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**NON-CEO EXECUTIVE MOBILITY: THE IMPACT OF POOR FIRM
PERFORMANCE AND TMT ATTENTION**

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NON-CEO EXECUTIVE MOBILITY: THE IMPACT OF POOR FIRM PERFORMANCE AND TMT ATTENTION

ABSTRACT

We present a comprehensive and integrative study of non-CEO executive mobility, proposing two complementary approaches: (1) mobility as a *reactive* process, driven by poor organizational performance (the dominant approach in prior literature) and (2) mobility as a *proactive* process, reflecting incumbent TMTs' patterns of (exploratory and exploitative) attention. Using a sample of 1,168 observations proceeding from 197 U.S. organizations (2000-2011) we empirically validate that non-CEO executives' exit and inflow is driven by poor organizational performance, but that CEO replacement mediates this effect (i.e., the so-called 'sweep-out effect'). Furthermore, the probability of non-CEO executive inflow is higher when the incumbent TMT has a high level of exploratory attention and lower when there is a high level of exploitative attention. These 'proactive' effects occur over and above the 'reactive' processes of poor organizational performance.

Keywords: Non-CEO executive mobility, TMT exploratory attention, TMT exploitative attention, organizational performance

INTRODUCTION

The inflow and exit of Chief Executive Officers (CEOs) and other high-ranking executives – ‘executive mobility’ in short – has attracted substantial attention in academic research as well as in the popular press – think, for instance, of the high level of media attention surrounding the succession of former CEO Steve Jobs by Tim Cook at Apple in 2011. Extensive meta-analyses of the academic literature and research on executive mobility and succession have been provided by Kesner and Sebor (1994) and Giambatista, Rowe, and Riaz (2004). More recently, Hilger, Mankel, and Richter (2013) systematically assessed the extant literature on executive dismissal. In general, executive mobility is often seen as a mechanism for executive team and organizational adaptation (Boeker, 1997; Khurana, 2001). Because organizations are subject to organizational inertia (Hannan & Freeman, 1977), changes in the top team are often deemed necessary to trigger and implement organizational changes. New team members can bring new ideas and perspectives to the team and be one mechanism through which adaptation can ultimately occur (Wiersema & Bantel, 1993; Chen & Hambrick, 2012).

Two perspectives on executive mobility as an adaptive mechanism have been suggested in prior research. First, the dominant perspective considers executive mobility as a *reactive* process, driven by prior organizational performance (Giambatista et al., 2004). Typically the issue of executives’ accountability is central (Crossland & Chen, 2013) – i.e., the idea that executives are replaced because they are being held responsible for their organization’s poor performance. In line with this perspective, the most consistent finding from prior research on executive mobility is exactly its strong relationship with poor or declining organizational performance (e.g., Tushman, Virany, & Romanelli, 1985; Kesner & Sebor, 1994; Giambatista et al., 2004; Maury, 2006; Liu, Valenti, & Yu, 2012; Hilger et al., 2013). The second perspective on executive mobility as an adaptive mechanism suggests that

mobility might also reflect a *proactive* change based on strategies and orientations that the incumbent executive team (top management team; TMT) pursues (see e.g., Virany, Tushman, & Romanelli, 1992), as a more anticipatory, forward-looking process.

Past research has almost exclusively focused on the former, reactive perspective (Brickley, 2003; Giambatista et al., 2004). We, conversely, argue that both processes – reactive and proactive – are complementary and that, therefore, a comprehensive and integrative approach is necessary to provide a more complete picture of executive mobility. We do so by explicitly focusing on the mobility of *non-CEO executives* – the latter being notoriously under-represented in the current body of executive mobility literature and research (Virany et al., 1992; Chandler, Honig, & Wiklund, 2005) – and by arguing that non-CEO executive mobility will be driven (partially) by different processes as compared to CEO mobility; while the reactive process applies to both CEOs and non-CEO executives, the proactive process is only relevant for explaining non-CEO executive mobility (over and above reactive performance-based processes).

For CEOs, who are often viewed as the ‘figureheads’ of their organizations (Wiersema & Bantel, 1993; Chen & Hambrick, 2012), it is common practice – though not always justified (Khurana, 2001) – to assess organizational performance as a vital indicator of a CEOs’ individual performance (Crossland & Chen, 2013; Higler et al., 2013). CEOs whose firms perform poorly are therefore likely to be held accountable and face the risk of being replaced. For non-CEO executives, however, the link between organizational and individual performance is much less clear-cut. While poor performance is still likely to lead to the exit and inflow of non-CEO executives, we suggest that this effect will be mediated by CEO replacement, as a top-down process. In particular, poor performance leads to CEO replacement, and this subsequently leads to a ‘sweep-out’ of non-CEO executives (Barker, Patterson, and Mueller, 2001). This ‘sweep-out’ occurs because new CEOs will want to avoid

being surrounded by incumbent executives who might still be loyal to the previous CEO or and his/her strategies and, as a result, bring their own team aboard (Liu et al., 2012).

The more *proactive* view on executive mobility holds that it should be influenced by an organization's strategy (Chaganti & Sambharya, 1987; Chandler et al., 2005; Yamak & Üsdiken, 2006). To capture this more forward-looking process, we introduce Ocasio's (1997) 'attention-based view of the firm' into the executive mobility research literature, by proposing that the incumbent executives' attention patterns – which can be thought of as the mental, forward-looking dimension of organizations' strategies and orientations (Ocasio, 1997; Gavetti & Rivkin, 2007; Narayanan, Kane, & Zemmerer, 2011) – affect decisions about non-CEO executive mobility (usually by the CEO and/or board of directors). We study the incumbent TMTs' attention patterns instead of organizations' realized strategies as predictors for executive mobility, as the former can be seen as precursors of future potential actions (Narayanan et al., 2011) and therefore can be characterized as explicitly forward-looking (contrary to realized strategies)¹. Such a process would be consistent with prior literature suggesting that the incumbent TMT (and its strategic orientation) is, in fact, highly influential in the matter of executive selection (Westphal & Zajac, 1995; Boone et al., 2004; Nielsen, 2009).

We investigate two types of TMT attention patterns: attention on *exploration*, which is about search, discovery, innovation, and embracing variation, and attention on *exploitation*, which concerns efficiency, control, certainty, and variance reduction (March, 1991). Exploration and exploitation represent the focal constructs of interest in an extensive and rapidly growing research area (Raisch, Birkinshaw, Probst, & Tushman, 2009) that draws

¹ Though following the extant literature (e.g., Ocasio, 1997; Narayanan et al., 2011) we characterize TMT attention as forward-looking antecedents of strategic actions and as a proactive predictor of executive mobility, in some instances changes in attention could occur simultaneously with or even after strategic changes, such as strategic alterations in the organization's product portfolio. Nevertheless, executive mobility driven by TMT attention is still primarily a proactive process, especially as compared to the reactive process driven by poor performance.

from March's (1991) seminal article. We argue here that the innovative and change oriented approach fostered by a high level of exploratory attention will increase executive mobility while the stability and variance reduction orientation associated with a high level of exploitative attention will reduce it².

Our full theoretical model is summarized graphically in Figure 1. We empirically test this framework using a sample of 197 U.S. organizations over a timeframe of twelve years (2000-2011), resulting in an unbalanced sample of 1,168 firm-year observations. The findings provide support for large parts of the theoretical framework.

Insert Figure 1 about here

Our study contributes to the extant literature in several ways. First, we extend the executive mobility literature and research (1) by illuminating the antecedents of *non-CEO* executive mobility, and by empirically validating that non-CEO executive mobility is partially driven by CEO replacement, and (2) by demonstrating an alternative route towards (non-CEO) executive mobility besides the widely-studied route of poor organizational performance. Indeed, we find that the inflow of non-CEO executives is influenced by the incumbent TMT's cognitive orientation – i.e., its exploratory and exploitative attention. Second, we add to the research and literature concerning the composition of TMTs (e.g., Hambrick & Mason, 1984) by focusing on the factors which influence executive inflows and outflows. As Boone et al. (2004) and Beckman and Burton (2011) have argued, a fuller understanding of the consequences of TMT composition requires that we understand what drives such changes.

² Note that our view of executive mobility as a proactive process does not necessarily imply rationality, as attention processes are not always rational (cf. Cyert & March, 1963). While, for instance, exploratory attention might spur the need or urge for renewal in the TMT, this exploratory process might not have been the most rational orientation in the first place. Put differently, we argue that TMT attention affects executive mobility following a logic of appropriateness – i.e., invoked by the incumbent TMT

THEORY AND HYPOTHESES

Organizational performance and executive mobility

Prior research consistently finds that poor performance is associated with subsequent executive replacement and mobility (e.g., Kesner & Sebor, 1994; Hilger et al., 2013). Three lines of argument support this association. First, agency theory suggests, rather normatively, that: “[m]anagement should be held accountable for a firm’s operations and they should be replaced if performance is poor. If they are not replaced then this implies weak governance” (Firth, Fung, & Rui, 2006: 1290). The underlying assumption of this research is that firm performance is a good indicator of individual executives’ performance (Crossland & Chen, 2013; Higler et al., 2013). Second, the ‘ritual scapegoating’ view argues that though executives indeed tend to be held accountable for their firm’s declining performance, this blame might be undeserved. ‘Scapegoating’ denotes the practice of assigning responsibility for organizational problems to executives who, in fact, cannot be conclusively blamed for these issues (Barker et al., 2001; Shen & Cho, 2005). Such turnover generally occurs because of an effort to assign blame for poor organizational performance and show that the organization is taking actions to address it. If outside constituents believe that this blame was warranted, it can help preserve the organization’s reputation (Sliwka, 2007). Third, the ‘organizational adaptation’ view purports that declining performance spurs organizations to change their current actions and strategies in an effort to become better aligned with the environment. Such adaptation is often accompanied by changes in the executive team (Boeker, 1997; Khurana, 2001; Shen & Cho, 2005).

The three lines of argument presented above (agency theory, ritual scapegoating, and organizational adaptation) are especially relevant as drivers for *CEO* replacement. First, according to agency theorists the CEO is the agent who bears the ultimate responsibility and accountability for the organization’s behavior and performance (Kesner & Sebor, 1994).

Crossland and Chen (2013: 80) state that agency theory “tends to view poor firm performance as an ipso facto case for poor CEO performance.” Furthermore, boards commonly resort to indicators of organizational performance as indicators of CEOs’ individual performance, as the latter is difficult to evaluate (Hilger et al., 2013). Given this strong association between CEO and organizational performance, the link between poor performance and CEO replacement through the logic of accountability is not surprising. Second, following the ‘ritual scapegoating’ view executives are replaced to allow organizations to start with a ‘clean slate’ after declining performance, often with the intention to placate powerful stakeholders (Barker et al., 2013). This ‘clean slate’ notion will also be more pronounced if the executive who is replaced after poor performance is the CEO, the organization’s ‘figurehead’, as opposed to a non-CEO executive. Third, the same logic applies to the ‘organizational adaptation’ view: when changes in the executive team are instigated by an attempt to turn around the organization and make changes in its strategy after declining performance, these effects would be more pronounced when the CEO is replaced as opposed to a non-CEO executive.

Our focus of attention in this study is not CEO replacement, but the mobility of non-CEO executives. We are not suggesting that the effect of poor organizational performance as an antecedent of executive mobility will be non-existent for non-CEO executives. Non-CEO executive mobility might still follow poor performance based on a logic of accountability, ritual scapegoating, or organizational adaptation, though we expect the association between both to be weaker. However, we also anticipate poor organizational performance to be associated with non-CEO executive mobility through an alternative path. In particular, past research shows that CEO replacement is regularly followed by changes in the executive team (Virany et al., 1992; Chandler et al., 2005; Liu et al., 2012). Barker et al. (2001: 257) refer to this phenomenon as the “sweep-out effect”. In a sample of declining firms attempting turnaround, they found that 86 percent of the non-CEO top managers were replaced when the

CEO was fired or forced to resign by the board (Barker et al., 2001). This sweep-out effect can be explained by the desire of new CEOs to surround themselves with executives they trust, leading to the replacement of incumbent executives, often with employees that they knew from their former firms (Liu et al., 2012). Existing executive team members are likely to be replaced because of the fear that they might still feel a certain degree of loyalty to the former CEO and to his or her policies and resist and undermine the new CEOs' attempts at change (Virany et al., 1992).

In sum, we anticipate that poor performance instigates non-CEO executive mobility, but that this effect that will be mediated by CEO replacement – i.e., the effect of poor performance cascades down from CEO mobility into non-CEO executive mobility, emphasizing the top-down character of this reactive process of executive mobility. This leads to the following hypothesis:

Hypothesis 1. CEO replacement mediates the positive effect of poor performance on the probability of non-CEO executive mobility.

Incumbent TMT attention and executive mobility

Though organizational performance is clearly an important driver of executive mobility, scholars such as Brickley (2003) and Giambatista et al. (2005) warn against seeing performance as the only factor, as is commonly done in prior literature (e.g., Haleblan & Rajagopalan, 2006; Crossland & Chen, 2013). As Giambatista et al. (2005:969) note, “it is important therefore not to draw conclusions based wholly on associations with prior performance, which might be only one of the several factors at play”. In this regard, the literature on executive mobility generally disregards the effect the executive team itself has on the selection of new executives (e.g, Wiersema & Bantel, 1993; Barker et al., 2001). Several scholars, however, have found evidence suggesting that the incumbent executives' influence should not be overlooked (Westphal & Zajac, 1995). For instance, Boone et al. (2004)

discovered that new entrants are often demographically similar to the executives that already occupy the TMT, even when conditions such as declining performance suggests that the TMT could benefit from bringing in demographically dissimilar members. In the same vein, Beckman and Burton (2008) showed that initial founding team experiences and structures have lasting effects on the evolution of TMTs over time. Similarly, in analyzing new venture teams, Chandler et al. (2005) found that changes in the TMT were co-determined by the team's prior composition. These studies support the importance of the incumbent TMT and their orientations in influencing decisions regarding executive mobility and selection.

We relate this prominent role of the incumbent TMT's orientations in executive selection and turnover issues with the literature suggesting that the TMT's cognition and attention patterns are salient drivers of their actions and orientations (e.g., Ocasio, 1997; Cho & Hambrick, 2006), or could even be considered as the 'mental aspect' of the strategies they pursue (Gavetti & Rivkin, 2007). We propose that the incumbent TMT's attentional patterns will (co-)determine the inflow of new non-CEO executives into the TMT and the exit of existing non-CEO executives from the TMT, because the decisions concerning the hiring and firing of non-CEO executives (by the CEO and/or board of directors) will be guided by these strategic orientations, as manifested in TMTs' attentional patterns. Two attentional patterns that are likely to have wide-ranging effects on executive mobility are attention towards exploration and towards exploitation.

First, as exploration and exploratory organizational processes are associated with newness, experimentation, and innovation (March, 1991; Lavie, Stettner, & Tushman, 2010), we anticipate that in TMTs with a high level of exploratory attention novelty and change will be stressed. This implies a higher emphasis on the regular inflow of executives. In addition, changes in the executive team are more likely in TMTs that have an exploratory focus because TMTs with this orientation are likely to search for opportunities and implement

strategic changes that require managers with different skills and perspectives (Lavie et al., 2010). In such teams the prospect of bringing in new entrants is likely to be perceived positively by CEOs and boards because these new entrants are expected to bring along novel perspectives, knowledge, and assets that deviate from the organization's extant resources (March, 1991). Moreover, as new strategies and opportunities are explored, it increases the chances that some existing team members' skills and values will no longer fit the strategy of the firms (March, 1991) which potentially increases the voluntary or involuntary exit of some of the existing TMT members. Overall, the increased variance in insights, knowledge, and perspectives brought about by changes in the TMT are likely to be appreciated in TMTs with a high level of exploratory attention, because of their presumed positive effect on the search for innovative solutions.

In contrast, in TMTs with a high level of exploitative attention stability and the reduction of variance is valued (March, 1991). These TMTs are focused on the exploitation of the assets and resources that are already incumbent to the organization in order to obtain a higher level of efficiency and cost-reduction (Lavie et al., 2010). They are therefore unlikely to seek out opportunities that would require executives with perspectives and skills different from the ones already in the TMT. As a result, we expect that in case of a TMT with a highly exploitative attentional focus CEOs and boards will be inclined to minimize the exit of existing executives and the inflow of new entrants into the TMT, as new entrants will not be socialized and familiarized with the organization's incumbent knowledge, resources, and assets (March, 1991). The extant literature and research provides some intuitive support for these arguments. For instance, literature on the self-reinforcing nature of learning has suggested that the repeated use of exploitation routines instigates a homogenization process, causing executive teams to become more internally-oriented (O'Reilly & Tushman, 2008; Lavie et al., 2010).

It is important to note that these differences between TMTs with high levels of exploratory versus exploitative attention could occur in the same objective external environment. In such a case, TMTs with a high level of exploratory attention would be expected to seek out and explore new opportunities that would make the inflow and outflow of executives more likely, while TMTs with a high level of exploitative attention would stay to the course and perhaps not even perceive such opportunities (cf. March & Olsen' (1998) 'logic of appropriateness'). Indeed, even an exogenous shock might be perceived differently. TMTs with high exploratory attention might see such shocks as an opportunity to try new approaches and strategies (cf. Barker et al., 2001). On the other hand, those with high exploitative attention might perceive it as a threat. In that case, this negative perception might induce a threat rigidity response (Staw et al., 1981; Barker et al., 2001) which, in turn, causes the executives to retrench and avoid any changes. In support of this general idea Cho and Hambrick (2006) found that changes in what they referred to as 'entrepreneurial attention' influenced the extent to which airlines employed an entrepreneurial strategy following deregulation.

Overall our reasoning suggests that TMT exploratory attention increases the probability of non-CEO executive mobility while TMT exploitative attention decreases it. Hence, we formulate the following two hypotheses:

Hypothesis 2. The incumbent TMT's exploratory attention increases the probability of non-CEO executive mobility.

Hypothesis 3. The incumbent TMT's exploitative attention decreases the probability of non-CEO executive mobility.

DATA AND METHODS

Sample

The dataset that we use to test our hypotheses comprises publicly-traded U.S. firms from four different industries, ranging from stable to dynamic (e.g., Abrahamson & Hambrick, 1997; Keegan & Kabanoff, 2006): (1) Petroleum and Natural Gas, (2) Industrial Machinery & Equipment, (3) Semiconductors, and (4) Software. Organizations are included in the dataset if we were able to collect annual reports with letters to shareholders for at least two consecutive years in the timeframe 2000-2011. These annual reports were found at the organizations' corporate websites, the website of the U.S. Securities and Exchange Commission, or through an email request, and collected together with these organizations' form 10-Ks and proxy statements. The information found in these documents was then further supplemented with information from the Compustat database. Our final working sample contains 197 organizations and 1593 letters to shareholders. Due to the lag-structure of the analyses and several missing variables, the analyses are executed using 1,168 observations from 197 organizations.

On average, the organizations in our sample employ 6,043 full time employees (with a minimum of 160 and a maximum of 93,000), realize net sales of 1,971 million U.S. dollars (with a minimum of 0.181 million and a maximum of 62,484 million U.S. dollars), and have a TMT of 8 members (with a minimum of 2 and a maximum of 21).

Executive mobility

To operationalize the executive mobility variables (CEO and non-CEO executive mobility) we compared the composition of the executive team, as outlined in the organizations' form 10-Ks and proxy statements, year-after-year. '*CEO replacement*', '*non-CEO exit*', and '*non-CEO inflow*' are dummy variables that equal one, respectively, if the CEO has changed, if at least one non-CEO executive has left the TMT, or if at least one non-CEO executive has been added to the TMT in a particular year.

Note that when studying non-CEO executive mobility – other than for CEO mobility – we can differentiate between exit and inflow of these executives. While the CEO position will be occupied virtually always and it is therefore not relevant to discern between CEO exit and inflow, this argument does not hold for non-CEO positions in the executive team. New executive team members can be added without the exit of other team members and vice versa (see also Chandler et al., 2005). This means that non-CEO exit and inflow are usually highly correlated, but not equal to each other.

For the non-CEO executive mobility measures we used binary variables instead of count variables, as we have developed hypotheses on the *probability* of non-CEO executive exit and inflow. We would argue that the exit of an incumbent executive team member or the addition of a new team members indicates a change to a team regardless of how many left or were added, and that the probability of exit and inflow events is therefore more important than the sheer number of exiting or inflowing executives. Moreover, the number of executives exiting or entering in any one year was generally small³.

Organizational performance

Organizational performance has been measured in various ways in executive mobility studies (Brickley, 2003; Giambatista et al., 2005). We follow the example of numerous other researchers (e.g. Chen, 2008; Tuggle, Schnatterly, & Johnson, 2010; Liu et al., 2012; Crossland & Chen, 2013) and use a standard accounting measure: return on assets (ROA), which is defined as the net income divided by the organization's total assets. In research on the feedback effects of organizational performance, ROA is the preferred measure (Greve, 2007). As prior literature on both performance feedback (e.g., Greve, 2007; Iyer & Miller, 2008) and executive mobility (e.g., Tushman et al., 1985; Maury, 2006) has indicated that executives and boards frequently compare their current level of performance with that of the

³ The number of exits from a TMT was 2 or less in 79% of all cases and 3 or less in 91% of all cases, and the number of additions to a TMT was 2 or less in 79% of all cases and 3 or less in 85% of all cases.

prior year (i.e., historical performance level), we operationalize prior organizational performance as the difference between ROA in the current year and ROA in t-1 (ΔROA).

TMT exploratory and exploitative attention

Content analysis of letters to shareholders. Scholars have repeatedly emphasized that measuring executive attention and the TMT's cognitive patterns is not an easy task (Cho & Hambrick, 2006; Lant & Shapira, 2001; Nadkarni & Barr, 2008; Kaplan, 2011). Using qualitative methods such as interviews or participant observation is impractical in gathering data on a large sample (Osborne, Stubbart, & Ramaprasad, 2001; Kaplan, 2011). Similarly, surveys are not that useful for this purpose because of the issues of retroactive sensemaking (Barr, Stimpert, & Huff, 1992) and low response rates (Cho & Hambrick, 2006).

An alternative method that allows for a systematic collection of longitudinal and unobtrusive information on executive cognition and attention patterns, is the use of automated text analysis of company documents, and in particular the letters to shareholders found in organizations' annual reports (Levy, 2005; Cho & Hambrick, 2006; Kaplan, 2011; Gerstner, Konig, Enders, & Hambrick, 2013). This method builds on the Sapir-Whorf hypothesis on linguistic relativity and presumes that words are not used accidentally, but that they replicate authors' world perspectives (Short, Broberg, Coglisier, & Brigham, 2010). As such, letters to shareholders are believed to be "excellent sources of managerial cognitions" (Short et al., 2010: 334), because they offer executives a medium to articulate their perceptions, beliefs, and thoughts. They serve as a signal to all external stakeholders indicating both what the organization's executives believe to be important issues affecting the organization and the executives' willingness to engage in particular courses of actions and strategies (Eggers & Kaplan, 2013). A growing number of organizational researchers use this method (e.g. Bowman, 1984; Clapham & Schwenk, 1991; Levy, 2005; Cho & Hambrick, 2006; Kabanoff

& Brown, 2008; Kaplan, 2008; Nadkarni & Barr, 2008; Short et al., 2010; Kaplan, 2011; Gerstner et al., 2013).

Admittedly, letters to shareholders are generally written for multiple purposes, including self-serving concerns (Barr, 1998; Salancik & Meindl, 1984) and impression management (Yadav et al., 2007). However, careful research has demonstrated that they still reproduce the main perspectives, concerns, and initiatives of the organization's executives (e.g., Barr, 1998; Cho and Hambrick, 2006). Though some scholars use these letters to shareholders to gauge the perspectives and ideas of the CEO alone (e.g., Yadav et al., 2007) most scholars agree that what is written in these letters embodies the socially negotiated perspectives of the CEO and the other executive team members as a whole (Marcel, Barr, & Duhaime, 2010; Gerstner et al., 2013). Professional writers are often involved in formulating the letter, but their output is directed and edited meticulously by the CEO and other members of the top executive team (Abrahamson & Hambrick, 1997), as evidenced by Eggers and Kaplan's (2009) finding that the style, length, and content of the letters was affected dramatically by changes in the executive team. The soundness and appropriateness of the method is furthermore illustrated by the findings of numerous scholars (e.g., Bowman, 1984; D'Aveni & MacMillan, 1990; Kaplan, 2008; Yadav et al., 2007) that the cognitions embodied in letters to shareholders do have systematic effects on firm actions, consistent with theoretical expectations. In addition, laws such as Sarbanes-Oxley encourage executives to carefully attend to the content of the firm's annual report (Mckenny, Short, & Payne, 2012).

The validity of measuring executive cognition by content analyzing letters to shareholders has received considerable empirical support (e.g., Fiol, 1995; Michalisin, 2001). For instance, measures of executives' attention patterns drawn from letters to shareholders are found to have high correlations with measures obtained from other data sources (D'Aveni & MacMillan, 1990). Furthermore, executives' attributions in letters to shareholders appear to

be quite precise reflections of their sensemaking efforts, especially in turbulent times (Huff & Schwenk, 1990). Finally, by comparing the information embodied in letters to shareholders with boardroom agendas, Yadav et al.'s (2007) research suggests that letters to shareholders reliably mirror senior managers' attention allocation. In a more general vein, other efforts to quantify TMT attention are sensitive to equal types of criticism (Abrahamson & Hambrick, 1997). Thus, any critique must consider the relative advantages this method provides over other methods for studying top management cognition.

Operationalization of TMT attention. The open-source 'Yoshikoder' software (the former Vbpro) was used to calculate our variables. To operationalize the incumbent TMT's exploratory and exploitative attention, we developed word lists (dictionaries) of both constructs. We followed Short et al.'s (2010) suggestions to improve construct validity (deductive and inductive) when developing these word lists. First, to increase deductive content validity, we started by developing extensive initial word lists based on theoretical working definitions of the constructs (drawn from e.g., Lavie et al., 2010; March, 1991) and dictionaries used by other researchers to tap similar constructs (e.g., Michalisin's (2001) dictionary of 'innovativeness' and Uotila, Maula, Keil, & Zahra's (2009) dictionary of 'exploratory action' for exploration, and Cho and Hambrick's (2006) 'engineering issues' and Uotila et al.'s (2009) 'exploitative action' for exploitation). We consulted thesauruses to incorporate as many synonyms as possible in the initial word lists. Second, we then complemented these initial theoretical word lists with other words from the letters to shareholders (drawn from a full list of all words in the letters) that could be linked to the constructs, to increase inductive content validity (cf. Short et al., 2010). Finally, two independent expert raters, who were unaware of the hypotheses of this study, assessed the word lists, resulting in final dictionaries of exploratory and exploitative attention. Inter-rater

agreement on the presence of absence of words in their assessments of these word lists was .78 for exploratory attention and .72 for exploitative attention.

Analogous to Eggers and Kaplan's (2009) work, '*TMT exploratory attention*' is operationalized as the proportion of words (relative to the total number of words), in percentage, in the letter to shareholders referring to an exploratory orientation (e.g., breakthrough, newness, proactive) and '*TMT exploitative attention*' is the percentage of words in the letter to shareholders indicating an exploitative orientation (e.g., cost-reducing, efficiency, incremental)⁴.

Control variables

We include a variety of control variables. First, we account for the yearly economic climate in the industry the organizations operate in by including the yearly '*industry median ROA growth*', taken from Compustat data. We also include dummy variables to account for the four different industries (petroleum and natural gas, industrial machinery, semiconductors, and software) in our sample. At the firm level, we control for '*organization size*' (measured as the natural logarithm of employees), and '*organization growth*' (operationalized as the yearly growth in employees). Furthermore, we also include a variable related to the organization's resource munificence in our analyses: '*current ratio growth*'. Current ratio (current assets divided by current liabilities) is often used as an indicator of the organization's slack resources (Lavie et al., 2010). The yearly growth in current ratio is therefore used as an indicator of a change in the organization's slack resources.

Finally, we also incorporate control variables at the TMT and CEO level. Based on the information in the form 10-K's and proxy statements we calculated every TMT member's tenure as an executive officer and we include '*TMT mean team tenure*' (excluding the CEO) and '*CEO organizational tenure*' as control variables. To account for the exit of executives

⁴ The full dictionaries are available upon request.

due to the retirement of executives, we also include ‘*CEO age*’ and ‘*TMT mean age*’. ‘*CEO duality*’ is a dummy variable which equals 1 if the CEO is also the chairman of the organization’s board of directors. This control variable can be considered as an indicator of the CEO’s power vis-à-vis the board and, hence, his or her ability to affect the mobility of executives (Westphal & Zajac, 1995; Firth et al., 2006).

Method

Because of our binary dependent variable and the panel structure of our dataset, we estimate the effects of the explanatory variables using logistic panel regression. Though a fixed-effects approach is often suggested in organization studies (e.g. Beck, Brüderl, & Woywode, 2008), this method was not appropriate in our case because a substantial part of the organizations in our dataset had the same value for their dependent variables in all yearly observations under study – i.e., these organizations experienced either no non-CEO exit or non-CEO inflow, respectively, in any of the years in the dataset, or in all of these years. In a fixed-effects approach, these firms are dropped from the analyses. Therefore, we opted to use (population-averaged) ‘generalized estimating equations’ (GEE) logistic panel regressions. GEE is an extension of the family of generalized linear models, designed to deal with longitudinal data (Ballinger, 2004). As an initial examination of the data suggested that heteroskedasticity might be an issue, we use robust Huber/White/sandwich estimators of variance, which ensure standard errors that are robust to cross-sectional heteroskedasticity (Zorn, 2006; Petersen, 2009).

RESULTS

Hypotheses tests

Table 1 displays the means, standard errors and correlations of the variables included in the analyses. The overall low correlations between the independent and control variables suggest that multicollinearity is not an issue in this study. The correlation between TMT

exploratory and exploitative attention is significantly negative as expected (-.09; $p < .01$). Its value is, however, small, supporting the view of the ambidexterity literature that simultaneous attention to both forms of attention is not impossible (Lavie et al., 2010; Gupta, Smith, & Shalley, 2006). The logistic GEE panel regressions for the two dependent variables are shown in Table 2 ('*non-CEO exit*' in Models 2-5, and '*non-CEO inflow*' in Models 6-9). To account for the mediating impact of '*CEO replacement*' we also report a model with '*CEO replacement*' as the dependent variable (Model 1). Note that all dependent variables are measured in $t+1$ to account for the time-structure of the data.

Insert Tables 1 and 2 about here

Organizational performance and executive mobility. In line with the expectations, we find a negative effect of ' ΔROA ' on the probability of '*CEO replacement*' ($B = -1.04$; $p < .05$; Model 1). This is a validation of the consistent finding in prior literature and research (e.g., Tushman et al., 1985; Kesner & Sebor, 1994; Giambatista et al., 2004; Crossland & Chen, 2013) that poor organizational performance will instigate CEO replacement. In addition, we also find that ' ΔROA ' has a negative and marginally significant effect on the probability of '*non-CEO exit*' ($B = -.67$; $p < .10$; Model 2) and '*non-CEO inflow*' ($B = -.54$; $p < .10$; Model 6), further corroborating that poor organizational performance stimulates executive mobility in general.

Hypothesis 1 proposed a mediating effect of CEO replacement in the relationship between poor performance and non-CEO executive mobility. Our results support this hypothesis. First, for non-CEO exit we see that when '*CEO replacement*' is entered into the regression (see Model 3), the effect of ' ΔROA ' drops both in size – from $B = -.67$ (Model 2) to $B = -.58$ (Model 3) – and in significance level – from $p < .10$ (Model 2) to insignificant

(Model 3). Moreover, '*CEO replacement*' has a strong positive effect on the probability of '*non-CEO exit*' ($B = 1.15$; $p < .001$; Model 3). Second, the same pattern of results is found for non-CEO inflow: '*CEO replacement*' has a strong positive effect on '*non-CEO inflow*' ($B = .92$; $p < .001$; Model 7), and its inclusion leads to a drop of the coefficient of ' ΔROA ', both in size – from $B = -.54$ (Model 6) to $B = -.46$ (Model 7) – and in significance – from $p < .10$ (Model 6) to insignificant (Model 7).

Together with the above-mentioned negative effect of ' ΔROA ' on '*CEO replacement*', these findings indicate that '*CEO replacement*' acts as a mediator of the effect of ' ΔROA ' on '*non-CEO exit*' and '*non-CEO inflow*' (following Baron & Kenny's 'steps for mediation', 1986), confirming Hypothesis 1 for non-CEO executive exit as well as non-CEO executive inflow. Moreover, both a Sobel-test approach (Sobel, 1982) for logistic panel regressions (the 'KHB method'; Kohler, Karlson, & Holm, 2011) and a bootstrap method ('binary mediation'; Ender, 2010) indicate that the indirect effect of ' ΔROA ' through '*CEO replacement*' is (marginally) significant for both '*non-CEO exit*' ($B = -.10$; $p < .10$) and '*non-CEO inflow*' ($B = -.09$; $p < .10$), further substantiating the mediation effect. In particular, the KHB method results indicate that 14.87 percent of the effect of poor performance on non-CEO exit and 15.25 percent of its effect on non-CEO inflow is due to CEO replacement.

In sum, we find full support for Hypothesis 1.

TMT attention and executive mobility. Hypotheses 2 and 3 covered the effects of the incumbent TMT's attention patterns on non-CEO executive mobility – the former proposing that TMT exploratory attention would increase mobility, and the latter predicting that TMT exploitative attention would reduce mobility. With regard to the *exit* of non-CEO executives, both hypotheses are not confirmed, as the coefficients of '*TMT exploratory attention*' and '*TMT exploitative attention*' are not significant (Model 4). However, we do find (weak) support for Hypotheses 2 and 3 for the *inflow* of non-CEO executives. Model 8 reveals a

positive and marginally significant effect of ‘*TMT exploratory attention*’ ($B = .24$; $p < .10$) and a negative and marginally significant effect of ‘*TMT exploitative attention*’ ($B = -.24$; $p < .10$) on the probability of ‘*non-CEO inflow*’, as expected. Moreover, these effects appear to hold even when ‘*CEO replacement*’ is included into the regression analyses (see Model 9), indicating that this more proactive route towards non-CEO executive mobility (inflow) occurs over and above the other, more reactive route (based on poor organizational performance, mediated by CEO replacement).

Overall, we find partial support for Hypotheses 2 and 3; the hypotheses are confirmed (at a .1 significance level) for ‘*non-CEO inflow*’, but not for ‘*non-CEO exit*’. In the discussion section we come back to this difference in results for the exit versus the inflow of non-CEO executives.

Effects of control variables. Finally, we discuss some of the effects of control variables. First, ‘*organization size*’ appears to be a strong predictor for executive mobility, indicated by its positive and significant coefficient on ‘*non-CEO exit*’ ($B = .19$; $p < .001$; Model 2) as well as ‘*non-CEO inflow*’ ($B = .23$; $p < .001$; Model 6). Furthermore, a higher level of team tenure in the TMT negatively affects both ‘*non-CEO exit*’ ($B = -.11$; $p < .001$; Model 2) and ‘*non-CEO inflow*’ ($B = -.06$; $p < .05$; Model 6). Finally, the probability of ‘*non-CEO inflow*’ decreases with ‘*current ratio growth*’ ($B = -.28$; $p < .05$; Model 6).

Robustness checks and additional analyses

Robustness checks. We performed several checks to assess the robustness of the results. First, as mentioned, the reported results are based on logistic GEE (population-averaged) panel regressions. As a robustness check, we also executed random-effects logistic regressions. The results (available from the authors upon request) did not diverge substantially from the reported ones.

Second, we reran all analyses including different sets of control variables, at different levels of analysis. At the organizational level, we added R&D intensity as a strategy variable, as well as growth and change in R&D intensity. At the TMT level, we included TMT size and TMT diversity (measured as the standard deviation) in age, team tenure, and organization tenure. Finally, at the CEO level, we controlled for CEO team tenure (instead of organization tenure). All analyses (available upon request) indicated that the reported results are not sensitive to the inclusion or exclusion of these control variables.

Third, in the reported results organizational performance is operationalized as the difference between ROA in the current year and ROA in t-1 (ΔROA). However, in some prior studies on executive mobility (e.g., Tushman et al., 1985; Crossland & Chen, 2013) the organization's performance (ROA) is not compared to historical performance levels, but to the industry's average ROA (i.e., 'social comparison performance feedback'; Buyl & Boone, 2014). In line with prior executive mobility research we therefore adjust ROA by subtracting the industry median ROA as an alternative operationalization of organizational performance, and reran all of the analyses. The results of these new analyses are entirely in line with the reported results. All analyses are available from the authors upon request.

Fourth, in the literature on exploration and exploitation (March 1991; for a review see Lavie et al. 2010), scholars have formulated different views on the relation between both (Gupta et al., 2006). In a robustness check we have identified an alternative measure for the TMT's attention: the variable '*ratio of TMT exploratory attention*' is operationalized as '*TMT exploratory attention*' relative to the sum of '*TMT exploratory attention*' and '*TMT exploitative attention*' (see also Cho and Hambrick's (2006) measure of 'entrepreneurial orientation' as the ratio of entrepreneurial words to the sum of entrepreneurial and engineering words). This alternative measure is at its maximum when TMTs have a high level of exploratory attention and simultaneously a low level of exploitative attention. Using this

measure, we would expect a positive effect of ‘*ratio of TMT exploratory attention*’ on non-CEO executive mobility. Analogous to the reported results we find that the coefficient of ‘*ratio of TMT exploratory attention*’ is not significant for ‘*non-CEO exit*’, but positive and significant ($B = .80$; $p < .05$) for ‘*non-CEO inflow*’, as expected. This effect also holds after the inclusion of ‘*CEO replacement*’ into the analyses. Again, these analyses are available from the authors upon request.

Additional analyses. Apart from tests to check the robustness of the reported findings, we also performed several additional analyses to explore these findings even more carefully. To substantiate the mechanism driving the proactive route towards executive mobility – i.e., the effect of TMT attention on the inflow of non-CEO executives – we present two contingencies that are expected to moderate this effect: new entrants’ outsider/insider status and CEO replacement.

First, we put forward that the outsider/insider status of newly entering executives – i.e., whether these new executives are hired from outside of the organization or not – acts as a contingency factor. In particular, we argue that the incumbent TMT’s attention patterns will be an even stronger predictor for *outsider* new entrants than for new entrants from within the organization. Indeed, when making decisions about hiring new non-CEO executives, CEOs and boards will expect that the perspectives and cognitive bases that new entrants from outside of the organization can potentially bring to the TMT will be even more novel and deviant as compared to the perspectives and cognitive bases of new entrants from inside the organization (March 1991). Hence, as exploratory TMTs value novelty and change, they will be even more inclined to hire new executives from outside of the organization vs. from within the organization. For the same reason, CEOs of exploitative TMTs, which cherish stability and variance reduction, will be even less prone to engage outsiders. In sum, we expect the positive effect of TMT exploratory attention and the negative effect of TMT exploitative

attention to be more pronounced for the probability of inflow of outsider vs. insider non-CEO executives.

To investigate this, we regressed TMT attention (and the other independent and control variables) against two new dependent variables: ‘*outsider non-CEO inflow*’ and ‘*insider non-CEO inflow*’. Both are operationalized as dummy variables, the former equaling 1 if at least one outsider enters the TMT, and the latter equaling 1 if none of the new entrants is from outside of the firm. We found that the effect of ‘*TMT exploratory attention*’ was significantly stronger ($p < .10$) for ‘*outsider non-CEO inflow*’ as compared to ‘*insider non-CEO inflow*’, indicating that the incumbent TMT’s exploratory attention is an even stronger predictor for outsider inflow as compared to insider inflow. This is consistent with our expectations. For ‘*TMT exploitative attention*’, the difference in coefficients for ‘*outsider non-CEO inflow*’ and ‘*insider non-CEO inflow*’ was not significant. An exploitative orientation appears to reduce the inflow of new executives, regardless of whether these new entrants come from inside or outside of the organization. One possible implication of this finding is that exploitative TMTs may become very insular since even insiders are not likely to be added (cf., O’Reilly & Tushman, 2008; Lavie et al., 2010).

Second, we explore the moderating impact of CEO replacement, because we expect the effects of TMT attention to be less pronounced if the CEO was replaced in the current year. A change in CEO often marks a change in strategy and strategic orientation (Barker et al., 2001; Liu et al., 2012), implying that the incumbent TMT’s prior strategic orientation and attentional patterns might be outdated. As a result, these attention patterns will be weaker drivers for (new) CEOs and boards in their decisions about non-CEO executive mobility.

To empirically test for this interactive effect, we included the interaction of ‘*CEO replacement*’ with both ‘*TMT exploratory attention*’ and ‘*TMT exploitative attention*’ into the analyses for ‘*non-CEO exit*’ and ‘*non-CEO inflow*’. We found some weak and partial support

for our expectations. In particular, for both dependent variables we found that ‘*CEO replacement*’ negatively moderated the effect of ‘*TMT exploratory attention*’ ($B = -.74$; $p < .10$; one-tailed test for ‘*non-CEO exit*’; $B = -.75$; $p < .10$; one-tailed test for ‘*non-CEO inflow*’). These findings suggest that, as we anticipated, the incumbent TMT’s *exploratory* attention was a weaker predictor of non-CEO executive mobility when the CEO was replaced in the current year. For ‘*TMT exploitative attention*’, the interaction coefficients failed to reach significance. Together with the results for the first contingency factor (new entrant’s outsider status) this non-finding seems to suggest that the effect of the incumbent TMT’s exploitative attention on inflow of new executives is less liable to contingencies.

All additional analyses are available upon request from the authors.

DISCUSSION

In this study, we systematically assess the probability of (non-CEO) executive mobility, using a database of 197 organizations over a timespan of twelve years (2000-2011). Our analyses reveal an interesting pattern of results. First, consistent with most prior work (e.g., Kesner & Sebor, 1994; Giambatista et al., 2005; Hilger et al., 2013) we find that organizational performance is an important indicator of both CEO and non-CEO mobility: declining performance increases the probability of CEO replacement, non-CEO executive exit, and non-CEO executive inflow. Prior studies have explained this phenomenon by referring to e.g., agency theory’s view on executives’ accountability, ritual scapegoating, and/or organizational adaptation (e.g., Shen & Cho, 2005).

Second, we find that there are two routes towards non-CEO executive mobility: (1) a reactive route – i.e., mobility as a reaction on declining organizational performance, and (2) a more proactive route – i.e., non-CEO inflow proactively propelled by TMT attention. In particular, our findings suggest that the incumbent TMT’s level of exploratory attention is positively related to the probability of inflow of non-CEO executives, while its level of

exploitative attention is negatively related to this probability. This finding is in line with prior literature suggesting that the level of inflow of new executives is related to the incumbent TMT's strategic orientation (cf. Chandler et al., 2005; Yamak & Üsdiken, 2006).

Nevertheless, the finding is remarkable, as it emphasizes the role of the incumbent TMT in matters of executive mobility (cf. e.g., Boone et al., 2004; Beckman & Burton, 2008).

Furthermore, our use of the TMT's attention patterns, which can be seen as precursors of (strategic) actions (cf., Ocasio, 1997; Narayanan et al., 2011), affirm the proactive and forward-looking character of this predictor of non-CEO executive mobility.

A third important finding of this study concerns the interrelationship between CEO and non-CEO executive mobility. In line with the suggestions of some other scholars (e.g. Barker et al., 2001; Liu et al., 2012) we find that there appears to be a 'sweep-out' effect: CEO replacement induces mobility of non-CEO executives, as new CEOs generally prefer not to work with some of the incumbent TMT members. Moreover, we find that CEO replacement mediates the effect of poor organizational performance on both the exit and the inflow of non-CEO executives. Hence, it appears that there is a 'trickle-down' effect of poor organizational performance: the latter increases the probability of CEO replacement, which subsequently drives the exit of existing non-CEO executives and the inflow of new executives into the TMT. Analogous to Barker et al. (2001:257) we find that this 'sweep-out' effect occurs "rather quickly". In particular, in our analyses non-CEO executive exit and inflow were driven by CEO replacement in the same year.

An additional post-hoc analysis revealed yet another way in which CEO replacement affects the inflow of non-CEO executives, besides as a mediator of the effect of poor organizational performance. In particular, this post-hoc analysis suggested (though admittedly with weak results) that the effect of the incumbent TMT's exploratory attention was stronger when the CEO was not replaced in the current year as compared to when the CEO had been

replaced. Hence, besides mediating the ‘reactive’ route towards non-CEO executive mobility, we found tentative evidence proposing that CEO replacement also appears to weaken the effect of the ‘proactive’ route.

Finally, we also found that the effects of the ‘proactive route’ – i.e., the effects of the incumbent TMT’s exploratory and exploitative attention – were only relevant for the inflow, but not for to the exit of non-CEO executives. Though a priori in developing hypotheses on the effects of TMT attention we did not distinguish between the exit and inflow of non-CEO executives, this finding might not be that surprising. Indeed, the mechanisms underlying the hypothesized effects – i.e., that TMT exploratory attention stimulates and TMT exploitative attention discourages deviance in ideas, opinions, and points of view – is more applicable to the inflow of executives – as these new entrants are assumed to bring along “fresh” insights – than to the exit of incumbent executives (cf. March, 1991). Moreover, the exit of non-CEO executives will also be confounded by issues such as retirement and voluntary turnover (Shen & Cho, 2005).

Limitations and future research avenues

Our study has several limitations which might be addressed in future research. First, the direction of causality for the ‘proactive route’ towards (non-CEO) executive mobility might be an issue in our study (e.g., Wiersema & Bantel, 1993; Chandler et al., 2005), i.e., the executive mobility might cause changes in the TMT’s attention, for instance towards a more exploratory focus of attention. However, given that we use longitudinal data to assess our hypotheses and that we have carefully accounted for the lag-structure of the data – i.e., we measure the dependent variables in $t+1$ – reverse causality is probably not an issue in our case. We do, however, have to take into account the path dependency inherent in the TMT’s composition and features, such as cognition (Beckman and Burton, 2011). For instance, TMT exploitative attention and a lack of new entrants into the TMT might reinforce each other

repeatedly, resulting in an ‘exploitation trap’ (Levinthal & March, 1993). A fascinating avenue for future research would be to map these cycles of TMT cognition and composition.

A second limitation of this study is that we restrict ourselves to studying the simple probability of executive mobility events (exit of non-CEO executives and inflow of non-CEO executives). Especially for non-CEO executive exit, it would be interesting if a distinction could be made between the various types of executives’ exit from the TMT (e.g., retirement, involuntary leave, voluntary turnover, etc.). (Note that we control for TMT mean age to account for exit because of retirement.) Relatedly, we only focus on the mere event of executive exit and inflow. A more fine-grained analysis incorporating the specific characteristics of the non-CEO executives left from or added to the TMT (e.g., their functional background, their industry experience, etc.) would provide future scholars with a more complete understanding of the processes at play.

Finally, some of the results in our study are arguably rather weak – i.e., only significant at the .1-level, which might indicate a tendency towards significance rather than a significant result. However, the combined pattern of our findings still points to the occurrence of two different paths toward non-CEO executive inflow, which is an interesting starting point to explore further in future research. Scholars might, for instance, elaborate on the contingencies affecting the relation between TMT attention and non-CEO inflow. We already presented some preliminary and tentative evidence that this relation might be moderated by contingencies such as the outsider status of entrants and CEO replacement. A fruitful research avenue might be to explore the contingencies related to the hiring process, such as the power distribution between the CEO, the board, and the TMT, or the (demographic) similarity between potential new entrants and the incumbent TMT members (cf., Westphal & Zajac, 1995). Analogous to our argument about the outsider/insider status of new entrants, one might, for instance, anticipate that the effects of TMT attention would be stronger for new

entrants who are (demographically) dissimilar to the incumbent TMT members, because of the expected higher degree of novelty and deviance in their cognitive frames and perspectives.

Contributions

This study contributes to the extant literature in two main ways. First and foremost, it adds insights to the literature on executive mobility and succession (e.g., Wiersema & Bantel, 1993; Giambatista et al., 2004; Crossland & Chen, 2013). Whereas previous research in this stream is rather mechanistic in almost exclusively linking executive mobility to declining organizational performance, we add to the literature in this research area by introducing an alternative indicator – the incumbent TMT’s attention. We were inspired by the empirical evidence suggesting that the incumbent TMT members play a prominent role in decisions regarding new entrants (e.g., Boone et al., 2004; Beckman and Burton, 2008). By incorporating such a proximal TMT feature, we present a first effort to open the black box of executive turnover – i.e., we empirically establish that executive inflow (but not exit) is associated with the incumbent TMT’s attentional focus.

Second, we also add to the executive mobility literature and research by explicitly differentiating between CEO and non-CEO executive mobility and by investigating their interrelationships. Though in prior work scholars have suggested the existence of a ‘sweep-out’ effect (e.g., Barker et al., 2001) we empirically validate that CEO replacement not only appears to instigate non-CEO executive mobility, but that it even mediates the effect of prior organizational performance on non-CEO exit and inflow. Moreover, CEO replacement also seems to depreciate the effects of the incumbent TMT’s exploratory attention on non-CEO inflow.

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FIGURE 1
Theoretical framework

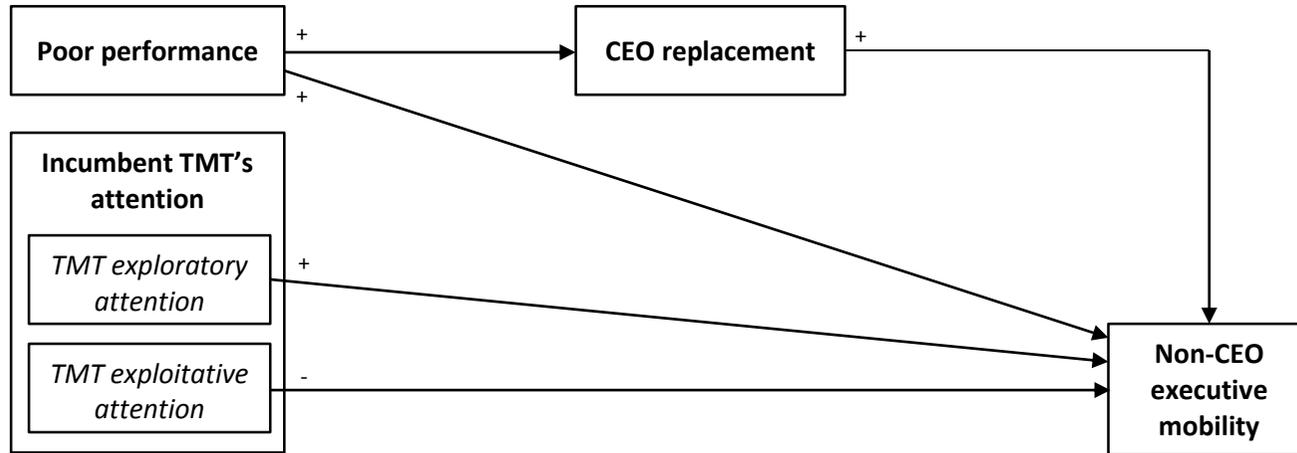


TABLE 1
Means, standard deviations, and correlations

Variable	Mean	S.D.	1	2	3	4	5	6
<i>Dependent variables</i>								
1 Non-CEO executive exit $t+1$.50	.50	-					
2 Non-CEO executive inflow $t+1$.54	.50	.40***	-				
<i>Mediator</i>								
3 CEO replacement $t+1$.08	.27	.15***	.12***	-			
<i>Independent variables</i>								
4 Δ ROA	-.00	.21	-.06*	-.05 [#]	-.07*	-		
5 TMT exploratory attention	.93	.48	-.02	.04	-.03	.01	-	
6 TMT exploitative attention	.79	.47	.04	-.02	.01	.01	-.09**	-
<i>Control variables</i>								
7 Industry median ROA growth	-.63	3.10	-.05 [#]	-.00	-.01	.03	-.04	-.04
8 Organization size	6.72	1.65	.14***	.17***	.07*	.00	-.08**	.01
9 Organization growth	.08	.24	-.02	-.00	-.07*	.02	.02	-.07*
10 Current ratio growth	-.05	.44	.01	-.03	.03	-.06*	.01	.03
11 TMT mean team tenure	5.00	2.94	-.18***	-.12***	-.01	.01	-.02	.03
12 TMT mean age	50.37	4.24	-.07*	-.04	.04	.03	-.09**	-.05 [#]
13 CEO organization tenure	12.91	9.51	-.10***	-.03	-.04	.00	-.11***	-.02
14 CEO age	54.92	7.32	-.09**	-.06*	.02	-.01	-.12***	.04
15 CEO duality	.49	.50	-.08**	-.04	-.02	-.01	-.06*	-.01

	7	8	9	10	11	12	13	14
7 Industry median ROA growth	-							
8 Organization size	-.01	-						
9 Organization growth	.02	.05	-					
10 Current ratio growth	.02	.05	.15***	-				
11 TMT mean team tenure	.03	-.07*	-.03	-.06*	-			
12 TMT mean age	-.00	.09**	-.02	-.06*	.40***	-		
13 CEO organization tenure	-.00	-.06*	-.07*	.02	.34***	.10***	-	
14 CEO age	.02	-.01	-.05	.01	.24***	.30***	.42***	-
15 CEO duality	.04	.10***	.02	.01	.13***	.12***	.31***	.33***

N = 1,168; [#]p < .10; *p < .05; **p < .01; ***p < .001 (two-tailed)

TABLE 2: Logistic GEE regression estimates of organizational performance and TMT attention on CEO replacement, non-CEO executive exit, and non-CEO executive inflow

	CEO replace. t+1	Non-CEO exit t+1				Non-CEO inflow t+1			
	1	2	3	4	5	6	7	8	9
Constant	-7.37*** (2.05)	-.39 (.97)	-.10 (.95)	-.37 (1.00)	-.10 (.98)	-.92 (1.08)	-.66 (1.07)	-1.06 (1.15)	-.80 (1.15)
Ind. median ROA growth	.02 (.03)	-.02 (.02)	-.02 (.02)	-.02 (.02)	-.02 (.02)	.01 (.02)	.01 (.02)	.01 (.02)	.01 (.02)
Organization size	.19** (.07)	.19*** (.03)	.17*** (.03)	.18*** (.03)	.17*** (.03)	.23*** (.04)	.22*** (.04)	.24*** (.04)	.23*** (.04)
Organization growth	-1.50* (.71)	-.19 (.26)	-.10 (.26)	-.18 (.26)	-.09 (.26)	.11 (.26)	.19 (.26)	.09 (.27)	.16 (.27)
Current ratio growth	.47 (.33)	-.02 (.20)	-.04 (.19)	-.02 (.20)	-.05 (.19)	-.28* (.14)	-.30* (.13)	-.27* (.13)	-.29* (.13)
TMT mean team tenure	-.02 (.06)	-.11*** (.03)	-.11*** (.03)	-.11*** (.03)	-.11*** (.03)	-.06* (.03)	-.06* (.03)	-.06# (.03)	-.06# (.03)
TMT mean age	.04 (.03)	-.00 (.02)	-.00 (.02)	-.00 (.02)	-.00 (.02)	.00 (.02)	-.00 (.02)	-.00 (.02)	-.00 (.02)
CEO org. tenure	-.02 (.02)	-.01 (.01)	-.01 (.01)	-.01 (.01)	-.01 (.01)	-.00 (.01)	.00 (.01)	.00 (.01)	.00 (.01)
CEO age	.02 (.02)	-.01 (.01)	-.01 (.01)	-.01 (.02)	-.01 (.01)	-.01 (.01)	-.01 (.01)	-.01 (.01)	-.01 (.01)
CEO duality	-.06 (.27)	-.21 (.14)	-.21 (.14)	-.21 (.13)	-.20 (.14)	-.16 (.14)	-.16 (.14)	-.17 (.14)	-.17 (.14)
Δ ROA	-1.04* (.44)	-.67# (.36)	-.58 (.36)	-.67# (.36)	-.59 (.36)	-.54# (.28)	-.46 (.29)	-.54* (.27)	-.46 (.28)
TMT exploratory att.	-	-	-	-.07 (.14)	-.06 (.14)	-	-	.24# (.14)	.24# (.14)
TMT exploitative att.	-	-	-	.10 (.13)	.11 (.12)	-	-	-.24# (.15)	-.24# (.14)
CEO replacement t+1	-	-	1.15*** (.24)	-	1.15*** (.24)	-	.92*** (.24)	-	.93*** (.24)
Ind. dummies included	yes	yes	yes	yes	yes	yes	yes	yes	yes
Wald χ^2	47.22 ***	61.72 ***	80.89 ***	63.44 ***	82.39 ***	54.08 ***	67.79 ***	56.86 ***	71.07 ***

N = 1,168; #p < .10; *p < .05; **p < .01; ***p < .001 (two-tailed); Robust standard errors in parentheses