

CEO burnout, managerial discretion, and firm performance: The role of CEO locus of control, structural power, and organizational factors



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ABSTRACT

Despite the possibility of burnout resulting from dynamics in firms' upper echelons, little if any work has focused on chief executive officer's (CEO's) burnout and firm performance. Drawing on managerial discretion theory, this article analyzes the influence of CEO burnout on firm performance and the moderating roles of the individual (CEO locus of control), structural power (CEO duality and CEO tenure), and organizational characteristics (size, age, and resource availability) related to managerial discretion. Using a sample of 156 CEOs in Swedish firms, we find a negative association between CEOs who report higher burnout and firm performance. Our results confirm that CEO duality and resource availability ameliorate and firm size exacerbates the negative association between CEO burnout and firm performance. Contrary to our expectations, CEO locus of control, CEO tenure, and firm age do not influence this relationship. We discuss the implications of our research for upper echelons theory and strategic leadership theory.

Introduction

In the face of globalization, increasing competition, progressively complex government regulations, and recurring economic downturns, chief executive officers (CEOs) may be increasingly susceptible to burnout. According to the employee burnout literature, burnout is a psychological response to chronic work stress resulting from a combination of emotional exhaustion, depersonalization, reduced personal accomplishment, and reduced professional efficacy (Cordes and Dougherty, 1993; Halbesleben, 2006; Jackson et al., 1986). Persistent demands from diverse stakeholders to improve performance impose substantial stressors on CEOs, and frequent, intense, and unpredictable interactions with elements of the task environment potentially increase CEOs' emotional exhaustion and depersonalization from the strategic process (Schaufeli and Bakker, 2004). Additionally, non-contingent rewards and punishments resulting from systematic and firm-specific factors driving firm performance may further contribute to the reduced sense of personal accomplishments and depersonalization among executives (Janssen et al., 2010).

Extending prior work on employee burnout to upper echelon employees, the purpose of this study is to investigate the association

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between CEO burnout and firm performance. With the exception of [Levinson's \(1981\)](#) early work on executive burnout, very little strategic management research has focused on CEO burnout. The practitioner literature, in contrast, includes several reports on CEO burnout (e.g., [Kwoh, 2013](#)). For example, at the time of his sudden resignation, Jeffrey Kindler, a former CEO of Pfizer, cited burnout as the key reason for stepping down ([Drath, 2016](#) p. 12).¹ According to upper echelons theory ([Hambrick and Mason, 1984](#)), CEOs and their personal characteristics strongly influence organizational outcomes ([Busenbark et al., 2016](#); [Crossland and Hambrick, 2011](#); [Delgado-Garcia and De La Fuente-Sabaté, 2010](#); [Finkelstein and Hambrick, 1996](#); [Herrmann and Nadkarni, 2014](#)), and this influence is increasing over time ([Quigley and Hambrick, 2015](#)).

Further, we draw on [Hambrick and Finkelstein's \(1987\)](#) managerial discretion framework to explore whether specific individual, structural power, and organizational factors influencing the scope of managerial discretion could affect the relationship between CEO burnout and firm performance. Related to the individual level, locus of control is one psychological CEO characteristic that may influence managerial discretion ([Carpenter and Golden, 1997](#); [Hambrick and Finkelstein, 1987](#); [Wangrow et al., 2015](#)). According to Boone et al. (1996, p. 668) in “persistent attempt[s] to control the environment,” the CEO's internal locus of control is essential to explaining strategic leadership and the “CEO's role of formulator and implementor” (p. 670). As such, locus of control—defined as people's beliefs about how responsive and controllable the environment is ([Rotter, 1966](#))—could be central to managing the demand stressors CEOs face. Related to managerial discretion stemming from structural power, we focus on CEO duality and CEO tenure ([Hambrick and Finkelstein, 1987](#)). Because structural power enhanced under CEO duality (when a firm's CEO also chairs its board) increases managerial discretion, dual CEOs can be active agents of change and use more of their limited capacity to influence performance, thereby mitigating the possibly negative relationship between burnout and performance. Longer tenure within a firm is also associated with higher CEO discretion ([Finkelstein and Hambrick, 1990](#)).

Related to organizational factors as basis of managerial discretion, we focus on firm size, age, and resource availability. These factors define differences in CEOs' latitude of action and influence the number and variety of elements CEOs can draw upon and interact with when devising strategic actions ([Hambrick and Finkelstein, 1987](#)). Inertial forces in larger and older firms (e.g., [Aldrich and Auster, 1986](#); [Hannan and Freeman, 1984](#)) as well as firms' resource constraints limit change efforts and thus lower CEO discretion. Moreover, when CEOs experience emotional exhaustion, depersonalization, and reduced perceptions of personal accomplishment, lower CEO discretion may further inhibit their ability to manage their companies in performance-improving ways.

This study's proposed framework makes three main contributions. First, the current study extends the research on employee burnout to the upper echelons and contributes to strategic leadership theory by showing that CEOs are susceptible to burnout and that CEO burnout is associated with lower firm performance.² By introducing burnout to the strategic management literature, we also extend research in psychology over the past three decades that has focused primarily on employee-level burnout and outcomes, such as reduced job satisfaction, increased turnover, and reduced productivity often in samples of nurses, teachers, or social workers ([Cordes and Dougherty, 1993](#)).

Second, the literature has seldom focused on the human side of the CEO position. Although narratives have focused on topics spanning compensation ([Finkelstein and Boyd, 1998](#)), entrenchment ([Finkelstein and D'Aveni, 1994](#)), dismissals ([Shen and Cannella, 2002](#)), and agency theory-related CEO behaviors ([Tosi et al., 1999](#)), an undertone in this literature is that CEOs, having won career tournaments, are hardened individuals capable of handling substantial stress. Considering the high stakes of strategic decision making associated with the CEO role, developing a better understanding of CEO burnout could be central to improving firm performance. Thus, the current study addresses recent calls to ground strategic management in human psychology ([Powell et al., 2011](#)).

Third, prior research on managerial discretion has mainly focused on the determinants of discretion in the industry task environment with less attention on the internal organization and managers' characteristics ([Wangrow et al., 2015](#), for a review). In the current study, we explore both organization- and individual-level determinants of managerial discretion that may serve as boundary conditions for the relationship between CEO burnout and firm performance while controlling for industry-level factors affecting discretion. Thus, our framework and findings have important implications for strategic leadership research on managerial discretion.

Theoretical development and hypotheses

The top management team (TMT)—referred to as the “dominant coalition” in the strategic behavior literature—is central to strategic decision making ([Carpenter et al., 2004](#); [Hambrick and Mason, 1984](#)) and plays a key role in explaining “organizational outcomes” ([Hambrick, 2007](#), p. 334). In a TMT, the CEO provides strategic leadership and is central to explaining “why organizations do the things they do or why they perform the way they do” ([Hambrick, 2007](#), p. 334). CEOs seek and process information to understand the strategic situations they face and then devise strategic actions in response ([Hambrick et al., 2005](#); [Hambrick and Mason, 1984](#)). Emerging research has shown that CEOs' actions—manifested through the big five personality traits ([de Jong et al., 2013](#); [Nadkarni and Herrmann, 2010](#); [Peterson et al., 2003](#)), narcissism ([Chatterjee and Hambrick, 2007](#)), core self-evaluation ([Resick et al., 2009](#); [Simsek et al., 2010](#)), and affective traits ([Delgado-Garcia and De La Fuente-Sabaté, 2010](#))—influence strategic behaviors and firm performance. Despite these promising studies on CEO traits and firm performance, the emotional toll of the

¹ Kindler wrote about his resignation in a [Pfizer \(2010\)](#) press release as follows: “The combination of meeting the requirements of our many stakeholders around the world and the 24/7 nature of my responsibilities, has made this period extremely demanding on me personally.” He continued, stating that he would take time off to “recharge my batteries.” Although Pfizer stock had declined 20% since the beginning of Kindler's tenure and this information was factored into its stock price before his resignation, on the day Kindler announced he was stepping down, Pfizer stock declined by 1%.

² For example, managers who act as boundary spanners, in our case CEOs, are suggested to have a higher likelihood of burnout ([Cordes and Dougherty, 1993](#)). Similarly, [Becherer et al. \(2000\)](#) stated that small business presidents appear to be highly susceptible to burnout.

significant and varying strategic demands faced by CEOs remains largely explored. Tying strategic leadership theory to the broader literature on employee burnout, we address a less explored but both practically and theoretically relevant aspect of CEO burnout.

Strategic decision making, formulation, and implementation are shared activities conducted at the interface of stakeholders, the environment, and internal resources. The varied demands on CEOs from systematic (i.e., industry and macroeconomic trends) and unsystematic (i.e., factors attributable to the firm itself) components driving the strategic process (Bloom and Milkovich, 1998; Miller and Bromiley, 1990; Miller et al., 2002) could place significant demands on CEOs' strategic diagnostic abilities. CEOs are required to devise, coordinate, and communicate complex and varying strategic actions in the context of variegated environmental information as well as leverage diverse knowledge stocks and practices under dynamic internal and external constraints (Carpenter et al., 2004). Expending effort to leverage diverse cognitive and behavioral resources (Simons et al., 1999) and ensure comprehensive decision making (Olson et al., 2007) means that burnout is plausible.

We first review the broader literature on employee burnout and then develop our framework of CEO burnout using the lens of discretion from the strategy literature.

Background on individual burnout

In the current study, we do not draw on clinical diagnoses of burnout but on the conceptualization and measurement of burnout from the social psychology literature. Maslach and Jackson (1981) proposed that burnout is a multidimensional construct consisting of emotional exhaustion, depersonalization, and reduced perceptions of personal accomplishment. *Emotional exhaustion* refers to depleted emotional resources required to manage task demands. It results in feelings of tension and frustration driven by fears of being unable to meet previous or future performance levels (Cordes and Dougherty, 1993). The second dimension of burnout, *depersonalization*, occurs when an individual distances him- or herself from his or her work and develops dehumanized perceptions of tasks, clients, and coworkers (Schaufeli and Enzmann, 1998). Depersonalization leads to an increasing preference for bureaucratic procedures and comfort from focusing on the status quo. *Reduced personal accomplishment*, the third dimension of job burnout, involves self-evaluative feelings of limited competence and lack of achievement at work. Reduced professional efficacy may also decrease confidence in one's ability to fulfill job responsibilities (Maslach and Leiter, 2008). Overall, burnout—a psychological response to chronic work stress—results in emotional exhaustion, depersonalization, and reduced job performance (Maslach et al., 2001).

It is worth noting that burnout is distinct from stress and depression³ (Iacovides et al., 2003). While both burnout and depression have been used as indicators of mental well-being at work (Ahola et al., 2005), several studies on the relationship between burnout and depression have shown that they are separate nomological entities (Dell'Erba et al., 1994; Glass and McKnight, 1996) with shared variance of around 20% (Bellani et al., 1996; Glass et al., 1993; Iacovides et al., 2003; McKnight and Glass, 1995). While depression is a mental disorder, burnout is a factor that influences an individual's health status (Ahola et al., 2005; World Health Organization, 1992). Moreover, although the process of burnout is similar to the process of depression, burnout is suggested to occur in a different context (Ahola et al., 2005; Iacovides et al., 2003). By definition, burnout is a specific work-related syndrome (Ahola et al., 2005), whereas major depressive disorder results from various genetic and environmental influences (Kendler et al., 1993, 2002; Kessler, 1997; Sullivan et al., 2000), with work-related stressors being one group among others (Kessler, 1997; Leiter and Durup, 1994; Tennant, 2001). Further, burnout is fundamentally a social construct (i.e., the items of the Maslach Burnout Inventory attribute negative and positive experiences to interactions in the workplace), and depression essentially reflects personal thoughts and emotions and does not make direct reference to a specific context (Leiter and Durup, 1994). Lastly, an essential precondition for recovery from burnout is a change in the working conditions that caused the burnout (Bernier, 1998), whereas depression requires treatment with, for example, anti-depressive medication or psychotherapy (Ahola et al., 2005) (see also Brenninkmeyer et al., 2001 for a detailed medical-based discussion of differences between burnout and depression).

In the case of CEOs, job burnout occurs from recurring patterns of job stress and additional job elements, such as the influence of external factors that reduce effort-outcome correlation (i.e., non-contingent rewards), increasing expectations, changing demands, and dynamic resource-performance relationships—all aspects typical of the CEO role. Work-related stress occurs when job demands exceed a person's abilities, whereas burnout refers to an individual's response patterns to work stressors (Shirom, 1989). Job stress increases both physiological and psychological stress as individuals attempt to meet job goals with limited resources (Bakker and Demerouti, 2007). While job stress can be a driver of burnout, it alone does not cause burnout (Iacovides et al., 2003). Thus, while stress is part and parcel of the CEO position, burnout could result from increasing expectations, a changing environment, the influence of external factors on firm performance, and/or an increasing need to improve performance, all of which can exacerbate emotional exhaustion (cf. Shirom et al., 2006). In conclusion, burnout sets apart and adds value to frameworks provided by established perspectives on clinical psychology used to explain personal distress that are not suited to explain largely interpersonal and organizational constructs (cf. Leiter and Durup, 1994). Next, we develop the CEO burnout framework further by drawing on the discretion literature in the field of strategic management.

³ Compared to stress, depression—a condition in which a person feels discouraged, sad, hopeless, unmotivated, or disinterested in life in general (World Health Organization, 1992)—is a more serious and long-lasting mental disorder. A strong accumulation of evidence indicates that stress plays a causal role in many instances of major depression (Hammen, 2005 for a review).

Background on CEO discretion in upper echelons research

Managerial discretion—namely, the degree of influence that executives might exert—is a fundamental enabler in upper echelons theory (Hambrick and Mason, 1984) explaining not only *whether* managers matter but also *when* they do. The upper echelons perspective holds that CEOs take actions based on their cognitive interpretations of events, which are shaped by their experiences, beliefs, and values. These actions then affect both strategic and performance-based firm-level outcomes (see Busenbark et al., 2016, as well as Carpenter et al., 2004, for a review). If a CEO has a great deal of latitude to take bold and idiosyncratic actions, he or she will have a more pronounced effect on company outcomes for good and for ill (Crossland and Hambrick, 2011). Alternatively, if a CEO is highly constrained in terms of the actions he or she has available, the firm will tend to adopt a particular strategy irrespective of who is in charge. Consequently, the CEO's idiosyncratic cognitive interpretation will have far less explanatory power (Hambrick, 2007). Taken together, the literature on managerial discretion with its focus on whether, when, how, and why executives are able to undertake idiosyncratic firm-level decisions (Crossland, 2008) provides an important boundary condition for the relationship between CEO burnout and firm performance.

Managerial discretion is composed of three types of factors: (1) individual factors (i.e., the degree to which the CEO is personally able to envision or create multiple courses of action), (2) organizational factors (i.e., the degree to which the organization itself is amenable to an array of possible actions and empowers the CEO to formulate and execute those actions), and (3) environmental factors (i.e., the degree to which the environment allows variety and change) (Hambrick and Finkelstein, 1987, p. 379). Given our focus on behavioral strategy (Powell et al., 2011), this study concentrates on specific individual-level (locus of control and CEO structural power) and organization-level (firm size, firm age, and resource availability) forces affecting discretion, of which individual forces affecting discretion have especially received little attention (Carpenter and Golden, 1997; Wangrow et al., 2015, for a review).

CEO burnout and firm performance

CEOs face high demands from stakeholders and are also subject to oversight from their company's board of directors. Meeting performance expectations from investors who are oriented toward short-term goals imposes significant job demands on CEOs. The organizational resources needed to meet these demands may not be available or accessible, or the effects of their future reconfigurations may be uncertain. Wider gaps between job demands and perceptions of available resources could increase emotional exhaustion as CEOs find it difficult to identify, match, combine, and orchestrate resources to meet demands from stakeholders. Past work has focused on how charismatic versus autocratic leaders (De Hoogh and Den Hartog, 2009) and how transactional versus transformational leadership (Lowe et al., 1996) affect subordinate burnout. Likewise, it follows that CEO burnout could also have adverse effects on firm outcomes.

Studies have demonstrated that individuals experiencing burnout reduce their job involvement and organizational commitment (Lee and Ashforth, 1996), which negatively affects performance (Maslach et al., 2001). According to the work psychology literature, burnout negatively influences an individual's capacity to exert control over expectations. This lack of control, in turn, affects the individual's ability to perform role-related activities efficiently (Demerouti et al., 2001). Consequently, CEO burnout not only has detrimental effects on the CEO's well-being but could also adversely affect firm performance. We explore each of the three components of burnout below and explain how CEO burnout could be negatively associated with firm performance.

First, studies examining the influence of burnout on performance have found that emotional exhaustion diminishes an individual's available energy and thereby reduces the effort he or she expends to complete work (cf. Singh et al., 1994). Burnout also deteriorates or depletes cognitive and emotional resources (Shirom, 2003), which could reduce CEOs' efficacy in processing information and devising viable strategic actions. Further, emotional exhaustion may lead CEOs to lower engagement with stakeholders (Halbesleben and Bowler, 2007). Others have argued that exhaustion reduces individuals' self-confidence in solving work-related problems and thereby their role performance (Nurmi et al., 2008). Still others have argued that emotional exhaustion can trap individuals in a negative spiral in which they are not able to rely on suitable coping strategies by seeking help from stakeholders or striving to change their situation (Leiter, 1991).

Charged with articulating their firm's vision and devising and implementing strategic actions, CEOs with high levels of burnout might fail to provide adequate leadership to initiate, develop, and implement their firm's strategic plans. In addition, such CEOs may fail to foster and maintain the positive emotions needed to manage strategic change. For instance, Cunningham et al. (2002) found that individuals experiencing emotional exhaustion exhibit a reduced readiness for organizational change and participation in redesign activities. Further, extending Miller's (1991) argumentation on long-tenured CEOs to the burnout context indicates that CEOs with narrow perceptions of their strategy environment, such as CEOs with high burnout, miss the need for reorientation, leading to decreased firm performance.

Second, depersonalization among CEOs may diminish the quality and quantity of interactions with other members of the firm's upper echelons, limit debates and decision comprehensiveness (Simons et al., 1999), and constrain the strategy-making process by reducing the confluence and synthesis of TMT members' abilities and knowledge (Kisfalvi and Pitcher, 2003). Depersonalization may narrow environmental scanning and reaction to significant changes, leading to a mismatch between strategy and environment and, consequently, lower performance (Miller, 1991). Depersonalized CEOs may focus on bureaucratic procedures and rely on the status quo to mitigate risk. Indeed, a more depersonalized CEO could potentially even act as a bureaucrat (cf. Cordes and Dougherty, 1993), relying on path-dependent routines rather than organically tailoring strategic actions. Increasingly dehumanized perceptions of tasks, clients, and coworkers could also significantly impact the CEO's internal and external social capital. Limited engagement with

external stakeholders (cf. Agle et al., 1999) deteriorates social capital, and weaker interactions with board members reduce the CEO's reliance on board member expertise, both of which can result in poor strategic decisions and, therefore, weakened performance.

Third, feelings of reduced personal accomplishment, or lower professional efficacy, refer to individuals' tendency to evaluate the self negatively. In the face of ambiguity and uncertainty, efficacy is critical to devising and implementing strategies (Baum et al., 2001), and it has a direct relationship with firm performance (Baum and Locke, 2004). According to the non-executive literature, weak professional efficacy reduces learning by increasing self-serving biases in the face of failure (Silver et al., 1995) and undermines coping when individuals receive negative performance feedback (Stumpf et al., 1987). While strong professional efficacy can support comprehensive decision making (Forbes, 2005) and help manage information-processing demands (cf. Karademas et al., 2007), weak professional efficacy has adverse effects. As the outcomes of strategic actions are realized in the long term and resource combinations must be undertaken under conditions of uncertainty and ambiguity, CEOs with weak professional efficacy may be less persuasive when dealing with board members and relevant stakeholders. Other research has suggested that CEO confidence (Best, 2008), core self-evaluation (Simsek et al., 2010), and self-efficacy (Baum and Locke, 2004) are among the indirect indicators of the need for professional efficacy to improve firm performance.

Against the above background, we propose that CEO burnout may be negatively associated with firm performance:

Hypothesis 1. CEO burnout is negatively associated with firm performance.

Moderating effects of CEO locus of control

Research has consistently shown that CEO locus of control (Rotter, 1966) is central to identifying, initiating, and exploiting strategic initiatives (Boone et al., 1996) and that internally oriented CEOs generate stronger company performance than externally oriented CEOs (Howell and Avolio, 1993; Miller and Toulouse, 1986). Locus of control—referring to whether an individual believes that outcomes stem more from external or internal forces—is one of the forces affecting individual-level managerial discretion (Hambrick and Finkelstein, 1987). According to Wangrow et al. (2015), CEOs in the same environmental situation will set different levels of discretion for themselves based on their interpersonal linkage to the environment. While internally oriented CEOs believe events are subject to their own control, externally oriented CEOs believe that events are beyond their control. Although CEOs might be expected to be predominantly internally oriented owing to socialization and selection (Hambrick and Finkelstein, 1987, p. 387), CEOs vary along the continuum of internal-external locus of control (Miller et al., 1982). According to Hambrick and Finkelstein (1987), CEOs with a strong internal locus of control tend to operate with greater discretion because they translate their perceived control into purposive involvement in many domains and generate multiple courses of action. In general, compared to CEOs with a higher external locus of control, CEOs with a higher internal locus of control function better in stressful situations and are more task oriented (Miller et al., 1982).

Based on these premises, we propose that CEOs with a strong internal locus of control are better at managing emotional exhaustion, reducing depersonalization, and increasing professional efficacy. It follows that internal locus of control could be central to ameliorating the negative relationship between CEO burnout and firm performance.

First, exhaustion effects may be mitigated by greater feelings of control over strategic actions. CEOs with a stronger internal locus of control are able to manage variety and change more effectively and may construe job demands and pressures associated with burnout as an “opportunity to enact conditions that reflect psychological as much as objective circumstances” (Miller and Toulouse, 1986, p. 1393). CEOs with an internal locus of control are also better able to cope with complex and ambiguous environments (Miller et al., 1982) to mitigate declining performance, which may be particularly important when experiencing higher exhaustion. Although exhaustion diverts CEOs' resources away from information exchange, CEOs with a strong internal locus of control tend to invest more effort into environmental scanning to develop a broader understanding of the environment and available strategic opportunities (Finkelstein and Hambrick, 1996) because they trust in their capacity to influence the environment (Boone et al., 1996), which again may be particularly important when facing exhaustion. Phares (1976) even argued that internally oriented CEOs are more inclined to search for and learn more from relevant feedback from past experiences compared to externally oriented CEOs. Further, in a study of owner-managers, Brockhaus (1980) found that the number of failed startups was lower among managers with an internal locus of control compared to managers with an external locus of control.

Second, to mitigate the effects of depersonalization, individuals with an internal locus of control learn how the environment reacts to their behavior and explore contingencies by engaging in trial-and-error learning (Boone et al., 1996). Because CEOs with an internal locus of control see themselves as active agents and trust in their capacity to influence the environment (Boone et al., 1996), they engage with the environment and may still be active in interactions with members of their firm's upper echelons, reducing the negative effects of depersonalization. CEOs with internal locus of control handle stressful events in a problem-solving way and, compared to externally oriented CEOs, will not withdraw from the event (Boone et al., 1996). Consequently, the negative effects of depersonalization on firm performance are mitigated. Prior research has also established that CEOs with an internal locus of control demonstrate different leadership abilities than externally oriented CEOs. For example, the former use persuasion more often to influence others' behavior (Boone et al., 1996). With increasing job demands being associated with burnout, a stronger internal locus of control could help CEOs delegate and manage relationships in the firm to implement strategic actions.

Finally, CEOs with a stronger internal locus of control are more capable in stressful situations, are more task oriented, and have stronger professional efficacy (Howell and Avolio, 1993), all of which could help mitigate the negative performance effects of reduced personal accomplishment, such as feelings of limited competence and achievement at work. Focused on long-term goals and willing to delay immediate gratification (Lefcourt, 1982), CEOs with a strong internal locus of control make long-term strategic

investments and manage stakeholder relationships successfully (Miller, 1983; Miller et al., 1982; Miller and Toulouse, 1986) despite the pressures associated with perceived reduced accomplishments and hesitance in their own abilities. Such CEOs are more likely to attribute outcomes directly to their actions in a productive way when faced with negative feedback (Barr, 1998; Kelley and Michela, 1980). Therefore, they are less likely to experience reduced professional efficacy. Based on the above discussion, we propose the following:

Hypothesis 2. A CEO's internal locus of control will influence the negative association between CEO burnout and firm performance such that this negative association will be weaker when the CEO has higher internal locus of control.

Moderating effects of CEO structural power: CEO duality and CEO tenure

While CEO power is a multidimensional and multicontextual construct, a significant body of work in strategic management has focused on CEO structural power (Daily and Johnson, 1997). A CEO's structural power is determined by his or her influence within the organizational hierarchy (Brass and Burkhardt, 1993; Daily and Johnson, 1997) and is the type of power most strongly associated with the CEO's perceived power (Finkelstein, 1992). A widely used proxy for structural power is CEO duality—namely, when the CEO serves both as a chairman of the board and the chief executive (Daily and Johnson, 1997; Zajac and Westphal, 1995). CEO duality allows a CEO to exercise significant influence over the board, resulting in greater discretion in resource allocation and decision making.

In addition to CEO duality, CEO tenure is an additional proxy for CEO power. Tenure, reflecting the CEO's length of service in an organization, has two primary effects on discretion. Longer tenured CEOs have developed more firm-specific human capital (Harris and Helfat, 1997), which increases the value they perceive when improving returns from organizational resources. Higher firm-specific human capital is more difficult for board to monitor (Lado and Wilson, 1994), resulting in greater discretion endowed to CEOs. Longer tenure also allows CEOs to exert greater influence over stakeholders. The more years the CEO has spent in the firm, the deeper and richer are his or her relationships with stakeholders. Embedded relationships allow longer tenured CEOs to assert greater structural power in the firm.

Thus, building on the argument that managerial discretion determines the impact leaders have on organizational outcomes (Hambrick and Finkelstein, 1987), we propose that the two possible sources of CEO structural power—CEO duality and CEO tenure—could alleviate the negative association between CEO burnout and performance. First, CEO structural power could ameliorate the negative effects of CEO exhaustion on firm performance. CEOs who are emotionally exhausted are likely to have difficulties engaging in larger and personally consuming change programs or strategic actions. CEOs with greater structural power are buffered from excessive organizational politics and from the stress of building consensus among competing organizational coalitions (Combs et al., 2007; Finkelstein and D'Aveni, 1994). Structural power also allows the CEO to collate resources to reduce perceptions of high demands. Overall, power improves CEOs' willingness and motivation to act, ensuring they reengage in important work tasks and focus on necessary work.

Second, CEO structural power helps ameliorate the negative performance effects of CEO depersonalization. Depersonalization is characterized by cognitive distancing and limited involvement with others (Maslach et al., 2001). Greater structural power puts CEOs in a better position to manage complex social and political processes (Eisenhardt and Bourgeois, 1988). As such, CEOs with greater power are likely to expend less energy to engage in important interactions and are less likely to be isolated from others such that structural power reduces the negative effects of depersonalization. The abilities to influence strategic processes and reduce the incidence of non-contingent punishment (Wiersema and Zhang, 2011) that come with increasing structural power diminish feelings of helplessness and provide opportunities to personalize relationships. In addition, powerful CEOs are better at imprinting their personal inclinations on major organizational outcomes (Hambrick and Finkelstein, 1987; Finkelstein, 1992; Finkelstein et al., 2009; Zhu and Chen, 2015). When CEOs' preferences influence major decisions, it is less likely that they will become depersonalized from their work. For these reasons, structural power is likely to reduce the downsides of CEO depersonalization.

Third, related to the mitigating effects of reduced personal accomplishment, or professional efficacy, structural power is central to managing uncertainty to execute expectations (Finkelstein, 1992). Power allows CEOs to influence stakeholders (Hambrick and Finkelstein, 1987), thereby improving the shortcomings of reduced personal accomplishment by enabling CEOs to put forth less effort to initiate strategic changes (Haynes and Hillman, 2010) and improve firm performance (Daily and Johnson, 1997). Moreover, CEO structural power is central to fast strategic response (Combs et al., 2007). Acquiring, integrating, and leveraging resources at a fast pace ameliorates CEOs' reduced achievement and productivity in burnout situations, thus leading to a better match between strategy and environment and, consequently, increased firm performance. Based on the above arguments, we propose the following:

Hypothesis 3. A CEO's structural power will influence the negative association between CEO burnout and firm performance such that this negative association will be weaker when the CEO also serves as the chair of the board or when the CEO has longer tenure.

Moderating effects of organizational factors: firm age, size, and resources

In addition to individual-level forces of managerial discretion, the characteristics of the organization may limit CEO discretion and thus exacerbate the negative relationship between burnout and firm performance. Organizational factors that generally inhibit the organization's ability to consider change are firm size, firm age, and limited resources (Hambrick and Finkelstein, 1987). Lowering CEO discretion, larger and older firms limit change efforts in organizations (e.g., Aldrich and Auster, 1986; Hannan and

Freeman, 1984). Larger and older organizations have greater decision-making complexity (e.g., strategic initiatives have to be agreed on by several decision makers, and political factions are common) (Hannan and Freeman, 1977, 1984), lower flexibility, and more bureaucracy (Hitt et al., 1990; Whetten, 1987). Thus, in larger and older organizations that tend to be less flexible and adaptable, CEOs are more likely to face greater hurdles in proposing and implementing their vision (Prasad and Junni, 2017). Based on this literature, we propose that the negative association between CEO burnout and firm performance will be even more negative when organizational forces limit managerial discretion.

First, organizational forces that limit managerial discretion prompt actions that may further detach a CEO who is cognitively and emotionally distanced from his or her work. CEOs who are emotionally exhausted are likely to disengage from challenging strategic actions because they want to protect themselves by conserving their limited resources. Larger and older organizations reduce CEOs' empowerment by providing less fungible resources to draw upon. In turn, lower availability of slack resources needed for novel strategic actions limits creative behaviors (Bourgeois, 1981; Cyert and March, 1963), further reducing managerial discretion (Hambrick and Finkelstein, 1987). Additionally, in larger organizations, organizational members are less likely to easily adopt changes proposed by leadership (Vaccaro et al., 2012), signaling to the CEO that change is hard to implement. Greater resistance to change, fewer fungible resources, and lower adaptability decrease the CEO's ability to mobilize resources for new opportunities and require extended efforts from the CEO, thus increasing his or her overload.

Second, the negative effect of CEO depersonalization is likely to be greater in larger and older organizations. The longer line of sight in larger organizations could increase cognitive distancing from departments farther from the upper echelons and lower direct involvement with others (Maslach et al., 2001), restricting CEOs' ability to personalize relationships and gather information. According to Cordes and Dougherty (1993), the increasing variation in the number, duration, intensity, and directness of interactions in organizations is difficult for the CEO and often increases depersonalization. Larger and older organizations also have more inter-organizational ties (Daft et al., 1988), potentially increasing CEOs' doubts about their ability to interact with others when managing diverse stakeholders. These doubts may lead to a greater preference for managing such relationships at arm's length and may thus increase the negative effects of depersonalization. Further, in larger organizations, it can be more difficult for CEOs to identify who has important knowledge, and the flow of information is slower because it needs to be transferred between several hierarchical levels (Wong and Aspinwall, 2004). Consequently, difficulty in accessing information and managing variegated ties as well as constraints to resource redeployment increase the negative effect of depersonalization and inhibit CEOs from managing their company in performance-improving ways.

Third, in larger and older firms, CEOs have limited ability to influence diverse stakeholders (Hambrick and Finkelstein, 1987) and manage inertia (Hannan and Freeman, 1984), further lowering their willingness and motivation for acting when faced with reduced personal accomplishment. Moreover, resource availability and redeployment are essential to managing the flow of resources and improving organizational responses to the changing environment (Vanacker et al., 2013). However, limited resource redeployment restricts strategic actions (Finkelstein and Boyd, 1998), reducing CEOs' sense of personal accomplishment by limiting their freedom to make important decisions.

Based on the above discussion, we propose that the negative relationship between CEO burnout and performance will be more negative in larger, older, and resource-limited organizations:

Hypothesis 4. Organizational factors will influence the negative association between CEO burnout and firm performance such that this negative association will be stronger for larger, older, and/or resource-limited firms.

Methods

Data description

We measured CEO burnout, CEO locus of control, CEO tenure, and perceived environmental dynamism using data from a survey conducted in 2008. All other indicators were measured using archival data. In Sweden, all private firms are required to make financial performance data public. Objective performance, based on archival tax data accessed through Statistics Sweden, was measured over two years: one year before (2007) and at the end of the survey year (2008). We did not use the results from subsequent years to measure firm performance because CEOs may have been replaced, CEOs may have sought help for burnout, and/or changing dynamics could have diminished the effects of burnout.

A population of 859 large Swedish companies (> 250 employees) was sampled for the present study. The population and relevant information was extracted from *Affärsdata*—a database that includes company and fiscal information on Swedish companies. The extract contained company-specific information, address details, and financial information. A questionnaire was developed based on an extensive literature review of work stressors and the burnout literature. The questionnaire was translated into Swedish (and then back-translated into English) and tested through structured interviews with five CEOs.

A questionnaire package comprising a cover letter, the questionnaire, and a stamped return envelope was distributed to the CEOs of the companies included in the sample in early 2008, and two follow-ups were mailed to non-respondents. A total of 327 questionnaires were returned, equating to a 38% response rate. Among the 327 responses, a total of 157 opted out. Common reasons for opting out were that the organization/CEO has a policy of not responding to surveys (43 responses) and that the CEO was out of the office during the study period (35 responses). After excluding these surveys and conducting a list-wise deletion of missing data, we recorded a final sample size of 156 responses, equating to a usable response rate of 18%. This response rate is higher than the average response rate of 12–14% found in prior CEO studies (Carpenter et al., 2004; Herrmann and Nadkarni, 2014) and is appropriate for

research of this nature in the context of declining executive response rates (Baruch, 1999; Cychota and Harrison, 2006).

Among the 156 respondents included in the final models of this study, 10.90% were female, CEO ages ranged from 32 to 70 years (mean = 50.5, s.d. = 8.09), the respondents had an average of 6.1 years of experience in their current position (s.d. = 5.70) and a total of 12.81 years of experience as a CEO (s.d. = 8.12), and the average work experience in other organizational roles was 13.04 years (s.d. = 7.94).

We compared several variables extracted from the official register (*Affärsdata*) to estimate potential non-response bias. We found no significant differences in the CEO and venture characteristics examined—including gender ($t = 0.23, p > 0.05$), firm age ($t = 0.09, p > 0.05$), firm size (log of assets; $t = 0.00, p > 0.05$), log of sales ($t = 0.00, p > 0.05$), and log of profits ($t = 0.02, p > 0.05$)—that would indicate non-response bias.

Sample representativeness. The sample represents large firms and provides an adequate context for studying CEOs in large firms. In 2008, the average Swedish firm in our sample had 914.40 employees (s.d. = 1344.71). The firms represented industries from 102 different five-digit Swedish Standard Industrial Classification (SNI)⁴ codes and 39 different two-digit SNI codes. Overall, the sample represents large firms from a diverse range of industries in which strategic dynamics in the upper echelons and pressures on the CEO are similar to those in the large corporations typically studied in upper echelons research.

Measures

Performance. We took the two-year mean of earnings before interest, taxes, and amortization (EBITA) before the survey (in 2007) and at the end of the survey year (in 2008). Information on EBITA was compiled from Statistics Sweden and is measured in millions of Swedish kronor (SEK). We control for firm size to normalize performance for firm size.

CEO burnout. The Maslach Burnout Inventory (MBI) (Maslach and Jackson, 1981) was adopted to measure burnout. Scale items and item loadings are listed in Appendix A. Respondents were asked to indicate how often during the past year they had felt that their work influenced them in the ways described earlier for each burnout indicator. A seven-item scale anchored at *Never* (1) and *Every day* (7) was adopted in line with the MBI. CEO burnout showed acceptable second-order fit for the three subconstructs of emotional exhaustion (nine items), depersonalization (five items), and reduced personal accomplishment (eight items) (Appendix A). The overall alpha for the burnout measure is 0.88.

It is possible that CEOs under-reported their level of burnout. Because the survey was conducted after the onset of the global recession, firms faced an exogenous stimulus to make strategic changes to improve firm performance. Thus, as recessionary demands and uncertainties may have been reflected in CEO burnout reports, we correlated CEO burnout with the effects of the recession in Sweden. Based on Klapper and Love (2011), we used the measure of financial turbulence in Sweden and found its correlation with CEO burnout to be 0.24 ($p < 0.001$). This strong correlation between CEOs' burnout reports and the exogenous shock provided additional evidence of the reliability of the burnout measure in the CEO context. Furthermore, we correlated CEO burnout with the number of days in 2007 the CEO reported he or she was at work despite being sick and found the correlation to be 0.22 ($p < 0.01$). This association provides further validation of the burnout measure.

CEO locus of control. The locus of control concept originates from Rotter's (1966) work and his Internal-External (I-E) Locus of Control Scale. The I-E Scale was not designed to investigate specific domains (e.g., work context, etc.) but to assess the internality and externality of control as personality traits. Although this measure has been widely used, its validity has been of concern (the scale lacks context specificity and tends to correlate with measures of social desirability) (Hodgkinson, 1992), and its use in the management context has been questioned (Hodgkinson, 1992). In addition, Rotter (1975) himself suggested that measurement instruments more sensitive than generalized locus of control scales might be necessary to predict behavior in specific situations. As a response, in the management context, Hodgkinson (1992) developed the Strategic Locus of Control Scale to specifically capture control beliefs in relation to strategic management challenges.

Hodgkinson's (1992) measurement assesses the extent to which respondents believe their own organization's and other organizations' strategic issues can be resolved through the systematic application of strategic management techniques or through external environmental forces largely beyond organizations' control. Although this measure is relevant when the context is strategic planning and when the unit of analysis is the organization, for our purpose, this measure was not suitable. The scale is less suitable because a CEO's perception of the situational context of the firm (e.g., age, autonomy, etc.) influences firm-specific control expectancies (Boone and De Brabander, 1993; Boone and De Brabander, 1997). Therefore, the scale does not capture the psychological difference in CEOs' locus of control, which is key to the burnout–firm performance relationship.

To measure CEOs' locus of control we modified Chung and Ding's (2002) Sales Locus of Control Scale originally developed for sales persons. The items in the Chung and Ding (2002) scale are based on Levenson's (1973) highly used and psychometrically sound multidimensional Locus of Control Scale, which consists of three separate dimensions: (1) internal locus of control, (2) powerful others (external locus of control), and (3) chance (external locus of control).

To adapt the Chung and Ding (2002) Sales Locus of Control Scale to the CEO work domain, we removed the word “sales” from the scale. For example, the item “It is my belief that I can solely overcome the obstacles in sales work” was reworded to “It is my belief that I can solely overcome the obstacles in my work.” In the questionnaire-development stage, we dropped two items because they were not considered relevant for the CEO position based on feedback from executives who helped us adapt the questionnaire to fit the CEO context. The items included and reported in Appendix A were worded as statements, and respondents were asked to respond on a

⁴ The Swedish Standard Industrial Classification is based on the European Union's recommended standards, NACE Rev.2.

seven-point scale anchored at *Disagree very much* (1) and *Agree very much* (7). We reversed the items for external locus of control and used the mean score of the three individual dimensions to calculate a mean for the locus of control construct. A higher value indicates the presence of higher internal locus of control. The Cronbach's alpha for the Locus of Control Scale is 0.74.

CEO structural power. We measured CEO structural power with two indicators: CEO duality and CEO tenure. We adopted the measures for CEO duality from Daily and Johnson (1997).⁵ CEO duality was measured as whether the CEO was also the chair of the board (coded as 0 = not serving as board chairperson and 1 = dual board leadership structure). Information on CEO duality was compiled from Statistics Sweden. In line with Finkelstein and Hambrick (1989), who stated that CEO tenure is a particularly relevant source of power, we operationalized CEO tenure as the number of years the executive had been CEO. This information was reported by the CEO in the questionnaire.

Organizational characteristics. Of the several factors that can influence CEOs' discretion in their organization, we concentrated on the inertial forces of size and age as well as resource availability. The organizational ecology literature has repeatedly shown that these factors influence resistance to change in organizations (Hannan and Freeman, 1984; Sørensen and Stuart, 2000; Sirén et al., 2017). Following Hambrick and Finkelstein (1987), we measured inertial forces in 2008 by (1) firm size (natural log of firm assets) and (2) firm age (the number of years the firm had been in business). We measured (3) resource availability as organizational slack as manifest in working capital/sales (Finkelstein and Hambrick, 1990). Information for these measures was obtained from Bureau van Dijk and from Statistics Sweden.

Task environment controls. In addition to organizational and individual sources of managerial discretion, the firm's task environment represents the third main source of discretion. Because the task environment (e.g., industry) alters managerial discretion, managers have substantially different effects on organizational performance across industries (Wangrow et al., 2015). We used Hambrick and Abrahamson's (1995) industry discretion measure to control for aspects in the task environment that may affect managerial discretion. We obtained objective task environment data from Bureau van Dijk for all publicly traded Swedish firms (321 firms) that were stock listed in the Swedish stock exchange in 2007–2010. Following Hambrick and Abrahamson (1995), we controlled for the following industry factors: (1) *product differentiability*—calculated as research and development (R&D) spending divided by operating revenue (to reduce missing values, we used R&D divided by operating revenue instead of R&D to sales), (2) *capital intensity*—calculated as the net value of plants and equipment divided by the number of employees, (3) *market growth*—the average annual sales growth of all Swedish listed firms in a given industry over the 2007–2010 period, and 4) *demand instability*—the standard deviation of annual market growth rates in the focal industry over the 2007–2010 period.⁶ We used the three-year average for each firm for the above variables and then used the median value as a measure of the industry characteristics. To maximize the positive matches with our data, we averaged the measures by one-digit industry classification codes (Adams et al., 2005) adopted the same approach but with two-digit industry classification codes). Following previous discretion studies (e.g., Papadakis and Bourantas, 1998), we also controlled for the CEO's perceived environmental dynamism and hostility (Miller and Friesen, 1982). These variables were collected in the survey.

Validity of measures

Appendix A presents exploratory and confirmatory factor analyses for the burnout and locus of control measures. The items load on distinct factors in the exploratory factor analysis, and the reliabilities are above the recommended cutoffs. The confirmatory factor analysis for the burnout and locus of control measures is: $\chi^2 = 657.77$ (446), CFI = 0.898; TLI = 0.886; RMSEA = 0.053 (90% C.I. = 0.044, 0.061).

Results

Table 1 presents the means, standard deviations, and correlations. We tested the hypotheses with regression analysis using Stata 14. To check for the presence of multicollinearity, we calculated the variance inflation factors (VIFs) for each regression model. All VIFs are below the acceptable limit of 5 (O'Brien, 2007), with the highest mean VIF at 3.03. Thus, we can conclude that multicollinearity did not influence the model results. Before conducting the regression analysis, we standardized all variables (Aiken and West, 1991).

Table 2 presents the results of the regression analysis. In Model 1, we introduced the main effect of CEO burnout on performance without any control variables. The results from Model 1 show that CEO burnout is negatively related to firm performance (Model 1: $\beta = -49.51$, $p < .05$). Model 2 reports the main effect from CEO burnout on firm performance with the control variables. The results from Model 2 confirm that after firm task environment and CEO's perceived environmental dynamism are controlled for, the

⁵ Daily and Johnson (1997) structural power measure also includes the compensation ratio and a measure for independent/dependent directors. Computing the compensation ratio would have required information on CEOs' and highest paid officers' total cash compensation, which is not public information in Sweden and was thus unavailable for this study. Because only 14 companies in our dataset were publicly traded, we were not able to utilize compensation information from firm annual reports in our statistical models. In addition, we did not have information on whether the directors were working or had previously worked for the firm, so we were not able to create a measure for independent/dependent directors.

⁶ Hambrick and Abrahamson (1995) environmental discretion measure also includes quasi-legal constraint (i.e., the degree of government regulation), an aspect they were not able to measure due to lack of data. However, as they noted themselves, their measure of quasi-legal constraint (degree of government regulation) is "experimental" (p. 1434), and an industry regulation measure "awaits development" (p. 1434). Further, degree of regulation was not significant in their models and was thus omitted from the main results. Thus, we believe that we captured the most important components of the task environment in terms of managerial discretion.

Table 1
Means, standard deviations, and correlations.

Variables	Mean	S.D.	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13
1 CEO's perceived environmental dynamism	3.68	.99	1.4	6.2	1.00												
2 Task environment: Product differentiability	3.26	2.61	0	7.07	-.14	1.00											
3 Task environment: Capital intensity	.90	1.03	.16	2.70	-.17	.82	1.00										
4 Task environment: Market growth	4.44	7.36	-.17	25.41	-.03	-.21	-.11	1.00									
5 Task environment: Demand instability	640900.7	451806.9	120860.3	1684582	-.14	.25	.52	-.26	1.00								
6 CEO burnout	1.96	.74	1	5.11	.09	-.02	-.05	.00	-.08	1.00							
7 CEO internal locus of control	4.71	.48	3.5	6	-.28	.03	-.08	.05	-.05	-.18	1.00						
8 CEO structural power: CEO duality	.09	.29	0	1	.04	-.10	-.02	-.03	.00	.03	-.01	1.00					
9 CEO structural power: CEO tenure	6.11	5.70	0	35	-.05	.01	.05	-.03	.05	.11	-.12	-.04	1.00				
10 Organizational factors: Firm size	13.29	1.59	9.17	18.77	-.10	.05	.14	.13	.09	-.23	.13	.11	-.07	1.00			
11 Organizational factors: Firm age	46.58	28.95	7	112	-.09	.14	.23	.04	.18	-.15	.07	.14	-.02	.36	1.00		
12 Organizational factors: Resource availability	.16	1.07	-.1.81	12.82	.07	-.07	-.03	.08	-.05	-.02	-.04	-.03	-.02	.32	-.07	1.00	
13 Firm performance	147.71	304.38	–214.5	1864.5	-.17	.06	.06	-.05	.03	-.17	.20	.09	-.00	.48	.19	-.01	1.00

Notes. N = 156 CEOs (sample used in final Model 4). Firm performance is mean EBITA 2007–2008 in millions of Swedish kronor (SEK). All correlations $|0.17|$ and above are significant at 0.05 or below (two-tailed).

Table 2
Results of regression analyses for performance.

	Model 1	Model 2	Model 3	Model 4
CEO's perceived environmental dynamism		–41.04 (23.50)	–32.07 (22.18)	–39.56† (21.16)
Task environment: Product differentiability		–2.97 (46.53)	–22.98 (43.47)	–9.55 (42.14)
Task environment: Capital intensity		8.41 (52.69)	20.85 (48.91)	–3.01 (47.06)
Task environment: Market growth		–18.93 (25.15)	–38.44 (23.31)	–39.29† (22.62)
Task environment: Demand instability		–5.36 (31.20)	–19.76 (27.51)	–14.90 (27.07)
CEO burnout [H1]	–49.51* (22.82)	–45.80* (23.07)	–41.41† (24.91)	–45.07* (22.33)
CEO internal locus of control			37.64 (22.89)	
CEO structural power: CEO duality			61.66 (74.52)	61.39 (73.37)
CEO structural power: CEO tenure			–8.42 (39.50)	
Organizational factors: Firm size			146.63*** (25.53)	151.06*** (23.33)
Organizational factors: Firm age			–11.75 (24.56)	
Organizational factors: Resource availability			106.52 (67.03)	84.37 (54.71)
CEO burnout × CEO internal locus of control [H2]			3.16 (21.20)	
CEO burnout × CEO structural power: CEO duality [H3]			173.89* (84.54)	173.82* (83.85)
CEO burnout × CEO structural power: CEO tenure [H3]			22.60 (38.83)	
CEO burnout × Firm size [H4]			–86.80*** (23.89)	–73.75** (20.92)
CEO burnout × Firm age [H4]			32.93 (25.60)	
CEO burnout × Resource availability [H4]			302.35* (116.81)	257.13** (93.29)
Model F-statistics	4.71*	1.41	4.94***	7.05***
R ²	.03	.05	.40	.37
ΔR ²		.02	.35***	.32***
N	167	167	155	156

Notes. † < .10, **p* < .05, ***p* < .01, ****p* < .001 (two-tailed tests). Significances after ΔR² are from a Wald linear restriction test. Omitted category for CEO duality is “not serving as board chairperson.” Only significant interactions and their constituent terms are included in Model 4. Model 3 and Model 4 R² were compared to Model 2 R².

relationship between CEO burnout and performance is negative and significant (Model 2: $\beta = -45.80$, $p < .05$). Thus, these results support Hypothesis 1.

Next, in Model 3, we tested whether CEO internal locus of control; CEO structural power (indicated by CEO duality and CEO tenure); and the internal organizational factors of firm size, firm age, and resource availability moderate the relationship between CEO burnout and performance. Model 3 shows that contrary to our expectations, CEO internal locus of control does not moderate the relationship between burnout and performance (Model 3: $\beta = 3.16$, *ns*). Thus, Hypothesis 2 is not confirmed. Model 3 provides partial support for our Hypothesis 3 by showing that CEO duality moderates the relationship between burnout and performance (Model 3: $\beta = 173.89$, $p < .05$), but it does not provide support to our prediction that CEO tenure moderates the relationship between burnout and performance (Model 3: $\beta = 22.60$, *ns*). Further, Model 3 also partially confirms Hypothesis 4 as it shows that firm size (Model 3: $\beta = -86.80$, $p < .001$) and resource availability (Model 3: $\beta = 302.35$, $p < .05$) moderate the burnout-performance relationship. However, it does not support our prediction that firm age also moderates the relationship between burnout and performance (Model 3: $\beta = 32.93$, *ns*).

To develop the most parsimonious model explaining the relationship between CEO burnout and firm performance, we report only the significant interactions and their constituent terms in Model 4. Model 4 further confirms that the interaction terms for CEO duality ($\beta = 173.82$, $p < .05$), firm size ($\beta = -73.75$, $p < .01$), and resource availability ($\beta = 257.13$, $p < .01$) are significant. Thus, we can conclude that Hypotheses 3 and 4 are partially confirmed.

Based on Model 4, we analyzed the marginal effects of CEO burnout on firm performance for different levels of CEO duality, firm size, and resource availability. Because CEO duality is a dummy variable, plotting its effect is not suitable (Brambor et al., 2006), so we concentrated on analyzing the quantities of the two marginal effects (when the CEO is not the chair of the board and when the

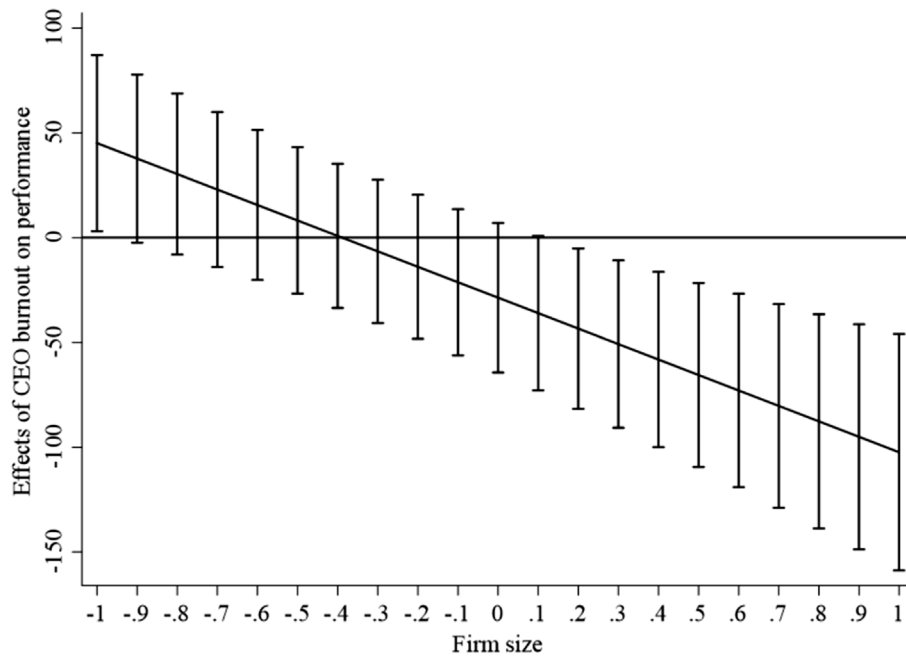


Fig. 1. Average Marginal Effects of CEO Burnout on Performance for Varying Levels of Firm Size. Vertical lines around the curve represent 90% confidence intervals.

CEO is also the chair of the board). This analysis shows that the marginal effect of CEO burnout on performance is negative and marginally significant ($-38.62, p < .1$) when the CEO is not the chair of the board and non-significant ($79.14, ns$) when the CEO is also the chair of the board.

Figs. 1 and 2 display the plotted marginal effects of CEO burnout on performance for different levels of firm size (Fig. 1) and resource availability (Fig. 2). The single curve in each figure captures all 21 individual simple slopes that we computed. Hence, a point in the curve in any of these figures depicts the marginal effect (also known as the regression coefficient, or the simple slope) of CEO burnout on performance and thus provides much more detailed information than more traditional plotting (Brambor et al.,

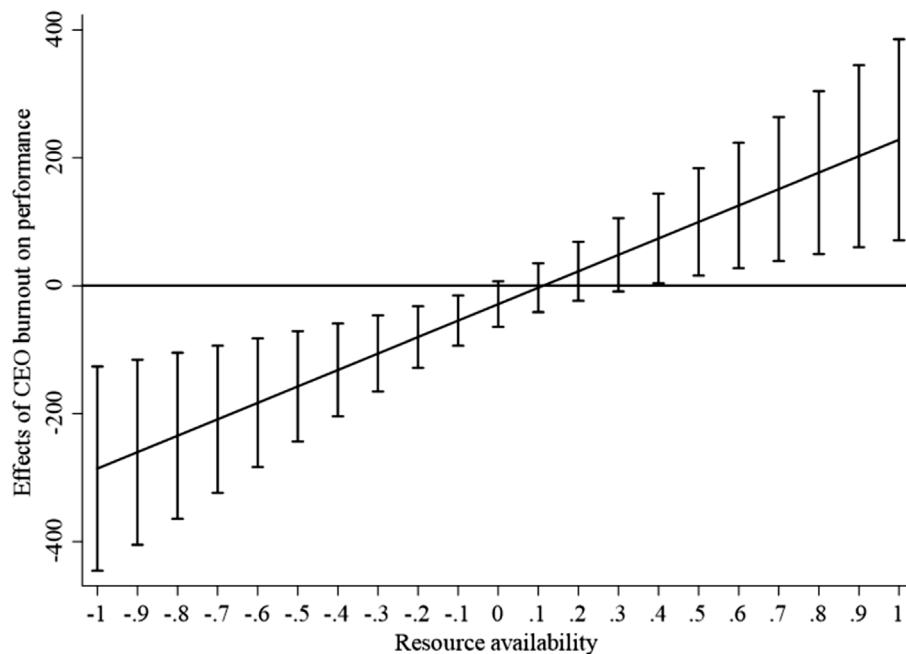


Fig. 2. Average Marginal Effects of CEO Burnout on Performance for Varying Levels of Resource Availability. Vertical lines around the curve represent 90% confidence intervals.

2006). The y-axis denotes the magnitude of this effect, whereas the x-axis shows the level of the moderator. Fig. 1 shows that the average marginal effect of CEO burnout on performance is significant ($p < .1$) and negative in large firms (firm size above .2). Fig. 2 shows that the average marginal effect of CEO burnout on performance is significant ($p < .05$) and negative when resource availability is low (below $-.1$). We elaborate on these results in the discussion section.

As a supplementary analysis, we explored whether the managerial discretion components used in this study act as antecedents to CEO burnout. The regression results show that the analyzed managerial discretion components are not antecedents to CEO burnout (CEO internal locus of control: $\beta = -0.10$, *ns*; CEO duality: $\beta = 0.18$, *ns*; CEO tenure: $\beta = 0.12$, *ns*; firm size: $\beta = -0.12$, *ns*; firm age: $\beta = -0.06$, *ns*; resource availability: $\beta = 0.02$, *ns*).

Discussion

Burnout research over the past three decades has focused almost exclusively on employees. However, CEOs facing significant overload and increased directness, duration, frequency, and intensity of interactions when accomplishing strategic management tasks are also likely to face burnout. Across occupation classes, the CEO's job is one of the most demanding and requires intense, frequent, and direct interactions with a multitude of internal and external stakeholders. The psychological toll of this occupation, however, has rarely been explored. To the best of our knowledge, this is the first empirical study of CEO burnout with a very limited number of previous studies mostly relying on anecdotal accounts of executive burnout (Levinson, 1981).

We found support for a negative association between CEO burnout and firm performance (Hypothesis 1). However, contrary to our hypothesis, we did not find that CEO locus of control ameliorates the relationship between CEO burnout and firm performance (Hypothesis 2). Our results provide partial support for our predictions that CEOs' structural power weakens (Hypothesis 3) and internal organizational factors strengthen (Hypothesis 4) the negative CEO burnout–firm performance relationship. Our study provides several contributions and insights to advance the understanding of the boundary conditions of the relationship between CEO burnout and firm performance.

First, we extend the three-decade old literature on employee burnout by proposing a model of the performance effects of CEO burnout. Work on the antecedents of employee burnout has focused on demand stressors, non-contingent punishment, non-contingent rewards, overload, and ambiguity, among other factors (Maslach et al., 2001), and work on the consequences of burnout in the traditional employee burnout literature has focused on satisfaction, subjective and objective employee performance, and turnover (Cordes and Dougherty, 1993). However, studying CEO burnout requires focusing on the unique job context a CEO faces. Drawing on the employee burnout literature, the proposed framework focuses on the often-neglected human side of CEOs' work, including facing significant demand stressors from organizations, stakeholders, and themselves.

Although CEOs tend to be tenacious, they are susceptible to burnout, and while CEO health outcomes have been acknowledged anecdotally, they have rarely been addressed directly. Owing to their position at the helm of the firm, CEO burnout could have significantly negative effects on performance, employees, and communities. Thus, the proposed framework and results extend our understanding of the criticality of the effects of CEO burnout in the strategic management context. In addition, by examining burnout in the CEO context, we further confirm Cordes, Dougherty, and Blum's (1997) argument regarding the “generalizability of burnout to managers and professionals in corporates settings.”

Second, our study contributes to the managerial discretion and strategic leadership literature. While classic research on upper echelons since Barnard (1938) has explained the importance of the CEO, work in population ecology, contingency theory, and resource dependence has assumed that managers are less powerful in the face of significant organizational and environmental constraints. To reconcile these perspectives, Hambrick and Finkelstein (1987) proposed that managerial discretion determines the degree of strategic choice the CEO has and affects firm performance. Following Hambrick and Mason's (1984) argument that managerial discretion acts as a fundamental moderator in upper echelons theory, we concentrate on the organization-level and rarely explored individual-level components of discretion (Carpenter and Golden, 1997) as moderators of the CEO burnout–firm performance relationship. Because the sources of organization- and individual-level managerial discretion are numerous (Wangrow et al., 2015), our study concentrates on the specific forces influencing discretion often recognized by prior studies and available for our analysis.

Contrary to our predictions, our results show that CEOs' internal locus of control does not ameliorate the negative relationship between CEO burnout and firm performance. Unlike employees, it could be that burned out CEOs try to maintain a favorable image of themselves in any possible way. Hence, it might be that burned out CEOs' strong need to regulate their self-presentation (Gardner and Martinko, 1988) and their need to present an inauthentic self (Gangestad and Snyder, 2000) could supersede personal attributes like internal locus of control (Premeaux and Bedeian, 2003). This regulation may have offset the ameliorating effect from internal locus of control, thus helping explain why Hypothesis 2 was not confirmed.

Our results partially confirm the prediction that CEOs' structural power ameliorates the CEO burnout–firm performance relationship, indicating that CEO duality weakens the negative CEO burnout–firm performance relationship but CEO tenure does not. The finding related to CEO duality is in line with Li and Tang's (2010) work, which found that CEO duality strengthens the positive relationship between CEO hubris and firm risk taking, indicating that corporate governance plays an important role in defining the limits of the effects of CEOs' psychological characteristics on firm decisions and outcomes. Our results add to this discussion by highlighting that internal corporate governance matters when CEOs experience emotional exhaustion, depersonalization, and reduced perceptions of personal accomplishment. A board with less monitoring power, such as one chaired by a firm's CEO, will allow firm decisions and actions to largely reflect the CEO's decision preferences (Finkelstein and D'Aveni, 1994; Li and Tang, 2010), which helps reconnect burned out CEOs to their daily work and thus increases the quality of decision making and firm performance. Taken

together, our findings extend Li and Tang's (2010, p. 62) suggestion that “different types of corporate governance may have distinct impacts on the extent to which a CEO can exercise discretion in decision making” by showing that CEO tenure—an element of structural power—may not influence the relationship between CEO burnout and firm performance. We encourage future research on CEO burnout to further examine these relationships and, while doing so, to also pay attention to measures of managerial discretion and their possibly differing effects.

Our results also partially confirm the prediction that internal organizational factors will influence the CEO burnout–firm performance relationship, indicating that the negative effect between CEO burnout and firm performance is stronger for larger and resource-limited firms but not for older firms. CEO burnout reduces firm performance, and organizational discretion, which is limited in larger and resource-limited organizations, inhibits CEOs from influencing their burnout factors and implementing strategic actions based on their experiences, beliefs, and values (Hambrick and Mason, 1984). While managerial discretion may affect the strategic choices available, it goes beyond strategic choices as it requires “cognitive endeavors” (Hambrick and Finkelstein, 1987, p. 382) whereby the CEO actively engages in seeking, developing, and exploiting strategic opportunities by orchestrating, combining, and leveraging a diverse range of resources. The information in Fig. 1 illustrates how inertial forces in larger firms enable fewer cognitive endeavors as the CEO has limited choices in devising strategic actions due to increased resistance to change. Further, firms with fewer available resources tend to have less leeway to conduct exploratory activities and thus give less discretion to their CEOs. Fig. 2 confirms that the relationship between CEO burnout and firm performance is negative when resource availability is low.

Interestingly, although firm age is often considered to be a proxy for firm inertia, a moderating effect was not found in this study. One possible explanation is that liabilities of age may be traced to different liabilities than size (Sørensen and Stuart, 2000). Firm age is linked to organizational path dependencies, such as the development of organizational routines, whereas firm size can be linked to structural hurdles. It could be that compared to resistance stemming from structure and resources, firm routines do not represent an equally powerful managerial discretion force and may thus not influence the CEO burnout–firm performance relationship. In fact, the review by Wangrow et al. (2015) on managerial discretion revealed that the influence of firm age on managerial discretion is yet to be empirically proven.

By introducing burnout to the CEO literature, the findings of this study also contribute to and provide an alternative explanation for the executive life cycle. The literature on the executive life cycle has focused on the influence of events (e.g., succession or firing) and CEO tenure (Miller and Toulouse, 1986) without paying direct attention to burnout. Hambrick and Fukutomi (1991) divided the executive life cycle into distinct phases based on variations in CEOs' thoughts, patterns, and behaviors that explain how learning, knowledge, and strategic behaviors influence organizational performance. In the current framework, we explain a personal outcome—CEO burnout—that may be associated with events and tenure during the executive life cycle. While executives with longer tenures learn strategy and skills through experimentation (Hambrick and Fukutomi, 1991), over time, such processes could lead to burnout. Related to this logic, CEOs may become “stale in the saddle,” possibly leading them to “increase rigidity,” resulting in “complacency and decline” (Miller and Shamsie, 2001, p. 727). While we were unable to observe these intervening mechanisms between burnout, CEO turnover, and performance, future research might tie the executive life cycle literature to the burnout literature to improve our understanding of the underlying phenomenon.

Limitations and future research directions

Although the present study offers new empirically tested insights into CEO burnout, it is not without limitations. First, past work has focused on social and organizational support to reduce burnout. In the proposed model, we do not explore support from the organization or the work-family interface that could mitigate the effects of burnout.

Second, we focus on CEOs in Sweden, so our findings may not be generalizable beyond the Swedish context (or at least the Scandinavian context). CEO burnout is multifaceted and has individual, social, cultural, and organizational dimensions. Across different institutional contexts, environmental conditions impose different levels of demands on CEOs. For example, CEOs in North America face significant performance pressures and may be more prone to burnout, whereas CEOs in Asia are more long-term oriented and may be less prone to burnout (Poterba and Summers, 1995). We encourage future research to examine cultural influences on CEO burnout and their consequences.

Third, beyond the direct effects of burnout on performance, CEOs experiencing greater burnout may undertake extreme strategic actions, make narrowly scoped decisions, and/or propose weaker strategies. Investigating the effects of burnout in the upper echelons and across multiple levels in the firm could also be an interesting research avenue.

Fourth, prior work on leadership styles and employee burnout has found that employees led by charismatic (De Hoogh and Den Hartog, 2009) or transformational (Seltzer et al., 1989) leaders are less susceptible to burnout. Elsewhere, individual characteristics like age and personality, among other demographics, have also been shown to affect burnout. Future research should test the effects of individuals' imposing demands on themselves. Because CEOs are high-achieving individuals, parsing out individual, occupational, and organizational effects on CEO burnout could be of further interest. We also recommend that future research explore whether there are differences in the reasons for employee versus CEO burnout given their differing positions in the hierarchy.

Fifth, the managerial discretion construct suggested by Hambrick and Finkelstein (1987) involves three components: internal organizational, individual managerial, and environmental discretion. This study concentrates on two of these components that are most relevant to the CEO burnout–firm performance relationship—internal organizational and individual managerial discretion—and we controlled for forces in the task environment. Although we were able to capture many of the forces affecting internal organizational discretion, we encourage future research to also include other factors, such as organizational culture (Hambrick and Finkelstein, 1987), to understand how organizational forces of discretion affect the relationship between CEO burnout and firm

performance. Furthermore, we measured individual managerial discretion only through locus of control. We strongly recommend future research develop and validate a more comprehensive measure of individual managerial discretion that also captures other aspects, such as aspiration level, tolerance of ambiguity, commitment, and cognitive complexity (Hambrick and Finkelstein, 1987).

Sixth, we used a modified version of Chung and Ding's (2002) Sales Locus of Control Scale. The adapted Chung and Ding (2002) scale, which is in turn based on Levenson's (1973) Locus of Control Scale, needs further empirical validation in the CEO context. While our adapted scale was well received by the five CEOs in the pilot study and as Appendix A shows acceptable loading, reliability, and confirmatory factor analysis tests, we encourage future studies to further validate our scale and also develop and apply alternative measures for CEO locus of control. For example, Hodgkinson's (1992) Strategic Locus of Control Scale could be preferable when the interest is locus of control beliefs in relation to issues of strategic management.

Seventh, it is possible that burnout may be associated with contingent compensation that may or may not be fully associated with CEO effort. Systematic and unsystematic risk may influence firm performance, so CEO compensation may be significantly influenced by factors beyond felt and actual discretion. As the nature of contingent compensation can vary from one industry to another, we call on future studies to assess the effect of variations in contingent compensation within and between industries. Further, while the CEO pay gap is not significant in Sweden, compensation can also be a buffer mechanism such that significantly higher pay could counter perceptions and the realization of burnout. However, individual characteristics play a key role in explaining these relationships. We call on future studies to assess the role of personal characteristics in explaining the relationship between cognitive and monetary buffers in reducing burnout. In a similar vein, we encourage future studies to evaluate whether block shareholding—that is, having a large share of stock ownership held by a small number of investors—influences CEO burnout.

Finally, our findings do not cover the effects of job-person fit (e.g., French et al., 1974) on the relationship between burnout and firm performance. In their theoretical model, Maslach and Leiter (1997) proposed that the greater the mismatch between the person and his or her job, the greater the likelihood of burnout (see also Maslach et al., 2001). We encourage further CEO burnout studies to cover the job-person fit paradigm along with a broader and more complex conceptualization of the person situated in the job context.

Conclusion

While the recent practitioner literature has increasingly highlighted that CEO burnout is a critical problem, prior research has not concentrated on CEO burnout, its effects on firm performance, or ways to manage it. This article drew upon upper echelons theory and existing research on employee burnout in organizations and suggested and confirmed that CEO burnout has a negative association with firm performance. The results of our study show that of the managerial discretion components related to CEO structural power, CEO duality ameliorates the negative relationship between CEO burnout and firm performance. Further, of the internal organizational forces shaping CEO discretion, firm size and resource availability influence the CEO burnout–firm performance relationship. More specifically, performance is significantly reduced in larger and resource-constrained organizations whose CEOs report higher burnout. Interestingly, our study did not find support for the ameliorating role of CEOs' internal locus of control (one indicator of individual discretion). The current research suggests that burnout should be managed if it cannot be avoided and that CEO duality, firm size, and resource availability play critical roles in this outcome.

Appendix A

	Exploratory Factor Analysis						CFA	α
	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Factor 6	Item loading	
Burnout								0.88
Emotional Exhaustion								0.84
I feel emotionally drained from my work	−0.079	0.785	0.109	−0.012	0.020	−0.048	0.738***	
I feel used up at the end of the workday	−0.114	0.698	0.108	0.153	−0.150	−0.034	0.646***	
I feel fatigued when I get up in the morning and have to face another day on the job	−0.044	0.436	0.248	0.170	−0.073	0.011	0.499***	
Working with people all day is really a strain for me	−0.132	0.416	0.228	0.043	0.171	−0.024	0.490***	
I feel burned out from my work	−0.197	0.635	0.161	0.012	0.109	0.005	0.641***	
I feel frustrated by my job	−0.131	0.552	0.240	−0.042	−0.096	0.101	0.611***	
I feel like I'm working too hard on my job	0.010	0.578	0.151	−0.099	−0.057	−0.079	0.573***	
Working with people directly puts too much stress on me	−0.074	0.596	0.110	−0.144	0.153	−0.101	0.606***	
I feel like I'm at the end of my rope	−0.134	0.589	0.147	−0.148	0.037	−0.004	0.589***	
Depersonalization								0.84
I feel I treat some of my employees and my customers as if they were impersonal “objects”	−0.189	0.217	0.582	0.086	0.129	−0.088	0.665***	

I've become more callous toward people since I took this job	−0.178	0.163	0.743	0.024	0.140	−0.077	0.813***	
I worry that this job is hardening me emotionally	−0.197	0.167	0.786	0.054	0.101	−0.021	0.851***	
I don't really care what happens to some of my employees and my customers	−0.185	0.136	0.643	−0.058	−0.026	0.088	0.654***	
I feel that my employees and my customers blame me for some of their problems	−0.032	0.090	0.650	0.015	−0.043	−0.047	0.567***	
Reduced Personal Accomplishment								0.89
I can easily understand how my employees and my customers feel about things	0.441	0.076	−0.240	−0.019	0.022	0.019	0.425***	
I deal very effectively with the problems of my employees and customers	0.738	0.004	−0.203	−0.117	0.026	−0.021	0.715***	
I feel I'm positively influencing other people's lives through my work	0.759	−0.115	−0.131	−0.103	0.069	0.011	0.746***	
I feel very energetic	0.688	−0.035	−0.200	−0.041	−0.017	0.066	0.722***	
I can easily create a relaxed atmosphere with my employees and customers	0.760	−0.085	−0.009	0.087	−0.137	−0.006	0.789***	
I feel exhilarated after working closely with my employees and customers	0.836	−0.065	−0.158	−0.025	−0.039	0.056	0.878***	
I have accomplished many worthwhile things in this job	0.775	−0.160	−0.003	0.032	−0.080	0.133	0.827***	
In my work, I deal with emotional problems very calmly	0.651	−0.096	−0.066	0.119	−0.177	0.109	0.718***	
Locus of Control								0.74
Internal Locus of Control								
It is my firm belief that I can solely overcome the obstacles in my work	0.096	−0.156	−0.278	0.008	−0.009	0.622	0.596***	0.71
My performance is strongly influenced by what I do	0.168	−0.095	0.012	−0.033	−0.005	0.738	0.732***	
My behavior can greatly influence my outcomes	0.026	0.118	0.044	0.000	−0.044	0.663	0.625***	
Chance Locus of Control								
Becoming an outstanding person in my work depends mostly on timing and opportunity	−0.095	0.041	0.048	0.152	0.609	0.146	0.586***	0.75
A prayer for good luck may quite possibly outweigh personal ability and enthusiasm	−0.065	−0.085	0.128	0.175	0.708	−0.073	0.741***	
My performance today rests on chance	−0.110	−0.009	0.199	0.206	0.532	−0.134	0.623***	
It takes luck and good fortune to be successful in my work	−0.135	0.143	0.048	0.297	0.520	−0.034	0.648***	
Powerful Others' Locus of Control								
I believe that success in my work is mostly influenced by powerful others	−0.083	−0.110	0.078	0.693	0.233	0.011	0.732***	0.78
Becoming a competent person in my work depends on the help from some people in powerful positions	0.038	0.033	0.032	0.692	0.187	0.079	0.753***	
The accomplishment I can achieve is often in the hands of powerful others	−0.002	0.014	−0.013	0.703	0.060	−0.117	0.669***	

Confirmatory factor analysis: $\chi^2 = 657.77$ [446], CFI = 0.898; TLI = 0.886; RMSEA = 0.053 [90% C.I. = 0.044, 0.061]

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