

Boise State University

ScholarWorks

---

Management Faculty Publications and  
Presentations

Department of Management

---

3-21-2023

## Examining Strategic Antecedents of the Appointment of Women to Top Management Teams

Robert L. Bonner

*San Francisco State University*

Steven J. Hyde

*Boise State University*

Kristen Faile

*Belmont University*

---

This author accepted manuscript is deposited under a Creative Commons Attribution Non-commercial 4.0 International (CC BY-NC) license. This means that anyone may distribute, adapt, and build upon the work for non-commercial purposes, subject to full attribution. If you wish to use this manuscript for commercial purposes, please contact [permissions@emerald.com](mailto:permissions@emerald.com)

# Examining How Organizational and Environmental Conditions Affect Women Being Appointed to Top Management Teams

**Robert L. Bonner**

San Francisco State University

**Steven J. Hyde**

Boise State University

**Kristen Faile**

Belmont University

## Abstract

- Purpose: The purpose of this study was to examine the organizational and environmental antecedents to the appointment of a female to a non-CEO TMT position.
- Design: This study uses a conditional fixed effects logistic regression model to analyze non-CEO TMT appointment data collected from the S&P 500 between 2008 and 2016.
- Findings: Women were more likely to be appointed to non-CEO TMT positions when a firm was undergoing strategic change, had slack resources, and were in less munificent environments.
- Originality: This article contributes to the literature concerning the antecedents of the selection of women to executive leadership (e.g., the glass cliff) roles by examining organizational and environmental contexts at the non-CEO TMT unit of analysis.

**Keywords:** women in leadership, glass cliff, top management teams, leadership, gender in leadership

The glass cliff is a metaphor describing a phenomenon in which women are more likely than men to be promoted to leadership roles in firms that experience an organizational decline or are in crisis (Ryan and Haslam, 2005). The glass cliff phenomenon suggests that sources of unequal representation in the upper echelons of organizations could be accredited to gender stereotypes, organizational decisions to signal change, or even blatant prejudice (Morgenroth *et al.*, 2020). Indeed, these inequalities are represented in the statistics, as women are still only 21.2% of board seats, 11% of top earners, and 5.8% of the CEOs at S&P 500 companies despite the fact that women make up 44.7% of these companies' employees (Catalyst, 2020). This is problematic, as it creates a self-reinforcing cycle of individuals associating successful strategic leadership with males, sometimes referred to as the "think manager-think male association" (Bruckmüller and Branscombe, 2010; Ryan *et al.*, 2011; Schein and Davidson, 1993).

The glass cliff phenomenon argues that in times of crisis, an organization's typical "think manager-think male association" is replaced with a "think crisis- think female association" (Morgenroth *et al.*, 2020). More specifically, in times of organizational decline, women are perceived as more valuable to fill leadership roles. A recent meta-analysis by Morgenroth *et al.* (2020) found that evidence for existence of this glass cliff phenomenon is mixed, with some scholars finding empirical evidence of this shift in firm perspective, some scholars finding no evidence of different decision-making during times of crisis, and still others finding that the glass cliff exists but only under certain moderating conditions. We aim to examine the possible reasons for these mixed results by examining specific conditions under which the glass cliff may exist.

While the glass cliff phenomenon has been frequently examined at the CEO level (Adams *et al.*, 2009; Cook and Glass, 2014a; 2014b; Elsaid and Usrel, 2018; Glass and Cook, 2016) as well as at the board of directors level (Hennessey *et al.*, 2014; Mulcahy and Linehan, 2014; Ryan and Haslam, 2005), we argue that it is also worth considering the glass cliff at non-CEO TMT positions<sup>1</sup>. If the glass cliff phenomenon exists in non-CEO top management team (TMT) positions as well, there would be more robust evidence of the phenomenon (Fitzsimmons *et al.*, 2014) to perhaps consolidate mixed results found in prior literature. Non-CEO TMT members have received

---

<sup>1</sup> Non-CEO TMT is measured using the top earners listed by the companies in SEC proxy statements. As a result, non-CEO TMT is analogous to Catalyst's "top earners" rather than "executive/senior-level officials and managers" throughout this paper (see <http://www.catalyst.org/knowledge/sp-500-pyramids-methodology>).

less attention in the context of the glass cliff phenomenon despite their importance in the upper echelons of organizations and could yield interesting perspectives into a new population of female leaders who face the challenges of being treated differently than their male counterparts, specifically during challenging times.

The non-CEO TMT level of analysis is a distinct unit which typically includes between 4 and 7 executives. Consistent with the upper echelons theory (Hambrick and Mason, 1984), strategic choices made by a “dominant coalition” in an organization enable organizations to position themselves in the external environment while leveraging their internal resources (Cyert and March, 1963). The selection criteria, expectations, and evaluative criteria for non-CEO TMTs are different than those of CEO and board members as part of the “dominant coalition” in the total top management team (Cannella and Holcomb, 2005). For example, the CEO has an executive decision making and figurehead quality not shared by other TMT members, and the board has a governance role not shared by the CEO or other TMT members. Thus, non-CEO TMT members help develop and implement strategic behaviors for the firm to support the CEO with the approval/guidance of the board of directors (BOD). The non-CEO TMT population, along with their idiosyncratic strategic and psycho-social dynamics, provide an interesting new avenue to analyze the context by which potential inequalities exist surrounding the appointment of women to leadership roles.

Furst and Reeves (2008) posited that turbulent internal and external environments could provide additional conditions that facilitate or hinder women as they ascend in organizations. Similarly, Carpenter *et al.* (2004) noted that the original Hambrick and Mason Upper Echelons model (1984) suggested the possibility of industry and organizational strategic contexts influencing TMT composition, albeit in complex ways. In other words, firm outcomes and strategic contexts play a role in determining and selecting top leaders.

This paper seeks to extend the work on the glass cliff phenomenon by extending how we conceptualize the metaphorical cliff to include the strategic context of non-CEO TMT positions. As pointed out by Morgenroth and colleagues’ recent meta-analysis on glass cliff research thus far, “though the glass cliff is an observable phenomenon... it may only emerge in certain professional domains or other contexts that require further investigation” (2020, p. 47). We utilize a sample of leaders in non-CEO TMT positions at organizations to examine a new context in which the glass cliff phenomenon could prove salient. Further, we examine novel precarious contexts that could affect hiring of female leaders. We argue that the appointment of a female to a leadership role in the upper echelons of an organization is inextricably linked to their opportunity to enact meaningful change at the organization. Therefore, the more structurally unfavorable the prior conditions of the organization are, the less managerial discretion is available (Finkelstein and Hambrick, 1990), and the more likely a female will be appointed to the non-CEO TMT position. Our study contributes to the call for more nuanced analyses of the mechanisms that enable the glass cliff by examining how non-performance based strategic factors of an organization contribute to the appointment of women to non-CEO TMT positions. We examine how organizational slack, strategic change, and organizational task environments, specifically instability and munificence, influence the likelihood of an organization appointing a woman to a non-CEO TMT position.

## **Theoretical Framework**

### **Psychological and Sociological Underpinnings of Diversity in TMTs and the Glass Cliff**

Upper echelons theory provides TMT researchers a framework for understanding antecedents to selection of diverse executive leaders (anything heterogeneous to the current team such as: age, functional background, international experience, etc.). The glass cliff theory provides mechanisms more specifically to explain the conditions around selection of women (and minorities) to leadership roles. Ryan and Haslam (2007) suggest that beyond implicit leadership biases, other psychological and structural factors play a role in the existence of the glass cliff phenomenon including: proposed sexism (hostile and benevolent), group dynamics and in-group favoritism, perceived quality of leadership options, and attempting to signal change as an organization.

Several of these proposed factors provide the underpinnings for the current study. First, intentional sexism or gender bias may lead to the appointment of women under conditions of poor performance if women are seen as less important to long-term organizational success or generally more expendable to the firm. Sexism also may provide an opportunity to scapegoat new female members of the team if poor performance persists (Ryan and Haslam, 2007). Secondly, when an organization is performing poorly, leadership roles are often seen as riskier. Men may see joining the TMT of a poorly performing firm as a major risk to their long-term future. A woman, in contrast, may see it as an opportunity that she might not have under more favorable conditions (Ashby *et al.*, 2006). The idea that risky and relatively

undesirable positions are perceived to be “golden opportunities” for women rather than “poisoned chalices” (Ryan and Haslam, 2007: 559) suggests that women would be more likely to accept positions in organizations facing risky or uncertain environmental and organizational contexts. Lastly, appointing a woman to the TMT may be seen as a way to signal organizational change to stakeholders through a largely symbolic gesture of increasing diversity (Kulich *et al.*, 2015).

We must also be cognizant of the mechanisms prevalent in strategic management diversity research (i.e., Upper Echelons Theory) which uses two perspectives to explain the value in both diversity and homogeneity in TMTs: (1) the information-decision-making perspective, and (2) the similarity-attraction perspective (Homberg and Bui, 2013). The information-decision-making perspective assumes that the quality of decisions made by a group (e.g., a TMT) increases through the exchange of information and knowledge leading to broader viewpoints. This perspective suggests that diversity can drive the divergent thinking necessary to generate creative solutions to complex problems (i.e., value-in-diversity) (Swann *et al.*, 2004; Van Knippenberg *et al.*, 2004). The similarity-attraction perspective offers a competing logic such that in-group dynamics yield favorable or unfavorable advantages for heterogeneity in groups depending on the context. This perspective makes the argument that organizations in stable and favorable positions are *better* off with a new homogeneous non-CEO TMT member due to increased cohesion and reduced conflict (Blau, 1977; Richard *et al.*, 2007: social identity theory).

We believe that leveraging these two distinct but complementary approaches (i.e., glass cliff and Upper Echelons Theory) provides a useful foundation in understanding how both strategy and bias can lead to the promotion of women to leadership positions in more or less favorable strategic situations. In the sections that follow, we develop and test our hypotheses using the female leadership and Upper Echelons Theory literature.

### **Organizational Strategic Glass Cliffs**

Strategic change, as an adaptive response (Strandholm *et al.*, 2004), and resource availability (i.e., slack resources) are strategic organizational contexts consistent with the underlying mechanisms for the glass cliff perspective. Therefore, they provide important context to our current understanding of women being promoted in precarious or difficult situations.

### **Strategic Change**

Changes in an organization’s strategy create new norms, new direction, and overall disruptions to existing ways of doing business (Finkelstein *et al.*, 2009). Strategic changes in an organization can be viewed as an attempt by firms to align their focus with the environment to maintain a competitive advantage (Van de Ven & Poole, 1995). Strategic change solves problems through new ways of thinking and perspectives for the firm. Diverse TMTs should be able to navigate the discontinuities and changes within an organization more effectively than homogeneous teams (Wiersema and Bantel, 1992), so when organizations are undergoing or anticipating change, they might seek diverse non-CEO TMT members given the unpredictable nature of change in an organization.

There are several reasons why the need for change in an organization influences the likelihood of the appointment of women into non-CEO TMT positions. First, as discussed in the prior section, sexism might suggest that women are expendable to the firm and, as a result, they could be selected as a scapegoat during times of change should the necessary changes fail (Haslam and Ryan, 2008). This is particularly salient at the non-CEO TMT level of analysis, because the success of change initiatives can be attributed to the strategic decision maker (e.g., the CEO), while the failure of change initiatives can be attributed to the change agent (e.g., a CFO or other TMT member) (Cannella and Holcomb, 2005).

Moreover, as feminine traits are preferred during times of crisis and change, such traits may be viewed as helpful to facilitate times of uncertainty (i.e., Think-Crisis Think-Female: Gartzia *et al.*, 2012). Prior scholars have argued that in times of crisis, organizations put greater value on the traits stereotypical of women such as “social or emotional skills”, because these traits are seen to be more effective in the solution of organizational problems (Morgenroth *et al.*, 2020, pg. 9). Additionally, by selecting a surface-level diverse individual such as a female, CEOs are able to signal to stakeholders that their organization is prioritizing change (Kulich *et al.*, 2015). Females also have the perceived requisite traits to excel in change and crisis management—whether that be as an agent of change (Cannella and Holcomb, 2005) or as a scapegoat (Ryan and Haslam, 2007).

Therefore, we hypothesize:

*H1: Women are more likely than men to be appointed to a non-CEO TMT position when a firm is currently undergoing strategic change.*

### **Organizational Slack**

Organizational slack is an important factor influencing managerial discretion and the attractiveness/viability of a position (Finkelstein *et al.*, 2009). Conceptually, organizational slack is a measure of resource availability. Unlike environmental munificence (i.e., industry resource availability) which affects all firms in the industry, organizational resource scarcity (i.e., lack of organizational slack) is firm-specific and somewhat independent from industry conditions (Daboub *et al.*, 1995). As most strategic initiatives require resources for implementation, the amount of available resources (i.e. slack) is a factor in the flexibility and capacity for change at the organization (Sharfman *et al.*, 1988).

Firms that lack slack resources are unable to match peer compensation packages and are perceived as riskier due to the lack of resources to implement strategic changes if necessary. We argue that non-CEO TMTs appointed in organizations with low levels of slack resources would be less able to react to competitive or organizational demands—leading to the creation of a glass cliff for female leaders. Building on our former argument that women are more likely to be offered and to accept these “golden opportunities” for roles at firms with more volatility, we argue that a female leader may be more likely to accept a leadership role in a firm with internal resource scarcity because it is perceived (or at least presented to them) as an opportunity for them to instate positive change for the firm (Ryan *et al.*, 2016). We argue that women would be more tolerant or accepting of an increasingly precarious and risky role offer than their male counterparts due to the intense difficulty females face to be offered these opportunities in the first place (Fitzsimmons *et al.*, 2014). We argue that females will be more often offered and more often willing to accept a TMT position at a firm with fewer organizational resources.

Therefore we hypothesize:

*H2: Women are more likely than men to be appointed to a non-CEO TMT position as the firm decreases in their slack resources.*

### **Environmental Glass Cliff Contexts**

Dess and Beard (1984) used factor analysis to determine three major environmental dimensions: munificence (capacity), complexity (homogeneity-heterogeneity, concentration-dispersion), and dynamism (stability-instability, turbulence). Each dimension has a different degree of favorability based on a firm’s ability to assess and procure the necessary resources to increase the likelihood of survival. A firm’s task environment would be considered unfavorable if there is high complexity, high dynamism, and low munificence. We argue that unfavorable task environments reflect uncertain firm situations that would lead to the appointment of women to leadership positions. As a result, the dimensions of Dess and Beard’s (1984) task environment provide a useful context in which to examine gender representation in TMTs. The current study focuses on two of these dimensions which most closely reflect the uncertain environments that might lead to more female appointments.

### **Environmental Instability**

For the purpose of this study, instability, unpredictability, and turbulence are used interchangeably to describe Dess and Beard’s (1984) description of environmental dynamism. Environmental (in)stability is the varying degree of unpredictability and rate of unexpected change in the firm (Dess and Beard, 1984). Firms should meet dynamic environments with diverse TMTs to increase the “(1) information absorbed and recalled, (2) perspectives brought to bear on a problem, and (3) potential solutions considered” (Finkelstein *et al.*, 2009, p. 140). Specifically, TMTs should meet the increasing instability by creating a team of executives capable of adapting to the requirements of unstable environments (Haleblian and Finkelstein, 1993).

Organizations in unstable environments are more difficult to manage and require novel problem-solving that can hinder the ability of the TMT to be successful (Dess and Beard, 1984). The precariousness and uncertainty associated with dynamic environments creates unfavorable positions. Based on the mechanisms we have described previously; we argue that firms experiencing environmental instability are more likely to seek female non-CEO TMT members.

Therefore, we hypothesize:

*H3. Women are more likely than men to be appointed to a non-CEO TMT position as the firm's industry becomes more environmentally instable.*

### **Environmental Munificence**

Environmental munificence is the extent to which the environment supports sustained progress, growth, and development (Dess and Beard, 1984). Firms experiencing strong market growth will tend to simplify their competitive repertoire and slow their competitive activity, suggesting a “don't rock the boat” mentality (Miller and Chen, 1996). Therefore, it is reasonable to suggest that, in times of munificence, organizations and CEOs might hire and promote individuals similar to the traditional in-group (white males) into “cushy” and safe jobs (Ryan *et al.*, 2016). Highly touted executives are likely to use their networks and prestige to gain preferential access to “hot jobs” as an executive in an industry with high potential (Ryan *et al.*, 2016). Moreover, munificent environments provide more strategic choices and enhance the “executive effect,” while also expanding the role of TMTs (Messersmith *et al.*, 2013). In munificent environments, CEOs are likely to select individuals similar to them in order to leave their “mark” on the organization. Following this logic, we hypothesize:

*H4. Women are less likely than men to be appointed to a non-CEO TMT position as the firm's industry increases in munificence.*

## **Method**

### **Sample and Procedure**

Our sample consists of new non-CEO TMT appointments of the S&P 500 from 2008 to 2016. We define the TMT as any executive, aside from the CEO, that the firm provides data on to the SEC. This is an appropriate operationalization for a firm's top management team and is consistent with Upper Echelon Theory research which often includes between three and seven people as the dominant coalition of firm decision makers (Dezső, *et al.*, 2016). This data was collected from ExecuComp.

S&P's CompuStat database was the primary source for the firm's financial information. Organizations were dropped from the sample if they did not report the necessary financial information for the sample years. Furthermore, firms were not included within the sample if they were only present for one firm year and/or if the firm did not appoint a female TMT member during the duration of the time period. This was done because it would be difficult to interpret whether there are patterns in their selection process if a firm only promotes men or only has one observation. Moreover, if an organization only has one observation in the dataset it is difficult to interpret whether that selection of a woman is consistent with broader trends in organizational decision making or if the decision itself is an outlier. Thus, the analysis more accurately examines the research questions examining the gender differences in conditions leading to the appointment of a woman to the top management team. The final dataset consisted of 734 firm observations from 175 unique organizations. There were 242 female appointments within the sample.

## **Measures**

### **Dependent Variable**

*Female Appointment to a non-CEO TMT position* was a dummy variable of whether a female was appointed to the TMT in the focal year. Male appointments were coded as 0 and female appointments were coded as 1. We used a dummy variable rather than a count of the number of females appointed in a given year because 13 firms (.9%) had more than 1 appointment in a given year (Dezső, and Ross, 2012).

### **Independent Variables**

*Strategic Change* was captured through Finkelstein and Hambrick's (1990) measurement, consisting of the aggregate of six strategic measures of strategic change: (1) advertising intensity (advertising/sales), (2) research and development intensity (R&D/sales), (3) plant and equipment newness (net plant and equipment/gross plant and equipment), (4) nonproduction overhead (SGA expenses/net sales), (5) inventory levels (inventories/net sales), (6) and financial leverage (total debt/total assets) (Triana *et al.*, 2013). The absolute value of the change in these values

from the focal year and the year prior was calculated. We used a two year average because the implementation of strategic change typically takes two years (Triana *et al.*, 2013). Values were standardized by year across all firms then the standardized change values of the 6 values were averaged to create the composite measure of strategic change (Oehmichen *et al.*, 2017).

*Organizational slack* is a measure of resource endowment and was calculated using the firm's current ratio in  $t-1$  (i.e., current assets divided by current liabilities) (Cho and Hambrick, 2006).

*Environmental munificence* is often conceptualized as an industry's capacity for sustained growth. As a result, industry growth rates reflect the abundance of an industry and represents the underlying construct consistent with Dess and Beard (1984) (Wiersema and Bantel, 1993). Keats and Hitt's (1988) equation/procedure was used for each 4-Digit SIC to calculate munificence over the 5 years prior to the appointment year. Values from the year prior to appointment were used to measure prior munificence.

*Dynamism* refers to the volatility and uncertainty of discontinuities in an industry (Dess and Beard, 1984). Keats and Hitt's (1988) equation/procedures were used for each 4-Digit SIC. The measure for instability was the antilog of the standard error of the regression slope coefficient from the munificence equation calculated previously (Keats and Hitt, 1988). Measures prior to the appointment year were used to measure the prior instability.

### **Control Variables**

It is reasonable to suggest larger companies have different stakeholders influencing their executive decisions. As a result, we controlled for *firm size* through the natural log of total assets (Cook and Glass, 2014c). Next, we controlled for three organizational factors that may influence the likelihood of a woman being appointed to a TMT position but are not related to glass cliff situations: *gender of current CEO*, *number of female TMT members*, and *TMT size* (Dezső, *et al.*, 2016). We controlled for performance using in two ways, using return on assets (*ROA*) and return on equity (*ROE*) in  $t-1$  (Cook & Glass, 2014a). Prior research suggests that utilizing multiple forms of performance as controls can lead to more accurate estimates. Finally, we controlled time effects through dummy variables for each year (Cook and Glass, 2014c).

### **Method of Analysis**

Since the dependent variable, female TMT appointment, is a dichotomous variable and we are using a panel dataset, the model we used for our analysis was a conditional fixed effects logistic regression model (Cook and Glass, 2014a; 2014b; 2014c). We chose to use a fixed effects rather than a random effects estimation to account for any time invariant omitted variables. Hence, any variable that is consistent throughout the time period, such as industry, is controlled for through the fixed effects estimation. As a precaution, we ran a VIF test for multicollinearity. The results indicate that multicollinearity is not influencing the results with the average VIF score of 1.17 and the highest score of 1.59 which is far below the standard VIF level indicating multicollinearity issues (10). Summary statistics and correlations are reported in Table I.

-----  
Insert Table I and Table II about here  
-----

### **Results**

The results of our analysis supported a substantial portion of our proposed model, however, one hypothesized relationship was significant but opposite in direction of what we predicted. Hypotheses one and two examined organizational contexts consistent with precarity. As illustrated in Table II, we found support for our first hypothesis that there would be a positive relationship between strategic change and the likelihood of a woman being appointed to a TMT role ( $\beta = 0.396, p = 0.041$ ). Specifically, the results suggest that odds of a woman being appointed to the TMT increases by 30% for every standard deviation increase in strategic change, controlling for all else. In contradiction of our predictions in hypothesis 2, the relationship between organizational slack and the likelihood of a

woman being appointed to a non-CEO TMT leadership role was positive and significant ( $\beta = 0.475, p = 0.014$ ). We had anticipated a negative relationship. The results indicate that for every unit increase in organizational slack the odds of a woman appointment increases by 61%, given all other controls.

The last two hypotheses examined potential environmental factors that could increase the precarity of a leadership position and therefore predict the likelihood of the position being filled by a female. Hypothesis three argues that women may tend to view organizations facing environmental instability as an opportunity while men might seek more stable environmental situations, leading to more female appointments in unstable industries. Our results did not show support for this hypothesis ( $\beta = 0.163, p = 0.200$ ). Hypothesis four argues that individuals seeking and organizations selecting for non-CEO TMT positions will consider the growth rate of their industry and that women are more likely to be appointed in slow growing/low resource industries. The results show that the odds of a woman being appointed decreases by 77% for every standard unit increase in munificence. Therefore, we found support for hypothesis five ( $\beta = -0.256, p = 0.044$ ). These findings suggest that women are less likely to be appointed to a non-CEO TMT position when an organization is experiencing industry growth.

## Discussion

This study aims to answer the call in the gender leadership literature for “more nuanced research into the mechanisms” of when the glass cliff phenomenon appears (Morgenroth *et al.*, 2018, pg. 49) by analyzing the organizational contexts by which female top management team members are more or less likely to be hired. Our study aims to analyze a new context of female leaders: non-CEO top management team members. We argue that the organizational and environmental antecedents to non-CEO TMT appointments offer a more expansive understanding of what could constitute a “glass cliff” and suggest adding this population to the glass cliff research. While prior performance is perhaps the most straightforward indicator of a firm’s financial situation for incoming TMT members, there may be strategic contexts that are arguably more indicative of how precarious a firm’s position is than poor prior performance (Glass and Cook, 2016). Our study suggests that such measures of firm stability or lack thereof as organizational slack, strategic change, and industry instability or munificence may be more relevant indicators of the conditions under which the glass cliff phenomenon exists, within TMTs than the traditional performance measures.

Surprisingly, we found a positive and significant relationship between organizational slack and the appointment of women to non-CEO TMT positions. This indicates that organizations are more likely to appoint a woman when they have more resources and supports the “bold moves” (Cook and Glass, 2014c), “theory of board discretion” (Knippen, Palar, and Gentry, 2018) and “window dressing” (Hoobler, *et al.*, 2018) hypotheses in prior literature, rather than the glass cliff. These theories posit that organizations have less to lose and can gain social/reputational capital by selecting a woman when they have the extra resources to do so. Congruent with “window dressing” and “bold moves”, but contrary to our prediction, we find evidence that firms with more slack resources are more likely to appoint a woman to a non-CEO TMT position. This finding is also consistent with findings that organizations with more resources were more likely to appoint a woman to a BOD position as a form of “tokenism” (O’Reilly and Main, 2012). Given these extant findings and perspectives that run contrary to the glass cliff phenomenon, researchers ought to continue to examine the role unit of analysis (i.e., CEO, BOD, non-CEO TMT, etc.) and other contextual variables play in the mixed empirical support of the glass cliff phenomenon (Knippen *et al.*, 2018).

Our study also finds support for the claim that strategic change and munificence influence the likelihood of women being promoted to non-CEO TMT positions. Specifically, our findings indicate that organizations are more likely to appoint a woman to a non-CEO TMT leadership role when organizations are undergoing strategic change and facing internal uncertainty. Moreover, when a firm is in an industry facing low environmental munificence, there are more external demands constraining the ability for TMTs to use their discretion to enact their preferred strategic actions (Hambrick and Finkelstein, 1987). The conditions created by low environmental munificence can be so unfavorable to TMT members that Wiersema and Bantel (1993) argue, “managers may choose to leave a situation in which their autonomy, creativity, and discretion are severely challenged” (p. 488). Evidence from this study suggests that the conditions that can cause incumbent TMTs frustration such that they are compelled to voluntarily turnover are the same conditions that women are more likely to be appointed to a non-CEO TMT position. This finding supports the mechanism that suggests women perceive difficult situations as “golden opportunities” despite likely being “poisoned chalices” (Ryan and Haslam, 2007). The implications of our study further the claims of Morgenroth and colleagues’ (2020) meta-analysis which finds that research on the glass cliff requires further analysis of the nuanced situations in which the phenomenon actually exists.



Finally, our study did not find support for the relationship between environmental dynamism and the appointment of a female non-CEO TMT member. While this was surprising, it further demonstrates the different impacts of internal versus external change factors on the selection process of upper echelons. Specifically, unlike internal strategic change, dynamic environments are exogenous and may reduce the effectiveness of comprehensive decision making. In this scenario (i.e. higher environmental dynamism), firms may prefer a more homogenous top management team (i.e. less females) to reduce conflict and complexity during the decision-making process (Homburg and Bui, 2013). Though strategic change and dynamism could benefit similarly from a value in diversity perspective which would suggest the need for broad perspectives in order to increase the array of options when facing dynamic environments (Homburg and Bui, 2013), we only find support for the appointment of a female non-CEO TMT member when there is strategic change and not environmental change (i.e., dynamism). More research is needed to explain how and why internal and external environments influence decision-making differently despite similar theoretical underpinnings.

### **Theoretical Implications**

This study offers a new lens of looking at the effects of the glass cliff by measuring the effects with impactful mechanisms like strategic change, organizational slack, and industry dynamics. Our results add a new layer of complexity to the glass cliff literature by simultaneously finding support for the idea that women leaders are selected during times of change and constrained external resources but also finding support that women leaders are selected when firms have more organizational slack (i.e., internal resources). These contradictory findings indicate there is a need for future research to continue to examine within leadership groups differences (e.g., CEO, BOD, and non-CEO TMT) and within contextual mechanisms for female leaders (e.g., internal and external environmental factors). Our findings suggest that if we rely only on traditional forms of firm performance measurement rather than considering such factors as organizational slack, strategic change, and industry dynamics, we may continue to find mixed results regarding this phenomenon (Morgenroth et al., 2020).

Our study contributes to the discussion regarding women leadership selection by arguing that there are potential pitfalls of using performance outcomes alone as a measure of women leadership effectiveness. Hoobler and colleagues (2018) note that the number of articles making the “business case for women” has increased exponentially over the past few years. This study highlights how important it is to understand that ex-post financial metrics are biased by a priori selection conditions. In this way, this study and unit of analysis provides insight into potential impediments to the growth of women representation in high profile TMT positions. Even with the surprising positive relationship between organizational slack and the appointment of women, the appointment of women in precarious change situations and situations of environmental stagnation/decline might bias our understanding of the value brought by women once they enter their new role. Our study points out that not only do we need more research on the why, when, and how of the glass cliff phenomenon, but also, we may need to reevaluate the way in which we define performance in this construct in order to find more consistent results.

### **Practical Implications**

Top management teams have a meaningful impact on firm performance and strategic decision making (Nadkarni and Barr, 2008; Papadakis and Barwise, 2002). As such, the conditions that impact the selection decisions of these individuals are important for practitioners to consider. Our study suggests that non-CEO TMT members are chosen differently in times of strategic change, organizational slack, and industry munificence. Our findings indicate that there are conditions that increase the likelihood a woman will be appointed to a high level position, but potentially to their long-term detriment (i.e. during strategic change and in industries with unfavorable resources). Resources and support should be given to TMT members based on an understanding of potential inequitable a priori managerial discretion. That is, for individuals appointed in strategically precarious positions, they ought to be given more latitude to make decisions and resources to carry out their decisions, given the initial constraints leading to their appointment.

Additionally, organizational (e.g., subordinates, BOD, CEO, etc.) and external evaluators (e.g., reporters, analysts, etc.) of non-CEO TMT performance must consider the strategic precariousness of the individual's initial position. In this way, individuals may receive more holistic evaluations of performance rather than solely being evaluated by traditional measures of firm performance such as ROA. Given a top management team member was appointed while their firm was going through extraordinary change, they should be evaluated as such. All stakeholders would benefit from understanding how the initial conditions under which female leaders are appointed influence the strategic decisions they make and the harsh standards by which they are subsequently evaluated.

### **Limitations and Directions for Future Research**

There were some notable limitations within this study. First, our sample was limited to only firms within the S&P 500. Hence, our results may not be generalizable to smaller, privately owned, or non-US based firms. For example, gender inequality, attitudes towards female leadership, and legislative and governance models regarding minimum representation standards and processes for gender diversity are different across countries and cultures (Van Emmerik et al., 2010). Additionally, smaller companies may experience similar conditions presented in this paper, however they may have different strategic perspectives that affect their decisions on who to appoint to their TMT. Future scholars should expand our research by focusing on these different organizational components and contexts.

Next, we focused on aggregated non-CEO TMT members, but there may be differing effects within specific roles on the TMT. For example, the conditions that increase female CFO appointments may differ for female COO appointments. Our analysis was insensitive to any differences between roles, and future scholars should explore differences between roles.

The aim of this study was to examine gender differences in the appointment of non-CEO TMT members. However, other studies of these phenomena have included or focused on other marginalized populations (e.g., Cooks and Glass, 2014a). While outside the scope of the current study, future research would benefit by examining similar mechanisms presented in this study in other minoritized populations based on factors such as race, nationality, sexuality, age, and the intersectionality of these marginalized communities.

### **Conclusion**

This study contributes to our understanding of the contexts and mechanisms surrounding the appointment of women to non-CEO TMT positions. Understanding the antecedents to the appointment of women to non-CEO TMT positions serves as a critical step towards understanding potential endogeneity issues in the gender and diversity in TMT research (Carpenter et al., 2004). That is, how does the situational context of the selection of the TMT (e.g., adverse internal and external environments) impact the other outcomes being measured at the TMT level. We can't begin to understand gender differences in performance without considering gender differences in appointments. For example, are female leaders actually more risk averse as prior studies report or are they just appointed more often in situations uncondusive to taking on strategic risks (Jeong and Harrison, 2017)? This study opens new avenues for research in the TMT, upper echelons, executive gender, and glass cliff literature streams by analyzing strategic hiring outcomes through a psychological lens.

### **References**

- Adams, S.M., Gupta, A. & Leeth, J.D. (2009). Are female executives over-represented in precarious leadership positions? *British Journal of Management*, 20(1), 1-12.
- Ashby, J. S., Ryan, M. K., & Haslam, S. A. (2006). Legal work and the glass cliff: Evidence that women are preferentially selected to lead problematic cases. *Wm. & Mary J. Women & L.*, 13 (3), 775-793.
- Bechtoldt, M. N., Bannier, C. E., & Rock, B. (2019). The glass cliff myth?—Evidence from Germany and the UK. *The Leadership Quarterly*, 30(3), 273-297.
- Blau, P. M. (1977). *Inequality and heterogeneity: A primitive theory of social structure (Vol. 7)*. New York, NY: Free Press.
- Bruckmüller, S., & Branscombe, N. R. (2010). The glass cliff: When and why women are selected as leaders in crisis contexts. *British Journal of Social Psychology*, 49(3), 433-451.
- Cannella, A. A., & Holcomb, T. R. (2005). A Multi-Level Analysis of the Upper-Echelons Model: Planting Seeds for Future Research. *Multi-Level Issues in Strategy and Methods*. Emerald Group Publishing Limited, (pp. 263-273).
- Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, 30(6), 749-778.
- Catalyst. (2020). Pyramid: Women in S&P 500 Companies. Retrieved from <https://www.catalyst.org/research/women-in-sp-500-companies/>. Accessed January 24, 2021.
- Cho, T. S., & Hambrick, D. C. (2006). Attention as the mediator between top management team characteristics and strategic change: The case of airline deregulation. *Organization Science*, 17(4), 453-469.

- Cook, A., & Glass, C. (2014a). Above the glass ceiling: When are women and racial/ethnic minorities promoted to CEO? *Strategic Management Journal*, 35(7), 1080-1089.
- Cook, A. & Glass, C., (2014b). Women and top leadership positions: Towards an institutional analysis. *Gender, Work & Organization*, 21(1), 91-103.
- Cook, A. & Glass, C., (2014c). Analyzing promotions of racial/ethnic minority CEOs. *Journal of Managerial Psychology*, 29(4), 440-454.
- Cyert, R. M., & March, J. G. (1963). *A behavioral theory of the firm*. Englewood Cliffs, NJ. Prentice-Hall, (pp. 2).
- Daboub, A. J., Rasheed, A. M., Priem, R. L., & Gray, D. (1995). Top management team characteristics and corporate illegal activity. *Academy of Management Review*, 20(1), 138-170.
- Dess, G. G., & Beard, D. W. (1984). Dimensions of organizational task environments. *Administrative Science Quarterly*, 29(1), 52-73.
- Dezső, C. L., & Ross, D. G. (2012). Does female representation in top management improve firm performance? A panel data investigation. *Strategic Management Journal*, 33(9), 1072-1089.
- Dezső, C. L., Ross, D. G., & Uribe, J. (2016). Is there an implicit quota on women in top management? A large-sample statistical analysis. *Strategic Management Journal*, 37(1), 98-115.
- Elsaid, E., & Ursel, N. D. (2018). Re-examining the glass cliff hypothesis using survival analysis: The case of female CEO tenure. *British Journal of Management*, 29(1), 156-170.
- Finkelstein, S. and Hambrick, D.C. (1990). Top-management-team tenure and organizational outcomes: The moderating role of managerial discretion. *Administrative Science Quarterly*, 35(3), 484-503.
- Finkelstein, S., Hambrick, D. C., & Cannella, A. A. (2009). *Strategic leadership: Theory and research on executives, top management teams, and boards*. Oxford University Press.
- Fitzsimmons, T. W., Callan, V. J., & Paulsen, N. (2014). Gender disparity in the C-suite: Do male and female CEOs differ in how they reached the top?. *The Leadership Quarterly*, 25(2), 245-266.
- Gartzia, L., Ryan, M. K., Balluerka, N., & Aritzeta, A. (2012). Think crisis—think female: Further evidence. *European Journal of Work and Organizational Psychology*, 21(4), 603-628.
- Glass, C., & Cook, A. (2016). Leading at the top: Understanding women's challenges above the glass ceiling. *The Leadership Quarterly*, 27(1), 51-63.
- Haleblian, J., & Finkelstein, S. (1993). Top management team size, CEO dominance, and firm performance: The moderating roles of environmental turbulence and discretion. *Academy of Management Journal*, 36(4), 844-863.
- Hambrick, D. C., & Finkelstein, S. (1987). Managerial discretion: A bridge between polar views of organizational outcomes. *Research in Organizational Behavior*, 9, 369-406.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193-206.
- Haslam, S. A., & Ryan, M. K. (2008). The road to the glass cliff: Differences in the perceived suitability of men and women for leadership positions in succeeding and failing organizations. *The Leadership Quarterly*, 19(5), 530-546.
- Hennessey, S., MacDonald, K., & Carroll, W. (2014). Is there a glass cliff or a solid ledge for female appointees to the board of directors? *Journal of Organizational Culture, Communications and Conflict*, 18(2), 125-139.
- Homberg, F., & Bui, H. T. (2013). Top management team diversity: A systematic review. *Group & Organization Management*, 38(4), 455-479.
- Hoobler, J.M., Masterson, C.R., Nkomo, S.M. and Michel, E.J. (2018). The business case for women leaders: Meta-analysis, research critique, and path forward. *Journal of Management*, 44(6), 2473-2499.
- Jeong, S.H. and Harrison, D.A., (2017). Glass breaking, strategy making, and value creating: Meta-analytic outcomes of women as CEOs and TMT members. *Academy of Management Journal*, 60(4), 1219-1252.
- Keats, B.W. and Hitt, M.A., (1988). A causal model of linkages among environmental dimensions, macro organizational characteristics, and performance. *Academy of Management Journal*, 31(3), 570-598.
- Knippen, J. M., Palar, J., & Gentry, R. J. (2018). Breaking the mold: An examination of board discretion in female CEO appointments. *Journal of Business Research*, 84, 11-23.
- Kulich, C., Lorenzi-Cioldi, F., Iacoviello, V., Faniko, K., & Ryan, M. K. (2015). Signaling change during a crisis: Refining conditions for the glass cliff. *Journal of Experimental Social Psychology*, 61, 96-103.
- Messersmith, J. G., Lee, J. Y., Guthrie, J. P., & Ji, Y. Y. (2013). Turnover at the top: Executive team departures and firm performance. *Organization Science*, 25(3), 776-793.
- Miller, D., & Chen, M. J. (1994). Sources and consequences of competitive inertia: A study of the US airline industry. *Administrative Science Quarterly*, 39(1), 1-23.

- Morgenroth, T., Kirby, T. A., Ryan, M. K., & Sudkämper, A. (2020). The who, when, and why of the glass cliff phenomenon: A meta-analysis of appointments to precarious leadership positions. *Psychological Bulletin*, 146(9), 797.
- Mulcahy, M. & Linehan, C. (2014). Females and precarious board positions: Further evidence of the glass cliff. *British Journal of Management*, 25(3), 425-438.
- Nadkarni, S., & Barr, P. S. (2008). Environmental context, managerial cognition, and strategic action: An integrated view. *Strategic Management Journal*, 29(13), 1395-1427.
- O'Reilly, C.A. & Main, B.G. (2012). Women in the boardroom: symbols or substance? Research Paper Series No. 2098: Stanford Graduate School of Business.
- Oehmichen, J., Schrapp, S., & Wolff, M. (2017). Who needs experts most? Board industry expertise and strategic change—a contingency perspective. *Strategic Management Journal*, 38(3), 645-656.
- Papadakis, V. M., & Barwise, P. (2002). How much do CEOs and top managers matter in strategic decision-making? *British Journal of Management*, 13(1), 83-95.
- Richard, O. C., Murthi, B. P., & Ismail, K. (2007). The impact of racial diversity on intermediate and long-term performance: The moderating role of environmental context. *Strategic Management Journal*, 28(12), 1213-1233.
- Ryan, M. K., & Haslam, S. A. (2005). The glass cliff: Evidence that women are over-represented in precarious leadership positions. *British Journal of Management*, 16(2), 81-90.
- Ryan, M. K., & Haslam, S. A. (2007). The glass cliff: Exploring the dynamics surrounding the appointment of women to precarious leadership positions. *Academy of Management Review*, 32(2), 549-572.
- Ryan, M. K., Haslam, S. A., Hersby, M. D., & Bongiorno, R. (2011). Think crisis—think female: The glass cliff and contextual variation in the think manager—think male stereotype. *Journal of Applied Psychology*, 96(3), 470.
- Ryan, M. K., Haslam, S. A., Morgenroth, T., Rink, F., Stoker, J., & Peters, K. (2016). Getting on top of the glass cliff: Reviewing a decade of evidence, explanations, and impact. *The Leadership Quarterly*, 27(3), 446-455.
- Ryan, M. K., & Alexander Haslam, S. (2009). Glass cliffs are not so easily scaled: On the precariousness of female CEOs' positions. *British Journal of Management*, 20(1), 13-16.
- Ryan, M. K., Haslam, S. A., & Kulich, C. (2010). Politics and the glass cliff: Evidence that women are preferentially selected to contest hard-to-win seats. *Psychology of Women Quarterly*, 34(1), 56-64.
- Schein, V. E. (2001). A global look at psychological barriers to women's progress in management. *Journal of Social Issues*, 57(4), 675-688.
- Schein, V. E., & Davidson, M. J. (1993). Think manager, think male. *Management Development Review*, 6(3), 24.
- Sharfman, M. P., Wolf, G., Chase, R. B., & Tansik, D. A. (1988). Antecedents of organizational slack. *Academy of Management Review*, 13(4), 601-614.
- Strandholm, K., Kumar, K., & Subramanian, R. (2004). Examining the interrelationships among perceived environmental change, strategic response, managerial characteristics, and organizational performance. *Journal of Business Research*, 57(1), 58-68.
- Swann, W. B., Polzer, J. T., Seyle, D. C., & Ko, S. J. (2004). Finding value in diversity: Verification of personal and social self-views in diverse groups. *Academy of Management Review*, 29(1), 9-27.
- Triana, M. D. C., Miller, T. L., & Trzebiatowski, T. M. (2013). The double-edged nature of board gender diversity: Diversity, firm performance, and the power of women directors as predictors of strategic change. *Organization Science*, 25(2), 609-632.
- Van Emmerik, H., Wendt, H., & Euwema, M. C. (2010). Gender ratio, societal culture, and male and female leadership. *Journal of Occupational and Organizational Psychology*, 83(4), 895-914.
- Van Knippenberg, D., De Dreu, C. K., & Homan, A. C. (2004). Work group diversity and group performance: an integrative model and research agenda. *Journal of Applied Psychology*, 89(6), 1008.
- Van de Ven, A. H., & Poole, M. S. (1995). Explaining development and change in organizations. *Academy of Management Review*, 20(3), 510-540.
- Wiersema, M. F., & Bantel, K. A. (1992). Top management team demography and corporate strategic change. *Academy of Management Journal*, 35(1), 91-121.
- Wiersema, M.F. & Bantel, K.A. (1993). Top management team turnover as an adaptation mechanism: The role of the environment. *Strategic Management Journal*, 14(7), 485-504.

**Table I: Descriptive Statistics and Correlations**

Variables	Mean	Std	Min	Max	(1)	(2)	(3)	(4)	(5)	(6)
(1) Female Appointment Dummy	0.330	0.470	0.000	1.000						
(2) Prior ROA	0.063	0.084	-0.770	0.682	0.024					
(3) Prior ROE	0.258	2.665	-6.477	70.385	0.059	0.058				
(4) Strategic Change	0.003	0.655	-0.433	8.319	0.049	-0.350	0.379			
(5) Prior Slack	1.741	1.101	0.000	7.865	0.048	0.167	-0.013	0.162		
(6) Dynamism	0.000	1.000	-0.823	17.055	0.058	0.049	-0.016	-0.012	0.039	
(7) Munificence	0.000	1.000	-9.818	6.494	-0.089	0.006	-0.005	0.081	0.031	-0.220
(8) Firm Size	9.605	1.222	5.632	12.469	0.000	-0.021	0.029	-0.154	-0.463	-0.041
(9) Female CEO	0.033	0.178	0.000	1.000	-0.015	0.040	-0.011	0.122	0.059	-0.024
(10) Female TMT Members	0.484	0.690	0.000	3.000	0.025	0.016	-0.023	0.066	0.141	0.007
(11) TMT Size	4.879	1.156	0.000	11.000	-0.039	-0.034	0.069	0.014	-0.098	0.090

N=734 All correlations above a |.072| is significant at a .05 level

**Table I (continued)**

Variables	(7)	(8)	(9)	(10)
(8) Firm Size	-0.008			
(9) Female CEO	0.014	-0.063		
(10) Prior Female TMT	0.016	-0.071	0.371	
(11) TMT Size	-0.023	0.026	-0.060	-0.082

N=734 All correlations above a |.072| is significant at a .05 level

**Table II. Conditional Logistic Regression Results**

Conditional Fixed-Effects Logistic Regression Predicted Female Appointment								
	Model 1				Model 2			
	$\beta$	SE	P	OR	$\beta$	SE	P	OR
Strategic Change					0.396	0.194	0.041	1.486
Prior Slack					0.475	0.193	0.014	1.608
Dynamism					0.163	0.127	0.200	1.177
Munificence					-0.256	0.127	0.044	0.774
Historical Adjusted ROA	0.029	1.379	0.983	1.029	0.531	1.542	0.730	1.701
Historical Adjusted ROE	0.077	0.096	0.422	1.080	0.062	0.124	0.615	1.064
Firm Size	0.076	0.297	0.798	1.075	0.213	0.312	0.495	1.238
Female CEO	0.058	0.570	0.919	1.062	-0.222	0.587	0.705	0.801
Prior Female TMT	0.241	0.227	0.288	1.288	0.344	0.240	0.152	1.410
TMT Size	-0.089	0.085	0.297	0.921	-0.104	0.088	0.235	0.901
Year Dummy	X	X	X	X	X	X	X	X
Number of Observations	734				734			
$\chi^2$	12.370			0.498	32.470			0.013
BIC	629.904				635.729			
AIC	570.105				557.554			