CEO Succession, the Role of Power, and CEO Duality

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Abstract

CEO duality, the situation in which the firm’s chief executive officer (CEO) also holds the position of chair of the board of directors, has long been the object of corporate governance critics, scholars, and practitioners. Although widely practiced by U.S. firms, the appointment of the CEO also as board chair does not always happen at the time of an individual’s appointment as CEO. This study examines the lapse of time between CEO appointment and appointment also as chair. Using tools of survival analysis, this study provides an exploratory analysis of the occurrence of CEO duality in CEO successions. Findings support the view that appointment as board chair often occurs later in a CEO’s tenure and demonstrates that the likelihood of receiving an appointment as board chair decreases over the CEO’s tenure.
INTRODUCTION

CEO Succession, the Role of Power, and CEO Duality

CEO succession is a pivotal event in the life of a firm and clearly distinct from other types of personnel appointments. (James & Soref, 1991; Fredrickson, Hambrick, & Baumrin, 1988). Although firm performance is clearly a factor in CEO succession, the variance explained is not substantively significant usually ranging from 10-20 percent (Finkelstein, Hambrick, & Cannella, 2009). Furthermore, replacement of the CEO often fails to lead to improvement in performance (Wiersema, 2002). The lack of strong statistical evidence of performance as a factor in CEO succession suggests that other factors play in important role including: firm size, board composition, and ownership structure (Boeker & Goodstein, 1993; Bommer & Ellstrand, 1996). Despite the range of antecedents and consequences, the replacement of a CEO occurs relatively rarely and has significant impact on the entire organization.

CEO duality, in which the CEO serves also as the chair of the board of directors, is a vital part of the succession process. Because the CEO is likely the single most powerful individual in the firm, the CEO’s leadership of the board is a key governance issue. Empirical investigation of the impact of CEO duality on the firm is rather mixed with some studies based largely on agency-theoretic thinking concluding that the roles should be split (Rechner & Dalton, 1991; Davidson, Jiraporn, Kim, & Nemec, 2004; Goyal & Park, 2002; Pi & Timme, 1993) while other studies (Brickley, Coles, & Jarrell, 1997; Faleye, 2007; Finkelstein and D’Aveni, 1994) suggest that a single form of corporate leadership may not the best arrangement in all circumstances. The question of CEO duality is practically and theoretically compelling, and examining its antecedents and outcomes will likely result in greater understanding of the structure of strategic leadership and its impact on firm outcomes.

In spite of both theoretical and practical reasons for separation of the CEO and board chair positions, roughly 80% of U.S. firms continue the practice of appointing one person to both positions (Faleye, 2007; Worrell, Nemec, & Davidson, 1997). In addition, although it is a common practice for U.S. corporations to combine the CEO and chair position, it does not necessarily occur at the time a new CEO is named. Some scholars have observed that service first as CEO only provides the board and other key constituents the opportunity to observe the CEO in action treating this time as a type of probationary period (Vance, 1983; Vancil, 1987). In addition, the appointment to both posts simultaneously may be subject to characteristics of the incoming CEO. For example, Davidson and colleagues (2008) reported that outside successors with prior CEO experience were more likely appointed to both positions while heirs apparent were less likely appointed to both. Further evidence suggests that in response to governance concerns, especially among larger corporations, the CEO and chair positions remain intentionally
separated, with an independent outsider serving as chair (Hillier & McColgan, 2006; Valenti, 2008). Thus, the conditions leading to CEO duality are unclear both theoretically and empirically calling for further scholarly investigation.

This current investigation examines the circumstances under which a newly appointed CEO will also be named as chair. It follows Cannella and Shen (2001), who demonstrate the role of the balance of power among the three central parties in the process: the board of directors, the incumbent CEO, and the incoming CEO. The next section provides a review of the scholarship on CEO duality and the sources of power within the firm. This leads to development of hypotheses suggesting the effect of each source of power on the length of time before a new CEO will also be named board chair. This is followed by an exploratory examination using tools of survival analysis of the period of time elapsing before a new CEO is named chair. Discussion and implications for future research conclude the paper.

CEO DUALITY

Considerable corporate governance research has examined antecedents and outcomes of CEO duality. Compared to firms with CEO duality (sometimes termed unitary structures or unitary leadership), firms separating the two roles (dual structures or dual leadership) showed consistently better accounting performance (Rechner & Dalton, 1991). Banks separating the positions showed lower costs and higher returns on assets than those with unitary leadership structures (Pi & Timme, 1993). Goyal and Park (2002) reported that after periods of poor firm performance, CEO turnover was less likely in firms using a unitary structure. Davidson and colleagues (Davidson, Jiraporn, Kim, & Nemec, 2004) reported income-increasing earnings management was more prevalent in firms following duality-creating successions than in non-duality creating successions. These studies suggest that concerns of corporate governance activists and theorists urging separation of the two roles are well founded.

In contrast, several research studies report no difference in performance outcomes among firms using either leadership structure. For example, firms altering their leadership structure showed no differences in either financial market-based measures or accounting-based measures of performance (Baliga, Moyer, & Rao, 1996). Dahya (2004) found no performance improvement associated with separation of the two leadership positions among U.K. firms either in absolute terms or in comparison to a number of peer group benchmarks. Finally, a meta-analytic review of 31 studies examining the relationship between CEO duality and firm performance demonstrated that duality showed no effect on firm financial performance (Dalton, Daily, Ellstrand, & Johnson, 1998).

Many of these empirical studies, rooted largely in agency theory, support the notion that the roles should be split to preserve the independence and monitoring capabilities of the board. In contrast, other organizational researchers suggest a contingency approach proposing instead that one form of corporate leadership may not be the best in all circumstances. Finkelstein and D’Aveni (1994) argue that the choice is a trade-off between boards’ need to reduce excessive CEO power on the one hand and the need to promote unity of command on the other. In support of this notion, Brickley and colleagues suggest there are costs and benefits associated with both forms of leadership structure (Brickley, Coles, & Jarrell, 1997; Faleye, 2007). Similar thinking leads some corporate executives, although generally supporting CEO duality, to conclude that each firm should determine which leadership structure is best based on its present and expected
future circumstances (The Business Roundtable, 2002). Indeed, certain conditions may favor one or the other form of structure. In an examination of antecedents of CEO duality, Faleye (2007) reported that organizational complexity, CEO reputation, and CEO equity increase the probability of CEO duality and argued that the appropriate combination of these factors with CEO duality may improve firm financial performance. These more recent studies and the rather mixed findings of others suggest, as proposed by Finkelstein and D’Aveni (1994), that a number of contingencies influence which corporate leadership structure best serves a firm’s stakeholders. Such contingencies may include the distribution of power among the key players in the succession process: the board of directors, the incumbent CEO, and the incoming CEO.

**SOURCES OF POWER WITHIN THE FIRM**

Organizational power is the capacity to control the premises and choices of decisions and their consequences (Roy, 1997) and is concentrated among the organization’s strategic leaders – the CEO and the board of directors. Examination of CEO succession requires consideration of the power of the board, the power of the incumbent CEO and the successor (incoming) CEO, and a clear distinction between internal and external successors.

**Successor Power**

New CEOs, whether from inside or from outside the firm, bring with them a certain amount of power based both in themselves and in the organization to which they are succeeding. Individual or personal power is often based in a certain level of management experience. Many new CEOs have been senior executives making decisions that impact the entire firm rather than just one particular area. In addition, they typically bring a certain level of career variety as a result of experiences across organizational functions, across various firms, and across industries (Crossland, Zyung, Hiller, & Hambrick, 2014). Moreover, a senior executive often has interacted with the focal firm’s board of directors and may have served as an outside director on the board of another firm (Carey & Ogden, 2000). In addition, CEO successors also bring with them the power of the organization rooted in structural power (Roy, 1997) that uniquely emanates from the CEO post. The prestige as a member of the organizational elite (Mizruchi, 1988; Mizruchi & Stearns, 1988; 1994; Useem, 1979) and as a nominee for the position of key organizational leader also provides a source of potential power. Therefore, as a party to the succession process, CEO successors bring personal and organizational characteristics that may influence the appointment decision including that of appointment either solely to the post of CEO or to appointment also as board chair. Furthermore, these characteristics may vary depending on whether the individual succeeds to the CEO post from outside the organization or is an internal successor.

**Outside CEO Successor**

An outside successor CEO was not employed by the firm while the predecessor held the office (Wiersema, 1992) and may have served as CEO or other senior officer at another firm. Such experience may bring with it factors unique to prior CEO experience that can impact the candidate’s position relative to the hiring firm’s board. Strategic leadership experience brings with it experience in interacting with the board of directors at the CEO’s prior firm. In addition, a senior officer may have served as an outside director at another firm. Furthermore, prior service as a senior officer includes experience directing the overall activities of an entire organization.
These three activities – interaction with the focal firm’s board, interaction with a board as an outside director, and overall leadership of an organization – are key components of strategic leadership (Carey & Ogden, 2000; Finkelstein, Hambrick, & Cannella, 2009) and these are further addressed below.

Prior senior officer experience may include significant experience interacting with a board of directors. Experience as the key strategic leader of an organization implies the exercise of authority and responsibility for strategy formulation and implementation. In addition, service as a senior officer may involve making outside board appointments (Ocasio, 1994). Furthermore, prior CEO experience likely includes having “sat on the other side of the table” from another CEO as an outside director at another firm.

Prior senior officer experience also establishes the newcomer’s ability to direct the activities of an entire organization and to develop and lead a firm’s dominant coalition (Cyert & March, 1963) enhancing the prestige typically associated with the top corporate job. These skills are more likely transferrable to the new position than developed by an internal successor lacking the unique experience associated with the top job. In addition, prior senior officer expertise may aid the new CEO in dealing with potential internal candidates who “didn’t get the job.” While the concept of the dominant coalition (Cyert & March, 1963) recognizes that membership is not distinct at any one time and, in fact, shifts depending on the context and issue salient at a particular time, the key player in directing that coalition is the CEO further enhancing perception of the individual’s expertise. CEO succession is often seen as an opportunity to realign the organization with its environmental imperatives (Pfeffer & Salancik, 1978; Ocasio, 1994), and one who has done this in another organization brings a good deal of valuable expertise to the new appointment. Furthermore, CEOs occupy a unique position within the corporate elite as organizational leaders (Mizruchi, 1988; Useem, 1979), and one who has already served in this capacity brings to the new appointment established prestige. All these characteristics may support an outside CEO successor in forging and aligning the diverse and often conflicting interests of the firm’s top leaders which are likely most acute at the time of a CEO succession event (Carey & Ogden, 2000).

Internal CEO successor

An internal successor CEO candidate may have been previously designated as heir apparent (Vancil, 1987). Such designation generally means appointment to a position such as Chief Operating Officer or Executive Vice President (Behn, Riley & Yang, 2005; Zhang & Rajagopalan, 2004). These appointments often include a series of strategically meaningful assignments (Carey & Ogden, 2000), allowing opportunities to develop managerial skills not experienced by other executives (Zhang & Rajagopalan, 2004). Such assignments often result in formation of internal organizational relationships stemming from control of organizational resources and from appointments of subordinates to other strategically meaningful assignments leading to creation of “networks of influence” (Ocasio, 1994, p. 287) within the organization. In addition, senior level employees are often empowered to serve as agents acting on behalf of the CEO, affording them great power within the organization.

Service as heir apparent also brings opportunities to build relationships with the board at large that enhance an individual’s standing with the board at the time of appointment as CEO. Frequent contact allows the board to see potential successors in action before the actual time for
appointment arrives and allows potential successors to forge direct relationships with board members not mediated by the CEO (Carey & Ogden, 2000). The board becomes familiar with the candidate potentially requiring less probationary time as CEO and chair-in-waiting (Vancil, 1987). In addition, internal candidates sometimes serve on other boards (Carey & Ogden, 2000) affording the candidate development of some expertise in the functions of governance through the types of support and monitoring expected of outside directors further enhancing the candidate’s reputation among corporate leaders. Hence, the experiences of working with the focal firm’s board and serving as outside director on other firms’ boards enhance an individual’s expertise as a business leader as well as one’s reputation among other business leaders.

**Board Power**

Earlier studies of the role of the board in the succession process suggested that directors played a minimal role, but subsequent research demonstrates that boards have become more proactive, especially when corporate performance is declining (Kesner & Sebora, 1994). The more powerful the board, the better able it is to influence CEO succession and maintain its power by separating the CEO and chair positions.

A considerable portion of corporate governance scholarship has viewed board power as stemming primarily from the structural position of the directors with respect to the firm. Outside directors are seen as better positioned to monitor management because of their assumed independence from the company’s managers and their expertise developed from prior experience (Mace, 1986). When compared to managerial (inside) directors, outsiders are preferred because "insider-dominated boards imply problematic self-monitoring and particularly weak monitoring of the CEO, since the CEO is likely to be in a position to influence the insider directors' career advancement within the firm" (Zajac & Westphal, 1994, p. 125). Outside directors are also presumed to be impartial in evaluating management’s decisions (Baysinger & Hoskisson, 1990). Unlike insiders, outside directors are less likely to be affected by the outcomes of their decisions and thus can arrive at more objective solutions (Rechner, Sundaramurthy & Dalton, 1993).

**Incumbent CEO Power**

The power of the CEO is generally framed in terms of the unity or separation of the chair and CEO roles (Finkelstein & Hambrick, 1996). Separating the two roles places the board in a superordinate relationship to the CEO, while combining the roles reflects the confidence the board has in the CEO and its willingness to relinquish a certain amount of power (Harrison, Torres & Kukalis, 1988). Thus, CEO/Chair duality is often considered a strong indicator of the CEO’s power (Daily & Johnson, 1997).

CEO tenure is also considered a source of power because as the term of the CEO increases, so does the CEO’s ability to engage in persuasive behavior over directors (Shen, 2003). Further, the longer the CEO has held that office, the more likely that he/she was instrumental in the appointment of directors to the board. Researchers have pointed out that CEOs typically influence, if not dictate, the appointment of new directors (Gulati & Westphal, 1999). In many cases, directors are personally invited by the CEO to serve and only candidates approved by the CEO are elected (Kesner & Sebora, 1994). In spite of recent governance reforms reducing the formal role the CEO plays in selection of directors, the CEO nevertheless carries considerable informal influence over director recruitment and nomination.
directors appointed by a firm's CEO are likely to have social ties to the management team (Westphal, 1999) or may be reluctant to challenge the power of the CEO because they feel indebted to the CEO for their appointments (Boeker, 1992; Daily & Dalton, 1995; Wade, O’Reilly & Chandratat, 1990). Consultants and lawyers serving on boards often have a commercial or economic relationship with the firm and may be constrained in challenging a CEO’s policies if they feel that continued relationship may be threatened by such actions (Johnson, Daily & Ellstrand, 1996). Thus, the length of time the outgoing CEO held that position should be considered in analyzing the balance of power in the succession process.

THE BALANCE OF POWER IN THE SUCCESSION PROCESS

A key dimension of the distribution of power among the board, the incumbent CEO, and the incoming CEO is the appointment of the CEO as board chair. Each of these sources of power plays a role in the process of appointing the CEO also as chair and the length of time that elapses between appointment as CEO and also as chair.

Successor CEO Power and CEO Duality

Former CEOs moving into a new organization will likely have greater influence over the appointment process than a candidate without CEO experience (Boeker, 1997). For example, Davidson and colleagues (Davidson, et al., 2008) found that prior CEO experience is a strong predictor of duality-creating CEO appointments. In order to make an offer more attractive and appear to be an upward move rather than a lateral one, the board may need to offer greater incentives. This will be especially true for CEOs recruited from large firms (Pfeffer, 1981). When CEOs are selected from outside the company, it is often because the board has not identified a suitable candidate from within the company (Finkelstein & Hambrick, 1996). In such situations, it is critical that the board identify a nominee with a strong track record of leading a firm as top officer. Often the board will seek to appoint a new CEO with a specific skill set not possessed by existing management. This suggests that the board will need to entice a well-qualified individual by offering the chair position as well.

In addition, if the incoming CEO was the CEO in his or her prior firm, he or she may also have held the chair position. If this is the case, the new CEO is in a strong position to bargain with the board that the hiring firm offer the same roles. The focal firm’s board will need to propose a package of benefits that will entice the candidate to leave his or her current job, which may include being named the chair.

Moreover, an incoming CEO who serves on the boards of a number of other firms may bring a certain amount of prestige that may enhance his or her power with respect to the board of the new firm. Just as a CEO candidate with prior CEO or chair experience may require additional incentives offered by the new firm’s board, a CEO candidate with considerable exposure to governance and strategic management through service on other firms’ boards may also need the enticement of additional perquisites such as the additional prestige that the mantle of board chair might bestow.

Hypothesis 1a: Outside succession of the incoming CEO will decrease the amount of time that elapses between appointment as CEO and appointment as chair.
Hypothesis 1b: The elapsed time will be shorter if the incoming CEO also served at her/his previous post as CEO and/or chair.

Hypothesis 1c: The elapsed time will be shorter if the incoming CEO also holds seats on other boards at the time of appointment.

In the event of internal succession the insider candidate will likely have considerable familiarity with the focal board, especially where the insider has been designated as the heir apparent. As a senior manager in the firm, the individual will have had occasion for frequent formal and informal interactions with the board affording directors the opportunity to see both the professional abilities and personal qualities of the individual. During the course of development, the candidate will have undoubtedly made presentations to the board on matters of strategic importance and been given meaningful assignments with some accountability to the board for their outcomes (Carey & Ogden, 2000). The combination of board interactions and participation in strategic decision-making enhances both the legitimate and expert power of the candidate, and the board may be inclined to shorten the “probationary” period (Vancil, 1986) between appointment as CEO and also as chair.

Service in a formal governance role as an outside director advances the process of building the individual’s own prestige power as a member of the corporate elite. Service on other boards is regarded as a critical stage in the process of developing potential CEOs (Carey & Ogden, 2000) and may be valuable experience for a future CEO who suddenly finds the governance roles now reversed. Through interaction with the board and service on other boards, the candidate develops both expertise and prestige power by developing the ability to interact with a key governance player (the board) and by developing the capacity for strategic direction through the increasingly strategic nature of the various assignments.

Designation of an heir apparent is critical in the succession process and adds value to the firm (Behn, et al., 2005), providing the insider with a formidable bargaining position when negotiating a new employment contract as CEO. Further, the board’s commitment to the heir apparent is likely to result in its willingness to grant additional power as the CEO, namely the role of chairman (Cannella & Shen, 2001).

H2a: Service at the focal firm as an internal candidate will decrease the amount of time that elapses between appointment as CEO and appointment as chair.

H2b: The elapsed time will be shorter if the incoming CEO is heir apparent.

**Board Power and CEO Duality**

Selection of the CEO is among the chief roles of a corporate board, and much of their influence in the succession process stems from their power relative to the CEO, both incumbent and incoming. From a social network theory perspective, directorships on outside boards are a source of both expertise power and prestige power. Through their service on other boards, directors are exposed to diverse elements in the environment. Multiple board appointments expose directors to strategic and governance issues better equipping them to support management in coping with problems facing firms (Kor & Sundaramurthy, 2009). Board members with prior experience in situations similar to those facing the focal firm demonstrate more effective monitoring (Carpenter & Westphal, 2001; Hillman & Dalziel, 2003). Multiple
directorships also create personal contacts with representatives of relevant organizations resulting in valuable sources of information and access such as introductions and legitimacy (Borch & Huse, 1993). In addition to general management or governance experience, expertise power may also be based on the relevance of a director’s experience in strategic decision-making (Finkelstein, 1992). Strategic relevance occurs when a director has specific experience reducing uncertainty stemming from the firm’s dependence on external contingencies most problematic to the organization (Pfeffer, 1972a; Pfeffer & Salancik, 1978). Formal connections with organizations in the focal firm’s institutional environment link directors with external information resulting in reduction of uncertainty for the focal firm. For example, Kor and Sundaramurthy (2009) found that service on multiple boards increases access to information which in turn improves the board’s expertise advising management and positively affecting decisions leading to the company’s growth.

Interlocking directorates also enhance a board’s prestige power. (Mizruchi, 1988; Mizruchi & Stearns, 1988; 1994). A central tenet in the resource dependence perspective (Pfeffer, 1972b; Pfeffer & Salancik, 1978) is that successful recruitment of prestigious individuals as directors enhances firm legitimacy. Finkelstein’s (1992) concept of prestige power is singularly applicable to the domain of boards due to the importance of external interconnections directors often bring. Thus, board centrality within the business environment is a valid expression of prestige power, which will counterbalance the power of the incoming CEO.

Hypothesis 3: The greater the board centrality, the longer the lapse of time before a newly appointed CEO will also be named board chair at the focal firm.

In addition to network centrality, internal social capital of the board enhances its power to act as a unit. Boards preferring less powerful CEOs strengthen their own power to influence the CEO (Zajac & Westphal, 1996). Highly dense boards favoring independent governance structures will be more powerful to separate the positions of CEO and board chair. Thus, the density of the board will moderate the relationship between incoming CEO power and duality.

Hypothesis 4: The greater the board density, the longer the lapse of time before a newly appointed CEO will also be named board chair at the focal firm.

Incumbent Power and CEO Duality

Incumbent CEOs are often reluctant to give up their position even if firm performance has been poor (Boeker, 1992; Fredrickson, Hambrick & Baumrin, 1988). Cannella and Shen (2001) found some support for their hypothesis that incumbent CEOs would force an heir apparent out in order to strengthen their position when the firm was performing well. Incumbents who do resign often have the opportunity to influence the selection of the replacement CEO either by grooming an heir apparent within the company (Vancil, 1987) or selecting an outsider who is demographically similar to themselves (Zajac & Westphal, 1996).

When incumbent CEOs are also board chairs, entrenchment is more likely as their role as the leader of the board can influence other board members to retain them. As the key organizational contact between the board and the organization, the CEO occupies the pivotal point of interaction with the board. Members of the board thus interact with the CEO not only in their oversight role, but also as a strategic partner in planning and decision-making. The
CEO/Chair, therefore, is in a position to persuade the other members of the board to retain his or her services on the board even after resignation as CEO. This is especially evident in cases where the incoming CEO is hired from the outside. Because the board is not familiar with the new CEO and would prefer some modicum of continuity, it is reasonable for them to keep the incumbent as board chair for a period of time until they are satisfied that the new CEO can assume both roles.

Hypothesis 5: When the outgoing CEO is also the chair, the more likely the former CEO will remain as chair thereby increasing the lapse of time before a newly appointed CEO will also be named board chair.

CEO power typically increases over the course of a CEO’s tenure and board member, even if not also the chair. Longer CEO tenure increases the CEO’s legitimacy and his or her firm specific knowledge further enhancing his or her posture. In addition, appointments to the board during his or her tenure strengthen the CEO’s influence over corporate decisions often insulating him or her from the pressures of economic performance (Ocasio, 1994). During periods of long service, CEOs can shape their boards and develop relationships with outside board members enhancing their staying power even after they step down as CEO. For example, Quigley and Hambrick (2008) found tenure to be positively related to the likelihood that a predecessor CEO will be retained as chair. Similarly, Brickley, Linck and Coles (1999) found that nearly 20 percent of former CEOs continued as the chairman of a board for as long as two years after leaving office. This is often the case when the outgoing CEO holds a significant percentage of the shares or may be a founder (Quigley & Hambrick, 2008).

Hypothesis 6: The longer the tenure of the outgoing CEO, the more likely the outgoing CEO will remain or be named as chair thereby increasing the lapse of time before a newly appointed CEO will also be named board chair.

METHODS

Sample and Data Collection

The population in this study includes firms from the Fortune 1000 index of 2007 which reported a CEO succession event between 2002 and 2007. Succession events were identified using the Mergent database, which reported a total of 238 events during the sample period. Each event was confirmed by examining company proxy statements, and after eliminating observations which were either incorrect or for which available data were incomplete, the final sample consisted of 185 CEO succession occurrences.

Variables

Dependent variable

The dependent variable is the period of time between appointment as CEO and appointment also as board chair. The period of time, originally measured in days, ranged from values of zero for cases where the newly appointed CEO was simultaneously appointed chair to 2170 days. In some cases, the CEO was never appointed chair during the study period, a situation further addresses below. Data were collected from company proxy statements. In cases...
where the exact date of the appointment was not reported in the proxy, the date was determined through a search of the Wall Street Journal.

Before performing a multivariate survival analysis, an exploratory analysis of the dependent variable, time to chair appointment, identified and described key features of the occurrence of CEO duality following a new CEO appointment through an investigation of the occurrence of the event.

**Investigating event occurrence**

The examination of the length of time from appointment as CEO until appointment also as board chair (CEO duality) implies a two part question: whether the individual is appointed also as chair and when that event occurs. Examination of either question - whether and when - implies survival methods (Singer & Willett, 2003).

Three key methodological features of survival analysis are the target event, the beginning of the study period, and the metric for capturing elapsed time (Singer & Willett, 2003). The target event is the occurrence of the event under investigation, typically the dependent variable (DV), in which the attribute of a particular case undergoes a transition from one state to another. The transition from one to the other is considered to be mutually exclusive (i.e., non-overlapping) and exhaustive, and if this is not the case, the analysis uses a competing risks survival analysis. In the current study, the newly appointed CEO is either appointed also to the position of chair of the board or remains CEO only. Of the 185 cases of CEO appointment, 39 were also appointed board chair at the time of their appointment as CEO.

The second key methodological feature, the beginning of time, marks the start of the study period. In this case, the study period begins with the appointment October 1, 2002 of James O’Brien as the CEO and Chair of the Board of Ashland, Inc. and ends with the appointment in July 1, 2007 of William Moore as CEO of Westar Energy.

The third key methodological feature, the measurement of time lapsed until event occurrence, can be either continuous, whereby it actually is measured in very thin precise (short) units, or discrete, whereby it is measured in thicker (longer lasting) intervals. In the current study, the time to occurrence was measured in days, although the exploratory analyses examined data using a period of three months.

Another key consideration is data censoring which can occur for two reasons: 1) the event never occurs, or 2) the event does not occur during the study period (Singer & Willett, 2003). In the current study, 83 individuals appointed as CEO were never appointed chair. In addition, 39 were appointed board chair at the time of their appointment as CEO. There are two types of censoring: informative/non-informative and right/left. Censoring that is informative occurs because of another event (e.g., firing, attrition). In the current study, with the exception of one case in which the CEO died while in office, the censoring is non-informative because it occurred as a result of the end of the study period. Left censoring describes the situation in which the event occurred before the study period, while right censoring means the event occurrence was not observed during the study period. Because 83 CEOs were still CEOs only and had not been appointed also as board chair as of the end of 2007, the data in the current study are right censored.
Describing discrete-time event data

The primary tool for describing the event occurrence is the life table. The life table contains information on the event hazard, the unique probability of occurrence in a particular time periods, and event survival, the proportion of remaining cases (survivors) exposed to each succeeding period’s hazard. Table 1 presents the life table for the CEO appointment and duality data.

Table 1: Life table of CEO appointment and duality data (data are aggregated at three month intervals

<table>
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<tr>
<th>Period</th>
<th>Time interval</th>
<th>Appointed CEO</th>
<th>Appointed chair</th>
<th>Hazard function</th>
<th>Survivor function</th>
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Three essential summaries describe the data in the life table: the hazard function, the survivor function, and the estimated median lifetime. The hazard function is the unique risk of event occurrence associated with a particular time period. The use of the term hazard is most
likely a reflection of the earlier use of survival methods in the medical sciences to detect survival of patients starting from the point of detection of a fatal disease or other fatal condition. In the case of the CEO data, the hazard function is the conditional probability that a new CEO not appointed as board chair could be appointed board chair during that period. Peaks in the hazard function indicate conditions of elevated risk, or high probability of CEO duality, while little or no change in the hazard function over several periods indicates risk that is unrelated to time or is “duration independent.” Duration independence is rare in social sciences due to the effects of age, period, and cohort, all of which suggest duration dependence (Singer & Willett, 2003).

Figure 1 displays the graph of the hazard function. Peaks in the hazard function suggest that dual appointments are more likely at the time of appointment and toward the end of the first, second, and third years of tenure. Generally, once appointed as CEO, the likelihood of later being appointed also as chair gradually decreases.

Figure 1: Estimated hazard, or conditional probability, of CEO being also appointed chair

The survivor function, the fraction of the population remaining that is exposed to the hazard in each period, is a result of accumulation of information over time and provides a context for evaluating the magnitude of the hazard. In a sense, hazard and survival are analogous to incidence and prevalence, or the transition from the current state to the other and continuation unchanged in the current state. Figure 2 displays the graph of the survivor function. Because the survivor function is the accumulation of information about those cases remaining unchanged, there are no peaks, and the graph shows a generally negative slope.
The third summary of data from the life table is the estimated median lifetime, the point in time at which the hazard rate reaches 0.5. From the graph of the survivor function and the data in the life table, one can estimate that the median occurs at roughly the eleventh period or approximately the thirty third month of the new CEO’s tenure. As a measure of central tendency, it is simply an average of event times. In addition, it is not necessarily a moment when the target event is either more or less likely, and the hazard might be low at the median. Therefore, estimated median lifetime contains no information concerning the distribution of risk, no information concerning extreme values, and no information concerning the shape of either the hazard function or the survivor function. Identical median values can occur from widely different hazard and survivor functions. In sum, the estimated median lifetime does not provide information for drawing inferences as it is merely one particular point. One can never assume that time at the median is one of high risk. The median, as with all data distribution, is simply the middle.

DISCUSSION, LIMITATIONS, AND FUTURE RESEARCH

CEO duality, in which the positions of CEO and board chair are held by the same individual, is an issue of concern in corporate governance. The confluence in one individual of the two key leadership positions in the corporation often means considerable power and influence of that individual over the management of the firm as well as oversight of strategic direction.

This study begins an examination of factors influencing CEO duality by considering the power dynamics of the three key players in CEO succession, the board, the outgoing CEO, and the successor CEO. Specifically, the study examines how these power dynamics influence the length of time between appointment as CEO and appointment as board chair. The hazard rate, or conditional probability, of “time to chair” for a newly appointed CEO varies over time. In this study, that rate generally declines over the tenure of the CEO and seems to peak toward the end of the first, second, and third years of the CEO’s term. This exploratory analysis of the occurrence over time of CEO duality sheds some light on the characteristics of this key phenomenon of strategic leadership.
The chief limitation of the study is that the analysis is limited to a univariate analysis of the dependent variable, the lapse of time between appointment as CEO and appointment also as board chair. The next step is a multivariate analysis of the factors impacting that lapse of time. In addition, future studies may examine how this period has changed over the decades as the practice of CEO duality has come under the scrutiny of academics, regulators, and financial markets.
REFERENCES


