CEO SUCCESSION ORIGIN AND FIRM PERFORMANCE: A MULTILEVEL STUDY

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Running head: CEO succession origin and firm performance

ABSTRACT

There has been much controversy concerning the relationship between outside CEO succession origin and firm performance. Some scholars take the *organizational-adaptation* view to highlight the benefits of outside succession; yet others adopt the *organizational-disruption* view to pose the selection of an outsider CEO as a disruptive and disadvantageous event for organizations. In this study, we develop an integrated multilevel framework that reconciles these opposing perspectives and examines the conditions under which the benefits of outside CEO succession outweigh the costs. Data from 109 CEO succession events in large international firms show that the performance advantages of outside succession materialize when the new CEO: (a) socio-demographically resembles incumbent executives, (b) possesses variety of experience, and (c) is hired by a well-performing firm operating in a munificent industry. Overall, our research demonstrates that the performance implications of new CEO origin should not be considered in isolation, but in interaction with multilevel characteristics.

Keywords: CEO succession; Firm performance; Top management teams; Multilevel; Strategic leadership

INTRODUCTION

Appointing a chief executive officer (CEO) from outside the firm has become a frequent phenomenon in recent years. Empirical evidence shows that the rate of outside CEO succession among the world's largest international organizations rose from 14 percent in 2007 to 29 percent in 2012 (Favaro et al., 2013). This rising tendency of hiring CEOs from the external labor market is partially driven by the increasing information processing and external knowledge demands facing large international corporations (Hermann and Datta, 2002; Magnusson and Boggs, 2006; Menon and Pfeffer, 2003). Yet, while outside CEO succession becomes widespread, extant research shows its relationship with post-succession firm performance to vary from positive to negative (for a review: Karaevli, 2007). Such inconsistency among prior studies suggests a need to investigate the conditions under which firms can reap benefits from the selection of an outsider CEO (Finkelstein et al., 2009). Assessing the relationship between outside CEO succession and firm performance without considering the individual-, organizational-, and environmental-level factors surrounding succession is unlikely to fully capture the complex nature of this relationship.

In the extant literature, two opposing theoretical streams have nurtured a longstanding debate over whether, or not, appointing an outsider CEO is the right choice for organizations. On the one hand, the *organizational adaptation view* poses outside CEO succession as a beneficial aspect (Helmich and Brown, 1972). It implies that CEOs appointed from the external labor market possess more external knowledge and information compared to those hired from the firm's internal ranks, and thus, are better equipped to expand the resource base of the firm and promote innovation, learning, and high performance (Menon and Pfeffer, 2003; Wiersema, 1992). In direct contrast, another volume of research adopts the *organizational disruption view* of succession, and sees the selection of an outsider CEO as a disruptive event related to costs for the firm (Vancil, 1987). It advocates that outsiders lack firm familiarity which – in combination with the difficulty of integrating in the incumbent top management team (TMT) and organization (Friedman and Saul, 1991) – causes disruption to internal processes and results in low performance (Zhang and Rajagopalan, 2004). Due to this theoretical indeterminacy among prior studies, scholars have called for research that goes beyond unitary-based assumptions of the effects of new CEO origin *per se* (Finkelstein et al., 2009), and "moves forward with contingency explanations" of *when* (under which conditions) the benefits of outside succession are more likely to occur (Giambatista et al., 2005, p. 982).

To resolve the current debate on the performance implications of new CEO origin, we explore both the *organizational adaptation* and *disruption* views of succession. Although these theoretical views lead to opposing predictions, an important goal of this study is to integrate these perspectives and examine the boundary conditions under which the benefits of outside succession posed by the organizational adaptation view outweigh the organizational disruption costs. In doing so, we propose and test a multilevel contingency framework suggesting that outside CEO succession is neither ultimately beneficial, nor ultimately detrimental to firm performance – but its effects depend on factors nested at different layers of context.

Central to our framework is the notion of executive job demands and its multilevel implications (Hambrick et al., 2005). This notion suggests that the challenges facing CEOs in their jobs vary, and the degree to which these challenges can be overcome is contingent upon the individual-level compatibility between the CEO's characteristics and job requirements, as well as the organizational- and environmental-level imperatives facing the firm (Nadkarni and Chen, 2014). Building on this conception, we theorize that the underlying disadvantages posed by the *organizational disruption view* can be better described as the lack of firm familiarity and integration job challenges that outsider CEOs face compared to internal hires and should overcome early after their entry in the firm (Chen, 2015). At the same time, the informational benefits stressed by the *organizational adaptation view* can be seen in relation to the '*going-in-mandate*' of outside successors for promoting external knowledge transfer and adaptation (Finkelstein et al., 2009, p. 201). Given the multilevel nature of the executive job demands concept (Hambrick et al., 2005), our framework also proposes that certain individual-level CEO characteristics (CEO-TMT similarity and CEO experience variety), as well as organizational (pre-succession firm performance) and environmental (industry munificence) conditions play a key role in enabling an outsider CEO to: (a) overcome the post-succession lack of firm familiarity and integration job challenges, and thus (b) unleash the informational and performance gains after succession. We test our framework using multilevel data from 109 CEO succession events in large international firms operating in various industries.

The study makes several contributions. First, it reconciles the two opposing theoretical perspectives on the performance implications of new CEO origin: the one that highlights the benefits of outside succession and the other that focuses on its costs. Whereas most prior studies have treated the organizational adaptation and disruption views of succession as contradictory, we argue that they are rather complementary – as they jointly account for a more comprehensive conceptualization of the coexisting advantages and disadvantages of outside succession. Overall, our research contributes to the resolution of the theoretical and empirical inconsistency among prior studies on the performance effects of new CEO origin, by identifying the boundary conditions under which the adaptation view of succession gains more explanatory power compared to the disruption view. In this regard, our findings underscore the double-edged nature of outside CEO succession – by highlighting the conditions under which selecting an outsider CEO triggers desirable financial outcomes.

Second, our work adds conceptual clarity to the different post-succession job demands that outsider CEOs face compared to internal hires, and how their ability to respond to these demands varies with factors nested at different layers of context. Recent studies have recognized the importance of considering the effects of new CEO origin in light of the job requirements facing different types of successors (insiders vs. outsiders) (Chen, 2015; Finkelstein et al., 2009). Our work adds to this literature, by demonstrating that the inconsistent findings in the extant CEO succession research can be explained by the strong influence that multilevel factors have on the ability of outsider CEOs to quickly overcome their post-succession job challenges, and promote informational and performance gains. In this regard, our research responds to the calls of strategic leadership scholars for developing a multilevel understanding of how the most prominent strategic leader of the firm (i.e., the CEO) impacts organizations (Cannella and Holcomb, 2005; Simsek et al., 2015). Finally, our work offers practical implications by highlighting the factors that may enhance, or constrain, a firm's ability to benefit from the selection of an outsider CEO.

THEORY AND HYPOTHESES

The Positive and Negative Effects of Outside CEO Succession

A small number of topics in the broader field of strategic leadership have generated as much controversy as the relationship between CEO succession origin and firm outcomes (Finkelstein et al., 2009). Research on organizational adaptation, for example, poses outside CEO succession as an *adaptive action* that helps firms respond to their altering environmental demands (Helmich and Brown, 1972). According to the organizational adaptation view of succession (Friedman and Singh, 1989), the selection of an outsider CEO is associated with non-routine information flows at the TMT level, which allows the executive team to enhance information processing and innovation (Menon and Pfeffer, 2003). As outsider CEOs possess greater external knowledge and resources compared to internal hires, they are generally perceived as better equipped to expand the resource base of the firm and contribute to renewal and learning (Tushman and Rosenkopf, 1996). Especially large international corporations that face high information processing demands, seek to select outsider CEOs who can provide resource-based advantages to the firm through their external experience, networks and perspectives (Hermann and Datta, 2002). From an organizational adaptation point of view, selecting an outsider CEO is thus related to informational benefits that help the firm to enhance its adaptive capacity and realize positive financial outcomes (Grossman, 2007).

On the contrary, however, another stream of research adopts the organizational disruption view of succession (Vancil, 1987), and suggests that the selection of an outsider CEO relates to performance disadvantages for the following reasons. First, outsiders lack firm-specific skills (Bailey and Helfat, 2003), and therefore need time to integrate and familiarize with the new organizational environment (Fondas and Wiersema, 1997). This lack of firm familiarity early after succession often leads outsider CEOs to make premature strategic decisions that do not fit with the company's internal competencies, and negatively impact firm performance (Zhang and Rajagopalan, 2004). Second, research has argued that compared to internal hires, outsider CEOs are less likely to find a supportive TMT early after succession (Friedman and Saul, 1991), which impedes the transfer and integration of external knowledge and information (Grossman, 2006). When an outsider CEO takes charge, "tension within the top management team is likely to be high, because senior executives may feel inferior, fearful, or even hostile toward the outside successor who may in turn question the competencies of these senior executives" (Shen and Cannella, 2002a, p. 722). Meanwhile, even in cases where incumbent executives accept the outside successor as the new leader, the lack of shared intra-firm experience between the new CEO and existing top managers generates communication challenges early after succession (Denis et al., 2000), which cause knowledge fragmentation (Hambrick, 1995) and promote disruption and low performance.

While the above theoretical streams separately provide contradictory predictions, we argue that a more complete view can be achieved through integration. Taking together arguments on the positive and negative effects of outside succession, we postulate that the selection of an outsider CEO is unlikely to have a monolithic effect (positive or negative *per se*) on firm performance. Instead, drawing on the concept of executive job demands, we offer an overarching multilevel framework that investigates how the trade-offs between the benefits and costs of outside CEO origin vary with factors nested at different layers of context.

A Multilevel Framework

From its tenets, the literature of executive job demands implies that the challenges facing CEOs in their jobs are often different (Hambrick et al., 2005). It also asserts that the ability of a CEO to respond to job demands "depends, in part, on the degree to which" his or her individual-level characteristics and "capabilities are appropriate for the situation" (Hambrick et al., 2005, p. 475), as well as the organizational and environmental level conditions that shape the situation (Geletkanycz and Boyd, 2011). The notion of executive job demands is thus multilevel in nature, as it asserts that the extent to which CEOs will be able to respond to their job requirements and positively impact organizational outcomes depends upon their individual-level attributes, as well as on the internal (organizational) and external (environmental) conditions that characterize the firm's context (Hambrick et al., 2005).

In the area of CEO succession, recent research has applied the notion of executive job demands to explain the different post-succession challenges and job requirements facing outsider CEOs compared to internal hires (Chen, 2015; Finkelstein et al., 2009). On the one hand, outside successors “have much more to learn about the new company” and to “build up a fresh knowledge repertoire in a new environment fairly quickly” (Chen, 2015, p. 1899). At the same time, they are also hired to pursue a different mandate inside the firm (Finkelstein et al., 2009). While internally-promoted CEOs are selected to strengthen the organization’s existing competencies (Lauterbach et al., 1999), outsiders are appointed with the plea to expand the informational capacity of the organization via the transferability of their external knowledge, networks and resources (Finkelstein et al., 2009).

We draw on these theoretical insights to develop our integrated multilevel framework. We postulate that the disadvantages underscored by the *organizational disruption view* can be conceptualized better as the job challenges of integration and lack of firm familiarity that outsider CEOs should overcome after they assume the CEO position. In addition, the underlying benefits highlighted by the *organizational adaptation view* can be considered in light of the different hiring mandate of outside successors for enhancing the resource-base of the firm through the transfer of external knowledge and information. Following the multilevel nature of executive job demands (Hambrick et al., 2005), our framework also implies that multilevel factors will affect an outsider CEO’s ability to (a) overcome their post-succession job challenges (i.e., reduce the disadvantages posed by the *organizational disruption view*), and thus, (b) respond to their going-in-mandate for promoting external knowledge transfer and performance gains (i.e., realize the advantages stressed by the *organizational adaptation view*).

For the selection of multilevel factors, we consistently draw on the executive job demands concept (Hambrick et al., 2005). At the individual level, we focus on two types of CEO characteristics: relational attributes (CEO-TMT demographic similarity) and informational attributes (CEO industry and international experience variety). These individual-level attributes are important, as they represent the ability of an outsider CEO to integrate in the TMT and familiarize with the firm (Grossman, 2007), as well as his or her capacity to promote external knowledge transfer and adaptation (Crossland et al., 2014; Daily et al., 2000). By focusing on these attributes, we thus capture the *relative-fit* stressed by the notion of executive job demands between CEOs' individual-level characteristics (Guthrie and Datta, 1997; Hambrick et al., 2005) and the job challenges/requirements facing outside as opposed to inside successors (Chen, 2015).

Further, at the organizational and industry levels we look at two key contingencies: pre-succession firm performance and industry munificence. According to Hambrick et al. (2005), these two organizational- and environmental-level factors significantly impact the job requirements facing executives. Munificent industry environments, for example, pose more informational demands to the TMT owing to a continuous need for developing innovative strategies that promote sustained growth (Dess and Beard, 1984). In this vein, scholars have argued that industry munificence affects the likelihood of hiring an outsider CEO who can respond to the demands for growth and adaptation through the transfer of his or her external knowledge and information (Karaevli, 2007; Zhang and Rajagopalan, 2004). "Beyond munificence, […] executives whose units have been performing poorly face considerable pressure [… and higher] job demands." (Hambrick et al., 2005, p. 476; 477). Under conditions of poor firm performance expectations from the board of directors to alter the firm's status quo increase (Zajac and Westphal, 1996) which, in turn, place greater job challenges on newly appointed CEOs (Chen, 2015), and results in a higher likelihood of outside succession (Zhang and Rajagopalan, 2003). Thus, both industry munificence and pre-succession firm performance are considered in our framework as two key factors at the industry and firm levels that shape the internal and external job demands facing new CEOs, as well as their ability to respond to these demands and positively impact post-succession financial outcomes.

Individual-level Effects

CEO-TMT socio-demographic similarity. Research has underscored the impact of socio-demographic characteristics on interpersonal dynamics (Tröster and van Knippenberg, 2012). Externally observable socio-demographic traits are important, as they represent a salient basis for interpersonal differentiation and social categorization in working groups (Kanter, 1977). While socio-demographic differences among team members are related to stereotyping and infrequent cooperation, similarity in relational socio-demographic attributes results in cohesion, information exchange and ease of communication (Chattopadhyay et al., 2004). In this study we propose that the performance gains of outside CEO succession are more likely to occur when CEO-TMT socio-demographic similarity is high, for the following reasons.

First, as mentioned earlier outsider CEOs are less familiar with the firm compared to internal hires, which impedes them to make decisions early after succession that match to the pre-established knowledge repertoire of the company. To overcome their post-succession challenges related to lack of firm familiarity, outsider CEOs should gain the support of incumbent executives (Shen and Cannella, 2002a). Demographic similarity is likely to act as a common ground between an outsider CEO and the existing TMT, and increase the likelihood that executives from the previous regime will help the externally appointed CEO to learn and understand the firm's internal context (Grossman, 2007; Jackson et al., 1993). Indeed, empirical evidence shows that socio-psychological inclinations toward similarity drive individuals to provide more direct mentoring and support to externally appointed members who demographically resemble themselves (McDonald and Westphal, 2013).

Hence, CEO-TMT demographic resemblance can help outside successors to integrate in the TMT, overcome firm familiarity challenges, and thus use their external knowledge and information to make decisions that fit the company's internal competencies and positively affect firm performance.

Second, CEO-TMT similarity is also likely to facilitate information exchange between the outsider CEO and the rest of the TMT (Tröster and van Knippenberg, 2012), which will in turn allow the outside successor to effectively transfer his or her external knowledge and information to incumbent executives. As Grossman (2007) claimed, executive teams consisting of members who are demographically similar to the new CEO are more likely to quickly absorb the external knowledge that the outside successor brings to the organization and translate this external knowledge into renewal and adaptation. While inside successors have already been members of the TMT prior to succession and have developed internal communication patterns with other executives (Fondas and Wiersema, 1992), outsider CEOs will need to quickly establish a common ground of information exchange with other top managers after succession in order to transfer their external knowledge and resources to the incumbent executive group (Karaevli, 2007). Since socio-demographic similarity promotes information exchange (Tröster and van Knippenberg, 2012; Tsui et al., 1992), and as information exchange between the CEO and the TMT is vital for the effective transfer of external knowledge and information (Grossman, 2007), it is expected that CEO-TMT demographic resemblance will have a positive moderating effect on the relationship between outside CEO succession and firm performance.

Proponents of the resource diversity literature (Milliken and Martins, 1996) might argue that socio-demographic similarity lowers information processing, and results in groupthink and low performance. In the context of outside (as opposed to inside) CEO succession, however, the groupthink and negative impact of CEO-TMT demographic resemblance will be counterbalanced with the effective transfer of the outsider CEO's external knowledge and information (Zajac & Westphal, 1996). Put differently, while for insider CEOs similarity with other executives may lead to groupthink and negative outcomes (Milliken and Martins, 1996), it will be beneficial for outside successors – as it can boost information sharing between the outsider CEO and the TMT and, in turn, enhance the external knowledge transfer and performance benefits of outside succession. As such, our first hypothesis develops as follows:

Hypothesis 1. The relationship between outside CEO succession and post-succession firm performance is moderated by CEO-TMT socio-demographic similarity. As CEO-TMT socio-demographic similarity increases, outside CEO succession has a positive effect on post-succession firm performance.

CEO experience variety. Research on strategic leadership has repeatedly stressed the importance of executives' informational characteristics (i.e., past experience) and their impact on firm outcomes (Geletkanycz and Black, 2001). In a recent study, Crossland et al., (2014) introduced the notion of CEO career experience variety, defined as the degree to which a new CEO has accumulated diverse career experience from various areas of expertise and institutional settings. CEOs with accumulated experience from diverse institutional environments "have personal dispositions favoring experimentation and change", while those with low experience diversity exhibit a preference toward stability and continuity (Crossland et al., 2014, p. 653). In this study, we focus on two dimensions of CEOs' experience variety that have been regarded as important in the extant CEO succession literature: the industry and international background of the new CEO (Bailey and Helfat, 2003; Daily et al., 2000).

First, studies argue that industry experience is of high relevance for outside successors as it directly links to the industry-related human capital that the outsider CEO can transfer to the organization (Bailey and Helfat, 2003). As mentioned earlier, outsider CEOs are appointed with the plea to expand the information base of the firm and enrich its adaptive capacity (Finkelstein et al., 2009). To effectively act in this role, they should possess diverse external knowledge from various industries (Custodio et al., 2013). The accumulation of a variety of industry experience increases the new CEO's ability to promote adaptation and renewal by drawing on his or her diverse industry-based knowledge and resources (Crossland et al., 2014).

In addition, studies show that variety of experience from different institutional environments increases the ability of individuals to promptly adapt to new organizational settings (Ellis, 1965). As Karaevli and Hall (2006, p. 359) theorized, the accumulation of experience from various industry and institutional environments allows executives not only to become "fast and adaptive learners" when they move to new contexts, but also to develop superior skills for transferring their diverse knowledge and expertise to incumbent organizational members. Such adaptability and knowledge transfer skills are particularly important for outsider CEOs who require to quickly familiarize with the internal environment of the firm, and integrate their external knowledge and information into the pre-established knowledge repertoire of the organization (Zhang and Rajagopalan, 2004). Taken together, we expect that outsider CEOs with experience from a variety of industries will be better equipped to swiftly learn and adapt to the firm's internal context (i.e., overcome organizational disruption costs) and, at the same time, respond to their mandate for transferring diverse industry-specific knowledge to the organization – resulting in superior financial outcomes.

Hypothesis 2a. The relationship between outside CEO succession and post-succession firm performance is moderated by the CEO's industry experience variety. As CEO industry experience variety increases, outside CEO succession has a positive effect on post-succession firm performance.

Further, scholars have argued that in the context of large international companies “international experience is of fundamental importance in the selection of outside CEOs” (Carpenter et al., 2001; Daily et al., 2000, p. 520). As already noted, the lack of firm familiarity of outside successors puts them at a disadvantage compared to internal hires. Gaining a quick understanding about the firm’s internal context is even more challenging when the outsider CEO enters a large international company (Hermann and Datta, 2002). However, the possession of a variety of international experience will allow the outside successor to quickly familiarize with the strategic context of the international firm by drawing on his or her diverse background from different countries (Magnusson and Boggs, 2006). Indeed, empirical evidence shows that large international firms tend to offset an outsider CEO’s lack of firm-specific skills by selecting candidates with broad international experience (Daily et al., 2000).

In addition, variety of experience from different countries will also enable the outside successor to effectively play the role of the informational agent. Scholars have argued that for large multinational organizations, experience gained through international career exposure constitutes a scarce and inimitable resource related to information processing and renewal (Carpenter et al., 2001; Georgakakis et al., 2016). Outsider CEOs with international experience variety will therefore be better equipped to expand the knowledge base of the organization (Daily et al., 2000) by transferring to the firm international resources and networks that are essential for dealing with firm internationalization (Carpenter et al., 2001). This will in turn result in desirable post-succession financial outcomes.

Hypothesis 2b. The relationship between outside CEO succession and post-succession firm performance is moderated by the CEO's international experience variety. As CEO international experience variety increases, outside CEO succession has a positive effect on post-succession firm performance.

Organizational-level Effects: Pre-succession Firm Performance

The literature of executive job demands implies that the challenges facing CEOs in their jobs are partially shaped by the internal contingencies facing the firm (Hambrick, et al., 2005). A key internal contingency highlighted in both executive job demands (Chen, 2015) and CEO succession research is the performance of the firm prior to the appointment of the new CEO (Karaevli, 2007; Zhang and Rajagopalan, 2004). Under conditions of poor firm performance, executives experience accumulated job demands owing to shareholder's expectations and board monitoring pressures to change the firm's status quo (Chen, 2015; Hambrick et al., 2005). In this vein, scholars argue that the performance of the firm before the appointment of the new CEO will determine whether an outside successor fits the situational context and job requirements of the executive position (Guthrie and Datta, 1997; Zhang and Rajagopalan, 2003). Thus, pre-succession firm performance is selected as a key organizational-level factor in our model related to the job challenges facing new CEOs (Chen, 2015), that can affect the *trade-off* between the positive and negative effects of outside CEO origin (Karaevli, 2007).

Traditional wisdom suggests that the benefits of outside CEO succession are more likely to occur in poorly performing organizations that require change (Boeker, 1997). As outsiders are less committed to the firm's status quo, they are typically perceived as better able to promote quick and successful performance turnarounds (Chen, 2015). However, research evidence shows that outside succession can also be beneficial under conditions of stability and high performance (Zhang and Rajagopalan, 2004). Broader literature on organizational adaptation, for example, proposes that in situations of performance decline, management teams need to focus on strengthening the existing internal competencies of the organization, rather than on developing radically new competencies (Haveman, 1992). Recent research on “stability and change” shows that poor performance provides an unstable internal context with limited financial resources that restricts the outsider CEO’s ability to promote adaptation and renewal (Karaevli and Zajac, 2013, p. 1268). The lack of financial resource availability together with tight controls from the board of directors in situations of performance decline reduce the CEO’s latitude of action (Hambrick and Finkelstein, 1987), and prevent the anticipated informational advantages of outside succession from materializing (Zhang and Rajagopalan, 2004).

Further, outside successors entering poorly performing firms are also likely to face an even less supportive TMT at the post-succession stage[1] (Shen and Cannella, 2002a). Scholars have argued that under conditions of poor firm performance “other executives may contest the new CEO’s power if he or she has not yet” become familiarized with the firm’s internal context (Zhang and Rajagopalan, 2004, p. 488). In addition, in situations of performance decline, executives from the previous regime may perceive that the outsider CEO comes in to take substantive action by firing and hiring executive members (Friedman and Saul, 1991). “This intensifies interest conflicts between outside CEOs and senior executives ... increases tension within a top management group and places the outside CEO at a higher risk of power contests” (Shen and Cannella, 2002b, p. 1196). Such intense power struggles between the new CEO and the incumbent TMT under conditions of poor performance will increase the challenge of the outsider CEO to receive the support of the executive group, and transfer his or her external knowledge and information to incumbent top managers – resulting in low post-succession financial outcomes. On the contrary, however, high pre-succession firm performance will offer a stabilized environment (Karaevli and Zajac, 2013) that enhance the ability of the outsider CEO to familiarize with the firm's internal processes, integrate his or her external knowledge into the organization, and realize desirable post-succession performance consequences.

Hypothesis 3. The relationship between outside CEO succession and post-succession firm performance is moderated by the prior performance of the organization. As pre-succession firm performance increases, outside CEO succession has a positive effect on post-succession firm performance.

Environmental-level Effects: Industry Munificence

Industry munificence refers to the degree to which the firm's industry environment supports sustained growth (Dess and Beard, 1984). Scholars suggest that outside CEO succession is more likely to occur in firms that operate in industry environments characterized by instability, rather than by continuous growth or munificence (Datta and Rajagopalan, 1998). While research evidence shows that firms tend to select outsider CEOs under conditions of environmental volatility and low munificence (Zhang and Rajagopalan, 2003), we argue that the ability of the outsider CEO to overcome firm familiarity challenges and promote informational and performance benefits increases in munificent industry contexts.

First, high levels of industry munificence pose demands on executives for developing strategies that allow the firm to increase its market share and dominate the industry (Dess and Beard, 1984). Organizations that operate in munificent contexts are buffered from external threats, and thus, have more space available for accumulating slack resources (Finkelstein et al., 2009). Under conditions of industry munificence, outsider CEOs can effectively respond to the environmental demands for sustained growth and entrepreneurial orientation by drawing on their knowledge and experience from outside the firm (Karaevli, 2007). In direct contrast, however, under industry environments characterized by volatility and low munificence, TMTs experience “stressful conditions… decreased information processing, and restriction of communication and control” (Wiersema and Bantel, 1993, p. 487). This decreased information processing at the TMT level is likely to inhibit the informational advantages of outside succession from materializing, resulting in low firm performance.

Second, while industry munificence has been regarded as a source of stability, lack of munificence has been characterized as a source of uncertainty and unpredictability (Dess and Beard, 1984). In the context of CEO succession, scholars have argued that low munificence “increases the burden of new CEOs who are trying to learn the skills and routines particular to their new positions” (Zhang and Rajagopalan, 2004, p. 489). The unpredictable industry context owing to low munificence will pose more challenges on outsider CEOs in terms of familiarizing with the firm’s unstable environmental imperatives (Virany et al., 1992). On the contrary, high munificence will offer a setting where the outsider CEO can quickly familiarize with the firm’s predictable context, and then utilize his or her external knowledge to make decisions that fit the external demands of the firm and positively affect financial outcomes.

Hypothesis 4. The relationship between outside CEO succession and post-succession firm performance is moderated by the degree of industry munificence. As industry munificence increases, outside CEO succession has a positive effect on post-succession firm performance.

METHODS

Sample and Data Collection

Our overall sample population is based on large international firms headquartered in four European countries (i.e., Switzerland, the Netherlands, Germany, and the United Kingdom) over the period 2005–2009. To select our sample, we ranked all listed companies in the four countries based on their market capitalization as of the year-end 2005, and the largest 100 in each country were included given that: (a) they were not categorized as small and medium sized enterprises based on the European-Union's classification (i.e., had more than 250 employees and more than €50 million annual revenues) (EuropeanCommission, 2014), (b) their internationalization ratio of foreign sales to total sales was above 0, and (c) did not cease operation, or acquired by other firms between 2005 and 2009. By applying these criteria, we ensure that firms in our study are comparable in terms of size and degree of internationalization, and were active over the period examined.

The above filtering resulted in a population of 279 large international companies. In these 279 large international firms, 199 CEO successions were identified over the period 2005–2009. Demographic data of CEOs and other executives were collected from companies' annual reports, corporate websites and biographical databases (e.g., Who is Who in Europe). Firm- and industry-level data were gathered from the ThomsonONE database and double checked from annual reports. Due to data unavailability, 90 of the 199 cases were dropped, leaving a final sample of 109 CEO succession events. We should note that the relatively low data completion rate is due to the frequent unavailability of information in archival sources about CEOs' entire career histories, and is comparable to studies that focus on CEOs' entire career backgrounds (e.g., Crossland et al., 2014; Rodenbach and Brettel, 2012). To check if our final sample represents the target population, we ran Kolmogorov-Smirnov tests in Stata 13. Results show no significant differences between the final sample and the initial population in terms of full-time employees and return on assets (ROA).

The four European countries were selected for the following reasons. First, the stock exchanges in the four countries are among the leading stock exchanges in Europe. In the period 2005 to 2009, the London Stock Exchange, the Euronext Amsterdam, the Deutsche Börse, and the Swiss Stock Exchange were constantly ranked among the top five European stock exchanges in terms of domestic market capitalization (WFE, 2013). These reputable stock exchanges act as homes for many large international firms that attract a wide pool of CEO candidates with diverse attributes and backgrounds, offering a suitable setting for assessing the multilevel factors that affect the performance implications of new CEO origin. Second, recent research shows that outside CEO succession has become popular in large Western-European firms, and was on average 7 percent higher than in large North American corporations over the period 2007 to 2011 (Favaro et al., 2012). This rising trend of Western-European organizations to select CEOs from the external labor market provides an adequate context for investigating the phenomenon of outside CEO succession, and its impact.

Variables and Measures

Dependent variable. *Post-succession firm performance* was measured as the average ROA two years after succession (Shen and Cannella, 2002a). We use ROA instead of other accounting measures of firm performance as it has been regarded as a “well-understood and widely used performance measure in CEO succession research” (Shen and Cannella, 2002a, p. 723). Since we focus on the impact of CEO succession on firm performance, we did not use market-based performance measures as such measures are often subject to factors beyond management’s control (Karaevli, 2007). We also used average ROA instead of change in ROA from one year to the next, since this allows us to avoid single-year outliers that may affect our results (Shen and Cannella, 2002a; Zhang and Rajagopalan, 2004).

Independent and moderator variables. *Outside CEO succession* was measured as a dummy variable, taking the value of 1 if the new CEO had less than 2 years of firm tenure and 0 otherwise (Shen and Cannella, 2002a). Further, *CEO-TMT socio-demographic similarity* was calculated as a composite of a CEO's similarity to the TMT in terms of age, gender, and nationality. Age similarity was measured using the distance formula $\sqrt{\Sigma(Xi - Xj)^2/(n-1)}$, where X_i represents the age of a new CEO i, X_j represents the age of each top executive j, and n is the number of TMT members (Zajac and Westphal, 1996). To turn this into a measure of similarity, we reversed this variable so that high scores indicate high age similarity. Further, CEO nationality and gender similarity was measured using a modified version of the Blau's formula expressed as Pi^2, where P represents the proportion of TMT members with the same gender or nationality category *i* with the CEO. To obtain the overall CEO-TMT similarity, we standardized age similarity and averaged the three components in a single variable[2].

In line with the study of Crossland et al. (2014, p. 655), *CEO industry experience variety* was measured as the sum of the industry sectors based on the primary 2-digit standard industry classification (SIC) of each firm that a CEO had worked in, divided by his or her career length. Likewise, *CEO international experience variety* was calculated as the sum of the countries a CEO had worked in, divided by the CEO's career length. The measures of CEO industry and international experience variety account for "the accumulation of varied career experience" that the new CEO has gained from different industries and countries. Further, *pre-succession firm performance* was measured as the three-year average ROA before and including the succession year (Shen and Cannella, 2002a). Finally, *industry munificence* was calculated as the regression coefficient of time on the annual mean of sales in the primary 2-digit SIC of a firm for the period 2005-2009, divided by the mean sales of all years (Dess and Beard, 1984).

Control variables. As our CEO industry experience variety variable does not account for the length of CEO *industry specific experience* in the main industry of the focal firm, we control for the length of time (*in years*) that the new CEO had spent in the firm's primary 2-digit SIC from the beginning of his or her career until the succession year. In addition, as our CEO international experience variety variable does not consider the time that the new CEO has worked abroad, we control for the length (*in years*) of *CEO foreign experience*. Employing these control variables enables us to ensure that the moderating effects of industry and international experience variety are not driven by the length of industry and foreign experience of the CEO. To account for the relative individual-level power of the new CEO, we also controlled for CEO duality, coded as 1 if the successor held the dual role of CEO and the chairman of the board of directors in the year of succession and 0 otherwise.

Further, a key organizational-level aspect that impacts CEO succession origin and its outcomes is who appoints the new CEO. Following the procedure of Zhang and Rajagopalan (2004), we controlled for this aspect by employing an index of *pre-succession relative board power*. This variable was measured as: (a) the board tenure a year before succession divided by the predecessor CEO's tenure, and (b) the number of non-executive directors on the board a year before the succession event. To obtain the overall relative board power we standardized both components, and aggregated them in a single variable. The greater the board power *vis-à-vis* the predecessor CEO, the greater its influence on CEO selection (Zajac and Westphal, 1996).

Studies argue that the size of the firm and the number of TMT members play a key role in the selection of outsider CEOs, as they represent the pool of internal candidates for the CEO position (Karaevli, 2007; Shen and Cannella, 2002a). Hence, *firm size* measured as the logarithm of the number of full-time employees, and *team size* measured as the number of

TMT members were controlled. Further, as *serial CEO succession* can cause disruption and low performance (Grusky, 1963), we controlled for a dummy variable, taking the value of 1 if the firm changed CEO more than one time between 2005–2009 and 0 otherwise (Karaevli and Zajac, 2013). At the firm level, we also controlled for the degree of *post-succession TMT change*. First, we calculated the proportions of individuals who entered and those who left the TMT a year after succession. Then, the two proportions were averaged to get the overall TMT change score (Tushman and Rosenkopf, 1996). Since we focus on large international firms, we also controlled for each firm's *degree of internationalization*, measured as the ratio of foreign sales to total sales at the succession year (Hermann and Datta, 2002). Further, to control for industry we added industry dummies based on 1-digit SIC of each firm. Finally, to account for differences in CEO discretion among the four countries, we controlled for *country-level CEO discretion*. Based on Crossland and Hambrick (2011), the UK took a CEO discretion score of 6.0, the Netherlands a score of 5.2, Switzerland a score of 5.0, and Germany a score of 4.1.

Analytical Strategy

The study is based on data nested at three levels: CEOs within firms over time (level 1), firms within industries (level 2), and differences among industries (level 3). To analyze the data, we used a three-level hierarchical-linear-modeling (HLM) technique with all variables centered to the grand mean (Enders and Tofighi, 2007). The main advantage of HLM is that it controls for any systematic variance among observations (Raudenbush and Bryk, 2002). For example, firms in the same industry may have similar CEO selection preferences compared to firms in different industries. Adopting an HLM technique allows us to control for such potential systematic variance.

To test our moderating hypotheses, we employed a cross-level interaction approach (Raudenbush and Bryk, 2002). Research tradition in multilevel modeling suggests that this approach is appropriate for examining how effects at a given level are shaped by factors nested at different levels (Aguinis et al., 2013; Preacher et al., 2006). Strategic management scholars have stressed that the selection of moderation approaches in testing contingency effects should be in line with the aims of the study (Boyd et al., 2012; Venkatraman, 1989). Specifically, in cases where the main aim of a study is to examine how the form of an effect (i.e., the slope coefficient of a relationship) varies under different conditions, interaction analysis should be applied (Boyd et al., 2012, p. 288; Schoonhoven, 1981). At the same time, when researchers are interested in assessing how the absolute strength of an effect varies in different conditions, alternative approaches such as subsample analysis, may be appropriate (Boyd et al., 2012; Venkatraman, 1989). Our aim in this study is to understand how the relationship between outside CEO succession and firm performance varies in interaction with factors nested at different layers of context – and thus, a cross-level interaction technique fits better with the aims of the study (Preacher et al., 2006).

Further, scholars have stressed that the relationship between outside CEO succession and firm performance involves complex causal processes that raise endogeneity issues (Giambatista et al., 2005). In our study, there are two types of potential endogeneity. First, we employ a sample of newly appointed CEOs, and thus, we do not account for firms that did not experience CEO succession between 2005 and 2009. This can cause sample selection bias. Second, the appointment of an outsider CEO does not occur randomly, and may be driven by factors that simultaneously impact post-succession firm performance. To account for these issues, we employed a Heckman's (1979) two-step procedure.

In the first step of the Heckman's model (see Appendix), we predicted the likelihood of outside CEO succession with a Probit regression of the overall sample of 279 firms.

Similar to Karaevli and Zajac (2013), the *industry rate of outside CEO succession* was used as the instrumental variable in our first stage Heckman model. Correlation results show that this variable is strongly correlated with outside CEO succession ($p<0.001$) and not correlated with post-succession firm performance ($p>0.10$), indicating the suitability of the selected instrument (Murray, 2006)[3]. From Heckman's first step model, we then used the predicted values to calculate the inverse Mills ratio of outside CEO succession, and added this ratio in our main analysis – second step model (Table III). This enabled us to control for any potential endogeneity and sample selection that may impact our results (Heckman, 1979).

RESULTS

Table I displays descriptive statistics and correlations, and Table II presents results of the null HLM model. As can be seen in Table II, the null HLM model is significant at $p<0.001$, indicating that HLM is an appropriate technique based on the structure of our data (Rabe-Hesketh and Skrondal, 2008). The largest proportion of variance (73 percent) in the dependent variable is explained by the firm-level, while another 16 percent is explained by the industry-level, and 11 percent by the individual-level (i.e., the so called *CEO-effect*). The observed degree of variance explained at the individual-level is in line with recent variance decomposition studies which find that the *CEO-effect* accounts between 10 and 20 percent of variance in firm performance (Fitza, 2014; Quigley and Hambrick, 2015).

INSERT TABLES I, II AND III ABOUT HERE

Table III presents the results of the main HLM analysis with cross-level interactions. To test for multicollinearity, we ran variance inflation factor (VIF) tests in Stata 13. Results show that the highest VIF score in our analysis is 2.7. This implies that multicollinearity is not an issue, as this score is far below the generally accepted VIF limit of 10 (Cohen et al., 2003)[4]. Hypotheses 1, 2a and 2b respectively predict that CEO-TMT socio-demographic similarity[5], industry and international experience variety have a positive moderating impact on the performance effects of outside CEO succession. Our results substantiate these hypotheses. As Figure 1 shows[6], the performance impact of selecting an outsider CEO (as opposed to an insider) varies from positive to negative under conditions of high vs. low CEO-TMT similarity (0.01 vs. -0.01 units in ROA, respectively). In addition, it also varies from positive to negative under conditions of high vs. low industry experience variety (0.01 vs. -0.03 units in ROA, respectively) and high vs. low international experience variety (0.04 vs. -0.002 units in ROA, respectively) (Figures 2 and 3).

Further, hypotheses 3 and 4 suggest that pre-succession firm performance and industry munificence positively moderate the performance effects of outside CEO succession. Our results support these hypotheses. As it is further shown in Figures 4 and 5, the performance effect of outside CEO succession ranges from positive to negative under conditions of high vs. low pre-succession firm performance (0.03 vs. -0.01 units in ROA, respectively), and high vs. low industry munificence (0.001 vs. -0.01 units in ROA, respectively).

INSERT FIGURES 1 to 5 ABOUT HERE

Supplementary Analyses

To test the performance implications of outside CEO succession in the long term, we ran supplementary analysis for long-term firm performance as dependent variable. Similar to the study of Minichilli et al. (2014), this variable was measured as the average ROA four and five years after succession. Results show that outside CEO succession does not have a significantly different performance impact in the long run compared to inside succession ($p<0.10$). In addition, none of the moderating hypotheses at the individual, firm and industry levels received significant support for long-term firm performance. The dominant explanation of these non-significant results is that, over time, outsider CEOs become embedded in the internal processes of the organization, and thus, do not have a significantly different impact compared to their internally promoted counterparts (Hambrick and Fukutomi, 1991). We further interpret these supplementary analysis results in the discussion section.

Further, studies have argued that the performance effects of outside succession vary across industry contexts (Tushman and Rosenkopf, 1996). For this reason, we also checked if our results hold with pre- and post-succession firm performance adjusted at the 2-digit SIC industry average. Results show that all our hypotheses hold significant when we adjust pre- and post-succession ROA to the average of the industry. In addition, as our sample is based on the years before and after the financial crisis which started in mid-2007, our results may be affected by the lower performance of firms after the crisis. To check if this is the case, we ran our HLM analyses with post- and pre-succession ROA adjusted at the year average. Results of these analyses are similar to those in Table III, confirming the robustness of our findings.

DISCUSSION

This study was inspired by the theoretical debate surrounding an increasingly frequent and important phenomenon: outside CEO succession. We provide an integrated multilevel framework that combines the two opposing theoretical streams in the extant literature; the *organizational adaptation view* that poses the selection of an outsider CEO as a beneficial aspect (Helmich and Brown, 1972; Menon and Pfeffer, 2003), and the *organizational disruption view* that highlights the disadvantages of outside succession (Zhang and

Rajagopalan, 2004; Vancil, 1987). We theoretically argue and empirically demonstrate that, in isolation, neither of the two conceptualizations can fully capture the complex nature of the CEO succession—firm performance relationship. Instead, our study shows that the selection of an outsider CEO encompasses both benefits and challenges at the post-succession stage; and specifies the multilevel factors that enhance, or constrain, an outsider CEO's ability to unleash post-succession firm performance gains (Figures 1 to 5). Overall, the study provides support for a multilevel contingency perspective of outside CEO origin and offers several contributions.

The main contribution of the study is that it provides a step toward the resolution of the contentious debate with regard to the performance consequences of outside CEO succession (for reviews: Gianbatista et al., 2005; Finkelstein et al., 2009; Karaevli, 2007). The reconciliation of the organizational adaptation and disruption views enables us to specify the boundary conditions under which one perspective gains more explanatory power compared to the other. Specifically, drawing on the notion of executive job demands, our multilevel framework contends that the advantages of outside CEO succession highlighted by the *organizational adaptation view* can only materialize under individual-, organizational- and industry-level conditions that enable the outsider CEO to (a) swiftly integrate and familiarize with the firm (i.e., overcome disruption costs), and thus, (b) promote informational and performance benefits through the effective transfer and utilization of external knowledge and information. This implies that both the adaptation and disruption views of succession have merit, and that the applicability of the one perspective as opposed to the other depends on the multilevel imperatives surrounding the succession context. Our empirical results support this assertion at all individual, organizational, and environmental levels of analysis.

At the individual level, our study challenges the common assumption that outsider CEOs are hired to act as informational agents, and hence they should be socio-demographically different to incumbent executives to effectively act in this role (Haleblian and Finkelstein, 1993). Instead, in line with research on relational demography (Kanter, 1977), our results show that outsider CEOs who share common socio-demographic attributes with other executives make a positive contribution to firm performance (Figure 1). In the specific context of outside CEO succession, CEO-TMT demographic resemblance enhances the outsider CEO's ability to integrate and familiarize with the firm early after succession (i.e., overcome the disadvantages posed by the organizational disruption view), and thus, effectively respond to his or her job mandate for transferring external knowledge and information in a way that promotes positive financial outcomes. This implies that under conditions of high CEO-TMT socio-demographic similarity, the arguments of the organizational adaptation view gain more explanatory power compared to those of the disruption view – as demographic similarity mitigates the disruption costs of outside succession and promotes integration, external knowledge transfer and performance benefits.

Further, with regard to informational attributes, our results demonstrate that outsider CEOs with a variety of industry and international experience make a positive contribution to post-succession firm performance. Meanwhile, those who lack variety of experience have a negative performance impact (Figures 2 and 3). It may be that in large multinational corporations which face high information processing demands (Hermann and Datta, 2002), the possession of diverse industry and international experience compensates for outside CEOs' lack of firm specific skills, and helps them to effectively play their informational role (Karaevli and Hall, 2006) and enhance firm performance. Taken together, these results show that outsider CEOs with high experience variety are more likely to trigger informational benefits rather than disruption costs after succession – as variety of experience enables outsiders to quickly overcome their lack of firm familiarity and integration challenges that cause disruption (Karaevli and Hall, 2006), and at the same time, expand the pre-established knowledge repertoire of the organization through the transfer diverse external knowledge and information.

Beyond the individual level, our findings at the organizational and industry levels challenge traditional wisdom which assumes that outside CEO successors need to be selected under conditions of poor firm performance and low munificence (Boeker, 1997; Zhang and Rajagopalan, 2003). Instead, our research reveals that the performance benefits of outside CEO origin materialize in well-performing firms that operate in munificent industries (Figures 4 and 5). The theoretical explanation of these findings is that high pre-succession firm performance and industry munificence provide a setting where the integration and firm familiarity disadvantages accompanied by outside succession are easier to overcome (Karaevli and Zajac, 2013), allowing the informational benefits to occur (Zhang and Rajagopalan, 2004).

The observed contextual effects at the firm and industry levels provide an explanation of the seemingly inconclusive findings in the prior CEO succession literature. They demonstrate that the performance impact of new CEO origin is sensitive to sample selection decisions. For instance, studies that employ samples of poorly performing firms in non-munificent industries are likely to empirically support the implications of the *organizational disruption view* – by providing evidence for a negative impact of outside succession on firm performance (Figures 4 and 5). Meanwhile, studies that use samples of well performing firms in munificent industries are likely to substantiate the arguments of the *organizational adaptation view* – as high firm performance and industry munificence provide a setting that allow outside successors to familiarize with the organization, and hence, utilize their external knowledge and resources in a way that triggers positive firm-level financial consequences.

These findings jointly confirm that the applicability of the organizational adaptation versus the organizational disruption view of outside CEO succession is contingent upon factors nested in the internal and external context of the firm.

Apart from the reconciliation of the two opposing theoretical views, our study responds to recent calls for "exploring strategic leadership effects from a multilevel perspective" (Simsek et al., 2015, p. 472) to enhance our knowledge on the increasingly prominent impact of CEOs on organizations (Quigley and Hambrick, 2015). Whereas a handful of studies have historically examined the role of the context in affecting the performance impact of new CEO origin (for a review: Karaevli, 2007), there was generally a lack of nuanced and systematic understanding of the multilevel nature of this area of research (Finkelstein et al., 2009). Revealing the multilevel interdependencies that determine the performance impact of CEO succession is important, as it allows us to obtain a holistic view of the conditions under which the appointment of a new organizational leader impacts firm outcomes (Quigley and Hambrick, 2015). Viewed in tandem, our theory and results enhance our understanding of the multifariousness of the outside CEO succession – firm performance relationship. They suggest that this relationship is neither unitary-based (positive or negative *per se*), nor just simply *context-dependent* as recent studies have named it (e.g., Minichilli et al., 2014; Shen and Cannella, 2002a) – but rather multilevel.

Encompassing the above, our study also contributes to the literature of executive job demands and its implications (Hambrick et al., 2005). Early research on job demands assumed that the challenges facing managers with commonality in title (e.g., CEOs) are homogeneous across firms (Williamson, 1975). Hambrick et al., (2005) confronted this assumption by suggesting that CEOs face different challenges in their jobs, and the degree to which these challenges can be overcome depends on the *individual-fit* between CEOs attributes and job requirements, as well as on the internal and external situational context.

Although our study did not intend to provide a comprehensive examination of Hambrick's et al. (2005) job demands model, it supports the assumption that different types of CEO successors (insiders vs. outsiders) face different job challenges after their entry into the firm (Chen, 2015) – and specifies how their ability to respond to these challenges varies with factors at different levels. Future research can expand our line of argumentation by investigating how other elements of Hambrick's et al., (2005) model, such as the individual-level performance aspirations of the CEO together with various internal and external imperatives of the firm (e.g., expectations from the board of directors or shareholder demands) impact the effects of new CEO origin.

Finally, another implication of the study rests on our preliminary results regarding the long-term performance effects of new CEO origin. Our supplementary analysis shows that the observed different effects between inside vs. outside CEO origin hold only for the short run. In the long-run, however, outsider CEOs do not have a different performance effect compared to inside successors. The theoretical explanation for the different short- and long-term performance implications of outside CEO origin derives from the CEO life-cycle perspective (Hambrick and Fukutomi, 1991). This perspective suggests that over time outsider CEOs become embedded inside the firm, and thus, their performance impact does not differ from those who were initially promoted from within the organization. In support of this perspective, our analysis demonstrates that the different impact of outside vs. inside CEO succession origin diminishes over time as the outsider CEO socializes in the organization and becomes committed to the firm's status quo (Geletkanycz and Black, 2001). In this regard, our preliminary evidence contributes to our understanding of the conditions under which the effects of CEO succession origin become obsolete for the organization.

Practical Implications, Limitations, and Future Research

The study provides practitioners with a set of parameters that may be useful at the time of CEO selection. It demonstrates that predicting the performance effects of CEO succession origin is a complex task for organizations. Those responsible for making CEO selection decisions (e.g. boards of directors or recruitment agencies) should be aware that CEOs selected through different routes (internal vs. external hiring) should possess characteristics and experiences that fit their different post-succession job challenges and requirements. Meanwhile, at the time of CEO selection, recruiters should place emphasis not only on the individual-level attributes of CEO candidates, but also on the various organizational and environmental imperatives that characterize the company-specific context.

Further, our study highlights the importance for firms to develop succession planning practices that allow outsider CEOs to quickly integrate into the firm and use their external knowledge and information to enrich the resource base of the organization. As our supplementary analysis shows, the benefits that outsider CEOs can offer to the firm can only occur in the short run, while in the long run outsider CEOs become internally embedded and do not exhibit a significantly different impact compared to internal hires. This means that in order to benefit from outside succession, firms should develop succession planning systems that enable outsider CEOs to quickly familiarize with the organization, and unleash their fresh external knowledge and informational advantages at the early post-succession stage.

The study is subject to some limitations that highlight promising research avenues. One limitation is that we focus only on three individual-level characteristics of CEO successors. As we explained, these characteristics are important, since they represent the relational ability of the new CEO to integrate in the TMT (Grossman, 2007), and his or her information processing capacity (Crossland et al., 2014). Undoubtedly, however, these characteristics are not the only individual-level factors that matter. An interesting extension of our study would therefore be to examine whether other CEO attributes, such as educational and functional background or the psychological traits of the new organizational leader, impact the link between CEO succession origin and firm outcomes. In addition, we focus on two organizational and environmental level aspects that characterize the succession context: pre-succession firm performance and industry munificence (Karaevli, 2007). Future work can assess how other organizational and environmental factors, such as ownership concentration or industry-level competitive intensity (Datta and Rajagopalan, 1998) impact the effects of new CEO origin.

Further, another limitation of the study is that – as we use only archival data – we cannot delve directly into the micro-processes through which outsider CEOs impact organizations. For example, we argue that CEO-TMT demographic similarity has a positive moderating effect on the performance implications of outside succession – as it helps outsider CEOs to become accepted by the incumbent TMT, and exchange their external knowledge and information with other executives (Grossman, 2007). Yet, we do not directly measure the degree to which outside successors integrate in the TMT, or the rate of information exchange between the outsider CEO and other top managers. However, we believe that our demography-oriented approach does not undermine the value of our study. In fact, several scholars have long suggested that the use of demographic proxies is a valid way to appreciate the *difficult-to-quantify* micro-processes through which managerial elites impact organizations (Hambrick and Mason, 1984; Pfeffer, 1983). As Pettigrew (1991, p. 177) stresses both demography-oriented and process-oriented approaches to studying managerial elites have merit, and that there is no approach that should be replaced by the other. "Quite on the contrary, the intellectual purpose [should be] to complement, not to replace." Thus, we do encourage future work to use other research designs, such as multiple case studies (Gibbert et al., 2008; Gibbert and Ruigrok, 2010), to complement our findings by examining how multilevel factors impact the CEO-TMT micro-processes that, in turn, shape the performance effects of outside succession.

Finally, scholars have underscored the importance to apply diverse methodological approaches to assess contingency effects in the broader area of strategic management (Boyd et al., 2012; Venkatraman, 1989). In this study we adopt a cross-level interaction HLM approach to examine the moderating impact of multilevel conditions on the performance implications of outside CEO succession. While this technique is the most widely applied in multilevel tradition (Preacher et al. 2006), it mainly provides implications about the form rather than the strength of contingency effects (Boyd et al., 2012; Venkatraman, 1989). Future work can complement our multilevel approach by using other moderation techniques, such as subsamples (Geletkanycz and Boyd, 2011) or configurational analysis (Delery and Doty, 1996), to further contribute to a thorough understanding of the contingent and multilevel nature of the relationship between outside CEO succession and firm performance. Adopting diverse approaches in testing moderating effects in strategic leadership is key, as it can provide us a robust understanding of the conditions under which CEOs and other top managers trigger desirable strategic and organizational outcomes (Hambrick, 2007).

To conclude, understanding the effects of CEO succession origin is important for both academics and business practitioners. We hope that the evidence provided in this study will stimulate future work to transfer the question from '*whether'* to *'how and under which conditions'* outside CEO succession is the right choice for organizations. As we become increasingly aware of the contingency factors that enhance a firm's ability to benefit from outside CEO succession, we can expect external executive mobility to be further translated into a source of innovation, and economic prosperity, in the years to come.

NOTES

[1]It is important to note that we refer to the specific context of outside CEO succession, and that in other contexts poor firm performance may rather promote cohesion among team members. Research has shown that teams facing stressful conditions “are likely to rely on habitual responses like stable coalitions” (Eisenhardt and Bourgeois, 1988, p. 755). In addition, other studies have argued that under conditions of high pressure and threat (e.g., low performance), individuals tend to respond with increased team cohesion (Bornstein and BenYossef, 1994). However, this logic of stable coalitions and increased cohesion after threat is mostly applicable when team members have worked together for a long time and have developed a strong team identity (Peterson and Jackson-Behfar, 2003). In the context of outside CEO succession, where the externally appointed CEO is new to the team, studies have argued that poor prior performance promotes unproductive power contests that increase the integration challenges of the outsider CEO (Friedman and Saul, 1991; Shen and Cannella, 2002b).

[2] We also ran our analysis with each component of CEO-TMT socio-demographic similarity separately to check whether our results are driven by one single component. Result show that gender and age similarity have a positive and significant moderating effect ($p<0.05$), while nationality similarity also has a positive moderating effect with partial significance ($p<0.1$). This means that the results of the overall demographic similarity variable presented in Table III are not driven by a single component of the overall CEO-TMT similarity variable. These results are available upon request from the authors.

[3]The theoretical justification of our instrumental variable is based on the following logic. Scholars argue that due to isomorphic inclinations at the industry level, firms in the same industry are likely to adopt similar CEO selection practices and hiring patterns (Karaevli and Zajac, 2013). Outside CEO succession may therefore be an outcome of mimetic tendencies among firms in the same industry. At the same time, industry level inclinations of hiring CEOs through certain selection modes (inside versus outside the firm) are unlikely to directly affect firm level financial performance (Zhang and Rajagopalan, 2004). Instead, firm performance will be affected by the specific choice of each firm to select an outsider as opposed to an insider CEO, regardless of industry patterns in terms of outside CEO succession.

[4]As illustrated in Table I, some variables exhibit high correlations that may raise multicollinearity issues. Specifically, *pre-succession firm performance* exhibits high correlation with subsequent firm performance (see Table I). In addition, *CEO industry specific experience (years)* as well as *CEO foreign experience* are highly correlated with *CEO industry experience variety* and *CEO international experience variety*. We therefore ran our analysis without these variables to ensure that our results are not driven by multicollinearity. Results show that all our hypotheses receive significant support when these variables are excluded from the analysis.

[5] We ran robustness analyses, controlling for whether outsider CEOs were externally affiliated with the focal firm prior to their appointment. This enabled us to ensure that our results concerning the moderating role of CEO-TMT similarity are not affected by the potential external affiliations that outside successors may have with the focal firm prior to their appointment. This variable was coded as 1 if the new outsider CEO shared common directorships with board members of the focal firm prior to succession, or was a non-executive board member in the focal firm or one of its subsidiaries, and 0 otherwise (Westphal and Milton, 2000). Results show that the positive moderating effect of CEO-TMT similarity remains significant when prior affiliation of outside successors with the focal firm is controlled. The theoretical explanation behind these robustness analysis results is that, even in cases where outsider CEOs are externally affiliated with the focal firm, they are less familiar with the organization (Bidwell, 2011; Bidwell and Keller, 2014) and possess greater external knowledge and information after succession compared to internally promoted CEOs (Friedman and Saul, 1991; Hambrick and Fukutomi, 1991). Thus, similarity with other top managers helps outsider CEOs (even those with prior external affiliation with the focal firm) to quickly integrate and familiarize with the organization after succession, and thus, overcome disruption costs, and utilize their external knowledge and information to make a positive contribution to firm performance

[6] To obtain the results presented in Figures 1 to 5 we computed the marginal effects of being an outsider under different conditions for each moderator separately using the *margins* command in Stata 13. Before calculating the marginal effects, the respective variables and interaction terms were centered to the grand mean and standardized at mean 0 and standard deviation of 1 (Aiken and West, 1991). We also checked the significance of the difference in the slopes for each moderator for the full model where all variables and interactions were included. Results show that all slope differences were significant at $p<0.05$.

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Table I. Correlation Matrix

Variables	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Post-succession performance	0.04	0.07	~																
2. Outside CEO succession	0.33	0.47	-0.05	~															
3. CEO-TMT social similarity	0.70	0.16	-0.04	0.18	~														
4. CEO industry experience variety	0.07	0.06	0.12	0.43*	0.17	~													
5. CEO international experience variety	0.10	0.06	0.29*	-0.07	-0.39*	-0.08	~												
6. CEO industry specific experience (years)	14.6	10.9	-0.12	-0.36*	-0.17	-0.60*	-0.04	~											
7. CEO foreign experience (years)	8.10	9.58	0.15	-0.06	-0.49*	-0.23*	0.51*	0.19	~										
8. CEO duality	0.03	0.16	-0.32*	0.00	-0.06	-0.13	-0.08	0.28*	-0.01	~									
9. Relative board power	0.50	0.19	-0.10	0.10	0.04	0.03	0.01	-0.01	-0.01	-0.09	~								
10. Team size	5.88	2.46	0.02	0.04	-0.40*	-0.09	0.32*	-0.02	0.29*	-0.02	0.22*	~							
11. Post-succession TMT change	0.24	0.21	0.14	0.01	-0.05	0.07	0.06	-0.10	0.13	-0.08	-0.17	-0.15	~						
12. Firm size (log)	9.98	1.61	-0.09	-0.23*	-0.16	-0.41*	0.21*	0.11	0.23*	-0.08	0.06	0.32*	0.05	~					
13. Pre-succession firm performance	0.05	0.06	0.53*	0.12	-0.24*	0.12	0.36*	0.06	0.23*	-0.05	-0.18	0.02	0.18	-0.12	~				
14. Degree of internationalization	0.67	0.28	0.27*	-0.00	-0.30*	0.01	0.35*	-0.10	0.34*	-0.11	-0.20*	0.11	-0.02	0.03	0.20*	~			
15. Serial successions	0.37	0.48	-0.28*	0.07	-0.10	-0.01	-0.07	0.05	0.15	0.11	0.13	0.15	-0.01	0.14	-0.25*	-0.00	~		
16. Munificence	0.09	0.05	0.11	-0.02	-0.04	0.02	-0.06	0.06	0.04	-0.02	-0.10	0.02	0.03	0.10	0.11	-0.08	-0.14	~	
17. Country level CEO discretion	5.04	0.68	-0.02	0.01	-0.27*	-0.15	0.14	0.11	0.26*	0.07	-0.22*	0.05	0.08	0.01	0.20*	-0.08	0.00	0.03	~

N=109; * $p<0.05$

Table II. Null HLM Model and Variance Decomposition

Null model	**Variance decomposition (percentage)**
Level 1 (Individual – *CEO effect*)	11%
Level 2 (Organizational)	73%
Level 3 (Industry)	16%
Significance level	p <0.001
Deviance: -*2*e(ll)*	-294.53

Table III. HLM Analysis with Post-succession ROA as Dependent Variable [a]

	Model 1	Model 2	Model 3	Model 4	Model 5
Intercept	0.10† (0.06)	0.11* (0.06)	0.12* (0.05)	0.11* (0.05)	0.11* (0.05)
Inverse Mill's ratio	0.01 (0.01)	0.00 (0.01)	0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)
Pre-succession firm performance (ROA)	0.53*** (0.11)	0.57*** (0.11)	0.48*** (0.10)	0.29** (0.12)	0.31** (0.11)
Degree of internationalization	0.01 (0.02)	0.01 (0.02)	0.00 (0.02)	-0.01 (0.02)	-0.01 (0.02)
Firm size (log employees)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
CEO duality	-0.09** (0.03)	-0.08** (0.03)	-0.05* (0.03)	-0.06* (0.03)	-0.05* (0.03)
Team size	0.00 (0.00)	0.00 (0.00)	0.00† (0.00)	0.00 (0.00)	0.00 (0.00)
Relative board power	-0.01 (0.03)	0.00 (0.03)	0.02 (0.03)	0.03 (0.03)	0.03 (0.03)
CEO industry specific experience (years)	-0.00 (0.00)	-0.00 (0.00)	-0.00† (0.00)	-0.00† (0.00)	-0.00* (0.00)
CEO foreign experience (years)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Post-succession TMT change	0.00 (0.03)	0.01 (0.03)	0.02 (0.02)	0.01 (0.02)	-0.01 (0.02)
Serial CEO successions	-0.02* (0.01)	-0.02† (0.01)	-0.02* (0.01)	-0.02* (0.01)	-0.02† (0.01)
Industry munificence	0.05 (0.11)	0.06 (0.11)	0.10 (0.10)	0.09 (0.09)	-0.01 (0.10)
Country-level CEO discretion	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Industry dummies	*Included*	*Included*	*Included*	*Included*	*Included*
Year dummies	*Included*	*Included*	*Included*	*Included*	*Included*
CEO-TMT similarity	0.03 (0.04)	0.05 (0.04)	-0.03 (0.04)	-0.05 (0.04)	-0.04 (0.04)
CEO industry exp. variety	0.02 (0.13)	0.07 (0.12)	-0.12 (0.14)	-0.11 (0.13)	-0.10 (0.13)
CEO international exp. variety	0.06 (0.11)	0.05 (0.10)	-0.09 (0.09)	-0.06 (0.09)	-0.05 (0.09)
Outside CEO succession		-0.03** (0.01)	-0.04*** (0.01)	-0.04*** (0.01)	-0.04*** (0.01)
Level 1 interactions					
CEO-TMT similarity X Outside succession			0.22** (0.06)	0.26*** (0.06)	0.26*** (0.06)
CEO industry exp. variety X Outside succession			0.47* (0.19)	0.37* (0.18)	0.40* (0.18)
CEO intern. exp. variety X Outside succession			0.80*** (0.19)	0.65** (0.19)	0.70*** (0.18)
Level 1-2 interactions					
Pre-succession ROA X Outside succession				0.51** (0.18)	0.44* (0.18)
Level 1-3 interactions					
Industry munificence X Outside succession					0.53** (0.20)
Deviance: *-2*e(ll)*	-357.01	-363.93	-389.39	-396.92	-402.64

Individual level 109; Firm level: N= 93; Industry level: N= 32

† p<0.10; * p<0.05; ** p<0.01; *** p<0.001. [a] Standard errors are indicated in brackets.

Figure 1. Relationship between outside CEO succession and firm performance in low and high CEO-TMT demographic similarity

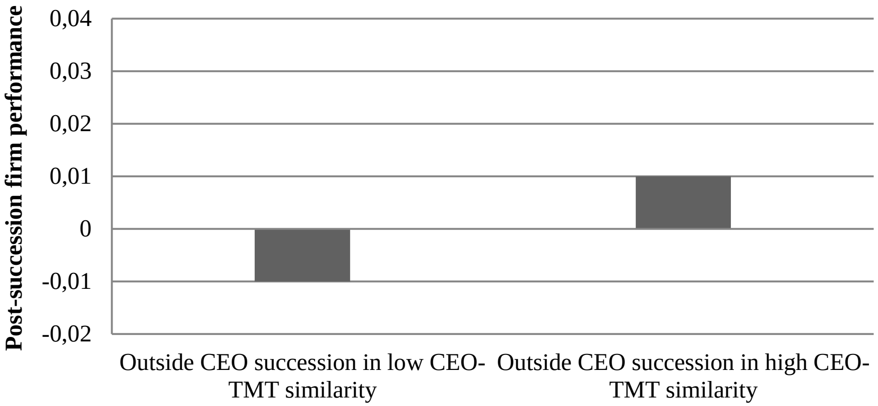


Figure 3. Relationship between outside CEO succession and firm performance in low and high internernational exp. variety

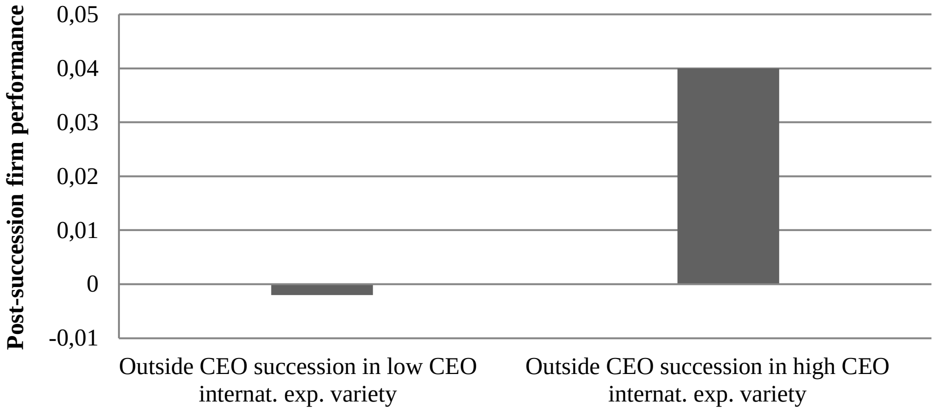


Figure 2. Relationship between outside CEO succession and firm performance at low and high levels of CEO industry exp. variety

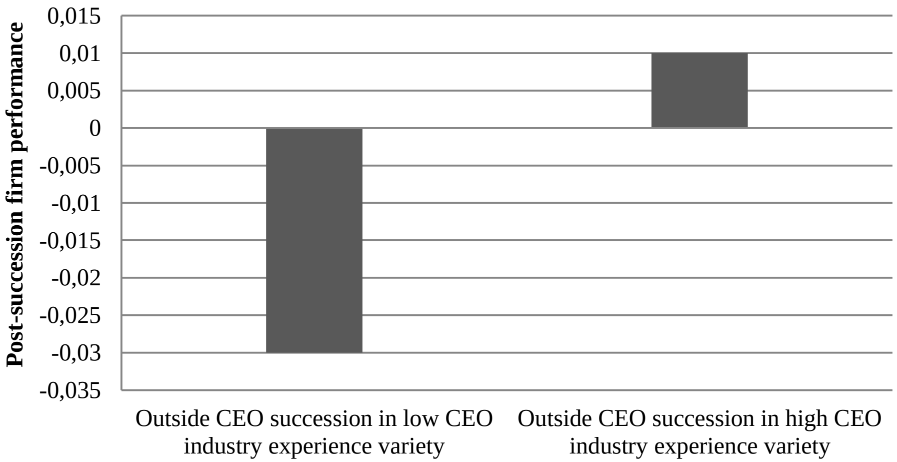


Figure 4. Relationship between outside CEO succession and firm performance in low and high pre-succession performance

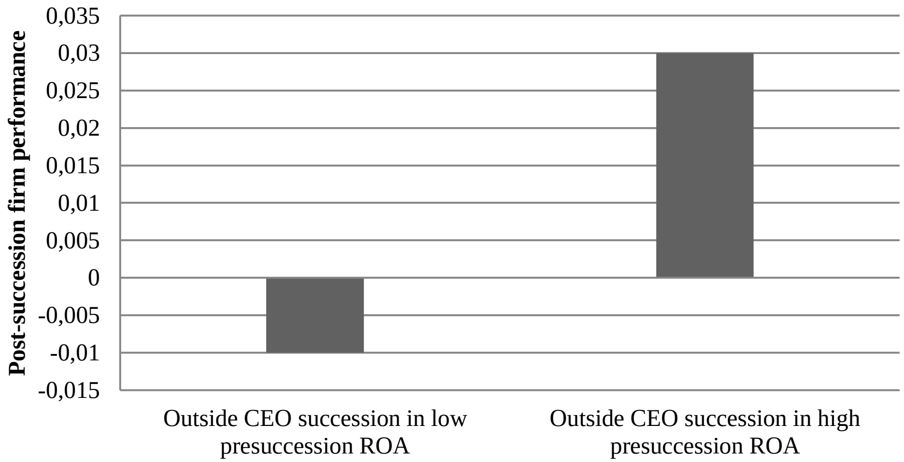
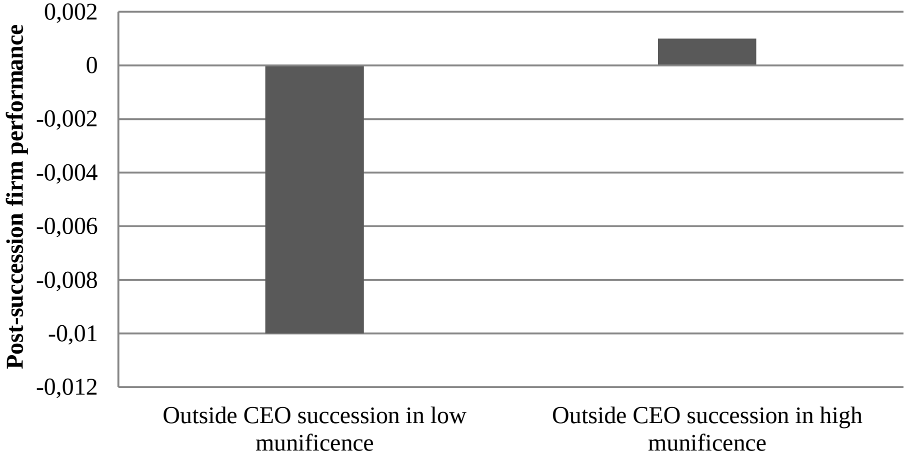


Figure 5. Relationship between outside CEO succession and post-succession firm performance in low and high munificence



Appendix. Probit Model of Outside CEO Succession

	Coef.	Std.Err
Intercept	-1.89***	0.30
TMT size	-0.19***	0.03
Relative board power	0.19	0.32
Past performance	-1.48†	0.85
Industry munificence	0.95	0.93
Firm size (employees)	-0.00	0.00
Year 2005	0.00	0.18
Year 2006	-0.17	0.18
Year 2007	-0.43*	0.20
Year 2008	-0.04	0.18
Year 2009	*omitted*	*omitted*
CHE	0.49**	0.17
GBR	0.15	0.17
NLD	-0.15	0.20
DEU	*omitted*	*omitted*
Pre-succession TMT replacement	0.42***	0.04
Industry rate of outside CEO succession	5.88***	1.11
Chi^2	176.76***	

N= 1215
† $p<0.1$, * $p<0.05$, ** $p<0.01$, *** $p<0.001$