Support and Governance. However, in order to explore the effects of country environment, on firm choice of strategy, I ran a post-hoc test to compare mean differences in strategy variable values, between India and Singapore. All 238 firms were included. The results of the t-test for difference of means shows that there is a significant difference between India and Singapore, for Consolidation strategy (Mean Difference = 0.270, s.d. = 0.05, $t = 5.19$, $p = 0.000$), and for performance, in terms of both Tobin's Q and ROA (Mean Differences = -0.60 and -0.05 respectively, s.d. = 0.23 and 0.01 respectively, $t = -2.62$ and -5.34 respectively, $p = 0.000$). There were no significant differences between firms in the two countries, for Creation, Optimization and Domination strategies.

5.4.2. Industry Effects

I also ran a similar comparison of means test, to explore industry effects, using all 238 firms in the dataset. As expected, industry had significant effects on performance, with high-technology firms exhibiting better performance, measured by Tobin's Q and ROA (Mean Difference = -0.93, s.d. = 0.26, $t = -3.54$, $p =$

0.000, and Mean Difference = -0.03, s.d. = 0.01, $t = -2.8$, $p = 0.006$, respectively). Industry also caused significant differences in all strategies except Optimization. The results show that firms in the low-technology industries tend to have higher levels of commitment to Creation strategy (Mean Difference = 6.62, s.d. = 2.34, $t = 2.82$, $p = 0.005$) and Domination strategy (Mean Difference = 0.05, s.d. = 0.02, $t = 2.07$, $p = 0.039$), but less commitment than those in high-technology industries to a Consolidation strategy (Mean Difference = 0.23, s.d. = 0.06, $t = 3.8$, $p = 0.000$).

In all, the results validate fundamentally the conceptualization and construction of the business environment as a Competitive Institutional Environment. The mixed results for the proposed strategy-performance linkages offer scope for an interesting discussion. The theoretical implications of these results are presented in the following chapter.

CHAPTER SIX

DISCUSSION

This research has aimed to construct, validate and test the performance implications of four new generic strategy types, in the context of a business environment as a Competitive Institutional Environment. In the preceding chapter, results were presented, which showed the construction of the CIE to be valid, with support for hypotheses relating Support, and Governance, to performance. The results showed mixed support for the performance implications of the strategy types. In this chapter, these results are discussed, with a view to review deviations of the results from the proposed theory, as well offer potential explanations for the findings.

6.1. CIE VALIDATION

In general, the conceptualization of the business environment as a Competitive Institutional Environment (CIE) is validated. Both hypotheses tested in phase one were supported, though the effects of the Support variable were not significant across all models. Age of the firm has no significant effects on performance. Industry, however, tended to have mixed effects, ranging from insignificant effects to both positive and negative effects. The results show that industry is significant and positive for both the Singapore panels, which use Tobin's Q as the dependent variable, but is insignificant for panels using ROA.

Industry effects are observed in the context of the Indian panels, only in the year 2001. While industry had a negative effect on Tobin's Q, the effect on ROA was positive.

It is interesting to note that the weakly-supported positive effects of Support are observed only in the context of models with Tobin's Q as the dependent variable. This suggests that Support plays a critical role in enhancing the market valuation of the firm, primarily through the operation of institutional influences. Governance, on the other hand, has a positive relationship with ROA, suggesting that higher corporate governance standards can create resource efficiency, by reducing agency costs, and aligning various stakeholder and shareholder interests. The evidence for the positive effects of Governance on Tobin's Q suggests that Governance may also serve to enhance the market value of firms. This association was supported only in the context of a single country, India, and a single year, 2002, in the panel-wise regression, but held good for the post-hoc model, which combined all firms in the four panels, affording the speculation that the effects of Governance on Tobin's Q may be subject to environmental factors, such as the overall emphasis on corporate governance in the environment, and the recent trends related to the possible imposition of punitive measures on governance defaulters.

6.2. PERFORMANCE IMPLICATIONS OF THE GENERIC STRATEGIES

In keeping with the effects of Support on performance, Creation strategy serves to increase market valuation, but has a negative effect on ROA. In general, there is no significant correlation between Creation strategy and Tobin's Q (0.054, from Table 5.7), thereby supporting the conclusion that the effects of Creation strategy on Tobin's Q are specific to the context of a firm's position in the CIE, and not a result of measurement artefacts. On the other hand, there is a significant negative correlation between Creation strategy, and ROA (-0.230, from Table 5.7), which is in keeping with the consistent negative effects of this strategy for firms across all quadrants. This negative effect can be attributed to the resource-intensive nature of a Creation strategy. Optimization strategy, on the other hand, serves to enhance resource efficiency, but does not have a direct effect on market valuation. In general, both maintenance strategies, that is, Consolidation and Domination, also seem to be based on creating and maintaining resource efficiency, rather than market valuation, given their associations with ROA (-0.161 and 0.384 respectively, from Table 5.7). The two movement strategies, Creation and Optimization, provide a choice between increasing market valuation and increasing resource efficiency.

In general, it also seems that Domination strategy always improves resource-based performance, irrespective of the quadrant position of the firm. For

firms in the $H_S H_G$ quadrant, it is the only strategy that improves performance. This finding seems logically accurate, since to have greater monopolistic control over the market is mostly beneficial, from the firm's point of view. The results in general also iterate the fact that firms can enhance their performance not only by moving to the $H_S H_G$ quadrant, but also by achieving strategic fit, through strategies that are appropriate for their quadrant position. Particularly, the support for both hypotheses dealing with the two maintenance strategies, coupled with the finding that Domination strategy enhanced performance for firms in the $H_S L_G$ and $L_S H_G$ quadrants, demonstrates that firms may derive performance benefits by staying in a given quadrant and following an appropriate strategy, whether or not such quadrant the $H_S H_G$ quadrant.

In general, the significant, positive correlations between the country control variable and both Tobin's Q and ROA, as well the significance of the country control coefficient in the regression models, shows that Singapore firms have better performance than Indian firms. Post-hoc testing also showed that Singaporean firms tended to have higher performance, in terms of both Tobin's Q and ROA. These tests also showed that Indian firms tend to follow lesser levels of Consolidations strategy, as compared to Singapore firms. A possible explanation for this latter finding is that the sample covered firms with the highest market capitalization, in each country. Consequently, the Indian sample covers leading conglomerates in the country, including family-owned businesses. The differences

in performance may be explained by the general variation in the economic health of both countries.

As the post-hoc tests show, industry may also influence the choice of firm strategy, in the CIE. Particularly, low-technology firms have higher levels of Creation and Domination strategy, attributable perhaps to the resource-intensity, and higher resource base of manufacturing concerns. Conversely, high-technology firms tend to prefer Consolidation strategy. This preference may be a function of the specialized nature of product and services that are generally offered by firms in the high-technology industry. The findings therefore suggest, generally, that country differences, including economic and social conditions, play an important role, thereby reiterating the construction of the CIE at the country and industry levels.

A brief quadrant-wise discussion of the performance implications of each of the strategy types, in the CIE, follows.

6.2.1. Firms in the L_SL_G Quadrant

As hypothesized, for firms in this quadrant, Consolidation strategy has a positive effect on performance, measured as both Tobin's Q and ROA. Consolidation strategy therefore seems to allow for resource efficiency, and also sends a signal to the market that the firm is well-equipped to maintain its position in the niche market, thereby resulting in favorable market valuation. Optimization

strategy has a positive effect, when the dependent variable is ROA, in keeping with the strong linkages observed between this strategy, and resource-efficiency. Creation strategy has a negative effect when the dependent variable is ROA and a positive effect when it is Tobin's Q. Further evidence is provided by the correlation between Creation strategy and Tobin's Q being positive and significant, (0.392, from Table 5.8a), for firms in this quadrant.

These results suggest that firms maintaining their position in the $L_S L_G$ quadrant do well to follow a Consolidation strategy, as hypothesized. However, firms in this quadrant may also benefit if they attempt to move out of this quadrant, into either $H_S L_G$ or $L_S H_G$ quadrants. Firms emphasizing market valuation, as opposed to gaining resource efficiencies, can benefit by following Creation strategies, to move into the $H_S L_G$ quadrant. Conversely, firms emphasizing gains from internal resource efficiencies benefit from following an Optimization strategy, to move into the $L_S H_G$ quadrant. Finally, the model with ROA as the dependent variable showed that firms in this quadrant also benefit from concurrently following a Domination strategy, along with the other maintenance strategy, Consolidation. Taken together with the findings in support of Consolidation strategy, this can be interpreted to mean that firms holding monopolistic control over a niche market fare better than those with less-than-monopolistic control. This is in keeping with the idea of Consolidation as a

maintenance strategy, whereby the firm strongly establishes its position in the niche market.

6.2.2. Firms in the $H_S H_G$ Quadrant

As hypothesized, firms in this quadrant benefited from following Domination strategy. In addition, firms in this quadrant, which followed Creation strategy, suffered losses. In general, Creation strategy also seems to have negative effects, in all models, where the dependent variable is ROA. It is noteworthy that in this particular model, the coefficients show that the negative effect of Creation strategy, on performance, is stronger than the positive effects of Domination strategy. It is therefore likely that following a Creation strategy may, in fact, draw too strongly upon a firm's internal resources, therefore leading to a negative effect on ROA. Given the positive effects of Creation strategy, on market valuation, for firms in the $L_S L_G$ quadrant, I speculate that Creation strategy will provide either beneficial effects, or nil effects, up to a certain threshold, beyond which the resource intensity of the said strategy results in negative effects on resource efficiency. Therefore, while it is important for $H_S H_G$ firms to follow Domination strategy to maintain their position in this quadrant, it is equally important that they do not implement a Creation strategy. Again, Singapore firms seem to have fared better than Indian firms, in terms of performance. Interestingly, the correlation between Creation strategy and Tobin's Q is insignificant, for firms in this

quadrant, suggesting that these firms may have crossed a threshold beyond which Creation strategy proves futile. However, there is a strong negative correlation between Creation strategy and ROA, (-0.572, from Table 5.8c), demonstrating the negative effects of a Creation strategy on resource-based performance, for firms in this quadrant.

6.2.3. Firms in the L_SH_G Quadrant

No strategy has an effect on Tobin's Q, and contrary to the offered hypotheses, Creation strategy does not have a positive effect on either measure of performance. On the contrary, it has a negative effect on ROA. Also Domination strategy has a strong, positive effect on ROA. Optimization strategy has no significant effect, though this may be explained as follows. Firms which are already high on the Governance dimension have nothing further to gain from following an Optimization strategy, thereby leading to absence of performance effects, for Optimization strategy. Governance may also function as a substitute for Support, for firms in this quadrant. This would explain why firms in this quadrant benefit from Domination strategy. That is, the high Governance scores of firms in this quadrant places them in a position similar to that of firms in the H_SH_G quadrant. Consequently, these firms benefit from a Domination strategy, in the same way that firms in the H_SH_G quadrant do. It is noteworthy that the

coefficient for Domination strategy is the highest, suggesting that a Domination strategy contributes the most to firm performance.

This conclusion is also supported by an examination of the correlations amongst the variables, for firms in this quadrant. As in the case of the $H_S H_G$ quadrant, Creation strategy has no significant correlation with Tobin's Q, suggesting that firms in the $L_S H_G$ quadrant will also not gain market valuation by following a Creation strategy. Despite this, if firms continue to follow Creation strategy, it would result in negative effects on ROA. The similarity of relationships between the variables across quadrants in which Support is high ($H_S H_G$), and Support is low ($L_S H_G$), suggests that high levels of governance may in fact substitute for low levels of Support, in the specific context of firm performance. Also, the negative effects of Creation strategy on ROA is explained by the finding that, in general, Creation strategy contributes to market valuation, but can detract from resource-based performance, given the high resource commitment required to follow a Creation strategy.

6.2.4. Firms in the $H_S L_G$ Quadrant

Firms in this quadrant, too, seem to benefit the most from Domination strategy. Coupled with the negative effects of Creation strategy, and the insignificance of Optimization strategy, firms in this quadrant also seem to enjoy a position similar to that of firms in the $H_S H_G$ quadrant, and in the $H_S L_G$ quadrant.

That is, firms in this quadrant too benefit from Domination strategy. Creation strategy has negative effects on market valuation, whereas an Optimization strategy has no significant effects, leading to the general conclusion that firms in the $H_S L_G$, $H_S H_G$ and $L_S H_G$ quadrants are all similarly placed, in terms of the performance implications of firm strategy.

In general, Singapore firms seem to have better performance than Indian firms. Also, the significance of Domination strategy in the context of ROA model, but not in the context of Tobin's Q, seems to suggest that Domination strategy tends to serve towards increasing resource efficiency, rather than market value. Again, the correlations between the variables for this quadrant show that a Creation strategy has an insignificant correlation with Tobin's Q, as was observed for firms in the $L_S L_G$ quadrant. Logically, firms with high levels of Support, such as those in the current quadrant, may not have anything further to gain by way of market valuation, if they continue to follow a Creation strategy. However, continuing to follow a Creation strategy may result in inappropriate utilization of resources, and consequent performance loss, as seen from both the regression model, as well as the correlation between the variables, which shows that Creation strategy has a negative effect on ROA (-0.452, from Table 5.8b), for firms in this quadrant.

6.3. MARKET VALUATION IN THE CIE

The results of models with Tobin's Q as the dependent variable, suggest that Creation strategy alone explains any variance in market evaluation, and that this effect is positive only for firms in the $L_S L_G$ quadrant, which are following a Creation strategy. The overall significance of the $H_S H_G$ quadrant model, with the insignificance of the independent variables therein further supports this view. These results may also be a product of the fact that effects on Tobin's Q may take longer times to unfold, particularly in the context of aggressive strategies, such as Domination. However, given that Tobin's Q was positively associated with Creation strategy, which is conceptualized as the most resource-intensive of all four strategies in the CIE, it is not likely that the absence of effects on Tobin's Q are a result of the temporal scope, or lack thereof, of this study. Taken together with the earlier direct effects findings from phase one that Support scores are positively related to market valuation of the firm, the results for models with Tobin's Q as the dependent variable allow for some interesting insights.

The absence of market valuation effects for firms in the high Support quadrant, that is, $H_S L_G$ and $H_S H_G$ firms can be explained as follows. Firms in these quadrants ($H_S L_G$ and $H_S H_G$) already have high levels of Support, as compared to firms in the $L_S L_G$ quadrant. While the average Support score of firms in the former two quadrants is 0.34 and 0.33, (s.d. = 0.24, 0.26), respectively, the average Support score of firms in the latter quadrant is much lower, at a value of

0.06 (s.d. = 0.04). The average Support score of firms in the $L_S H_G$ quadrant score, is also low, at a value of 0.07 (s.d. = 0.06). Consequently, firms in the $H_S H_G$ and $H_S L_G$ quadrants are not likely to receive increased market valuation, even if they were to further increase the levels of Support. Any further attempts to follow a strategy to increase Support will not return any gains. However, for firms in the $L_S L_G$ quadrant, Creation strategy is a clear option, towards increasing Support. I therefore conclude that Creation strategy has a positive relationship with market valuation only for low Support firms. Beyond a threshold of moderate to high Support, Creation strategy ceases to have beneficial effects, as observed from the results of tests with firms in the $H_S H_G$, $H_S L_G$, and $L_S H_G$ quadrants. The implications of that lack of support, for the positive effects of Creation strategy on firms in the $L_S H_G$ quadrant are discussed below.

6.4. ARE SUPPORT AND GOVERNANCE SUBSTITUTES?

Why does Optimization strategy not have a positive effect for $H_S L_G$ firms, even when the dependent variable is ROA? Conversely, why do we find no support for the positive effects of Creation strategy for firms in the $L_S H_G$ quadrant? To be specific, Optimization does have a positive effect for $L_S L_G$ firms, in the context of resource efficiency. Similarly Creation strategy has a positive effect for $L_S L_G$ firms, in the context of market valuation. This effect disappears when either Support, or Governance, or both, increase.

One possible explanation for these findings is that the effects of Support and Governance on performance function as substitutes for each other, given particularly the different performance emphases of these two components of the CIE. That is, when the performance focus is on resource efficiency, Governance can serve as an adequate substitute for Support, and conversely, when the performance emphasis is on favorable market valuation. In fact, for firms without access to institutions or intermediaries, or for firms which find creating such access an expensive proposition, increasing Governance scores would offer an adequate substitute, since firms may be able to attract the attention of market intermediaries through high governance standards. Again, when firms already enjoy favorable market valuation, increasing governance standards may not add any value, explaining thereby how Support serves as a substitute for Governance, in the context of market valuation.

These inferences are further supported by the fact that Support and Governance are in fact independent axes. The phenomenon that is observed can

6.5. TYPOLOGY OF FIRMS IN THE CIE

The substitutability of Support and Governance raises further interesting questions. The framework of the CIE fundamentally presumes that firms are distinguishable, on the basis of their quadrant positions, into four types. However, the finding that firms can benefit from a Domination strategy in three of the four quadrants raises the issue of whether there are only two types of firms, and not four as initially proposed. To identify the number of types of firms, let us first consider the various options available to firms, in the CIE. Firms may fall into either the sector comprising $H_S H_G$, $L_S H_G$ and $H_S L_G$ quadrants, or not. For each of these two types of firms, there exists the option to defend or maintain this position, leading thereby to two distinct sets of firm actions. First, firms that aim to maintain their position in the $L_S L_G$ quadrant would do best follow a Consolidation strategy. Secondly, certain firms may aim to maintain their position in the $H_S H_G$, $L_S H_G$ and $H_S L_G$ quadrants. The results suggest that firms in all three quadrants should follow a Domination strategy, and specifically avoid Creation strategy, given the negative effects of the latter strategy on performance, for firms in these three quadrants.

Despite the finding that firms in all three quadrants may benefit from Domination strategies, there exist the equally strong findings, from the testing of Hypotheses 1 and 2, that the higher the levels of Support and Governance, the better firm performance. Consequently, even though firms in all three quadrants

may benefit from Domination strategy, there nevertheless exists a difference in the performance of firms across these three quadrants, that arise from the levels of Support and Governance, of firms. In addition, while the key distinction between the two maintenance strategies, Domination and Consolidation can be said to be in terms of their scale of operations, the key distinction between maintenance and movement strategies is in terms of their difference in scope of operations. That is, both Creation and Optimization involve a scope of activity that is clearly distinct from that of firms following Domination or Consolidation strategies. Consequently, it becomes possible to highlight firms in the $H_S H_G$ quadrant as distinct from firms in both $H_S L_G$ and $L_S H_G$ quadrants, on the basis of the difference in levels of Support and Governance, and consequently, performance. However, it is not possible to specifically distinguish firms in the latter two quadrants from each other, given the proposed substitutability of Governance and Support, though it may be argued that while Creation strategy involves increasing the scope of a firm's linkages with the external environment, Optimization strategy involves increasing the internal scope of a firm, in terms of how the firm conducts its business.

For firms in the $L_S L_G$ quadrant, the option also exists to move from this quadrant to the sector comprising the $H_S H_G$, $L_S H_G$ and $H_S L_G$ quadrants. These firms have to choose between Creation and Optimization strategies, in order to effect such movement. Consequently, we can consider such firms as a distinct

type from those aiming to maintain their positions, with two alternative strategies available to them. The findings therefore support the division of firms into four types, on the basis of their positions, and four types, on the basis of their strategies. This is illustrated in Figure 6.1.

FIGURE 6.1
Revisiting Firm Strategy in the CIE

6.6. THE EFFECTIVE DISTINCTION BETWEEN CREATION AND OPTIMIZATION

Firms in the $L_S L_G$ quadrant are shown to have the option to follow one of two movement strategies. The question therefore arises, in what ways are these two strategies distinct from each other? The results show that Creation strategy is positively related to market valuation, whereas Optimization strategy may serve better in the context of resource efficiency. Therefore, a firm's particular performance aims strongly motivate the choice of strategy. Ensuring consonance with performance aims also support the substitution effects that have been outlined earlier. That is, only if a firm aims to increase market valuation, and consequently follows Creation strategy, will it benefit from substitution effects. On the other hand, if a firm aiming to increase resource efficiency follows a Creation strategy, it may lead to a loss in resource-based performance.

In general, the choice of strategy may also be motivated by the firm's past and future strategies, that is, the strategy in place before the initiation of either Creation or Optimization strategy, and the longer-term strategy that is to be followed after the implementation of either of these two strategies. For firms, that have followed, or are following a maintenance strategy, such as Consolidation, or plan to follow a maintenance strategy, such as Domination, in the future, following an Optimization strategy may ensure better transition. Both

Consolidation and Domination strategy, the findings show, tend to work through increasing resource efficiency, as does Optimization strategy.

Nevertheless, Creation strategy may also prove to be useful for certain firms in the $L_S L_G$ quadrant, based particularly on industry and firm characteristic such as extant resource intensity of operations. Logically, firms committed to achieving resource efficiency may find that an Optimization serves as a more congruent strategy. Firms, such as those in manufacturing industries, may perforce be required to garner institutional support commensurate with their intensive need for resources. The significant, negative association between the industry variable and Creation strategy supports this view, showing that high-technology firms do not prefer Creation strategies, whereas low-technology firms do. Post-hoc tests of the effects of industry also show generally that low-technology firms, in general, have higher levels of commitment to Creation strategy.

I further propose that Creation strategy may also be a lucrative option for firms that have recently entered a given CIE, and do not have a maintenance strategy in place. This may include foreign firms, as well as domestic start-ups. New entrants may benefit from increasing their market valuation, and thereby building up their reputation resources and legitimacy, in the environment, leading to the general proposition that age and resource-intensity of operations could also

be significant factors affecting the choice between Creation and Optimization strategies.

We can therefore conclude that for firms in the LSLG quadrant, Creation and Optimization are indeed two distinct strategies, though either may suffice to allow the firm to move from the LSLG quadrant, into other quadrants. For firms in HSHG or near-HsHG positions, following these strategies may result in nil or negative performance implications. It is therefore important that firms aim to achieve a strategic fit, between their position, aims and strategy. It is also important that firms cease to follow these movement strategies once they reach the preferred sector. Indeed, continuing to follow these strategies may explain why certain firms in the HSHG quadrant have bad performance.

6.7. CONCURRENT STRATEGIES: HIERARCHY AND SEQUENCE

The results in general suggest that the four generic strategy typologies are not linked exclusively to specific quadrants. Firms in the HSHG, LSHG and HSLG quadrants all benefited from following Domination strategy, whereas firms in the LSLG quadrant benefited from following both Domination and Consolidation strategy. Furthermore, for firms in the LSLG quadrant Creation strategy positively affected Tobin's Q, and Optimization strategy positively

following concurrent strategies, whereas in other cases, must specifically focus on a single strategy. Firms in the $L_S L_G$ quadrant particularly can benefit from following both maintenance strategies, as well as one of the two movement strategies, though such adoption is highly contingent on the adequacy of resources, given especially their low levels of Support and Governance. Firms in the sector, which ranges across $H_S H_G$, $L_S H_G$ and $H_S L_G$ quadrants, however, must be particularly careful not to follow Creation strategy, as this is detrimental to performance.

However, even amongst firms in the aforementioned sector, there are differences. For firms in the $H_S H_G$ quadrant, avoiding Creation strategy may be more important than following Domination strategy. On the other hand, firms in the $H_S L_G$ and $L_S H_G$ quadrants may find it more important to ensure that they adopt Domination strategy, while concurrently eschewing Creation strategy. Firms in the $L_S L_G$ quadrant would be able to enhance their performance by following monopolistic domination of a niche market, and given adequacy of resources, concurrently following a movement strategy. Such choice of strategy, particularly movement strategy, may also be linked to the nature of the country environment that a firm operates in. For example, in countries where the availability of Support is extremely low, firms may not have much to gain by following Creation strategy to increase their individual accessibility, though they may nevertheless increase their Support, relative to other firms in that

construction of the CIE. This would be so particularly because of the high costs and resource intensity involved in following Creation strategy. In such environments, it may be more advisable for firms to follow Optimization strategy, since it is not likely that firms would derive adequate returns from the resources invested in following Creation strategy, due to the exceptional environmental factors. It is therefore likely, that there is a specific hierarchy of strategies that are beneficial to firms in each quadrant, which leads to a prescriptive sequence of strategies that firms can follow, when moving from $L_S L_G$ to the $H_S H_G$ position.

In this chapter, the originally proposed CIE theory has been revisited, based on the findings from empirical testing. Despite the mixed support for the performance hypotheses, explanations have been offered to suggest that the fundamental theory holds good, though with revision, and increased clarity in retrospect.

CHAPTER SEVEN

CONCLUSION

In this final chapter, I summarize the theoretical postulates of the study, and highlight the key findings. Implications for managers and policy-makers are identified. The limitations of the study are also discussed. Finally, I identify potential directions for future research.

7.1. THE COMPETITIVE INSTITUTIONAL ENVIRONMENT: A NEW VIEW OF THE BUSINESS ENVIRONMENT

This research began with the larger question of whether or not we need a new typology of generic strategies. This question has been well answered in the affirmative, with the development, construction, and testing of a framework of the Competitive Institutional Environment, and four types of firm strategy therein. The fundamental aim of this research was to present an integrated view that took advantage of the vast body of knowledge in the domains of competitive strategy, institutionalism, and corporate governance, but also addressed the lacunae therein. This aim has been substantially achieved, as this study develops, tests, and finds support for the construction of a Competitive Institutional Environment. The framework that is offered in this study is innovative yet comprehensive, and advances knowledge in the field of strategic management by offering an alternative, which enhances our understanding of the firm strategy in the business

environment, without supplanting existing knowledge. To go back to the United Airlines example that we began with, extant typologies may perhaps help document the change in United Airlines' positioning, and its move towards a cost-leadership strategy (Porter, 1983), but would not explain why such a change was possible, or even successful. Using the CIE, on the other hand, would suggest that perhaps United Airlines strategically accessed the high levels of Support available to the airline industry in the USA to continue to operate and survive, and that its levels of Governance supported the processes of labor cutbacks and pension write-offs, towards creating a more cost-efficient organization.

The results of empirical testing provided strong support for the conceptualization of the CIE. In general, Support positively affected market valuation of a firm, as measured using Tobin's Q, whereas Governance had stronger links to resource-based performance, measured through ROA. Thus, the basic finding of this study would be that Support and Governance do matter for firms. Both these components positively affect the performance of firms, though in different ways. In terms of firm strategy, only two out of four hypotheses were supported. Nevertheless, the results lead to interesting, and useful, inferences. Particularly, the performance effect of Support and Governance can be viewed as potential substitutes for each other. In general, the results showed that, as hypothesized, Consolidation strategy was suited to firms in the $L_S L_G$ quadrant, and Domination strategy was suited to firms in the $H_S H_G$ quadrant. However,

Domination strategy also positively affected performance of firms in the $H_S L_G$ and $L_S H_G$ quadrants. The case studies generally supported the conceptualization of the CIE, and firm strategies therein, but also offered additional insights into interesting issues, such as the effects of increased availability on firm strategy. The fundamental tenet emerging from this study, therefore, is that institutional and governance-based activities are, in fact, strategic initiatives, with strong competitive implications.

The framework, and the processes, and firm strategy therein, are all based on a multi-level understanding of the business environment, which views the dynamics between firms and the environment as an ongoing process, subject to strategic input from firms. However, this framework also notes the distinction between what firms can affect, and cannot affect, and uses this dichotomy to present both competitive and institutional influences as mechanisms in this environment. This is important, because it acknowledges the effects of environmental determinism, and shows how firms are affected in such a scenario. In all, the current research presents an innovative and comprehensive theory of the business environment, which stands well-supported by the results of empirical testing.

7.2. IMPLICATIONS

This research makes contributions to the existing body of knowledge in more than one way. While advancing new theoretical perspectives at both broad and specific levels, this study also has implications for managers and policy makers.

7.2.1. Implications for Managers

This study contributes substantially to the practice of management. First, it provides an effective tool by which firms can understand and analyze their position within their larger institutional and competitive environment. The model has a descriptive component, in terms of contextually situating organisations, and their competitors, within the framework. By identifying the current position of their firm within the model, managers can identify the environmental forces that act on their firms more clearly, and evaluate which strategy they find most suitable. Secondly, it can be used to analyse the comparative positions of competitors. Such knowledge allows for long-range planning, as well as more efficient business dealings and negotiations with related organizations. This also allows managers to understand and operate firms within multiple levels of the environment, including the strategic group level. Finally, the research has a prescriptive component. Based on the performance implications tested in this research, it is advocated that some strategies are better suited for a firm than other

strategies, based on the position of the firm in the model. By reviewing the consequences of different strategies for firm performance, using the CIE framework, managers are better equipped to identify and implement the appropriate strategy for each firm.

In order to better demonstrate the potential use of the CIE framework, as a tool, by managers, I present brief examples, using four specific firms, from the dataset.

Example 1. Vidhesh Sanchar Nigam Limited (VSNL) is the largest International Long Distance (ILD) telephony services operator in India. In 2001, VSNL was placed in the $L_S L_G$ quadrant of the CIE. The value of 0.79 for the imputed weighted measure of diversification suggests that the firm was following a Niche Consolidation strategy, as advocated for firms in this quadrant. VSNL's performance in terms of Tobin's Q was reasonable, with a Q value of 1, though it was below CIE average value, of 1.79, the latter calculated using all firms in the Indian panel for the year 2001. The firm's ROA was 0.18, which was higher than the CIE average value of 0.10. This is in keeping with the general principles of firm performance in the CIE, as suggested by the results of empirical testing.

During this year 2002, however, VSNL began following both Creation and Optimization strategies concurrently, as evidenced by the increase in the value of the variables for the two strategies, from 0.00 to 2.52, and 0.17 to 1.64, respectively. Previously, as a Government-owned company, VSNL may not have

felt the need to raise Support, nor may it have anticipated the need to ensure survival. With the change to private ownership, during 2002, the importance of increasing Support and Governance may have come to the fore. At the end of this period, VSNL's quadrant position had not changed, but its performance, in terms of Tobin's Q had dropped to 0.77, and ROA continued to remain the same at 0.18. In 2003, the intensity of Creation strategy was reduced, as can be seen from the drop in the value of the variable for Creation Strategy, from 2.52 during 2002, to 1.57 in 2003. The firm's Tobin's Q was further reduced to 0.32, whereas the CIE average of Tobin's Q rose to a value of 2.05. ROA also reduced to 0.10, dropping for the first time below CIE average levels, the latter having, at the time, a value of 0.12. This case iterates the importance of strategic fit, and of holding high levels of Support and Governance, for firm performance.

The Governance and Support scores and performance data of the four firms used in these illustrations are given in Table 7.1.

TABLE 7.1

Firm Position and Performance in the CIE: 2001-2003

Firm	Year	Support	Governance	Quadrant	Tobin's Q	ROA
VSNL	2001	0.103522	0.572347	L _S L _G	1	0.176659
	2002	0.064763	0.630197	L _S L _G	0.774578	0.184669
	2003	0.046879	0.545249	L _S L _G	0.324726	0.103448
HLL	2001	0.413303	0.722401	H _S H _G	1.002083	0.2214
	2002	0.465672	0.870897	H _S H _G	5.442043	0.2248
	2003	0.529309	0.895928	H _S H _G	6.056763	0.221664
SIA	2001	1	1	H _S H _G	1.254601	0.070743
	2002	0.815255	0.937888	H _S H _G	0.972436	0.086496
	2003	1	0.948157	H _S H _G	1.065147	0.033998
Keppel Land	2001	0.102625	0.653442	L _S L _G	0.805631	0.021544
	2002	0.069598	0.904348	L _S H _G	0.762681	-0.07247
	2003	0.069282	1	L _S H _G	0.602169	0.005796

Example 2. The importance of strategic fit is also iterated by considering the strategy and performance of Singapore Airlines (SIA), in the CIE. Throughout the period in question (2001-2003), SIA held its position in the H_SH_G position of the CIE. In the year 2001, SIA had the highest levels of Support and Governance amongst all firms used to construct the CIE environment for Singapore. Despite this fact, SIA's performance was only average. In fact, SIA's Tobin's Q for the end of the period was 1.25, less than the CIE average of 1.51, and its ROA was 0.07, marginally above the average of 0.06. This may have been the fact that SIA did not seem to be intensively committed to a Domination strategy, as prescribed, for firms in the H_SH_G quadrant. In fact, its Lerner Index measure of market power for the year was 0.11, whereas the CIE average for the year was 0.21.

In 2002, the Lerner Index measure of market power for SIA increased to 0.12, the same as the CIE average for that year. The positive effects of this strategy on performance were readily observable. While the Tobin's Q value remained slightly below average (SIA: 0.97, CIE Average: 1.21), SIA's ROA was 0.09, much higher than the country average value of 0.04. In 2003, SIA remained in the H_SH_G quadrant, and once again had the highest level of Support in the CIE, though it did not have the highest levels of Governance. During this year, while SIA continued to follow Market Domination strategy, with a Lerner Index figure of 0.09, which was above the country average of 0.07. Having achieved this strategic fit not only enhanced SIA's performance, but may also explain how SIA tided over the economic effects of the SARS crisis, at which time Singapore, in general, and SIA, in particular, was strongly affected.

Example 3. Similarly, a look at the performance of Hindustan Lever Limited (HLL) also emphasizes the importance of achieving strategic fit, and staying committed to the strategy advocated for a firm's quadrant position, in the long run. HLL is India's largest marketer of Fast Moving Consumer Goods (FMCG), and is also one of the country's largest exporters. In 2001, HLL occupied a position in the H_SH_G quadrant of the CIE. During the year, HLL had an above average value for the Lerner Index, at 0.18. HLL's ROA performance was much above the country average, at 0.22 (CIE Average: 0.10). Its Tobin's Q, however, was below average, though moderate, at a value of 1.

In 2002, HLL continued to maintain its position in the $H_S H_G$ quadrant, and its commitment to Domination strategy remained constant, relative to the average. HLL's ROA continued to be above the CIE average, at the same relative levels, and its Tobin's Q rose to 5.44, when the average was 1.93. This increase in market valuation may have been as a result of its diversification into the Ayurvedic health business, in that year. In 2003, HLL continued to further maintain its position, and its pursuit of Domination strategy, at the same level. Again, its ROA remained stable, relative to the environment, but its Tobin's Q increased further to a value of 6.05. The favorable market valuation may be a result of competitive tactics, such as an acquisition made during this year, in keeping with HLL's pursuit of a Domination strategy.

The positions of the four firms, in the CIE, over the period 2001-2003, are presented overleaf in Figure 7.1.

FIGURE 7.1

Firm Position in the CIE: 2001-2003

Example 4. The final illustration serves to showcase the negative performance effects of following strategies unsuited to a firm's quadrant position. Keppel Land is one of the largest listed property companies, by total assets, on the Singapore Stock Exchange. It is a developer of both of premier residential and office properties, and is geographically diversified over many countries in Asia. Keppel Land was in the $L_S L_G$ position of the CIE, in 2001. However, during this year, Keppel Land did not follow a Consolidation strategy, as advocated for firms

in this quadrant. The firm had high levels of diversification, contrary to the Niche Consolidation strategy that would have benefited its performance. At the end of this period, the firm had less than average levels of performance, with Tobin's Q of 0.8, and ROA of 0.02.

By 2002, Keppel Land had moved slightly into the L_SH_G quadrant. During this year, Keppel Land further increased its emphasis on Optimization strategy. Particularly, it paid out all of its profits as dividends, and appointed specialists to its Board of Directors. It also concurrently implemented Creation strategy. Finally, Keppel Land also began to follow a Domination strategy, with its Lerner Index of market power at a value of 0.24, higher than the country average of 0.12. The concurrent implementation of the multiple strategies perhaps proved to be far too resource-intensive for Keppel Land. Not only did its ROA fall from previous levels, it reached a negative value of -0.07. Its Tobin's Q of 0.76 was also far below the CIE average of 1.21.

The strong emphasis on Optimization brought Keppel Land to the position of having the highest levels of Governance in the CIE, and it continued to remain in the L_SH_G quadrant. It continued to follow Optimization, Creation and Domination strategies concurrently. Its performance continued to stay at the same levels, as compared to the country average, though the negative value of its ROA improved to reach a low positive value (0.005).

These illustrations demonstrate how the CIE can be used by managers to understand effects of firm performance, as well as how managers can use the CIE framework as a tool of strategic decision-making. Particularly, managers can avoid negative performance outcomes by both understanding the logics, in terms of the CIE, for past performance gains and losses, as well as applying the CIE framework prospectively, towards achieving strategic fit.

7.2.2. Implications for Policy Makers

The CIE framework is also of potential importance to policy makers. The findings show that both Support and Governance have positive implications for firm performance. Both these scores are calculated as a composite of environmental and firm-level components, emphasizing the role formal institutions can play in raising Support and Governance scores. Also, while literature identified in the second chapter iterates the convergence effects of regulation, particularly on corporate governance, the current study also highlights the concurrent importance of competition. Policy makers would be well advised to note that competitive processes in the business environment can also serve to increase firm corporate governance standards. In all, this study establishes that a balance needs to be maintained between institutionalization of the business environment and the operation of competitive principles, to achieve high levels of market efficiency, and foster a productive business environment.

In addition, as demonstrated above, the CIE is a tool whereby the effects of the environment and of competition therein, on firms, can be identified. Therefore, in addition to managers, policy-makers too can use the CIE as a tool, to determine the exact implications of environmental changes, on firms. Particularly, the use of the CIE allows for determination of the effects of policy changes, leading to changes in the environment, on specific firms, groups of firms, or firms within given industries and sectors. Consequently, by using the CIE, policy-makers would have a more accurate understanding of the effects of existing systems and proposed institutional changes, on business.

For example, the CIE as a tool applied by policy makers, may have demonstrated that a firm with strong strategic fit, such as SIA, would not, in relative terms, be as adversely affected by the economic fallout of the SARS crisis, as other firms; and that the government may have better applied its resources to supporting other firms, through the crisis.

7.3. ASSUMPTIONS AND LIMITATIONS

The current study is not without assumptions and limitations. However, efforts have been made to minimize the impact of such limitations, and justify the necessary assumptions, to the best extent possible. These are discussed below.

7.3.1. Assumptions

Positive Effects of the Socio-economic Environment. The research is based on an underlying assumption that the larger forces of society and organization, including institutional ones, are directed towards positive social evolution, and specifically in the context of business, enhanced performance. In other words, the paper assumes that institutional forces will not require firms to indulge in anti-social or illegal actions. The converse however, may be true, in as much as the absence of institutional forces may allow firms to adopt anti-social, unethical or illegal practices, such as corruption. This assumption is based partly on theory and partly on necessity. First, theories of evolution of society and organization, suggest that the process of society-building, or socialization are directed towards the greater common welfare, and as such, legitimate and perpetuate only acceptable practices, in the long run. Secondly, to explore institutional antecedents of unacceptable firm practices is beyond the scope of the current research. While research does take into account the firm and environment level elements of unacceptable practices, such as scandals (Palepu et al., 2002), these elements are related to the absence or inadequacy of institutional environments, and as such not directly attributable to a supporting institutional force. Keeping in mind the evidenced negative relationships between institutional influences and firm unethical or anti-social practices, as well as the scope of this

research, I assume, therefore, that institutional forces will not compel firms to indulge in such practices.

Information Flow and Market Efficiency as Preconditions. For competitive and institutional processes to fully operate in an environment, it is important that the market environment must be efficient, and allow for effective dissemination of information. For firms to benefit, or to suffer punitive costs, information about their compliance, or lack thereof, with institutional and competitive precepts must be disseminated, especially to concerned actors in the environment. While I do not specifically identify information flow or environmental efficiencies as variables, these concepts are nevertheless taken into consideration. Particularly, this study takes into account that environmental availability is influenced by both formal and informal actors. In the absence of well-defined and influential market structures and institutions, intermediaries are identified as playing crucial roles. Therefore the broader issue of the relative efficiency of different economies will affect the construction of the CIE for that economy, and consequently affect firm strategy and performance, therein.

7.3.2. Limitations

Generalizability. The study has been restricted to two countries, India and Singapore. While admittedly this carries less persuasion for the generalizability of this study, as compared to the possibility of a study involving more countries, I

argue that the findings, and the theoretical bases of these findings, are highly generalizable. The choice of countries embodies salient differences, as identified in chapter four. The overall global phenomenon of convergence suggests that findings particular to one country can be applied to another with similar socio-economic conditions. For example, findings from Singapore may be applied to the case of Hong Kong, with little variation. Therefore, while this study is restricted in its coverage, this does not compromise the generalizability of its findings.

Temporal Applicability. The study has been constrained to a period of three years due to the non-availability of data on firm corporate governance standards (i.e. CLSA reports). While the theory strongly suggests that firm strategy would lead to changes in the quadrant position, the caveat remains that this event may take a longer period of time to unfold, and afford greater clarity to the observer. It must be acknowledged that researchers too, have iterated the need for studies over long periods of time, to be able to observe and infer from firm strategy. However, the empirical findings serve to dispel this reservation. Also, the case studies have served to further illustrate that firm strategic response, in the CIE, tends to unfold adequately in the shorter term also. Consequently, this potential limitation stands addressed.

Large-Firm Bias. The use of the CLSA reports also tends to affect the sample of firms included. The CLSA reports cover mainly large capitalization firms, in a country, on the assumption that these firms are likely to be of the most

interest to investors. This however, leads to a bias in the sample towards large firms. While this does not affect the generalizability of the findings to equally large or larger firms, it does have implications on the generalizability of the findings to cover substantially smaller firms. However, large firms are likely to be under greater pressure to respond to environmental forces (Meyer & Rowan, 1977; Peng, 2004), and this limitation also serves as a strength, inasmuch as it highlights the applicability of the findings for such large firms, and provides support for the general principles that are outlined herein.

7.4. LOOKING AHEAD: FUTURE RESEARCH DIRECTIONS

The current research opens many new vistas for future research. While the research questions identified at the outset stand answered, this study also fuels the articulation of further questions. Particularly, by virtue of the multiple levels of analysis involved, this dissertation offers potential research directions that explore within-firm conditions as well as within-environment conditions. In this study, principles of inter-firm competition were identified, to derive generic strategy types. How do these competitive institutional strategies tie in with a given firm's product strategies? This dissertation also refers often to the resource implications of Competitive Institutional Strategies. How do these latter strategies work to enhance or reduce a firm's resource base? Can these effects be quantified? In

addition to these broad questions, specific research initiatives that emerge directly from the current study are outlined below.

First, the CIE framework, and firm strategies therein need to be explored in further detail, especially with a view to increasing the empirical scope of the framework over more country environments. Second, the specific effects of industry need to be considered in greater depth. In this study, I have used a simple distinction between high-technology and low-technology industries. Nevertheless, this distinction has implications, particularly for firm choice of strategy. As mentioned in previous chapters, firms in low-technology industries may tend to prefer Creation strategy, and would benefit from the congruence of such a resource-intensive strategy, with their resource-intensive structures.

The basic construction of the CIE presumes that both institutions and firms are completely located within a single environment, and do not span across multiple CIEs. However, notable exceptions to this assumption are multinational corporations or MNCs. Morgan & Whitley (2003) review the extant literature to suggest that firm competencies are dependent on the firms' institutional environments, and such home-based institutional contexts would be challenged as the firm enters new institutional environments. As a result of their exposure to diverse environments, MNCs also face multiple institutional pressures (Westney, 1993). This suggests that MNCs are a complex phenomenon to study, particularly in the context of the CIE framework that we propose herein. It is however, also

possible to apply the tenets of the proposed framework to MNCs, by making allowance for their level of interaction with a particular institutional environment, especially at the country level, using, for example, concepts such as Heenan & Perlmutter's (1979) EPRG strategic predisposition of firms.

These research opportunities are future projects that are based on the structural framework of the current research. However, this study offers more than such opportunities. Essentially, the current study questions extant precepts, to suggest that corporate governance-related activity can constitute competitive strategy. In addition, it iterates that the focus of institutional strategies extends beyond non-market strategies, to include market-oriented strategies. The implications of these two postulates, for strategy research, in general, are wide ranging. The nature, scope, and distinctive effects of these two strategies, for various types of firms, would form the basis of very interesting, fundamental, research. Furthermore, the linkages of these two types of strategy, with other firm characteristics and strategic initiatives, such as diversification, research and development intensity, and innovation, would also provide interesting opportunities.

It would also be possible to explore, on the basis of the CIE framework, and strategies therein, other facets of the environment that have an impact on firm performance. While this study takes into account the positive effects of the environment, in terms of Support and Governance, it also provides theoretical and

empirical bases for future studies. Theoretically, the role and impact of specific aspects of the environment, such as levels of regulation, could be explored using the CIE. In addition, the methods used to construct the CIE could also be extended to explore other environment-firm linkages.

Finally, the temporal context of the CIE, and the dynamic nature of the axes present interesting research opportunities. How are the components of Support and Governance formed, in an environment? Do the axes have properties in themselves? Are there inter-country variations in the bases of the axes? These questions could form the basis of much macro-environmental research.

This chapter marks the conclusion of this study. Despite the inevitable lacunae, and limitations, this study has made fundamental contributions to the field of strategic management, in terms of theory and methods. It is anticipated that this study will mark the beginnings of new directions in research, and that the CIE framework will be pervasive in its use, by both academics and managers.

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APPENDIX ONE: WCR DATA

A1.1. METHODS USED IN THE WCR

The WCR aims to measure the competitiveness of nations, based on various criteria. The underlying principles, and the methods used, are elaborated on in the following extract from the World Competitiveness Yearbook (2005, pp. 621-623).

How does the World Competitiveness Yearbook measure Competitiveness?

During the past two decades, the methodology to assess the competitiveness of nations has constantly been fine-tuned to take into account the evolution of the environment and new research. In this way, the WCY keeps pace with structural changes in national environments and the rapidly changing technological revolution. We made these changes gradually so that we could continue to compare the results from year to year and highlight the evolution of an economy's performance relative to the competitiveness of others. Based on analysis made by leading scholars and by our own research and experience, the methodology of the WCY divides the national environment into four main Competitiveness Factors: Economic Performance, Government Efficiency, Business Efficiency and Infrastructure. Each of these four factors has been broken down into five sub-factors, each highlighting different facets of competitiveness. Altogether, the WCY features 20 such sub-factors. Some of these sub-factors have

been further divided into categories that define competitiveness issues more explicitly. All 314 criteria have been grouped into these sub-factors and categories. However, each sub-factor does not necessarily include the same number of criteria (for example, it takes more criteria to assess Education than to evaluate Prices). Each sub-factor, independently of the number of criteria it contains, has the same weight in the overall consolidation of results, that is, 5% ($20 \times 5 = 100$). This allows us to “lock” the weight of the sub-factors regardless of the number of criteria they include. We believe that this approach improves the reliability of the results and helps ensure a high degree of compatibility with past results. Statistics are sometimes prone to errors or omissions. Locking the weights of sub-factors has the same function as building “fire barriers”; it prevents problems from spreading in a disproportionate way. In addition, the past five years’ results are calculated for every economy covered by the WCY, in order to highlight the evolution of competitiveness.

The WCY uses different types of data to measure quantifiable and qualitative issues separately. Statistical indicators are acquired from international, national and regional organizations, private institutions and our unique network of 57 Partner Institutes worldwide. These statistics are referred to in the WCY as Hard data and include 128 criteria used to determine the overall rankings and 73 criteria presented as valuable background information but not used in the calculation of the rankings. The 128 Hard criteria represent a weight

of approximately two-thirds in the overall ranking. The remaining 113 criteria are drawn from our annual Executive Opinion Survey and are referred to in the WCY as Survey data. The survey questions are included in the Yearbook as individual criteria and are used in calculating the overall ranking, representing a weight of approximately one-third.

How are the rankings computed?

The essential building block for the rankings is the standardized value for all the criteria, which we call the STD value. The first step is to compute the STD value for each criterion using the data available for all of the economies. We then rank the economies for the 241 criteria that are used in the aggregation, 128 Hard and 113 Survey data. The additional 73 criteria are presented for background information only. They are not included in the aggregation of data to determine the overall rankings. In most cases, a higher value is better, for example, for Gross Domestic Product; the economy with the highest standardized value is ranked first while the one with the lowest is last. However, with some criteria the inverse may be true, where the lowest value is the most competitive, for example, Consumer Price Inflation. In these cases, a reverse ranking is used: the economy with the highest standardized value is ranked last and the one with the lowest is first. Since all economies' statistics are standardized, they can be aggregated to compute indices.

We use these index values, which we call "scores", to compute the following rankings: the Overall Scoreboard, Competitiveness Factor rankings and Sub-factor rankings. When the data is unavailable or too old to be relevant for a particular country or region, the economy appears at the bottom of the statistical table for the criterion being measured and a dash is shown. In the aggregation of the statistics, all missing data is replaced with a STD value equal to zero.

A1.2. COMPONENTS AND CRITERIA IN THE WCR REPORT

Tables A1.1 to A1.4, on the following pages, present the various components, criteria, and the methods used to measure these criteria. These tables have been compiled using data available on the WCR website at www.imd.ch/wcc.

TABLE A1.1
WCR: ECONOMIC PERFORMANCE

DOMESTIC ECONOMY	INTERNATIONAL TRADE	INTERNATIONAL INVESTMENT	EMPLOYMENT	PRICES
Gross domestic product (GDP)	Current account balance US\$ billions (minus sign = deficit)	Direct investment flows abroad	Employment	Consumer price inflation
US\$ billions		US\$ billions	Total employment in millions	Average annual rate
GDP (PPP)	Current account balance	Direct investment flows abroad	Employment	Cost-of-living index Cost index of basket of goods in major cities, excluding housing (New York City = 100)
Estimates: US\$ billions at purchasing power parity	Percentage of GDP	Percentage of GDP	Percentage of population	
Private final consumption expenditure	Balance of trade US\$ billions (minus sign = deficit)	Direct investment stocks abroad	Employment - growth	Apartment rent 3-room apartment monthly rent in major cities, US\$
US\$ billions	Balance of trade	US\$ billions	Estimates: percentage change	
Private final consumption expenditure	Percentage of GDP	Direct investment stocks abroad - real growth	Employment by sector	Office rent Total occupation cost (US\$/Sq.M per year)
Government final consumption expenditure	Balance of commercial services US\$ billions (minus sign = deficit)	Percentage change based on US\$ values	Percentage of total employment	
US\$ billions	Balance of commercial services	Direct investment flows inward	Employment in the public sector	
Government final consumption expenditure	US\$ billions	US\$ billions	Percentage of total employment	
Percentage of GDP	Percentage of GDP	Direct investment flows inward	Unemployment rate	
Gross domestic investment	Exports of goods	Percentage of GDP	Percentage of labor force	
US\$ billions	US\$ billions	Direct investment stocks inward	Long-term unemployment	
Gross domestic investment	Exports of goods	Direct investment stocks inward - real growth	Percentage of labor force	
Percentage of GDP	Percentage of GDP	Percentage change based on US\$ values	Youth unemployment	
			Percentage of labor force	

DOMESTIC ECONOMY	INTERNATIONAL TRADE	INTERNATIONAL INVESTMENT	EMPLOYMENT	PRICES
Gross domestic savings US\$ billions	Exports of goods - real growth Percentage change based on US\$ values	Balance of direct investment flows US\$ billions (flows abroad minus flows inward)		
Gross domestic savings	Exports of commercial services	Balance of direct investment flows		
Percentage of GDP	US\$ billions Exports of commercial services	Percentage of GDP (flows abroad minus flows inward)		
Economic sectors Breakdown as a percentage of GDP	Percentage of GDP Exports of commercial services - real growth	Net position in direct investment stocks US\$ billions (stocks abroad minus stocks inward)		
Real GDP Growth Percentage change, based on national currency in constant prices	Percentage change based on US\$ values Exports breakdown by economic sector	Net position in direct investment stocks		
Real GDP Growth per capita Percentage change, based on national currency in constant prices	Percentage of total exports Imports of goods & commercial services	Percentage of GDP (stocks abroad minus stocks inward)		
Private final consumption expenditure - real growth Percentage change, based on national currency in constant prices	US\$ billions Imports of goods & commercial services	Relocation threats of production		
Government final consumption expenditure - real growth Percentage change, based on national currency in constant prices	Percentage of GDP Imports of goods & commercial services - real growth	Survey Relocation threats of R&D facilities		
Gross domestic investment - real growth Percentage change, based on national currency in constant prices	Percentage change based on US\$ values	Survey Relocation threats of services		
		Portfolio investment assets		
		US\$ billions		

DOMESTIC ECONOMY	INTERNATIONAL TRADE	INTERNATIONAL INVESTMENT	EMPLOYMENT	PRICES
Gross domestic savings - real growth <i>Percentage change, based on national currency in constant prices</i>	Imports breakdown by economic sector <i>Percentage of total imports</i>	Portfolio investment liabilities <i>US\$ billions</i>		
Resilience of the economy	Trade to GDP ratio <i>(Exports + Imports) / (2 x GDP)</i>			
Survey				
GDP per capita	Terms of trade index <i>Unit value of exports over unit value of imports (2000 = 100)</i>			
US\$ per capita				
GDP (PPP) per capita <i>Estimates: US\$ per capita at purchasing power parity</i> Private final consumption expenditure per capita	Tourism receipts <i>International tourism receipts as a percentage of GDP</i>			
US\$ per capita Government final consumption expenditure per capita				
US\$ per capita Gross domestic investment per capita				
US\$ per capita Gross domestic savings per capita				
US\$ per capita				
Forecast: Real GDP Growth <i>Percentage change, based on national currency in constant prices</i>				

DOMESTIC ECONOMY	INTERNATIONAL TRADE	INTERNATIONAL INVESTMENT	EMPLOYMENT	PRICES
Forecast: Inflation				
Percentage change				
Forecast: Unemployment				
Percentage of total labor force				
Forecast: Current account balance				
Percentage of GDP/GNP				
*Sources of data/measures are indicated in italics				

TABLE A1.2
WCR: GOVERNMENT EFFICIENCY

PUBLIC FINANCE	FISCAL POLICY	INSTITUTIONAL FRAMEWORK	BUSINESS LEGISLATION	SOCIETAL FRAMEWORK
Government budget surplus/deficit	Collected total tax revenues	Real short-term interest rate	Customs' authorities	Justice
US\$ billions	Percentage of GDP	Real discount / bank rate	Survey	Survey
Government budget surplus/deficit	Collected personal income tax	Cost of capital	Protectionism	Personal security and private property
Percentage of GDP	On profits, income and capital gains, as a percentage of GDP	Survey	Survey	Survey
Central government domestic debt	Collected corporate taxes	Interest rate spread	Public sector contracts	Risk of political instability
US\$ billions	On profits, income and capital gains, as a percentage of GDP	Lending rate minus deposit rate	Survey	Survey
Central government domestic debt	Collected indirect tax revenues	Country credit rating Rating on a scale of 0-100 assessed by the Institutional Investor Magazine ranking	International transactions	Social cohesion
Percentage of GDP	Taxes on goods and services as a percentage of GDP	Survey	Survey	Survey
Central government foreign debt	Collected capital and property taxes	Central bank policy	Foreign investors	Income distribution - lowest 20%
US\$ billions	Percentage of GDP	Survey	Survey	Percentage of household incomes going to lowest 20% of households
Central government foreign debt	Collected employee's social security contribution	Exchange rate policy	Access to capital markets	Income distribution - highest 20%

PUBLIC FINANCE	FISCAL POLICY	INSTITUTIONAL FRAMEWORK	BUSINESS LEGISLATION	SOCIETAL FRAMEWORK
Percentage of GDP	Compulsory contribution as a percentage of GDP	Survey	Survey	Percentage of household incomes going to highest 20% of households
Central government total debt - real growth	Collected employer's social security contribution	Exchange rate stability	Investment incentives	Discrimination
Percentage change, based on national currency in constant prices	Compulsory contribution as a percentage of GDP	Parity change from national currency to SDR, 2004/2002	Survey	Survey
Interest payment	Effective personal income tax rate	Policy direction of the government	Government subsidies To private and public companies as a percentage of GDP	Females in parliament
Percentage of current revenue	Percentage of an income equal to GDP per capita	Survey		Percentage of total seats in Parliament
Management of public finances	Corporate tax rate on profit	Legal and regulatory framework	Subsidies	Female positions
Survey	Maximum tax rate, calculated on profit before tax	Survey	Survey	Percentage of total legislators, senior officials and managers
Total reserves	Consumption tax rate	Adaptability of government policy	Competition legislation	Gender income ratio
Including gold and official reserves (gold = SDR 35 per ounce)	Standard rate of VAT / GST	Survey	Survey	Ratio of estimated female to male earned income globally
General government expenditure	Employee's social security contribution rate	Government decisions	Product and service legislation	Harassment and violence
Percentage of GDP	Compulsory contribution as a percentage of an income equal to GDP per capita	Survey	Survey	Survey
	Employer's social security contribution rate	Political parties	Price controls	
	Compulsory contribution as a percentage of an income equal to GDP per capita	Survey	Survey	

PUBLIC FINANCE	FISCAL POLICY	INSTITUTIONAL FRAMEWORK	BUSINESS LEGISLATION	SOCIETAL FRAMEWORK
	Real personal taxes	Transparency	Parallel economy	
	Survey	Survey	Survey	
	Real corporate taxes	Public service	Regulation intensity	
	Survey	Survey	Survey	
	Tax evasion	Bureaucracy	Ease of doing business	
	Survey	Survey	Survey	
		Bribing and corruption	Creation of firms	
		Survey	Survey	
			Start-up days	
			Number of days to start a business	
			Labor regulations	
			Survey	
			Unemployment legislation	

PUBLIC FINANCE	FISCAL POLICY	INSTITUTIONAL FRAMEWORK	BUSINESS LEGISLATION	SOCIETAL FRAMEWORK
			<i>Survey</i>	
			Immigration laws	
			<i>Survey</i>	
*Sources of data/measures are indicated in italics				

TABLE A1.3

WCR: BUSINESS EFFICIENCY

PRODUCTIVITY & EFFICIENCY	LABOR MARKET	FINANCE	MANAGEMENT PRACTICES	ATTITUDES AND VALUES
Overall productivity (PPP) <i>Estimates: GDP (PPP) per person employed, US\$</i>	Compensation levels <i>Estimates: Total hourly compensation for manufacturing workers (wages + supplementary benefits), US\$</i>	Banking sector assets	Adaptability of companies	Attitudes toward globalization
	Unit labor costs in the manufacturing sector	<i>Percentage of GDP</i>	<i>Survey</i>	<i>Survey</i>
Overall productivity <i>GDP per person employed, US\$</i>	Percentage change	Financial assets of institutional investors	Ethical practices	Image abroad
	Remuneration in services professions	<i>US\$ billions</i>	<i>Survey</i>	<i>Survey</i>
Overall productivity - real growth <i>Estimates: Percentage change of real GDP per person employed</i>	Gross annual income including supplements such as bonuses, in US\$	Credit	Credibility of managers	National culture
	Remuneration of management	<i>Survey</i>	<i>Survey</i>	<i>Survey</i>
Labor productivity (PPP) <i>Estimates: GDP (PPP) per person employed per hour, US\$</i>	Total base salary plus bonuses and long-term incentives, US\$	Number of credit cards issued	Corporate boards	Flexibility and adaptability
Agricultural productivity (PPP) <i>Estimates: Related GDP (PPP) per person employed in agriculture, US\$</i>	Working hours	<i>Per capita</i>	<i>Survey</i>	<i>Survey</i>
	Average number of working hours per year	Credit card transactions	Auditing and accounting practices	Need for economic and social reforms
Productivity in industry (PPP) <i>Estimates: Related GDP (PPP) per person employed in industry, US\$</i>	Labor relations	<i>Number of transactions per capita</i>	<i>Survey</i>	<i>Survey</i>
	<i>Survey</i>	Investment risk	Shareholder value	Values of society
		<i>Euromoney country credit-worthiness scale from 0-100</i>	<i>Survey</i>	<i>Survey</i>
Productivity in services (PPP)	Worker motivation	Venture capital	Customer satisfaction	Corporate values

PRODUCTIVITY & EFFICIENCY	LABOR MARKET	FINANCE	MANAGEMENT PRACTICES	ATTITUDES AND VALUES
<i>Estimates: Related GDP (PPP) per person employed in services, US\$</i>				
Large corporations	Survey	Survey	Survey	Survey
	Industrial disputes <i>Working days lost per 1,000 inhabitants per year (Average 2001-2003)</i>	Banking and financial services	Entrepreneurship	
Small and medium-size enterprises	Survey	Survey	Survey	
	Employee training	Retail banking <i>Population /number of bank offices</i>	Marketing	
Survey	Survey	Banking regulation	Survey	
	Labor force <i>Employed and registered unemployed</i>	Survey	Social responsibility	
	Labor force	Stock markets	Health, safety & environmental concerns	
	Percentage of population	Survey	Survey	
	Labor force growth	Stock market capitalization		
	Percentage change	US\$ billions		
	Part-time employment	Stock market capitalization		
	Percentage of total employment	Percentage of GDP		
	Female labor force	Value traded on stock markets		
	Percentage of total labor force	US\$ per capita		
	Foreign labor force	Listed domestic companies		
	Percentage of total labor force	Number of listed domestic companies		

PRODUCTIVITY & EFFICIENCY	LABOR MARKET	FINANCE	MANAGEMENT PRACTICES	ATTITUDES AND VALUES
	Skilled labor	Stock market index		
	<i>Survey</i>	<i>Percentage change on index in national currency</i>		
	Finance skills	Shareholders' rights		
	<i>Survey</i>	<i>Survey</i>		
	Brain drain	Financial institutions' transparency		
	<i>Survey</i>	<i>Survey</i>		
	Foreign high-skilled people	Cash flow		
	<i>Survey</i>	<i>Survey</i>		
	International experience	Corporate debt		
	<i>Survey</i>	<i>Survey</i>		
	Competent senior managers	Factoring		
	<i>Survey</i>	<i>Percentage of merchandise exports</i>		
*Sources of data/measures are indicated in italics				

TABLE A1.4
WCR: INFRASTRUCTURE

BASIC INFRASTRUCTURE	TECHNOLOGICAL INFRASTRUCTURE	SCIENTIFIC INFRASTRUCTURE	HEALTH AND ENVIRONMENT	EDUCATION
Land area	Investment in telecommunications	Total expenditure on R&D	Total health expenditure	Total public expenditure on education
Square kilometers ('000)	Percentage of GDP	US\$ millions	Percentage of GDP	Percentage of GDP
Arable area	Fixed telephone lines	Total expenditure on R&D per capita	Public expenditure on health	Pupil-teacher ratio (primary education)
Square meters per capita	Number of main lines per 1000 inhabitants	US\$ per capita	Percentage of total health expenditure	Ratio of students to teaching staff
Urbanization	International fixed telephone costs	Total expenditure on R&D	Life expectancy at birth	Pupil-teacher ratio (secondary education)
Survey	US\$ per 3 minutes in peak hours to USA (for USA to Europe)	Percentage of GDP	Average estimate	Ratio of students to teaching staff
Population - market size	Mobile telephone subscribers	Business expenditure on R&D	Healthy life expectancy	Secondary school enrollment
Estimates in millions	Number of subscribers per 1000 inhabitants	US\$ millions	Average estimate	Percentage of relevant age group receiving full-time education
Population under 15 years	Mobile telephone costs	Business expenditure on R&D per capita	Medical assistance	Higher education achievement
Percentage of total population	US\$ per 3 minutes in peak hours (local)	US\$ per capita	Number of inhabitants per physician and per nurse	Percentage of population that has attained at least tertiary education for persons 25-34
Population over 65 years	Communications technology	Total R&D personnel nationwide	Health infrastructure	Educational assessment
Percentage of total population	Survey	Full-time work equivalent (FTE)	Survey	PISA survey of 15-year olds
Dependency ratio	Computers in use	Total R&D personnel nationwide per capita	Urban population	Educational system
Roads	Computers per capita	Total R&D personnel in business enterprise	Human development index	University education

BASIC INFRASTRUCTURE	TECHNOLOGICAL INFRASTRUCTURE	SCIENTIFIC INFRASTRUCTURE	HEALTH AND ENVIRONMENT	EDUCATION
Railroads	Internet users Number of internet users per 1000 people / Source: Computer Industry Almanac	Total R&D personnel in business per capita Full-time work equivalent (FTE) per 1000 people	Health problems (AIDS, alcohol, drug abuse, etc...)	Illiteracy Adult (over 15 years) illiteracy rate as a percentage of population
<i>Density of the network</i>			Survey	
Air transportation Number of passengers carried by main companies	Internet costs Cost for 20 hours dial-up per month, US\$	Basic research Survey	Paper and cardboard recycling rate Percentage of apparent consumption	Economic literacy Survey
Quality of air transportation	Broadband subscribers Number of subscribers per 1000 inhabitants	Science degrees Percentage of total first university degrees in science and engineering	Waste water treatment plants	Education in finance
Survey			Percentage of population served	Survey
Distribution infrastructure	Broadband costs US\$ per 100 kbits/s per month	Scientific articles Scientific articles published by origin of author	Carbon dioxide emissions CO2 industrial emissions in metric tons per one million US\$ of GDP	Language skills
Survey	Information technology skills	Science in schools	Ecological footprint Area units per person, hectares of biologically productive space	Survey
Survey	Survey	Survey	Sustainable development	Qualified engineers
Maintenance and development	Technological cooperation	Youth interest in science		Knowledge transfer
Survey	Survey	Survey	Survey	Survey
Energy infrastructure	Development and application of technology	Nobel prizes Awarded in physics, chemistry, physiology or medicine and economics since 1950	Pollution problems	
Survey	Survey		Survey	
Total indigenous energy production	Funding for technological development	Nobel prizes per capita	Environmental laws	

BASIC INFRASTRUCTURE	TECHNOLOGICAL INFRASTRUCTURE	SCIENTIFIC INFRASTRUCTURE	HEALTH AND ENVIRONMENT	EDUCATION
		<i>Awarded in physics, chemistry, physiology or medicine and economics since 1950 per million people</i>		
<i>Millions MTOE</i>	<i>Survey</i>		<i>Survey</i>	
Total indigenous energy production per capita	Technological regulation	Patents granted to residents	Quality of life	
<i>Millions MTOE per capita</i>	<i>Survey</i>	<i>Number of patents granted to residents (average 2000-2002)</i>	<i>Survey</i>	
Total indigenous energy production	High-tech exports	Securing patents abroad		
<i>Percentage of total requirements in tons of oil equivalent</i>	<i>US\$ millions</i>	<i>Number of patents secured abroad by country residents</i>		
Total final energy consumption	High-tech exports	Intellectual property rights		
<i>Millions MTOE</i>	<i>Percentage of manufactured exports</i>	<i>Survey</i>		
Total final energy consumption per capita	Cyber security	Number of patents in force		
<i>Millions MTOE per capita</i>	<i>Survey</i>	<i>Per 100,000 inhabitants</i>		
Energy intensity		Patent productivity		
<i>Commercial energy consumed for each dollar of GDP in kilojoules</i>		<i>Patents granted to residents / R&D personnel in business ('000s)</i>		
Electricity costs for industrial clients		Legal environment		
<i>US\$ per kwh</i>		<i>Survey</i>		
<i>*Sources of data/measures are indicated in italics</i>				

APPENDIX TWO: PERC DATA

A2.1. METHODS USED IN THE PERC REPORT

The extract below, from the PERC Report (2003, pp 5-7) provides details of the rationale and scope of the PERC report, as well as details on the process by which data are gathered and consolidated.

Business Environment Model Structure

Our model is based on the assumption that the business environment rating is a function of:

- *The political environment*
- *The domestic social environment*
- *External political risk variables*
- *Variables relating specifically to foreign investors*
- *Education and human resource variables*
- *The quality of expatriate life*
- *Pollution and the natural environment*
- *Physical infrastructure*
- *Institutional quality, accountability and standards*
- *The cost and ease of doing business*

Each of these major categories is, in turn, made up of a number of sub-variables relating to specific aspects of the category being assessed. The sum of the sub-variables is equal to 100% of the score for the broader category, while the sum of the scores for the broad categories defines the business environment rating. The relative importance or weighting that should be applied to each broad category (and to the sub-variables that make up each category, for that matter) depends on the particular type of business for which the business environment study is being done. For example, a company that has a local manufacturing facility producing goods with a high intellectual property content might want to give more weight to the category assessing institutional quality, accountability and standards, as well as the category assessing the cost and ease of doing business than to variables associated with pollution and the natural environment. On the other hand, a company involved with the tourism and travel industry might place more weight on the categories assessing the natural environment and physical infrastructure than to institutional quality, accountability and standards.

For the purpose of this report, which is being written for a general audience, we are giving all the major category sections the same weighting. In most cases, we also do not distinguish between the weighting of the sub-category variables, although we do in a few cases when it is obviously suitable to do so.

Variables are graded on a scale of zero to 10, with zero being the best or most favorable grade possible and 10 the worst. All grades were arrived at by averaging responses to a survey of corporate managers and bankers in the countries being analyzed. All respondents were expatriates, i.e., they were citizens of another country and were residing in the country for which they provided grades. They did not provide grades for other countries. Although there are advantages to this approach, there are also drawbacks. For example, there are biases between respondent groups in different countries. Moreover, in some countries respondents tended to be concentrated in one industry more than another, which distorts cross-country comparisons. For example, respondents in Malaysia and Vietnam were concentrated heavily in the manufacturing sector, whereas respondents in Hong Kong were concentrated more in financial services, trading and other service industries, as well as people providing regional support functions.

Data for the US and Australia is intended to serve as a reference so readers can see how perceptions about Asia compare with perceptions about the same variables in developed countries. Please note that biases in the responses are likely to result in the scores for the US and Australia being treated slightly more favorably than responses for the Asian countries. That is because the grades for the US and Australia were provided mainly by nationals of those countries, whereas the grades for Asia were provided by expatriates living in

those countries. Our experience indicates that nationals of a country, as a general rule, tend to grade their home countries slightly more favorably on most variables than do expatriates living in those same countries. Still, the comparisons are useful, especially for readers who might not have first-hand familiarity with Asia but have a better knowledge of the US or Australia. The US and Australian grades help to put the Asian grades in a better perspective.

The analysis of this report focuses on Asian countries, however, not on the US and Australia. Therefore, we did not provide detailed written analysis of the US and Australia the way we did for the other countries covered by our survey.

A2.2. VARIABLES USED TO COMPUTE THE PERC RATINGS

A list of variable used, under each category of the PERC report is presented in Table A2.1, overleaf. This list of variables has been compiled from the discussions and rankings presented in each section of the PERC Report, for the year 2003.

TABLE A2.1
PERC Categories and Variables

CATEGORY	VARIABLES
<i>The political environment</i>	Government stability Quality of political leadership Political system risk Civil service efficiency Quality of the regulatory environment Quality of government policies Intrusiveness of the government into the affairs of companies and individuals Effectiveness of the government in implementing its economic policies Degree that business has to worry about inconsistencies in government policies and the way they are implemented (either by the present or future governments) Responsiveness of the government to business Transparency of the political decision-making process The potential for disruptive political change
<i>The domestic social environment</i>	Public security & safety Information variables <i>i. Freedom of the press & other local media</i> <i>ii. Quality of the press & other local media</i> <i>iii. Degree that information flows freely</i> <i>iv. Freedom of speech</i> Religion <i>i. Freedom of religion</i> <i>ii. Threat of religious extremism</i>
	Threat of labor unrest Extent that racism is a problem Extent that a rigid class system exists Regionalism Insurrection risks Overall social stability
<i>External political risk variables</i>	Regional security Direct military threats Diplomatic relations with neighboring countries Economic links with neighboring countries

CATEGORY	VARIABLES
	Fallout from social instability in other countries Relations with major trading partners
<i>Foreign investor variables</i>	Discrimination against new foreign direct investment Levelness of local playing field for existing foreign investors Transparency of investment approval & licensing process Ease with which indigenous population interfaces with expatriate population Open immigration policy Extent that nationalism is an impediment to foreign investment
<i>Foreign investor variables</i>	Mechanisms for foreign investors to communicate their concerns to the government Responsiveness of the government to concerns expressed by foreign investors
	Overall impression of the quality of the local educational system Primary schooling for indigenous population
	Secondary schooling for indigenous population University & post-graduate education for indigenous population Cost of production labor Availability of high quality production labor Cost of clerical staff Availability of high quality clerical staff Cost of management staff Availability of high quality management staff
<i>Education and human resource variables</i>	Overall skill level of labor force Overall productivity of the labor force Work ethic English proficiency Proficiency in other critical languages Hi-tech proficiency Labor activism Labor turnover
	Housing Health care
<i>Quality of life for expatriates</i>	i. <i>Quality of doctors</i> ii. <i>Quality of hospitals & clinics</i> iii. <i>Confidence in major surgery standards</i> iv. <i>Confidence in treating major illnesses</i>

CATEGORY	VARIABLES
	<i>v. Quality of dental care</i>
	<i>vi. Quality of pediatric care</i>
	<i>vii. Cost of medical care</i>
	Personal security
	The extent that racism is a problem encountered by expatriates
	Schooling
	<i>i. Kindergarten & primary schools (ages 3-12) for expatriate children</i>
	<i>ii. Secondary schools (ages 13-18) for expatriate children</i>
	<i>iii. University & post-graduate education opportunities for expatriates</i>
	<i>i. Clubs</i>
	<i>ii. Night life</i>
	<i>iii. Sightseeing attractions</i>
	<i>iv. Heritage & other indigenous cultural attractions</i>
	<i>v. Concerts & other performances/shows by international artists</i>
	<i>vi. Museums</i>
	<i>vii. Theaters</i>
	Quality of the government's environmental protection/enhancement policies
	Air quality
<i>The quality of the natural environment</i>	Water quality
	Noise pollution
	Traffic congestion
	The telecommunications system
	Television
<i>Physical infrastructure</i>	Radio
	Internet & services supporting it
	The local road system
	Container port facilities
	Freight forwarding facilities
	Rail facilities
	Airport facilities
	Access to airport
	Public transport system
	Electric power
	Water & other utilities
	Hotels
	Restaurants
	Convention & exhibition facilities

CATEGORY	VARIABLES
<i>Institutional quality, accountability and standards</i>	Overall integrity of the legal system
	Police
	Judiciary
	Legislature/parliament
	Central Bank/Monetary Authority
	Banking & financial system
	Stock market regulatory authority
	Accounting profession
	Other professional services (lawyers, consultants, etc.)
	Quality of corporate governance
	Overall institutional sophistication
	Extent that state-owned enterprises are a problem
	Transparency with which key institutions conduct their affairs
	Corruption
	Extent that cronyism, in particular, is a problem
	Rents
<i>The cost and ease of doing business</i>	Tax burden
	Labor costs
	Utility costs
	The cost of corruption
	Existence of monopolies & cartels that close industries or distort market forces
	Level of competition between public & private sectors
	Bureaucracy/red tape
	The ease of establishing a company
	Official & unofficial barriers to imports of goods & services
	Existence of intellectual property rights pirates
	Degree to which local legal system can be relied on to defend against intellectual property rights abuses
	Regional competitiveness

APPENDIX THREE: CLSA DATA

A3.1. METHODS USED IN THE CLSA REPORT

The following extract from the CLSA Report entitled Saints and Sinners: Who's got religion (2001, pp 8-10) provides information on the methods used, for data collection and analysis, to arrive at firm-level scores for corporate governance standards.

CLSA CG Rankings: Method and purpose

CG scoring of the companies was through a questionnaire filled out by our analysts in each country for the companies they cover. The questionnaire is designed such that all questions have strictly binary answers (yes/no) to reduce the analyst's subjectivity. The questionnaire assesses the companies on 57 main issues divided into the seven key criteria that we take to constitute the concept of good CG: management discipline, transparency, accountability, responsibility, fairness and social responsibility. The first six criteria was given an equal weight of 15%, and the last, social responsibility, was given a lower weight of 10%, owing to the split response from fund managers as feedback on our last report on whether they did or did not see this as part of CG.

Each question in each section has an equal weight, except for the first questions in the independence and fairness sections. These questions were: 1)

whether there has been any controversy over whether the board or senior management have made decisions that favored them over shareholders, and 2) whether any decision by senior management have been perceived to favor majority shareholders over minorities. These questions each are given half the weight in their sections as we consider them to be the key issue under the respective categories.

The CLSA CG score is based on how we rate a company on 57 issues under seven main aspects of governance. The following is a summary of what we take to constitute good CG:

I. Discipline

- *Explicit public statement placing priority on CG*
- *Management incentivised to wards a higher share price*
- *Sticking to clearly defined core businesses*
- *Having an appropriate estimate of cost of equity*
- *Having an appropriate estimate of cost of capital*
- *Conservatism in issuance of equity or dilutive instruments*
- *Ensuring debt is manageable, used only for projects with adequate returns*
- *Returning excess cash to shareholders*
- *Discussion in Annual Report on CG*

II. Transparency

- *Disclosure of financial targets, e.g. three- and five-year ROA/ROE*

- *Timely release of Annual report*
- *Timely release of semi-annual financial announcements*
- *Timely release of quarterly results*
- *Prompt disclosure of results with no leakage ahead of announcement*
- *Clear and informative results disclosure*
- *Accounts presented according to IGAAP*
- *Prompt disclosure of market-sensitive information*
- *Accessibility of investors to senior management*
- *Website where announcements updated promptly*

III. Independence

- *Board and senior management treatment of shareholders*
- *Chairman who is independent from management*
- *Executive management committee comprised differently from the board*
- *Audit committee chaired by independent director*
- *Remuneration committee chaired by independent director*
- *Nominating committee chaired by independent director*
- *External auditors unrelated to the company*
- *No representatives of banks or other large creditors on the board*

IV. Accountability

- *Board plays a supervisory rather than executive role*

- *Non-executive directors demonstrably independent*
- *Independent, non-executive directors at least half of the board*
- *Foreign nationals presence on the board*
- *Full board meeting at least every quarter*
- *Board members able to exercise effective scrutiny*
- *Audit committee that nominates and reviews work of external auditors*
- *Audit committee that supervises internal audit and accounting procedures*

V. Responsibility

- *Acting effectively against individuals who have transgressed*
- *Record on taking measures in case of mismanagement*
- *Measures to protect minority interest*
- *Mechanisms to allow punishment of executive/management committee*
- *Share trading by board members fair and fully transparent*
- *Board small enough to be efficient and effective*

VI. Fairness

- *Majority shareholders treatment of minority shareholders*
- *All equity holders having right to call general meetings*
- *Voting methods easily accessibly (e.g., through proxy voting)*
- *Quality of information provided for general meeting*
- *Guiding market expectations on fundamentals*

- *Issuance of ADRs or placement of shares fair to all shareholders*
- *Controlling shareholder group owning less than 40% of company*
- *Portfolio investors owning at least 20% of shares*
- *Priority given to investor relations*
- *Total board remuneration rising no faster than net profits*

VII. Social awareness

- *Explicit policy emphasizing ethical behaviour*
- *Not employing the under-aged*
- *Explicit equal employment policy*
- *Adhering to specified industry guidelines on sourcing of materials*
- *Explicit policy on environmental responsibility*
- *Abstaining from countries where leaders lack legitimacy (e.g., Myanmar)*