

DIFFERENCES IN MANAGERIAL DISCRETION ACROSS COUNTRIES: HOW NATION-LEVEL INSTITUTIONS AFFECT THE DEGREE TO WHICH CEOS MATTER

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The concept of managerial discretion provides a theoretical fulcrum for resolving the debate about whether chief executive officers (CEOs) have much influence over company outcomes. In this paper, we operationalize and further develop the construct of managerial discretion at the national level. In an empirical examination of 15 countries, we find that certain informal and formal national institutions—individualism, tolerance of uncertainty, cultural looseness, dispersed firm ownership, a common-law legal origin, and employer flexibility—are associated with the degree of managerial discretion available to CEOs of public firms in a country. In turn, we show that country-level managerial discretion is associated with how much impact CEOs have on the performance of their firms. We also find that discretion mediates the relationship between national institutions and CEO effects on firm performance. Finally, we discuss two inductively derived institutional themes: autonomy orientation and risk orientation. Copyright © 2010 John Wiley & Sons, Ltd.

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INTRODUCTION

How much, and under what conditions, do executives matter? Most of the work in strategic management, from early treatises on executive behavior (Barnard, 1938) to empirical studies on executive effects (e.g., Sanders, 2001; Wiersema and Bantel, 1992), proceeds on the assumption that senior leaders significantly shape the form and fate of their firms. In contrast, work in organization theory, particularly the logics of population ecology (Hannan and Freeman, 1977) and neoinstitutionalism (DiMaggio and Powell, 1983), often asserts that executives are limited in what they can do because of environmental, normative, and inertial constraints.

In an attempt to reconcile these opposing perspectives, Hambrick and Finkelstein (1987) introduced the concept of managerial discretion, or latitude of managerial action, as a way to understand whether, and when, executives have strategic leeway (Child, 1972). As originally conceptualized, a manager's degree of discretion emanates from three levels: the individual (e.g., political acumen), the organization (e.g., a passive board), and the environment (e.g., industry growth). A growing body of research has begun to explore the construct of discretion at each of these three levels (e.g., Carpenter and Golden, 1997; Finkelstein and Boyd, 1998; Hambrick and Abrahamson, 1995). So far, however, environmental determinants of discretion have been conceptualized primarily in terms of industry characteristics. Only recently has consideration been given to the idea that national-level factors might also greatly influence the discretion of executives (Crossland and Hambrick, 2007).

This dearth of research into national-level sources of managerial discretion is a surprising void, given abundant evidence that organizational phenomena vary widely across countries. Comparative studies of corporate leaders (Mannari, 1974; Muna, 1980; Fidler, 1981), as well as analyses of cross-national differences in corporate governance, the role of government, and the

impact of globalization (e.g., Aguilera and Jackson, 2003; Griffiths and Zammuto, 2005; Kim and Prescott, 2005; Makino, Isobe, and Chan, 2004; Spencer, Murtha, and Lenway, 2005), all strongly suggest that managerial discretion is not uniform cross-nationally. In this vein, in the introduction to the GLOBE study of cultural values, House and Javidan (2004:10) wrote:

We also believe that the amount of influence, prestige, and privilege given to leaders varies widely by culture. In some cultures, there are severe constraints on what leaders can and cannot do. In other cultures, leaders are granted a substantial amount of power over followers and are given special privileges and high status.

The idea that managerial discretion differs among countries might also help to explain some of the many differences we observe in the status and behavior of executives in different parts of the world. For example, chief executive officers (CEOs) in some countries (e.g., the United Kingdom, the United States) receive higher levels of total compensation and a higher proportion of incentive-based compensation than CEOs in other countries (e.g., Japan, South Korea) (Tosi and Greckhamer, 2004). Just as firm-level differences in discretion affect the magnitude and form of CEO compensation (Finkelstein and Boyd, 1998), national-level discretion might help explain pay profiles as well. Moreover, there is evidence of cross-national differences in executive departure rates (Lucier, Schuyt, and Tse, 2005), stock market responses to executive actions (Lee, 1997), board composition (Li and Harrison, 2008), and CEO strategic rationales (Witt and Redding, 2009). Each of these phenomena might be better understood by considering the possibility that managers have more leeway in some countries than in others.

A recent paper by Crossland and Hambrick (hereinafter C&H) (2007) represents, to our knowledge, the first attempt to consider how managerial discretion might differ across countries. These authors found that U.S. CEOs had a larger impact on firm performance than did a sample

of German and Japanese CEOs, arguing that these differences in CEO effects were due to differences in cultural values, firm ownership profiles, and governance across the three countries.

We build on C&H's (2007) introductory study and attempt to surmount some of its limitations. First, and most importantly, C&H argued that managerial discretion is the primary mechanism through which national institutions influence CEO effects on organizational outcomes, but the authors did not provide any measures or direct evidence of discretion. Second, C&H were therefore unable to empirically relate national institutions, discretion, and CEO effects on performance. Third, C&H examined only three countries, limiting the persuasiveness of the patterns observed. Fourth, although C&H discussed the role of several institutions, they did not provide a comprehensive theoretical statement outlining the mechanisms by which informal and formal institutions, respectively, shape discretion.

Our paper makes several contributions. First, using new institutional theory (North, 1990), we discuss in detail the mechanisms that cause informal and formal institutions to shape discretion. Second, we provide specific hypotheses concerning the effects of several informal institutions—cultural values of individualism, uncertainty tolerance, and power distance, as well as cultural looseness—and several formal institutions—ownership dispersion, legal origin, and employer flexibility—on discretion. We test these hypotheses using a 15-country sample, employing systematic data on national institutions drawn from multiple sources and ratings of discretion derived from a panel of international mutual fund managers (and validated by a panel of international business scholars). Third, we relate national differences in managerial discretion to corresponding differences in CEO effects on firm performance, using a 10-year sample of 746 public firms headquartered in the 15 countries. Finally, we demonstrate the mediating role of discretion in these relationships. Our orienting framework is shown in Figure 1.

Figure 1 about here

MANAGERIAL DISCRETION

In Hambrick and Finkelstein's conceptualization, discretion exists to the extent that an executive has an array of alternative actions that all 'lie within the zone of acceptance of powerful parties' (1987: 378). As such, discretion is a function of two broad factors. First, to have discretion the executive must have (and be aware of) an array of alternatives that key stakeholders would view as relatively unobjectionable. Discretion is reduced to the extent that potential actions would be seen as excessively risky or radical, as contravening formulas that are widely believed to be efficacious, or in basic violation of stakeholder expectations.¹ Second, discretion exists to the extent that stakeholders lack the power to block or nullify objectionable actions, and/or lack the power to sanction the executive for taking such actions (quite apart from how stakeholders might respond once the consequences of executive actions become evident). In sum, managerial discretion is a joint product of stakeholder open-mindedness about executive actions and stakeholder inability to block objectionable actions.

As Hambrick and Finkelstein (1987) emphasized, discretion is sometimes explicit but is often implicit. Executives may face some express prohibitions, but they may also face unspoken, consensually understood limits on their actions.

As a way to make the concept of discretion more tangible, it is useful to clarify and illustrate the three distinct loci of managerial discretion: the executive, the organization, and the environment. Some executives are able to envision or create more alternatives than are others, due to differing degrees of creativity, locus of control, or other personal attributes (e.g.,

¹ Hambrick and Finkelstein (1987) referred to 'radicality' to describe the quality of an action that pushes it outside stakeholders' zones of acceptance; we reinterpret this original criterion more broadly, as 'objectionability.'

Carpenter and Golden, 1997). Some organizations give their executives more of a free hand than do others; for instance, organizational slack, the absence of an entrenched culture, or a passive board would all confer managerial discretion (Boyd and Salamin, 2001). And some environments afford more choice and variety than do others; for example, differentiable product categories (as opposed to commodity products), rapidly growing industries, and unregulated industries all provide relative discretion (Hambrick and Abrahamson, 1995). C&H's (2007) recent study, noted above, is the first to consider the idea that environmental influences on discretion may also be fruitfully examined at the national level.

In the next sections, we further develop the theoretical underpinnings of C&H's (2007) suggestive work. We discuss in detail the socio-cognitive mechanisms through which informal and formal institutions will influence discretion, thus providing a theoretical link between new institutional theory and managerial discretion. We then explicitly hypothesize the impact on discretion of a range of informal and formal national institutions, some of which C&H discussed (e.g., individualism, firm ownership structure) as well as several that have not yet been considered (e.g., cultural looseness, legal origin).

National institutions and managerial discretion

Institutional research has a rich history in the social sciences. Originating around the turn of the twentieth century in the fields of political science (Willoughby, 1896; Wilson, 1889), sociology (Durkheim, 1893; Weber, 1924), and economics (Veblen, 1909), institutional research may be viewed in part as a reaction to prevailing neoclassical theories favoring the universal over the particular and the abstract over the concrete (Scott, 2001). Institutional arguments focus on the importance of social beliefs, values, relations, constraints, and expectations.

New institutional economics, perhaps the most prominent subdomain of institutional research, argues that the main purpose of institutions is to reduce uncertainty (e.g., Coase, 1998; North, 1990: 25). Socioeconomic interaction among individuals and organizations holds the potential for dizzying complexity, were it not for the supporting bedrock of procedure, precedent, and mutual expectation. Institutions provide this bedrock, thus reducing uncertainty. But if expectations provide guidelines, they also exert constraint (Nelson and Nelson, 2002). In this vein, we adopt North's (1991: 97) definition, 'Institutions are the humanly devised constraints that structure political, economic, and social interaction.'

Informal institutions

Institutions may be either formal or informal. Formal institutions are explicit and codified, consisting of the political rules, economic rules, and contracts that govern property rights and transactions in a society (North, 1990: 47). In contrast, informal institutions are tacit, usually unwritten, and exist outside the legal system (Helmke and Levitsky, 2006). They consist of the conventions, norms, and values that shape interactions in a society. Whereas formal institutions are enforced by the state, informal institutions are enforced by the society's members. However, informal institutions are arguably more primary and deep-seated than formal institutions (Keefer and Knack, 2005). In every society—ancient and modern, primitive and advanced—individuals in groups have constrained their behavior in order to provide structure to interactions (Colson, 1974). Informal institutions may be defined as 'socially shared rules, usually unwritten, that are created, communicated, and enforced outside officially sanctioned channels' (Helmke and Levitsky, 2006: 5).

Informal institutions affect behavior via a problem-based process, built on bounded rationality, path-dependence, and learning. Individuals use rule-based mental models, or schema, to interpret and classify environmental stimuli (Walsh, 1995), which in turn serve a problem-solving function (Mantzavinos, North, and Shariq, 2001). Over time, within a society, particular responses (e.g., reciprocation) to particular actions (e.g., gift giving) will be positively reinforced, to the point where these practices become schematic. When faced with ambiguous stimuli, individuals rely on those mental models that have been reinforced to the greatest degree. Thus, social order emerges as a result of individuals observing social codes of behavior, respecting norms, and following societal rules (Mantzavinos, 2001: 131). These informal codes are powerful influencers of behavior (Geletkanycz, 1997).

How might social norms affect managerial discretion? Recall that an executive has discretion to the degree that an array of potential actions falls within the 'zone of acceptance' of powerful stakeholders (Hambrick and Finkelstein, 1987: 378). Constraint exists when an action falls outside this zone of acceptance. As noted above, constraint is a function of: 1) the degree to which an action is seen as objectionable, and 2) the relative power of those who perceive the action as objectionable. Of these two determinants of constraint, informal institutions will more strongly affect the perceived objectionability of actions.

An action will be perceived as objectionable to the extent that it contravenes accepted business practices and, more broadly, to the extent that it contravenes social norms. In turn, the perception of an action's objectionability will be a function of prevailing informal institutions. Societies that differ in their norms and conventions will correspondingly differ in the degree to which certain executive actions are seen as objectionable. Actions that might be seen as benign and incremental in one society will be perceived as threatening and quantum in another. We now

discuss the impact of specific informal institutions: three cultural values (individualism, uncertainty tolerance, power distance) and a more general measure of normative constraint in a society (cultural tightness vs. looseness).

Individualism

The social norm concerning autonomous vs. consensus-based actions has been identified as arguably the most fundamental cultural value (Aguinis and Henle, 2003; Gelfand *et al.*, 2004; Triandis, 1994).² Societies characterized by individualistic values will provide broader zones of acceptance for executives (C&H, 2007). These societies will tend to permit individual initiative and tolerate unilateral decision making. CEOs, as formal embodiments of the empowered individual, will be given considerable leeway in deciding on the direction—or redirection—of their firms. In contrast, CEOs operating in more collectivistic societies, characterized by norms of consensus and compromise, will have less discretion. Members of society—as well as members of the firm itself— will have strong expectations that decisions must be derived from a consultative process. Therefore, managerial discretion will vary cross-nationally in line with social norms concerning autonomous vs. consensus-based actions:

Hypothesis 1: The stronger the value of individualism in a country, the greater the discretion available to CEOs of firms headquartered in that country.

Uncertainty tolerance

Also affecting the degree of discretion accorded to executives is a society's norms regarding uncertainty. Some societies have a relatively high tolerance for quantum actions, means-ends

² This cultural dimension has been identified in a wide range of cultural typologies, including: individualism vs. collectivism (Hofstede, 2001), integration (Chinese Culture Connection, 1987), autonomy vs. conservatism (Schwartz, 1994), individualism vs. communitarianism (Trompenaars and Hampden-Turner, 1998), in-group collectivism, and institutional collectivism (House *et al.*, 2004).

ambiguity, and unpredictability (Hofstede, 2001; Schwartz, 1994). Societies with greater tolerance for unpredictable actions, and the uncertainty associated with those actions, will provide broader zones of acceptance for executives (C&H, 2007). Such societies will permit senior executives to consider and implement wider ranges of actions. A given action (e.g., substantially altering the scope of a company) may not be perceived as particularly radical or objectionable in these societies.

In contrast, in societies characterized by low uncertainty tolerance, executives will have less discretion. Executives will be expected to take strategic actions that are consistent with the past, that do not stray far from the central tendencies of the firm's industry or sector, that are relatively incremental, and that hedge against risk. Even in the face of environmental turbulence or poor performance, executives in societies with low tolerance for uncertainty will be restricted in their ability to embark in new directions. Thus:

Hypothesis 2: The stronger the value of uncertainty tolerance in a country, the greater the discretion available to CEOs of firms headquartered in that country.

Power distance

A third fundamental informal institution concerns the relative status of leaders in a society. In societies where leadership is highly privileged and individual leaders are accorded great respect, discretion should be greater (House and Javidan, 2004). Although power distance, as typically identified in cultural values research (e.g., Hofstede, 2001; House *et al.*, 2004) refers to acceptance of inequality in general and is thus broader than simply the power of executive leaders, this cultural value is still suggestive of the status of leadership.

In societies where power distance is greater, stakeholders will be more likely to allow far-reaching executive actions, more likely to acquiesce in the face of executive actions, and less

likely to question decision makers or the basis upon which actions are taken. In societies where leaders are less lofty, radical strategic actions are far more likely to come under scrutiny. When leaders are seen as mere facilitators or figureheads and less as empowered decision makers, they will experience greater normative constraint on their actions. Thus:

Hypothesis 3: The stronger the value of power distance in a country, the greater the discretion available to CEOs of firms headquartered in that country.

Cultural looseness

Moving beyond specific values, an emerging stream of research has begun to explore the construct of cultural tightness-looseness, an encompassing descriptor of the extent to which social norms constrain individuals in different societies (Gelfand, Nishii, and Raver, 2006; see also Berry, 1967; Pelto, 1968; Triandis, 1989). Defined as ‘the strength of social norms and the degree of sanctioning within societies’ (Gelfand *et al.*, 2006: 1226), cultural tightness reflects the extent to which norms are widely shared within a society and the extent to which transgressions will lead to repercussions.

Societies characterized by tight cultures, or strong norm enforcement, will provide clear expectations for how executives should act in particular situations. Norm transgression will be recognized and stringently sanctioned in such environments, leading to greater constraints on corporate leaders. In contrast, societies with loose cultures, or weak norm enforcement, will allow executives broader latitudes of action. In these societies, standards of behavior will be more ambiguous and hence less restrictive. Moreover, norm transgressions will be less obvious and therefore less likely to meet with repercussions, leading to more latitude of action. Thus:

Hypothesis 4: The greater the degree of cultural looseness in a country, the greater the discretion available to CEOs of firms headquartered in that country.

Formal institutions

Formal institutions may be defined as, '*rules and procedures that are created, communicated, and enforced through channels widely accepted as official*' (Helmke and Levitsky, 2004: 727, italics added). Similar to informal institutions, formal institutions also reduce uncertainty and occupy a problem-solving role. However, the process is more explicit and relies on the central role of the state, which has the power of legitimate coercion (Lindblom, 1977; Scott, 2001: 126-129). The state protects individuals' property rights, or 'rights of action' (Mantzavinos, 2001: 148). So, while individuals may observe informal rules to avoid social stigmatization, they observe formal rules to avoid state-controlled sanctions. As such, discussion of the effects of formal institutions often focuses on which party has the strongest legal rights.

How will a society's formal rules affect managerial discretion? Recall that executives' actions fall within stakeholders' zones of acceptance as a function of the perceived objectionability of the actions and the relative power of those perceiving the actions as objectionable (Hambrick and Finkelstein, 1987). Formal institutions will more strongly affect the latter, the relative power of firm stakeholders. To understand how discretion will differ as a result of formal institutions, we need to consider the legal rights and responsibilities of executives relative to key stakeholders across different national systems.

Ownership dispersion

Countries differ greatly in the degree to which their public corporations are closely held by few investors vs. widely held by many investors (Gedajlovic and Shapiro, 1998). Concentrated ownership provides shareholders with both the incentive and means to impose their interests on managers (Demsetz and Lehn, 1985), whether those interests are related to operational stability,

lifetime employment, growth, or some other desired outcome. Conversely, when ownership is dispersed, the capacity to influence a firm's actions and outcomes shifts toward its executives (C&H, 2007).

Where ownership is concentrated, CEOs' latitudes of action (and their latitudes of objectives (Shen and Cho, 2005)) are far more likely to be constrained (Jensen and Meckling, 1976). If a CEO pursues a course of action at odds with the expectations of major owners, the executive is much more likely to experience resistance than if there were no such major owners. In contrast, when ownership is diffuse, shareholder influence over the running of a firm is more muted. When there are no controlling owners, executives will have a greater opportunity to pursue their desired strategic actions. Note that we are not suggesting that all firms in a given country will have the exact same ownership structure. Instead, the central tendency of ownership patterns in a country will position that country somewhere on the continuum of concentrated vs. dispersed ownership, with commensurate implications for executive discretion. Thus:

Hypothesis 5: The greater the ownership dispersion in a country, the greater the discretion available to CEOs of firms headquartered in that country.

Legal origin

In a comprehensive research stream, La Porta and colleagues (e.g., La Porta, Lopez-de-Silanes, and Shleifer, 1999; La Porta *et al.*, 1997, 1998, 2002) have investigated the links between law and finance. This collective work focuses on the fundamental distinction between the common-law tradition, derived from English law (e.g., Australia, the United Kingdom), and the civil-law tradition, derived from Roman law (e.g., France, Germany) (Glaeser and Shleifer, 2001; van Caenegem, 1987). Common law evolved primarily as a way to protect the rights of private property owners (Mahoney, 2001), while the civil-law system developed more as a means of

solidifying state power (North and Weingast, 1989). In common-law countries, the rights of property owners (e.g., a firm's shareholders) are privileged over those of other stakeholders; in civil-law countries, by contrast, executives and directors are explicitly required to take into account the interests of all stakeholders, including employees, customers, and society at large. Thus, the legal mandate of a CEO in a common-law country can be largely encapsulated in the phrase, 'maximize shareholder wealth.' The expectations of a CEO in a civil-law country cannot be expressed as pointedly (Johnson *et al.*, 2000).

CEOs in common-law countries are therefore legally charged with pursuing a particular end but are given considerable leeway in the means to do so. On the other hand, the constraints on CEOs in a civil-law country exist at the level of means, not ends (cf. Shen and Cho, 2005); strategies and policies are allowable only if they meet with acceptance by, or balance the needs of, multiple constituencies. For example, closing a manufacturing plant or moving production abroad might be beneficial for owners; but if such an action would harm a large body of domestic employees or perhaps an entire region, it is more likely to be protested, delayed, and possibly shelved entirely in a civil-law country. In sum, the CEOs of firms in common-law countries will tend to have greater discretion than CEOs of firms in civil-law countries.

Hypothesis 6: Countries with a common-law legal origin (compared to those with a civil-law origin) will provide greater discretion to CEOs of firms headquartered there.

Employer flexibility

Executives have flexibility to the extent they are legally allowed to easily alter the composition and deployment of their employee populations (Black, 2001; Klau and Mittelstadt, 1986).

Executives lack flexibility when employee-employer relations are heavily determined by historical agreements, legislation, and other nonmarket factors (Estevez-Abe, Iversen, and

Soskice, 2001). The less employer flexibility in a country, the less discretion available to CEOs. Facing significant legal restrictions, executives will have limited ability to furlough or reassign employees—even in periods of downturn or strategic restructuring. For example, large-scale layoffs, a typical turnaround tactic for Anglo-American firms (Lee, 1997), are considerably less common in Continental European nations (Gangl, 2003) and often create enormous upheaval when they do occur (Ewing and Hibbard, 2005).

Moreover, in some countries, hiring practices are complex and onerous, such that CEOs may find growth almost as difficult to cope with as downturns. If CEOs know that it will be cumbersome to hire new employees, and virtually impossible to lay off employees, they will be more likely to seek steady corporate growth within narrow and stable limits, and to avoid quantum or risky strategic actions (Hall and Soskice, 2001: 39). Thus:

Hypothesis 7: The greater the level of employer flexibility in a country, the greater the discretion available to CEOs of firms headquartered in that country.

National institutions, managerial discretion, and CEO effects

Of all the implications of managerial discretion, the most straightforward—and arguably most important—is in determining whether executives have much effect on the performance of their companies (Hambrick and Finkelstein, 1987). If CEOs are greatly constrained, the performance of their firms during their tenures will be overwhelmingly, if not totally, due to factors beyond the CEOs themselves: the health and position of their companies prior to their tenures, the ups and downs of their industries, and the ups and downs of the overall economy (Hannan and Freeman, 1977; Lieberman and O'Connor, 1972). If, on the other hand, CEOs have considerable discretion, if they have the leeway to take idiosyncratic and bold actions, then the effects of CEOs on company outcomes will be more pronounced—for good and for ill.

A substantial stream of research has examined whether and when CEOs have much effect on corporate performance (e.g., Mackey, 2008; Thomas, 1988; Weiner and Mahoney, 1981). Several studies have demonstrated that executive effects depend on industry-level factors (Finkelstein and Hambrick, 1990; Lieberman and O'Connor, 1972; Wasserman, Nohria, and Anand, 2001). Just as the magnitude of CEO effects depends on industry-level discretion, so too should it vary when national contexts are considered (C&H, 2007). In countries where managerial discretion is limited, CEOs will have minimal influence over company outcomes. With limited ranges of choices, CEOs will rarely place any distinctive marks on their firms. Conversely, in countries where managerial discretion is more abundant, CEOs will have more influence over performance outcomes. Allowed to take distinctive actions that depart from those of their predecessors and peers, CEOs in high discretion countries will have an increased potential to affect performance. Thus:

Hypothesis 8: The greater the amount of managerial discretion in a country, the greater the variance in firm performance attributable to CEOs.

We have argued that cross-national differences in national institutions will be associated with differences in managerial discretion. In turn, we have argued that discretion will be associated with greater CEO effects on firm performance. Logically, this implies that discretion occupies a mediating role between institutions and CEO effects. Contextual constraints, arising both from social norms and legal rules, will affect CEOs' latitudes of actions, which in turn will affect CEO-attributable variance in firm performance. Thus:

Hypothesis 9: Managerial discretion will mediate the relationship between national institutions and the variance in firm performance attributable to CEOs.

EMPIRICAL ANALYSIS I: NATIONAL INSTITUTIONS AND MANAGERIAL DISCRETION

For clarity, we divide our empirical report into two sections. In this first section, we present the methods and results for tests of our hypotheses relating national institutions to managerial discretion (Hypotheses 1–7). In the second section, we present the methods and results for tests of our hypotheses relating discretion to CEO effects on firm performance (Hypotheses 8 and 9).

Methods

Selection of countries for study

We selected for study 15 countries: Australia, Austria, Canada, France, Germany, Italy, Japan, (South) Korea, the Netherlands, Singapore, Spain, Sweden, Switzerland, the United Kingdom, and the United States. These countries have been widely used in previous studies of cross-national business phenomena (e.g., La Porta *et al.*, 1997; Schwartz, 1994), and they account for the overwhelming majority of publicly traded firms worldwide and of world gross domestic product. For example, across the years of our sample (described below), the combined market capitalization of public firms from these 15 countries was 90 percent of the total capitalization of all firms worldwide (World Bank, 2010).

Measurement of managerial discretion

Because managerial discretion is intangible and not directly observable, researchers have used an array of proxy measures (comprehensively reviewed by Boyd and Gove, 2006). The most common approach has been to use theorized antecedents, which can be more concretely observed, to impute degrees of managerial discretion—but without measuring discretion itself. For example, some researchers have used industry-level antecedents of discretion, such as market growth and regulatory conditions, to describe environments as high vs. low discretion

(e.g., Halebian and Finkelstein, 1993; Magnan and St-Onge, 1997). Some have used organization-level antecedents—such as advertising or research and development intensity, sales volatility, slack, or the company’s overall strategy—to impute levels of discretion (e.g., Boyd and Salamin, 2001; Finkelstein and Boyd, 1998; Rajagopalan, 1997).³

Because one of our explicit goals is to study the association between national institutions and managerial discretion, it is not suitable for us to simply rely on the institutions as a reflection of discretion. For example, uncertainty tolerance creates an environment where there is greater acceptance of means-ends ambiguity—and thus greater discretion—but is not discretion itself. Instead, we need separate measures of institutions on the one hand and discretion on the other.

To generate discretion scores for individual countries, we followed the approach of Hambrick and Abrahamson (1995), who asked an expert panel to rate the degree of managerial discretion in various settings. Hambrick and Abrahamson (1995) asked securities analysts and academics to rate the degree of managerial discretion in several industries with which they were familiar; their ratings exhibited strong consistency, and they were associated with several theorized industry-level determinants of discretion (e.g., demand growth). The advantages of an expert panel, if appropriately selected, are that the panelists can provide informed ratings of discretion in multiple, comparative contexts and with relative objectivity.

We sought country-level ratings of managerial discretion from prominent, long-tenured managers of international equity mutual funds.⁴ These individuals have considerable expertise in cross-national business phenomena and are highly trained and incentivized to gather and apply this knowledge in their professional activities. To identify the members of our expert panel, we

³ Another approach has been to ask executives themselves about their perceptions of discretion (e.g., Carpenter and Golden, 1997), which has the benefit of direct measurement but the drawback of possibly eliciting self-serving responses.

⁴ We thank two anonymous reviewers and the editor for their suggestions in helping us refine our measure of managerial discretion.

used Morningstar's mutual fund screener and applied several criteria. We searched for international mutual funds with: a) assets over US\$100 million, b) investments in at least five of the countries in our sample, and c) more than one-third of fund assets invested in non-U.S. equities. To ensure that our panelists had significant expertise, we considered only managers who had at least 10 years experience in mutual funds and at least five years experience in managing an international fund. This screen generated a total of 25 funds and 32 fund managers. Of these 32 managers, eight (25%) agreed to participate in our study and provided usable responses.

To test for nonresponse bias, we determined whether the response rate differed by fund size or performance. The median size (total assets) of the funds whose managers responded was \$461m, while the median size of the funds whose managers did not respond was \$370m. The median performance (fund returns in 2009) of the responding managers' funds was 34.6 percent and for the nonresponding managers' funds was 33.6 percent. By Mann-Whitney U test, these sets of values were not significantly different. Additionally, we assessed whether response rate differed as a function of a fund manager's experience. The median experience as a fund manager of those who responded was 10 years, vs. nine years for nonrespondents. Again, these values were not significantly different.

Each panelist was first given a short description of managerial discretion:

Managerial discretion is defined as '*latitude of managerial action*,' or the extent to which CEOs are able to influence the actions and outcomes of their firm. A CEO with high discretion has a wide range of strategic actions from which to select and a wide range of options for implementing strategic actions. In contrast, a CEO with low discretion has a much narrower range of strategic options and is greatly restricted in how strategic actions may be implemented.

Each panelist was then asked to rate, on a 1–7 scale, the degree of discretion available to CEOs in the 15 countries identified above. Specifically, panelists were asked:

Listed below are 15 countries. Please use the seven-point scale to indicate the extent to which—in your estimation—CEOs of public firms headquartered in each country possess managerial discretion. If you are unfamiliar with a country or unsure about its discretion characteristics, please select ‘not sure.’ (Since the conditions affecting discretion might vary over time, it may be useful to know that our period of interest is 1996–2005.)⁵

The eight panelists provided a total of 97 country ratings, with each country receiving between four and eight ratings (an overall mean of 6.33 ratings per country). See Table 1 for mean discretion scores for all 15 countries. The intraclass coefficient, ICC(3,k) (Shrout and Fleiss, 1979) was 0.93, indicating reliability (e.g., Chen, Farr, and MacMillan, 1993; Taggar, 2002).

Table 1 about here

We investigated whether the mutual fund managers’ geographic origins influenced their ratings. Three of the eight respondents were born outside the United States (the Netherlands, Norway, and Japan), while five of the respondents were born within the United States. We calculated the mean discretion score for each country for each of these two groups of fund managers. The correlation between these two sets of raters was 0.83 ($p < 0.01$), suggesting considerable agreement. Additionally, the Kolmogorov-Smirnov two-sample test showed that the discretion scores from the two groups did not differ significantly.

As a validation test, we compared the ratings of the fund managers to the ratings of another panel of 26 prominent academic experts in cross-cultural and international management. (The detailed methods for generating this academic panel are available from the authors.) The academic panel also showed a high degree of interrater consistency in their discretion ratings for individual countries (ICC(3,k) = 0.90). Moreover, the mean country-level discretion scores of the

⁵ We identified this time period to correspond with the sample frame used to construct our dependent variable (described herein).

academics were highly correlated with those of the fund managers ($r = 0.87$; $p < 0.01$). We do not use the academic panel to test our hypotheses, as the academics were more likely to be aware of differences in national institutions, which may have entered into their discretion ratings. But their ratings of discretion strongly corroborate those of the mutual fund managers.

Informal national institutions

We used Hofstede's (2001) scores for three informal institutions: *individualism*, *uncertainty tolerance*,⁶ and *power distance* (shown in Table 1). Hofstede generated these scores through ecological factor analysis, meaning that they are reflections of national-level values, rather than the values of the average member in a society (see Aguinis and Henle (2003), Kirkman, Lowe, and Gibson (2006) for more discussion). Hofstede's measures remain the most widely used in the cultural values literature (Kirkman *et al.*, 2006), thus allowing a comparison of our results to others in this stream.

We operationalized *cultural looseness* by using the reverse of Gelfand and colleagues',⁷ national-level scores for cultural tightness. A sample item from the cultural tightness index is: 'People agree upon what behaviors are appropriate vs. inappropriate in most situations in this country.' For three of our countries, the Gelfand *et al.* research did not collect cultural tightness-looseness scores: Canada, Sweden, and Switzerland. We imputed cultural looseness scores to each based on geographical-historical proximity.⁸ We assigned Canada the same score as the

⁶ We used the reverse of Hofstede's uncertainty avoidance score (i.e. the negative value of the raw score) to create our *uncertainty tolerance* measure.

⁷ Data from Gelfand MJ, Raver JL, Nishii LH, Leslie L, Duan L, Lim BC, Country collaborators. 2007. Assessment of cultural tightness-looseness across nations, unpublished research scale.

⁸ A stream of management research has examined the question of whether, and how, countries are clustered according to institutional and organizational similarity. This research strongly suggests that countries' scores on a range of national institutional measures are not distributed randomly, but instead covary in consistent patterns. For example, Ronen and Shenkar (1985) examined eight studies that explored country clusters in terms of attitudinal data. These authors found that countries were clustered into recognizable patterns based on commonalities in

United States, Sweden the same score as Norway, and Switzerland the mean score of France, Germany, and Italy (the cultural looseness scores of these three countries were nearly identical).

Formal national institutions

We used data from La Porta *et al.* (1999) to operationalize *ownership dispersion*. For a range of countries, these authors calculated the proportion of firms that were widely held. A firm was considered to be widely held if no shareholder's direct and indirect control rights exceeded a certain threshold. La Porta and colleagues (1999) generated this measure four ways: for two different control thresholds—10 percent and 20 percent—and two different groups of firms—medium-sized (those with market capitalizations above, but as close as possible to, US\$500m) and large firms (the largest firms in each country). Our ownership dispersion measure was the mean of these four proportions.

Legal origin was operationalized by using La Porta *et al.*'s (1999) common-law vs. civil-law dichotomy. Each country was designated as having either a common-law legal tradition (coded as 1) or a civil-law legal tradition (coded as 0).

We operationalized *employer flexibility* based on Estevez-Abe *et al.*'s (2001: 165) index of employment protection, which was constructed using three factors: employment protection legislation, collective dismissals protection, and company-based protection. Estevez-Abe *et al.*'s (2001) data provide this index for 12 of our 15 countries. Scores for the remaining three countries (Korea, Singapore, and Spain) were imputed based on their raw scores on Botero *et*

language and religion, shared geographic borders, and a history of socio-political interaction over centuries. Examples of these clusters are: Anglo (e.g., Ireland, New Zealand, the United Kingdom, the United States), Germanic (e.g., Austria, Germany, Switzerland), and Nordic (e.g., Denmark, Norway, Sweden). Recent research in economics (Freeman, 2002) and political science (Paldam, 2002) has also investigated the sources and implications of such country clusters.

al.'s (2004: 1362–1363) 'employment laws index.' Botero *et al.*'s original data appear to be older than Estevez-Abe *et al.*'s, so we have used the latter where possible.

Analysis

To test our hypotheses relating individual national institutions to managerial discretion (Hypotheses 1–7), we used fixed-effects regression analysis in which the dependent variable was the expert panelists' ratings of country-level managerial discretion (a total of 97 distinct ratings), and the independent variables were the respective national institution scores. We used fixed-effects regression because (as noted earlier) panelists varied in how many countries they rated, and in their general rating tendencies (i.e., how low or high their ratings tended to be overall). In comparison to ordinary least squares (OLS) regression, fixed-effects regression addresses such heterogeneity and controls for each panelist's distinctive rating pattern, giving each rater a unique intercept (Kennedy, 2008: 282–283).

Results

Table 2 contains descriptive statistics and correlations among managerial discretion and all institutional variables. At this simple bivariate level, we see that all the institutions that were hypothesized to be positively related to discretion exhibited significant positive signs—except for power distance. Moreover, there were substantial intercorrelations among the national institutions, suggesting that they cohere and are not completely distinct from each other, and that multivariate regression could suppress the statistical effects of the individual institutions on discretion—a challenge we further address below.

Table 2 about here

Table 3 contains results from our fixed-effects regressions. Hypothesis 1 argued that more individualistic societies would be associated with greater levels of managerial discretion. As can be seen in Model 1, the relationship between individualism and discretion was positive and significant ($p < 0.01$), supporting Hypothesis 1. Hypothesis 2 argued that societies with more tolerance of uncertainty would be associated with greater levels of discretion. Model 2 shows that this prediction was also supported ($p < 0.01$). However, Hypothesis 3, which argued that societies with greater power distance would be associated with greater discretion, was not supported; indeed, the relationship was significant in the opposite direction as hypothesized. Hypothesis 4, which argued that cultural looseness would be positively associated with discretion, was supported in Model 4 ($p < 0.01$).

Table 3 about here

Moving to formal institutions, Hypothesis 5 argued that societies with dispersed ownership structures would tend to have greater managerial discretion. Model 5 in Table 3 provides support for this Hypothesis ($p < 0.01$). Hypothesis 6 argued that a common-law legal origin would be associated with higher levels of discretion than a civil-law origin. Model 6 shows that the coefficient for legal tradition was positive and significant ($p < 0.01$), supporting Hypothesis 6. Hypothesis 7, which argued that employer flexibility would be positively related to managerial discretion, was supported in Model 7 ($p < 0.01$).

Multivariate analyses

As our study is the first to simultaneously consider this encompassing set of national institutions, we had no way of anticipating that the intercorrelations among the institutions would be as high as they were. Obviously, with several correlation coefficients above 0.60, multivariate regression would be inappropriate, masking the true effects of each of the respective national institutions. When we conducted such an analysis including all six institutions that exhibited significantly positive bivariate associations with discretion (thus excluding power distance), three of the six were significant: uncertainly tolerance ($p < 0.01$); cultural looseness ($p < 0.01$); and ownership dispersion ($p < 0.05$). As noted, however, the lack of significance for the other institutions—such as individualism—did not indicate their lack of importance in explaining discretion, but instead was due to their commonality with the other institutions. Our challenge, then, was to consider the various institutions simultaneously, but in a way that overcomes the problem of multicollinearity.

A careful examination of the correlations (Table 2) among the six institutions that are individually associated with discretion (thus excluding power distance) clearly suggests a way to parsimoniously use all six simultaneously, which itself yields theoretical insight. Namely, it appears that two distinct ‘institutional themes’ reside among the six specific institutions. One theme, which might be termed ‘autonomy orientation,’ consists of individualism and cultural looseness; the correlation between these two institutions is 0.73. The other theme, which we call ‘risk orientation,’ consists of four institutions that reflect various aspects of tolerance for change and encouragement of risk taking: uncertainly tolerance, legal origin, employer flexibility, and ownership dispersion. The average correlation among these four institutions is 0.59. As a sign of the distinctness, or discriminant validity, between these two themes, the average correlation among the cross-theme institutions is only 0.17. Thus, by departing from the formal vs. informal categorization, we are able to identify two broad contextual constructs that align with the basic

conceptual determinants of managerial discretion: the degree to which a country allows individuals to take unilateral, idiosyncratic actions and the degree to which a country tolerates bold, deviant, and risky actions.

We used partial least squares (PLS) analysis to confirm these intuitions (Fornell and Cha, 1994; Geladi and Kowalski, 1986; Wold, 1985). PLS is a form of structural equation modeling that is particularly useful for small samples and in early stages of theory development when the connections among variables have not been widely explored.⁹ We used SmartPLS 2.0.M3 software (Ringle, Wende, and Will, 2005) to run our PLS analyses.

We assumed that our two institutional themes, autonomy orientation and risk orientation, as well as managerial discretion, were latent constructs, each with a number of reflective indicators. For autonomy orientation, the reflective indicators were individualism and cultural looseness. For risk orientation, the reflective indicators were uncertainly tolerance, ownership dispersion, legal origin, and employer flexibility. For managerial discretion, we used eight reflective indicators: the national-level ratings provided by our expert panelists (i.e., each panelist's set of ratings was treated as a single reflective indicator). We used PLS analysis to determine: 1) how strongly each individual indicator loaded onto its underlying latent construct (the measurement model), and 2) whether the paths among the underlying constructs were themselves significant (the structural model).

Figure 2 shows the results of the PLS analysis. The three latent constructs are represented in ovals, while the reflective indicators are in rectangles. The number in each rectangle is the factor loading of a given indicator (standard error in parentheses). Each institution has a factor loading on its respective theme well above 0.60, suitable for newly developed constructs

⁹ See Hulland (1999), Sarkar, Echambadi, and Harrison (2001), Tsang (2002), and Zott and Amit (2008) for examples of the use of PLS techniques in strategic management research.

(Birkinshaw, Morrison, and Hulland, 1995; Hulland, 1999), and all except uncertainty tolerance have loadings above even the 0.70 threshold for established scales (Fornell and Larcker, 1981). The composite reliabilities (similar to Cronbach's alpha) of the two institutional themes—autonomy orientation (0.93) and risk orientation (0.90)—are well above 0.70, signifying strong internal reliability. Moreover, the aggregate average variance extracted (AVE) for each theme (signifying the degree to which the variance captured by a scale is greater than the variance due to measurement error) is well above the 0.50 level deemed suitable (Fornell and Larcker, 1981). For managerial discretion, each item (each rater) has a factor loading above 0.70 (0.71 to 0.90); composite reliability is 0.94; and the aggregate AVE is 0.68.

Figure 2 about here

Moving to the structural model, both institutional themes—autonomy orientation and risk orientation—are significantly associated ($p < 0.01$) with managerial discretion. It is worth noting that these PLS results, based on the two inductively derived institutional themes, are appreciably stronger than those obtained when we categorized institutions as simply informal vs. formal.

In sum, the bivariate fixed-effects regressions indicated that six of the seven national institutions (all except power distance) were significantly related to managerial discretion. The high intercorrelations among the institutions precluded any meaningful multiple regression analyses. However, the correlations pointed to two distinct institutional themes: autonomy orientation and risk orientation. Using PLS analysis, we found that the six institutions indeed loaded onto the two inductively derived themes, and the two themes were strongly associated with discretion. Thus, all six of the institutions partially shape the degree of managerial discretion in a country, but they do so in overlapping ways and through their roles in shaping two

broader institutional themes. We take these results as providing considerable support for Hypotheses 1, 2, 4, 5, 6, and 7.

EMPIRICAL ANALYSIS II: MANAGERIAL DISCRETION AND CEO EFFECTS ON FIRM PERFORMANCE

Method

Sample

To test our hypotheses that country-level managerial discretion is related to the amount of influence CEOs have over firm performance (Hypotheses 8 and 9), we needed to develop a sample of distinct firms and CEOs in each country we studied. We drew our sample from the 2006 Forbes Global 2000, a listing of the 2,000 largest public firms in the world. We included those firms headquartered in the 15 countries listed earlier. Three countries had more than 100 firms: the United States (693 firms), Japan (320), and the United Kingdom (122). Because it was not feasible to gather data on every firm from these countries, we took a random sample of 100 firms for each. For the remaining 12 countries, we included every available firm. This resulted in a final sample of 746 firms, representing 27 different industries (as defined in the Forbes database).¹⁰ Our timeframe was 1996 to 2005, yielding a total of 7,019 firm years of data.

We identified the CEO for each firm year via annual reports, regulatory filings, press releases, and company Web sites. In years where a firm experienced a CEO succession, the firm year was attributed to the CEO in office for the majority of the year. To minimize the likelihood

¹⁰ The total number of firms per country was: Australia (33), Austria (10), Canada (60), France (66), Germany (56), Italy (45), Japan (100), Korea (47), the Netherlands (23), Singapore (13), Spain (29), Sweden (25), Switzerland (39), the United Kingdom (100), the United States (100).

of including interim CEOs in our sample, we only included CEOs who remained in office for at least six months.¹¹ Our final sample contained a total of 1,524 CEOs.

Firm performance measures

We used four measures of performance: *return on assets (ROA)*, *return on invested capital (ROIC)*, *return on sales (ROS)*, and *market-to-book (MTB) ratio*. ROA is net income divided by total assets. ROIC is net income divided by the sum of total capital, short-term debt, and the current portion of long-term debt. ROS is net income divided by revenues. MTB is the market value of owners' equity at the end of the financial year divided by the book value of owners' equity. These accounting- and market-based measures have been used in a range of studies exploring CEO effects (e.g., Bertrand and Schoar, 2003; C&H, 2007). Using the Worldscope database, we collected data for each measure for every firm year. To minimize the influence of extreme observations, we Winsorized each variable at the one percent level (Dixon, 1960).

CEO effects on firm performance

We constructed our measure of CEO effects by employing hierarchical linear modeling (HLM). Researchers have used a range of methodologies to calculate the proportion of variance in firm performance attributable to categorical factors, such as year, industry, firm, and—sometimes—CEO. Prior work in this area has generally relied on ANOVA, where each category of fixed effects (year, industry, firm, CEO) is entered into the model in turn (e.g., Lieberman and O'Connor, 1972), or Variance Components Analysis (VCA), where each category of effects is

¹¹ For example, assume that the 2001 financial year for firm X ends in December. If CEO A leaves office in August 2001 and CEO B acts as an interim CEO until January 2002, then the 2001 firm year would be attributed to CEO A and CEO B would not appear in our data. Interim, or short-tenured CEOs (those with a tenure of one to five months) were rare in our sample, occurring only 31 times (approximately two percent of all CEOs).

assumed to be randomly drawn from a population of all possible effects of that category (e.g., C&H, 2007).

A weakness of both ANOVA and VCA, however, is that neither fully addresses the nested structure of panel data. Among the different effect categories, years (really firm years) are nested within CEOs, which are nested within firms, which are nested within industries. This violates one of the central assumptions of the simple linear model—that error terms for each category of effects are independent. HLM, also known as multilevel or mixed-effects modeling, overcomes this problem by explicitly estimating the different error components (Hough, 2006: 46-51; Klein and Kozlowski, 2000; Misangyi *et al.*, 2006).

We used a four-level nested HLM model of years (level 1) within CEOs (level 2) within firms (level 3) within industries (level 4). Thus, for instance, ROA in a particular firm year was modeled as a grand mean (γ_{0000}), with random effects for industry k (α_{000k}), firm j (β_{00jk}), CEO i (δ_{0ijk}), and year t (γ_{tijk}), and an overall error term (ϵ_{tijk}). The model can be written as follows:¹²

$$ROA_{tijk} = \gamma_{0000} + \alpha_{000k} + \beta_{00jk} + \delta_{0ijk} + \gamma_{tijk} + \epsilon_{tijk} \quad (1).$$

We therefore modeled performance as a linear combination of the grand mean, an industry effect, a firm effect, a CEO effect, a year effect, and an error term. Note that we only modeled the categorical variances (i.e., year, CEO, firm, industry), and not any cross-level covariances. We ran this HLM model for each of the four performance measures in each of the 15 countries (a total of 60 analyses). The measure of ‘CEO effect’ for a given performance indicator was calculated by dividing the variance for the CEO-level term by total firm variance in a country.

For example, consider two countries in our sample: the United Kingdom (high discretion) and Japan (low discretion). The overall ROA variance in the U.K. sample of firm years was

¹² This type of HLM model is a null, or fully unconditional, model as it contains no continuous predictors at any level (see Hough [2006] for further discussion).

42.22, with the CEO-level effect accounting for variance of 8.21 (with all other factors, including error, accounting for the remainder). Therefore, the CEO effect was 19.45 percent ($8.21/42.22$). In the Japan sample, overall ROA variance was 9.13, with the CEO-level effect accounting for variance of 0.58. Thus, in Japan, the CEO effect was 6.35 percent ($0.58/9.13$).

Table 4 reports the CEO effects for all 15 countries, in order of their mean managerial discretion scores. We show four indicators of CEO effects for each country: ROA, ROIC, ROS, and MTB. Additionally, on the assumption that each performance measure is only a partial indicator of overall performance, we calculated an overall index of CEO effects, which was the sum of standardized z-scores of the four narrower measures.

Table 4 about here

Analysis

To test the relationship between discretion and CEO effects on firm performance (Hypothesis 8), we used fixed-effects regression. The independent variable was the expert panelists' ratings of country-level managerial discretion, and the dependent variables were the country-level CEO effects measures (as reported in Table 4). Again, to control for potential unobserved heterogeneity between panelists, each panelist was treated as a single fixed effect.

Results

Table 5 shows results from our tests of Hypothesis 8, which argued that greater levels of discretion would be associated with greater variance in firm performance attributable to CEOs. Models 8–12 show the results of our analyses. The impact of managerial discretion was

significantly positive for ROA ($p < 0.01$), ROIC ($p < 0.01$), MTB ($p < 0.01$), and the overall index ($p < 0.01$), but not for ROS. Therefore, we found considerable support for Hypothesis 8.

Table 5 and Figure 3 about here

Figure 3 illustrates the relationship between mean country-level managerial discretion and CEO effects (the aggregate CEO effect index). The line in the figure represents the best-fitted OLS model ($n=15$). Consistent with the results reported above, there is a strong positive association between a country's mean discretion score and a country's CEO effects index.

To determine whether discretion mediated the relationship between national institutions and CEO effects (Hypothesis 9), we used Sobel tests (Baron and Kenny, 1986; Sobel, 1982). (We constructed confidence intervals for the Sobel tests via bootstrapping [Preacher and Hayes, 2004]). We ran Sobel tests for each of the six national institutions that showed a significant impact on managerial discretion in bivariate analyses (individualism, uncertainty tolerance, cultural looseness, ownership dispersion, legal origin, and employer flexibility).

Among these six Sobel tests, there was strong support for Hypothesis 9. We found evidence that discretion mediated the impact of individualism (Sobel coefficient = 0.01, $z = 2.04$, $p < 0.05$), uncertainty tolerance (Sobel coefficient = 0.03, $z = 3.28$, $p < 0.01$), cultural looseness (Sobel coefficient = 1.56, $z = 2.44$, $p < 0.05$), ownership dispersion (Sobel coefficient = 1.20, $z = 2.04$, $p < 0.05$), and legal origin (Sobel coefficient = 0.91, $z = 2.32$, $p < 0.05$) on the CEO effect index. Of these, the impact of uncertainty tolerance on the CEO effect index was fully mediated by discretion; the other four institutions continued to have significant direct effects, indicating that discretion was a partial mediator (James and Brett, 1984). Employer flexibility was the only institution that was not mediated by discretion.

DISCUSSION

For almost 40 years, since Lieberman and O'Connor's (1972) seminal inquiry, scholars have debated the centrally important question of whether business leaders really have much sway over what happens to their companies. Are top executives overwhelmingly constrained by inertial and institutional forces (DiMaggio and Powell, 1983; Hannan and Freeman, 1977); or do they readily and often engage in distinctive, idiosyncratic actions that affect organizational outcomes? The concept of managerial discretion provides a theoretical fulcrum for resolving this debate (Hambrick and Finkelstein, 1987). Sometimes contextual conditions confer little discretion, and executives cannot make much of a mark on their firms. But sometimes contextual conditions provide considerable leeway, and managers can have substantial effect—for good or for ill. Thus far, scholars have examined sources of discretion that are relatively proximate to focal executives, primarily organizational and industry characteristics (e.g., Finkelstein and Boyd, 1998). In this paper, we build on recent work suggesting that discretion also emanates from the macro-social milieu in which managers operate (C&H, 2007).

National institutions shape managerial discretion

In our examination of 15 countries, we found that an encompassing array of national institutions—both informal and formal—were associated, as hypothesized, with the amount of managerial discretion available to public company CEOs in a country, as rated by a panel of international business experts. A total of six such institutions (out of seven examined) exhibited strong bivariate associations with discretion, and all six loaded strongly onto two overarching

cultural constructs—a country’s autonomy orientation and risk orientation—which in turn were highly predictive of managerial discretion.

Two institutions comprised a country’s autonomy orientation: individualism and cultural looseness. In countries that privilege individual initiative and accountability, CEOs were rated as having more discretion; conversely, in countries that privilege collective decision making—where consensus and multiway accommodation are important—CEOs were rated as having less discretion. Similarly, cultural looseness was strongly associated with nation-level managerial discretion. In societies that tolerate variety, with a ‘live and let live’ philosophy, executives are allowed to pursue idiosyncratic, deviant strategies; conversely, in societies that are culturally ‘tight,’ in which norms are homogeneous, CEOs have restricted leeway.

Four of the institutions we studied comprise a country’s risk orientation, with corresponding implications for managerial discretion. Tolerance for uncertainty was highly related to the discretion ratings, supporting the idea that managers will have more leeway to the extent that they are embedded in societies that tolerate the unexpected. In such countries, managers will be allowed to take bold, deviant actions that have highly uncertain consequences.

Patterns of firm ownership also shape CEO discretion. Widely dispersed owners, which are typical in some countries, lack mechanisms for restricting executive actions—mechanisms that are much easier to employ when owners are concentrated. Additionally, a country’s legal origin impacts discretion. In common-law countries where property rights are of paramount importance, managers have the legal obligation to enhance shareholder wealth, but considerable latitude in how they do so. Civil-law countries, by comparison, require managers to balance the objectives of multiple constituencies, thus limiting managers from taking radical actions. Finally,

a country's degree of employer flexibility was related to discretion, suggesting that workforce rigidities can impose significant constraints on CEOs.

The cultural value of power distance was the only national institution we examined that failed to exhibit its hypothesized association with managerial discretion. In fact, its bivariate association with discretion was significantly negative. There is no obvious explanation for why this might be, but an intriguing possibility is that societies where the discretion of CEOs (and leaders in general) is low may actually bestow lofty symbolic status on leaders as a form of collective psychological compensation. Implicitly recognizing that leaders are figureheads rather than bold strategists, low discretion societies may emphasize the symbolic and emblematic aspects of leadership, leading to an elevation of executive status. Consider constitutional monarchs who are invested with very little real discretion but are afforded great respect and deference (cf. Rose and Kavanagh, 1976). Perhaps a similar process unfolds in high power distance/low discretion societies. Although we have no evidence to support such a claim, it is an interesting possibility.

Interconnections among national institutions

By inductively deriving two institutional meta-themes (autonomy orientation and risk orientation), our study highlights the promise of considering constellations of institutions, rather than distinct institutions; and it shows the promise of spanning informal and formal institutions, rather than focusing on just one or the other, as is typically done by institutional researchers (e.g., Helmke and Levitsky, 2004; La Porta *et al.*, 1999). In hindsight, it is perhaps not surprising that our several individual institutions exhibited considerable overlap. In this vein, Scott (2001: 95) noted, 'Institutions do not emerge in a vacuum; they always challenge, borrow from, and, to

varying degrees, displace prior institutions.’ Moreover, research in international political economy and economic sociology suggests that the various institutions within a society are often complementary, reinforcing each other (Hall and Soskice, 2001; Whitley, 1999).

It is especially important to consider the recursive relationship between informal and formal institutions. As Dobbin (1994: 11) argued, formal institutions develop in a fashion that echoes prevailing social norms, cultural values, and ‘logics.’ That is, social norms become formalized in legal rules. Our study suggests that a country’s full array of institutions will tend to form a coherent whole, affecting managerial discretion and other important organizational phenomena (cf. Peng, 2002; Peng, Wang, and Jiang, 2008).

Managerial discretion and CEO effects on firm outcomes

Our study reaffirms, at the national level, the important idea that top executives can only influence the performance of their companies in proportion to the amount of discretion they possess (Hambrick and Finkelstein, 1987). Building on C&H’s (2007) suggestive findings from three countries, we found that expert ratings of managerial discretion were strongly associated with the impact that individual CEOs have on firm performance. For example, CEOs in Japan and Korea had substantially less influence over the performance of their companies than did CEOs in the United States or the United Kingdom. Indeed, for our 15 countries, the overall correlation between discretion ratings and aggregate CEO effects on performance (as reported in Figure 3) was 0.54 ($p < 0.05$).

Whereas C&H (2007) treated managerial discretion as an implied mechanism, we measured discretion directly by surveying international mutual fund managers (and corroborating their ratings with assessments by knowledgeable academics). Our direct attention to discretion

allowed us to shed light on two key propositions. First, we provided evidence that CEO effects exist in proportion to managerial discretion. Second, we showed that discretion is an important mediator between national institutions and CEO effects. While other mediators might also exist, our analyses strongly suggest that discretion is a prominent conceptual linchpin, converting national institutions into very tangible manifestations of executive leadership.

Implications

These results could shed light on a range of cross-national differences in business phenomena. For example, country-level managerial discretion might have strategic implications. Firms in high discretion countries might be ideally suited for competing in dynamic industries—such as high technology, software, and entertainment—in which risky and fast decision making is important. Conversely, firms in low discretion countries might excel in low discretion industries, in which stability and continuous improvement are most important (see Schmidt [2002] for a related argument). Similarly, nation-level managerial discretion might influence a company's competitive strategy within its industry. Companies in high discretion countries might gravitate to, or excel at, what Miles and Snow (1978) called a 'prospector' strategy, while firms in low discretion countries might be far better suited for a 'defender' strategy.

Despite its implications for strategy, though, it is important to emphasize that managerial discretion is not, *per se*, necessarily good or bad, but simply refers to the latitude of action available to executives. As such, we do not envision any general relationship between discretion and national-level competitiveness. Greater discretion might allow more heterogeneous firm strategies, faster firm actions, and more rapid innovation. Aggregated to the national level, these qualities might be expected to benefit a country's competitiveness. But greater discretion might

also allow managerial recklessness, hubris, exercise of self-serving biases, and pursuit of radical strategies that lack stakeholder buy-in. Aggregated to the national level, these factors should harm a country's economic strength. Although the association between nation-level discretion and competitiveness is an interesting empirical question, some initial evidence supports our expectation of a non-relationship: The World Economic Forum's (2008) recent *Global Competitiveness Report* places Japan (low discretion), Sweden (moderate discretion), and the United States (high discretion) all within the top 10 most competitive countries.

CONCLUSION

The question of whether executives matter remains central to a number of important domains within strategic management, including corporate governance, executive compensation, competitive dynamics, and strategic decision-making processes. Our study contributes to the literature by examining the antecedents, nature, and consequences of cross-national differences in managerial discretion. A greater understanding of national-level differences in discretion promises to shed light not only on heterogeneity in managerial practices internationally but also on the transferability of such practices.

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REFERENCES

- Aguilera RV, Jackson G. 2003. The cross-national diversity of corporate governance: dimensions and determinants. *Academy of Management Review* **28**: 447–465.
- Aguinis H, Henle CA. 2003. The search for universals in cross-cultural organizational behavior. In *Organizational Behavior* (2nd edn.), Greenberg J (ed). Erlbaum: Mahwah, NJ; 373–411.
- Barnard CI. 1938. *The Functions of the Executive*. Harvard University Press: Cambridge, MA.
- Baron RM, Kenny DA. 1986. The moderator-mediator variable distinction in social psychological research: conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology* **51**: 1173–1182.
- Berry JW. 1967. Independence and conformity in subsistence-level societies. *Journal of Personality and Social Psychology* **7**: 415–418.
- Bertrand M, Schoar A. 2003. Managing with style: the effect of managers on firm policies. *Quarterly Journal of Economics* **118**: 1169–1208.
- Birkinshaw J, Morrison A, Hulland J. 1995. Structural and competitive determinants of a global integration strategy. *Strategic Management Journal* **16**(8): 637–655.
- Black B. 2001. Culturally coded? The enigma of flexible labor markets. *Employee Relations* **23**: 401–416.
- Botero JC, Djankov S, La Porta R, Lopez-de-Silanes F, Shleifer A. 2004. The regulation of labor. *Quarterly Journal of Economics* **119**: 1339–1382.
- Boyd BK, Gove S. 2006. Managerial constraint: the intersection between organizational task environment and discretion. In *Research Methodology in Strategy and Management (Volume 3)*, Ketchen DJ, Bergh DD (eds). Elsevier: New York; 57–95.
- Boyd BK, Salamin A. 2001. Strategic reward systems: a contingency model of pay system design. *Strategic Management Journal* **22**(8): 777–792.
- Carpenter MA, Golden BR. 1997. Perceived managerial discretion: a study of cause and effect. *Strategic Management Journal* **18**(3): 187–206.
- Chen M-J, Farr J-L, MacMillan IC. 1993. An exploration of the expertness of outside informants. *Academy of Management Journal* **36**: 1614–1632.
- Child J. 1972. Organizational structure, environment, and performance: the role of strategic choice. *Sociology* **6**: 1–22.

- Chinese Culture Connection. 1987. Chinese values and the search for culture-free dimensions of culture. *Journal of Cross-Cultural Psychology* **18**: 143–164.
- Coase R. 1998. The new institutional economics. *American Economic Review* **88**: 72–74.
- Colson E. 1974. *Tradition and Contract: The Problem of Order*. Aldine: Chicago, IL.
- Crossland C, Hambrick DC. 2007. How national systems differ in their constraints on corporate executives: a study of CEO effects in three countries. *Strategic Management Journal* **28**(8): 767–789.
- Demsetz H, Lehn K. 1985. The structure of corporate ownership: causes and consequences. *Journal of Political Economy* **93**: 1155–1177.
- DiMaggio PJ, Powell WW. 1983. The iron cage revisited: institutional isomorphism and collective rationality in organizational fields. *American Sociological Review* **48**: 147–160.
- Dixon WJ. 1960. Simplified estimation from censored normal samples. *Annals of Mathematical Statistics* **31**: 385–391.
- Dobbin F. 1994. *Forging Industrial Policy: The United States, Britain, and France in the Railway Age*. Cambridge University Press: New York.
- Durkheim E. 1893. *The Division of Labor in Society (Trans. 1933)*. Free Press: New York.
- Estevez-Abe M, Iversen T, Soskice D. 2001. Social protection and the formation of skills: a reinterpretation of the welfare state. In *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, Hall P, Soskice D (eds). Oxford University Press: New York; 145–183.
- Ewing J, Hibbard J. 2005. The bell tolls for Germany Inc.: Cozy relations between business, banks, and labor are unraveling. *Business Week*, 15 August: 40–41.
- Fidler J. 1981. *The British Business Elite: Its Attitude to Class, Status, and Power*. Routledge and Kegan Paul: London, U.K.
- Finkelstein S, Boyd BK. 1998. How much does the CEO matter? The role of managerial discretion in the setting of CEO compensation. *Academy of Management Journal* **41**: 179–199.
- Finkelstein S, Hambrick DC. 1990. Top-management-team tenure and organizational outcomes: the moderating role of managerial discretion. *Administrative Science Quarterly* **35**: 484–503.

- Fornell C, Cha J. 1994. Partial least squares. In *Advanced Methods of Marketing Research*, Bagozzi RP (ed). Blackwell: Cambridge, MA; 52–78.
- Fornell C, Larcker DF. 1981. Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research* **18**: 39–50.
- Freeman C. 2002. Continental, national, and sub-national innovation systems—complementarity and economic growth. *Research Policy* **31**: 191–211.
- Gangl M. 2003. *Unemployment Dynamics in the United States and West Germany: Economic Restructuring, Institutions, and Labor Market Processes*. Physica-Verlag: Heidelberg, Germany.
- Gedajlovic ER, Shapiro DM. 1998. Management and ownership effects: evidence from five countries. *Strategic Management Journal* **19**(6): 533–553.
- Geladi P, Kowalski B. 1986. Partial least squares regression: a tutorial. *Analytica Chimica Acta* **185**: 1–17.
- Geletkanycz MA. 1997. The salience of ‘Culture's Consequences’: the effects of cultural values on top executive commitment to the *status quo*. *Strategic Management Journal* **18**(8): 615–634.
- Gelfand MJ, Bhawuk DPS, Nishii LH, Bechtold DJ. 2004. Individualism and collectivism. In *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*, House RJ, Hanges PJ, Javidan M, Dorfman PW, Gupta V (eds). Sage: Thousand Oaks, CA; 437–512.
- Gelfand MJ, Nishii LH, Raver JL. 2006. On the nature and importance of cultural tightness-looseness. *Journal of Applied Psychology* **91**: 1225–1244.
- Glaeser EL, Shleifer A. 2001. Legal Origins. NBER Working paper no. 8272. National Bureau of Economic Research: Cambridge, MA.
- Griffiths A, Zammuto RF. 2005. Institutional governance systems and variations in national competitive advantage: an integrative framework. *Academy of Management Review* **30**: 823–842.
- Haleblian J, Finkelstein S. 1993. Top management team size, CEO dominance, and firm performance: the moderating roles of environmental turbulence and discretion. *Academy of Management Journal* **36**: 844–863.
- Hall PA, Soskice D (eds). 2001. *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford University Press: New York.

- Hambrick DC, Abrahamson E. 1995. Assessing managerial discretion across industries: a multimethod approach. *Academy of Management Journal* **38**: 1427–1441.
- Hambrick DC, Finkelstein S. 1987. Managerial discretion: a bridge between polar views of organizational outcomes. In *Research in Organizational Behavior (Volume 9)*, Staw B, Cummings LL (eds). JAI Press: Greenwich, CT; 369–406.
- Hannan MT, Freeman J. 1977. The population ecology of organizations. *American Journal of Sociology* **82**: 929–964.
- Helmke G, Levitsky S. 2004. Informal institutions and comparative politics: a research agenda. *Perspectives on Politics* **2**: 725–740.
- Helmke G, Levitsky S (eds). 2006. *Informal Institutions and Democracy: Lessons from Latin America*. Johns Hopkins University Press: Baltimore, MD.
- Hofstede G. 2001. *Culture's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations* (2nd edn). Sage: Thousand Oaks, CA.
- Hough JR. 2006. Business segment performance redux: a multilevel approach. *Strategic Management Journal* **27**(1): 45–61.
- House RJ, Hanges PJ, Javidan M, Dorfman PW, Gupta V (eds). 2004. *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*. Sage: Thousand Oaks, CA.
- House RJ, Javidan M. 2004. Overview of GLOBE. In *Culture, Leadership, and Organizations: The GLOBE Study of 62 Societies*, House RJ, Hanges PJ, Javidan M, Dorfman PW, Gupta V (eds). Sage: Thousand Oaks, CA; 9–28.
- Hulland J. 1999. Use of partial least squares (PLS) in strategic management research: a review of four recent studies. *Strategic Management Journal* **20**(2): 195–204.
- James LR, Brett JM. 1984. Mediators, moderators, and tests for mediation. *Journal of Applied Psychology* **62**: 307–321.
- Jensen MC, Meckling WH. 1976. Theory of the firm: managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics* **3**: 305–360.
- Johnson S, La Porta R, Lopez-de-Silanes F, Shleifer A. 2000. Tunneling. *American Economic Review* **90**: 22–27.
- Keefer P, Knack S. 2005. Social capital, social norms, and the new institutional economics. In *Handbook of New Institutional Economics*, Menard C, Shirley MM (eds). Springer: New York; 701–725.
- Kennedy P. 2008. *A Guide to Econometrics* (6th edn). Blackwell: Malden, MA.

- Kim B, Prescott JE. 2005. Deregulatory forms, variations in the speed of governance adaptation, and firm performance. *Academy of Management Review* **30**: 414–425.
- Kirkman BL, Lowe KB, Gibson CB. 2006. A quarter century of *Culture's Consequences*: a review of empirical research incorporating Hofstede's cultural values framework. *Journal of International Business Studies* **37**: 285–320.
- Klau F, Mittelstadt A. 1986. Labor market flexibility. *OECD Economic Studies* **6**: 7–45.
- Klein JK, Kozlowski SW. 2000. From micro to meso: critical steps in conceptualizing and conducting multilevel research. *Organizational Research Methods* **3**: 211–236.
- La Porta R, Lopez-de-Silanes F, Shleifer A. 1999. Corporate ownership around the world. *Journal of Finance* **54**: 471–517.
- La Porta R, Lopez-de-Silanes F, Shleifer A, Vishny R. 1997. Legal determinants of external finance. *Journal of Finance* **52**: 1131–1150.
- La Porta R, Lopez-de-Silanes F, Shleifer A, Vishny R. 1998. Law and finance. *Journal of Political Economy* **106**: 1113–1155.
- La Porta R, Lopez-de-Silanes F, Shleifer A, Vishny R. 2002. Investor protection and corporate valuation. *Journal of Finance* **57**: 1147–1170.
- Lee PM. 1997. A comparative analysis of layoff announcements and stock price reactions in the United States and Japan. *Strategic Management Journal* **18**(11): 879–894.
- Li JT, Harrison JR. 2008. National culture and the composition and leadership structure of boards of directors. *Corporate Governance—An International Review* **16**: 375–385.
- Lieberson S, O'Connor JF. 1972. Leadership and organizational performance: a study of large corporations. *American Sociological Review* **37**: 117–130.
- Lindblom CE. 1977. *Politics and Markets: The World's Political Economic Systems*. Basic Books: New York.
- Lucier C, Schuyt R, Tse E. 2005. CEO succession 2004: the world's most prominent temp workers. *Strategy + Business* **39**: 1–16.
- Mackey A. 2008. The effect of CEOs on firm performance. *Strategic Management Journal* **29**(12): 1357–1367.
- Mahoney PG. 2001. The common law and economic growth: Hayek might be right. *Journal of Legal Studies* **30**: 503–525.

- Magnan ML, St-Onge S. 1997. Bank Performance and executive compensation: A managerial discretion perspective. *Strategic Management Journal* **18**(7): 573–581.
- Makino S, Isobe T, Chan C. 2004. Does country matter? *Strategic Management Journal* **25**(10): 1027–1043.
- Mannari H. 1974. *The Japanese Business Leaders*. University of Tokyo Press: Tokyo, Japan.
- Mantzavinos C. 2001. *Individuals, Institutions, and Markets*. Cambridge University Press: New York.
- Mantzavinos C, North DC, Shariq S. 2001. Learning, institutions, and economic performance. *Perspectives on Politics* **2**: 75–84.
- Miles RE, Snow CC. 1978. *Organizational Strategy, Structure, and Process*. McGraw-Hill: New York.
- Misangyi V, Elms H, Greckhamer T, LePine J. 2006. A new perspective on a fundamental debate: a multilevel approach to industry, corporate, and business unit effects. *Strategic Management Journal* **27**(6): 571–590.
- Muna FA. 1980. *The Arab Executive*. St. Martin's Press: New York.
- Nelson RR, Nelson K. 2002. Technology, institutions, and innovation systems. *Research Policy* **31**: 256–272.
- North DC. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge University Press: New York.
- North DC. 1991. Institutions. *Journal of Economic Perspectives* **5**: 97–112.
- North DC, Weingast B. 1989. Constitutions and commitment: the evolution of institutions governing public choice in seventeenth-century England. *Journal of Economic History* **49**(4): 803–832.
- Paldam M. 2002. The cross-country pattern of corruption: economics, culture, and the seesaw dynamics. *European Journal of Political Economy* **18**: 215–240.
- Pelto PJ. 1968. The difference between 'tight' and 'loose' societies. *Transaction* **5**: 37–40.
- Peng MW. 2002. Towards an institution-based view of business strategy. *Asia-Pacific Journal of Management* **19**: 251–267.
- Peng MW, Wang D, Jiang Y. 2008. An institution-based view of business strategy: a focus on emerging economies. *Journal of International Business Studies* **39**: 920–936.

- Preacher KJ, Hayes AF. 2004. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers* **36**: 717–731.
- Rajagopalan N. 1997. Strategic orientations, incentive plan adoptions, and firm performance: evidence from electric utility firms. *Strategic Management Journal* **18**(10): 765–785.
- Ringle CM, Wende S, Will A. 2005. SmartPLS 2.0.M3 (beta). <http://www.smartpls.de/> (1 April, 2010)
- Ronen S, Shenkar O. 1985. Clustering countries on attitudinal dimensions: a review and synthesis. *Academy of Management Review* **10**: 435–454.
- Rose R, Kavanagh D. 1976. The monarchy in contemporary political culture. *Comparative Politics* **8**: 548–576.
- Sanders WG. 2001. Behavioral responses of CEOs to stock ownership and stock option pay. *Academy of Management Journal* **44**: 477–492.
- Sarkar MB, Echambadi R, Harrison JS. 2001. Alliance entrepreneurship and firm market performance. *Strategic Management Journal*, June–July Special Issue **22**: 701–711.
- Schmidt VA. 2002. *The Futures of European Capitalism*. Oxford University Press: New York.
- Schwartz SH. 1994. Beyond individualism/collectivism: new cultural dimensions of values. In *Individualism and Collectivism: Theory, Method, and Applications*, Kim U, Triandis HC, Kagitcibasi C, Choi S-C, Yoon G (eds). Sage: Thousand Oaks, CA; 85–119.
- Scott WR. 2001. *Institutions and Organizations* (2nd edn). Sage: Thousand Oaks, CA.
- Shen W, Cho TS. 2005. Exploring involuntary executive turnover through a managerial discretion framework. *Academy of Management Review* **30**: 843–854.
- Shrout PE, Fleiss JL. 1979. Intraclass correlations: uses in assessing rater reliability. *Psychological Bulletin* **86**: 420–428.
- Sobel ME. 1982. Asymptotic confidence intervals for indirect effects in structural equations models. In *Sociological Methodology (Volume 13)*, Leinhardt S (ed). Jossey-Bass: San Francisco, CA; 290–312.
- Spencer JW, Murtha TP, Lenway SA. 2005. How governments matter to new industry creation. *Academy of Management Review* **30**: 321–337.
- Taggar S. 2002. Individual creativity and group ability to utilize individual creative resources: a multilevel model. *Academy of Management Journal* **45**: 315–330.

- Thomas AB. 1988. Does leadership make a difference to organizational performance? *Administrative Science Quarterly* **33**: 388–400.
- Tosi HL, Greckhamer T. 2004. Culture and CEO compensation. *Organization Science* **15**: 657–670.
- Triandis HC. 1989. The self and social behavior in differing social contexts. *Psychological Review* **96**: 506–520.
- Triandis HC. 1994. Cross-cultural industrial and organizational psychology. In *Handbook of Industrial and Organizational Psychology (Volume 4)*, Triandis HC, Dunnette MD, Hough LM (eds). Consulting Psychologists Press: Palo Alto, CA; 103–172.
- Trompenaars A, Hampden-Turner C. 1998. *Riding the Waves of Culture: Understanding Cultural Diversity in Global Business* (2nd edn). McGraw Hill: New York.
- Tsang EWK. 2002. Acquiring knowledge by foreign partners from international joint ventures in a transition economy: learning-by-doing and learning myopia. *Strategic Management Journal* **23**(9): 835–854.
- van Caenegem RC. 1987. *Judges, Legislators, and Professors: Chapters in European Legal History*. Cambridge University Press: New York.
- Veblen T. 1909. The limitations of marginal utility. *Journal of Political Economy* **17**: 620–636.
- Walsh JP. 1995. Managerial and organizational cognition: notes from a trip down Memory Lane. *Organization Science* **6**: 280–321.
- Wasserman N, Nohria N, Anand BN. 2001. When does leadership matter? The contingent opportunities view of CEO leadership. Working paper no. 01-063. Harvard Business School: Boston, MA.
- Weber M. 1924. *The Theory of Social and Economic Organization (Trans. 1947)*. Free Press and Falcon's Wing Press: Glencoe, IL.
- Weiner N, Mahoney T. 1981. A model of corporate performance as a function of environmental, organizational, and leadership influences. *Academy of Management Journal* **24**: 453–470.
- Whitley R. 1999. *Divergent Capitalisms: The Social Structuring and Change of Business Systems*. Oxford University Press: New York.
- Wiersema MF, Bantel KA. 1992. Top management team demography and corporate strategic change. *Academy of Management Journal* **35**: 91–122.

- Willoughby WW. 1896. *An Examination of the Nature of the State: A Study in Political Philosophy*. Macmillan: New York.
- Wilson W. 1889. *The State and Federal Governments of the United States: A Brief Manual for Schools and Colleges*. D.C. Heath: Boston, MA.
- Witt MA, Redding G. 2009. Culture, meaning, and institutions: executive rationale in Germany and Japan. *Journal of International Business Studies* **40**: 859–885.
- Wold H. 1985. Partial least squares. In *Encyclopedia of Statistical Sciences (Volume 6)*, Kotz S, Johnson NL (eds). Wiley: New York; 581–591.
- World Bank. 2010. *World Development Indicators Database*. World Bank: Washington, DC.
- World Economic Forum. 2008. *Global Competitiveness Report 2008–2009*. World Economic Forum: Geneva, Switzerland.
- Zott C, Amit R. 2008. The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal* **29**(1): 1–26.

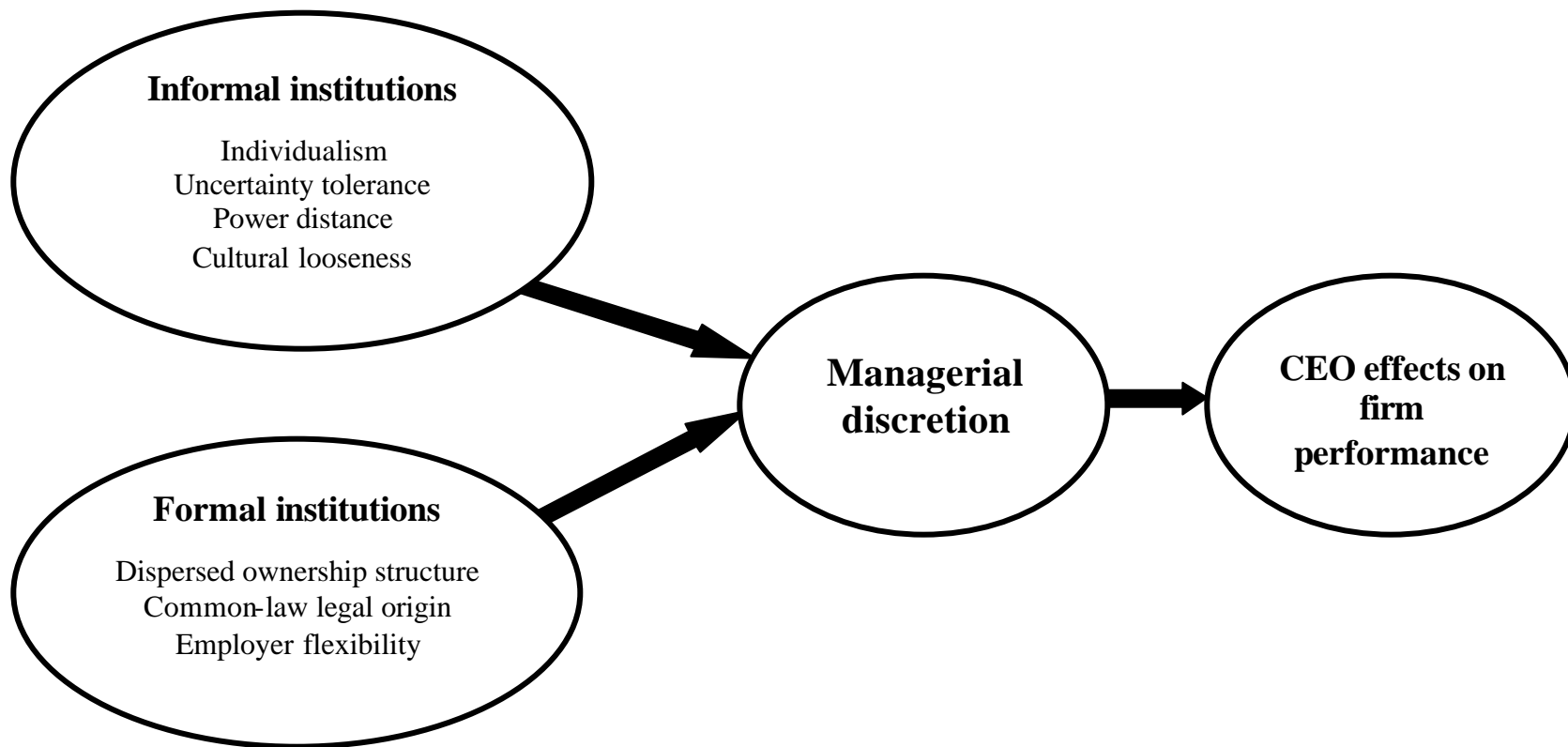


Figure 1: Theoretical model: national institutions, managerial discretion, and CEO effects on firm performance

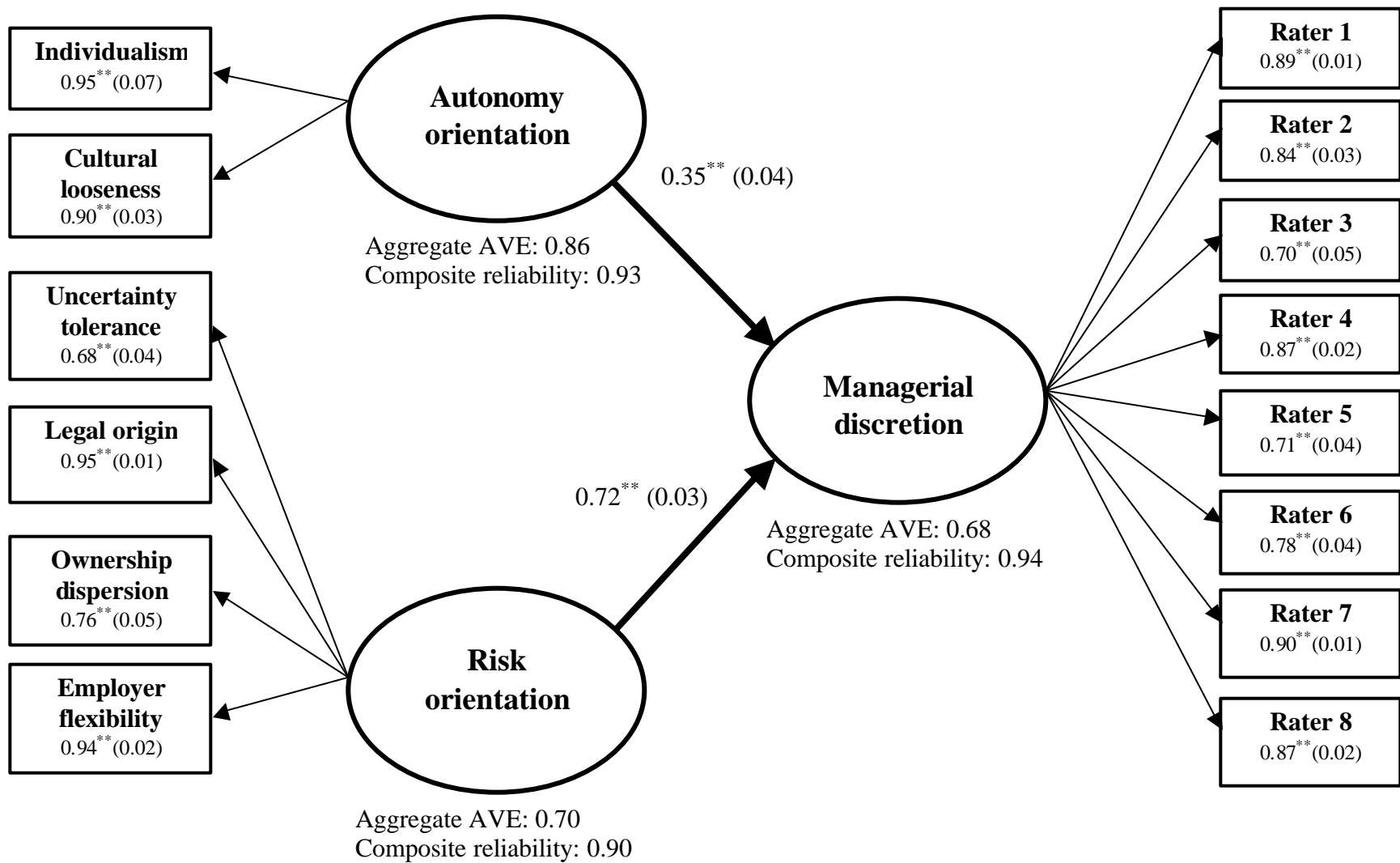


Figure 2. Distinct institutions, institutional themes, and managerial discretion: partial least squares analysis

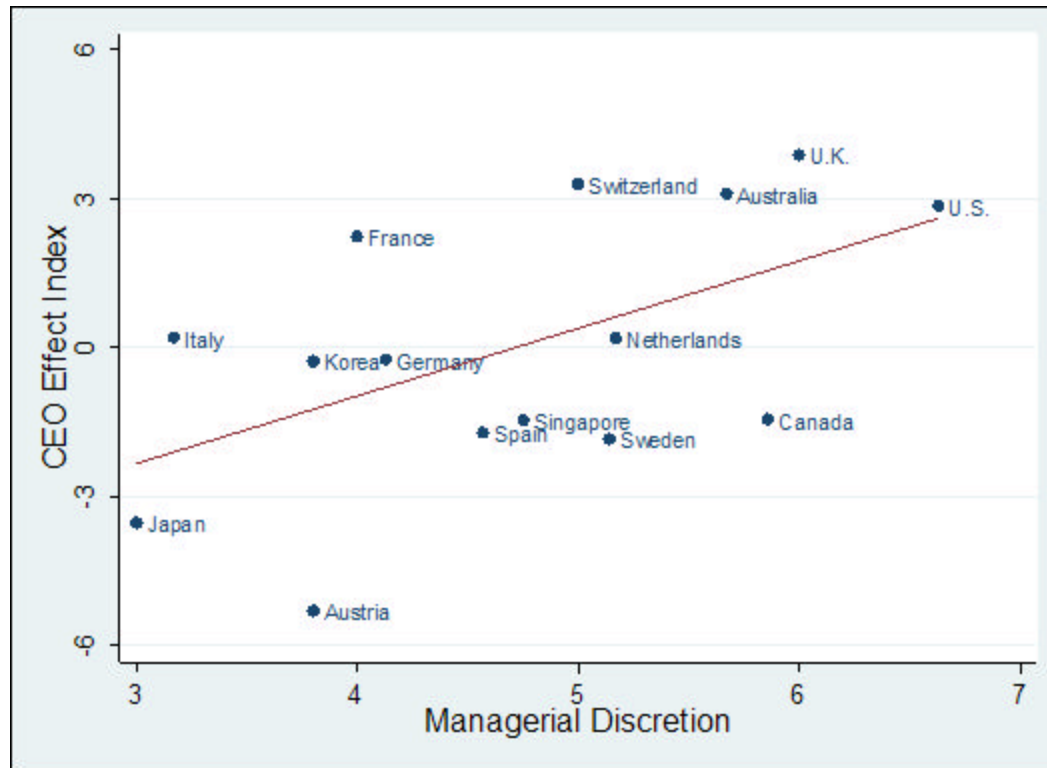


Figure 3. Managerial discretion and CEO effects on firm performance

Table 1. National-level managerial discretion scores and institutional context measures

Country	Managerial discretion (mean rating)	Informal institutions				Formal institutions		
		Individualism	Uncertainty tolerance	Power distance	Cultural looseness	Ownership dispersion	Legal origin	Employer flexibility
U.S.	6.6	91	-46	40	-0.54	0.75	Common law	-0.14
U.K.	6.0	89	-35	35	-0.70	0.65	Common law	-0.25
Canada	5.9	80	-48	39	-0.54 ^a	0.52	Common law	-0.30
Australia	5.7	90	-51	36	-0.42	0.40	Common law	-0.27
Netherlands	5.2	80	-53	38	-0.38	0.20	Civil law	-0.80
Sweden	5.1	71	-29	31	-0.97 ^a	0.11	Civil law	-0.94
Switzerland	5.0	68	-58	34	-0.64 ^a	0.50	Civil law	-0.49
Singapore	4.8	20	-8	74	-1.02	0.17	Common law	-0.36 ^a
Spain	4.6	51	-86	57	-0.54	0.12	Civil law	-0.93 ^a
Germany	4.1	67	-65	35	-0.65	0.26	Civil law	-0.86
France	4.0	71	-86	68	-0.63	0.22	Civil law	-0.61
Austria	3.8	55	-70	11	-0.69	0.02	Civil law	-0.84
Korea	3.8	18	-85	60	-0.99	0.31	Civil law	-0.53 ^a
Italy	3.2	76	-75	50	-0.65	0.09	Civil law	-0.81
Japan	3.0	46	-92	54	-0.86	0.47	Civil law	-0.76

^aCountry not represented in original source, score imputed; see *Formal national institutions* subsection for details

Table 2. Descriptive statistics and bivariate correlations

Variable	Mean	S.d.	1.	2.	3.	4.	5.	6.	7.
1. Managerial discretion ¹	4.77	1.35	-----						
2. Individualism ²	64.87	23.03	0.49**	-----					
3. Uncertainty tolerance ²	-59.13	24.06	0.55**	0.16	-----				
4. Power distance ²	44.13	16.25	-0.26**	-0.52*	-0.13	-----			
5. Cultural looseness ²	-0.68	0.20	0.31**	0.73**	-0.16	-0.34	-----		
6. Ownership dispersion ²	0.32	0.22	0.49**	0.40	0.17	-0.08	0.20	-----	
7. Legal origin ²	0.33	0.49	0.61**	0.29	0.66**	0.03	0.14	0.60*	-----
8. Employer flexibility ²	-0.59	0.28	0.55**	0.24	0.45 ⁺	0.10	0.12	0.78**	0.87**

¹n = 97; ²n = 15; ⁺p < 0.1, * p < 0.05, ** p < 0.01

Table 3. The impact of national institutions on managerial discretion: fixed-effects regression

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7
Constant	2.476** (0.391)	6.824** (0.307)	5.874** (0.407)	6.401** (0.485)	3.688** (0.209)	4.162** (0.182)	6.432** (0.253)
Individualism	0.034** (0.006)						
Uncertainty tolerance		0.034** (0.005)					
Power distance			-0.025** (0.009)				
Cultural looseness				2.433** (0.700)			
Ownership dispersion					3.206** (0.522)		
Legal origin						1.797** (0.212)	
Employer flexibility							2.809** (0.390)
<i>F</i>	37.68**	50.77**	8.13**	12.06**	37.68**	72.06**	51.98**
<i>R</i> ²	0.39	0.45	0.20	0.23	0.39	0.52	0.45

n = 97; +*p* < 0.1; **p* < 0.05; ***p* < 0.01

Table 4. CEO effects on firm performance by country

Country	Managerial discretion	CEO effect				
		ROA	ROIC	ROS	MTB	Index
United States	6.6	15.46	20.19	10.39	35.66	2.86
United Kingdom	6.0	19.45	25.93	15.66	19.89	3.89
Canada	5.9	6.64	7.11	11.42	21.32	-1.44
Australia	5.7	23.59	18.23	9.88	27.85	3.10
Netherlands	5.2	12.48	14.62	8.49	22.87	0.20
Sweden	5.1	9.88	7.33	7.57	17.68	-1.84
Switzerland	5.0	14.41	18.71	23.17	19.21	3.30
Singapore	4.8	12.53	11.17	10.92	3.89	-1.45
Spain	4.6	1.58	2.64	7.60	43.23	-1.71
Germany	4.1	11.53	11.32	11.02	20.08	-0.24
France	4.0	20.32	21.44	7.03	24.15	2.24
Austria	3.8	6.74	9.05	7.51	39.8	-0.27
Korea (South)	3.8	2.60	4.68	1.91	6.06	-5.30
Italy	3.2	10.68	9.77	22.86	4.78	0.20
Japan	3.0	6.35	5.23	6.61	9.92	-3.53

Table 5. The impact of managerial discretion on CEO effects: fixed-effects regression

	Model 8: ROA	Model 9: ROIC	Model 10: ROS	Model 11: MTB	Model 12: Index
Constant	3.00 (2.36)	0.63 (2.59)	9.06 ^{**} (2.25)	6.77 (4.36)	-4.54 ^{**} (0.93)
Managerial discretion	1.85 ^{**} (0.48)	2.56 ^{**} (0.53)	0.38 (0.46)	3.14 ^{**} (0.88)	0.98 ^{**} (0.19)
<i>F</i>	14.97 ^{**}	23.71 ^{**}	0.71	12.67 ^{**}	26.97 ^{**}
<i>R</i> ²	0.16	0.22	0.02	0.13	0.24

n = 97; ⁺*p* < 0.1; * *p* < 0.05; ** *p* < 0.01