

Flying High: The Effect of Organizational Status on CEO Perquisites

by

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## ABSTRACT

This dissertation explores the determinants of Chief Executive Officer (CEO) perquisites, i.e., nonmonetary compensation offered to particular employees and not essential to the accomplishment of a CEO's duties. While the current CEO perquisite literature has focused on understanding the economic determinants of CEO perquisites, I study the social-psychological determinants of perquisites. Specifically, I propose that organizational status is positively associated with CEO perquisites. The status literature suggests that high-status organizations derive benefits from status and status signals, while agency theory proposes that perquisites are a way for CEOs to extract private rents. Therefore, I posit that for high-status organizations, the benefits derived from certain CEO perquisites may negate the costs associated with those perquisites. I examine a specific CEO perquisite: the mandatory use of corporate aircraft for personal travel. Prior research and the popular press suggest that this perquisite is often seen not only as a status signal but also as an agency cost. Accordingly, I hypothesize that higher status organizations and organizations with higher status directors are more likely than lower status organizations or organizations with lower status directors to mandate their CEOs to use corporate aircraft for personal travel. I also propose that the effect is stronger for low- or high-status organizations than for middle-status organizations. In addition, I hypothesize five contingencies moderating the above relationships. I examine hypothesized relationships using a sample of S&P 500 organizations, and I find support for many of my hypotheses. This dissertation contributes to both status and executive compensation literature.

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## CHAPTER 1

### INTRODUCTION AND OVERVIEW

#### **Motivation and Research Question**

Management research has a long history of studying the determinants of executive compensation (Devers, Cannella, Reilly, & Yoder, 2007; Finkelstein & Hambrick, 1988). Prior literature proposes that executive compensation “may potentially impact firm performance, strategic decision making, strategy processes, and managerial motivation, turnover, and behavior” suggesting the importance of compensation to organizational outcomes (Finkelstein, Hambrick, & Cannella, 2009: 330). Given the importance of executive compensation, it is surprising how little attention an aspect of executive compensation—CEO perquisites—has gained. Recent reviews published in management journals on executive compensation (e.g., Devers et al., 2007; Finkelstein et al., 2009) and CEOs (Busenbark, Krause, Boivie, & Graffin, 2016) do not review any recent management studies examining CEO perquisites (“perks”), i.e., “nonmonetary compensation offered to select employees” and “not strictly necessary for the accomplishment of the employee’s duties,” e.g., country club memberships, personal travel with corporate aircraft, or chauffeur-driven cars (Rajan & Wulf, 2006: 2). In their seminal article on agency theory, Jensen and Meckling (1976) argue that CEOs can extract private benefits through perquisites, and hence, perquisites can be considered as agency costs, i.e., costs that arise from managers (e.g., CEOs) self-serving behaviors and boards’ actions to prevent them. Building on this idea, finance scholars have examined the determinants of CEO perquisites focusing on economic explanations (e.g., Lee, Lowry, & Shu, 2018; Rajan & Wulf, 2006; Yermack, 2006). Regardless, this research has

provided only mixed results. In other words, the economic perspective has only partly explained why organizations provide perquisites to their CEOs.

Management research has recognized that the economic perspective is not the only view to explain executive compensation. On the contrary, this research suggests that in addition to an economic perspective, both social-psychological and political perspectives also explain executive compensation (Devers et al., 2007; Finkelstein et al., 2009). Yet, this research has focused on monetary incentives, and neither management nor finance scholars have applied these perspectives to explain why organizations offer CEO perquisites. A possible exception to this dearth of research that applies one of the other two perspectives on the perquisites is a study by Boivie, Lange, McDonald, and Westphal (2011). In this study, the authors examine how CEO organizational identification moderates the decoupling of firm performance from the CEO personal use of corporate aircraft. To address this deficiency, I apply the social-psychological perspective and posit that organizational status partly predicts why organizations provide CEO perquisites.

Although both the popular press (see, e.g., Fabrikant, 2006; Stewart, 2015) and some organization scholars (see, e.g., McDonald & Westphal, 2010; Rijsenbilt & Commandeur, 2013; Yermack, 2006) have suggested that status is associated with certain CEO perquisites, such as allowing the CEO to use corporate aircraft for personal travel, prior research has not addressed the theoretical logic explaining the connection between organizational status and CEO perquisites. Moreover, prior executive compensation research has mainly focused on examining the effects of CEO status on executive compensation (e.g., Belliveau, O'Reilly, & Wade, 1996; Geletkanycz, Boyd, &

Finkelstein, 2001; Graffin, Wade, Porac, & McNamee, 2008; Wade, Porac, Pollock, & Graffin, 2006) and has paid less attention to organizational status.

In this dissertation, I argue that there are three specific processes explaining the connection between organizational status and CEO perquisites. However, before describing these processes, I follow Washington and Zajac (2005: 284) and define organizational status as “a socially constructed, intersubjectively agreed-upon and accepted ordering or ranking of individuals, groups, organizations, or activities in a social system.” Therefore, organizational status can be understood to refer to an organization’s position in the socially constructed ranking of organizations.

I propose that three processes explain why high organizational status is positively associated with CEO perquisites. First, current research asserts that shareholders consider CEO perquisites as controversial or negative practices (Jensen & Meckling, 1976; Yermack, 2006). Therefore, organizations deviating from expected behaviors are likely to face legitimacy concerns from their shareholders (Suchman, 1995). On the other hand, status research recognizes that high-status organizations are less likely to experience negative consequences, such as a negative impact on future organizational status, associated with social norm deviations in comparison to low- or middle-status organizations (Phillips, Turco, & Zuckerman, 2013; Phillips & Zuckerman, 2001). Therefore, the above suggests that it is more difficult for low-status and especially for middle-status organizations than high-status organizations to justify CEO perquisites because of potential costs associated with these perks.

Second, researchers have demonstrated the Matthew effect (Merton, 1968) with status, i.e., high-status organizations gain relatively more status-derived benefits in

comparison to low-status organizations (Benjamin & Podolny, 1999; Piazza & Castellucci, 2014). Prior research demonstrates three significant benefits arising from high status: higher revenues, better access to resources, and lower transaction costs (Sauder, Lynn, & Podolny, 2012). Therefore, status-derived benefits are more likely to exceed the costs of CEO perquisites as organizational status increases.

Third, certain readily observable CEO perquisites are regarded as status signals (Rajan & Wulf, 2006; Yermack, 2006). Consequently, organizations can offer these CEO perquisites to signal their and their CEOs' status. Moreover, research indicates that executives are status-driven and they make upward social comparisons to similar executives (Finkelstein et al., 2009; O'Reilly, Main, & Crystal, 1988; Park & Westphal, 2013; Porac, Wade, & Pollock, 1999). In addition, social comparison theory maintains that individuals have a need to be slightly better than similar others (Festinger, 1954; Suls & Wheeler, 2012). Therefore, I expect that the members of the board of directors desire to increase an organization's status because it reflects positively on their status, and the higher the organizational status is, the more they will benefit from their status (Belliveau et al., 1996; Fiss, 2006; Graffin et al., 2008; Westphal & Khanna, 2003). Consequently, the directors can improve an organization's status by offering perquisites to the CEO. These perquisites then emit status signals to observers, hence, increasing organizational status.

Above, I have proposed three specific arguments indicating that higher organizational status is positively associated with the likelihood of an organization to provide CEO perquisites. That is, I have argued that three processes explain why status-

derived benefits may exceed the cost of CEO perquisites and other related expenses as organizational status increases.

Although I have argued that organizational status is associated with CEO perquisites in general, I focus my analysis on a specific context and perquisite: CEO's mandatory use of corporate aircraft for personal travel. In other words, with this perk—or policy—organizations are mandating their CEOs to travel with corporate aircraft even when flying for personal business—meaning that these CEOs are prohibited using commercial airlines for any travel (Black, 2014). I focus on this specific perquisite because of three specific reasons. First, previous studies on CEO perquisites have focused on the CEO use of corporate aircraft for personal travel; it is easily observable as companies have to report it in proxy statements if their executives use corporate aircraft for personal travel and the value of the travel is over \$10,000 annually (Grinstein, Weinbaum, & Yehuda, 2017; Lee et al., 2018; Rajan & Wulf, 2006; Yermack, 2006). Second, the data on the personal use of corporate aircraft is more reliable than data on other perks (Yermack, 2006). Finally, the mandatory CEO use of corporate aircraft for personal travel is also theoretically the most appropriate perquisite to be examined. Several studies have considered the use of corporate aircraft for personal travel as a status signal (McDonald & Westphal, 2010; Rijssenbilt & Commandeur, 2013; Yermack, 2006). Therefore, the mandatory use of corporate aircraft for personal travel is even clearer signal than the possibility to use aircraft since the CEO either has the mandate or does not have it and hence, its interpretation is straightforward. The mandate is also likely costly in comparison to the CEO having a possibility to use corporate aircraft, as the mandate demands the CEO to use corporate aircraft for personal travel regardless of his or her

personal preferences. Also, the popular press has reported that CEOs using corporate aircraft for personal travel have annually incurred several million dollars in expenses to certain companies (Crow, Kwong, Nevitt, & Bissell, 2016) suggesting that agency as well as other costs associated with the CEO use of corporate aircraft for personal travel can be considerable.

Above, I have provided theoretical argumentation explaining why organizational status is associated with CEO perquisites. I have also described why I focus my argumentation on a specific perquisite. Based on the preceding argumentation, I first expect that in comparison to a lower status organization, a higher status organization is more likely to mandate its CEO to use corporate aircraft for personal travel.

Second, I predict that high- or low-status organizations are more likely than middle-status organizations to mandate their CEOs to use corporate aircraft for personal travel. I posit that this is because middle-status organizations face higher conformity expectations than low- or high-status organizations, and therefore if they provide the perquisite, they are likely to experience higher costs and lower benefits. Thus, it is more difficult for middle-status organizations to derive positive benefits from this specific perk than for high or low-status organizations.

Third, I suggest that organizations with higher status directors are more likely than organizations with low-status directors to mandate their CEOs to use corporate aircraft for personal travel. The reason for this decision is that higher status directors have a larger degree of freedom to act against institutional norms before these acts are regarded as illegitimate actions. Higher status directors are also more likely to signal their status, and a way to achieve this is to offer the mandate. Moreover, this signaling reflects

positively on their directors' status. Therefore, it is more justifiable for an organization with a higher status board to offer the perk.

Furthermore, it is vital to understand organizational and CEO-level contingencies influencing the proposed relationships. Therefore, I propose five contingency factors moderating the proposed relationships: the number of organizations offering the perquisite within the focal industry, board interlocks to organizations offering the perquisite, connections through compensation committee members to organizations offering the perquisite, organization's financial performance, and CEO power.

First, I propose that the number of organizations offering the perquisite within the focal industry weakens the hypothesized direct relationships. Prior organization research suggests that organizations may face institutional pressures to offer a policy if other organizations within the focal organization's industry have already adopted it (DiMaggio & Powell, 1983; Galaskiewicz & Wasserman, 1989; Sanders & Tuschke, 2007; Scott & Davis, 2007). Similarly, the widespread adoption of the policy also legitimates it making it less controversial (Galaskiewicz & Wasserman, 1989; Scott & Davis, 2007). Social comparison theory, on the other hand, suggests the directors are likely to make comparisons with similar organizations (Suls & Wheeler, 2012), and I expect that other organizations within the focal industry are likely targets for these social comparisons. Therefore, the effect of organizational status on the provision of the perquisite weakens as the number of organizations within the focal industry offering the perquisite increases.

Second, I suggest that the number of board interlocks to organizations offering the perquisite weakens the proposed relationships. Past research suggests that practices diffuse through board interlocks (e.g., Davis, 1991; Haunschild, 1993, 1994; Haunschild



& Beckman, 1998), and directors are likely to make social comparisons between organizations they serve on (O'Reilly et al., 1988). Similarly, directors who are also the CEOs of other organizations are likely to recommend practices and policies that their “home” organizations are already offering because of the norm of reciprocity (Gouldner, 1960; Westphal & Zajac, 1997). Taken together, the above implies that the effect of organizational status on the provision of the perk weakens as the number of board interlocks to organizations offering the perk increases. Third, I expect that the above logic also applies to connections through the compensation committee members. These directors are the ones who are ultimately responsible for setting the level of CEO compensation and deciding what perks are offered to the CEO (Chhaochharia & Grinstein, 2009).

Fourth, I predict that financial performance weakens the hypothesized direct relationships. I base my prediction on several factors. First, research suggests that good financial performance creates slack resources, and management can use these resources to extract private benefits, e.g., perks (Jensen & Meckling, 1976; Leibenstein, 1969; Tan & Peng, 2003). Moreover, directors are less focused on monitoring and being vigilant when an organization is performing financially well (Fama, 1980; Finkelstein & D'Aveni, 1994; Tuggle, Sirmon, Reutzler, & Bierman, 2010; Wiseman & Gomez-Mejia, 1998). Taken together, the above suggests that it is more likely for a CEO to extract private benefits when a firm is performing well regardless of organizational status. Therefore, I expect that the effect of organizational status on the provision of the perk weakens as organizational performance increases.

Finally, I posit that CEO power weakens the hypothesized direct relationships. I expect this since powerful CEOs are less concerned about shareholders' interests and more likely to extract private benefits from organizations they serve (Busenbark et al., 2016; Jensen & Meckling, 1976), and thus, the boards under powerful CEOs are less likely to emphasize agency and other costs associated with the perk and the benefits derived from organizational status. In sum, the above suggests that powerful CEOs are likely to try to gain the perk regardless of the organizational status, and hence, I expect that the effect of organizational status on the provision of the perk weakens as CEO power increases.

### **Contributions**

With this dissertation, I contribute to organizational status, executive compensation, and corporate governance literatures. First, I contribute to the organizational status literature by examining how organizational status is related to the provision of a perquisite—or policy—that is both readily observable and theoretically an undesired outcome. I expect that benefits derived from status can exceed potential costs associated with the undesired outcome; thus, the benefits derived from status may explain why organizations are offering the perk. Therefore, I depart with this dissertation from previous status research that has focused on studying either positive outcomes (see, e.g., Malter, 2014) or negative outcomes that are difficult or unlikely to be observed by outsiders (see, e.g., Graffin, Bundy, Porac, Wade, & Quinn, 2013; Sharkey, 2014). Finally, George, Dahlander, Graffin, and Sim (2016: 10) recently called for more research exploring when and how status “may act as a benefit or burden.” I answer this call with the dissertation.

Second, I contribute to executive compensation and especially to CEO perquisite literature by adopting a social-psychological perspective and examining a possible organization-level determinant of CEO perquisites—organizational status. That is, previous research studying CEO perquisites has largely adopted an economic perspective and investigated governance mechanisms derived from agency theory (Finkelstein et al., 2009; Frydman & Jenter, 2010; Lee et al., 2018; Yermack, 2006). Moreover, the previous research on CEO perquisites has provided only mixed results. Therefore, this dissertation is one of the first ones studying CEO perquisites and applying a social-psychological perspective (Boivie et al., 2011; Lee et al., 2018). I also contribute to executive compensation literature in general by examining organizational and how it is associated with a form of executive compensation. Taken together, I expand executive compensation literature by considering other than purely economic determinants of CEO perquisites.

Finally, I contribute to governance research by exploring organizational factors associated with the adoption of policies that the shareholders and other key stakeholders generally regard as harmful or negative.

### **Overview of Research Methods**

To test the theoretical framework, I study a population of firms belonging to the S&P 500 index. More precisely, my sample includes all firm in the S&P 500 index at the beginning of the year 2005, and I follow these firms until the year 2016. Firms included in the S&P 500 index are the 500 largest public companies listed in the US stock exchanges based on their market capitalization. Therefore, the research context fulfills both theoretical and practical considerations.

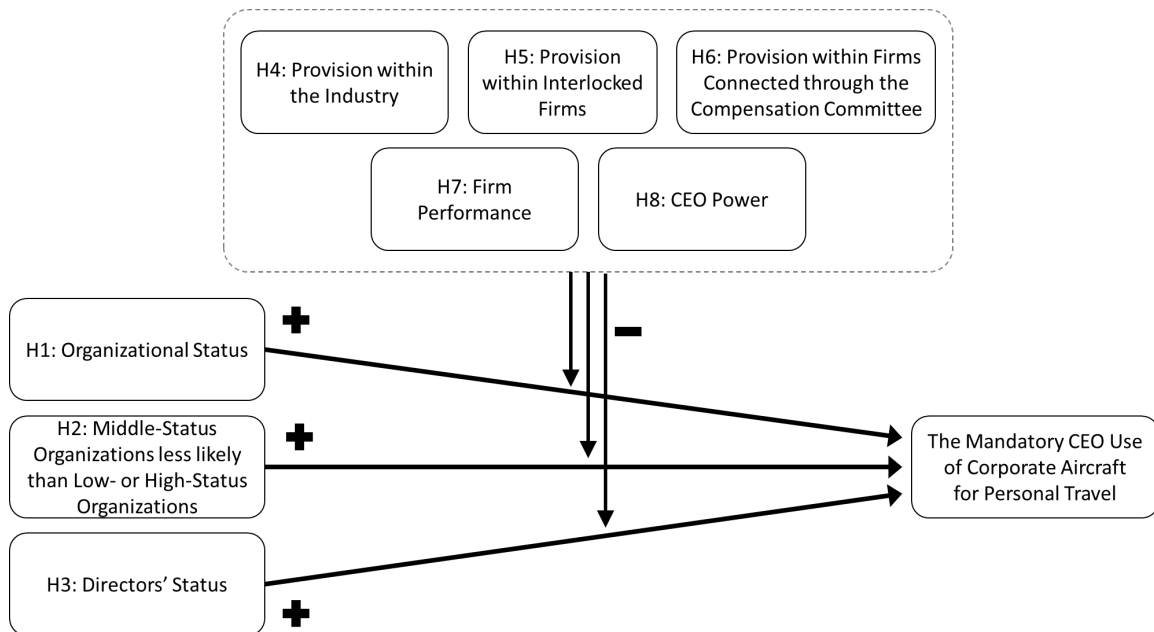
To measure organizational status, I follow prior research and use several measures (for review see, e.g., Piazza & Castellucci, 2014). The use of several measures increases the robustness of the results. I use the number of stock analysts following as my main status measure (Shen, Tang, & Chen, 2014). This measure is based on the assumption that higher status organizations draw relatively more analyst following than lower status organizations *ceteris paribus*. Therefore, the actual status measure is the residual of stock analyst following after controlling for firm size and several performance measures. As an alternative measure of organizational status, I use Bonacich's centrality measure (1987). This network measure is one of the most commonly used status measures in management research (Piazza & Castellucci, 2014), and it is based on the focal organization position within the board interlock network. Unlike the other common centrality measures, Bonacich's centrality considers both the centrality of the focal actor and also the centrality of the entities that the main actor is connected through board interlocks. Therefore, the organizational status is measured based on the analyst following and the focal firm's centrality within the board interlock network.

Data regarding the CEO's mandatory use of corporate aircraft for personal travel perk is hand collected from annual proxy statements for the study period. This data is readily available since the U.S. Securities and Exchange Commission (SEC) mandates that the public companies have to report the existence of valuable perks, such as the personal use of corporate aircraft, in proxy statements. Finally, since the dependent variable is a binary variable, I use logistic regression models for longitudinal data to test the proposed hypotheses.

## Organization of the Dissertation

I have organized this dissertation as follows: In Chapter 2, I present a detailed literature review focusing on CEO perquisites, organizational status, signaling theory, and social comparison theory. In Chapter 3, I first develop a theoretical framework and then propose eight hypotheses—three direct relationships and five contingency factors. Figure 1 depicts the proposed model. In Chapter 4, I present a research design to empirically test the hypotheses. In Chapter 5, I present the results of hypotheses testing. In Chapter 6, I finally discuss the contributions and limitations of this dissertation and propose future research based on this dissertation.

Figure 1. Theoretical Model



## CHAPTER 2

### LITERATURE REVIEW

#### **CEO Perquisites**

##### *Previous Management Research on CEO Perquisites*

Although CEO perquisites are an important part of CEO's total compensation and a potential source of agency costs (Jensen & Meckling, 1976), current management research has not focused on this aspect of CEO compensation. For instance, recent review articles published in management journals on executive compensation (e.g., Devers et al., 2007; Finkelstein et al., 2009) or on CEOs (Busenbark et al., 2016) do not review the role of CEO perquisites in compensation, why organizations offer them, or how they may affect firm performance. One exception in management literature is Boivie et al. (2011) who show that CEO's organizational identification moderates the relationship between poor firm performance and the CEO use of a perquisite. The authors claim that the use of the perquisite—i.e., the CEO personal use of corporate aircraft—is an agency cost for a company if the company is performing poorly. In contrast to the management literature, finance scholars have studied CEO perquisites and the factors explaining why organizations are offering these perks.

##### *Research in Finance Literature*

Building on agency theory, finance scholars suggest that CEO perquisites can be a way for CEOs to extract self-serving benefits covertly (Bebchuk & Fried, 2004; Bertrand, 2009; Frydman & Jenter, 2010; Jensen & Meckling, 1976). They suggest that although CEO perks can be a part of optimal contracting between organizations and CEOs substituting cash compensation, this is the case only when the cost of providing these

perks is less than what the organization benefits from offering these perks. Otherwise, perks are often regarded as agency costs (Jensen & Meckling, 1976). Finally, even though there are a number of different perks, I focus my review on the CEO personal use of corporate aircraft in this dissertation. The reason for this decision is that most of the previous perquisite research—especially in the finance literature—has focused on the CEO personal use of corporate aircraft, because the data is both easily observable and reliable for the stakeholders to interpret, unlike the other forms of perquisites (Frydman & Jenter, 2010; Yermack, 2006). This research has not made a distinction between mandatory and non-mandatory use of corporate aircraft for personal travel.

The research examining CEO perquisites and especially the use of corporate aircraft for personal travel has provided mixed results (Frydman & Jenter, 2010; Lee et al., 2018). Most of this research (see e.g., Lee et al., 2018; Rajan & Wulf, 2006; Yermack, 2006, 2014) builds on agency theory and assumes that CEOs increasingly appropriate perquisites as their interests become less aligned with the shareholders' interests or as the board monitoring decreases (Jensen & Meckling, 1976). However, another view—also building on agency theory—is that organizations periodically adjust CEO pay based on prior performance and the use of perks (Fama, 1980). In other words, the latter view suggests that there is a negative relationship between the use of perquisites and CEO's monetary compensation *ceteris paribus*. However, empirical support for either of these two views is limited.

Empirical research focusing on the performance implications of CEO perquisites has provided limited support for the predictions from agency theory. For instance, in a study of the use of corporate aircraft for CEO personal travel, Yermack (2006) finds that

private use is associated with negative future firm performance. Although the author does not find significant relationships between the personal use of corporate aircraft and compensation, board monitoring, or ownership variables, the author finds that the disclosure of the CEO's personal use of corporate aircraft negatively impacts the organization's stock price. Therefore, the above suggests that the personal use of corporate aircraft is an agency cost; first, it negatively impacts stock prices, and second, it is negatively associated with expectations about future financial performance.

Research has also examined the determinants of CEO perquisites. Rajan and Wulf (2006) propose that the use of corporate aircraft by upper management can be explained at least partly by time-savings and increased productivity that the corporate aircraft provides. However, the authors find mixed results concerning agency theory predictions. For instance, the authors find that neither free cash flow nor institutional ownership has a direct relationship with the access to corporate aircraft, but they do find that in certain specific cases, governance is associated with lower perks. Similarly, Lee et al. (2018) find that flights with corporate aircraft to resort destinations—e.g., West Palm Beach, Las Vegas, and Scottsdale—are only partly explained by factors associated with monitoring and governance efficiency. Therefore, prior finance research on the determinants of the CEO personal use of corporate aircraft provides only mixed results for agency theory derived propositions.

In addition to agency theory derived approaches to explain CEO perquisites, both Rajan and Wulf (2006) and Yermack (2006) speculate that organizations may provide perks because of social-psychological factors. That is, certain perks may signal high status to observers. Rajan and Wulf (2006), for instance, suggest that in some cases, the



benefits for the organization may exceed the cost of a particular perk. However, neither of the above studies provide a theoretical logic to explain the relationship between status and CEO perquisites. Moreover, prior research on the effects of status on executive compensation has focused on CEO status, and this research suggests that CEO's social capital (Belliveau et al., 1996; Geletkanycz et al., 2001) and CEO certification are positively associated with CEO compensation (Wade et al., 2006). However, this research is not conclusive and has not examined organizational status. Taken together, research using what Finkelstein et al. (2009) call the social-psychological perspective to study the determinants of CEO perquisites is limited, and research using economic perspective has provided only mixed results. Therefore, in contrast to executive compensation research, the research examining CEO perquisites as a social phenomenon is limited.

### *Summary*

Overall, management literature generally lacks research on CEO perquisites, whereas finance literature has studied them using economic perspective finding only mixed results. Some finance scholars (e.g., Lee et al., 2018; Rajan & Wulf, 2006; Yermack, 2006) speculate that social factors, such as organizational status, may explain why organizations provide certain perks to their CEOs. In other words, they suggest that the social-psychological theories of organizations may explain the occurrence of CEO perks (Barnard, 1938; Finkelstein et al., 2009; Hicks, 1963). The proposed explanation is in line with previous management research on executive compensation suggesting that social factors, e.g., social comparison processes, predict executive compensation (Finkelstein et al., 2009). Therefore, in the following section, I review the literature on

organizational status to understand how organizational status, as a social-psychological factor, may be associated with CEO perquisites.

## **Organizational Status**

### *What Is It?*

The concept of organizational status is derived from sociology and social psychology, research areas that have extensively studied status (for reviews see, e.g., Jasso, 2001; Piazza & Castellucci, 2014; Sauder et al., 2012). This research has focused on social status which is understood as “a *subjective* judgement of social rank based on a *hierarchy of values*” (Piazza & Castellucci, 2014: 290). In general, sociologists and social psychologists have focused on understanding the effects of status on individuals, groups, and societies (Jasso, 2001; Piazza & Castellucci, 2014). Although the research areas explored by social status researchers are close to organization and management theory, management scholars only started to explore status in the 1990s with Podolny’s (1993) seminal work.

In his article, Podolny proposes “a status-based model of market competition” which departed from the approach taken by sociologists by defining producer’s status as “the perceived quality of that producer's products in relation to the perceived quality of that producer's competitors' products” (1993: 830). The key assumption of Podolny’s approach is that an organization’s status also reflects the status of the organizations that the focal organization is connected to (Sauder et al., 2012). Therefore, Podolny (1993) departs from sociology and social psychology research considering status in terms of social environment and hierarchy; thus, the author views status more as a signal of quality than a social ranking (Piazza & Castellucci, 2014). However, more recent status

research considers this definition problematic because of its closeness to the definition of organizational reputation, as discussed in the following section (Lange, Lee, & Dai, 2011; Piazza & Castellucci, 2014). Accordingly, after the early success of the market-based approach, management and organization scholars have moved status research closer to its origins with definitions comparable to those used by sociologists and social psychologists (Piazza & Castellucci, 2014).

Consequently, more recent management literature has moved away from perceiving the status as a signal and more like a hierarchy or ranking (Piazza & Castellucci, 2014). For instance, Washington and Zajac (2005: 284) define status as “a socially constructed, intersubjectively agreed-upon and accepted ordering or ranking of individuals, groups, organizations, or activities in a social system.” Recent management literature has widely used definitions similar to the above (Bitektine, 2011; Piazza & Castellucci, 2014; Sauder et al., 2012). Therefore, I follow this literature and define organizational status as a socially constructed ranking of organizations. Taken together, the key factor separating organizational status from organizational reputation and legitimacy is the ranking or hierarchical position of the organization, as I explain in the next section.

### *What Is It Not?*

Two concepts often associated with organizational status are organizational reputation and legitimacy (Piazza & Castellucci, 2014; Sauder et al., 2012). These concepts are often confused, or researchers use them interchangeably although they are conceptually distinct (Bitektine, 2011; Piazza & Castellucci, 2014). First, reviewing reputation research in the management literature, Lange et al. (2011) suggest that

reputation has three distinct dimensions: being known, being known for something, and generalized favorability. The first dimension, being known, catches how well the organization is known in general by the public. The second dimension, being known for something, on the other hand, covers how predictable the general public perceives the organization to be in its actions. Finally, the third dimension, generalized favorability, represents how favorable or unfavorable the opinions of the public has of the organization. Therefore, organizational reputation can be considered as a combination of the three dimensions. In other words, if an organization is generally well known, but the public has an unfavorable opinion of it, the organization's reputation is not very good. Taken together, the above suggests that reputation can be considered as a continuum from low reputation to high reputation (Bitektine, 2011). In summary, this three-dimensional approach to organizational reputation is close to Podolny's (1993) definition of organizational status as a signal of quality. Contrary to this quality-based definition, I define organizational status as a rank in the socially constructed hierarchy of organizations, and therefore, my definition of status is distinct from the above definition of reputation.

Moreover, organizational scholars have argued and showed that organizational reputation and status are distinct constructs. Washington and Zajac (2005: 283), for instance, suggest that reputation is "fundamentally an economic concept that captures perceived differences in perceived or actual quality" and provides performance-based rewards for the organization, while "status is fundamentally a sociological concept that captures differences in social rank" and generates non-performance-based benefits, e.g., privilege and discrimination. Washington and Zajac (2005) also provide a clear example

of the distinction between status and reputation. The authors explain how Jaguar, the British carmaker, used to have a low reputation because of low quality. More recently, Jaguar's reputation has improved because of quality enhancements. However, at the same time, Jaguar's status has been relatively high and stable. Ertug and Castellucci (2013), on the other hand, show how organizational reputation is associated with increased quality, whereas status is associated with increased revenues. These results imply that organizational status and reputation have distinct outcomes. Finally, Pollock, Lee, Jin, and Lashley (2015) find that organizational status and reputation have positive impacts on each other over time, and reputation has a stronger effect on status as firms become older. In sum, organizational scholars have shown that organizational status and organizational reputation are distinct constructs.

The second construct often confused with organizational status is legitimacy. Legitimacy is understood as perceptions of how well an organization's values align with the social values of what is considered acceptable (Parsons, 1960; Piazza & Castellucci, 2014; Scott, 2001). Although organizational status and legitimacy are both socially constructed and imply social acceptance, they are distinctive (Bitektine, 2011). While status is understood as a hierarchy, legitimacy is often seen as a dichotomous construct. That is, "an organization's form and behavior either fits or does not fit with the established social norms (sociopolitical legitimacy) and cognitive categories (cognitive legitimacy)" (Bitektine, 2011: 161). Moreover, organizational status is, in some cases, correlated with legitimacy, while in some other cases it is uncorrelated with legitimacy or even negatively correlated (Washington & Zajac, 2005). For instance, both tennis and football are socially legitimate sports, but tennis has higher status than football, and

football likely has higher social legitimacy because of a higher number of people following it (Haveman, 1993; Washington & Zajac, 2005). Taken together, legitimacy considers whether or not an actor follows social expectations based on certain socially constructed dimensions, whereas status contemplates how actors are placed in a rank order based on these dimensions (Piazza & Castellucci, 2014).

Above, I have reviewed the status literature to discuss what status is and what it is not. Next, I turn to review what are the advantages and disadvantages of status.

### *Status Advantages*

Organizational scholars have recognized that higher status provides several benefits for organizations (Piazza & Castellucci, 2014; Sauder et al., 2012). These benefits can be categorized into three comprehensive groups (Sauder et al., 2012). First, higher status is associated with increased revenue for a given level of quality (Sauder et al., 2012). That is, firms in higher status positions can charge more in comparison to firms in lower status positions at the same level of quality (Benjamin & Podolny, 1999; Fombrun & Shanley, 1990; Pollock et al., 2015). Similarly, higher status firms' revenues grow faster than lower status firms at the same level of quality (Podolny, Stuart, & Hannan, 1996). Second, higher status can decrease costs by enhancing resource flows at a given level of quality (Sauder et al., 2012). In other words, high status is associated with decreased transaction costs because of the organization's improved visibility and trust with exchange partners (Podolny, 1993). Moreover, high-status firms often have lower labor costs than low-status firms because of lower recruiting costs and lower levels of turnover (Bidwell & Briscoe, 2010; Bidwell, Won, Barbulescu, & Mollick, 2015; Tan & Rider, 2017). Finally, higher status firms have enhanced access to vital resources and

opportunities (Sauder et al., 2012). This access is especially beneficial for young firms which have easier access to markets and financial capital because of higher positions in the status hierarchy (Fombrun & Shanley, 1990; Jensen, 2008; Phillips, 2001; Stuart, Hoang, & Hybels, 1999). In sum, organizations in higher positions in the status hierarchy gain several benefits from their status. They gain higher revenues for a given level of quality, decreased transaction costs, and enhanced access to resources.

An important phenomenon associated with high status and the status advantage is the Matthew effect. The effect proposed originally by Merton (1968) and named based on the biblical passage in Matthew 25:29 that describes how high-status actors gain relatively more than lower status actors from their contributions or performance, and because of these rewards, higher status actors can invest in their position (Correll et al., 2017; Piazza & Castellucci, 2014; Sauder et al., 2012). Benjamin and Podolny (1999), for instance, demonstrate how high-status wineries in California are able to ask higher prices than lower status makers producing similar quality wine. Because of higher revenues, these wineries are then able to invest in their business more than other wineries. Also, status scholars have observed the Matthew effect working in several settings (Sauder et al., 2012). Taken together, the above describes how organizations in higher status positions benefit excessively from their positions, and because of the Matthew effect, they are likely to continue to do so in the future. Nevertheless, status is not only associated with beneficial outcomes for organizations as I explain next.

### *Status Disadvantages*

Status disadvantages arise from the constraints on behaviors that firms in high- and middle-status positions face (Sauder et al., 2012). However, the constraints that these

firms face are different. First, it is not beneficial for organizations in high-status positions to establish connections with low-status organizations since status is partly defined by these connections, and the establishment of a relationship with a low-status organization would negatively affect a high-status organization's position in the hierarchy (Podolny, 1993). Therefore, high-status firms are more likely to form alliances with firms in similar status positions, for instance (Chung, Singh, & Lee, 2000). Second, organizations in high-status positions may fall victim to their increased visibility, thus, facing harsher charges and being more severely impacted than lower status organizations if they are a part of a scandal or misconduct (Adut, 2005; Graffin et al., 2013; King & Carberry, 2018; McDonnell & King, 2018; Sauder et al., 2012). McDonnell and King (2018), for example, demonstrate that although high-status companies are less likely to be found liable of transgressions, they face harsher punishments than companies in lower status positions if found blameworthy. Therefore, although high-status organizations may have more leeway for their actions, the punishment for illegitimate actions is more severe. Third, existing companies are more likely to take competitive actions against higher status than lower status companies entering new markets (Jensen, 2008). Therefore, it is harder for organizations in higher status positions to expand to new markets and grow in comparison to lower status organizations. In summary, although higher status organizations gain several benefits from their position, they are also facing some disadvantages because of the position.

Middle-status organizations, on the other hand, gain fewer benefits than high-status organizations from their positions in the status hierarchy, but their behaviors are more constrained than the actions of high- or low-status organizations. Phillips and



Zuckerman (2001) suggest that this is because of middle-status conformity which suggests that middle-status companies are concerned about their legitimacy, hence, limiting their potential actions. While high-status and low-status organizations can deviate from behavioral norms, middle-status organizations cannot do this without risking their positions within the status hierarchy. However, Phillips et al. (2013) show that high-status organizations (i.e., high-status corporate law firms) can violate membership norms but not loyalty norms without losing legitimacy. That is, these high-status law firms can practice family law, but they cannot be disloyal to their corporate customers and do personal injury law without losing their legitimacy. On the other hand, Phillips and Zuckerman (2001) show that middle-status corporate law firms cannot do family law at all without losing their legitimacy. This is because family law is considered as a less pure form of law than corporate law or personal injury law (Phillips et al., 2013).

Similarly, Durand and Kremp (2016) show that both middle-status orchestras and their leaders are more likely to present conventional programming than their high- and low-status peers, thus, providing additional support for middle-status conformity. In sum, middle-status conformity suggests that middle-status organizations have to conform to social expectations because of legitimacy concerns, while high-status organizations do not have to conform as much to some of these expectations. On the other hand, low-status organizations do not have to conform to these expectations at all, since they have nothing to lose (Durand & Kremp, 2016). Taken together, I have explained above why high- and middle-status organizations are limited in actions they can make without jeopardizing their positions in the status hierarchy.

## *Summary*

Overall, the above review of the organizational status literature suggests that a high rank in the status hierarchy provides several benefits for an organization. More importantly, higher status firms can act in ways that may be considered as illegitimate within reason without consequences. The above suggests that high-status organizations may be able to provide perks that other organizations cannot because the provision of these perks by lower status organizations may be seen as illegitimate. On the other hand, high-status organizations confront some disadvantages, too. Middle-status organizations may be the most limited in the possible actions they can make because of conformity expectations that are unlike those that high- and low-status organizations face.

Furthermore, these middle-status organizations do not gain similar benefits from their status that higher status organizations do because of the Matthew effect. Finally, one aspect of status that I did not explore in the above review is how status and specifically the position in the status hierarchy can act as a signal. However, this signal is distinct from that of reputation (Malter, 2014). Next, I review this research because it may increase our understanding of the processes that explain the association between organizational status and CEO perquisites.

## **Signaling Theory and Status**

### *Signaling Theory*

Signaling theory assumes that actors can emit signals to other actors to decrease information asymmetries between the actors (Connelly, Certo, Ireland, & Reutzel, 2011; Spence, 2002). In his seminal work, Spence (1973) proposed that in the labor market, a job applicant can signal his or her quality to a potential employer by having a rigorous

education. Otherwise, the employer may not have any information to evaluate the applicant's quality. If the employer observes the signal and hires the applicant, the end-result is decreased information asymmetry or what economists would call an equilibrium between the applicant and the employer. Moreover, Spence assumes that the cost to imitate the signal should be high (Connelly et al., 2011). Similarly, it is important that the signal corresponds to the quality the focal actor is trying to signal and that the signal is easily observable (Bergh, Connelly, Ketchen, & Shannon, 2014; Connelly et al., 2011).

Organizational scholars have used signaling theory widely to explain how managers send signals to outside observers to decrease information asymmetries between the parties (Connelly et al., 2011). Certo (2003), for instance, argues that companies close to initial public offerings (IPOs) are likely to appoint high-status directors to their boards. These companies appoint high-status directors to signal investors that the organizations are legitimate. These signals are credible since the signal is easy to observe from the prospectus and it is difficult and costly to attract high-status directors (Certo, 2003). That is, it is expensive for an illegitimate organization to attract high-status directors that are careful with their decisions to join the company boards because of the potential negative consequences of association with unsuccessful companies. Certo (2003) also argues that the investors are willing to pay higher stock prices at the IPO because of the signals that the high-status directors send.

Tan and Rider (2017), on the other hand, demonstrate how career-advancing employee departures from an organization can act as a positive signal to potential new hires, hence, indicating the status of the organization. That is, the potential future employees see these future career-advancing movements as desirable outcomes, and

these opportunities are more available for the employees of high-status organizations. In addition, it is difficult and expensive for low-status organizations to become an attractive source of employees. Therefore, employee turnover, while being costly to the focal company, is a clear signal benefitting the company by decreasing information asymmetry between it and the potential new hires. Moreover, Askin and Bothner (2016) examine private universities and colleges in the USA and show how these organizations increase tuition after status losses to emit quality signals to potential students. Therefore, these institutions use the price of education as an easily observable quality signal to the potential students. Finally, Zhang and Wiersema (2009) claim that organizations rely on CEO background to signal credibility of the company's security filings. The authors suggest that higher the potential costs associated with fraudulent security filings borne by the CEO are, stronger the signal is. Taken together, management research has established that signals can decrease information asymmetries between different actors, such as organizations, as long as they are easy to observe and costly to imitate.

### *Status as a Signal*

Organizational scholars studying status established early that organizational status is a signal of quality (Piazza & Castellucci, 2014; Sauder et al., 2012). This stream of status research builds on Podolny's (1993) definition of status as the perceived quality of organization's products or services in relation those of to its competitors (Piazza & Castellucci, 2014; Podolny, 2005). The research assumes that if there are uncertainties regarding quality, the audience will use status as the signal of quality (Piazza & Castellucci, 2014). Consequently, organizations with unknown status are classified as low status (Bitektine, 2011). There are several reasons for quality related uncertainties.

For instance, the actual quality and consumers' perceptions of quality can change at different paces, and the diffusion of information regarding the quality between actors is a stochastic process (Podolny, 1993). Although management researchers have presented competing conceptualizations of status, the status as a signal perspective is still widely used because of the idea's insightfulness and general appeal (Piazza & Castellucci, 2014).

Management research following the status as a signal perspective has found that status is not only a signal of quality. For instance, Simcoe and Waguespack (2010) find that high-status authors submitting proposals to the Internet Engineering Task Force are published significantly more than proposals from low-status authors. What makes this finding remarkable is that the authors were able to utilize a natural experiment since the names of trailing co-authors were omitted in some cases. Thus, the authors could examine status-effects while keeping proposals' quality constant. The authors' findings follow the predictions of the Matthew effect, i.e., proposals from high-status authors were more likely to get published. Moreover, Pollock, Chen, Jackson, and Hambrick (2010) studying young firms find that high-status affiliates, such as high-status executives, outside directors, underwriters, and affiliated venture capital firms, are all associated with higher initial public offering (IPO) valuations. The authors argue that high-status affiliates signal confidence of future success to the potential investors, hence, decreasing information asymmetries between the organization and investors. Similarly, Reschke, Azoulay, and Stuart (2017) show how status-conferring prizes move the allocation of attention from non-winners to winners. In the context of the study, the non-winning scientists changed career paths in search of new scientific opportunities. The reason for the change was that after the winner was announced, the research of non-winners became

less impactful, even though the actual quality differences were likely negligible between the top candidates (Lynn, Podolny, & Tao, 2009).

Finally, Malter (2014) examines the causal relationship between organizational status and returns derived from it. Although the author considers status as a signal, he is able to separate status from reputation and quality. Therefore, Malter differentiates the effects of reputation and quality from the effect of status and how these effects are associated with the price of the end-product. Studying high-end French red wines, the author shows that high-status wine producers can ask for higher prices while controlling for quality and reputation, and these producers gain relatively greater returns on status than lower status wine producers. Malter (2014) also argues that studies examining status signals are easily biased if they lack good controls for quality. That is, it is not enough to only control for the current quality without controlling for reputation, or perceptions of past quality, (Malter, 2014; Piazza & Castellucci, 2014). In summary, research on status signals suggests that these signals benefit organizations. However, it is important that researchers examine the effect of status separately from the effect of reputation—that is, to study the effects of social rank independently of those of the perceived and expected quality.

### *Summary*

In conclusion, management research examining status signals has shown that status signals provide organizations with benefits that are distinct from those arising from reputation and quality (Malter, 2014; Piazza & Castellucci, 2014). At the same time, status research has moved forward, and researchers have adopted competing, broader conceptualizations of status as discussed earlier. On the other hand, my review of CEO

perquisite literature implies that some CEO perks can be considered as status signals. Coincidentally, Finkelstein et al. (2009) suggest that social comparison processes affect executive compensation. Therefore, I review management research on social comparison processes and their effect on executive compensation.

## **Social Comparison Theory and Executive Compensation**

### *Social Comparison Theory*

Social comparison theory proposes that individuals have a need to self-assess their opinions, beliefs, and abilities, and then compare themselves with similar others (Festinger, 1954; Finkelstein et al., 2009; Suls & Wheeler, 2012). Moreover, an important part of social comparison theory is that individuals want to be better than others—Festinger (1954) calls this a unidirectional drive upward—but at the same time they have a need for similarity in abilities and beliefs (Festinger, 1954; Suls & Wheeler, 2012). Because of these opposite needs, individuals want to be only marginally better than others (Brewer, 1991). That is, individuals have a need to be ranked higher—although not much—than the ones they are comparing themselves to. The above implies that individuals are likely to compare themselves with similar others who are better or higher ranked than themselves (Wheeler, 1966). This comparison is often referred to as an upward comparison. Because of the need for similarity, an individual wants either to change the others to become more similar to the individual or to change himself to become more similar to the others, and if these actions fail, the individual stops comparing himself with dissimilar others (Suls & Wheeler, 2012). Strategic management scholars have used social comparison theory, for instance, as one of the determinants of executive compensation (Finkelstein et al., 2009).

### *Social Comparison Processes and Executive Compensation*

In one of the first studies using social comparison theory in executive compensation research, O'Reilly et al. (1988) examine social comparisons in compensation committees. The authors show that the members of the compensation committee compare the focal firm's CEO compensation to their compensation as CEOs in other organizations and salaries of similar others (i.e., similar CEOs). In other words, the members of the compensation committee use their compensation as anchors which they then compare focal firm's CEO compensation to (O'Reilly et al., 1988; Tversky & Kahneman, 1974). Similarly, Boivie, Bednar, and Barker (2015) suggest that boards of directors set their own compensation based on the director compensation they have received at other companies. The authors also find that on average, director compensation is always adjusted upwards even though the focal organization could be paying more than the organization in the comparison group are paying, therefore, suggesting that social comparisons are more likely to lead to increases than decreases in executive compensation.

Moreover, it is not only the directors who conduct social comparisons, as Belliveau et al. (1996) show that CEOs compare themselves with other CEOs, and hence, high-status CEOs are more likely to have higher compensation than other CEOs. In addition, CEOs may also select between financial and non-financial (e.g., perks) compensation, and in some cases, nonfinancial compensation may be more intriguing as it can send a different signal to other CEOs who have engaged in social comparisons (Finkelstein et al., 2009). Similarly, sometimes the organization may provide a perk on top of other compensation forms because of social comparisons (van Veen & Wittek,



2016). Consequently, a perk may be offered to substitute or complement other compensation forms because of social comparison processes.

Finally, social comparison processes may also explain trends in executive compensation. DiPrete, Eirich, and Pittinsky (2010) propose that over the years, several organizations have switched the organizations that they compare themselves to in order to legitimize increases in executive compensation. That is, organizations have been revising companies belonging to their compensation comparison groups—adding companies with high CEO compensation and dropping ones with low CEO compensation—in order to increase the average compensation of the firms in the comparison groups. While these changes in comparison groups may have caused increases in compensation only in a few organizations, social comparison processes explain how these changes have increased overall executive compensation. In other words, organizations compare their compensation policies to the compensation policies provided by similar firms, and even if only a few companies follow the above-described practice, the increased compensation in these companies will justify compensation increases in other companies. Therefore, social comparisons between organizations may explain how changes in compensation practices diffuse from one organization to another.

### *Summary*

Taken together, individuals, including executives, are keen to engage in social comparisons. Therefore, executives compare themselves with other executives, and these comparisons are often upward comparisons. In sum, I expect that the CEO of a middle-status organization is more likely to compare himself or herself with the CEO of a higher status organization than a CEO from an organization with similar status as the focal

organization. Similarly, organizations are likely to compare themselves with higher status organizations. Consequently, organizations trying to decide what CEO perquisites they will provide to the CEO may engage in social comparisons with higher status organizations that are otherwise similar. In the next chapter, I present argumentation supporting this line of reasoning.

## CHAPTER 3

### THEORY DEVELOPMENT AND HYPOTHESES

In this chapter, I build on the above literature review and propose three hypotheses examining the relationship between organizational status and CEO perquisites. For theoretical and empirical reasons, I narrow the proposed hypotheses to a specific CEO perquisite. Specifically, I hypothesize that organizational status is positively related to the focal organization mandating the CEO to use corporate aircraft for personal travel. In other words, the organization will cover the CEO's personal travel with corporate aircraft and prohibit him or her from using commercial airlines altogether. Also, I propose five contingencies moderating the hypothesized direct relationships. The proposed hypotheses answer the key research question: Is organizational status associated with CEO perquisites?

#### **Theory Development**

Although research on executive compensation has a long history in management research, only a few studies have examined CEO perquisites and most of this prior research is in the finance literature. However, this literature has predominantly used an economic perspective to understand why organizations offer CEO perquisites (e.g., Rajan & Wulf, 2006; Yermack, 2006). That is, these studies have focused on examining how agency theory related factors, such as board monitoring and other governance structures, predict CEO perquisites. The results of these studies have been mixed, showing some support for the predictions of agency theory. Because of the mixed results, finance scholars have suggested that social-psychological factors could help us to understand the existence of these perks. For instance, both Rajan and Wulf (2006) and Yermack (2006)

speculate that status might be a reason why organizations provide these benefits to their CEOs. Interestingly, management literature studying executive compensation has recognized that economic factors are not the only factors predicting CEO compensation (e.g., Devers et al., 2007; Finkelstein et al., 2009). Finkelstein et al. (2009), for instance, suggest that although research building on the economic theories of organizations has been prevalent, researchers have also relied on the social-psychological and political theories of organizations to study executive compensation. Moreover, researchers applying a social-psychological perspective have found that a CEO's status in comparison to other CEOs' status predicts CEO compensation (Belliveau et al., 1996). Nevertheless, my review of management and finance research suggests that very little is known about social-psychological factors, such as organizational status, and their relationship with CEO perquisites. This deficiency limits our understanding of the determinants of CEO perquisites.

Given the deficiency, I propose that organizational status is one of the social-psychological determinants associated with CEO perquisites. More precisely, I predict that higher status organizations are more likely to offer CEO perquisites than lower status organizations. I suggest this for several reasons. First, prior research building on agency theory, in general, considers CEO perquisites as negative or controversial (Bertrand, 2009; Jensen & Meckling, 1976; Yermack, 2006). Hence, organizations providing their CEOs with perks are likely to face legitimacy concerns from their shareholders. However, previous research suggests that higher status organizations can deviate from behavioral norms without incurring any negative consequences to themselves (Phillips et al., 2013; Phillips & Zuckerman, 2001). For lower status organizations and especially for

middle-status organizations, these negative consequences make it more difficult for organizations to justify CEO perquisites. Therefore, higher status organizations are less likely than lower status organizations to incur additional costs from the CEO perquisites and more likely to provide perquisites for their CEOs.

Second, the research on the Matthew effect (Merton, 1968) suggests that high-status organizations benefit relatively more from their status than lower status organizations (Benjamin & Podolny, 1999; Piazza & Castellucci, 2014). In other words, the relationship between status and the benefits derived from status are not linear. Moreover, there are at least three main benefits arising from high status: higher revenues, better access to resources, and lower transaction costs (Sauder et al., 2012). Therefore, higher organizational status is associated with more substantial benefits, and the benefits resulting from the increased organizational status are more likely to exceed the costs of CEO perquisites as organizational status increases when the offering of the CEO perquisite is associated with higher status. These costs include not only the actual cost of the perquisite but also other agency costs. Consequently, higher status organizations are more likely to provide perquisites to their CEOs.

Third, prior research speculates that some CEO perquisites are seen as status signals, at least the readily observable ones (Rajan & Wulf, 2006; Yermack, 2006). Therefore, organizations may use certain CEO perquisites to signal their status. Research also suggests that executives are status-driven and that they make upward social comparisons to other executives (Finkelstein et al., 2009; O'Reilly et al., 1988; Park & Westphal, 2013; Porac et al., 1999). Thus, both the members of the board of directors and the CEO may not only track the status of their focal organization, but also the status of

similar companies. Furthermore, the top leaders of the focal organization, meaning the CEO and the directors, have a need to be considered as marginally better than other top leaders in similar organizations (Festinger, 1954; Suls & Wheeler, 2012). In other words, the directors, for instance, want to be on the board of a higher status organization because organizational status reflects positively on their status, and the higher the organizational status is, the more they will benefit from their status (Belliveau et al., 1996; Fiss, 2006; Graffin et al., 2008; Westphal & Khanna, 2003). Consequently, the members of the board of directors and the compensation committee have a motive to emit status signals and provide perquisites to the CEO to increase their status and the organization's future status and to gain more status-derived benefits. Furthermore, I expect that the above logic also applies to CEOs.

Taken together, I have stated three specific rationales suggesting that higher organizational status is positively associated with the likelihood of an organization to provide CEO perquisites. However, not all CEO perquisites are alike (Rajan & Wulf, 2006; Yermack, 2006). Therefore, I next provide a justification why it is theoretically imperative to study the above relationship focusing on a specific CEO perquisite, namely the mandatory CEO use of corporate aircraft for personal travel.

### **The Context of the Proposed Study**

In the proposed study, I investigate the relationship between organizational status and CEO perquisites. Furthermore, I focus on examining a specific CEO perquisite, namely the CEO's mandatory use of corporate aircraft for personal travel. That is, I study why organizational status may be associated with an organization mandating its CEO to use corporate aircraft not only for business travel but also for personal travel. My focus

on this particular perk is theoretically motivated. As Yermack (2006) explains, organizations have to report the use of corporate aircraft for personal travel in the proxy statement because of the rules of the U.S. Securities and Exchange Commission (SEC). Since the year 2006, the limit for reporting the private use of corporate aircraft and other perks has been \$10,000 (Grinstein et al., 2017). The limit is high enough that the value of most other perquisites falls under the limit. Therefore, data for aircraft use is more reliable than for the other perks, and it is easily accessible and available for all public firms. The above reasons explain why most of the recent research on perks has focused on the use of corporate aircraft (e.g., Boivie et al., 2011; Lee et al., 2018; Rajan & Wulf, 2006; Yermack, 2006). However, my main theoretical motivation for focusing on the CEO's mandatory use of corporate aircraft for personal travel perquisite is that it can be easily observed by the audience unlike other perquisites (Boivie et al., 2011; Yermack, 2006), hence, suggesting that it may signal status. Moreover, both academic research and the popular press have speculated that the use of corporate aircraft is a status signal.

The prior management and finance research suggest that a CEO's access to corporate aircraft indicates his or her status (McDonald & Westphal, 2010; Rijsenbilt & Commandeur, 2013; Yermack, 2006). This research has viewed access to corporate aircraft as a status signal showing his or her position at the top of the firm. In other words, the research suggests that the CEO's use of corporate aircraft signals to observers that the person is at the top of the social ranking. Therefore, I expect that an organizational mandate for the CEO to only use corporate aircraft for personal travel sends a strong status signal to the audience. Because of the SEC regulations, organizations have to publicly report in proxy statements that they provide this particular

benefit to their CEOs making it readily observable for everyone. It is also noteworthy that the US government regards these perks as compensation, and thus, tax them as income (Yermack, 2006). Therefore, in addition to paying for the costs associated with the perk if the use of corporate aircraft for personal travel is mandatory, the employer may also cover the income taxes associated with the use of the perk. Moreover, unlike the costs of using corporate aircraft for business travel, the above costs are not tax deductible for organizations. Therefore, mandating the CEO to use corporate aircraft for personal travel can become an expensive proposition for the organization. The popular press has reported that the annual reported value of the personal use of corporate aircraft, not the actual cost which can be higher, has been over one million dollars for some CEOs (Crow et al., 2016). The popular press has also reported that organizations often state that they provide this perk because of security reasons (Black, 2014). However, several articles suggest that this is more of an excuse and security reasons only apply in a limited number of cases (Black, 2014; Crow et al., 2016; Fabrikant, 2006; Stewart, 2015). For instance, David Schmidt, a senior analyst at Arthur J. Gallagher, suggests that executives use corporate aircraft for personal travel because of its convenience and safety and because it signals status (Stewart, 2015). One additional reason why the mandatory use of corporate aircraft for personal travel is a definite status signal is that it is something that the CEO cannot buy, i.e., only an organization can mandate the CEO to use corporate aircraft for personal travel. Although, most CEOs earn enough to pay for personal travel with a private jet with their own money (Crow et al., 2016). Therefore, the above implies that the perquisite provides organizations and CEOs non-monetary benefits such as status.



In sum, the above suggests that the mandatory CEO use of corporate aircraft for personal travel is a status signal, and both organizations and CEOs use it to signal their position in the social hierarchy. Moreover, since the perk is disclosed in the proxy statements unlike other perks, the audience, e.g., other organizations and executives, can easily observe this specific perquisite. In case of other perks, such as country club memberships or chauffeur-driven cars, only a limited number of observers will know of the perk, and they are not reported in proxy statements because of their relatively low value. In addition, CEOs could easily pay country club memberships, but only the boards of directors can mandate the CEOs to travel using only corporate aircraft suggesting that the perquisite is a clear status signal. On the other hand, the cost of providing this perk is not trivial, hence, suggesting that the benefits from perk should be notable for an organization to provide it. This is important considering that the previous research regards the personal use of corporate aircraft as an agency cost and that research shows that investors react negatively on the personal use of corporate aircraft perquisite announcements. Therefore, I suggest that it is both theoretically and empirically justified to focus on this specific perk in the following section.

### **Organizational Status and the Mandatory CEO Personal Use of Corporate Aircraft**

As discussed above, I posit that organizational status is positively associated with the likelihood of an organization to offer CEO perquisites. I also argue that it is theoretically justifiable to focus the analysis on a specific CEO perquisite—the mandatory CEO use of corporate aircraft for personal use perquisite. I suggest that three specific rationales explain why higher status organizations are more likely than lower status organizations to provide CEO perquisites. First, in comparison to lower status

organizations, higher status organizations are less likely to incur additional costs in addition to the cost of the perk and the associated agency costs because they are not limited by conformity expectations that lower status organizations face. Second, the members of the board of directors, including the members of the compensation committee, are more likely to mandate the CEO to use corporate aircraft for personal travel as the organization's status increases because of the signaling effect. Finally, higher the organizational status is, the more substantial are the benefits that the organization gains from its status. This effect on benefits applies to directors too. In sum, I expect that the benefits that the organization derives from the perk increase as organizational status increases while the costs associated with the perk decrease as organizational status increases, and therefore, I expect that the benefits from the perk are more likely to exceed its costs higher the organizational status is. In sum, I propose that organizational status leads to the mandatory CEO use of corporate aircraft for personal travel.

*Hypothesis 1: Organizational status leads to the mandatory CEO use of corporate aircraft for personal travel.*

Secondly, I propose that high- and low-status organizations are more likely than middle-status organizations to mandate their CEOs to use corporate aircraft for personal travel because of middle-status conformity. That is, the above hypothesis suggests a linear relationship between organizational status and the mandatory CEO use of corporate aircraft for personal travel perk. However, research on middle-status conformity suggests that this may not be the case (Durand & Kremp, 2016; Phillips & Zuckerman, 2001). This research suggests that whereas high-status organizations can deviate from behavioral norms to some extent because of their status, middle-status actors do not enjoy similar

liberty in their actions (Durand & Kremp, 2016; Phillips & Zuckerman, 2001; Sauder et al., 2012). The reason for this limitation is that middle-status organizations are concerned about their legitimacy. In other words, the middle-status organizations are concerned how their shareholders and other stakeholders will regard the mandatory CEO use of corporate aircraft for personal travel perk and especially whether or not the perk is opposed by shareholders. As discussed earlier, middle-status conformity research suggests that if the provision of the perquisite is against shareholders' interests, middle-status organizations will face more severe penalties and sanctions than high- or low-status organizations (Durand & Kremp, 2016; Phillips & Zuckerman, 2001). For instance, their position in the status hierarchy is at risk, and thus, the benefits they derive from the status are also at risk. At the same time, high-status organizations are protected by their position (Phillips & Zuckerman, 2001). In other words, even though the perk may be against shareholder interests, high-status organizations are not likely to face any adverse effects because high status assures their legitimacy against actions that only slightly deviate from shareholders' interests and expectations. In contrast to high- or middle-status organizations, there are a few expectations towards low-status organizations. That is, the low-status organizations are already at the bottom of the status hierarchy, and hence, they have less to lose and less need to conform to expectations (Phillips & Zuckerman, 2001). Middle-status organizations, on the other hand, have more to lose than either high- or low-status organizations.

In sum, I suggest that middle-status organizations are less likely than high- and low-status organizations to mandate the CEO to use corporate aircraft for personal travel, since high-status organizations are protected by their status against adverse reactions to

the provision of the perk and low-status organizations do not have much to lose regarding their status. Middle-status organizations, on the other hand, do not have either of these factors on their side. Consequently, I expect that high- and low-status organizations are more likely than medium-status organizations to mandate the CEO to use corporate aircraft for personal travel.

*Hypothesis 2: Both high- or low-status organizations are more likely than middle-status organizations to mandate their CEOs to use corporate aircraft for personal travel.*

Finally, I suggest that the status of the company's directors increases the likelihood of the mandatory CEO use of corporate aircraft for personal travel. As above, I expect that higher status organizations have more freedom than lower status organizations to act against behavioral norms before these acts are regarded as illegitimate by the audience (Durand & Kremp, 2016; Phillips & Zuckerman, 2001). In addition, research suggests that directors are status-driven (Park & Westphal, 2013). Therefore, I expect that directors may offer the perk because of its value as a status signal, thus, signaling other directors the status of the focal organization. This signaling, on the other hand, reflects positively on their status providing additional justification for offering the perk.

In sum, I propose that organizations with higher status directors are more likely than organizations with lower status directors to sufficiently gain benefits from offering the perk to exceed the costs associated with it. Consequently, I expect that director status leads to the mandatory CEO use of corporate aircraft for personal travel.

*Hypothesis 3: Director status leads to the mandatory CEO use of corporate aircraft for personal travel.*

## **Contingency Factors**

In the previous section, I explored the direct relationship between organizational status and the mandatory CEO use of corporate aircraft for personal travel. In this section, I turn my focus to the contingency factors moderating the proposed relationships. I propose five contingencies moderating the proposed relationships: the number of organizations offering the perquisite within the focal industry; board interlocks to organizations offering the perquisite; connections through compensation committee members to organizations offering the perquisite; organization's financial performance; and CEO power.

### *Other Organizations Within the Industry*

First, I propose the number of organizations already offering the mandatory CEO use of corporate aircraft for personal travel perk within the focal organization's industry weakens the proposed direct relationships. I suggest this for several reasons. First, organizational research suggests that organizations may face institutional pressures to adopt a policy if other organizations within the industry have already adopted it (DiMaggio & Powell, 1983; Galaskiewicz & Wasserman, 1989; Scott & Davis, 2007). Hambrick and Finkelstein (1995), for instance, show that CEO compensation follows trends in industry pay patterns. Similarly, Christmann (2004) show how companies adopt environmental policies based on the actions of other companies within the industry. The author finds that the pressure felt by the focal company to follow other companies' actions increased the likelihood of the focal company to adopt these policies. Sanders and Tuschke (2007), on the other hand, find that organizations adopt institutionally contested practices because of pressures for structural equivalence within the industry, i.e.,

pressures to act as other organizations with similar roles in the industry do (Burt, 1987).

The above suggests that as more and more organizations adopt specific policies and practices within an industry, other factors affecting the adoption decision become less salient.

Consequently, I expect that organizations become more prone to offer the mandatory CEO use of corporate aircraft for personal travel perk as more and more organizations within the industry begin to offer it regardless of the organizational status. This is because as an increasing number of organizations offer the perk, it becomes more legitimized within the industry to offer the perk. Therefore, the legitimacy costs connected with the provision of the perk decrease, and more and more organizations will offer it. Consequently, if enough organizations within an industry are offering the perk, it may become difficult for an organization not to offer it regardless of their organizational status.

Social comparison theory, on the other hand, suggests that the directors and the CEO of the focal organization are likely to compare the focal organization and themselves with other organizations within the industry and the executives of these organizations. These comparisons increase the likelihood of an organization to offer the perk when other organizations are already offering it. At the same time, the increased offering of the perk within the industry decreases the perk's value as a status signal, hence, decreasing the status benefits derived from the perk. Thus, the effect of organizational status on the likelihood of the focal organization to offer the perk weakens as the number of organizations within the industry offering the perk increases.

Consequently, I hypothesize that the number of organizations already offering the perk within an industry weakens the proposed positive relationship between organizational status and the provision of the perk. Similarly, I expect that the above logic applies to the hypothesized relationships between middle-status organizations in comparison to low- or high-status organizations and whether or not the organizations offer the perk and also the relationship between director status and the provision of the perk.

*Hypothesis 4a: The number of organizations offering the mandatory CEO use of corporate aircraft for personal travel perk within the focal organization's industry moderates the relationship between organizational status and the provision of the perk, such that the relationship weakens as more organizations offer the perk.*

*Hypothesis 4b: The number of organizations offering the mandatory CEO use of corporate aircraft for personal travel perk within the focal organization's industry moderates the relationship between a middle-status organization in comparison to a low- or high-status organization and the provision of the perk, such that the relationship weakens as more organizations offer the perk.*

*Hypothesis 4c: The number of organizations offering the mandatory CEO use of corporate aircraft for personal travel perk within the focal organization's industry moderates the relationship between director status and the provision of the perk, such that the relationship weakens as more organizations offer the perk.*

### *Organizations Connected Through Board Interlocks*

Second, I suggest that the number of board interlocks to organizations already offering the perquisite weakens the proposed relationships. Previous studies (e.g., Davis, 1991; Haunschild, 1993, 1994; Haunschild & Beckman, 1998) have shown how policies and practices diffuse through board interlocks from one company to another. This research builds on the ideas of interorganizational contagion and cohesion (Burt, 1987; Davis, 1991). Burt (1987), for instance, explains that directors can learn vicariously about

practices from other directors who are sitting on the board and have already experienced the practice in other organizations that have adopted these practices. These directors sitting on several boards are then able to help various boards to evaluate the practices, at the same time, promoting cohesion within these organizations. Moreover, board interlocks are particularly well-suited for this kind of information exchange, since they are based on mutual trust and two-way communication (Westphal, 1999). More recently, Sanders and Tuschke (2007) show how institutionally contested organizational practices are diffused through board interlocks. However, recent research suggests that because of the changes in board appointment practices, the board interlock networks of the large US corporations are not cohesive enough to sustain diffusion of information and practices (Chu & Davis, 2016). While this argument remains empirically untested, it suggests that the diffusion of practices through interlocks may not be as evident as it was once. Taken together, the above suggests that practices diffuse through board interlocks, but there are concerns that the interlocks network is becoming more and more sparse, and hence, diffusions may not happen as they used to.

In addition to research building on network cohesion and contagion, previous research on social comparison processes suggests that directors are likely to compare focal organization's compensation policies with those offered by other organizations whose boards they serve on (O'Reilly et al., 1988). This research suggests that it is natural for directors to compare compensation policies between organizations they serve on because it is convenient to make these comparisons. Moreover, the tendency for upward comparisons suggests the directors are more likely to offer compensation policies seen as status signals because of the potential improvements in the directors' positions in



the social hierarchy and the increased status associated with improved positions. However, the value of the mandatory CEO use of corporate aircraft for personal travel perquisite as a status signal decreases as the number of companies offering it increases. Therefore, although organizations may increasingly offer the perk as more and more interlocked organizations offer it, the differences in the amount of benefits derived from the perk between higher status and lower status organizations decreases at the same time. Therefore, the above implies that the provision of the perk by interlocked companies weakens the proposed relationships.

Finally, the norm of reciprocity suggests that directors who are also as CEOs on other companies may want to reciprocate their benefits to other CEOs (Gouldner, 1960). Westphal and Zajac (1997), for example, show how directors who also serve as CEOs at other companies are less likely to support director appointments resulting in increased board independence. On the other hand, similar directors who have experienced increases in board independence in their own companies are more likely to support increases in board independence in other companies. Taken together, the above suggests that because of the norm of reciprocity, factors such as organizational status are less salient to directors associated with organizations providing the perk while deciding whether or not to offer the perk.

To summarize, the above suggests that the effect of organizational status on the mandatory CEO use of corporate aircraft for personal travel perk will be weaker when many of the interlocked firms offer the perk. Therefore, I propose that the number of board interlocks to organizations already offering the perk weakens the proposed relationships. Similarly, I expect that the above logic applies to the hypothesized

relationships between middle-status organizations in comparison to low- or high-status organizations and whether or not the organizations offer the perk and also the relationship between director status and the provision of the perk.

*Hypothesis 5a: Provision of the mandatory CEO use of corporate aircraft for personal travel perk by organizations connected through board interlocks moderates the relationship between organizational status and the provision of the perk, such that the relationship weakens as organizations connected through board interlocks offer the perk.*

*Hypothesis 5b: Provision of the mandatory CEO use of corporate aircraft for personal travel perk by organizations connected through board interlocks moderates the relationship between a middle-status organization in comparison to a low- or high-status organization and the provision of the perk, such that the relationship weakens as organizations connected through board interlocks offer the perk.*

*Hypothesis 5c: Provision of the mandatory CEO use of corporate aircraft for personal travel perk by organizations connected through board interlocks moderates the relationship between director status and the provision of the perk, such that the relationship weakens as organizations connected through board interlocks offer the perk.*

### *Organizations Connected Through the Compensation Committee Members*

Next, I focus my argumentation on a specific set of directors, namely the members of the compensation committee. These directors are responsible for setting the level of CEO compensation (Chhaochharia & Grinstein, 2009). Although the members of the compensation committee have traditionally been outsiders, recent regulatory changes have made this mandatory (Guthrie, Sokolowsky, & Wan, 2012; O'Reilly et al., 1988). Consequently, I expect that the logic I proposed in the previous section are particularly appropriate for the members of the compensation committee. That is, since the members of the compensation committee are ultimately responsible for deciding which perquisites

the organization provides to its CEO (Chhaochharia & Grinstein, 2009), they are more likely to influence the compensation decisions than other board members.

Specifically, I expect that the hypothesized direct relationships weaken as the number of companies connected through the members of the compensation committee offer the perk. Therefore, I propose that the number of connections by the compensation committee members to organizations already offering the mandatory CEO use of corporate aircraft for personal travel perk is the third moderator.

*Hypothesis 6a: Provision of the mandatory CEO use of corporate aircraft for personal travel perk by organizations connected through the compensation committee members moderates the relationship between organizational status and the provision of the perk, such that the relationship weakens as more organizations connected through the compensation committee members offer the perk.*

*Hypothesis 6b: Provision of the mandatory CEO use of corporate aircraft for personal travel perk by organizations connected through the compensation committee members moderates the relationship between a middle-status organization in comparison to a low- or high-status organization and the provision of the perk, such that the relationship weakens as more organizations connected through the compensation committee members offer the perk.*

*Hypothesis 6c: Provision of the mandatory CEO use of corporate aircraft for personal travel perk by organizations connected through the compensation committee members moderates the relationship between director status and the provision of the perk, such that the relationship weakens as more organizations connected through the compensation committee members offer the perk.*

### *Financial Performance*

Fourth, I posit that an organization's financial performance weakens the proposed direct relationships. I expect this for several reasons. First, prior research suggests that good performance provides the company with slack resources (Cyert & March, 1963), and agency theory suggests that CEOs can use these slack resources to “the pursuit of power, prestige, money, and job” (Jensen & Meckling, 1976; Leibenstein, 1969; Tan &

Peng, 2003: 1251). Therefore, I expect that other factors, such as organizational status, affecting the decision of whether or not to offer the perk become less salient as organizations' slack resources increase.

Furthermore and more importantly, prior research suggests that good firm performance in comparison to expectations directs board members' attention away from monitoring activities (Tuggle et al., 2010; Wiseman & Gomez-Mejia, 1998). Moreover, since board members are likely to face reputational damage because of poor performance (Fama, 1980; Tuggle et al., 2010), poor performance will increase board vigilance (Finkelstein & D'Aveni, 1994). Finally, Finkelstein et al. (2009) imply that boards are more likely to act on agency problems when the company is performing poorly. The authors suggest that this is because the board is more likely to give the benefit of the doubt when the firm is performing well and act without delay when the firm is underperforming.

Overall, the above suggests that when a company is performing poorly, agency costs associated with the mandatory CEO use of corporate aircraft for personal travel perk are higher than when the company is performing well. Moreover, excessive use of corporate aircraft for non-essential travel is likely to send a stronger negative signal when the firm is performing poorly. Then again, these concerns are less likely to be a concern when the company is well performing, as there will be fewer legitimacy concerns associated with the perk. Moreover, organizational status provides the organization protection against these signals, and the agency costs associated with the perk are likely to be lower for a high-status organization in comparison to a low-status one. Therefore, I expect that when the firm is high performing, the benefits from the provision of the perk

are likely to surpass the cost associated with the provision of the perk regardless of the organizational status. On the other hand, when the organization is low performing, higher organizational status protects the organization from some of the costs associated with the perk, and thus, the benefits from the perk are more likely to exceed the costs as the organizational status increases. Taken together, the above implies that the effect of organizational status on the provision of the personal travel perk will be weaker for high performing organizations.

Therefore, I hypothesize that financial performance weakens the proposed relationship between organizational status and the provision of the perk. Similarly, I expect that the above logic applies to the hypothesized relationships between middle-status organizations in comparison to low- or high-status organizations and whether or not the organizations offer the perk and also the relationship between director status and the provision of the perk.

*Hypothesis 7a: Performance moderates the relationship between organizational status and the provision of mandatory CEO use of corporate aircraft for personal travel perk, such that the relationship weakens as performance increases.*

*Hypothesis 7b: Performance moderates the relationship between a middle-status organization in comparison to a low- or high-status organization and the provision of the perk, such that the relationship weakens as performance increases.*

*Hypothesis 7c: Performance moderates the relationship between director status and the provision of mandatory CEO use of corporate aircraft for personal travel perk, such that the relationship weakens as performance increases.*

#### *CEO power*

Finally, I predict that CEO power weakens the proposed direct relationships. CEO power is often defined as the power that CEOs derive from their position, personal

characteristics, and the environment (Busenbark et al., 2016; Finkelstein, 1992; Finkelstein et al., 2009; Krause, Withers, & Semadeni, 2017). An alternative way of defining CEO power is to consider it as the inverse of board power. This approach assumes from agency theory that CEOs are self-interested while the boards of directors have a responsibility to maximize shareholder value, hence, implying that there is a conflict between CEO's and board's interests (Finkelstein et al., 2009; Jensen & Meckling, 1976). Therefore, CEO power research often assumes that powerful CEOs are likely to act against shareholders' interests and extract private rents through perks, for instance.

Following these assumptions, Krause et al. (2017) show how powerful CEOs are less likely to adopt policies that are against their interests. Particularly, the authors show that organizations with powerful CEOs are less likely than organizations with less powerful CEOs to separate CEO and board chair positions and that organizations with moderately powerful CEOs are likely to adopt lead independent directors. Moreover, other studies have shown that powerful CEOs are less likely than less powerful CEOs to be dismissed (Boeker, 1992; Ocasio, 1994) and that organizations with powerful CEOs are more likely to offer long-term incentive plans (LTIPs), but less likely to actually to use these plans (Westphal & Zajac, 1994). Thus, the adoptions of LTIPs may be symbolic actions by powerful CEOs to show the alignment between shareholders and CEO's interests (Westphal & Zajac, 1994). Krause et al. (2017) reviewing previous CEO power research (e.g., Joseph, Ocasio, & McDonnell, 2014; Westphal & Zajac, 1995; Zajac & Westphal, 1996) conclude that "for a given board decision, the outcome will favor the

CEO if the CEO is more powerful than the board, and will favor the board if the board is more powerful.”

The above suggests that when organizations have powerful CEOs, the effect of organizational status on the provision of the mandatory use of corporate aircraft for personal travel perk is weaker than when the CEO is less powerful. That is, I expect that boards under powerful CEOs are less likely to be concerned with the agency and other costs associated with the perk or the benefits derived from the higher organizational status. Moreover, I expect that powerful CEOs are more likely to try to influence the boards to provide the examined perk since the provision of the perk would be a clear signal of the CEO’s position at the top of the organization—and a signal of CEO’s importance. These actions are in the line of the CEO power research proposing that powerful CEOs continue to expand their influence (Krause et al., 2017). In sum, the above implies that the higher the CEO power is, the weaker the effect of organizational status on the provision of the perk is.

Consequently, I hypothesize that CEO power weakens the proposed relationships such that the effect of organizational status on the provision of the mandatory use of corporate aircraft for personal travel perk will be weaker when the organization has a powerful CEO. Similarly, I expect that the above logic applies to hypothesized relationships between middle-status organizations in comparison to low- or high-status organizations and whether or not the organizations offer the perk and also the relationship between director status and the provision of the perk.

*Hypothesis 8a: CEO power moderates the relationship between organizational status and the provision of the perk, such that the relationship weakens as CEO power increases.*

*Hypothesis 8b: CEO power moderates the relationship between a middle-status organization in comparison to a low- or high-status organization and the provision of the perk, such that the relationship weakens as CEO power increases.*

*Hypothesis 8c: CEO power moderates the relationship between director status and the provision of the perk, such that the relationship weakens as CEO power increases.*

## **Summary**

In this chapter, I have hypothesized three main effects examining the relationship between organizational status and the likelihood of an organization to offer the mandatory CEO use of corporate aircraft for personal travel perk. I also proposed five contingencies moderating hypothesized relationships. Next, I describe the research setting and outline the empirical methodology I apply to test the proposed hypotheses.



## CHAPTER 4

### RESEARCH METHODOLOGY

#### **Sample**

To test the proposed hypotheses, I studied a population of firms included in the S&P 500 index. More precisely, I included all firms in the S&P 500 index at the beginning of the year 2005 and then followed these firms until the year 2016. Firms included in the S&P 500 index are the 500 largest public companies listed in the US stock exchanges based on their market capitalization. The size of the studied sample was limited by practical reasons since the collection of the dependent variable had to be done manually. This process is explained in detail in the following section. Also, the SEC changed the rules regarding how companies should report executive compensation in the proxy statements at the end of the year 2006 (Grinstein et al., 2017), and therefore, the data on the dependent variable is more detailed for the financial year 2006 and after. Taken together, I expect that the research context fulfills both theoretical and practical considerations.

I used several data sources for this study and collected the data separately for each year. My primary data source for the dependent variable was companies' annual proxy statements. I collected these proxy statements from the Edgar database of the U.S. Securities and Exchange Commission. In addition, I collected the financial information of the sample companies from Compustat, directorship data from Execucomp and Institutional Shareholder Services (ISS), executive compensation data from Execucomp, ownership data from Thomson Reuters Institutional Holdings database, equity

information from The Center for Research in Security Prices (CRSP), and data on analyst coverage from The Institutional Brokers Estimates System (IBES).

### **Dependent Variable**

*The mandatory CEO use of corporate aircraft for personal travel.* This variable is a dichotomous variable getting the value “0” if the company does not provide the perk and “1” if the company provides the perk. Data regarding the CEO’s mandatory use of corporate aircraft for personal travel perk was hand collected from annual proxy statements for the study period. The U.S. Securities and Exchange Commission (SEC) mandates that public companies report this perk’s existence in the proxy statements. Therefore, if the proxy statement does not include a mention of the perk, the variable gets value “0” and otherwise “1”. As an example of the mandatory CEO use of corporate aircraft for personal travel perk statement, ExxonMobil (2018) included the following statement in its proxy statement: “the Board requires the Chairman and CEO to use Company aircraft for both business and personal travel.” The above statement would have been coded as “1”.

### **Independent Variables**

*Organizational status.* To measure organizational status, I followed previous research and used several measures to increase the robustness of the results (for review see, e.g., Piazza & Castellucci, 2014). I followed Shen et al. (2014) and used the number of stock analysts following the focal organization as the primary status measure. This measure is based on the theory derived assumption that higher status organizations draw relatively more analyst interest than lower status organizations ceteris paribus. Therefore, status is measured as the residual of stock analyst coverage after controlling for firm size,

return volatility, return on assets (ROA), and stock returns. Therefore, organizational status is the residual from the following model ran cross-sectionally for each year separately:

$$\begin{aligned} LnCoverage_{t-1} = & \alpha_0 + \beta_0 * LnAssets_{t-1} + \gamma_0 * LnStockReturn_{t-1} + \\ & \theta_0 * ROA_{t-1} + \rho_0 * STDRET_{t-1} + \epsilon \end{aligned}$$

In the above formula, StockReturn is the cumulative stock returns of the firm over the calendar year, ROA is the return on assets, and STDRET is the standard deviation of monthly returns over a calendar year. I standardized the measure to help the interpretation of the results.

As a second status measure, I used Bonacich's eigenvector centrality measure (1987) which is one of the most commonly used status measures in the management research at macro-level (Piazza & Castellucci, 2014). This measure is based on the focal organization's ego network. Unlike some other centrality measures, Bonacich's centrality considers both the centrality of the focal actor and also the centrality of the alters that the actor is connected to. Therefore, I estimated the organizational status separately each year based on the focal organization's position in the board interlocks network. In sum, my organizational status measure can be considered as the organization's status within the directorship network. I formed the interlocks networks based on all available directorship data in the ISS database. I used Stata graph library (SGL) (Miura, 2012) to calculate the centralities. I assigned organizational status as zero for those organizations without any observed board interlocks.

*High- and low-status organizations.* To test Hypothesis 2 and related moderators, I formed two dichotomous variables to represent high- and low-status organizations.

First, I assigned the top quartile of organizations based on the status measures as high-status organizations and the bottom quartile of organizations as low-status organizations. I assigned these group separately each year. This was done separately for the two status measures. In other words, the above allowed me to contrast the low- and high-status organizations with the middle-status organizations that formed the two middle quartiles.

*Director status.* This measure is also based on the Bonacich's (1987) eigenvector centrality. Therefore, the measure is similar to the measure of organizational status. However, the difference is that for each organization, the director status measure is the average of the status of the organization's directors. Therefore, I first estimated Bonacich's centrality separately for each director using Stata graph library (Miura, 2012), and then I calculated the average director status for each organization in the sample based on the individual status of the directors. In sum, this measure is the mean score of director status.

### **Moderators**

*Number of organizations offering the personal travel perk within the industry.* This variable is the number of companies in the organization's primary industry at four-digit Standard Industrial Classification (SIC) level in the sample, which are already offering the mandatory CEO use of corporate aircraft for personal travel perk. The firms which are already offering the perk was recognized based on the dependent variable that was collected for the sample firms.

*Number of board interlocks to organizations offering the personal travel perk.* This variable is the count of board interlocks to companies already offering the personal

travel perk. The firms which are offering the perk were recognized based on the dependent variable that was collected for the sample firms.

*Number of connections through compensation committee members to organizations already offering the personal travel perk.* This variable is the count of connections through compensation committee members to companies already offering the personal travel perk. The firms which are offering the perk were recognized based on the dependent variable that was collected for the sample firms.

*Financial performance.* I examined both the past performance and expected future performance. First, I followed prior governance research (Finkelstein & D'Aveni, 1994; Krause & Semadeni, 2014; Tuggle et al., 2010) and used the return on assets defined as net income divided by total assets to measure past performance. To measure future performance expectations, I followed prior research and used analysts' consensus forecast for earnings per share (EPS) for the following year (t+1) as the measure of future performance expectations (Gentry & Shen, 2012).

*CEO power.* I followed recent governance research (Krause et al., 2017) and used a composite measure of the CEO power because of the construct's multidimensional nature. The five dimensions of the measure are: "CEO tenure relative to average board tenure, the number of outside boards on which the CEO serves relative to the average number of outside boards on which each director serves, the number of outside directors who are also current CEOs, board independence, and firm performance" (Krause et al., 2017: 2247). I also included a binary variable of CEO duality in the measure. CEO duality occurs when the CEO is also the chair of the board of directors, and previous

governance research has associated it with increased CEO power (for review see, e.g., Krause, Semadeni, & Cannella, 2014).

In the CEO power measure, CEO tenure relative to average board tenure is the tenure of the CEO divided by the other directors' average tenure at the organization. The number of outside boards on which the CEO serves relative to the average number of outside boards on which each director serves is the number of outside boards on which the CEO serves divided by the average number of outside boards on which the other directors serve. The number of outside directors who are also current CEOs is the count of outside directors who are employed as CEOs in other for-profit firms. Board dependence is defined as (1- board independence), and board independence is the number of outside directors divided by the board size). Firm performance is the industry-adjusted return on assets (net income divided by assets and subtracted by median industry ROA at two-digit SIC level). Finally, CEO duality is a binary variable getting value "1" if the CEO is also the chair and otherwise "0". The final CEO power measurement is the sum of the standardized values of the dimensions. However, since the return on assets (ROA) is also one of the moderators and including it to the CEO power caused multicollinearity problems (Kalnins, 2018), I created an alternative CEO power measure that did not include return on assets as a dimension. These two CEO power measures were highly correlated ( $\rho=0.934$ ), and therefore, I used the alternative measure in my analysis.

### **Control Variables**

All control variables were lagged by a year. I included several variables to control for firm-, board-, and CEO-level factors. Several of the contingency factors were also considered as control variables, e.g., financial performance and CEO power.

### *Firm-level Controls*

*Firm size.* Measured as the natural logarithm of employees. Firm size is associated with higher levels of status, CEO compensation, and personal use of corporate aircraft, and hence, it was an essential factor to control for (Finkelstein et al., 2009; Josefy, Kuban, Ireland, & Hitt, 2015; Rajan & Wulf, 2006; Yermack, 2006).

*Environmental munificence, dynamism, and complexity.* These were included to capture environmental factors affecting the organization (Dess & Beard, 1984). Environmental munificence and complexity were based on the measures proposed by Keats and Hitt (1988) and adapted by Sutcliffe (1994). Environmental munificence is based on industry growth rate and dynamism on the variability of the growth rate. Environmental complexity measure was based on the Herfindahl index of industry concentration (Boyd, 1995).

*Leverage.* Measured as the long-term debt divided by total assets. It was included to control for organizational slack (Tan & Peng, 2003).

*Dedicated and transient institutional investors %.* Measured as the proportion of investors classified as dedicated or transient. Dedicated and transient institutional investors were included separately to the models, and they were categorized using Bushee's (1998) classification. These two variables were added to the models since institutional ownership affects the actions that an organization can make (Connelly, Tihanyi, Certo, & Hitt, 2010; Yermack, 2006).

*Diversification.* Measured using Palepu's (1985) entropy measure. Diversification can increase the need for corporate aircraft travel (Lee et al., 2018), and the CEO is likely

to identify less with a diversified company and more likely to accept and use corporate aircraft for personal travel (Lange, Boivie, & Westphal, 2015).

*Earnings per share.* Measured as the net income minus preferred dividends divided by the number of shares at the end of the year.

*Analyst ratings.* Measured as the number of sell ratings divided by the total number of ratings. This variable accounted for analyst influence on the board (Wiersema & Zhang, 2011).

#### *Board-level Controls*

*Board size.* This variable was the count of directors serving on the board. Board size has been shown to affect the effectiveness of the board (Johnson, Daily, & Ellstrand, 1996).

*Board minority.* This variable was added to account for the number of non-Caucasian directors, since minority directors may face in-group and out-group pressures (McDonald & Westphal, 2013).

*Board females.* This variable was the count of female directors serving on the board. Previous research suggests that similar to minority directors, female directors may face in-group and out-group pressures (McDonald & Westphal, 2013; Oliver, Krause, Busenbark, & Kalm, 2018).

#### *CEO-level Controls*

*CEO age.* It controlled for CEO's age, and it is associated with the personal use of corporate aircraft (Yermack, 2006).

*CEO ownership.* It was measured as the number of shares owned by the CEO divided by the total number of shares. The variable controlled for CEO's alignment with



shareholders' interests and CEO's identification with the firm (Jensen & Meckling, 1976; Lange et al., 2015).

*Female CEO.* A binary variable, and it controlled for the CEO's gender. Research suggests that CEO's gender affects how the board treats the person (Hill, Upadhyay, & Beekun, 2015; Oliver et al., 2018).

*Minority CEO.* I controlled for CEO's minority status, since it may affect CEO compensation (Hill et al., 2015). It is a binary variable.

*Succession.* I controlled for CEO succession since it may explain changes in CEO compensation (Finkelstein et al., 2009). It is coded as one "1" if the current CEO is different than the CEO a year before, and zero "0" otherwise.

*CEO total compensation.* It was measured as the log-transformation of the CEO's total compensation and included CEO's salary, bonus, other annual compensation, total value of restricted stock granted, total value of stock options granted (using Black-Scholes formula), long-term incentives, and all other compensation. The variable controlled for potential endogeneity arising from the CEO compensation since high-status organizations are likely to pay more in general (Busenbark et al., 2016).

*CEO total cash compensation.* It was measured as CEO's annual salary and bonus. It controlled for the non-performance contingent compensation of the CEO (Lange et al., 2015).

*Year fixed-effects.* I included year dummies to all models to control for contemporaneous correlation that may bias the results (Certo & Semadeni, 2006),

## **Primary Analysis**

I used two different approaches to empirically test the hypothesized relationships. Because the proposed hypotheses consider mostly between-firm effects, fixed-effects models were not theoretically appropriate for the analysis. Moreover, most of the variance of the independent and dependent variables were between-organizations and not within-organizations. For instance, 83.4% of the variance of the analyst following based organizational status measure was between the organizations, while 76.4% of the variance of the network centrality based organizational status measure was between the organizations. Finally, 85.4% of the variance of the dependent variable was between organizations, and only 14.6% of the variance was within the organizations. Taken together, the above suggests that a fixed-effects model examining within-firm changes over time was not appropriate for this study (Certo, Withers, & Semadeni, 2017)

I analyzed the models using the two approaches appropriate for longitudinal data with relatively large between-firm variances based on Certo et al. (2017) suggestions. The first approach relied on generalized estimation equations (GEE) (Liang & Zeger, 1986). GEE takes into account both within- and between-organization variance. Specifically, I used GEE (xtgee command in Stata) and specified binomial distribution with a logit link function (Ballinger, 2004). I also used robust standard errors. To select appropriate correlation structure, I relied on the quaslikelihood under the independence model criterion (QIC) (Pan, 2001), which is a modification of Akeike's information criterion (AIC) for generalized estimation equations (Cui, 2007). I selected the correlation structure that minimized the QIC values. Therefore, I used GEE with independent correlation structure in my analysis. This estimation method corresponds to

conducting a logistic regression with clustered standard errors at the firm-level. Clustered standard errors take into account potential within-firm error correlations that may lead to biased (too small) standard errors without the correction (Baum, 2006).

In addition to GEE, I used random-effects regression for binary dependent variables with robust standard errors (xtlogit, re command in Stata) to estimate the models. However, these models did not provide statistically significant results for the main hypotheses, and additional analyses also showed that the random-intercepts were not normally distributed ( $p < 0.01$ ) based on Shapiro – Francia test for normality, therefore, violating the key assumptions of the random-effects models (Kennedy, 2008). There, these results from random-effects models are not reported.

Finally, I lagged all independent variables by a year, since the theoretical reasoning suggests that an independent variable at time  $t-1$  is associated with the dependent variable at time  $t$ .

### **Supplementary Analyses**

As a robustness check, I conducted several supplementary analyses to support the main analyses. First, I used an approach that Allison (2005) calls a hybrid approach (Certo et al., 2017). With the hybrid approach, I replaced the variables of interest with the group-centered version of the variables and their group means. For instance, I replaced CEO power with the firm-level mean and the firm-centered version of the CEO power measure. The first variable shows the between-firm effect, while the second one shows the within-firm effect. This approach allowed me to compare both within-group and between-group estimates. Certo et al. (2017: 1553) advised that “the partitioning of within- and between-firm effects allows for deeper and richer theoretical investigations.”

The hybrid approach also allowed me to conduct a more detailed analysis of the relationships and test whether the between- and within-firm effects statistically differ from zero. Moreover, I was also able to exclude potential biases from omitted firm-level variables and to evaluate the consistency of the results from the GEE and random-effects models. The hybrid models were analyzed using random-effects logistic regression with robust standard errors (Certo et al., 2017). Several studies have recently used this approach (e.g., Chin & Semadeni, 2017; Shi, Zhang, & Hoskisson, In Press; Titus, Parker, & Bass, 2018).

Second, to test the robustness of the models examining Hypothesis 2 suggesting that low- and high-status organizations are more likely to adopt the policy than middle-status organizations, I added the quadratic term of the organizational status to the models examining linear effect suggested in Hypothesis 1. In other words, these models included both the first- and second-order terms of organizational status and none of the binary measures of status. These additional models also helped to evaluate the robustness of models examining the linear relationships.

Third, I conducted an event history analysis to test the hypotheses. More precisely, I ran Cox proportional hazard models (`stcox` command in Stata). These models examined the hazard rates of the variables of interest on the adoption or discontinuity of the perk separately. In other words, I ran the models separately to organizations that were already providing the perk and to those that were not providing it in the year 2006. These models then examined the effects of the covariates to the hazard rates (Singer & Willett, 2003).

Fourth, recent management research suggests (e.g., Kalnins, 2018) that multicollinearity can bias regression results. Therefore, I followed Kalnins (2018) and tested whether or not excluding control variables that had correlations of 0.3 or more with the variables of interest from the models affected the results.

Finally, as a robustness test, I specified the models using non-ratio versions of the variables of interest because recent research suggests that the use of ratio variables may be problematic (Certo, Busenbark, Kalm, & LePine, In press). For instance, instead of using return on assets (ROA) as an independent variable, I used net income as the independent variable and controlled for the firm size. However, I did not have access to numerators and denominators of some of the covariates. This was the case for the status measures based on the network centrality and analyst earnings per share forecasts.

### **Summary**

In this chapter, I presented a research design to examine the hypotheses developed in the previous chapter. I introduced the sample I used to study the hypotheses. I also explained the variables, their measurements, and the analytical method used in this study.

## CHAPTER 5

### RESULTS

#### **Descriptive Statistics**

Appendix A reports descriptive statistics of the variables I used to examine the proposed hypotheses including means, standard deviations, and correlations. My initial sample consisted of 4,673 firm-year observations. For these observations, I had identified if the organization mandated the CEO to use corporate aircraft for personal travel or not. However, my final sample consisted of 427 unique firms with a total of 3,846 firm-year observations because of missing independent variable values. Because I lagged all independent and control variables by a year, I was not able to include all of the initial observations to the final sample.

I also checked the models for multicollinearity focusing on the independent variables. I analyzed multicollinearity using ordinary least square (OLS) regression to gain variance inflation factors (VIFs) for the independent variables. The maximum variance inflation factors were less than three when either the number of board interlocks to organizations offering the personal travel perk or the number of connections through compensation committee members to organizations already offering the personal travel perk was included in the models. The correlation between these two variables is 0.75, and the latter variable is nested within the former. Therefore, these two variables were not included in the same models. Finally, Kalnins (2018) suggests that correlations of 0.3 or higher between independent and control variables can bias results. Therefore, it is problematic that organizational status based on network centrality measure is moderately

to highly correlated with both the number of board interlocks to organizations offering the personal travel perk and the number of connections through compensation committee members to organizations already offering the personal travel perk. The correlations are 0.73 and 0.61 respectively. However, these moderators are also important control variables and, thus, I included them in the models. I discuss the robustness of these results in the supplementary analysis section.

### **Primary Analysis**

#### *Hypothesis 1 and Hypotheses 4a-8a*

Appendix B depicts the results for GEE models with binomial distribution and logit-link function to test Hypotheses 1 and 4a-8a using analyst following based organizational status measure. Model 1 includes only control variables and the year fixed-effects. Models 2 and 3 include the independent variable and the moderators, and finally, Model 4-Model 9 include the interactions. These GEE models are equivalent to logistic regression models with cluster-robust standard errors at the organization level. I also estimated Models 2 and 3 using seemingly unrelated logistic regression (SULR) that takes into account that the potential error that the models share because of common variables (Baum, 2006). The results were consistent with those reported here.

Hypothesis 1 states that organizational status leads to the mandatory CEO use of corporate aircraft for personal travel policy. Models 2 and 3 provide support for this hypothesis, as the coefficients for the organizational status are positive and statistically significant ( $\beta=0.213$ ,  $p=0.042$ ) for both models. Moreover, the predicted likelihood of the provision of the perk increases from 0.214 ( $p=0.000$ ) to 0.253 ( $p=0.000$ ) when organizational status increases by one standard deviation from the mean in Model 1 and

from 0.214 ( $p=0.000$ ) to 0.252 ( $p=0.000$ ) in Model 2. This suggests that the likelihood increases 18% in both models when organizational status increases by one standard deviation from the mean. Finally, the relationships are similar whether controlling for the number of board interlocks to organizations offering the personal travel perk or for the number of connections through compensation committee members to organizations already offering the personal travel perk. Taken together, Hypothesis 1 is supported when using the analyst following based organizational status measure.

Hypotheses 4a-8a suggest that the proposed contingency factors weaken the effect of organizational status on the mandatory use of corporate aircraft for personal travel policy. Models 4 to 9 display these results. None of the interaction terms are statistically significant at commonly used  $p$ -values, but this information does not provide enough evidence to support any conclusions. Therefore, to understand the interaction effects better (Bowen, 2012; Wiersema & Bowen, 2009), I estimated the marginal effect of organizational status across different levels of the moderators. These marginal effects are presented in Table 1.

Hypothesis 4a states that the number of other organizations within the industry offering the perk weakens the proposed direct relationship. Model 4 in Appendix B does not provide support for this hypothesis since the interaction term is positive and not significant ( $\beta=0.0332$ ,  $p=0.617$ ). The marginal effects for Model 4 in Table 1 also do not provide support for the hypothesis and suggest an effect that is opposite to what I predicted. However, the marginal effects are not statistically significant and, hence, no conclusions can be drawn. Figure 2 illustrates the relationship. Taken together, I do not find support for Hypothesis 4a.



Hypothesis 5a proposes that the number of board interlocks to organizations offering the perk weakens the proposed direct relationship. Model 5 in Appendix B does not provide support for this hypothesis since the interaction term is positive and not significant ( $\beta=0.0484$ ,  $p=0.366$ ). On the other hand, the marginal effects for Model 5 in Table 1 suggest an opposite effect to one I predicted since the statistically significant marginal effects increase as the organizations with more board interlocks provide the perk for their CEOs. Figure 3 portrays the moderating effect. Taken together, I do not find any support for Hypothesis 5a, and the moderating effect is opposite to predicted.

Hypothesis 6a states that the number of connections through compensation committee members to organizations offering the perk weakens the proposed direct relationship. Model 6 in Appendix B does not provide support for this hypothesis since the interaction term is positive and not significant ( $\beta=0.0024$ ,  $p=0.979$ ). The marginal effects for Model 6 in Table 1 are only statistically significant at the mean value of the moderator, hence, providing no support for moderating relationship. Figure 4 portrays the moderating effect. Taken together, I do not find any support for Hypothesis 6a.

Table 1. Marginal Effects of Organizational Status (Analyst Measure) at Different Levels of the Moderators for Hypotheses 4a to 8a

Marginal Effects of Organizational Status (Analyst Measure):						
Level of moderator	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
-SD of moderator	0.0172	0.0161	0.0292	0.0432	0.0065	0.0165
<i>p-value</i>	<i>0.263</i>	<i>0.448</i>	<i>0.106</i>	<i>0.024</i>	<i>0.793</i>	<i>0.396</i>
Mean of moderator	0.0301	0.0290	0.0308	0.0308	0.0282	0.0342
<i>p-value</i>	<i>0.055</i>	<i>0.065</i>	<i>0.043</i>	<i>0.037</i>	<i>0.057</i>	<i>0.052</i>
+SD of moderator	0.0441	0.0449	0.0330	0.0182	0.0501	0.0548
<i>p-value</i>	<i>0.062</i>	<i>0.027</i>	<i>0.103</i>	<i>0.288</i>	<i>0.039</i>	<i>0.018</i>

Figure 2. Moderating Effect of The Number of Organizations Offering the Perk Within the Industry

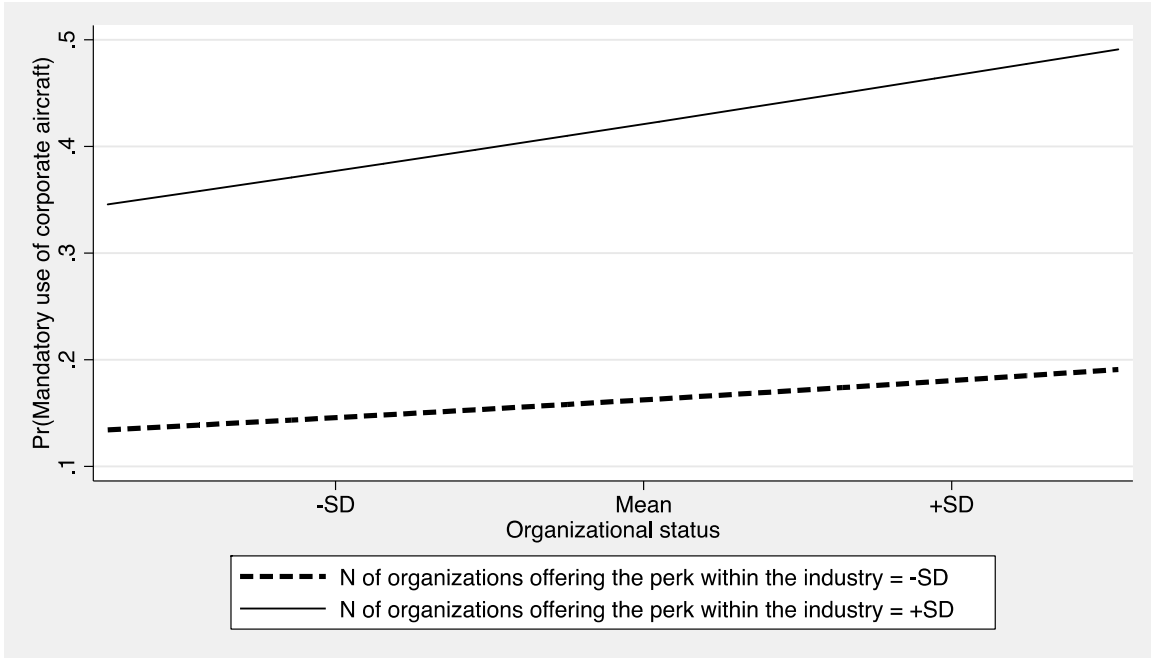


Figure 3. Moderating Effect of the Number of Board Interlocks to Organizations Offering the Personal Travel Perk

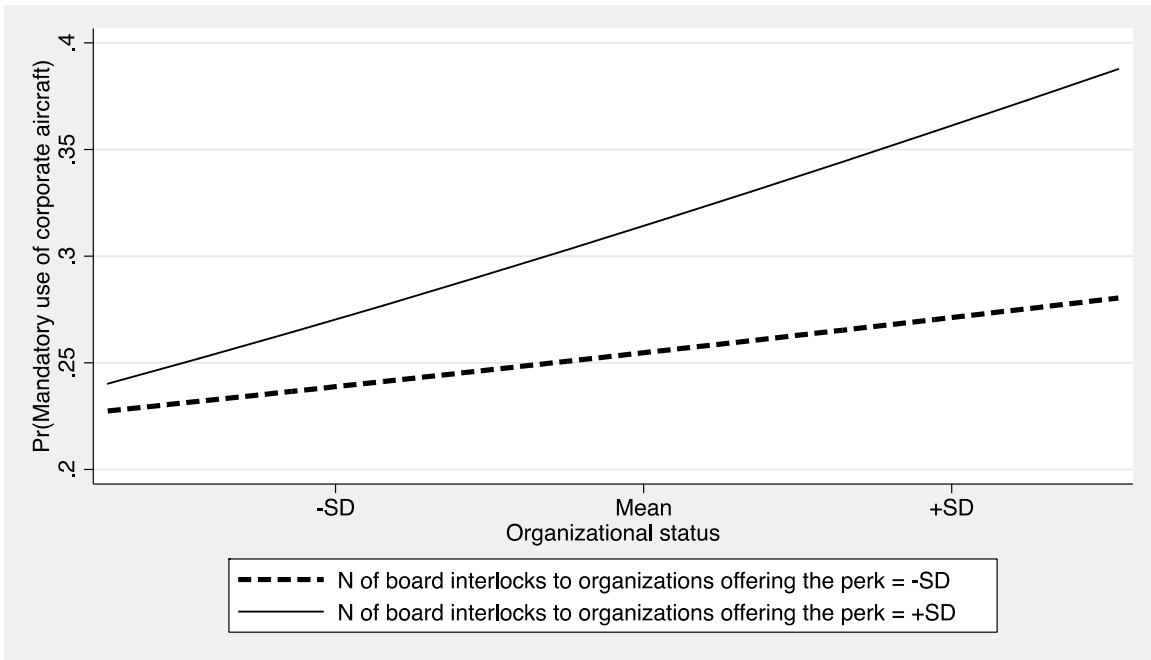
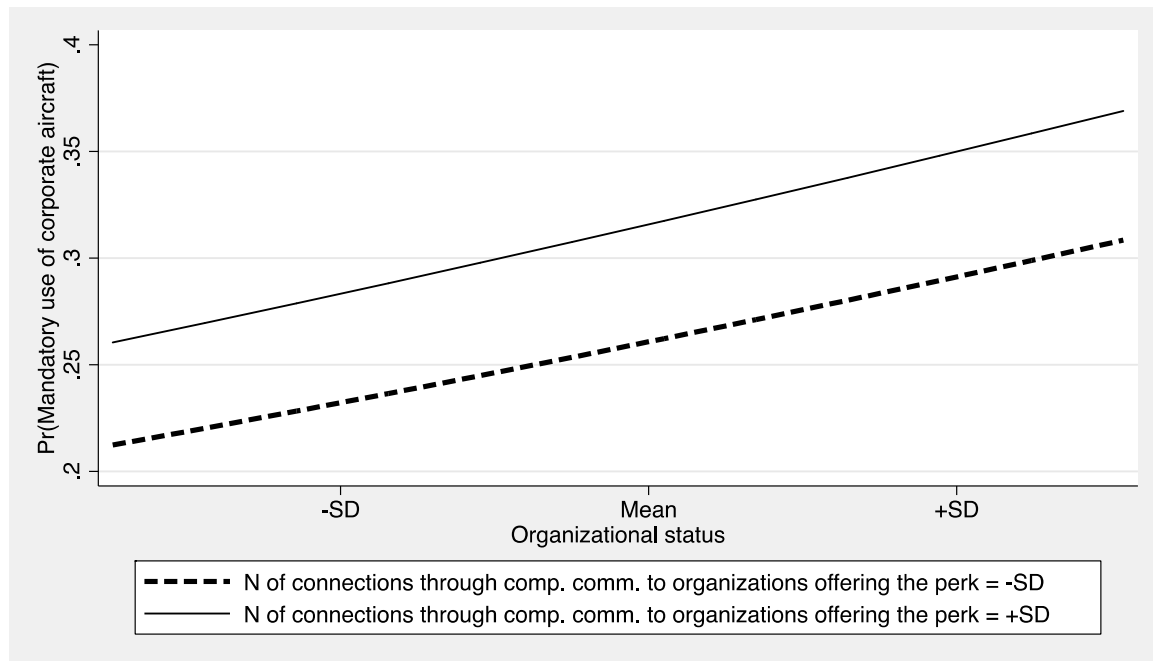


Figure 4. Moderating Effect of the Numbers of Connections Through Compensation Committee Members to Organizations Offering the Personal Travel Perk



Hypothesis 7a proposes that the firm performance weakens the proposed direct relationship. I examine both past and future performance separately. I use the return on assets (ROA) as my measure for past performance. Model 7 in Appendix B does provide some support for the hypothesis that the past performance weakens the proposed direct relationship since the interaction term is negative but not statistically significant ( $\beta = -1.170$ ,  $p = 0.244$ ). The marginal effects for Model 7 in Table 1 also support proposed moderating effect. The effect sizes decrease as firm performance increases, and the effect is not significant for organizations with high performance. Figure 5 shows the moderating effect. Model 8 in Appendix B, on the other hand, presents the results for future performance measured with the analyst eps forecast. The model does not provide support for the hypothesis since the interaction term is positive and not significant ( $\beta = 0.0340$ ,  $p = 0.274$ ). The marginal effects for Model 8 in Table 1 are only statistically significant at

the high values of the moderator, hence, suggesting a moderating effect that is opposite to the one predicted. Figure 6 portrays the moderating effect. Taken together, I do find mixed support for Hypothesis 7a. I find the predicted effect while studying past performance and the opposite to predicted effect while studying expected future performance.

Finally, Hypothesis 8a proposes that CEO power weakens the proposed direct relationship. Model 9 in Appendix B does not provide support for this hypothesis since the interaction term is positive and not significant ( $\beta=0.0356$ ,  $p=0.210$ ). Moreover, the marginal effects for Model 9 in Table 1 suggest an opposite to predicted effect, since the marginal effects increase and become statistically significant as CEO power increases. Figure 7 shows the moderating effect. Taken together, I do not find any support for Hypothesis 8a, and the moderating effect is opposite to predicted.

Figure 5. Moderating Effect of Past Financial Performance (ROA)

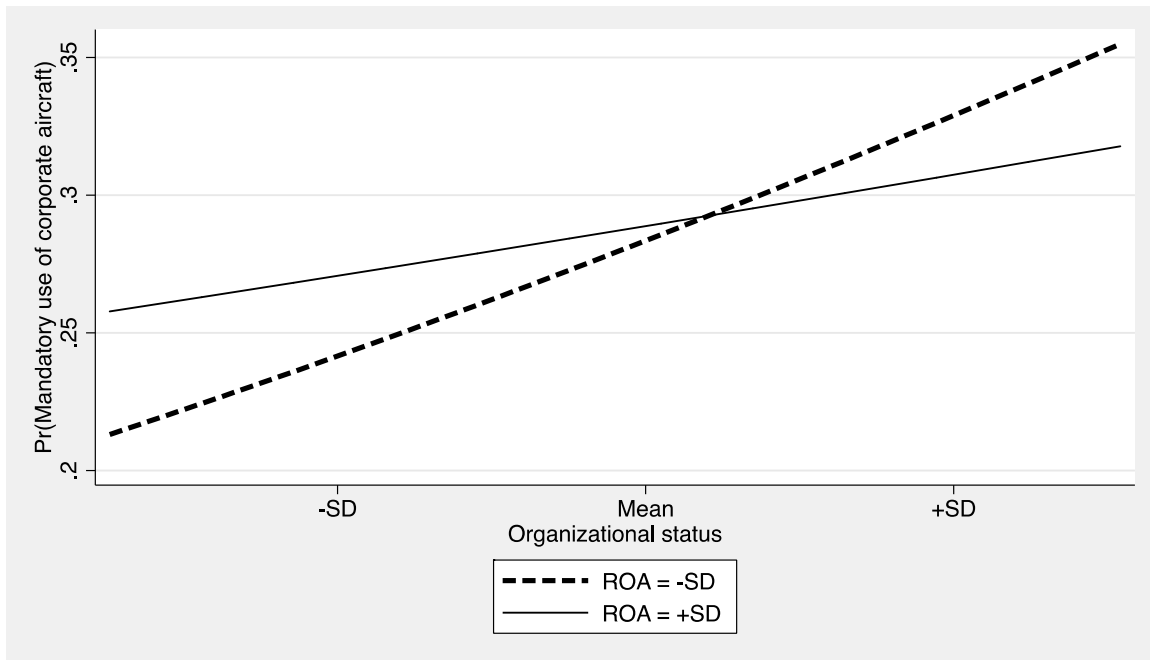


Figure 6. Moderating Effect of Future Financial Performance (Analyst EPS forecast)

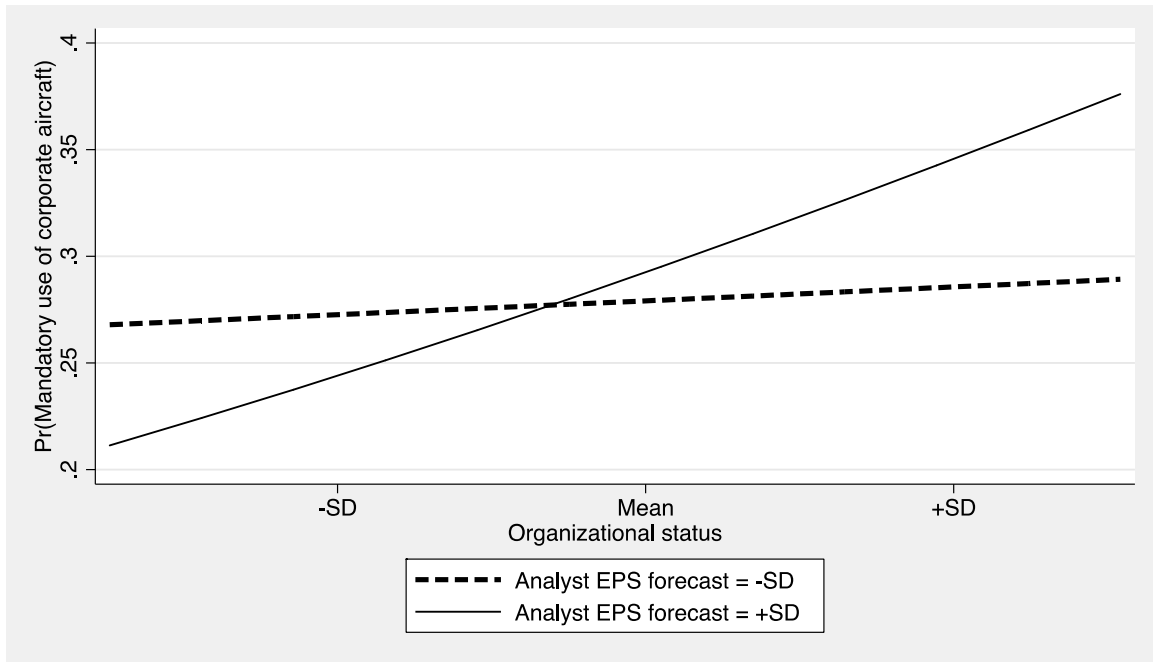
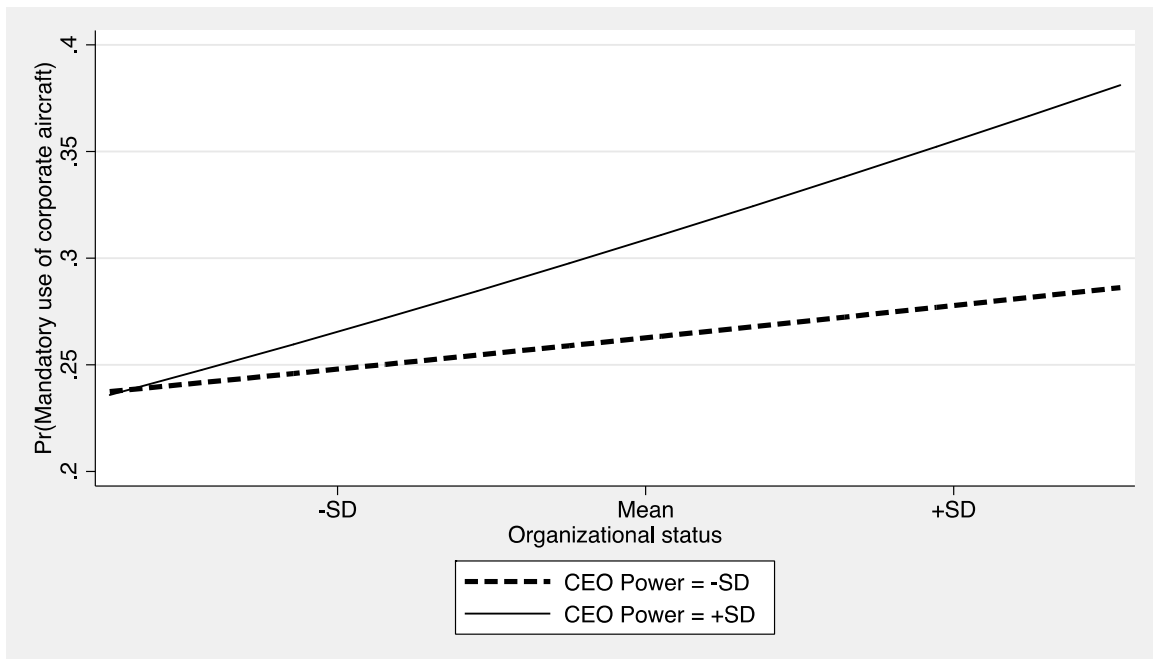


Figure 7. Moderating Effect of CEO Power



Appendix C depicts the results for GEE models with binomial distribution and logit-link function to test Hypotheses 1 and 4a-8a using organizational centrality based organizational status measure. This measure is an alternative to organizational status measure based on the analyst following. Again, Models 1 and 2 show the main effects models and Model 3-Model 7 show the results for contingency factors. However, the main effects in Model 1( $\beta=5.104$ ,  $p=0.104$ ) and Model 2 ( $\beta=4.523$ ,  $p=0.155$ ) show only very limited support for Hypothesis 1, since the coefficients are not statistically significant. Additional analysis with the marginal effects does not indicate support either. Model 3- Model 7 in Appendix C do not provide support for proposed contingency factors proposed to weaken the main relationships. I also estimated marginal effects for the models, and they did not provide support either. Taken together, I find some support for Hypothesis 1 using centrality-based measure for organizational status.

#### *Hypothesis 2 and Hypotheses 4b-8b*

Appendix D depicts the results for GEE models with binomial distribution and logit-link function to test Hypotheses 2 and 4b-8b using analyst following based organizational status measure. Again, I also used random-effects logistic regression to test the hypotheses, but these models did not provide support for the hypotheses, and hence, they are not reported here because of space constraints. Models 1 and 2 include the independent variables and the moderators, while Model 4-Model 8 include the interaction terms. Similar to the previous models, these GEE models are equivalent to logistic regression models with cluster-robust standard errors.

Hypothesis 2 states that high- and low-status organizations are more likely than middle-status organizations to mandate their CEOs to use corporate aircraft for personal

travel. The models include binary variables for low- and high-status organizations. Models 1 and 2 in Appendix D do not provide support for the hypothesis because neither low-status nor high-status dummies are statistically significant. Moreover, Model 1 provides some support for Hypothesis 1 since the effect for low-status organizations is negative and only marginally significant ( $\beta=-0.264$ ,  $p=0.088$ ). However, in other models neither status measure is significant, and neither are the interaction effects. Additional analysis utilizing marginal effects does not provide additional support either. Taken together, Model 1-Model 8 do not provide support for Hypothesis 2 or Hypotheses 4b-8b.

I also used network centrality based organizational status measure to examine Hypothesis 2 and Hypotheses 4b-8b. These results are presented in Appendix E, and the models in Appendix E are equivalent to those presented in Appendix D. Models 1 and 2 provide partial support for the hypothesis since the coefficients for high-status organizations are positive and significant ( $\beta=0.422$ ,  $p=0.026$ ;  $\beta=0.387$ ,  $p=0.043$ ). However, the coefficients for low-status organizations are negative and not significant. Therefore, similar to the previous paragraph, these results provide additional support for Hypothesis 1 but not for Hypothesis 2. Finally, in Model 3-Model 8 none of the interaction effects are statistically significant, and additional analysis utilizing marginal effects does not provide any additional support either for the predicted moderation effects. Taken together, Model 1-Model 8 do not provide any support for Hypothesis 2 or Hypotheses 4b-8b.

### *Hypothesis 3 and Hypotheses 4c-8c*

Appendix F depicts the results for GEE models with binomial distribution and logit-link function to test Hypotheses 3 and 4c-8c. These models examine the relationship

between average director centrality and the provision of the perk. As previously, I used random-effects logistic regression to test the hypotheses in addition to GEE, but the random-effects models did not provide support for the hypotheses, and hence, they are not reported here because of space constraints. In Appendix F, Models 1 and 2 include the independent variable and the moderators, while Model 4-Model 8 include the interaction terms. As before, these GEE models are equivalent to logistic regression models with cluster-robust standard errors.

Hypothesis 3 predicts that director status leads to the mandatory CEO use of corporate aircraft for personal travel policy. Models 1 and 2 do not provide statistical support for the prediction since the coefficients are not significant. Although the interaction terms in Model 3 ( $\beta=-10.98$ ,  $p=0.008$ ) and Model 8 ( $\beta=-7.169$ ,  $p=0.022$ ) are statistically significant and negative as predicted, the marginal effects are not statistically significant for Model 3-Model 8. Therefore, based on the above and the lack of the main effect, I do not find statistical support for the moderating hypotheses. Taken together, neither Hypothesis 3 nor Hypotheses 4c-8c are statistically supported.

### **Other Findings**

In addition to the above results, the current results provide other interesting findings. Model 1 in Appendix B includes only the control variables. The results suggest that larger organizations are more likely to mandate their CEOs to use corporate aircraft for personal travel. Environmental dynamism, on the other hand, has a positive coefficient in Model 1 ( $\beta=0.219$ ,  $p=0.043$ ) but it becomes nonsignificant in other models, while environmental complexity has a positive, nonsignificant coefficient in Model 1 ( $\beta=0.087$ ,  $p=0.890$ ) but it becomes significant in other models ( $p<0.01$ ). However, these



two variables share a correlation of 0.39. Therefore, the observed change is likely because of multicollinearity. I ran Model 2 twice excluding first dynamism and then complexity, and both environmental dynamism ( $\beta=0.237$ ,  $p=0.018$ ) and environmental complexity ( $\beta=2.351$ ,  $p<0.001$ ) were significant. Therefore, the above implies that both environmental dynamism and complexity increase the likelihood of the mandate.

Results also suggest that ownership by dedicated institutional investors increase the likelihood of mandate, while ownership by transient investors decrease it. Similarly, CEO ownership decreases the likelihood of mandate providing support for agency theory (Jensen & Meckling, 1976). On the other hand, models in Appendix B imply that CEO total compensation increases the likelihood of mandate, hence, suggesting the mandate may be a part of total compensation. Finally, in all models, the year fixed-effects are not statistically significant.

When focusing on the contingency factors, the results are as expected for the first three factors. The provision of the perk within the industry increases the likelihood of the mandate ( $p<0.001$ ). Similarly, board interlocks ( $p<0.1$ ) and interlocks through the compensation committee members ( $p<0.05$ ) to other organizations providing the perk increase the likelihood. However, the results suggest that firm performance is not associated directly with the likelihood of the mandate. Finally, CEO power is associated with the increased likelihood of the mandate ( $p<0.1$ ). The above results were similar in other analyzed models.

### **Supplementary Analysis**

In order to test the robustness of the results, I used several additional estimation methods and specifications.

### *Hybrid Approach*

The first robustness test was to examine Hypothesis 1 and the main effects reported in Appendix B using Allison's (2012) hybrid approach. The results using hybrid approach are reported in Appendix G. The between-firm coefficient for organizational status measured with analyst following was positive and significant in Model 1 ( $\beta=1.523$ ,  $p=0.017$ ) and Model 2 ( $\beta=1.550$ ,  $p=0.014$ ), while the within-firm coefficients were not significant. In other words, the above results suggested that the predicted effect was between organizations and not within an organization as proposed in Hypothesis 1. In addition, a Wald test for equality of between-firm and within-firm effects for organizational status suggested that the effects were not equal for Model 1 ( $p=0.018$ ) or Model 2 ( $p=0.016$ ) (Schunck & Perales, 2017). Therefore, the results suggested that fixed-effects models were not appropriate for studying the proposed hypotheses (Certo et al., 2017). Taken together, the above results provided additional support for Hypothesis 1 and suggested that the selected analysis method was appropriate.

### *Quadratic Organizational Status Term*

I also assessed the robustness of the results studying Hypothesis 2 by including a quadratic organizational status term in the models examining Hypothesis 1. Appendix H reports these results. Models 1 and 2 show results using a measure based on the analyst following and Models 3 and 4 show results for a measure based on the network centrality. Quadratic terms were not statistically significant in any of these models. Therefore, I did not find support for Hypotheses 2 with these models either. However, the linear effects were statistically significant and positive ( $p<0.1$ ) in all models for both organizational status measures. Therefore, these models presented additional support for Hypothesis 1.

### *Event History Analysis*

I conducted an event history analysis using Cox proportional hazard models as additional analysis to test the proposed hypotheses. With these models, I examined the organizations' likelihood of adopting and discontinuing the mandate separately. In other words, I studied first organizations that did not have the mandate in 2006 and their likelihood of mandating the CEO personal travel using corporate aircraft. After this analysis, I examined the organizations that already had the mandate in 2006 and their likelihood of discontinuing it. I tested all hypotheses using Cox regression in Stata (stcox-command), but the odds ratios of the variables of interest were not statistically significant. Consequently, I could not draw any conclusions from these models.

### *Multicollinearity Tests*

I recognized multicollinearity as a potential source of bias. Thus, I followed Kalnins (2018) and tested the robustness of the results by excluding one by one variables that were correlated more than 0.3 with the variables of interest from the models. I compared results from these models with the ones reported in the appendices. The results from supplemental models were consistent with those reported in the primary analysis with an exception. When I excluded the number of board interlocks or the number of interlocks through compensation committee members to organizations providing the perk from the models reported in Appendix C, the organizational status measure based on the network centrality became statistically significant ( $p < 0.05$ ). However, these results are not reported because the previous research implies that the excluded factors are important controls (Davis, 1991). However, I concluded that these models provided additional evidence that the organizational status measure based on the network centrality is also

positively associated with the mandate. Taken together, the above offers additional support for Hypothesis 1.

### *Unscaled Variables*

As a final robustness test, I followed a practice advocated by Certo et al. (In press), and instead of using ratios, I used the raw values of variables in the models if possible. I focused this robustness test to models reported in Appendix B testing Hypothesis 1. The unscaled control variables and the inclusion of net income instead of return on assets (ROA) provided similar results than previously reported from models with scaled control variables. Therefore, the results were robust for scaling.

### **Summary**

In this chapter, I first tested the hypothesis using generalized estimation equations (GEE) and then examined the robustness of the results. I found that higher status organizations are more likely than lower status organizations to mandate their CEOs to travel with corporate aircraft for personal travel as I hypothesized and that past financial performance weakens this effect as hypothesized. Opposite to my predictions, I found that board interlocks to other organizations providing the perk to their CEOs, future financial performance expectations, and CEO power strengthen the hypothesized relationship. I did not find support for the hypothesis that high- or low-status organizations are more likely than middle-status organizations to mandate their CEOs to use corporate aircraft for personal travel. Similarly, the findings did not support the hypothesis that organizations with high-status directors are more likely than the organizations with low-status directors to mandate their CEOs to use corporate aircraft for personal travel.

Finally, I found interestingly that environmental characteristics, the adoption of the policy within an industry, and the provision of the perk within interlocked organizations predict the likelihood of an organization to mandate its CEO to use corporate aircraft for personal travel. The results discussed above are consisted based on the supplemental analysis, and hence, the results are robust in general.

## CHAPTER 6

### DISCUSSION AND CONTRIBUTIONS

In this chapter, I first summarize the current research and discuss the results of the hypotheses testing. Second, I explain and discuss the academic and managerial contributions of this study. Finally, I discuss the limitations of the research and potential future research directions.

#### **Summary and Discussion**

In this study, I set out to examine the determinants of CEO perquisites. Prior governance research has focused mainly on studying economic determinants of the CEO perks and has provided only mixed results, while I diverged from this tradition by studying socio-psychological determinants of CEO perks and proposing that organizational status is one of the determinants of the CEO perks. In my analysis, I focused on a particular perk—the mandatory use of corporate aircraft for personal travel—which is an easily observable perk that prior research had considered as an agency cost and a potential status signal. I proposed that organizational status is positively associated with the offering of CEO perks because higher status organizations do not face similar conformity expectations as lower status organizations do and because higher status organizations tend to benefit more from the signaling effects. Therefore, I argued that for high-status organizations, the benefits from the provision of the perk are likely to exceed the costs associated with the provision of it—especially in case of an expensive and readily observable perk. I also proposed five contingency factors weakening the direct effects. Based on the above premises, I predicted that higher status organizations are more likely than lower status organizations to mandate their CEOs to

use corporate aircraft for personal travel. I indeed found empirical support for this hypothesis.

Second, I predicted that high- or and low-status organizations are more likely than middle-status organizations to mandate the personal use of corporate aircraft perk because of middle-status conformity expectations. However, my analysis did not provide any support for this hypothesis. Robustness tests with quadratic organizational status terms provided additional support for the former hypothesis but not for the current one. A potential explanation for these results is that the studied sample—all S&P 500 firms— included only high-status organizations. Therefore, there might be some range restrictions, and the reported results should be considered as conservative.

Third, I suggested that organizations with higher status directors are more likely than organizations with lower status directors to offer the perk. I did not find any support for this relationship.

In addition to the above direct effects, I also proposed five contingency factors. Since I found neither direct nor moderating effects for Hypotheses 2 and 3, I do not discuss those findings here. First, I hypothesized that the provision of the perk within the industry weakens the proposed relationships. I found an opposite to predicted moderation effect for the first hypothesis. The results suggest that the provision of the perk within the industry increases the likelihood of organizations to provide the perk, and it also strengthens the effect of organizational status. Although, this moderating effect is not strong, and the effect is portrayed in Figure 2. These results suggest that there exists institutional pressure for organizations to offer the perk if others do provide it and that

high organizational status partly protects organizations from the legitimacy costs, hence, providing a justification for these organizations to offer the perk.

Second, I posited that the existence of board interlocks to organizations offering the perk weakens the proposed relationships. Instead of the expected relationship, I found that the board interlocks strengthen the effect of organizational status to the provision of the perk. The moderating effect is shown in Figure 3. The potential explanation for this finding is that the diffusion of the perk through board interlocks strengthens the proposed relationship because the members of the board want to signal their status to other directors and high organizational status will also protect them from stakeholders' adverse reactions. Thus, as organizational status increases, it is more likely that the benefits from the provision of the perk exceed the costs associated with the provision of it.

Third, I predicted that the number of connections through compensation committee members to organizations offering the personal travel perk weakens the proposed relationships. This moderating effect is portrayed in Figure 4. I did not find support for the moderating effect, but the results show a direct effect. Therefore, the findings suggest that the members of the compensation committee do take into account both organizational status and members' experiences in other organizations. However, these two factors do not seem to interact as I hypothesized. A potential explanation for this finding is that I only included board interlocks to other firms in the sample to this examination. I discuss this limitation in the following section while addressing the limitations of this study.

Fourth, I argued that firm performance weakens the proposed relationships. I studied both past performance (return on assets) and expected future performance



(analyst earnings per share forecast). These moderating effects are shown in Figures 5 and 6. I found the expected effect for past performance and the contrary to expected effect for future performance. These results suggest that as proposed, the directors of well-performing organizations do not need the protection provided by organizational status, while the directors in low performing firms do need it. On the other hand, in case of future expectations, it may be that organizational status cannot protect organizations from potential costs and adverse reactions associated with the provision of the perk if the organization is expected to perform poorly in the future. Another possible explanation is that lack of slack resources may disallow low performing organizations to offer the perk at all.

Finally, I expected that CEO power weakens the proposed relationship. Contrary to my expectations, I found that CEO power strengthens the effect of organizational status on the provision of the perk. The possible explanation for this finding is that powerful CEOs may want to signal their status but the boards of low-status organizations with powerful CEOs are aware of potentially negative consequences associated with the provision of the perk, and therefore, they are less likely to provide the perk. However, as organizational status increases, it becomes easier for the boards to justify the perk. Moreover, powerful boards may monitor more aggressively their CEOs in comparison to less powerful boards, and thus, they are more likely to decide not to provide the perk regardless of organizational status.

The findings of this dissertation are summarized in Table 2.

Table 2. Summary of Findings

Hypothesis	GEE Model	Hybrid Model	Cox Model
H1: Organizational status → the mandatory CEO use of corporate aircraft for personal travel.	Supported	Supported	x
H2: Both high- or low-status organizations are more likely than middle-status organizations to mandate their CEOs to use corporate aircraft for personal travel.	x	x	x
H3: Director status → the mandatory CEO use of corporate aircraft for personal travel.	x	x	x
H4: The number of organizations offering the mandatory CEO use of corporate aircraft for personal travel perk within the focal organization's industry weakens the relationship proposed in	x		x
a: H1	Opposite to the predicted		x
b: H2	x		x
c: H3	x		x
H5: Provision of the mandatory CEO use of corporate aircraft for personal travel perk by organizations connected through board interlocks weakens the relationship proposed in	x		x
a: H1	Opposite to the predicted		x
b: H2	x		x
c: H3	x		x
H6: Provision of the mandatory CEO use of corporate aircraft for personal travel perk by organizations connected through the compensation committee members weakens the relationship proposed in	x		x
a: H1	x		x
b: H2	x		x
c: H3	x		x
H7: Performance weakens the relationship proposed in	x		x
a: H1	Supported for past performance and opposite to the predicted for future performance		x
b: H2	x		x
c: H3	x		x
H8: CEO power weakens the relationship proposed in	x		x
a: H1	Opposite to the predicted		x
b: H2	x		x
c: H3	x		x

x = Not supported

## **Contributions**

This dissertation makes several contributions to organizational status, executive compensation, and corporate governance literature. First, I contribute to the organizational status literature by showing how organizational status is associated with the provision of a perk—or policy—that is both easily observable and at the same time, theoretically an undesired outcome. My findings suggest that status benefits may exceed the costs associated with the undesired outcome; thus, the benefits derived from status may partly explain why organizations offer certain perks. Therefore, I depart from prior status research that has focused on studying either positive outcomes (see, e.g., Malter, 2014) or negative outcomes that are difficult or unlikely to be observed by outsiders (see, e.g., Graffin et al., 2013; Sharkey, 2014). Finally, this dissertation answers a call for research on social evaluations by George et al. (2016: 10). The authors look for research which explores when and how status “may act as a benefit or burden”, for instance.

Second, I contribute to executive compensation and especially to CEO perquisite literature by adopting a social-psychological perspective. That is, I depart from the previous research by studying organizational status as a determinant of the provision of CEO perks, while prior research has adopted an economic perspective and investigated governance mechanisms derived from agency theory providing only mixed results (Finkelstein et al., 2009; Frydman & Jenter, 2010; Lee et al., 2018; Yermack, 2006). Consequently, this dissertation is one of the first ones studying CEO perquisites and showing a social-psychological perspective (Boivie et al., 2011; Lee et al., 2018). Furthermore, I build on economic and political perspectives and show that firm performance and CEO power moderate the effect of organizational status on the

provision of the perk (Finkelstein et al., 2009). I also contribute to executive compensation literature in general by examining organizational status and how it is associated with a form of executive compensation. Taken together, I expand executive compensation literature by studying other than the purely economic determinants of CEO perquisites.

Finally, I contribute to governance research by examining an organizational characteristic associated with board's decision to offer a perk that the shareholders and other key stakeholders generally regard as harmful or undesirable (Jensen & Meckling, 1976; Yermack, 2006). Specifically, my findings suggest that the boards of high-status organizations are 40% more likely to mandate their CEOs to use corporate aircraft for personal travel than the boards of low-status organizations. As expected, prior firm performance weakens this relationship, while interestingly and contrary to my predictions board interlocks to other organizations offering the perk, expected future firm performance, and CEO power strengthens the above direct effect. Therefore, my dissertation increases our understanding of organizational-level characteristics explaining why boards make controversial decisions, such as offer readily observable perks, and what some of the contingency factors affecting those decisions are.

## **Limitations and Extensions**

### *Limitations*

Similar to other research, this dissertation is not without limitations. The main limitation is the sample or more specifically the sample size. Because the dependent variable—the provision of the perk—was hand collected from proxy statements, the sample size was limited by the time that it took to collect the data. Consequently, I

captured the dependent variable only for organizations belonging to the S&P 500 index. However, these firms can be considered as high-status organizations, since they are the 500 largest public firms in the USA based on market capitalization. Therefore, one explanation for the nonsignificant results may be the limited scope of the data collection. In addition, three of the five contingency factors studied in this dissertation were also based on the data regarding the provision of the perk. The possible range restrictions on status measurement may especially limit testing Hypothesis 2—the middle-status conformity expectations. In addition, the range restrictions may also limit the generalizability of the findings to lower status organizations. Therefore, future research should try to capture data for a broader set of firms to analyze a wider range of organizations. In addition, it would make it possible to study differences between organizations that have belonged to the S&P 500 index for a long time and organizations that have been included in the index only a short time. A study by Prato, Kypraios, Ertug, and Lee (In Press) suggests that the results may be different for those firms that have belonged to the index only for a short time in comparison to the other firms. This is because high- and low-status organizations with short histories as a part of the S&P 500 index may face conformity expectations that those who have belonged to the index for a long time do not face. Taken together, additional data collection would provide interesting research opportunities.

Another potential limitation of this study is my measures of organizational status. Although my measures, especially the centrality measure, are widely used in status research (Piazza & Castellucci, 2014), I cannot be sure that the measures I use to proxy organizational status actually capture directors' perceptions. This limitation is, in general,

tied to my decision to use archival data to study the proposed relationships. Therefore, future research should apply qualitative research methodologies to explore why organizations offer perks. This would also help to establish the validity of the present study's findings.

An additional limitation of this study is that it does not capture explanations that the organizations provide to explain the provision of the perk. I could only capture the explanations for the firms that actually offered the perk, and most of the organizations mentioned security as a reason to provide the perk. It almost perfectly predicted the provision of the perk, and hence, future research should look closer into explanations that organizations use to justify the provision of the perk. Building on the above, an interesting question to explore would be whether these explanations are the actual reasons for providing the perk or is it an impression management tactic to make the provision of the perk to look better for outside stakeholders (McDonnell & King, 2013; McDonnell & King, 2018; Washburn & Bromiley, 2014).

### *Extensions*

This dissertation provides several interesting opportunities for future research. First, future research could focus on the effect of CEO power on the mandate to use corporate aircraft for personal travel. Although I find a marginally significant relationship between CEO power and the provision of the perk, future research should focus on potential contingency factors. That is, I suspect that the effect of CEO power on the provision of the perk can vary from nonsignificant to significant based on certain contingency factors, such as prior firm performance. In other words, the effect of CEO power is likely to vary based on the firm performance. Secondly, this study can also

examine the different dimensions of CEO power—e.g., CEO duality—separately. By examining each dimension separately, the study can contribute to the governance literature by uncovering which of the determinants of CEO power predict the provision of the perk and what are the factors moderating these relationships.

Second, CEO succession is a potentially interesting antecedent of the mandate. In other words, I can study which contingencies determine whether the organization continues or discontinues to offer the perk after the succession. An additional research question is when the directors will offer the perk to a new CEO if the organization did not offer the perk to the previous CEO. As above, it is essential to understand the contingencies affecting these decisions. For instance, I can examine if the provision of the perk within the industry increases the likelihood of an organization to offer the perk to a new CEO, hence, suggesting the existence of institutional pressures (DiMaggio & Powell, 1983; Galaskiewicz & Wasserman, 1989; Hambrick & Finkelstein, 1995).

A third possible avenue for future research is environmental characteristics affecting the industry. I find in this dissertation that both environmental dynamism and complexity are associated with the provision of the perk. Therefore, future research can focus on explaining how these environmental characteristics affect the provision perk. I can study how environmental dynamism—understood as the instability of the industry growth rate— and environmental complexity—understood as the industry concentration—affects the provision of the perk (Keats & Hitt, 1988). For instance, environmental dynamism increases uncertainty and the mandatory use of corporate aircraft for personal travel may make it easier for CEOs to respond organizational needs faster, i.e., the CEO can effortlessly interrupt his or her vacation to fly to an unanticipated

meeting if needed (Boyd, 1995; Keats & Hitt, 1988). Similarly, environmental complexity is associated with uncertainty, and hence, the above logic may apply to it (Boyd, 1995; Keats & Hitt, 1988).

Fourth, my focus in this study has been in the mandatory use of corporate aircraft for personal travel. However, future research could examine the determinants—including organizational status—of the board’s decision to offer the CEO an opportunity to use corporate aircraft for personal travel, i.e., not mandating the CEO to use it, and how these determinants differ from those of the mandatory use. I predict that the determinants differ since I would assume that when the use of aircraft is not mandatory, stakeholders attribute the blame of the excess use of the aircraft to the CEO since it is the CEO who decides how many hours the aircraft is used for personal travel. On the other hand, when the use is mandatory, the board carries more of the blame of excess use, as the CEO has no other convenient travel options. The question regarding the difference of voluntary and mandatory use of corporate aircraft for personal travel can be extended to other research topics, since Boivie et al. (2011), for instance, argue that the CEO’s organizational identification moderates the relationship between the decoupling of firm performance and the use of corporate aircraft for personal travel. However, I wonder if it can be assumed that the same logic applies when the CEO has to use corporate aircraft and when the CEO has an option to use corporate aircraft, for example. This is something that future research can examine.

Finally, in this dissertation, I have argued that organizational status is positively associated with the likelihood of an organization to mandate its CEO to use corporate aircraft for personal travel. However, based on the literature review and argumentation



suggesting that the perk is a status signal, I could also theorize that the provision of the perk is positively associated with organizational status. Therefore, I expect that I can hypothesize and examine the above relationship and its contingencies in the future.

### *Conclusion*

In this dissertation, I explored the determinants of CEO perquisites, i.e., nonmonetary compensation offered to specific employees that are not directly associated with the completion of CEOs' duties. While the current CEO perquisite literature has focused on understanding the economic determinants of CEO perquisites, this study examined the social-psychological determinants of perquisites. I argued that organizational status is positively associated with the provision of CEO perquisites. Status literature suggests that high-status organizations derive benefits from status and status signals, while agency theory proposes that perquisites are a way for CEOs to extract private rents. Consequently, I posited that for high-status organizations, the benefits derived from CEO perquisites may negate the costs associated with those perquisites. I focused my analysis on a specific CEO perquisite: the mandatory use of corporate aircraft for personal travel, and I hypothesized that higher status organizations and organizations with higher status directors are more likely than lower status organizations or organizations with lower status directors to mandate their CEOs to conduct their personal travel with corporate aircraft. I also proposed that the effect is stronger for low- or high-status organizations than for middle-status organizations. Finally, I hypothesized five contingencies moderating the above relationships. I examined hypothesized relationships using a sample of S&P 500 firms, and I found support for some of my hypotheses.

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APPENDIX A  
DESCRIPTIVE STATISTICS

## Appendix A. Descriptive Statistics

Variable	Mean	Std. Dev.	1	2	3	4	5	6	7	8	9
1 The mandatory CEO use of corporate aircraft for personal travel	0.287	0.452									
2 Organizational Status (Analyst measure)	0.003	1.006	0.08								
3 Organizational Status (Centrality)	0.033	0.035	0.31	0.00							
4 Director Status	0.001	0.006	0.10	-0.01	0.18						
5 Low Organizational Status (Analyst measure)	0.249	0.433	0.03	-0.49	0.11	0.03					
6 High Organizational Status (Analyst measure)	0.249	0.433	0.04	0.86	0.00	-0.02	-0.33				
7 Low Organizational Status (Centrality)	0.249	0.433	-0.19	0.02	-0.49	-0.10	-0.08	0.02			
8 High Organizational Status (Centrality)	0.249	0.433	0.29	-0.01	0.80	0.17	0.11	-0.02	-0.33		
9 N of organizations offering the personal travel perk within the industry	1.300	1.380	0.29	0.01	0.12	0.10	0.15	-0.01	-0.05	0.12	
10 N of board interlocks to organizations offering the personal travel perk N of connections through compensation committee members to organizations offering the personal travel perk	1.646	1.868	0.29	0.05	0.73	0.30	0.07	0.05	-0.40	0.62	0.09
11 ROA	0.056	0.076	0.02	0.01	0.05	0.03	0.01	-0.01	-0.02	0.04	-0.08
12 EPS analyst forecast	3.003	4.464	0.14	0.02	0.13	0.04	0.03	0.01	-0.07	0.08	0.11
13 CEO Power	0.000	2.525	0.06	0.06	0.00	0.12	-0.03	0.05	0.04	-0.02	0.05
14 Log(employees)	3.317	1.185	0.32	-0.04	0.44	0.12	0.11	-0.03	-0.31	0.41	0.03
15 Leverage	0.209	0.147	-0.02	-0.05	-0.02	-0.05	-0.08	-0.02	0.00	-0.01	-0.17
16 Environmental munificence	0.364	1.034	0.13	0.01	0.08	0.07	0.05	0.01	-0.05	0.09	0.06
17 Environmental dynamism	0.810	1.404	0.22	0.02	0.16	0.01	0.02	0.02	-0.06	0.18	0.01
18 Environmental complexity	0.236	0.202	0.10	-0.01	0.06	0.00	-0.09	-0.01	-0.09	0.06	-0.38
19 Dedicated institutional investors	0.032	0.045	0.04	0.01	0.02	0.06	0.00	0.02	0.06	0.02	-0.02
20 Transient institutional investors	0.132	0.078	-0.13	0.04	-0.17	-0.14	-0.06	0.04	0.10	-0.15	-0.13
21 Diversification	0.634	0.686	0.10	-0.01	0.15	0.03	-0.04	-0.03	-0.10	0.09	-0.06
22 CEO succession	0.186	0.390	-0.02	-0.01	0.00	-0.03	-0.01	0.00	-0.01	0.00	0.02
23 CEO total cash compensation	7.144	0.938	0.18	0.01	0.18	0.06	0.06	0.01	-0.08	0.16	0.12
24 CEO total compensation	9.046	0.838	0.28	0.00	0.25	0.08	0.10	0.00	-0.18	0.22	0.14
25 CEO ownership	0.006	0.021	-0.09	0.02	-0.07	-0.02	-0.02	0.00	0.07	-0.04	-0.02
26 Female CEO	0.034	0.182	0.05	-0.03	0.03	-0.02	-0.01	-0.02	-0.05	0.00	-0.04
27 CEO age	56.502	6.030	0.05	0.03	0.04	0.02	0.01	0.02	0.02	0.03	0.11
28 Board size	10.707	2.324	0.16	-0.03	0.29	0.11	0.14	-0.02	-0.27	0.28	0.23
29 CEO Minority	0.046	0.209	0.05	0.07	0.02	-0.01	-0.02	0.06	-0.02	0.03	-0.01
30 Board minority	0.119	0.098	0.14	-0.04	0.25	0.02	0.10	-0.02	-0.23	0.23	-0.01
31 Board females	0.176	0.091	0.05	-0.09	0.16	0.01	0.04	-0.09	-0.19	0.12	-0.06
32 Earnings per share	0.003	0.004	0.12	0.01	0.18	0.04	0.07	-0.02	-0.11	0.13	0.08
33 Analyst sell ratings	0.066	0.095	-0.05	-0.07	-0.05	0.00	-0.01	-0.04	0.07	-0.05	-0.02

<sup>1</sup> The correlation coefficients of |0.032| and larger are statistically significant at the 5% p-value.

	Variable	10	11	12	13	14	15	16	17	18	19	20	21	22
11	N of connections through compensation committee members to organizations offering the personal travel perk	0.75												
12	ROA	0.04	0.02											
13	EPS analyst forecast	0.14	0.10	0.13										
14	CEO Power	0.04	-0.04	0.07	-0.02									
15	Log(employees)	0.43	0.33	0.07	0.14	-0.01								
16	Leverage	-0.02	-0.03	-0.15	-0.03	-0.06	-0.05							
17	Environmental munificence	0.09	0.05	0.04	0.09	0.01	0.21	-0.09						
18	Environmental dynamism	0.15	0.08	0.01	0.08	-0.06	0.37	-0.05	0.46					
19	Environmental complexity	0.05	0.02	0.11	0.03	0.01	0.22	0.02	0.14	0.39				
20	Dedicated institutional investors	0.03	0.03	0.02	0.05	-0.02	0.04	0.07	-0.01	0.01	0.02			
21	Transient institutional investors	-0.17	-0.08	-0.10	-0.10	-0.05	-0.19	0.06	-0.01	0.01	0.03	-0.11		
22	Diversification	0.13	0.08	-0.03	0.10	-0.01	0.11	-0.01	-0.05	-0.01	0.12	-0.04	-0.05	
23	CEO succession	0.07	0.01	-0.03	-0.05	-0.09	-0.03	-0.03	0.01	-0.03	0.00	0.05	-0.17	-0.01
24	CEO total cash compensation	0.19	0.13	0.03	0.17	0.05	0.14	-0.03	0.07	0.08	0.02	0.05	-0.09	0.08
25	CEO total compensation	0.24	0.19	0.07	0.18	0.00	0.28	0.00	0.09	0.12	0.00	0.01	-0.07	0.07
26	CEO ownership	-0.08	-0.10	0.04	-0.03	0.13	0.03	0.01	-0.01	-0.01	-0.02	0.00	-0.06	0.05
27	Female CEO	0.02	0.02	0.00	0.03	-0.04	0.06	0.05	0.03	0.08	0.07	-0.02	-0.07	0.02
28	CEO age	0.03	0.00	0.03	0.03	0.23	0.09	-0.02	0.04	0.06	0.00	0.06	-0.08	0.03
29	Board size	0.29	0.23	-0.14	0.11	-0.14	0.29	-0.02	0.04	0.11	-0.05	0.04	-0.18	-0.02
30	CEO Minority	0.04	0.01	-0.04	-0.04	0.02	0.06	0.01	-0.03	0.02	0.00	0.03	0.02	0.02
31	Board minority	0.23	0.18	0.05	0.09	-0.10	0.32	0.06	0.06	0.17	0.08	0.06	-0.06	0.00
32	Board females	0.13	0.09	-0.01	0.02	-0.14	0.19	0.09	0.01	0.08	0.08	0.00	0.01	0.01
33	Earnings per share	0.16	0.12	0.52	0.46	0.03	0.14	-0.11	0.11	0.09	0.04	0.05	-0.11	0.07
34	Analyst sell ratings	-0.03	-0.03	-0.15	-0.11	-0.01	-0.10	0.04	-0.02	0.00	0.02	0.07	0.00	-0.06

Variable	23	24	25	26	27	28	29	30	31	32	33
24 CEO total cash compensation	0.08										
25 CEO total compensation	-0.08	0.48									
26 CEO ownership	-0.03	-0.10	-0.01								
27 Female CEO	-0.01	-0.02	0.03	-0.04							
28 CEO age	-0.06	0.08	0.09	0.20	-0.05						
29 Board size	0.09	0.14	0.17	-0.09	0.05	0.09					
30 CEO Minority	0.00	-0.02	0.00	-0.01	0.08	-0.07	0.01				
31 Board minority	-0.07	0.07	0.16	0.00	0.08	0.05	0.11	0.24			
32 Board females	-0.08	0.02	0.09	-0.01	0.27	0.00	0.02	0.02	0.23		
33 Earnings per share	-0.04	0.12	0.14	-0.02	0.00	0.05	0.06	-0.05	0.09	0.00	
34 Analyst sell ratings	0.04	-0.09	-0.15	-0.03	0.04	-0.04	-0.01	0.05	-0.03	-0.05	-0.13

APPENDIX B

GEE COEFFICIENT ESTIMATES FOR A LOGISTIC REGRESSION FOR H1 AND  
H4A-H8A USING ANALYST MEASURE

Appendix B: GEE Coefficient Estimates for a Logistic Regression for H1 and H4a-H8a Using Analyst Measure (DV: The Mandatory Use of Corporate Aircraft for Private Travel)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Log(employees)	0.334** (0.005)	0.394** (0.002)	0.399** (0.002)	0.396** (0.002)	0.392** (0.002)	0.398** (0.002)	0.395** (0.002)	0.395** (0.002)	0.399** (0.002)
Leverage	0.520 (0.459)	1.176 (0.118)	1.241 <sup>†</sup> (0.099)	1.165 (0.120)	1.144 (0.125)	1.240 (0.098)	1.118 (0.140)	1.157 (0.124)	1.175 (0.117)
Environmental munificence	-0.0018 (0.983)	0.0006 (0.995)	-0.0024 (0.976)	0.0022 (0.979)	0.0037 (0.964)	-0.0024 (0.976)	0.0001 (0.998)	0.0001 (0.999)	-0.0001 (0.994)
Environmental dynamism	0.219* (0.043)	0.125 (0.227)	0.139 (0.176)	0.125 (0.229)	0.120 (0.250)	0.139 (0.176)	0.124 (0.230)	0.128 (0.222)	0.131 (0.210)
Environmental complexity	0.0870 (0.890)	2.068** (0.001)	2.035** (0.001)	2.060** (0.001)	2.073** (0.001)	2.035** (0.001)	2.066** (0.001)	2.044** (0.001)	2.084** (0.001)
Dedicated institutional investors	3.349 <sup>†</sup> (0.059)	3.549 <sup>†</sup> (0.062)	3.471 <sup>†</sup> (0.068)	3.561 <sup>†</sup> (0.060)	3.573 <sup>†</sup> (0.059)	3.470 <sup>†</sup> (0.068)	3.575 <sup>†</sup> (0.060)	3.458 <sup>†</sup> (0.069)	3.483 <sup>†</sup> (0.070)
Transient institutional investors	-3.325* (0.013)	-2.103 (0.127)	-2.260 (0.101)	-2.116 (0.124)	-2.045 (0.140)	-2.259 (0.102)	-2.066 (0.133)	-2.042 (0.140)	-2.117 (0.125)
Diversification	0.335 <sup>†</sup> (0.068)	0.353 <sup>†</sup> (0.067)	0.374 <sup>†</sup> (0.052)	0.349 <sup>†</sup> (0.069)	0.354 <sup>†</sup> (0.067)	0.374 <sup>†</sup> (0.052)	0.351 <sup>†</sup> (0.069)	0.364 <sup>†</sup> (0.062)	0.359 <sup>†</sup> (0.063)
CEO succession	-0.203 <sup>†</sup> (0.076)	-0.133 (0.290)	-0.127 (0.308)	-0.129 (0.304)	-0.129 (0.303)	-0.127 (0.308)	-0.141 (0.265)	-0.121 (0.335)	-0.133 (0.291)
CEO total cash compensation	0.0791 (0.640)	-0.0090 (0.959)	-0.0100 (0.955)	-0.0074 (0.966)	-0.0069 (0.968)	-0.0099 (0.956)	-0.0110 (0.949)	-0.0111 (0.950)	-0.0189 (0.915)
CEO total compensation	0.877*** (0.000)	0.754*** (0.000)	0.763*** (0.000)	0.753*** (0.000)	0.759*** (0.000)	0.763*** (0.000)	0.750*** (0.000)	0.757*** (0.000)	0.746*** (0.000)
CEO ownership	-17.87** (0.010)	-17.37* (0.018)	-17.25* (0.020)	-17.57* (0.019)	-17.37* (0.018)	-17.26* (0.020)	-17.54* (0.018)	-17.80* (0.019)	-17.77* (0.019)
Female CEO	0.198 (0.679)	0.284 (0.518)	0.255 (0.561)	0.287 (0.516)	0.283 (0.519)	0.255 (0.561)	0.270 (0.544)	0.305 (0.486)	0.268 (0.544)
CEO age	0.00877 (0.591)	-0.0135 (0.452)	-0.0122 (0.498)	-0.0133 (0.459)	-0.0131 (0.467)	-0.0122 (0.499)	-0.0135 (0.453)	-0.0128 (0.478)	-0.0132 (0.461)
Board size	0.0453 (0.272)	-0.0217 (0.645)	-0.0176 (0.704)	-0.0226 (0.633)	-0.0222 (0.637)	-0.0177 (0.704)	-0.0207 (0.660)	-0.0226 (0.632)	-0.0214 (0.648)
CEO Minority	0.376 (0.267)	0.273 (0.495)	0.318 (0.415)	0.279 (0.486)	0.251 (0.534)	0.318 (0.416)	0.257 (0.520)	0.284 (0.477)	0.254 (0.531)
Board minority	0.299 (0.774)	0.470 (0.688)	0.548 (0.640)	0.486 (0.678)	0.456 (0.698)	0.549 (0.639)	0.488 (0.677)	0.460 (0.696)	0.444 (0.704)
Board females	0.166 (0.880)	0.0978 (0.932)	0.279 (0.808)	0.0865 (0.940)	0.127 (0.912)	0.279 (0.808)	0.129 (0.911)	0.0972 (0.933)	0.136 (0.907)
Earnings per share	31.78 (0.135)	2.981 (0.909)	5.875 (0.820)	3.977 (0.878)	0.815 (0.976)	5.863 (0.820)	3.175 (0.904)	3.128 (0.911)	4.955 (0.849)
Analyst sell ratings	-0.0433 (0.954)	0.0549 (0.944)	0.00892 (0.991)	0.0638 (0.935)	0.0573 (0.942)	0.00912 (0.991)	0.0941 (0.905)	0.0419 (0.957)	0.0493 (0.950)

<i>Independent variable</i>										
Organizational status (Analyst measure)	0.213*	0.213*	0.200	0.198	0.212*	0.216*	0.197	0.204		
	(0.042)	(0.042)	(0.057)	(0.068)	(0.046)	(0.039)	(0.058)	(0.052)		
<i>Moderators</i>										
N of organizations offering the personal travel perk within the industry	0.643***	0.636***	0.643***	0.644***	0.636***	0.645***	0.640***	0.645***		
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)		
N of board interlocks to organizations offering the personal travel perk	0.115 <sup>†</sup>		0.115 <sup>†</sup>	0.115 <sup>†</sup>			0.112 <sup>†</sup>	0.118 <sup>†</sup>	0.114 <sup>†</sup>	
	(0.079)		(0.078)	(0.089)			(0.089)	(0.074)	(0.084)	
N of connections through compensation committee members to organizations offering the personal travel perk		0.214*				0.214*				
		(0.041)				(0.039)				
Financial performance (ROA accounting)	0.111	0.0798	0.0687	0.227	0.0801	0.243	0.0478	0.0761		
	(0.944)	(0.960)	(0.965)	(0.888)	(0.960)	(0.880)	(0.976)	(0.962)		
Financial performance (EPS analyst forecast)	0.0170	0.0179	0.0155	0.0191	0.0180	0.0190	0.0105	0.0171		
	(0.562)	(0.544)	(0.591)	(0.542)	(0.544)	(0.534)	(0.780)	(0.546)		
CEO Power	0.0666 <sup>†</sup>	0.0687 <sup>†</sup>	0.0666 <sup>†</sup>	0.0658 <sup>†</sup>	0.0686 <sup>†</sup>	0.0663 <sup>†</sup>	0.0686 <sup>†</sup>	0.0637		
	(0.093)	(0.082)	(0.093)	(0.098)	(0.083)	(0.094)	(0.084)	(0.108)		
<i>Interactions</i>										
Status *			0.0332							
N of organizations offering the perk within the industry			(0.617)							
Status *				0.0484						
N of board interlocks to organizations offering the perk				(0.366)						
Status *					0.00240					
N of connections through compensation committee members					(0.979)					
Status *						-1.170				
Financial performance (ROA accounting)						(0.244)				
Status *							0.0340			
Financial performance (EPS analyst forecast)							(0.274)			
Status *									0.0356	
CEO Power									(0.210)	
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Constant	11.83***	-9.269***	9.454***	9.283***	9.337***	9.454***	9.219***	9.328***	9.161***	
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	
Observations	3846	3,846	3,846	3,846	3,846	3,846	3,846	3,846	3,846	3,846
Wald chi <sup>2</sup>	118.9***	141.3***	141.8***	141.1***	141.6***	142.1***	144.1***	140.2***	140.8***	

<sup>1</sup> P-values based on robust standard errors in parentheses

<sup>2</sup> Independent and moderator variables are centered

<sup>†</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## APPENDIX C

### GEE COEFFICIENT ESTIMATES FOR A LOGISTIC REGRESSION FOR H1 AND H4A-H8A USING CENTRALITY MEASURE



Appendix C: GEE Coefficient Estimates for a Logistic Regression Using Centrality Measure for H1 and H4a-H8a (DV: The Mandatory Use of Corporate Aircraft for Private Travel)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Log(employees)	0.353** (0.007)	0.351** (0.007)	0.355** (0.007)	0.352** (0.007)	0.345** (0.008)	0.357** (0.007)	0.354** (0.007)	0.353** (0.007)
Leverage	1.095 (0.141)	1.141 (0.125)	1.052 (0.154)	1.096 (0.141)	1.146 (0.123)	1.088 (0.146)	1.101 (0.140)	1.081 (0.146)
Environmental munificence	0.00290 (0.969)	0.0013 (0.986)	0.0067 (0.929)	0.0031 (0.966)	0.0026 (0.972)	-0.0060 (0.935)	0.0024 (0.975)	-0.0055 (0.941)
Environmental dynamism	0.134 (0.191)	0.143 (0.160)	0.129 (0.207)	0.134 (0.191)	0.143 (0.162)	0.140 (0.169)	0.134 (0.191)	0.138 (0.176)
Environmental complexity	2.028** (0.001)	2.019** (0.001)	2.030** (0.001)	2.025** (0.001)	2.015** (0.001)	2.041** (0.001)	2.029** (0.001)	2.005** (0.001)
Dedicated institutional investors	3.656* (0.047)	3.577* (0.053)	3.693* (0.046)	3.662* (0.047)	3.600* (0.054)	3.688* (0.041)	3.654* (0.047)	3.716* (0.048)
Transient institutional investors	-1.861 (0.183)	-1.960 (0.160)	-1.791 (0.203)	-1.863 (0.182)	-1.971 (0.157)	-1.844 (0.186)	-1.866 (0.182)	-1.890 (0.175)
Diversification	0.318 (0.103)	0.331 (0.088)	0.313 (0.108)	0.319 (0.103)	0.336 (0.084)	0.306 (0.117)	0.319 (0.102)	0.308 (0.112)
CEO succession	-0.116 (0.355)	-0.116 (0.353)	-0.114 (0.365)	-0.115 (0.368)	-0.114 (0.363)	-0.124 (0.324)	-0.117 (0.352)	-0.113 (0.362)
CEO total cash compensation	-0.00193 (0.991)	-0.00364 (0.984)	-0.00195 (0.991)	-0.00112 (0.995)	-0.00374 (0.983)	-0.00260 (0.988)	-0.00214 (0.990)	0.000316 (0.999)
CEO total compensation	0.752*** (0.000)	0.755*** (0.000)	0.757*** (0.000)	0.750*** (0.000)	0.754*** (0.000)	0.763*** (0.000)	0.752*** (0.000)	0.754*** (0.000)
CEO ownership	-16.76* (0.019)	-16.48* (0.021)	-16.98* (0.020)	-16.76* (0.020)	-16.55* (0.021)	-16.66* (0.020)	-16.79* (0.019)	-16.91* (0.023)
Female CEO	0.302 (0.508)	0.287 (0.530)	0.305 (0.505)	0.302 (0.507)	0.289 (0.525)	0.328 (0.470)	0.298 (0.515)	0.307 (0.497)
CEO age	-0.0121 (0.499)	-0.0112 (0.532)	-0.0123 (0.494)	-0.0120 (0.503)	-0.0106 (0.554)	-0.0123 (0.492)	-0.0122 (0.498)	-0.0122 (0.497)
Board size	-0.0299 (0.531)	-0.0285 (0.547)	-0.0301 (0.526)	-0.0308 (0.526)	-0.0323 (0.502)	-0.0274 (0.561)	-0.0295 (0.536)	-0.0322 (0.501)
CEO Minority	0.392 (0.318)	0.421 (0.276)	0.389 (0.322)	0.394 (0.318)	0.430 (0.270)	0.385 (0.328)	0.391 (0.319)	0.403 (0.303)
Board minority	0.236 (0.841)	0.279 (0.813)	0.216 (0.856)	0.222 (0.851)	0.209 (0.861)	0.225 (0.849)	0.241 (0.838)	0.188 (0.874)
Board females	-0.158 (0.893)	-0.0506 (0.965)	-0.158 (0.893)	-0.170 (0.884)	-0.113 (0.922)	-0.175 (0.880)	-0.150 (0.898)	-0.219 (0.851)
Earnings per share	1.307 (0.960)	2.500 (0.923)	1.403 (0.957)	1.183 (0.964)	2.037 (0.938)	3.394 (0.892)	1.273 (0.961)	1.136 (0.965)
Analyst sell ratings	-0.161 (0.838)	-0.196 (0.805)	-0.152 (0.847)	-0.154 (0.845)	-0.163 (0.837)	-0.170 (0.829)	-0.165 (0.834)	-0.138 (0.861)

<i>Independent variable</i>								
Organizational status (Centrality)	5.104 (0.104)	4.523 (0.155)	5.629 <sup>†</sup> (0.066)	5.351 (0.145)	5.427 (0.116)	4.729 (0.137)	4.988 (0.133)	5.503 <sup>†</sup> (0.076)
<i>Moderators</i>								
N of organizations offering the personal travel perk within the industry	0.626*** (0.000)	0.623*** (0.000)	0.629*** (0.000)	0.626*** (0.000)	0.624*** (0.000)	0.628*** (0.000)	0.626*** (0.000)	0.627*** (0.000)
N of board interlocks to organizations offering the personal travel perk	0.0625 (0.324)		0.0614 (0.333)	0.0664 (0.341)		0.0570 (0.373)	0.0621 (0.325)	0.0589 (0.353)
N of connections through compensation committee members to organizations offering the personal travel perk		0.159 (0.118)			0.192 <sup>†</sup> (0.075)			
Financial performance (ROA accounting)	0.0390 (0.981)	0.0243 (0.988)	0.0352 (0.983)	0.0503 (0.975)	0.0754 (0.963)	0.179 (0.912)	0.0452 (0.978)	0.0624 (0.969)
Financial performance (EPS analyst forecast)	0.0169 (0.514)	0.0175 (0.507)	0.0166 (0.518)	0.0173 (0.515)	0.0191 (0.491)	0.0154 (0.534)	0.0164 (0.534)	0.0171 (0.511)
CEO Power	0.0708 <sup>†</sup> (0.076)	0.0725 <sup>†</sup> (0.069)	0.0703 <sup>†</sup> (0.078)	0.0707 <sup>†</sup> (0.076)	0.0713 <sup>†</sup> (0.073)	0.0704 <sup>†</sup> (0.077)	0.0708 <sup>†</sup> (0.076)	0.0662 (0.102)
<i>Interactions</i>								
Status * N of organizations offering the perk within the industry			-1.234 (0.532)					
Status * N of board interlocks to organizations offering the perk				-0.150 (0.889)				
Status * N of connections through compensation committee members					-1.119 (0.510)			
Status * Financial performance (ROA accounting)						52.78 (0.204)		
Status * Financial performance (EPS analyst forecast)							0.0952 (0.871)	
Status * CEO Power								1.067 (0.167)
Year fixed-effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-9.050*** (0.000)	-9.116*** (0.000)	-9.090*** (0.000)	-9.030*** (0.000)	-9.045*** (0.000)	-9.180*** (0.000)	-9.056*** (0.000)	-9.031*** (0.000)
Observations	3,846	3,846	3,846	3,846	3,846	3,846	3,846	3,846
Wald chi2	147.1***	147.0***	152.0***	148.0***	147.6***	149.9***	148.8***	152.9***

<sup>1</sup> P-values based on robust standard errors in parentheses

<sup>2</sup> Independent and moderator variables are centered

<sup>†</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## APPENDIX D

### GEE COEFFICIENT ESTIMATES FOR A LOGISTIC REGRESSION USING ANALYST MEASURE FOR H2 AND H4B-H8B

Appendix D: GEE Coefficient Estimates for a Logistic Regression Using Analyst Measure for H2 and H4b-H8b (DV: The Mandatory Use of Corporate Aircraft for Private Travel)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Log(employees)	0.386** (0.003)	0.392** (0.002)	0.387** (0.003)	0.386** (0.003)	0.393** (0.002)	0.386** (0.003)	0.389** (0.002)	0.391** (0.002)
Leverage	1.075 (0.156)	1.145 (0.131)	1.060 (0.160)	1.068 (0.156)	1.159 (0.124)	1.012 (0.185)	1.074 (0.159)	1.107 (0.144)
Environmental munificence	0.0043 (0.957)	0.0007 (0.993)	0.0077 (0.920)	0.0052 (0.947)	0.0020 (0.980)	0.0031 (0.969)	0.0023 (0.977)	0.0033 (0.966)
Environmental dynamism	0.128 (0.213)	0.142 (0.164)	0.121 (0.238)	0.126 (0.220)	0.142 (0.163)	0.128 (0.209)	0.130 (0.210)	0.133 (0.201)
Environmental complexity	2.023** (0.001)	1.991** (0.002)	2.032** (0.001)	2.033** (0.001)	1.986** (0.002)	2.008** (0.001)	2.020** (0.001)	2.044** (0.001)
Dedicated institutional investors	3.564 <sup>†</sup> (0.058)	3.482 <sup>†</sup> (0.064)	3.629 <sup>†</sup> (0.051)	3.595 <sup>†</sup> (0.056)	3.496 <sup>†</sup> (0.063)	3.591 <sup>†</sup> (0.056)	3.422 <sup>†</sup> (0.069)	3.475 <sup>†</sup> (0.064)
Transient institutional investors	-2.113 (0.124)	-2.278 <sup>†</sup> (0.098)	-2.156 (0.116)	-2.107 (0.128)	-2.286 <sup>†</sup> (0.096)	-2.091 (0.128)	-2.079 (0.130)	-2.098 (0.129)
Diversification	0.344 <sup>†</sup> (0.074)	0.365 <sup>†</sup> (0.056)	0.336 <sup>†</sup> (0.081)	0.342 <sup>†</sup> (0.075)	0.367 <sup>†</sup> (0.055)	0.340 <sup>†</sup> (0.077)	0.352 <sup>†</sup> (0.069)	0.351 <sup>†</sup> (0.068)
CEO succession	-0.140 (0.270)	-0.133 (0.288)	-0.140 (0.268)	-0.132 (0.297)	-0.135 (0.283)	-0.150 (0.235)	-0.128 (0.311)	-0.135 (0.289)
CEO total cash compensation	-0.000640 (0.997)	-0.00137 (0.994)	0.000557 (0.997)	0.00150 (0.993)	-0.00195 (0.991)	-0.00559 (0.975)	-0.00558 (0.975)	-0.00986 (0.958)
CEO total compensation	0.775*** (0.000)	0.784*** (0.000)	0.776*** (0.000)	0.774*** (0.000)	0.784*** (0.000)	0.772*** (0.000)	0.775*** (0.000)	0.777*** (0.000)
CEO ownership	-17.21* (0.017)	-17.08* (0.018)	-17.52* (0.016)	-17.26* (0.017)	-17.04* (0.018)	-17.32* (0.016)	-17.51* (0.016)	-17.72* (0.015)
Female CEO	0.272 (0.539)	0.243 (0.582)	0.272 (0.542)	0.268 (0.546)	0.243 (0.582)	0.257 (0.564)	0.290 (0.511)	0.268 (0.548)
CEO age	-0.0131 (0.463)	-0.0118 (0.511)	-0.0122 (0.492)	-0.0130 (0.469)	-0.0119 (0.507)	-0.0132 (0.459)	-0.0128 (0.476)	-0.0126 (0.479)
Board size	-0.0213 (0.651)	-0.0170 (0.715)	-0.0224 (0.633)	-0.0223 (0.636)	-0.0161 (0.729)	-0.0190 (0.686)	-0.0209 (0.657)	-0.0217 (0.645)
CEO Minority	0.313 (0.425)	0.359 (0.350)	0.304 (0.436)	0.310 (0.432)	0.365 (0.341)	0.290 (0.456)	0.314 (0.425)	0.288 (0.469)
Board minority	0.453 (0.697)	0.533 (0.647)	0.510 (0.660)	0.407 (0.726)	0.529 (0.649)	0.491 (0.673)	0.466 (0.689)	0.409 (0.725)
Board females	0.0556 (0.961)	0.246 (0.830)	0.0540 (0.962)	0.0740 (0.948)	0.239 (0.834)	0.0856 (0.941)	0.0803 (0.944)	0.0390 (0.973)
Earnings per share	5.433 (0.836)	8.381 (0.747)	7.516 (0.774)	4.764 (0.857)	8.449 (0.744)	6.493 (0.804)	5.488 (0.845)	6.613 (0.800)
Analyst sell ratings	-0.0604 (0.938)	-0.104 (0.894)	-0.0695 (0.929)	-0.0537 (0.945)	-0.118 (0.880)	-0.0451 (0.954)	-0.0881 (0.910)	-0.0795 (0.920)
<i>Independent variables</i>								
Low organizational status (Analyst measure)	-0.264 <sup>†</sup> (0.088)	-0.249 (0.108)	-0.184 (0.226)	-0.233 (0.138)	-0.260 (0.104)	-0.278 <sup>†</sup> (0.076)	-0.270 <sup>†</sup> (0.082)	-0.272 <sup>†</sup> (0.078)

High organizational status (Analyst measure)	0.222 (0.292)	0.229 (0.282)	0.203 (0.343)	0.212 (0.318)	0.239 (0.253)	0.222 (0.291)	0.203 (0.333)	0.210 (0.327)
<i>Moderators</i>								
N of organizations offering the personal travel perk within the industry	0.648*** (0.000)	0.640*** (0.000)	0.659*** (0.000)	0.647*** (0.000)	0.640*** (0.000)	0.650*** (0.000)	0.647*** (0.000)	0.649*** (0.000)
N of board interlocks to organizations offering the personal travel perk	0.121 <sup>†</sup> (0.065)		0.121 <sup>†</sup> (0.062)	0.138* (0.049)		0.117 <sup>†</sup> (0.075)	0.122 <sup>†</sup> (0.065)	0.120 <sup>†</sup> (0.068)
N of connections through compensation committee members to organizations offering the personal travel perk		0.219* (0.036)			0.220* (0.042)			
Financial performance (ROA accounting)	0.0612 (0.969)	0.0348 (0.983)	-0.0432 (0.978)	0.118 (0.942)	0.0309 (0.985)	0.186 (0.917)	0.0291 (0.985)	0.0721 (0.964)
Financial performance (EPS analyst forecast)	0.0149 (0.600)	0.0160 (0.579)	0.0120 (0.669)	0.0162 (0.588)	0.0156 (0.584)	0.0160 (0.584)	-0.0204 (0.622)	0.0153 (0.579)
CEO Power	0.0675 <sup>†</sup> (0.089)	0.0697 <sup>†</sup> (0.078)	0.0667 <sup>†</sup> (0.094)	0.0674 <sup>†</sup> (0.090)	0.0703 <sup>†</sup> (0.076)	0.0680 <sup>†</sup> (0.086)	0.0697 <sup>†</sup> (0.080)	0.0754 (0.108)
<i>Interactions</i>								
Low Status * N of organizations offering the perk within the industry			-0.138 (0.189)					
High Status * N of organizations offering the perk within the industry			0.0990 (0.472)					
Low Status * N of board interlocks to organizations offering the perk				-0.0711 (0.325)				
High Status * N of board interlocks to organizations offering the perk				0.0174 (0.891)				
Low Status * N of connections through compensation committee members					0.0531 (0.645)			
High Status * N of connections through compensation committee members					-0.0553 (0.798)			
Low Status * Financial performance (ROA accounting)						1.889 (0.382)		
High Status * Financial performance (ROA accounting)						-1.622 (0.409)		
Low Status * Financial performance (EPS analyst forecast)							0.0367 (0.434)	
High Status * Financial performance (EPS analyst forecast)							0.0722 (0.210)	
Low Status * CEO Power								-0.0838 (0.168)
High Status * CEO Power								0.0438 (0.492)
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES
Constant	- 9.474*** (0.000)	- 9.678*** (0.000)	- 9.556*** (0.000)	- 9.483*** (0.000)	- 9.685*** (0.000)	- 9.431*** (0.000)	- 9.492*** (0.000)	- 9.470*** (0.000)
Observations	3,846	3,846	3,846	3,846	3,846	3,846	3,846	3,846
Wald chi2	149.8***	150.1***	154.6***	151.8***	150.9***	154.6***	152.5***	150.5***

<sup>1</sup> P-values based on robust standard errors in parentheses

<sup>2</sup> Independent and moderator variables are centered

<sup>†</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

APPENDIX E

GEE COEFFICIENT ESTIMATES FOR A LOGISTIC REGRESSION USING  
CENTRALITY MEASURE FOR H2 AND H4B-H8B

Appendix E: GEE Coefficient Estimates for a Logistic Regression Using Centrality Measure for H2 and H4b-H8b (DV: The Mandatory Use of Corporate Aircraft for Private Travel)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Log(employees)	0.340** (0.009)	0.336** (0.010)	0.342** (0.009)	0.344** (0.008)	0.339** (0.009)	0.344** (0.008)	0.338** (0.010)	0.339** (0.009)
Leverage	1.105 (0.144)	1.147 (0.129)	1.083 (0.149)	1.110 (0.142)	1.145 (0.129)	1.129 (0.138)	1.093 (0.151)	1.109 (0.140)
Environmental munificence	-0.0016 (0.983)	-0.0028 (0.970)	0.0002 (0.998)	-0.0050 (0.947)	-0.0059 (0.936)	-0.0057 (0.939)	-0.0006 (0.993)	-0.0035 (0.962)
Environmental dynamism	0.142 (0.169)	0.150 (0.142)	0.141 (0.173)	0.143 (0.164)	0.152 (0.139)	0.147 (0.158)	0.142 (0.169)	0.142 (0.165)
Environmental complexity	1.962** (0.001)	1.958** (0.002)	1.953** (0.002)	1.965** (0.001)	1.958** (0.002)	1.952** (0.002)	1.961** (0.001)	1.954** (0.002)
Dedicated institutional investors	3.870* (0.039)	3.789* (0.043)	3.929* (0.036)	3.882* (0.038)	3.810* (0.041)	3.857* (0.036)	3.870* (0.040)	4.025* (0.034)
Transient institutional investors	-1.890 (0.177)	-1.961 (0.161)	-1.884 (0.180)	-1.853 (0.187)	-1.931 (0.166)	-1.857 (0.186)	-1.883 (0.180)	-1.919 (0.169)
Diversification	0.320 (0.103)	0.329† (0.091)	0.322† (0.099)	0.321 (0.100)	0.328† (0.091)	0.313 (0.108)	0.319 (0.103)	0.309 (0.110)
CEO succession	-0.113 (0.365)	-0.115 (0.357)	-0.110 (0.377)	-0.121 (0.342)	-0.117 (0.352)	-0.118 (0.348)	-0.113 (0.366)	-0.107 (0.392)
CEO total cash compensation	0.00379 (0.983)	0.00148 (0.993)	0.00382 (0.983)	-0.00304 (0.986)	0.00347 (0.984)	0.00296 (0.986)	0.00508 (0.977)	0.0109 (0.950)
CEO total compensation	0.740*** (0.000)	0.742*** (0.000)	0.742*** (0.000)	0.744*** (0.000)	0.736*** (0.000)	0.745*** (0.000)	0.740*** (0.000)	0.746*** (0.000)
CEO ownership	-16.75* (0.020)	-16.43* (0.022)	-16.66* (0.020)	-16.77* (0.019)	-16.39* (0.021)	-16.71* (0.020)	-16.71* (0.020)	-16.81* (0.021)
Female CEO	0.327 (0.472)	0.314 (0.491)	0.319 (0.483)	0.328 (0.473)	0.310 (0.497)	0.334 (0.463)	0.331 (0.465)	0.325 (0.472)
CEO age	-0.0105 (0.563)	-0.00974 (0.592)	-0.0107 (0.553)	-0.0106 (0.560)	-0.00988 (0.586)	-0.00986 (0.586)	-0.0105 (0.563)	-0.00984 (0.587)
Board size	-0.0413 (0.405)	-0.0402 (0.415)	-0.0415 (0.404)	-0.0400 (0.424)	-0.0387 (0.435)	-0.0420 (0.395)	-0.0418 (0.401)	-0.0427 (0.391)
CEO Minority	0.395 (0.316)	0.422 (0.277)	0.396 (0.314)	0.389 (0.322)	0.418 (0.282)	0.390 (0.321)	0.395 (0.317)	0.400 (0.311)
Board minority	0.0787 (0.947)	0.117 (0.922)	0.0842 (0.944)	0.114 (0.924)	0.167 (0.889)	0.0521 (0.965)	0.0759 (0.949)	0.0338 (0.977)
Board females	-0.269 (0.814)	-0.173 (0.880)	-0.276 (0.810)	-0.199 (0.864)	-0.131 (0.909)	-0.289 (0.800)	-0.280 (0.807)	-0.323 (0.779)
Earnings per share	-1.178 (0.965)	-0.199 (0.994)	-0.355 (0.989)	-1.347 (0.959)	0.0680 (0.998)	-0.0687 (0.998)	-1.107 (0.967)	-2.239 (0.933)
Analyst sell ratings	-0.0978 (0.902)	-0.134 (0.866)	-0.0930 (0.906)	-0.101 (0.898)	-0.141 (0.859)	-0.0690 (0.930)	-0.0928 (0.907)	-0.0610 (0.939)
<i>Independent variables</i>								
Low organizational status (Centrality)	-0.327 (0.221)	-0.314 (0.244)	-0.359 (0.196)	-0.354 (0.182)	-0.404 (0.137)	-0.342 (0.200)	-0.327 (0.222)	-0.315 (0.233)

High organizational status (Centrality)	0.422*	0.387*	0.422*	0.356 <sup>†</sup>	0.347 <sup>†</sup>	0.419*	0.425*	0.432*
	(0.026)	(0.043)	(0.022)	(0.097)	(0.090)	(0.026)	(0.025)	(0.023)
<i>Moderators</i>								
N of organizations offering the personal travel perk within the industry	0.625***	0.622***	0.613***	0.624***	0.621***	0.626***	0.624***	0.626***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
N of board interlocks to organizations offering the personal travel perk	0.0549		0.0549	-0.0205		0.0506	0.0569	0.0533
	(0.379)		(0.379)	(0.827)		(0.416)	(0.360)	(0.392)
N of connections through compensation committee members to organizations offering the personal travel perk		0.147			0.0849			
		(0.139)			(0.514)			
Financial performance (ROA accounting)	0.0946	0.0764	0.0692	0.0833	0.0537	0.458	0.0794	0.104
	(0.953)	(0.962)	(0.966)	(0.959)	(0.974)	(0.802)	(0.961)	(0.949)
Financial performance (EPS analyst forecast)	0.0222	0.0222	0.0216	0.0206	0.0210	0.0222	0.0253	0.0218
	(0.443)	(0.445)	(0.445)	(0.454)	(0.457)	(0.435)	(0.421)	(0.443)
CEO Power	0.0717 <sup>†</sup>	0.0730 <sup>†</sup>	0.0715 <sup>†</sup>	0.0721 <sup>†</sup>	0.0741 <sup>†</sup>	0.0700 <sup>†</sup>	0.0718 <sup>†</sup>	0.0819 <sup>†</sup>
	(0.072)	(0.067)	(0.073)	(0.070)	(0.063)	(0.078)	(0.071)	(0.101)
<i>Interactions</i>								
Low Status *			0.0746					
N of organizations offering the perk within the industry			(0.566)					
High Status *			-0.0114					
N of organizations offering the perk within the industry			(0.938)					
Low Status *				0.0304				
N of board interlocks to organizations offering the perk				(0.882)				
High Status *				0.118				
N of board interlocks to organizations offering the perk				(0.326)				
Low Status *					-0.125			
N of connections through compensation committee members					(0.741)			
High Status *					0.110			
N of connections through compensation committee members					(0.523)			
Low Status *						-2.451		
Financial performance (ROA accounting)						(0.171)		
High Status *						1.005		
Financial performance (ROA accounting)						(0.705)		
Low Status *							0.00397	
Financial performance (EPS analyst forecast)							(0.951)	
High Status *							-0.0121	
Financial performance (EPS analyst forecast)							(0.783)	
Low Status *								-0.0877
CEO Power								(0.267)
High Status *								0.0200
CEO Power								(0.751)
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES
Constant	-	-	-	-	-	-	-	-
	8.915***	8.936***	8.932***	8.959***	8.947***	8.995***	8.918***	9.034***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Observations	3,846	3,846	3,846	3,846	3,846	3,846	3,846	3,846
Wald chi2	147.5***	147.1***	154.8***	151.3***	147.6***	153.1***	147.6***	155.1***

<sup>1</sup> P-values based on robust standard errors in parentheses

<sup>2</sup> Moderator variables are centered

<sup>†</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$



APPENDIX F

GEE COEFFICIENT ESTIMATES FOR A LOGISTIC REGRESSION FOR H3 AND  
H4C-H8C

Appendix F: GEE Coefficient Estimates for a Logistic Regression for H3 and H4c-H8c  
(DV: The Mandatory Use of Corporate Aircraft for Private Travel)

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Log(employees)	0.368** (0.005)	0.373** (0.004)	0.371** (0.004)	0.364** (0.005)	0.374** (0.004)	0.370** (0.004)	0.369** (0.004)	0.367** (0.005)
Leverage	1.096 (0.141)	1.162 (0.118)	1.105 (0.140)	1.097 (0.141)	1.162 (0.119)	1.109 (0.137)	1.100 (0.140)	1.115 (0.135)
Environmental munificence	0.0042 (0.956)	-0.0004 (0.995)	0.0050 (0.947)	0.0052 (0.944)	-0.0013 (0.986)	0.0038 (0.960)	0.0038 (0.960)	0.0055 (0.942)
Environmental dynamism	0.132 (0.195)	0.147 (0.147)	0.129 (0.206)	0.132 (0.197)	0.148 (0.146)	0.132 (0.197)	0.132 (0.195)	0.133 (0.193)
Environmental complexity	2.054** (0.001)	2.019** (0.001)	2.066** (0.001)	2.057** (0.001)	2.015** (0.001)	2.057** (0.001)	2.054** (0.001)	2.065** (0.001)
Dedicated institutional investors	3.642* (0.048)	3.551 <sup>†</sup> (0.054)	3.617 <sup>†</sup> (0.050)	3.673* (0.046)	3.534 <sup>†</sup> (0.055)	3.599 <sup>†</sup> (0.051)	3.666* (0.046)	3.610* (0.048)
Transient institutional investors	-2.016 (0.146)	-2.190 (0.115)	-1.974 (0.156)	-2.002 (0.150)	-2.183 (0.116)	-2.014 (0.147)	-2.024 (0.144)	-2.006 (0.148)
Diversification	0.340 <sup>†</sup> (0.078)	0.360 <sup>†</sup> (0.059)	0.334 <sup>†</sup> (0.083)	0.339 <sup>†</sup> (0.079)	0.361 <sup>†</sup> (0.059)	0.339 <sup>†</sup> (0.079)	0.341 <sup>†</sup> (0.077)	0.342 <sup>†</sup> (0.075)
CEO succession	-0.130 (0.301)	-0.124 (0.321)	-0.130 (0.300)	-0.128 (0.309)	-0.124 (0.321)	-0.131 (0.301)	-0.132 (0.296)	-0.136 (0.282)
CEO total cash compensation	0.00459 (0.979)	0.00407 (0.982)	0.00110 (0.995)	0.0104 (0.952)	0.00141 (0.994)	0.00388 (0.982)	0.00474 (0.978)	0.00782 (0.963)
CEO total compensation	0.762*** (0.000)	0.773*** (0.000)	0.769*** (0.000)	0.759*** (0.000)	0.775*** (0.000)	0.768*** (0.000)	0.763*** (0.000)	0.759*** (0.000)
CEO ownership	-16.85* (0.016)	-16.66* (0.018)	-16.87* (0.017)	-16.80* (0.016)	-16.66* (0.018)	-16.86* (0.016)	-16.87* (0.016)	-16.96* (0.015)
Female CEO	0.287 (0.521)	0.260 (0.562)	0.307 (0.491)	0.296 (0.507)	0.250 (0.579)	0.283 (0.528)	0.286 (0.522)	0.276 (0.539)
CEO age	-0.0122 (0.499)	-0.0109 (0.545)	-0.0121 (0.500)	-0.0120 (0.506)	-0.0108 (0.550)	-0.0119 (0.508)	-0.0123 (0.495)	-0.0123 (0.492)
Board size	-0.0240 (0.607)	-0.0203 (0.661)	-0.0221 (0.633)	-0.0254 (0.587)	-0.0190 (0.681)	-0.0225 (0.628)	-0.0243 (0.602)	-0.0223 (0.630)
CEO Minority	0.367 (0.346)	0.418 (0.272)	0.373 (0.340)	0.369 (0.344)	0.418 (0.272)	0.370 (0.341)	0.365 (0.348)	0.367 (0.346)
Board minority	0.323 (0.782)	0.406 (0.728)	0.266 (0.821)	0.308 (0.792)	0.398 (0.733)	0.311 (0.791)	0.327 (0.779)	0.338 (0.772)
Board females	-0.0849 (0.941)	0.107 (0.926)	-0.0954 (0.933)	-0.1000 (0.931)	0.138 (0.904)	-0.0661 (0.954)	-0.0815 (0.943)	-0.0846 (0.941)
Earnings per share	2.185 (0.933)	5.166 (0.843)	3.293 (0.900)	1.677 (0.949)	5.796 (0.824)	3.614 (0.890)	2.263 (0.931)	2.609 (0.920)
Analyst sell ratings	-0.154 (0.844)	-0.189 (0.810)	-0.146 (0.852)	-0.147 (0.852)	-0.185 (0.814)	-0.128 (0.870)	-0.154 (0.844)	-0.129 (0.869)
<i>Independent variable</i>								
Director status	-3.731 (0.780)	1.691 (0.887)	8.207 (0.460)	13.75 (0.381)	-2.074 (0.866)	-4.977 (0.685)	-4.680 (0.733)	5.588 (0.639)

<i>Moderators</i>								
N of organizations offering the personal travel perk within the industry	0.635*** (0.000)	0.627*** (0.000)	0.640*** (0.000)	0.636*** (0.000)	0.626*** (0.000)	0.636*** (0.000)	0.636*** (0.000)	0.636*** (0.000)
N of board interlocks to organizations offering the personal travel perk	0.128† (0.056)		0.128† (0.056)	0.131† (0.053)		0.126† (0.060)	0.128† (0.056)	0.130† (0.054)
N of connections through compensation committee members to organizations offering the personal travel perk		0.229* (0.029)			0.225* (0.032)			
Financial performance (ROA accounting)	0.0605 (0.970)	0.0394 (0.981)	0.0283 (0.986)	0.0929 (0.954)	0.00686 (0.997)	0.0107 (0.995)	0.0681 (0.966)	0.0272 (0.986)
Financial performance (EPS analyst forecast)	0.0167 (0.546)	0.0183 (0.519)	0.0164 (0.547)	0.0171 (0.538)	0.0181 (0.522)	0.0166 (0.544)	0.0163 (0.559)	0.0162 (0.556)
CEO Power	0.0707† (0.075)	0.0729† (0.065)	0.0702† (0.078)	0.0711† (0.074)	0.0729† (0.065)	0.0713† (0.072)	0.0708† (0.074)	0.0725† (0.068)
<i>Interactions</i>								
N of organizations offering the perk within the industry			Status * -10.98** (0.008)					
N of board interlocks to organizations offering the perk				Status * -4.433 (0.191)				
N of connections through compensation committee members					Status * 6.664 (0.268)			
Financial performance (ROA accounting)						Status * 156.8 (0.203)		
Financial performance (EPS analyst forecast)							Status * 1.382 (0.613)	
CEO Power								Status * -7.169* (0.022)
Year fixed-effects	YES	YES	YES	YES	YES	YES	YES	YES
Constant	9.363*** (0.000)	9.552*** (0.000)	9.427*** (0.000)	9.353*** (0.000)	9.583*** (0.000)	9.458*** (0.000)	9.368*** (0.000)	9.384*** (0.000)
Observations	3,846	3,846	3,846	3,846	3,846	3,846	3,846	3,846
Wald chi2	147.2***	147.5***	153.1***	147.0***	147.4***	146.6***	148.1***	150.2***

<sup>1</sup> P-values based on robust standard errors in parentheses

<sup>2</sup> Independent and moderator variables are centered

†  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## APPENDIX G

### SUPPLEMENTARY ANALYSIS: RANDOM-EFFECTS COEFFICIENT ESTIMATES FOR A LOGISTIC REGRESSION FOR H1 USING A HYBRID MODEL

Appendix G: Supplementary Analysis: Random-Effects Coefficient Estimates for a Logistic Regression for H1 using a hybrid model (DV: The Mandatory Use of Corporate Aircraft for Private Travel)

Variables	Model 1	Model 2
<i>Controls</i>		
Log(employees)	2.065** (0.004)	2.233** (0.003)
Leverage	1.291 (0.604)	1.782 (0.462)
Environmental munificence	-0.181 (0.388)	-0.235 (0.208)
Environmental dynamism	0.570 <sup>†</sup> (0.090)	0.619 <sup>†</sup> (0.066)
Environmental complexity	7.480* (0.014)	7.723** (0.009)
Dedicated institutional investors	-5.516 (0.233)	-5.444 (0.233)
Transient institutional investors	-0.454 (0.861)	-0.437 (0.864)
Diversification	0.427 (0.423)	0.469 (0.382)
CEO succession	-0.0069 (0.980)	-0.0909 (0.745)
CEO total cash compensation	-0.104 (0.679)	-0.0840 (0.759)
CEO total compensation	0.285 (0.167)	0.301 (0.167)
CEO ownership	0.472 (0.981)	3.695 (0.856)
Female CEO	2.013 <sup>†</sup> (0.058)	1.974* (0.049)
CEO age	-0.0442 (0.233)	-0.0421 (0.255)
Board size	-0.113 (0.155)	-0.0950 (0.241)
CEO Minority	-0.0849 (0.913)	0.0294 (0.969)
Board minority	1.351 (0.573)	1.543 (0.517)
Board females	-1.225 (0.573)	-0.865 (0.681)
Earnings per share	-13.83 (0.783)	-12.01 (0.808)
Analyst sell ratings	0.939 (0.630)	1.011 (0.595)
<i>Independent variables</i>		
Organizational status (Analyst measure) (within)	0.0223 (0.899)	0.0236 (0.894)
Organizational status (Analyst measure) (between)	1.523* (0.017)	1.550* (0.014)

<i>Moderators</i>		
N of organizations offering the personal travel perk within the industry (within)	0.891** (0.001)	0.893*** (0.001)
N of organizations offering the personal travel perk within the industry (between)	3.312** (0.002)	3.346*** (0.001)
N of board interlocks to organizations offering the personal travel perk (within)	-0.119 (0.244)	
N of board interlocks to organizations offering the personal travel perk (between)	1.628** (0.008)	
N of connections through compensation committee members to organizations offering the personal travel perk (within)		0.140 (0.363)
N of connections through compensation committee members to organizations offering the personal travel perk (between)		3.182** (0.004)
Financial performance (ROA accounting) (within)	5.935 <sup>†</sup> (0.087)	5.887 <sup>†</sup> (0.091)
Financial performance (ROA accounting) (between)	-1.314 (0.931)	-2.265 (0.880)
Financial performance (EPS analyst forecast) (within)	0.0726 <sup>†</sup> (0.083)	0.0716 (0.133)
Financial performance (EPS analyst forecast) (between)	0.236 (0.303)	0.223 (0.334)
CEO Power (within)	0.0408 (0.517)	0.0307 (0.630)
CEO Power (between)	0.310 (0.382)	0.369 (0.294)
Year fixed-effects	YES	YES
Constant	4.539*** (0.000)	4.520*** (0.000)
Observations	3,846	3,846
Log-likelihood	-610.8	-611.6
Wald chi2	54.49 <sup>†</sup>	62.14*

<sup>1</sup> P-values based on robust standard errors in parentheses

<sup>2</sup> Independent variables are centered

<sup>†</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

## APPENDIX H

### SUPPLEMENTARY ANALYSIS: GEE COEFFICIENT ESTIMATES FOR A LOGISTIC REGRESSION WITH QUADRATIC TERMS FOR H2

Appendix H: Supplementary Analysis: GEE Coefficient Estimates for a Logistic Regression with Quadratic Terms for H2 (DV: The Mandatory Use of Corporate Aircraft for Private Travel)

Variables	Model 1	Model 2	Model 3	Model 4
Status measure	<i>Analyst following</i>		<i>Network centrality</i>	
<u>Controls</u>				
Log(employees)	0.386** (0.002)	0.391** (0.002)	0.344** (0.009)	0.341** (0.009)
Leverage	1.150 (0.129)	1.217 (0.109)	1.080 (0.149)	1.124 (0.132)
Environmental munificence	0.0043 (0.959)	0.0012 (0.988)	0.0015 (0.984)	-0.0001 (0.999)
Environmental dynamism	0.123 (0.232)	0.137 (0.179)	0.137 (0.182)	0.146 (0.153)
Environmental complexity	2.068** (0.001)	2.033** (0.001)	1.987** (0.001)	1.979** (0.001)
Dedicated institutional investors	3.518 <sup>†</sup> (0.065)	3.433 <sup>†</sup> (0.072)	3.797* (0.042)	3.724* (0.046)
Transient institutional investors	-2.231 (0.105)	-2.395 <sup>†</sup> (0.082)	-1.846 (0.187)	-1.938 (0.165)
Diversification	0.337 <sup>†</sup> (0.080)	0.358 <sup>†</sup> (0.062)	0.325 <sup>†</sup> (0.098)	0.337 <sup>†</sup> (0.084)
CEO succession	-0.137 (0.278)	-0.131 (0.295)	-0.105 (0.407)	-0.106 (0.399)
CEO total cash compensation	0.0018 (0.992)	0.0010 (0.996)	0.0023 (0.990)	0.0007 (0.997)
CEO total compensation	0.771*** (0.000)	0.780*** (0.000)	0.740*** (0.000)	0.742*** (0.000)
CEO ownership	-17.42* (0.014)	-17.29* (0.015)	-16.62* (0.020)	-16.30* (0.022)
Female CEO	0.296 (0.496)	0.266 (0.540)	0.320 (0.478)	0.309 (0.493)
CEO age	-0.0140 (0.437)	-0.0126 (0.485)	-0.0104 (0.562)	-0.0095 (0.598)
Board size	-0.0218 (0.644)	-0.0176 (0.706)	-0.0390 (0.425)	-0.0381 (0.434)
CEO Minority	0.293 (0.463)	0.337 (0.387)	0.400 (0.312)	0.426 (0.274)
Board minority	0.499 (0.669)	0.579 (0.621)	0.107 (0.928)	0.147 (0.902)
Board females	0.0694 (0.952)	0.256 (0.823)	-0.252 (0.828)	-0.150 (0.897)
Earnings per share	5.964 (0.823)	9.072 (0.732)	0.402 (0.988)	1.408 (0.958)
Analyst sell ratings	0.0197 (0.980)	-0.0253 (0.974)	-0.113 (0.886)	-0.145 (0.855)
<u>Independent variables</u>				
Organizational status	0.344** (0.010)	0.343* (0.011)	9.325* (0.040)	8.610 <sup>†</sup> (0.057)
Organizational status <sup>2</sup>	-0.109	-0.109	-49.92	-50.90



	(0.213)	(0.216)	(0.178)	(0.165)
<i>Moderators</i>				
N of organizations offering the personal travel perk within the industry	0.652*** (0.000)	0.644*** (0.000)	0.626*** (0.000)	0.623*** (0.000)
N of board interlocks to organizations offering the personal travel perk	0.117 <sup>†</sup> (0.078)		0.0545 (0.389)	
N of connections through compensation committee members to organizations offering the personal travel perk		0.216* (0.041)		0.154 (0.125)
Financial performance (ROA accounting)	0.0259 (0.987)	-0.00997 (0.995)	0.110 (0.946)	0.0986 (0.952)
Financial performance (EPS analyst forecast)	0.0155 (0.601)	0.0163 (0.587)	0.0206 (0.469)	0.0212 (0.464)
CEO Power	0.0678 <sup>†</sup> (0.087)	0.0698 <sup>†</sup> (0.077)	0.0696 <sup>†</sup> (0.081)	0.0710 <sup>†</sup> (0.075)
Year fixed-effects	YES	YES	YES	YES
Constant	- 9.331*** (0.000)	- 9.526*** (0.000)	- 8.890*** (0.000)	- 8.939*** (0.000)
Observations	3,846	3,846	3,846	3,846
Wald chi2	149.4	149.9	148.6	148.1

<sup>1</sup> P-values based on robust standard errors in parentheses

<sup>2</sup> Independent variables are centered

<sup>†</sup>  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$