

PERFORMANCE CONSEQUENCES OF NEW CEO 'OUTSIDERNESS': MODERATING EFFECTS OF PRE- AND POST-SUCCESSION CONTEXTS

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This study seeks to reconcile inconsistent findings on the performance consequences of new CEO origin. Drawing on five decades of empirical research on CEO succession outcomes, I develop a more refined theoretical conceptualization and a finer-grained measurement of the underlying construct of the insider vs. outsider CEO, and build and test a more comprehensive and nuanced framework of the succession context. A longitudinal investigation of the U.S. airline and chemical industries (1972–2002) indicates that new CEO 'outsiderness,' conceptualized as a continuum ranging from new CEOs who have a greater combination of firm and industry tenure to those who have no experience in the firm and the industry, has no main effect on post-succession firm performance. However, significant moderating effects are found when environmental munificence, pre-succession firm performance, and concomitant strategic and senior executive team changes are considered. Together, these findings highlight the need to consider both pre- and post-succession contextual factors for evaluating the performance effects of new CEO outsidership. Copyright © 2007 John Wiley & Sons, Ltd.

Since taking over as CEO (of IBM) on April 1, 1993, Louis V. Gerstner, Jr., has made it clear that he has no intention of restructuring IBM. For the moment, Gerstner is determined to carry out a set of policies put in place by his predecessor. (Arnst, 1993)

Rather,

... the first item on his (Gerstner's) agenda was to learn everything he could about the troubled tech giant's business, staff, and customers. (Lavelle, 2005)

On the other hand, although Fiorina was hired by the HP board to initiate major changes in the

firm, some of the immediate changes she made, without connecting to people first, alienated the engineering-rooted culture of the company. Hence, one of the major reasons for her forced turnover was identified as:

collision with the celebrated and deeply rooted 'HP Way' ... Some longtime employees said 'they thought she failed to understand what she had set out to transform.' (Rivlin and Markoff, 2005)

Both Lou Gerstner and Carly Fiorina came to IBM (a data-processing equipment and services company) and Hewlett-Packard (HP: a printer, personal computer, and server maker) respectively, at a time when both firms lost momentum and needed a clear turnaround. Both successors, who by the time of the succession had been characterized by their high profile and successful careers, were outsiders in their respective new firms and industries. Gerstner was hired from RJR Nabisco, a tobacco

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and food company in 1993, and Fiorina was hired from Lucent Technologies, a telecommunications company that was a spin-off of AT&T, in 1999. In the early years of her tenure as Chief Executive Officer (CEO), Fiorina did things that popular business press characterizes as typical expectations from new outsider successors, such as efforts at making a 'fresh start' and providing 'new blood' (Anabtawi and Stout, *New York Times*, 2005). Our previous theories have also predicted that outsider CEOs would be brought in with the purpose of initiating swift changes (Shen and Cannella, 2002; Zajac, 1990). On the other hand, as can be understood from the opening statement, Gerstner surprised everyone by deciding not to embark on radical changes at IBM right away. In the end, however, while Gerstner has been considered as a legendary CEO or 'savior' of IBM by turning the poor-performing computer giant into an innovative, service-oriented, and high-performing industry leader, Carly Fiorina was ousted by the HP board in early 2005 after a disappointing performance record.

The paradoxical nature of the Gerstner and Fiorina successions is not an exception and can also be seen in a Booz Allen Hamilton study, which was conducted in the world's largest 2,500 corporations and reports that although the average rate of external successions doubled between 1995 and 2003, 55 percent of outsider CEOs in North America, and 70 percent of outsider CEOs in Europe, were forced to resign for performance-related reasons in 2003 (Lucier, Schuyt, and Handa, 2003). In other words, firms are both hiring and firing outsider CEOs at an increased rate, and therefore it is not clear how outsider CEOs influence their firms.

Five decades of empirical research (1954–2005) does not, unfortunately, provide much insight into this apparent paradox on outsider successions. Scholars have failed to reach a consensus on whether succession events in general, and insider vs. outsider successions in particular, affect firm performance positively, negatively, or insignificantly (see Table 1).

Since it is important to reconcile inconsistent findings concerning the performance consequences of new CEO origin (whether the new CEO is hired from within or outside the firm) from both theoretical and practical standpoints, it is critical to identify the sources of inconsistencies in prior empirical research. First, one of the major reasons for the

mixed findings is the lack of agreement regarding what has been captured by the insider vs. outsider dichotomy (Finkelstein and Hambrick, 1996; Kesner and Sebor, 1994; Shen and Cannella, 2002; Zajac and Westphal, 1996). Although successor origin was identified by Carlson (1961) over four decades ago as a 'gross and unrefined' variable (p. 227), CEO successions are still viewed in binary terms. Others have also regarded the notion of the insider/outside dichotomy as an oversimplification, and suggested that the focus be redirected to consider fine-grade theoretical conceptualizations and empirical analyses of the successor origin (Finkelstein and Hambrick, 1996; Zajac and Westphal, 1996), which will bring, in Finkelstein and Hambrick's (1996) terms, 'the biggest breakthroughs in the study of insider versus outsider succession' (p. 183). Second, although succession events do not happen in a vacuum, and the factors precipitating the succession and the actions of the successors affect the outcomes (Finkelstein and Hambrick, 1996), a review of prior empirical studies of CEO succession outcomes (see Table 1) suggests that there has been lack of a comprehensive theoretical conceptualization and empirical testing of the simultaneous effects of these pre- and post-succession contextual factors on CEO succession consequences.

This study attempts to overcome these issues by building and testing a more complete and nuanced framework of how the succession context influences the performance consequences of new CEO origin. First, the study offers a more refined theoretical conceptualization and a finer-grained measurement of the underlying construct of the insider vs. outsider CEO. Responding to Finkelstein and Hambrick's (1996) call, the underlying construct of successor origin is conceptualized here as a continuum of new CEO 'outsiderness',¹ which is conceptually defined as the extent to which a new CEO brings different leadership style, knowledge, skills, and perspective to a firm based on his or her previous experience in other firms and industries. A new CEO's fresh knowledge, skills, and perspective have traditionally been considered as prerequisites for his or her ability to manage change effectively (Finkelstein and Hambrick, 1996).

¹ I use the term 'outsiderness' to be consistent with the vast amounts of research on CEO successions, and to acknowledge Finkelstein and Hambrick's (1996) intellectual leadership on the issue.

Table 1. Consequences of CEO successions: published empirical research (1954–2005)

Authors	Sample/ time frame	Succession variable(s)	Context variables	Succession outcome
Gouldner (1954)	A plant manager in a gypsum mining corp.	Succession effect	Successor actions	Negative
Carlson (1961)	782 school superintendents, over 30 years	Outsider effect		Positive
Trow (1961)	Presidents in 108 small manufacturing companies	Succession effect	Heir apparent or not	Mixed
Guest (1962)	A plant manager in a large automobile plant, 3 years	Succession effect	Successor actions	Positive
Grusky (1963)	135 coaches in 16 baseball teams, 1921–41; 1951–58	Succession frequency		Negative
Gamson and Scotch (1964)	Managers in 22 baseball teams, 1954–61	Succession effect		Not significant
Grusky (1964)	Managers in 21 baseball teams, 1954–61	Outsider effect		Negative
Eitzen and Yetman (1972)	657 coaches in 129 NCAA basketball teams, 1930–70	Succession effect	Successor tenure	Not significant
Helmich and Brown (1972)	204 presidents in 208 chemical firms, 1959–69	Outsider effect		Positive
Liebersohn and O'Connor (1972)	Chairman/Presidents in 167 large corporations, 1946–65	Succession effect		Not significant
Helmich (1974)	Presidents in 29 manufacturing firms, 1964–72	Outsider effect		Positive
Allen, Panian, and Lotz (1979)	283 coaches in baseball teams, 1920–73	Succession frequency, timing, type		Mixed
Brown (1982)	Coaches in 26 NFL teams, 1970–1978	Succession and outsider effects		Not significant
Carroll (1984)	662 publishers in 2137 local newspapers, 1800–1975	Succession effect	Control structure	Negative
Smith, Carson, and Alexander (1984)	Ministers in United Methodist Church, Ohio, 1961–80	Succession effect		Not significant
Reinganum (1985)	842 Chairman/Presidents in 667 public firms, 1978–79	Succession characteristics	Size, successor origin, predecessor characteristics	Mixed
Samuelson, Galbraith, and McGuire (1985)	102 CEOs in 61 corporations vs. controls, 1970–76	Succession effect	Successor origin	Mixed

(continued overleaf)

Table 1. (Continued)

Authors	Sample/ time frame	Succession variable(s)	Context variables	Succession outcome
Pfeffer and Davis-Blake (1986)	27 coaches in 22 teams in NBA, 1977–81	Succession effect	Successor competence	Mixed
Beatty and Zajac (1987)	429 CEOs in 209 large corporations, 1979–80	Succession effect	Successor origin	Negative
Chung <i>et al.</i> (1987)	99 CEOs in large firms, 1971–76	Outsider effect	Pre-succession performance	Mixed
Worrell and Davidson (1987)	60 CEOs following death of the predecessor, 1966–82	Outsider effect		Mixed
Bonnier and Bruner (1989)	87 executives in 70 financially distressed firms, 1969–83	Succession effect	Title of successor, firm size	Positive
Friedman and Singh (1989)	CEOs in 130 firms	Succession effect	Succession context, content	Mixed
Lubatkin <i>et al.</i> (1989)	477 CEOs in 357 large corporations, 1971–75	Succession effect	Successor origin, pre-succession performance	Mixed
Davidson, Worrell, and Cheng (1990)	367 key executives in <i>Fortune</i> 500, 1986	Succession effect	Successor origin, age, power	Positive
Zajac (1990)	118 CEOs of the largest U.S. corporations in 1987	Succession effect	Successor origin, heir apparent	Mixed
Friedman and Saul (1991)	235 HR executives: CEO successions in <i>Fortune</i> 500, 1983	Succession effect	Succession context, content	Mixed
Virany, Tushman, and Romanelli (1992)	Top executives in 59 minicomputer firms, 1966–80	Succession effect	Successor origin, strategic reorientation	Positive
Wiersema (1992)	86 CEOs and 60 controls in <i>Fortune</i> 500, 1977–81	Outsider effect		Positive
Haveman (1993)	Executives in 243 small telephone firms of Iowa, 1900–17	Succession effect	Successor position	Negative
Miller (1993)	CEOs in 36 companies tracked for at least 20 years	Succession effect	Pre-succession performance	Positive
Kesner and Dalton (1994)	84 CEOs in public firms in 1980	Succession effect	Successor origin	Mixed
Denis and Denis (1995)	908 top executives in 1689 firms, 1985–88	Succession effect	Predecessor turnover	Positive
Weisbach (1995)	227 CEOs in 270 acquisition cases, 1971–82	Succession effect		Positive
Tushman and Rosenkopf (1996)	Top executives in 291 cement firms, 1900–86	Succession effect	Environmental turbulence, TMT change	Mixed
Fizel and D' Itri (1997)	Coaches in 147 NCAA basketball teams, 1983–92	Succession effect	Successor efficiency and experience	Negative
Worrell, Nemeck, and Davidson (1997)	522 executives in 438 firms in <i>Business Week's</i> 1990 list	Succession effect	Succession origin, position, pre-succession performance, board characteristics	Mixed

Table 1. (Continued)

Authors	Sample/ time frame	Succession variable(s)	Context variables	Succession outcome
Datta and Rajagopalan (1998)	134 CEOs in manufacturing firms, 1977–87	Successor characteristics	Industry characteristics, pre-succession performance	Not significant
Lauterbach, Vu, and Weisberg (1999)	165 top managers in public firms, 1989–91	Outsider effect		Positive
Sakano and Lewin (1999)	CEOs in 81 Japanese companies, 1988–93	Succession and outsider effects	Governance structures	Not significant
Smith and Amoako-Adu (1999)	124 managers in Canadian family firms, 1962–96	Successor characteristics		Mixed
Boyne, Ashworth, and Powell (2001)	CEOs in 402 English local authorities, 1981–96	Succession effect		Not significant
Davidson, Nemeč, and Worrell (2001)	421 CEOs in 332 firms in <i>Business Week's</i> 1992 list	Succession effect	Heir apparent	Mixed
Bigley and Wiersema (2002)	61 CEOs in firms in Forbes 500 list, 1990–94	Heir apparent		Mixed
Davidson <i>et al.</i> (2002)	55 outsiders in large firms, 1982–92	Outsider effect	Relatedness of industry origin of successor	Mixed
Shen and Cannella (2002)	228 CEOs in 300 public organizations, 1988–94	Successor type	TMT turnover	Mixed
Bailey and Helfat (2003)	36 external CEOs in large public firms, 1978–87	Outsider effect	Relatedness of industry origin of successor	Not significant
Shen and Cannella (2003)	193 CEOs in large corporations, 1988–97	Succession effect	Heir apparent exit and promotion, succession origin	Mixed
Davidson <i>et al.</i> (2004)	173 duality-creating successions in public firms, 1982–92	Succession effect	Successor duality, pre-succession performance	Mixed
Haveman and Khaire (2004)	Successions in early U.S. magazine industry, 1741–1860	Succession effect	Successor characteristics (role, ideology, affiliation)	Negative
Huson, Malatesta, and Parrino (2004)	1344 CEOs at large firms, 1971–94	Succession effect	Successor, firm, and predecessor characteristics	Positive
Zhang and Rajagopalan (2004)	204 CEOs in nondiversified firms, 1993–98	Succession type	Pre-succession performance; environmental and strategic instability	Mixed

The concept of new CEO outsidership offered here strives to be a significant improvement on previous constructs of successor origin (the insider/outsider dichotomy and the outsidership continuum of Finkelstein and Hambrick, 1996). First, previous constructs take an executive's 'current firm membership' as the basis of theoretical categorization of new CEOs as insiders and outsiders. This may add to conceptual confusion by

possibly conveying an impression that outsidership is a reflection of someone's in- or out-group membership, rather than the extent of change in important leadership characteristics, such as leadership style, knowledge, skills, and perspective.² Second, previous constructs do not make

² This also creates problems in measurement. For example, a new CEO who has 3 years of tenure with the firm, but who had spent

a theoretical distinction between the extent to which a board of directors *signals* change with the selection of an outsider and that of change a firm *achieves* based on a new CEO's previous experiences. This may have greatly contributed to theoretical confusion and empirical inconsistency regarding the outcomes of insider vs. outsider succession. More recent research indeed suggests that inside successions do not always reflect a board of directors' intent to maintain strategic direction (Shen and Cannella, 2002), and outside successions do not necessarily signal changes because of a myriad of sociopolitical forces and institutionalization processes within organizations (Zajac and Westphal, 1996) as well as in external labor markets (Khurana, 2002). Therefore, drawing upon the theoretical salience of executives' firm and industry tenure for their leadership style, knowledge, skills, and perspective, and therefore for firms' strategic inertia or change, the outsidership conceptualization offered here mainly builds on the upper echelon theory by attempting to capture the consequences of change in important leadership characteristics rather than the internal and external 'signaling' effects of inside vs. outside succession.

In addition, after reviewing five decades of empirical research on executive successions (see Table 1) and vast amounts of research on top management teams (TMTs), I model and simultaneously test the most theoretically salient factors of the pre- and post-succession contexts that affect the performance consequences of new CEO outsidership. Building on the strategic leadership, and organizational learning and change literature, the main thesis of this paper is that new CEO outsidership will have—by itself—no direct effect on post-succession firm performance. Rather, I suggest that the performance effects of new CEO outsidership are contingent on the turbulence and the munificence of the external environment, pre-succession firm performance, and concomitant changes in strategy and senior executive team that take place during early years of the new CEO's tenure.

all of his or her career in a very different industry before joining the firm 3 years ago, would be coded as *less* of an outsider than a new CEO who was hired directly from outside the firm, but who had been working in the focal firm's industry for decades.

THEORETICAL BACKGROUND

Top executives and firm performance

Given its emphasis on CEOs' demographic characteristics, investigation of the implications of new CEO outsidership for the firm is a natural progression in the extant research on TMTs. According to research tradition inspired by the upper echelon theory of Hambrick and Mason (1984), executives' demographic characteristics significantly affect strategic decision making and organizational outcomes. While one stream of TMT research has focused on the 'team' level of analysis in investigating the organizational implications of executive backgrounds (e.g., TMT demographic heterogeneity), the other research stream has focused on the outcomes of change in key leadership, mostly the change in CEO position.

The selection of a new CEO has been widely thought to be a critical decision that influences a firm's future direction and effectiveness. The origins of succession research go back to two early case studies, which yielded contrasting outcomes on succession events (Gouldner, 1954; Guest, 1962). There have been at least 50 other published empirical studies on the firm consequences of top executive successions (see Table 1). However, as Table 1 suggests, mixed findings on the performance implications of succession events in those studies have led scholars to move from the unpromising question of whether executive succession helps or hurts firm performance to investigate the effects of succession context, in other words, under what circumstances succession benefits or disrupts firm performance (Finkelstein and Hambrick, 1996: 164).

This latter group of succession research has identified successor origin as an important component of the succession context, which has significant implications for organizational performance. These theories have predicted that outsiders would be selected when organizations perform poorly and need a strategic change, and insiders would be selected when organizations desire continuity (Boeker, 1997; Boeker and Goodstein, 1993; Brady and Helmich, 1984; Zajac, 1990). However, the performance consequences of new CEO origin have also been characterized by mixed results. As discussed earlier, the lack of consistency in what the insider vs. outsider CEO dichotomy captures

may have greatly contributed to the mixed findings on the performance consequences of successor origin reported throughout the research (Kesner and Sebor, 1994: 356). To overcome this issue, the next section seeks to spell out the implications of the underlying construct of the insider vs. outsider CEO with the concept of new CEO outsidersness.

New CEO outsidersness and post-succession performance

Advantages of new CEO outsidersness

Both resource dependence (Pfeffer and Salancik, 1978) and upper echelon (Hambrick and Mason, 1984) perspectives highlight the advantages of hiring a CEO from outside the firm and the industry. The resource-dependence theory-based adaptive view advocates the replacement of top managers with those hired from outside the firm as a remedy for organizational difficulties, such as poor performance (Boeker and Goodstein, 1993; Datta and Guthrie, 1994; Helmich and Brown, 1972; Kosnik, 1987) and resistance to change in response to shifting environmental demands (Pfeffer and Salancik, 1978; Thompson, 1967; Virany, Tushman, and Romanelli, 1992).

The upper echelon perspective has identified executives' firm and industry tenure as two of the most prominent sources of strategic inertia in the firm. According to the upper echelon perspective, tenure in the organization is the most salient characteristic of a new CEO's insidersness to that firm (Finkelstein and Hambrick, 1996). Research suggests that because of socialization processes inside the firm, long-tenured executives are more likely to have narrow perspectives, psychological commitments to the status quo (Hambrick, Geletkanyecz, and Fredrickson, 1993; March and March, 1977; Katz, 1982), and a declined amount and quality of information processing (Finkelstein and Hambrick, 1996; Tushman and Romanelli, 1985). Furthermore, due to their psychological commitment to the status quo and entrenched social relationships within firms, executives with long organizational tenure tend not to make necessary changes in their organizations (Finkelstein and Hambrick, 1990; Gabarro, 1987; Wiersema and Bantel, 1993). Another source of an executive's commitment to the status quo has been identified as his or her long tenure in the industry (Hambrick *et al.*, 1993). Significant homogeneity of perceptions exists within

industries (Spender, 1989), and therefore executives' long industry tenure results in a social construction of reality and difficulty in conceiving alternative logics (Sutcliffe and Huber, 1998). In other words, a CEO's industry background influences his or her cognitive representations (Pralhad and Bettis, 1986) and choice of strategy (Gunz and Jalland, 1996), and therefore industry tenure of a new CEO is expected to affect firm performance.

Based on all of the theoretical discussions of Finkelstein and Hambrick (1996: 184) on the benefits of new CEO outsidersness, and previous empirical research inspired by the upper echelon perspective (e.g., Hambrick *et al.*, 1993), as a new CEO's outsidersness increases, the new CEO becomes more cognitively open-minded, less committed to the status quo, and better able to see new courses of actions. Furthermore, such CEOs will be less hesitant to make major changes, since they are less likely to be socially connected to internal executives and are less committed to current strategic direction. However, despite all of these advantages of new CEO outsidersness, there are forces that may prevent firms from benefiting from new CEO outsidersness. These are described in the following section.

Disadvantages of new CEO outsidersness

According to the 'continuity' view of successions, the main goal of succession is to ensure leadership continuity in the organization. This view focuses attention on succession from within the organization, highlighting the importance of insiders' greater knowledge of the firm and established networks for achieving continuity (Lauterbach, Vu, and Weisberg, 1999). At the same time, the economic rents of human capital (Bailey and Helfat, 2003) and upper echelon (e.g., Shen and Cannella, 2002) perspectives identify several disadvantages of hiring CEOs from outside the firm and the industry. For instance, as a new CEO's outsidersness increases, it is more likely that he or she will lack critical firm- and industry-specific skills. Since outsider CEOs are more likely to be hired under poor performance circumstances, when their lack of firm and industry-specific skills combines with pressure from the board of directors to turn performance around, such CEOs are more likely to take premature

actions rather than make well-formulated, appropriate changes in strategy, structure, and internal processes (Gabarro, 1987).

Furthermore, there is often more uncertainty regarding an external candidate's skills and personality traits, and whether he or she fits well with the culture of an organization and the strategic needs of the firm. A board of directors usually interacts with an insider candidate on many occasions, and therefore has a chance to observe his or her behavior and personality traits under different circumstances. On the other hand, boards usually face greater difficulties in acquiring this type of diverse information about external candidates (Harris and Helfat, 1997). This may result in an adverse selection, in that the successor may not be the right person for the strategic demands facing the firm (Zajac, 1990). The risk of adverse selection will probably be higher in cases of more outsider CEO selections, because a board of directors does not usually have a large amount of information about the best-managed firms in a different industry, although they usually have that benchmark information about the firms in their own industry (Bailey and Helfat, 2003). Therefore, these combined information asymmetries negatively influence a board's ability to effectively assess the fit between more outsider candidates and the needs of the firm.

Lastly, current senior executives who were appointed by the predecessor CEO often have a negative attitude toward the selection of someone from outside the firm, and they tend to either leave the firm or resist the significant changes initiated by the new CEO (Helmich and Brown, 1972; Shen and Cannella, 2002). If the new CEO is hired from outside the industry, the importance of an experienced and supportive team is even higher until the new CEO gets to know the firm's business and competitive environment. Hence, all of these factors work against the potential benefits that successor outsidership brings to a firm in the early years of the new CEO's tenure. Therefore, based on these discussions of the advantages and the disadvantages associated with new CEO outsidership, when a new CEO is selected it is hard to predict the direction of the main effect of his or her outsidership on post-succession firm performance (controlling for the environmental and performance contexts in which he or she is selected).

Hypothesis 1: Controlling for the environmental and performance contexts in which a new CEO is selected, new CEO outsidership will not be significantly associated with post-succession firm performance.

MODERATING INFLUENCES

One productive strategy to solve the theoretical indeterminacy on the effects of new CEO outsidership is to specify the conditions under which successor outsidership will have its different effects. As Table 1 presents, in the evolution of empirical succession research, several studies have attempted to use the same strategy by using contingency variables on the effects of succession either at the individual (successor origin and characteristics), team (TMT change), organizational (size, pre-succession firm performance, strategic reorientation), or environmental (environmental turbulence, industry characteristics) level. Therefore, it is understood from Table 1 that the conditions under which a successor is selected (pre-succession context) and the successor's actions, in other words, what happened after the succession (post-succession context), are both important in terms of the consequences of succession event and successor origin. However, no studies have modeled and tested a comprehensive and nuanced framework that includes the most theoretically salient factors of pre- and post-succession contexts simultaneously. Building on the prior research on CEO successions, TMTs, and organizational learning and adaptation, as the following sections aim to explain in detail, such a complete theoretical conceptualization is necessary to make more accurate predictions on the effects of new CEO outsidership.

Pre-succession context

External environment

Previous theory has identified CEO succession as a key adaptation mechanism in response to shifting environmental demands (Pfeffer and Salancik, 1978; Tushman and Romanelli, 1985). However, the implications of the specifics of these environmental changes for the performance consequences of succession events and successor origin remain unknown (Finkelstein and Hambrick,

1996). Environments can be characterized along several dimensions. In this study I focus on their degree of turbulence or stability, and munificence, since these are directly associated with uncertainty, which is important for the strategic decision-making process (Dess and Beard, 1984). Earlier research has also identified their effects on the firm outcomes of top executive characteristics (e.g., Halebian and Finkelstein, 1993).

Turbulence refers to instability, or difficult-to-predict changes in the environment (Aldrich, 1979; Dess and Beard, 1984; Wholey and Brittain, 1989). Relatively speaking, in stable industries where the growth rate is typically low and product or service demand is quite predictable, the dominant role of leadership is to maintain values, culture, and the current strategic direction (Pfeffer, 1981; Tushman and Romanelli, 1985). In stable environments, top managers' information and decision-making requirements are more 'standardized and routine' (Kotter, 1982: 29), and problem solving is more systematic (Eisenhardt, 1989). Hence, the exploitation of established capabilities that are associated with firm and industry-specific knowledge is valued (Finkelstein and Hambrick, 1996; March, 1991).

As the rate of turbulence increases, the importance of exploration capability also increases (McGrath, 2001). In turbulent environments, managers need a wide range of multidimensional capabilities (Volberda, 1996) and abilities to envision and implement a broad range of strategic options (Carpenter and Westphal, 2001). Turbulent environments are also characterized by frequent environmental shifts, or discontinuities, which require 'second-order learning' (March, 1991), associated with an ability to make fundamental changes in organizational strategy, structure, and processes (Virany *et al.*, 1992). Norburn and Birley (1988) indeed found that executives' firm tenures were positively associated with firm performance in stable industries but negatively associated with firm performance in turbulent industries.

For instance, in the turbulent U.S. airline industry, very different CEO choices of Delta and United Airlines in the late 1990s resulted in very different performance outcomes. In mid-1997 Delta Airlines chose Leo Mullin, a former banker and electric utility executive who had no previous airline experience. Substantial improvements in employee morale and company performance were observed at Delta Airlines within a 3-year

performance window after Mullin took the helm of the company (Bond, 2003). On the other hand, at United Airlines, the unions' choice, Jim Goodwin, who was a 32-year-veteran of the company, won the race to become the new CEO against the other top candidate, Louis Hughes, an outsider executive from General Motors Company. Although Goodwin had extensive firm and industry-specific knowledge, company performance continued to deteriorate in the turbulent context of the airline industry, and Goodwin had to resign only 2 years after he took over as CEO. Given these discussions, the following hypothesis is suggested:

Hypothesis 2: New CEO outsidership will be more positively associated with post-succession firm performance in turbulent environments than in stable environments.

Based on the premises of the adaptive view of organizations and the upper echelons theory, the munificence of the external environment also influences CEO succession outcomes. Environmental munificence refers to the ability or capacity of the environment to permit organizational growth (Aldrich, 1979; Dess and Beard, 1984). Munificent environments help organizations buffer themselves from external threats and enable them to accumulate slack resources (Aldrich, 1979; Finkelstein and Hambrick, 1996). Therefore, top managers have a wider breadth of options, and greater discretion, or latitude of action, in making strategic choices (Hambrick and Finkelstein, 1987). Furthermore, in munificent environments firms are expected to maintain or expand their market share under conditions of strong competitive forces. This requires top executives to take risks in entrepreneurial decision making (Palmer and Wiseman, 1999). For instance, Motorola, a large telecom equipment maker, was no longer a market leader in many of its biggest business segments in late 2003. The company was losing market share particularly in its cell phone business, which accounted for about half of the company's revenues, when the board of directors decided to hire Ed Zadner, who was a longtime computer industry executive, from Sun Microsystems. About one and a half years after Zadner took over as CEO, Motorola has gained significant market share in its cell phone business, and the net income of the company jumped 14 percent (Rhoads, 2005).

On the other hand, under conditions of constraining forces in less munificent environments, top managers do not usually have a high degree of control over firm outcomes (Hambrick and Finkelstein, 1987). Therefore, environmental and organizational contexts have a greater effect on firm performance than does executive leadership (Haleblian and Finkelstein, 1993). Based on these discussions, the following hypothesis is suggested:

Hypothesis 3: New CEO outsidership will be more positively associated with post-succession firm performance in munificent environments than in less munificent environments.

Firm performance

Among the factors triggering the succession event and the selection of an outsider CEO, poor pre-succession firm performance has probably received the most attention (e.g., Boeker and Goodstein, 1993; Datta and Guthrie, 1994; Helmich and Brown, 1972; Kosnik, 1987). While there is abundant empirical evidence supporting the greater likelihood of outsiders being selected in the poor firm performance context, the post-succession performance consequences of outsider successions, which occurred under poor performance conditions, are less clear (Finkelstein and Hambrick, 1996).

Research implies that poor performance acts as a catalyst to organizational adaptation by signaling that the existing way of operating is inappropriate and that leadership needs to achieve a more successful alignment with the external environment (Boeker and Goodstein, 1993; Tushman and Romanelli, 1985). If a firm's performance is consistently declining, incremental changes to existing operating procedures will probably not be sufficient; indeed, reinforcement of the status quo is more likely to exacerbate the performance decline (D'Aveni, 1989; Tushman and Rosenkopf, 1996). The experiences of Leo Mullin and Jim Goodwin, which were described earlier, illustrate this point as well. Both Mullin and Goodwin were hired when their respective firms were suffering from poor firm performance conditions. Although an outsider to both the firm and the airline industry when he became CEO of Delta Airlines, Leo Mullin was able to turn around Delta's performance in the late 1990s. Jim Goodwin's experience during the

same time period, however, was markedly different. Goodwin had risen through the ranks at United Airlines and was thus both a firm and airline industry veteran when becoming CEO of United Airlines, yet during his tenure United Airlines' performance continued to deteriorate rapidly. Therefore, under poor firm performance conditions, more outsider successors who can initiate major changes in the firm and alter standards of performance for their team are more likely to turn performance around. Poor pre-succession firm performance is also likely to make it easier for the new outsider CEO to overcome resistance to his or her change initiatives (Boeker, 1997). Given these arguments, the following hypothesis is suggested:

Hypothesis 4: New CEO outsidership will be more positively associated with post-succession firm performance when pre-succession firm performance is low.

Post-succession context

Strategic change

Most research implies that changes in strategy, structure, and internal processes introduced by new outsider CEOs mediate the relationship between the succession and the subsequent performance. It is beyond the scope of this study to investigate all of the changes, which follow a succession event. However, prior research regarding the performance effects of swift strategic changes following CEO successions has been characterized by theoretical indeterminacy and empirical inconsistency. This may have greatly contributed to the mixed findings on the outcomes of CEO succession events and successor origin. Therefore, it is important to clarify the role of swift strategic changes introduced by new external CEOs in post-succession performance change.

Although theoretical advancement and empirical evidence are both very limited, previous research implies that swift changes in important components of a firm's strategy triggered by some CEO successions may cause a decline in organizational performance (Friedman and Singh, 1989; Virany *et al.*, 1992). Some in-depth case studies in the 1980s suggest that while facing pressure from the board of directors to take quick actions, new outsider CEOs are at risk of formulating and implementing inappropriate strategies (Gabarro, 1987;

Kotter, 1982). More recently, it has been discussed that outsider CEOs' increased likelihood of initiating strategic changes does not necessarily imply that such changes improve post-succession performance (Zhang and Rajagopalan, 2004: 497). However, there has been no large-sample empirical study to directly test the implications of swift post-succession strategic changes initiated by outsider CEOs for subsequent firm performance.

In the meantime, with the increasing rate of outsider successions, this problem has gained momentum in the business environment and has recently been identified by popular business media as outsider CEOs' 'revolving door phenomenon' (Lucier *et al.*, 2003). The underlying idea is that new outsider CEOs assume that they have a mandate from the board to initiate major changes in a short period of time; otherwise their contract will most likely to be terminated. Because of this pressure, the changes they make can be more like quick fixes rather than real transformations. The quality of these changes is questionable as well, since such new CEOs usually lack cultural understanding, personal networks, and a deep knowledge of the firm's internal and external environment to successfully formulate and implement major changes in early years of their tenure. In a sense, this is a paradox, since very often such CEOs are brought in with the purpose of initiating massive changes in a relatively short amount of time.

Although it is beyond the scope of this paper to resolve this paradox, the contrasting approaches of Louis Gerstner at IBM and Carly Fiorina at HP in initiating swift strategic changes, which was explained earlier, suggests some useful hints regarding the performance implications of swift strategic changes introduced by new outsider CEOs. Gerstner critically evaluated the existing policies and strategies before making any attempt to change them (Arnst, 1993). This approach not only gave him the necessary time to gain expertise about several aspects of the firm and its business, but also helped him gain the necessary power base, and social and political capital to make effective massive changes a couple of years later. On the other hand, before she tried to get to know HP inside out, Carly Fiorina turned immediately to the outside and started to work on the exterior image of the company by initiating several swift changes (Lavelle, 2005). She made these immediate changes without getting the necessary knowledge and sociopolitical support, which set

the ground for her forced turnover in early 2005 (Rivlin and Markoff, 2005).

Therefore, although outsiders are selected when a transformation is most needed, swift changes in core dimensions of a firm's strategic profile when initiated by new CEOs who are less familiar with the firm's internal operations and business environment will likely hurt firm performance. Given these arguments, the following hypothesis is suggested:

Hypothesis 5: New CEO outsidership in the presence of fewer swift strategic changes will be more positively associated with post-succession firm performance than new CEO outsidership in the presence of more swift strategic changes.

Senior executive team change

Research tradition inspired by the upper echelon theory of Hambrick and Mason (1984) predicts that it is not the CEO alone, but the whole executive team, who influence strategic decision making and firm performance (e.g., Hambrick, Cho, and Chen, 1996; Shen and Cannella, 2002; Tushman and Rosenkopf, 1996). Senior executive team change affects composition of the team (Wagner, Pfeffer, and O'Reilly, 1984) and team dynamics (Shen and Cannella, 2002). As a result, prior research concluded that 'focusing on the CEO successor alone without considering other personnel changes within top management can not fully and accurately capture the performance consequences of CEO succession' (Shen and Cannella, 2002: 728). However, the exact nature of the theoretical and empirical relationships between CEO successions, post-succession senior executive team changes, and subsequent firm performance, has not been established clearly (Tushman and Rosenkopf, 1996).

The degree of the senior executive team change is not only important in terms of triggering different modes of organizational learning (Tushman and Rosenkopf, 1996; Virany *et al.*, 1992), but it is critical for enabling a new CEO to establish credibility, and to gain the social and political support required to make necessary changes (Helmich and Brown, 1972; Shen and Cannella, 2002). However, prior research has yielded inconsistent findings regarding the performance effects of the degree of senior executive team change following a CEO succession event. For example, while Tushman and

Rosenkopf (1996) found a negative effect, Kesner and Dalton (1994) reported a curvilinear effect, and Virany *et al.* (1992) showed no direct effect of post-succession senior executive team change on subsequent firm performance. The inconsistent findings may have resulted from the fact that senior executive team change has different causes and effects in different succession contexts (e.g., Shen and Cannella, 2002). Empirical evidence is particularly limited with regard to performance effects of executive team changes following insider vs. outsider successions.

While Shen and Cannella (2002) found a negative impact of senior executive team turnover after an outside succession on subsequent performance, a majority of the previous research highlights the benefits of significant senior executive team changes following external CEO successions. For instance, as discussed earlier, current senior executives who were appointed by the previous CEO often have a negative attitude toward the selection of an outsider, and resist the significant changes initiated by the new CEO (Helmich and Brown, 1972). Fondas and Wiersema (1997) also discuss that while newcomer CEOs' interactions with old-timers in the executive team elicit a more status quo definition of the right strategy, new CEOs' interactions with newly appointed team members will probably result in a more innovative response. Furthermore, empirical evidence suggests that the scope of executive team changes triggers different modes of learning within the organization: while CEO succession is associated with incremental changes, or first-order learning, sweeping executive team changes have been considered as a more fundamental source of change within the organization, associated with second-order learning (Tushman and Rosenkopf, 1996; Virany *et al.*, 1992). Greater degrees of post-succession senior executive team change result in decreased team tenure and increased team heterogeneity. These are likely to be associated with more open problem solving, new communication networks, and new intra-group processes, which alter bases of competence and power within the team, and can help the team take substantive action (Tushman and Rosenkopf, 1996).

If we go back to the comparative case of the Gerstner and Fiorina successions, we see that a major difference between Gerstner and Fiorina is in their approach toward their senior executive team. Less than 2 years after Gerstner took the CEO office at

IBM, he completed a major reshuffling in the TMT by replacing the previous management's senior executives with new ones whom Gerstner trusted and thought could deliver results (Hays, 1995). On the other hand, one of Fiorina's major mistakes, which contributed to her dismissal, was identified as her

failure to bring with her a team of effective and loyal key subordinates. Without such a support group from below, she laid herself open to having her legs cut off by the hostile old guard that she inherited (Bill Deibel, letter to the editor, *Wall Street Journal*, 15 February 2005).

Given these arguments, I suggest the following hypothesis:

Hypothesis 6: New CEO outsidership with greater senior executive team change will be more positively associated with post-succession firm performance than new CEO outsidership with less senior executive team change.

METHOD

Sample and data sources

The population for this study is middle- and large-sized, publicly traded corporations, existing between the years 1972 and 2002, in the U.S. Airline industry (SIC 4512) and the two branches of the Chemical industry: Paints, Varnishes, Lacquers, Enamels, and Allied products (SIC 2851), and Industrial Inorganic Chemicals (SIC 2819). The industries selected afford several contrasts and comparisons in environmental context. This is necessary in order to assess the hypothesized differences on the effects of environmental turbulence and munificence, and to generalize the findings of this study to different contexts. The industry-based sampling logic is also aimed at controlling for as many industry-related potentially confounding factors as possible, enabling me to capture the effects of environmental aspects that are of theoretical interest in this study more adequately.³

³ During the study period, the airline industry has gone through major structural changes. The Deregulation Act of Airliners in 1978, which removed governmental control of routes and pricing, resulted in a proliferation of new players both at the regional and the national level. The competition grew fierce, and the industry witnessed a wave of mergers, acquisitions, and

The final sample includes all firms that reached \$100 million in sales at any point between the years 1972 and 2002 in the U.S. airline industry, and all firms whose primary business was paint or industrial inorganic chemicals in the chemical industry for which data were available. The relationship between organizational environment, executive characteristics, and firm outcomes can be more directly assessed for nondiversified firms (Gupta, 1988). Therefore, by applying the definition of Rumelt's (1982) product-dominant category of firm strategy, in the chemical industry firms that diversified into different industries where they derived, more than 30 percent of their sales were dropped from the sample. Choosing primarily single-business firms has been a common practice in previous succession research (e.g., Datta and Rajagopalan, 1998; Zhang and Rajagopalan, 2003). Accordingly, in the final sample there were a total of 90 firms, including 52 airline, 25 industrial inorganic chemicals, and 13 paint firms. Out

bankruptcies, which resulted in the consolidation of the industry by mid-1980. The jolts caused by the Gulf War in 1991 and the attacks on 11 September 2001 were other major sources of turbulence and bankruptcies in the industry. While industry entries are related to growth rate or the level of munificence in an industry (Porter, 1980), industry exits are more affected by uncertainty caused by turbulence (Anderson and Tushman, 2001). Therefore, environmental turbulence and munificence measures, which have cross-industry applicability, also aim to capture the effects of the structural changes that occurred in the airline industry.

More specifically, during the study period, from 1972 to 2002, the U.S. airline industry had shorter periods of stability (i.e., before the deregulation in 1978) and longer periods of turbulence caused by continuously high demand instability and unpredictability, competitive rivalry, and various discontinuous changes, as compared to the U.S. industrial inorganic chemicals industry which had relatively longer periods of stability, and shorter periods of turbulence caused by technological innovations, demand instability, and unpredictability. Furthermore, the munificence of the environment was considered generally low in the airline industry, except for short periods of high growth (e.g., 1979–85, and 1994–98). In the industrial inorganic chemicals industry the most munificent period was the early 1990s, where the annual growth jumped to 11 percent. Otherwise, the industry was considered as a moderately munificent context, where the average annual growth was about 4 percent. Throughout the whole period, the U.S. paint industry was a relatively stable and moderately munificent environment characterized by slow and steady growth, with incremental process innovations.

The sources for the airline industry: *Air Transport Association Annual Reports, 1972–2002*, *Encyclopedia of American Industries*, various editions; Morrison and Winston (1995); Standard and Poor's industry surveys; Value Line investment analyses. The sources for the chemical industry: *Encyclopedia of American Industries*, various editions; Standard and Poor's industry surveys; Value Line investment analyses; see also Fredrickson and Iaquinto (1989) and Benner and Tushman (2002) for the paint industry.

of data for 1436 firm-years (689 airline firm-years, 747 chemical firm-years), 163 successions (106 in airline firms, and 57 in chemical firms) have been observed. Because of missing data, 15 airline and eight chemical observations were dropped from the data. Therefore, the final sample included 140 succession observations.

This study used secondary data from published and Web-based resources. The information on CEO successions and biographies and from senior executive team lists was gathered from Standard & Poor's *Register of Corporations, Directors, and Executives*, Dun & Bradstreet's *Reference Book of Corporate Managements, Who's Who in Finance and Industry*, Wall Street's CEO change announcements, and corporate annual reports. The data for computing strategic change, environmental turbulence and munificence, firm operational and market-based performance indicators, and firm size were collected from COMPUSTAT and several published sources, such as the U.S. Industry Outlook and the U.S. Census of Manufacturers. Additional airline firm performance measures were collected from the annual reports of the Air Transport Association.

Measures

Dependent variable

Post-succession firm performance change was measured as a composite measure by summing the standardized (*Z*-score) change in a firm's two operational performance indicators—industry-adjusted return on assets (ROA) and industry-adjusted return on sales (ROS)—and a market-based performance indicator—industry-adjusted total shareholder return (TSR)—from the time of succession until 3 years later. The performance implications of executive successions have been studied by using both market (e.g., Beatty and Zajac, 1987; Friedman and Singh, 1989; Daily, Certo, and Dalton, 2000) and accounting (e.g. Datta and Rajagopalan, 1998; Shen and Cannella, 2002) indicators. This study combines the two, since assessing performance with a multidimensional measure has generally been considered as more desirable in strategic management research, particularly when firms in the sample are generally undiversified (Venkatraman and Ramanujam, 1986). A similar composite firm performance measure, the sum of the standardized (*Z*-score)

ROA and TSR, has also been used in previous succession research (e.g., Zajac and Westphal, 1996). Additional analyses were also conducted with changes in adjusted accounting (combined standardized ROA and ROS) and market-based (TSR) measures as separate dependent variables (and with pre-succession adjusted accounting-based and market-based measures as separate control and moderating variables in respective analyses). The findings of these additional analyses are reported as a footnote at the end of the Results section.

A 3-year time frame in firm performance has been widely used in previous succession research (e.g., Datta and Rajagopalan, 1998; Shen and Cannella, 2002). Furthermore, Datta and Rajagopalan (1998) argue that 'the change in performance can be more directly related to the succession event; in contrast, absolute measures of post succession performance are more likely to reflect enduring performance effects carried over from the pre-succession period' (p. 843). Therefore, I used the change in composite firm performance rather than the absolute measure of composite firm performance as the dependent variable.

Independent variable

The new CEO outsidersness is operationally defined as a continuum ranging from new CEOs who have a greater combination of firm and industry tenure to those who have no experience in the firm and the industry, and was measured as an index variable by summing the inversed standardized (*Z*-score) firm and industry tenure of the new CEO. As discussed in the Theory section, although firm and industry tenure have both been identified as important sources of executives' psychological commitment to the status quo and consequential strategic persistence (Hambrick *et al.*, 1993), the concept of successor origin puts heavier weight on firm experience for a new CEO's 'insidersness' (Finkelstein and Hambrick, 1996). Therefore, in order to be able to capture the underlying construct of successor origin, firm tenure carries more weight in the outsidersness measure that I offer in this paper as well. For example, a new CEO who has a 10-year industry tenure, but has no firm tenure, is twice as much an outsider as another new CEO who has a 10-year firm tenure, and has no additional industry tenure (since in the latter case the new CEO is regarded as having a 10-year industry tenure

as well). The standardization of firm and industry tenure also normalizes the distribution.⁴

Moderating variables

Environmental turbulence was measured by the volatility of demand across time, by regressing a variable for each year (time) on a variable for revenue per available seat miles in the airline industry, and for value of shipments in the chemical industry. Five years of data were used for each equation (for instance, revenue from 1994 to 1998 was used to predict dynamism in 1999). Following the equation $y_t = b_0 + b_1t + a_t$, where y is the revenue per available seat miles or value of shipments, t is year, and a is the residual, the volatility of demand across time measure is the standard error of the regression slope coefficient divided by the mean value of the dependent variable (e.g., Carpenter and Fredrickson, 2001). *Environmental munificence* was measured by using the same regression model, where munificence is the regression slope coefficient divided by the mean value of the dependent variable, indicating a growth-based measure (e.g., Boyd, 1995; Palmer and Wiseman, 1999; Wiersema and Bantel, 1993).⁵

⁴ As a robustness check of my outsidersness measure, I also tested the hypotheses by using the 'outsidersness' measure offered by Finkelstein and Hambrick (1996: 185), where I measured new CEO outsidersness on a seven-point ordinal scale, ranging from extreme insiders (long firm tenure category) to extreme outsiders (a new hire from unrelated industry). The results of the hypotheses testing were very similar, with a reduction in the R^2 of the models.

⁵ To address the reviewer suggestion for a robustness check on the effects of external environment, I also investigated the implications of industry structure for the new CEO outsidersness–post-succession performance relationship. Based on previous research (e.g., Porter, 1980), industry concentration is an important aspect of industry structure. However, researchers (e.g., Datta and Rajagopalan, 1998) have also discussed the ambiguity of the theoretical effects of industry concentration on competition. First, it has been discussed that a lower level of concentration is related to higher uncertainty and a greater range of competitive actions (e.g., Hambrick and Finkelstein, 1987). Therefore, new CEO outsidersness is expected to be more positively associated with post-succession performance in lower levels of industry concentration. Secondly, based on Pfeffer and Salancik (1978), competitive uncertainty is highest at intermediate concentration levels. According to this rationale, there is relatively little scope for managerial discretion at very low and very high levels of concentration. Therefore, new CEO outsidersness is expected to be more positively associated with post-succession performance at the intermediate levels of industry concentration. I measured industry concentration by two alternative established measures: the market share of four largest firms, and the Gibbs–Martin index (the inverse of the Herfindahl index). The coefficients of the interaction effects of the new CEO outsidersness with any

To measure *pre-succession firm performance*, I constructed a composite measure by summing the standardized (*Z*-score) average growth (or decline) in a firm's industry-adjusted ROA, ROS, and TSR for 2 years before the succession event occurred. The main effect of pre-succession firm performance also served to control the potential threat of 'regression-to-the-mean' effect (Brown, 1982; Shen and Cannella, 2002; Tushman and Rosenkopf, 1996), and therefore, it was included as a control variable.

Treating *t* as the year succession occurred, the *post-succession strategic change* was defined as the extent to which a firm's strategy changes from the last year of the previous CEO's tenure (*t* - 1) to the end of the year that follows the succession year (*t* + 1). The composite strategic change measure that I used is a variation of Finkelstein and Hambrick's (1990) strategic persistence measure. First, I used six strategic indicators used by Finkelstein and Hambrick (1990) to create a composite measure of strategic change. Those indicators were advertising intensity (advertising/sales), research and development intensity (R&D/sales),⁶ plant and equipment newness (net P&E/gross P&E), nonproduction overhead (SGA expenses/sales), inventory levels (inventories/sales), and financial leverage (debt/equity) (for a detailed explanation of the justification behind using these six indicators, see Finkelstein and Hambrick, 1990: 491). The composite strategic change measure was calculated as follows: the firm's three year (for *t* - 1 through *t* + 1, inclusive) variance $\Sigma(x_i - X)^2/(n - 1)$ for each strategic dimension was computed. Next, the industry average variance was subtracted from the firm's variance score for each dimension in order to control industry effects.⁷ Finally, the industry-adjusted variance scores for each of the six indicators were summed to yield an overall strategic change measure.

of the industry concentration measure (the market share of four largest firms, Gibbs-Martin index, and square-Herfindahl index) were all nonsignificant, and did not affect the other results presented in the paper.

⁶ Since R&D expenditures were almost nonexistent in the airline industry, I used the acquisition/sales ratio as a replacement to R&D intensity. Acquisitions have been identified as an important dimension of a firm's strategy in the airline industry (Morrison and Winston, 1995).

⁷ Instead of Finkelstein and Hambrick's (1990) practice of coding changes that are above industry average as 1 and the others as 0, I used the actual value of the industry-adjusted change score. The ratios that were above 1 (they were very rare) were coded as 1.

The senior executive team is defined here as all executives who report directly to the CEO (thus the CEO is not included in the count of senior executive team). This operationalization has been widely used in prior studies of TMT (e.g., Keck and Tushman, 1993; Tushman and Rosenkopf, 1996). Following the practice of Tushman and Rosenkopf (1996), taking *t* as the year of the CEO succession, I measured the *post-succession senior executive team change* as follows. First, the percentage of entering executives was calculated by counting the number of executives per firm who were not on the team the last year the predecessor held office (*t* - 1) but on the team the following two years (*t*, and *t* + 1), and dividing this number by team size. The percentage of exiting executives was calculated by counting the number of executives who were listed the last year the predecessor held office (*t* - 1) but not in the following 2 years the successor started to hold office (*t*, and *t* + 1), and dividing this number by team size. As an indication of the overall percentage of change in teams, I averaged the percentages of team entries and exits following the CEO succession.

Control variables

Previous research on executive successions has consistently identified the role of organizational age and size on firm performance (e.g., Haleblan and Finkelstein, 1993; Tushman and Rosenkopf, 1996). Therefore, *organization age*, measured as the number of years since the firm's founding, and *organizational size*, measured as the logarithm of the number of employees (and the logarithm of sales, alternatively) were controlled. Furthermore, there are certain CEO-level demographic variables that might confound the effects of new CEO outsidership on subsequent firm performance. Therefore, a successor CEO's age, educational background, and functional background were controlled. *Age* was measured as the number of years from birth to the year of succession. *Educational background* was measured by a seven-point ordinal scale adopted from Finkelstein (1988): (1) High school; (2) Some college; (3) Undergraduate degree; (4) Some graduate school; (5) Masters degree; (6) Attended doctoral program; and (7) Doctorate degree. *Functional background* (longest tenure in a functional area in a person's employment history) category was

adopted from Ocasio and Kim (1999). Accordingly, I used five categories of the functional background of CEOs: (a) production and technical (manufacturing, engineering, and R&D); (b) marketing and sales; (c) finance; (d) legal; (e) operations and other. Results did not change significantly when I used Hambrick and Mason's (1984) categorization, where core functional areas are defined by output (marketing and sales), throughput (operations, R&D, and engineering), and peripheral (law, finance, and accounting) functions. Several other control variables were included in equations predicting the succession event; these variables are described in the following section.

Analysis

Since a succession event is more likely to occur in more poorly performing firms, it is necessary to correct for selection bias in analyzing the change in post-succession firm performance. Therefore, I used the Heckman selection model (Heckman, 1979), which is a two-staged procedure that corrects for selection bias in regression analysis (for a more detailed explanation of the Heckman selection model, see Zajac and Westphal, 1996: 72). Specifically, I first estimated the likelihood of succession with a discrete-time event history model for the full sample ($N = 1436$). I then incorporated the parameter for the likelihood of succession event from that model to a second-stage ordinary-least-squares (OLS) hierarchical regression model to predict the performance change for those firms experiencing succession events. Although the coefficients from discrete-time event history model are not displayed in this paper, it took the following form:

$$\begin{aligned} \text{Succession}_i = & a + b_1\text{roa} + b_2\text{tsr} + b_3\text{volatility} \\ & + b_4\log(\text{sales}) + b_5\text{independent directors} \\ & + b_6\text{boardsize} + b_7\text{separate CEO/board chair} \\ & + b_8\text{length prior interval} + b_9\text{time since last event} \\ & + b_{10}\text{number of prior events} + [b_{11}\text{industry} \\ & \text{dummies}] + [b_{12}\text{year dummies}] + e \end{aligned}$$

(independent variables were lagged 1 year as in Zajac and Westphal, 1996).

I controlled for industry by including two industry dummy variables in the full model, and a categorical variable with three values in the second

model (because of the smaller sample size and degrees of freedom in my second model, I used different operationalizations of the time and industry control variables). To ensure that results were not affected by unspecified, time-specific factors, I included dummy variables for the first 30 years in the first model, and a single categorical time variable in the second model (Allison, 1984). Furthermore, given that firms were at risk of succession during the study's time period, it was necessary to minimize the consequences of potentially violating the assumption of the independence of a firm's likelihood of succession in a given year from its prior event history (Allison, 1984; Yamaguchi, 1991). Therefore, I included three control variables in the first model suggested by Allison (1984) for repeated event models, which have been used in previous succession research (e.g., Zajac Westphal, 1996): (1) the length of the prior interval between successions, measured in years; (2) the length of the time since the prior succession, measured in years; (3) the number of prior successions observed during the time period. To measure the first two variables, I used data on CEO successions for all sample firms during the prior 20-year time period.

The other control variables that were included in equations predicting the succession event (full model) are as follows. The *CEO separate/chair* variable was measured by a dummy variable indicating whether the chairman of the board and CEO were different individuals (1) or not (0). *The ratio of outside directors* was calculated from the ratio of outside (nonemployee) directors to total directors in the year preceding the succession event. Finally, *board size*, the total number of inside and outside directors, was included as a control variable. Table 2 provides the means, standard deviations, and bivariate correlations for the OLS models.

RESULTS

The hypotheses were tested using OLS hierarchical regression analysis with change in post-succession firm performance as the dependent variable. The results are reported in Table 3. Model 1 reports the results with only the control variables included. Model 2 reports the results with the addition of the main effect of new CEO outsidership. Given the time order of their occurrence,

Table 2. Means, standard deviations, and correlations coefficients

Variable	Mean	S.D.	1	2	3	4	5	6
1. New CEO outsiderness	0.000	1.000						
2. Adjusted post-succession performance change	-0.102	2.354	0.088					
3. Environmental turbulence	0.016	0.014	-0.051	-0.060				
4. Environmental munificence	0.076	0.043	-0.141	0.038	0.000			
5. Adjusted pre-succession performance	-0.040	1.689	-0.106	-0.260*	0.045	-0.136		
6. Post-succession strategic change	0.180	0.535	0.193	0.057	-0.098	0.180	-0.237*	
7. Post-succession executive team change	0.400	0.299	0.257**	0.036	-0.060	0.032	-0.374**	0.315**
8. New CEO age	51.770	6.684	-0.364**	-0.001	-0.104	-0.005	-0.014	-0.203*
9. New CEO educational background	4.070	1.084	0.250**	-0.070	-0.177*	-0.008	-0.015	0.002
10. New CEO functional background	3.540	1.514	0.133	0.100	-0.028	0.018	0.055	0.023
11. Firm age	55.930	31.261	0.084	-0.060	0.129	-0.226**	0.091	-0.101
12. Firm size	3.894	0.613	-0.056	-0.086	-0.060	-0.012	0.173	-0.056
13. Heckman value	-1.022	2.121	-0.098	0.094	0.046	0.455**	-0.052	0.137
14. Industry number	1.590	0.856	0.000	-0.110	0.254**	-0.325**	0.160	-0.158
15. Time	17.540	8.358	0.122	-0.065	-0.116	-0.583**	0.077	-0.139
	7	8	9	10	11	12	13	14
1. New CEO outsiderness								
2. Adjusted post-succession performance change								
3. Environmental turbulence								
4. Environmental munificence								
5. Adjusted pre-succession performance								
6. Post-succession strategic change								
7. Post-succession executive team change								
8. New CEO age	-0.075							
9. New CEO educational background	0.114	-0.097						
10. New CEO functional background	0.156	0.082	0.117					
11. Firm age	-0.002	0.160	0.008	0.009				
12. Firm size	0.077	0.112	0.046	-0.008	0.270**			
13. Heckman value	-0.188*	0.017	-0.162	-0.095	-0.315**	-0.175*		
14. Industry number	-0.235**	0.142	-0.062	-0.258**	0.266**	-0.228**	-0.143	
15. Time	0.211*	-0.079	0.136	0.124	0.107	0.011	-0.902**	0.131

* $p < 0.05$; ** $p < 0.01$; $N = 140$

I tested the moderating effects of pre- and post-succession context variables in the following order: Model 3 reports the results with the additions of the two-way interaction effect of new CEO outsiderness and environmental turbulence, and that of new CEO outsiderness and environmental munificence. Model 4 reports the results with the addition of the two-way interaction effect of new CEO

outsiderness and pre-succession firm performance (the main effects of environmental characteristics and firm performance were included as control variables in Model 1). Model 5 reports the results with the additions of the main effect of post-succession strategic change and its two-way interaction with new CEO outsiderness. Model 6 reports the results with the additions of the main

Table 3. Hierarchical regression coefficients^a

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
CEO age	-0.001	0.028	0.061	0.090	0.074	0.004
CEO educational background	-0.082	-0.098	-0.060	-0.030	-0.025	-0.108
CEO functional background	0.121	0.113	0.117	0.085	0.036	0.094
Firm age	0.012	0.001	0.012	0.026	0.021	0.019
Firm size	-0.032	-0.031	-0.028	-0.027	-0.035	-0.093
Industry	-0.046	-0.051	-0.043	-0.011	-0.041	-0.080
Time	0.021	0.019	0.020	0.232	0.126	-0.187
Heckman value	0.125	0.117	0.128	0.415	0.385	0.069
Adjusted pre-succession firm performance	-0.262*	-0.250*	-0.220 ⁺	0.090	0.199 ⁺	0.234*
Environmental turbulence	-0.055	-0.049	-0.030	-0.029	0.060	0.010
Environmental munificence	-0.071	-0.060	-0.050	-0.043	-0.146	-0.242*
New CEO outsidership		0.077	-0.316	-0.112	-0.221	-0.766***
New CEO outsidership × Environmental turbulence			0.077	0.145	0.136	-0.118
New CEO outsidership × Environmental munificence			0.404 ⁺	0.279	0.560**	0.630***
New CEO outsidership × Adjusted pre-succession firm performance				-0.600***	-0.687***	-0.665***
Post-succession strategic change					0.159 ⁺	0.525**
New CEO outsidership × Post-succession strategic change					-0.407***	-0.618***
Post-succession senior executive team change						-0.026
New CEO outsidership × Post-succession senior executive team change						0.830***
Post-succession strategic change × Post-succession executive team change ^b						-0.321 ⁺
Model adjusted R^2	-0.022	-0.030	-0.012	0.252	0.374	0.586
Adjusted R^2 change		-0.080	0.018	0.264	0.122	0.212
Significant F change?		n.s.	n.s.	$p < 0.001$	$p < 0.001$	$p < 0.001$

^a Standardized coefficients are reported.

^b Other interaction controls: As a robustness check, the two-way interaction effects of pre-succession context variables with post-succession team change, and those with post-succession strategic change, were controlled in separate sequential analyses. They did not affect the significance level of the results presented here.

$N = 140$; ⁺ $p < 0.10$; * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

effect of post-succession senior executive team change and its two-way interaction with new CEO outsidership.⁸

⁸ A common problem associated with using interaction terms in regression analysis is multicollinearity, or high correlations between independent variables. A common cut-off threshold, which is a tolerance of minimum 0.10 corresponding to a variance inflation factor value that is above 10, has been suggested to assess the multicollinearity problem (Hair *et al.*, 1998: 193). In this study, the diagnostic tests did not indicate any problems with multicollinearity. The interaction terms have tolerance values that are above 0.10, and variance inflation factors that are below 10. In the succession event model, the only two variables that are highly collinear with each other are the variables for time and Heckman selection criterion value. The negative high correlation between these two control variables suggests that succession events have become more unpredictable toward recent years. However, this does not present any problems for the interpretation of the hypotheses testing.

The results indicate that control variables did not significantly explain any variance in the dependent variable. The adjusted R^2 for Model 1, which includes control variables, is -0.022. Addition of the main effect of new CEO outsidership in Step 2 does not significantly increase the explanatory power of the regression model over Model 1 (adjusted R^2 change = -0.08). As Hypothesis 1 predicts, holding pre-succession environmental characteristics and firm performance as constant, new CEO outsidership has no significant main effect on post-succession firm performance (beta = 0.077, n.s.).

The moderating effects of pre-succession environmental characteristics on the post-succession performance consequences of new CEO outsidership were tested in Model 3. The additions of the two-way interaction effect of new CEO outsidership

and environmental turbulence, and that of new CEO outsidership and environmental munificence in Model 3, did not significantly increase the explanatory power of the regression equation over Model 2 (adjusted R^2 change = 0.018, n.s.). Hypothesis 2, which predicts that new CEO outsidership will be more positively associated with post-succession firm performance in turbulent environments than in stable environments, is not supported. The interaction effect of new CEO outsidership and environmental turbulence on post-succession firm performance is in the expected direction, but is not statistically significant when it is entered into the regression equation in Step 3 (beta = 0.077, n.s.), and it stays insignificant in the rest of the models.

Hypothesis 3 predicts that new CEO outsidership will be more positively associated with post-succession firm performance in munificent environments than in less munificent environments. Although the interaction effect of new CEO outsidership and environmental munificence on post-succession firm performance is in the expected direction, but is only marginally statistically significant when it is entered into the regression equation (beta = 0.404, $p < 0.10$), this interaction effect is strongly significant in the final model where the other main and interaction effects are included (beta = 0.630, $p < 0.001$). Therefore, Hypothesis 3 is supported.

The moderating effects of pre-succession firm performance on the post-succession performance consequences of new CEO outsidership were tested in Model 4. The addition of the two-way interaction effect of new CEO outsidership and pre-succession adjusted firm performance in Model 4 significantly increases the explanatory power of the regression equation over Model 3 (adjusted R^2 change = 0.264, $p < 0.001$). Hypothesis 4, which predicts that new CEO outsidership will be more positively associated with post-succession firm performance when pre-succession firm performance is low, is strongly supported. The interaction effect of new CEO outsidership and pre-succession firm performance on subsequent performance is in the expected direction, and is strongly statistically significant (beta = -0.600, $p < 0.001$). This interaction effect stays equally significant throughout all models.

The moderating effects of post-succession swift strategic changes on the post-succession firm performance effects of new CEO outsidership were

tested in Model 5. The additions of the main effect of post-succession strategic change and its two-way interaction with new CEO outsidership in Model 5 significantly increase the explanatory power of the regression equation over Model 4 (adjusted R^2 change = 0.122, $p < 0.001$). Hypothesis 5, which predicts that new CEO outsidership in the presence of fewer swift strategic changes will be more positively associated with post-succession firm performance than new CEO outsidership in the presence of more swift strategic changes, is strongly supported. The interaction effect of new CEO outsidership and strategic change on post-succession firm performance is in the expected direction, and is strongly statistically significant (beta = -0.407, $p < 0.001$). This interaction effect stays equally significant in the final model.

The moderating effects of senior executive team changes on the post-succession performance consequences of new CEO outsidership were tested in Model 6.⁹ The additions of the main effect of post-succession senior executive team change and its two-way interaction with new CEO outsidership in Model 6 significantly increase the explanatory power of the regression equation over Model 5 (adjusted R^2 change = 0.212, $p < 0.001$). Hypothesis 6, which predicts that new CEO outsidership with greater senior executive team change will be more positively associated with post-succession firm performance than new CEO outsidership with less senior executive team change, is strongly supported. The interaction effect of new CEO outsidership and post-succession senior executive team change is in the expected direction, and is strongly statistically significant (beta = 0.830, $p < 0.001$). This result indicates that post-succession firm performance increases when new CEO outsidership is coupled with more post-succession senior executive team changes.¹⁰

⁹ To address the reviewer suggestion for a robustness check, other than the interaction effect of post-succession strategic and senior executive team changes, which is included in this final model as a control variable, several other two-way interaction effects were included as control variables in separate sequential analyses: the two-way interaction effects of each of the pre-succession context variables and post-succession team change, and the interaction effects of each of the pre-succession context variables and post-succession strategic change. These additional interaction effect control variables did not affect the significance level of the results presented in the paper.

¹⁰ Additional analyses were conducted with changes in adjusted standardized accounting (ROA + ROS) and market-based (TSR)

DISCUSSION

This study strived to reconcile inconsistent findings on the performance consequences of new CEO origin. After reviewing five decades of empirical research on CEO succession outcomes, the major sources of inconsistencies in prior empirical research were determined. To bring clarity to previously contradictory findings, the study offered a more refined theoretical conceptualization and a finer-grained measurement of the underlying construct of the insider vs. outsider CEO. Furthermore, reviewing five decades of empirical research clearly suggested the need for building a more theoretically comprehensive and nuanced succession framework in order to capture the performance consequences of new CEO outsidership. Therefore, this study also modeled and simultaneously tested the effects of the most theoretically salient factors of the pre- and post-succession contexts on the performance effects of new CEO outsidership. Using longitudinal data from three U.S. industries over 30 years, results indicated that new CEO outsidership had no main effect on post-succession firm performance. However, significant moderating effects were found when environmental munificence, pre-succession firm performance, and concomitant strategic and senior executive team changes were considered.

Overall, results provided strong support for the resource-dependence based adaptation view (Pfeffer and Salancik, 1978; Tushman and Romanelli, 1985), as opposed to the continuity view (Lauterbach *et al.*, 1999) of CEO successions. Accordingly, more outsider CEOs who have experiences

outside the firm and the industry are more likely to benefit firm performance. Furthermore, findings provided strong support for the upper echelon theory (Hambrick and Mason, 1984) regarding the inertial effects of executives' firm and industry tenure under conditions of high uncertainty. However, the results also suggest that in order for the resource-dependence based adaptation view and upper echelon perspective to make more accurate predictions regarding the performance consequences of CEO successions and successor origin, the theories should specify simultaneous multiple contingencies on the new CEO outsidership–post-succession performance relationship.

More specifically, findings suggest that the adaptive role of new CEO outsidership is pronounced under poor firm performance conditions and in munificent environments. While there is abundant empirical evidence supporting the greater likelihood of outsiders being selected under poor performance conditions (e.g., Boeker, 1997; Boeker and Goodstein, 1993; Helmich and Brown, 1972), the post-succession performance consequences of outsider successions that occur in poor performance contexts are less clear (Finkelstein and Hambrick, 1996). This study clearly suggests that more outsider new CEOs are more likely to turn performance around in poorly performing firms. Furthermore, in munificent environments new CEOs can exercise autonomy, engage in open problem-solving, and be more creative. They also have a wider breadth of options and greater discretion in making strategic choices. In other words, organizational outcomes are more likely to reflect the characteristics of top executives in munificent environments (Hambrick and Finkelstein, 1987). Giving support to the predictions of the adaptation view and the upper echelon perspective, this study suggests that firms benefit from hiring more outsider CEOs who can bring fresh knowledge, skills, and perspectives in high-growth environments.

However, the adaptation view does not receive any support from this study for the predictions regarding the adaptive role of new CEO outsidership in turbulent environments. As discussed earlier, there are several advantages of new CEO outsidership in turbulent environments, such as the CEO's ability to envision and implement a broad range of strategic options and to make fundamental changes in organizational strategy, structure, and processes (Virany *et al.*, 1992). These skills allow

measures as separate dependent variables. The direction and significance level of the hypothesized relationships are the same as the reported ones, when the dependent variable is the change in accounting composite measure. However, none of the models with change in adjusted TSR as the dependent variable is significant, with the exception of the marginal significance of the two-way interaction effect of new CEO outsidership and pre-succession firm TSR. Overall, the R^2 s are higher for models with change in adjusted accounting composite measure as the dependent variable than those with the composite measure of firm performance, which includes both accounting and market-based measures as the dependent variable. These results indicate that using a composite performance measure, which includes both accounting and market-based measures as the dependent variable constitutes a more conservative test of the hypothesized relationships. These results also lend strong support to earlier arguments that management has more control over a firm's operational performance than market-based performance (Grossman and Hoskisson, 1998; Hambrick and Finkelstein, 1995; Shen and Cannella, 2002).

firms to effectively respond to frequent and unpredictable changes in the environment. However, as the new CEO outsidership increases, the new CEO is more likely to lack critical firm and industry-specific skills, cultural understanding, and a power base, which are necessary for him or her to successfully formulate and implement major changes in the firm in response to frequent environmental shifts. Therefore, these disadvantages may counterbalance the benefits of new CEO outsidership in turbulent contexts.

A natural progression along this line would be to investigate the role of even more refined conceptions of the environment. For example, an interesting avenue for future research is the investigation of the role of a firm's strategic group within an industry in the new CEO outsidership—subsequent performance relationship. It can be hypothesized that new CEO outsidership will have different effects in different strategic groups characterized by different levels of mobility barriers and competition (Caves and Porter, 1977; Porter, 1979), resource and scope commitments (Cool and Schendel, 1987), and strategic interaction among firms (Dranove, Peteraf, and Shanley, 1998; Lee, Lee, and Rho, 2002). Besides the moderating role of industry structure, a related line of research would be an investigation of the direct implications of new CEO outsidership for firms' competitive actions and strategic positioning within an industry, which could significantly contribute to programs of research investigating the 'human and organizational origins' of strategic competitive behavior (e.g., Hambrick *et al.*, 1996: 659).

With regard to the effects of post-succession context, results challenge the adaptation view on the assumed benefits of quick changes in a firm's strategic profile that are introduced by new outsider CEOs. Findings suggest that new CEO outsidership brings more performance benefits in the presence of fewer swift strategic changes. This result gives the first large-sample empirical support to earlier qualitative case studies, which highlighted the disadvantages associated with outsider successions. For instance, facing intense pressure from the boards of directors to turn performance around, outsiders are at more risk of formulating and implementing inappropriate strategic changes (Gabarro, 1987; Kotter, 1982). A further implication of this finding is that new CEOs with no firm and industry-specific knowledge may even

make more inappropriate strategic changes, since such CEOs usually lack the necessary power base, cultural understanding, and deep knowledge of a firm's internal and external environment to make effective changes in a short period of time.

In a sense, this result is paradoxical, since very often external CEOs are brought in with the purpose of initiating massive changes in a relatively short amount of time. However, as we can infer from the comparative example of Louis Gerstner's approach at IBM vs. that of Carly Fiorina at HP that was discussed earlier, it is very important for outsider CEOs to get to know the culture of the organization, and to gain necessary social and political capital before initiating any major changes in the firm. Having said that, this study only investigated strategic changes that occurred in the first 2 years the new CEO took office, that were amenable to longitudinal data collection, and that had relatively reliable comparability across firms within and across industries. An interesting avenue for future research would be to investigate the longer-term effects of the simultaneous changes in organizational structure, internal processes, and in other aspects of a firm's strategy, such as diversification portfolio, initiated by new CEOs with different degrees of outsidership.

With regard to further influences of post-succession context, results give strong support to research tradition inspired by the upper echelon theory of Hambrick and Mason (1984), which predicts that it is not the CEO alone, but the whole executive team who influence strategic decision making and firm performance (e.g., Hambrick *et al.*, 1996; Shen and Cannella, 2002). However, the weak theoretical and empirical link between post-succession senior executive team changes and firm performance in the prior literature (e.g., Dalton and Kesner, 1985; Tushman and Rosenkopf, 1996; Virany *et al.*, 1992) may have contributed to the inconsistent findings on the performance implications of successor origin. As discussed earlier, the disadvantages associated with new CEO outsidership, such as the new CEO's lack of firm and industry-specific knowledge, increase the importance of an experienced senior executive team, particularly in early years of the new CEO's tenure. However, the results of this study suggest that post-succession firm performance is higher when new CEO outsidership is accompanied by more senior executive team changes. This

can be explained by two complementary perspectives. First, giving support to sociopolitical and power perspectives, it seems that executives from the previous CEO's team are likely to have hostile attitudes toward the selection of an outsider, and therefore hinder the new CEO's credibility and change initiatives (Helmich and Brown, 1972; Shen and Cannella, 2002). Secondly, as the organizational learning and adaptation perspective suggests, a great degree of change in the executive team is a more fundamental source of change, associated with second-order learning in organizations. In other words, decreased team tenure and increased team heterogeneity can alter competence and power dynamics within the team and can enable the team to take substantive action (e.g., Finkelstein and Hambrick, 1990; Tushman and Rosenkopf, 1996).

This finding tends to give support to Tushman and Rosenkopf's argument that 'contradictory results in the CEO succession literature may be untangled if greater attention is paid to senior team demography and changes in team demographic characteristics triggered by CEO succession' (Tushman and Rosenkopf, 1996: 949). A relatively high positive correlation between new CEO outsidership and post-succession senior executive team change in this study clearly indicates that more extreme outsiders make significantly more executive team changes. Therefore, it is reasonable to assume that as the new CEO outsidership increases, the changes in executive team composition will increase as well (e.g., changes in age, firm tenure, functional background, industry tenure). However, this study does not directly examine the quality of these changes in senior executive team composition. Future research could investigate how changes in executive team demographic characteristics, triggered by different types of succession events (e.g., new CEOs with different degrees of outsidership), affect team dynamics and subsequent firm outcomes.

Lastly, results lend strong support to earlier arguments that, whereas a firm's operational performance is under the control of management, its market-based performance is affected by forces beyond the top executives' control (Grossman and Hoskisson, 1998; Hambrick and Finkelstein, 1995). However, this study only investigated the changes that occur in a firm's operational and market-based performance within a 3-year time frame following a succession event. It is more

likely that as the new CEO outsidership increases the variance in subsequent firm performance increases as well (e.g., Bailey and Helfat, 2003). An interesting avenue for future research would be to investigate the longer-term performance implications and survival prospects of new CEOs with different degrees of outsidership.

The insights gained from this study potentially help boards, executive search firms, and others involved in executive selection in making new CEO selections as well as to help new CEOs manage changes in strategy and TMTs more effectively. Results clearly suggest that firms benefit from hiring more extreme outsider successors in munificent environments and under conditions of poor firm performance. Furthermore, findings strongly suggest that post-succession changes in strategy and executive team need to be managed very carefully. I hope that this study's results will inspire additional research that further improves our understanding of the complex set of issues surrounding CEO successions and executive team changes.

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REFERENCES

- Aldrich H. 1979. *Organizations and Environments*. Prentice-Hall: Englewood Cliffs, NJ.
- Allen MP, Panian SK, Lotz RE. 1979. Managerial succession and organizational performance: a recalcitrant problem revisited. *Administrative Science Quarterly* 24(2): 167–180.
- Allison PD. 1984. *Event History Analysis*. Sage: Newbury Park, CA.
- Anabtawi I, Stout L. 2005. An inside job. *New York Times* 27 March: 11.
- Anderson P, Tushman ML. 2001. Organizational environments and industry exit: the effects of uncertainty,

- munificence, and complexity. *Industrial and Corporate Change* 10(3): 675–711.
- Arnst C. 1993. At IBM more of the same—only better? *Business Week* 26 July: 78–79.
- Bailey EE, Helfat CE. 2003. External management succession, human capital, and firm performance: an integrative analysis. *Managerial and Decision Economics* 24(4): 347–369.
- Beatty RP, Zajac EJ. 1987. CEO change and firm performance in large corporations: succession effects and manager effects. *Strategic Management Journal* 8(4): 305–317.
- Benner MJ, Tushman ML. 2002. Process management and technological innovation: a longitudinal study of the photography and paint industries. *Administrative Science Quarterly* 47(4): 676–706.
- Bigley GA, Wiersema MF. 2002. New CEOs and corporate strategic refocusing: how experience as heir apparent influences the use of power. *Administrative Science Quarterly* 47(4): 707–727.
- Boeker W. 1997. Strategic change: the influence of managerial characteristics and organizational growth. *Administrative Science Quarterly* 40(1): 152–170.
- Boeker W, Goodstein J. 1993. Performance and successor choice: the moderating effects of governance and ownership. *Academy of Management Journal* 36(1): 172–186.
- Bond D. 2003. Full circle. Mullin came to Delta to renew the company. He leaves behind a similar agenda. *Aviation Week and Space Technology* 159(22): 49.
- Bonnier K, Bruner R. 1989. An analysis of stock price reaction to management change in distressed firms. *Journal of Accounting and Economics* 11(11): 95–106.
- Boyd B. 1995. CEO duality and firm performance: a contingency model. *Strategic Management Journal* 16(4): 301–313.
- Boyne G, Ashworth R, Powell M. 2001. Environmental change, leadership succession, and incrementalism in local government. *Journal of Management Studies* 38(6): 859–878.
- Brady G, Helmich D. 1984. *Executive Succession*. Prentice-Hall: Englewood Cliffs, NJ.
- Brown MC. 1982. Administrative succession and organizational performance: the succession effect. *Administrative Science Quarterly* 27(1): 1–16.
- Carlson RO. 1961. Succession and performance among school superintendents. *Administrative Science Quarterly* 6(2): 210–227.
- Carpenter MA, Fredrickson JW. 2001. Top management teams, global strategic posture, and the moderating role of uncertainty. *Academy of Management Journal* 44(3): 533–545.
- Carpenter MA, Westphal JD. 2001. The strategic context of external network ties: examining the impact of director appointments on board involvement in strategic decision making. *Academy of Management Journal* 44(4): 639–661.
- Carroll GR. 1984. Dynamics of publisher succession in newspaper organizations. *Administrative Science Quarterly* 29(1): 93–113.
- Caves RE, Porter ME. 1977. From entry barriers to mobility barriers. *Quarterly Journal of Economics* 91(May): 421–434.
- Chung K, Lubatkin M, Rogers R, Owers J. 1987. Do insiders make better CEOs than outsiders? *Academy of Management Executive* 1(4): 323–329.
- Cool K, Schendel D. 1987. Strategic group formation and performance. *Management Science* 33(9): 1102–1124.
- Daily CM, Certo ST, Dalton DR. 2000. International experience in the executive suite: the path to prosperity? *Strategic Management Journal* 21(4): 515–523.
- Dalton DR, Kesner IF. 1985. Organizational performance as an antecedent of inside/outside chief executive succession: an empirical assessment. *Academy of Management Journal* 28(4): 749–762.
- Datta DR, Guthrie JP. 1994. Executive succession: organizational antecedents of CEO characteristics. *Strategic Management Journal* 15(7): 569–577.
- Datta DK, Rajagopalan N. 1998. Industry structure and CEO characteristics: an empirical study of succession events. *Strategic Management Journal* 19(9): 833–852.
- D'Aveni R. 1989. The aftermath of organizational decline. *Academy of Management Journal* 32(3): 577–605.
- Davidson W, Worrell D, Cheng L. 1990. Key executive succession and stockholder wealth: the influence of successor's origin, position, and age. *Journal of Management* 16(3): 647–664.
- Davidson WN, Nemec C, Worrell DL. 2001. Succession planning versus agency theory: a test of Harris and Helfat's interpretation of plurality announcement market returns. *Strategic Management Journal* 22(2): 179–184.
- Davidson WN III, Nemec C, Worrell DL, Lin J. 2002. Industrial origin of CEOs in outside succession: board preference and stockholder reaction. *Journal of Management and Governance* 6(4): 295–321.
- Davidson WN, Jiraporn P, Kim YS, Nemec C. 2004. Earnings management following duality-creating successions: ethnostatistics, impression management, and agency theory. *Academy of Management Journal* 47(2): 267–275.
- Denis DJ, Denis DK. 1995. Performance changes following top management dismissals. *Journal of Finance* 50(4): 1029–1057.
- Dess GG, Beard DW. 1984. Dimensions of organizational task environments. *Administrative Science Quarterly* 29(1): 52–73.
- Dranove D, Peteraf M, Shanley M. 1998. Do strategic groups exist? An economic framework for analysis. *Strategic Management Journal* 19(11): 1029–1144.
- Eisenhardt KM. 1989. Making fast strategic decisions in high-velocity environments. *Academy of Management Journal* 32(3): 543–576.
- Eitzen SD, Yetman NR. 1972. Managerial change, longevity and organizational effectiveness. *Administrative Science Quarterly* 17(1): 110–116.
- Finkelstein S. 1988. Managerial orientations and organizational outcomes: the moderating roles of managerial

- discretion and power. PhD dissertation, Columbia University, New York.
- Finkelstein S, Hambrick DC. 1990. Top management team tenure and organizational outcomes: the moderating role of managerial discretion. *Administrative Science Quarterly* **35**(3): 484–503.
- Finkelstein S, Hambrick DC. 1996. *Strategic Leadership: Top Executives and their Effects on Organizations*. West Publishing: St Paul, MN.
- Fizel JL, D'Itri MP. 1997. Managerial efficiency, managerial succession and organizational performance. *Managerial and Decision Economics* **18**(4): 295–308.
- Fondas N, Wiersema M. 1997. Changing the guard: the influence of CEO socialization on strategic change. *Journal of Management Studies* **34**(4): 561–584.
- Fredrickson JW, Iaquinto AL. 1989. Inertia and creeping rationality in strategic decision processes. *Academy of Management Journal* **32**(4): 516–542.
- Friedman SD, Saul K. 1991. A leader's wake: Organizational member reactions to CEO succession. *Journal of Management* **17**(3): 619–642.
- Friedman SD, Singh H. 1989. CEO succession and stockholder reaction: The influence of organizational context and event content. *Academy of Management Journal* **32**(4): 718–744.
- Gabarro JJ. 1987. *The Dynamics of Taking Charge*. Harvard Business School Press: Boston, MA.
- Gamson WA, Scotch NA. 1964. Scapegoating in baseball. *American Journal of Sociology* **70**(1): 69–72.
- Gouldner AW. 1954. *Patterns of Industrial Bureaucracy*. Free Press: Glencoe, IL.
- Grossman W, Hoskisson RE. 1998. CEO pay at the crossroad of Wall Street and Main: toward the strategic design of executive compensation. *Academy of Management Executive* **12**(1): 43–57.
- Grusky O. 1963. Managerial succession and organizational effectiveness. *American Journal of Sociology* **69**(1): 21–31.
- Grusky O. 1964. Reply to scapegoating in baseball. *American Journal of Sociology* **70**(1): 72–76.
- Guest R. 1962. Managerial succession in complex organizations. *American Journal of Sociology* **68**(1): 47–56.
- Gunz HP, Jalland RM. 1996. Managerial careers and business strategies. *Academy of Management Review* **21**(3): 718–756.
- Gupta AK. 1988. Contingency perspectives on strategic leadership: current knowledge and future research directions. In *The Executive Effect: Concepts and Methods for Studying Top Managers*, Hambrick DC (ed). JAI Press: Greenwich, CT; 147–178.
- Hair JF, Anderson RE, Tatham RL, Black WC. 1998. *Multivariate Data Analysis*. Prentice-Hall: Upper Saddle River, NJ.
- 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**(4): 844–863.
- Hambrick DC, Finkelstein S. 1987. Managerial discretion: a bridge between polar views on organizations. In *Research in Organizational Behavior*, Vol. 9, Cummings LL, Staw BM (eds). JAI Press: Greenwich, CT; 369–406.
- Hambrick DC, Finkelstein S. 1995. The effects of ownership structure on condition at the top: the case of CEO pay raises. *Strategic Management Journal* **16**(3): 175–193.
- Hambrick DC, Mason PA. 1984. Upper echelons: the organization as a reflection of its top managers. *Academy of Management Review* **9**(2): 193–206.
- Hambrick DC, Geletkanycz MA, Fredrickson JW. 1993. Top executive commitment to the status quo: some tests of its determinants. *Strategic Management Journal* **14**(6): 401–418.
- Hambrick DC, Cho TS, Chen M. 1996. The influence of top management team heterogeneity on firms' competitive moves. *Administrative Science Quarterly* **41**(4): 659–684.
- Harris D, Helfat C. 1997. Specificity of CEO human capital and compensation. *Strategic Management Journal* **18**(11): 895–920.
- Haveman H. 1993. Ghosts of managers' past: managerial succession and organizational mortality. *Academy of Management Journal* **36**(4): 864–881.
- Haveman HA, Khaire MV. 2004. Survival beyond succession? The contingent impact of founder succession on organizational failure. *Journal of Business Venturing* **19**(3): 437–463.
- Hays L. 1995. IBM shake-up by CEO claims another official: Gerstner's reorganization turns to management; more departures seen. *Wall Street Journal* 9 January: A.3.
- Heckman J. 1979. Sample selection bias as a specification error. *Econometrica* **47**(1): 153–161.
- Helmich DL. 1974. Organizational growth and succession patterns. *Academy of Management Journal* **17**(4): 771–775.
- Helmich DL, Brown WB. 1972. Successor type and organizational change in the corporate enterprise. *Administrative Science Quarterly* **17**(3): 371–381.
- Huson MR, Malatesta PH, Parrino R. 2004. Managerial succession and firm performance. *Journal of Financial Economics* **74**(2): 237–275.
- Katz R. 1982. The effects of group longevity on project communication and performance. *Administrative Science Quarterly* **27**(1): 81–104.
- Keck SL, Tushman ML. 1993. Environmental and organizational context and executive team structure. *Academy of Management Journal* **36**(6): 1314–1345.
- Kesner IF, Dalton DR. 1994. Top management team turnover and CEO succession: an investigation of the effects of turnover on performance. *Journal of Management Studies* **31**(5): 701–713.
- Kesner IF, Sebor TC. 1994. Executive succession: past, present, and future. *Journal of Management* **20**(2): 327–373.
- Khurana R. 2002. *Searching for a Corporate Savior: The Irrational Quest for Charismatic CEOs*. Princeton University Press: Princeton, NJ.
- Kosnik RD. 1987. Greenmail: a study of board performance in corporate governance. *Administrative Science Quarterly* **32**(2): 163–185.

- Kotter JP. 1982. *The General Managers*. Free Press: New York.
- Lauterbach B, Vu J, Weisberg J. 1999. Internal vs. external successions and their effect on firm performance. *Human Relations* 52(12): 1485–1504.
- Lavelle L. 2005. Three simple rules Carly ignored. *Business Week* 2 February: 46.
- Lee J, Lee K, Rho S. 2002. An evolutionary perspective on strategic group emergence: a genetic algorithm-based model. *Strategic Management Journal* 23(8): 727–746.
- Lieberson S, O'Connor JF. 1972. Leadership and organizational performance: a study of large corporations. *American Sociological Review* 37(2): 117–130.
- Lubatkin MH, Chung KH, Rogers RC, Owers JE. 1989. Stockholder reaction to CEO changes in large organizations. *Academy of Management Journal* 32(1): 47–68.
- Lucier C, Schuyt R, Handa J. 2003. *CEO Succession 2003: The 'Perils' of Good Governance*. Booz Allen Hamilton: McLean, VA.
- March JG. 1991. Exploration and exploitation in organizational learning. *Organization Science* 2(1): 71–87.
- March JC, March JG. 1977. Almost random careers: the Wisconsin school superintendency, 1940–1972. *Administrative Science Quarterly* 22(3): 377–409.
- McGrath RG. 2001. Exploratory learning, innovative capacity, and managerial oversight. *Academy of Management Journal* 44(1): 118–131.
- Miller D. 1993. Some organizational consequences of CEO succession. *Academy of Management Journal* 36(3): 644–659.
- Morrison S, Winston C. 1995. *The Evolution of the Airline Industry*. Brookings Institution: Washington, D.C.
- Norburn D, Birley S. 1988. The top management team and corporate performance. *Strategic Management Journal* 9(3): 225–237.
- Ocasio W, Kim H. 1999. The circulation of corporate control: selection of functional backgrounds of new CEOs in large U.S. manufacturing firms, 1981–1992. *Administrative Science Quarterly* 44(3): 532–562.
- Palmer TB, Wiseman RM. 1999. Decoupling risk taking from income stream uncertainty: a holistic model of risk. *Strategic Management Journal* 20(11): 1037–1048.
- Pfeffer J. 1981. Management as symbolic action: the creation and maintenance of organizational paradigms. In *Research in Organizational Behavior*, Vol. 3, Cummings LL, Staw BM (eds). JAI Press: Greenwich, CT; 1–52.
- Pfeffer J, Davis-Blake A. 1986. Administrative succession and organizational performance: how administrator experience mediates the succession effect. *Academy of Management Journal* 29(1): 72–83.
- Pfeffer J, Salancik GR. 1978. *The External Control of Organizations*. Harper & Row: New York.
- Porter ME. 1979. The structure within industries and companies' performance. *Review of Economics and Statistics* 61(2): 214–227.
- Porter ME. 1980. *Competitive Strategy: Techniques for Analyzing Industries and Competitors*. Free Press: New York.
- Prahalad CK, Bettis RA. 1986. The dominant logic: a new linkage between diversity and performance. *Strategic Management Journal* 7(6): 485–501.
- Reinganum MR. 1985. The effects of executive succession on stockholder wealth. *Administrative Science Quarterly* 30(1): 46–60.
- Rhoads C. 2005. Motorola gains cellphone share: profit rises 14%. *Wall Street Journal* 21 April: A.3.
- Rivlin G, Markoff J. 2005. Tossing out a chief executive. *New York Times* 14 February: C.1.
- Rumelt RP. 1982. Diversification strategy and profitability. *Strategic Management Journal* 3(4): 359–370.
- Sakano T, Lewin AY. 1999. Impact of CEO succession in Japanese companies: a coevolutionary perspective. *Organization Science* 6(3): 275–291.
- Samuelson BA, Galbraith CS, McGuire JW. 1985. Organizational performance and top management turnover. *Organization Studies* 6(3): 275–291.
- Shen W, Cannella AA Jr. 2002. Revisiting the performance consequences of CEO succession: the impacts of successor type, postsuccession senior executive team turnover, and departing CEO tenure. *Academy of Management Journal* 45(4): 717–733.
- Shen W, Cannella AA Jr. 2003. Will succession planning increase shareholder wealth? Evidence from investor reactions to relay CEO successions. *Strategic Management Journal* 24(2): 191–198.
- Smith BF, Amoako-Adu B. 1999. Management succession and financial performance of family controlled firms. *Journal of Corporate Finance* 5(4): 341–368.
- Smith JE, Carson KP, Alexander RA. 1984. Leadership: it can make a difference. *Academy of Management Journal* 27(4): 765–776.
- Spender JC. 1989. *Industry Recipes: The Nature and Source of Managerial Judgment*. Blackwell: Oxford, U.K.
- Sutcliffe KM, Huber GP. 1998. Firm and industry as determinants of executive perceptions of the environment. *Strategic Management Journal* 19(8): 793–807.
- Thompson JD. 1967. *Organizations in Action*. McGraw-Hill: New York.
- Trow DB. 1961. Executive succession in small companies. *Administrative Science Quarterly* 6(2): 228–239.
- Tushman ML, Romanelli E. 1985. Organizational evolution: a metamorphosis model of convergence and reorientation. In *Research in Organizational Behavior*, Vol. 7, Cummings LL, Staw BM (eds). JAI Press: Greenwich, CT; 171–122.
- Tushman ML, Rosenkopf L. 1996. Executive succession, strategic reorientation, and performance growth: a longitudinal study in the U.S. cement industry. *Management Science* 42(7): 939–953.
- Venkatraman N, Ramanujam V. 1986. Measurement of business performance in strategy research: a comparison of approaches. *Academy of Management Review* 11(4): 801–815.
- Virany B, Tushman ML, Romanelli E. 1992. Executive succession and organization outcomes in turbulent

- environments: an organizational learning approach. *Organization Science* **3**(1): 72–91.
- Volberda HW. 1996. Toward the flexible form: how to remain vital in hypercompetitive environments. *Organization Science* **7**(4): 359–374.
- Wagner WG, Pfeffer J, O'Reilly CA. 1984. Organizational demography and turnover in top management groups. *Administrative Science Quarterly* **29**(1): 74–92.
- Weisbach MS. 1995. CEO turnover and the firm's investment decisions. *Journal of Financial Economics* **37**(2): 159–188.
- Wholey DR, Brittain J. 1989. Characterizing environmental variation. *Academy of Management Journal* **32**(4): 867–882.
- Wiersema MF. 1992. Strategic consequences of executive succession within diversified firms. *Journal of Management Studies* **29**(1): 73–94.
- Wiersema MF, Bantel KA. 1993. Top management team turnover as an adaptation mechanism: the role of the environment. *Strategic Management Journal* **14**(7): 485–504.
- Worrell DL, Davidson WN III. 1987. The effect of CEO succession on stockholder wealth in large firms following the death of the predecessor. *Journal of Management* **13**(3): 509–515.
- Worrell DL, Nemeck C, Davidson WN III. 1997. One hat too many: key executive plurality and shareholder wealth. *Strategic Management Journal* **18**(6): 499–507.
- Yamaguchi K. 1991. *Event History Analysis*. Sage: Newbury Park, CA.
- Zajac EJ. 1990. CEO selection, succession, compensation and firm performance: a theoretical integration and empirical analysis. *Strategic Management Journal* **11**(3): 313–330.
- Zajac EJ, Westphal JD. 1996. Who shall succeed? How CEO/board preferences and power affect the choice of new CEOs. *Academy of Management Journal* **39**(1): 64–90.
- Zhang Y, Rajagopalan N. 2003. Explaining new CEO origin: firm versus industry antecedents. *Academy of Management Journal* **46**(3): 327–357.
- Zhang Y, Rajagopalan N. 2004. When the known devil is better than an unknown god: an empirical study of the antecedents and consequences of relay CEO successions. *Academy of Management Journal* **47**(4): 483–500.