ABSTRACT

Despite a substantial interest from the business press, the empirical literature on the influence of top executives (especially the CEO) in a turnaround context is still evolving. This study focuses on the relationship between CEO characteristics (tenure, functional background, education and duality) and corporate turnaround performance under environmental stability/turbulence. Using a sample of 60 U.S. firms that experienced performance decline and turnaround from 1985-2000, we found that turnaround performance is negatively related to CEO tenure and has a positive association with output-based (marketing, sales, R&D) functional backgrounds of CEOs. We also found some support for such relationships under environmental stability/turbulence.

KEYWORDS: Corporate turnaround, CEO characteristics, Environmental stability, Environmental turbulence

INTRODUCTION

Given the integrated nature of the contemporary global economy, international competition and ever changing information technology, businesses continuously strive to adapt to their environment. However, not all such attempts are successful. A significant number of firms facing this challenge fail to adapt and as a result experience serious performance deterioration. Consequently, managerial responses to organizational performance decline are considered critical in achieving survival as a viable business entity (Lohrke & Bedeian, 1998; Ketchen & Palmer, 1999). Top executives are often charged with formulating and implementing effective turnaround strategies needed to reverse a declining organizational performance (Barker & Patterson, 1996, Lohrke et. al, 2004). Such emphasis on top executives is especially pronounced in the practitioner community. Numerous articles and magazine stories have been written highlighting the crucial role top executives (especially the CEO) play in reversing organizational performance decline. Most of the popular business press often praise the dramatic performance turnaround in businesses and attribute such positive outcomes to the ability of top executives in formulating and executing turnaround strategies (Dumaine, 1990; Morris, 2007; Pressman, 2007). Despite such a disproportionate level of practitioner interest, empirical studies that examine the influence of top executives in a turnaround context are still evolving (e.g. Hambrick & D’Aveni, 1992; Mueller & Barker, 1997; Lohrke & Bedeian, 1998; Abebe, Angriawan & Ruth, 2012). Studies in this area have explored the demographic characteristics (Zimmerman, 1989; Stanwick, 1992; Mueller & Barker, 1997) and causal attributions (Barker & Patterson, 1996;
Barker & Barr, 2002) of top executives of turnaround and non-turnaround firms. Despite a significant amount of empirical work on the relationship between top executives and turnaround performance, the overall findings are inconsistent and at times contradictory (Lohrke et al., 2004; Ndofor, Vanevenhoven & Barker, 2013).

This study contributes to the ongoing research on corporate turnaround by examining the relationship between Chief Executive Officer (CEO) characteristics (i.e. tenure, functional background, education and duality) and corporate turnaround performance under environmental stability and turbulence. By doing so, this study introduces environmental stability/turbulence as a “critical contingency” and examines its interaction with CEO characteristics as a predictor of corporate turnaround performance. We focus on the CEO specifically because: (1) he/she is often the most important member of the top team due to his/her structural position within the organizational hierarchy, (2) he/she possesses the influence and social capital associated with the “upper echelons” (Zahra & Pearce, 1989; Daily & Johnson, 1997) and (3) we are interested to empirically test the anecdotal assertion within the practitioner literature that the CEOs matter and play a crucial role in the turnaround process. Hence, by investigating the relationship between the specific characteristics of CEOs and turnaround performance, this study will provide a better understanding on executive characteristics in turnaround firms.

LITERATURE REVIEW

Corporate Turnaround

Corporate turnaround has been defined as “the recovery of a firm’s economic performance following an existence-threatening decline” (Pandit, 2000). Past research on corporate turnaround has mainly explored internal causes of decline due to strategic misalignment or the lack of available slack resources (Argoyaswamy, Barker & Masoud, 1995), external causes such as changes in the munificence and dynamism of the environment (Zammuto & Cameron, 1985; Dess & Beard, 1984) and organizational responses in the form of turnaround strategies (Hambrick & Schecter, 1983; Pearce & Robbins, 1993). Scholarship in the turnaround literature has particularly focused on understanding and explaining the types of turnaround strategies (such as retrenchment and/or strategic reorientation) employed in reversing organization performance decline (Hofer, 1980; Robbins & Pearce, 1992; Hambrick & Schecter, 1983; Barker & Duhaime, 1997). A number of empirical studies suggest a two-stage turnaround process involving (1) “decline-stemming” strategy such as cost-cutting and/or asset reduction that stabilize the firm’s financial position, (2) strategic or “entrepreneurial” actions aimed at reinvigorating the firm’s market position (Schendel et al., 1976; Bibeault, 1982; Hambrick & Schecter, 1983; Pearce & Robbins, 1993; Arogyaswamy et al. 1995; Trahms, Ndofor & Sirmon, 2013).

As part of the focus on turnaround strategies, scholars have also studied the role of top managers in the turnaround process (Stanwick, 1992; Mueller & Barker, 1997; Lohrke & Bedeian, 1998). The central theme in these empirical studies is that examining the demographic background of top managers provides important insights on the strategic choices and performance outcomes of turnaround firms (Hambrick & Mason, 1984; Lohrke et al., 2004). Past studies have examined the relationship among TMT’s tenure, functional background and turnaround success (Zimmerman, 1989; Stanwick, 1992; Hambrick & D’Aveni, 1992). Zimmerman (1989), for example, found that firms that successfully turned around mainly had CEOs with internal functional backgrounds (i.e. operations, engineering etc) whereas Stanwick (1992) observed that CEOs that are part of successful turnaround have an external functional background such as legal, finance and general administration. These findings suggest inconsistent evidence on the relationship between top managers’ demographic characteristics and turnaround performance. Such inconsistencies in empirical findings have led to a call for
research that focuses on the impact of these demographic factors under a variety of “situational contingencies” (Lohrke et al., 2004): “A majority of studies examining top management teams (TMT) in a turnaround context have centered on various demographic characteristics of team members. Related findings, however, suggest the need for future research focusing on critical situational contingencies, when considered together with TMT demographics, may affect a TMT’s ability successfully to formulate and implement different turnaround strategies”.

**Environmental Stability/Turbulence**

In this study, we propose examining the relationship between CEOs characteristics (i.e. tenure, functional background, education & duality) and corporate turnaround performance under environmental stability/turbulence. The interrelationships between an organization and its immediate task environment have been the topic of extensive scholarly inquiry in organization theory literature (Thompson, 1967; Starbuck, 1976; Pfeffer & Salancik, 1978). Scholars in organization theory and strategic management have investigated the characteristics (Starbuck, 1976; Dess & Beard, 1984; Castrogiovanni, 2002) and role (Prescott, 1986) of task environment in influencing organizational performance outcomes. Despite the extensive use of environmental moderators in the mainstream strategic management and organization theory studies, they have not been well addressed in the turnaround literature (cf. Morrow et al., 2004 is an exception). In this study, we use the dimensions of task environment developed by Dess & Beard (1984) as a foundation for defining and operationalizing environmental stability/turbulence. Dess & Beard (1984) presented three dimensions of organizational task environment: munificence, dynamism and complexity. Environmental munificence generally refers to the capacity and degree to which the environment supports market growth (Starbuck, 1976). Environmental dynamism is defined as the extent of stability/instability, unpredictability and uncertainty of the environment and includes the rate of technological instability and interconnectedness (Emery & Trist, 1965). Environmental complexity involves the “heterogeneity of and range of an organization’s activities” (Child, 1972) and extent of concentration of industry’s products, inputs and outputs (Dess & Beard, 1984). For the purpose of this study, we focus on the second dimension (i.e. dynamism) since we are particularly interested in examining the degree of environmental stability/turbulence in a turnaround context.

**THEORETICAL DEVELOPMENT/MODEL**

**CEO Tenure and Corporate Turnaround Performance**

Executive tenure has been extensively studied in the literature as a major part of organization demography research. Scholars in this area have particularly examined the relationship of Top managers’ tenure with level of communication (Katz, 1982), organizational strategy (Hambrick et al., 1996; Wally & Becerra, 2001), financial performance (Murray, 1989; Keck, 1997; Carpenter, 2002) and strategic change (Wiersema & Bantel, 1992; Boeker, 1997; Cho & Hambrick, 2006). The length of TMT tenure can influence a number of important organizational processes. In this study, three major organizational consequences of TMT tenure can be identified as factors affecting the likelihood of corporate turnaround performance. First, the length of TMT tenure has been found to have significant relationship with commitment to status quo (Katz, 1982; Miller, 1991; Finklestein & Hambrick, 1990). Katz (1982), for instance, argued that longer organizational tenure is associated with higher level of cognitive rigidity and commitment to established organizational policies and procedures. As executives stay longer in the organization, they develop shared values and norms with their colleagues through the process of acculturation that in turn create common perspective and orientation. Such
established organizational routine and perspective provides stability and encourages strong commitment to the status quo. Hambrick et al. (1993) empirically examined the relationship between TMT tenure and extent of commitment to status quo in a survey of 114 Fortune 500 CEOs. The results of empirical analyses suggest that executives’ tenure in the industry is positively related to their commitment to status quo along with other determinants such as current company performance. Similarly, Finklestein & Hambrick (1990) examined the effect of TMT tenure on strategy formulation and organizational performance. Their findings suggest that TMT tenure is positively associated with strategic conformity and persistence (as measured vis-à-vis industry averages) in industries with high managerial discretion.

Second, the length of TMT tenure is also adversely related to information diversity and environmental scanning. Research shows that the length of TMT tenure restricts the level of information search, processing and diversity (Katz, 1982; Miller, 1991). Katz (1982) observed in his study that as managers stay longer in their position, they tend to develop “customary” information sources and heavily rely on past experience than new stimuli. As such, TMT members that stayed longer in their respective position and in the organization are more likely to go through a period of acculturation that establish a common procedure for searching and processing valuable information for strategic decision making. Miller (1991) argued that longer tenured CEOs tend to establish and maintain a consistent ‘gestalt’ or perspective on the ways they view organizational mission, strategy, processes, and the environment. As a result, “…managers’ preoccupations and perceptions of the environment are narrowed, and the need for reorientation goes unnoticed…” (P. 35). Third, the literature on organizational demography also suggests a negative relationship between the length of TMT tenure and extent of strategic change (Grimm & Smith, 1991; Wiersema & Bantel, 1992; Cho & Hambrick, 2006). Wiersema & Bantel (1992) examined the relationship between TMT demographic variables and corporate strategic change in a sample of 87 Fortune 500 firms. Their results indicate that firms that have undergone corporate strategic change in general have TMT with lower average age and shorter organizational tenure.

A number of empirical studies indicate a negative relationship between the length of TMT tenure and corporate turnaround performance (Zimmerman, 1989; Hambrick & D’Aveni, 1992; Barker & Patterson, 1996). The empirical evidence in the literature suggests that the length of tenure is related to executives’ causal attribution of the source of performance decline. Barker and Patterson (1996), for example, studied this relationship and how it affects strategic reorientation in declining firms attempting turnaround. Their findings indicate that short-tenured TMT are more likely to attribute the cause of performance decline to internal (organizational) problems than TMTs with longer tenure. In cases of organizational performance decline, the need for strategic turnaround is especially pronounced in turbulent environments that require an extensive information search and analyses (Arogyaswamy et al., 1995; Barker & Duhaime, 1997). When confronted with declining firm performance, managers with longer tenure may be inclined to look for internal remedies such as cost cutting and asset reduction in stead of a more aggressive market-based strategy such as new product introductions. Several turnaround studies have found that short-tenured TMTs are more likely to formulate domain offense strategies (i.e. new product introductions, market expansions) in declining firms attempting turnaround (Barker & Patterson, 1996; Barker & Duhaime, 1997; Barker et al., 2001; Lohrke et al., 2004). Hence, we hypothesize that:

**Hypothesis 1 (H1): CEO tenure is negatively related to corporate turnaround performance.**

More specifically:

**Hypothesis 1a (H1a): CEO tenure is negatively related to corporate turnaround performance in turbulent than stable environments (industries).**

CEO Functional Background and Corporate Turnaround Performance
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CEO Characteristics and Corporate Turnaround

Functional background of top managers has been identified as an important demographic factor affecting strategic decision making and organizational outcomes (Hambrick & Mason, 1984; Gupta & Govindarajan, 1984; Carpenter, 2002). Past studies have shown that top managers are more inclined to define organizational problems consistent with their functional background and orientation (Dearborn & Simon, 1958; Zimmerman, 1989). Dearborn & Simon (1958), for instance, presented the same organizational problem (case study) to a group of executives and found that each executive interpreted and attempted to solve the problem according to their respective functional orientation and training. Scholars have examined the relationship between CEO functional background and innovation (Gupta & Govindarajan, 1984; Bantel & Jackson, 1989), strategic change (Wiersema & Bantel, 1992), strategic decisions (Chaganti & Sambharya, 1987; Jackson, 1992; Hambrick et al., 1996) and firm performance (Stanwick, 1992; Carpenter, 2002). Within a turnaround context, some research indicates that executives’ functional background affects the type of strategies being selected and implemented (Lohrke & Bedeian, 1998; Stanwick, 1992). In a study of major U.S. industrial corporations, Zimmerman (1989) found that firms that had successful turnaround were led by CEOs with internal (administration, operations, production, and engineering) functional backgrounds. Similarly, the findings of studies by Gupta and Govindarajan (1984) and Thomas et al. (1991) also indicate that firms that adopted innovation strategy have a high proportion of their top executives with marketing and/or sales functional background. More specifically, Gupta and Govindarajan (1984) found that division managers with marketing and sales experience were more likely to pursue growth strategies than those pursuing retrenchment strategies. This finding is consistent with Barker and Mueller’s (2002) observation that R&D spending is higher in firms with CEOs that have significant functional background in marketing.

In this study, we argue that a declining firm whose CEO has output-related functional background (i.e. marketing, sales and R&D) is better suited to adapt in turbulent environments (industries) compared to a CEO with throughput-related functional background (i.e. operations, administration, production, process engineering). Firms in turbulent industries generally have to cope with unpredictable change in process technology, shift in customer demand and constant product innovation. These characteristics demand a high level of information processing ability and in-depth experience in identifying market trends and cues (Daft et al., 1988). CEOs with output-related functional background (i.e. marketing, sales and R&D) are often capable of recognizing and responding to changes in market changes by formulating and implementing innovation-based strategies (Gupta & Govindarajan, 1984; Thomas et al., 1991; Barker & Mueller, 2002). Hence, we hypothesize that:

Hypothesis 2 (H2): Output-related functional background (i.e. marketing, sales and R&D) of CEOs in declining firms is positively related to corporate turnaround performance in turbulent environments (industries).

CEO Education and Corporate Turnaround Performance

Top executives’ educational level has been studied by organizational demography scholars as an important indicator affecting strategic choice and organizational outcomes (Hambrick & Mason, 1984; Bantel & Jackson, 1989). Higher educational level in general is associated with greater cognitive ability and information processing capacity (Wiersema & Bantel, 1992). Individuals with high level of education are tolerant of ambiguous situations, more likely to engage in boundary spanning, and are inclined toward “integrative complexity” (Dollinger, 1984). Early research in this area has shown that the length of formal education of top executives is related to their receptivity of innovation and their ability to come up with multiple creative solutions to complex business problems (Rogers & Shoemaker, 1971; Kimberly & Evanisko, 1981; Bantel & Jackson, 1989; Thomas et al., 1991). Kimberly & Evanisko (1981), for example, found a positive relationship between the level of education of senior executives and the extent
of receptivity of organizational innovation. Similarly, Bantel & Jackson (1989) studied the relationship between top managers’ demographic composition and extent of innovativeness in 199 U.S. banks. Their findings indicate that banks that adopt both technical and administrative innovations were consistently led by executives with high level of education. In an organizational performance decline that demands prompt managerial action, there is a consistent need for analyzing the firm’s present situation and respond by formulating appropriate turnaround strategies (Bibeault, 1982). As the general findings in the turnaround literature suggest, declining firms attempting turnaround not only have to engage in cost-cutting/asset reduction, but also need to focus on improving the firm’s competitiveness in the market (O’Neill, 1986; Barker & Duhaime, 1997). Such a need for external response to organizational performance decline is critical in dynamic (turbulent) and non-contracting environments (industries).

Turbulent environments in general have higher information-processing demands due to their high level of complexity and uncertainty (Dess & Beard, 1984; Daft et al., 1988). In such contexts, CEOs that possess higher cognitive capabilities and information processing ability are better suited to address the problem of organizational performance decline. Specifically, CEOs with higher level of educational background are expected to actively seek entrepreneurial remedies (i.e. new product introduction, market expansion etc) to avert the turnaround situation (Thomas et al., 1991). Accordingly, it is expected that CEOs with advanced educational background will be more open to variety of strategic perspectives and alternatives that can lead to market based turnaround strategies and ultimately successful corporate turnaround performance (Lohrke et al., 2004). Hence, it is hypothesized that:

**Hypothesis 3 (H3): The length of formal education of a CEO is positively related to corporate turnaround performance in turbulent environments (industries).**

**CEO Duality and Corporate Turnaround Performance**

CEO duality refers to a situation where the CEO is also chairperson of the board of directors. The extant agency theory and strategic leadership literatures predict a conflicting influence of CEO duality on organization performance (Finklestein & D’Aveni, 1994). Agency theorists believe that CEO duality can actually hurt a firm’s performance by interfering in the monitoring role of the board of directors (Fama & Jensen, 1983). They also argue that CEO duality consolidates decision making authority and power under the CEO and hence can result in the board losing its independence (Fama & Jensen, 1983; Mueller & Barker, 1997).

On the other hand, research in strategic leadership literature has generally found a positive influence of CEO duality on firm performance. CEO duality could provide a unified leadership that might be necessary in turnaround situations (Finklestein & D’Aveni, 1994). The extant literature provides a number of empirical evidence on the CEO duality-performance relationship in the context of organizational decline. Boyd (1995), for instance, proposed an environmental contingency approach in which he argued that CEO duality could be beneficial for the decline firm in cases of resource scarcity. Finklestein and D’Aveni (1994) also presented a contingency framework which suggests that CEO duality could actually be preferred by board of directors in cases of deteriorating firm performance.

In this study, we argue that CEO duality positively contribute to corporate turnaround performance in turbulent environments by providing unambiguous leadership. In turnaround situations where a fast, decisive and unambiguous strategic direction is an absolute necessity, CEO duality can actually benefit firms by providing clear authority structure and unity of command that reduces confusion among organizational members (Massie, 1965). Consistent with classical administrative theory (Andrews, 1971), CEO duality provides firms with a strong leader that sets direction and articulates commands to subordinates to ensure prompt strategy implementation.
A number of studies have provided support for such a relationship (Boyd, 1995; Bourgeois & Eisenhardt, 1988; Miller & Friesen, 1977). Miller and Friesen (1977), for instance, concluded in their study that “the diffusion of power makes it difficult to take any decisive actions”. Boyd (1995), drawing from the strategic decision making literature, argued that dynamic, complex and rapidly changing industries (environments) demand strong organizational leadership. Accordingly, he hypothesized that CEO duality is (1) positively related to firm performance in low munificence environments, (2) positively related to firm performance in high dynamism environment, and (3) positively related to firm performance in high complexity environments. The results of a sub-group analysis indicate that CEO duality is positively related to firm performance in low munificence and complex (unpredictable) environments. Hence, it is hypothesized that:

**Hypothesis 4 (H4): CEO duality is positively related to corporate turnaround performance in turbulent than stable environments (industries).**

Figure 1 below presents the theoretical model of the study.

**Figure 1: CEO Characteristics and Corporate Turnaround Performance under Environmental Stability/Turbulence**

**METHODS**

**Sample and Data Collection**

The first step in testing the above hypotheses was to establish sampling criteria. Consistent with the extant literature (Barker & Patterson, 1996; Barker & Duhaime, 1997; Mueller & Barker, 1997), a firm is considered as experiencing a successful turnaround if it meets all of the following three criteria:

1. **Three consecutive years of declining return on Investment (ROI) below the risk-free rate of return.** The risk-free rate of return is chosen as a threshold because it indicates the minimum amount of economic return needed to remain as a viable business entity. Consistent with past studies (Barker & Patterson, 1996; Barker et al., 2001), the six month U.S. Treasury bill was used as a conservative indicator for the risk free rate of return.

2. **During this 3-year decline period, the firm has to experience an Altman’s (1983) bankruptcy prediction Z-score of less than 3.00 for at least one year in the decline period.** This measure is widely used to assess a firm’s financial health and predict the likelihood of bankruptcy. According to Altman (1983), lower values in general indicate higher risk of bankruptcy and that a score less than 3.0 suggest high likelihood of bankruptcy in the short term. This is consistent with previous suggestions in the literature (Barker & Mone, 1994; Barker & Duhaime, 1997) that the decline should be severe enough to threaten firm survival.
3. The three year period of consecutive decline was followed by 3 years of positive and increasing ROI. Non-turnaround firms are those firms reporting consecutive negative ROI in the three years immediately following the decline period (Mueller & Barker, 1997). These criteria were applied to manufacturing firms (SIC CODE 2000-3999) listed in the COMPUSTAT database for the period between 1985 and 2000, which resulted in 87 turnaround firms. Some of the firms in the original sample lacked complete information and thus were excluded from the study. The final sample includes 60 firms that experienced performance decline followed by successful turnaround.

Measures

Corporate Turnaround Performance

Corporate turnaround performance is the dependent variable in this study. Consistent with past turnaround research (Mueller & Barker, 1997; Barker & Patterson, 1996; Barker et al., 2001), a six year period is considered with the first three consecutive years representing the period of decline followed by three consecutive years of performance turnaround. Accordingly, the average ROI of the three consecutive years of turnaround was used as the measure for corporate turnaround performance.

CEO Characteristics

Data on CEO characteristics were collected from the *Dun and Bradstreet Reference Book of Corporate Management* and *Standard and Poor's Register of Corporations, Directors, and Executives*. CEO tenure was measured by counting the number of years he/she hold the position of chief executive of the organization. CEO functional background was operationalized as a dichotomous variable with a value of “0” assigned if the CEO has a throughput-based functional background (e.g. accounting, operations, production, process engineering) and “1” if the CEO has an output-based functional background (e.g. marketing, sales and R&D). CEO education was measured by counting the number of years of formal education. CEO duality was measured as a dichotomous variable with a value of “0” if the CEO is not the chairperson of the board of directors and a “1” if he/she is the chairperson of the board.

Environmental Stability/Turbulence

The degree of environmental stability/turbulence serves as the moderator variable in this study. Turbulent environments (industries) are generally characterized by a significant level of fluctuation and unpredictability in the volume of sales as well as customer demand (Dess & Beard, 1984). On the contrary, stable environments (industries) exhibit a predictable pattern of industry sales growth, market demand and technological changes (Haleblian & Finklestein, 1993). Consistent with past studies (Lant et al., 1992; Haleblian & Finklestein, 1993), degree of environmental stability/turbulence was measured using the Coefficient of Variation (i.e. standard deviation divided by mean) of firm sales during the declining period. Specifically, we calculated the coefficient of variation of firm sales at the two-digit SIC code level using the average sales figures for the three consecutive years of the decline period.

Control Variables

Based on previous empirical studies, we identified three important variables that could affect the turnaround outcome: firm size, organizational slack and proportion of outside board directors. Past research has also found that firm size affects the capacity of organizations to make the
necessary adjustments amid a changing environment (Tushman and Romanelli, 1985). Firm size was measured by the log of total number of employees. Consistent with past studies (Morrow et al., 2004; Hambrick & D’Aveni, 1988), Organizational slack was measured as a ratio of total debt to total equity (Debt/Equity) since this ratio represents (1) borrowing capacity, and (2) the ability of the firm to raise capital to implement the requisite strategic and tactical actions underlying the respective turnaround strategy. The proportion of outside directors was calculated as the average of the number of outside (non-manager) directors divided by the total number of directors of the firm for each year of the decline period (Mueller & Barker, 1997).

RESULTS

Table 1 presents the mean, standard deviation and bivariate correlations of the study’s variables. The average CEO in our sample held the position slightly over 11 years and had 15 years of formal education. The bivariate correlations in Table 1 suggest a significant negative relationship between CEO tenure and corporate turnaround performance ($r = -0.36$, $p < 0.01$). There is also a significant positive relationship between CEO functional background and corporate turnaround performance ($r = 0.28$, $p < 0.05$).

Moderated hierarchical regression was used to test the hypotheses (Cohen & Cohen, 1983). We chose this analytical technique because it allows for testing the effect of the interaction variables (between the predictors and the moderating variable) on the criterion variable (Hair et al., 2006; Aiken & West, 1991). Based on our hypotheses, we calculated four different interaction variables between the degree of environmental stability/turbulence and the four CEO characteristics (i.e. tenure, functional background, education and duality). The results of moderated hierarchical regression are reported in Table 2. Following the recommendation of Aiken & West (1991), the predictor variables were mean-centered before forming the interaction terms. The analysis was conducted in two models. In model 1, the control and predictor variables were entered to the analysis. In the second model, the four interaction variables between the predictor (CEO characteristics) and moderator (degree of environmental stability/turbulence) were included in the analysis.
### Table 1: Means, Standard Deviations, and Correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td>Turnaround Performance</td>
<td>43.73</td>
<td>35.92</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Stability/Turbulence</td>
<td>2.69</td>
<td>0.98</td>
<td>0.12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CEO Tenure</td>
<td>11.07</td>
<td>7.13</td>
<td>-0.36**</td>
<td>-.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEO Functional Background</td>
<td>0.55</td>
<td>0.68</td>
<td>0.28*</td>
<td>-0.14</td>
<td>-0.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CEO Education</td>
<td>15.83</td>
<td>2.51</td>
<td>0.07</td>
<td>0.21</td>
<td>-0.35**</td>
<td>-0.05</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>CEO Duality</td>
<td>.60</td>
<td>.494</td>
<td>-0.24</td>
<td>0.26</td>
<td>0.37**</td>
<td>0.01</td>
<td>-0.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm Size b</td>
<td>2.21</td>
<td>0.59</td>
<td>0.36**</td>
<td>-0.15</td>
<td>0.24</td>
<td>0.07</td>
<td>0.05</td>
<td>0.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational Slack</td>
<td>0.39</td>
<td>0.92</td>
<td>-0.16</td>
<td>-0.18</td>
<td>0.22</td>
<td>-0.01</td>
<td>-0.01</td>
<td>0.26*</td>
<td>0.22</td>
<td></td>
</tr>
<tr>
<td>Proportion of outside board members</td>
<td>0.62</td>
<td>0.18</td>
<td>0.14</td>
<td>-0.09</td>
<td>-0.01</td>
<td>0.10</td>
<td>0.04</td>
<td>-0.02</td>
<td>0.03</td>
<td>0.04</td>
</tr>
</tbody>
</table>

* n = 60.  
** Log-transformed.  
* p < 0.05  
** p < 0.01  (Two-tailed tests)
The first hypothesis (H1) proposed a negative relationship between CEO tenure and corporate turnaround performance. More specifically, we suggested that such negative relationship exists in turbulent more than stable environments (H1A). The results in table 2 above provide significant support for the main effect (H1A) but not for the interaction hypothesis (H1A). Accordingly, model 1 in Table 2 indicates statistically significant (B = -0.27, P < 0.05) negative relationship between CEO tenure and corporate turnaround performance as hypothesized in the first hypothesis (H1). However, we didn’t find a significant relationship when the interaction term between CEO tenure and environmental stability/turbulence is included in model 2 (B = -0.08, n.s.). Hence, the first hypotheses received partial support.

The second hypothesis (H2) proposed a positive relationship between output-related functional background of CEOs and corporate turnaround performance in turbulent environments. Model 1 in Table 2 shows a strong support for a positive relationship between CEO output-related functional background and corporate turnaround performance (B = 0.38, P < 0.01). However, such a positive relationship under environmental stability/turbulence as proposed in hypothesis 2 (H2) received a modest support (B = 0.56, P < 0.10). Since CEO functional background was operationalized as a categorical variable (i.e. 0 = throughput functions, 1= output functions), we further conducted a one-way ANOVA to see if there is a significant difference between these two groups of CEOs. The results indicate a strong statistically significant difference in terms of corporate turnaround performance (F (1, 58) = 4.71, P < 0.05).

The third hypothesis (H3) proposed a positive relationship between the length of years of formal education and corporate turnaround performance in turbulent environments. As can be seen in model 2, H3 was not supported (B= 0.77, n.s.). Finally, we proposed a positive relationship between CEO duality and corporate turnaround performance in turbulent environments (H4). We found a modest support for H4 as indicated in second model (B= 0.86, P < 0.10). Since CEO duality is a categorical variable (i.e. 0= no duality, 1= duality), we also conducted a one-

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### Table 2: Results of Moderated Hierarchical Regression Analysis# (n = 60)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Corporate Turnaround Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controls:</strong></td>
<td>Model 1</td>
</tr>
<tr>
<td>Firm Size</td>
<td>0.37***</td>
</tr>
<tr>
<td>Organizational Slack</td>
<td>0.07</td>
</tr>
<tr>
<td>Proportion of Outside Board Members</td>
<td>0.17</td>
</tr>
<tr>
<td><strong>Independent:</strong></td>
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</tr>
<tr>
<td>CEO Tenure</td>
<td>-0.27**</td>
</tr>
<tr>
<td>CEO Functional Background</td>
<td>0.38***</td>
</tr>
<tr>
<td>CEO Education</td>
<td>-0.03</td>
</tr>
<tr>
<td>CEO Duality</td>
<td>-0.13</td>
</tr>
<tr>
<td>Environmental Stability/Turbulence</td>
<td>0.18</td>
</tr>
<tr>
<td><strong>Interactions:</strong></td>
<td></td>
</tr>
<tr>
<td>CEO Tenure X Environmental Stability/Turbulence</td>
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<tr>
<td>CEO Functional Background X Environmental Stability/Turbulence</td>
<td>0.56*</td>
</tr>
<tr>
<td>CEO Education X Environmental Stability/Turbulence</td>
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<tr>
<td>CEO Duality X Environmental Stability/Turbulence</td>
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<tr>
<td>R²</td>
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<tr>
<td>ΔR²</td>
<td>0.098*</td>
</tr>
<tr>
<td>F</td>
<td>4.58***</td>
</tr>
</tbody>
</table>

# Standardized Regression Coefficients are shown *p < 0.10, ** p < 0.05, *** p < 0.01
way ANOVA to see if there is a significant performance difference between turnaround firms with and without CEO duality. The result only provided marginal support (F (1, 58) = 3.53, p < 0.10).

DISCUSSION AND CONCLUSION

The purpose of this study was to examine the relationship between CEO characteristics and corporate turnaround performance under environmental stability/turbulence. The results of our empirical analysis indicate a number of interesting relationships in declining firms attempting turnaround. First, the results of this study indicate that the length of CEO tenure is negatively related to corporate turnaround performance. Accordingly, this could mean that declining firms with longer tenured CEOs will have a significant challenge in terms of identifying the causes of organizational performance decline and orchestrating the appropriate (and sometimes drastic) strategic response needed in crisis situations. Such negative relationship between the length of executive tenure and turnaround outcome is consistent with past findings that linked longer executive tenure with causal attributions (e.g. Mueller & Barker, 1997; Barker & Patterson, 1996). Although we found a significant negative relationship between CEO tenure and corporate turnaround performance, we didn’t find any support for our argument that such relationship will especially be pronounced in turbulent environments (industries).

This study also found a significant positive relationship between CEO functional background and corporate turnaround performance. We found that firms with CEOs who have output-related functional background (e.g. marketing, sales, R&D) exhibit better turnaround performance compared to those firms led by CEOs that have a significant throughput-related functional background (e.g. operations, production, engineering, accounting). This finding is consistent with the overall argument in the turnaround literature regarding the need for executives that possess market-oriented experience (Stanwick, 1992). Finally, the results of this study also found a moderate support for a positive relationship between CEO duality (CEO being chairperson of the board) and corporate turnaround performance in turbulent environments.

There has been a consistent assertion among the practitioner community (turnaround consultants, in particular) that declining firms attempting to turnaround need a strong and unambiguous leadership that play a important role in formulating and implementing strategic responses to organizational crisis (Whitney, 1987). This line of argument also emphasizes the necessity of such leadership in terms of providing a clear signal to the declining firm’s stakeholders that “take charge” (Miller & Friesen, 1977). This study provides a modest support for such argument on the need for establishing strong leadership in declining firms attempting turnaround amid period of uncertainty and risk. More specifically, our finding suggests that the need for strong and unambiguous leadership in declining firms attempting turnaround could be especially pronounced in turbulent (unpredictable) industries (Abebe et al., 2012).

The findings of our study have important implications for both researchers and practitioners. We believe that our findings extend the current corporate turnaround research in two major ways: first, this study has shown that CEO characteristics such as tenure and functional background are related to the extent of corporate turnaround performance in general and especially under turbulent environments. Such findings compliment the extant turnaround literature by examining the role of the CEO in maneuvering and mitigating critical performance decline in turnaround firms. Second, we believe that studying the role of CEO duality significantly contributes to the on-going turnaround research by highlighting the importance of strong and unambiguous leadership in the turnaround process. We also believe that this study provides a number of practical implications to managers in general and board of directors in particular. Firms with severe performance downturn often experience the erosion of stakeholder support and management indecision (Hambrick & D’Aveni, 1992). In such circumstances, the existence of clear authority structure and strong CEO leadership may mean the difference between
turnaround and bankruptcy. The findings of our study, therefore, suggest that to the extent that boards are vigilant, having CEOs that are also chairpersons of the board of directors could facilitate the turnaround process (Finklestein & D'Aveni, 1994; Trahms et al., 2013). The role of top executives, especially the CEO, in declining firms attempting turnaround has attracted a great deal of attention from the popular business press. The popular press often praises the dramatic performance turnaround in businesses and attributes such positive outcomes to the ability of top executives in formulating and executing turnaround strategies. Despite such a significant interest, empirical research in this area is still evolving. This study contributes to the ongoing research by empirically examining the relationship between CEO characteristics and corporate turnaround performance under environmental stability/turbulence. Our overall findings suggest the importance of examining both the demographic (functional background) and structural (i.e. duality) characteristics of CEOs in turnaround situations.

REFERENCES


