

EFFECTS OF PERFORMANCE SHORTFALLS ON ORGANIZATIONAL
DECISIONS AND OUTCOMES

by

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The performance context of an organization is an important factor in determining its strategy and outcomes following the strategic choices made. Specifically, negative performance contexts affect organizations more intensely, reducing the resources it has access to, changing how stakeholders are impacted, increasing scrutiny from the media, analysts and shareholders among others, and inviting evaluation and judgment of the decision-making of the CEO and other managers. In this dissertation, the multifaceted nature of performance shortfalls is explored across three essays covering different types of negative performance contexts, to provide a more complete understanding of how performance affect organizations.

In the first essay, the focus is on the firm's lifecycle stage of organizational decline, that presents a critical shortage of resources. We explore how organizations modify their CSR practices in such a context, as there could be both benefits and costs to engaging in CSR during decline. By distinguishing between different types of CSR, we show that firms navigate decline in a manner that incorporates both perspectives on CSR. In the second essay, we highlight the effect of a firm's proximity to bankruptcy on CEOs' decision-making based on different temporal

perspectives. We suggest that a CEO's career horizon (or time to retirement) is positively related to firm strategic change, and this effect decreases when a CEO past focus is higher. We further suggest that the dominating effect of objective time (CEO career horizon) versus subjective time (CEO past focus) depends on the firm's closeness to bankruptcy, a situation that increases the salience of the CEO's legacy in their decision-making. Finally, the third essay adds a social dimension to performance, looking at performance below social aspirations as a contextual condition. In this study, we show that CEOs' social class backgrounds affect the characteristics of competitive repertoires they use in terms of complexity and non-conformity. As social comparison is an important aspect of competing in the market, we further study how performance below those of peers in the industry modifies these effects.

Overall, this dissertation provides a bird's eye view of performance shortfalls by exploring different types of negative performance contexts and how these affect different aspects of firm strategy including market, non-market and competitive strategy.

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CHAPTER 1

DOING GOOD OR STAYING ALIVE: CORPORATE SOCIAL RESPONSIBILITY

DURING ORGANIZATIONAL DECLINE

Abstract

Engaging in corporate social responsibility (CSR) activities can be a financial disadvantage to firms because of inefficient use of resources or it can positively impact their financial performance through developing valuable intangible resources. The debate between these two divergent perspectives on CSR is intensified when a firm is in the decline stage, providing an ideal context for exploring which of the two perspectives dominates firms' decisions on CSR. Organizations undergoing decline are in a unique stage of their lifecycle, with reduced access to resources and their survival under threat. Drawing on stakeholder theory, we argue that firms in decline modify their approach to CSR to manage the preferences of their key stakeholders. Based on a sample of firms between 2000-2013, our results indicate that firms reduce their overall CSR but decrease Internal CSR more. For firms in industries that emphasize value creation, the reduction in internal CSR is smaller, whereas for the reduction in external CSR is smaller in industries that emphasize value capture. Our results indicate that firms incorporate both perspectives on CSR by reducing CSR but adapting their strategy to reflect stakeholder salience.

INTRODUCTION

The allocation of firm resources to corporate social responsibility (CSR) activities has been long debated in academic research (Brammer & Millington, 2008). On the one hand, CSR activities incur direct costs, including monetary, personnel and administrative, by the firm (Barnett & Salomon, 2006). There are arguments that CSR activities are an inefficient use of shareholder wealth and draw resources away from other strategic investments that could benefit the firm (Friedman, 1970; Jensen, 2002; Karnani, 2011). We call this ‘the cost-focused view of CSR’. The alternative perspective we refer to as alternative perspective ‘the benefit-focused view of CSR’, indicates that engaging in CSR has both long-term and short-term benefits for firms by building their legitimacy and engendering favorable perceptions among stakeholders (Cochran & Wood, 1984; Flammer, 2013, 2018; Orlitzky, Schmidt, & Rynes, 2003). Since CSR is important in several firm-level consequences, various factors influencing CSR have been examined (Shea & Hawn, 2019; Tang, Qian, Chen & Shen, 2015). However, with very few exceptions (e.g., Cuypers, Koh & Wang, 2016), most of the research controls for firm performance without explicitly considering how atypical circumstances in a firm’s financial condition can affect their approach to CSR.

An organization goes through multiple lifecycle stages of growth, maturity and decline, not necessarily in a particular order, facing specific challenges and goals corresponding to each stage. As resources are relatively more abundant in the growth or maturity stages than in the decline stage, the question of engagement in CSR becomes most critical during the decline stage. When firms are in decline, severe resource constraints can lead to consequences that violate shareholder expectations, and the tension between the benefit-focused view (continuing CSR for legitimacy and cordial stakeholder relationships) and the cost-focused view (withdrawing from CSR efforts

to redirect resources to core business activities) becomes more significant. Evidence suggests that almost all firms experience decline at different points of their life (Schendel & Patton, 1976) and recent studies have indicated that around 50% of firms in the S&P 500 in 2010 had gone through a period of decline within the previous five years (Trahms, Ndofor & Sirmon, 2013). Firms in decline face the greatest need for careful resource allocation, as appropriate allocation is a key factor in determining whether a firm moves to a turnaround position or ceases to survive. A firm's stakeholders playing a crucial role in directing to the organization the resource flows that are essential for its survival (Pajunen, 2006). When a firm is in decline, the concerns of the organization's immediate stakeholders, such as shareholders, increase. If the firm abides by the cost-focused view that CSR activities incur direct costs and do not represent efficient use of resources, investment in CSR is likely to be curtailed substantially. In contrast, in line with the benefit-focused view, stakeholder theory suggests that a firm's survival and performance depend on multiple sets of stakeholders that provide the firm with various essential resources (Freeman, Wicks, & Parmar, 2004). Studies indicate that engaging in CSR can help gain legitimacy among multiple sets of stakeholders, helping the firm gather the support it requires from its various stakeholders (Koh, Qian, & Wang, 2014; Wang, Choi & Li, 2008). Our study attempts to throw light on the debate between the cost-focused and benefit-focused views by using a stakeholder salience lens to study the effect of decline on CSR. We argue that a declining organization will choose to change its CSR strategies in a way that is optimal to managing the needs of its multiple stakeholders, instead of simply reducing all categories of CSR activities uniformly, as would occur if following the cost-focused view.

Drawing from the literature on strategic emphasis (Bowman & Ambrosini, 2000; Makadok & Coff, 2002; Priem, 2007), we analyze decisions on CSR through the lens of aligning CSR activities with the strategic emphasis of the industry the firm belongs to. Value creation and value capture are the two main areas where firms may allocate resources to (Lepak, Smith, & Taylor, 2007; Mizik & Jacobson, 2003). Value creation places emphasis on constantly innovating and creating new products to sustain competitive advantage (Gans, Hsu & Stern, 2008; Priem, 2007) and is reflected in advertising expenditures. In contrast, a strong value capture emphasis sees strategy depending significantly on reaching out to potential customers, enhancing visibility and maximizing returns from existing products and offerings (Bowman & Ambrosini, 2000; Makadok & Coff, 2002), captured by R&D expenditures. We argue that firms in the decline stage reduce efforts towards CSR because CSR activities do not meet the primary needs of shareholders. However, we argue that firms use a CSR strategy that is likely to be dependent on the strategic emphasis of the industry that determines how a firm can best compete in that industry. Such a strategy specifically distinguishes between internal and external CSR dimensions based on the stakeholders they attend to. Firms engage in external CSR aimed at stakeholders external to the organization (Hawn & Ioannou, 2016) through ways such as community development and product safety and in internal CSR that mostly affect stakeholders internal to the firm, such as diversity and inclusion in hiring practices and enhanced corporate governance. While both types of CSR actions are associated with higher market value in general (Hawn & Ioannou, 2016), organizations are known to differ in their allocation of resources to each type. In the context of decline, where strict discipline in resource allocation is often enforced, we argue that the importance placed on internal and external CSR would be in alignment with the strategic emphasis of the firm's industry.

Using a sample of firms during the period 2000 to 2013, we find that firms in the decline stage in general reduce their overall CSR. However, firms differentially reduce their internal and external CSR based on the extent to which value creation or value capture is the focus of their strategy. In the next section, we discuss the theory on stakeholder management and decline, and develop in detail our arguments.

Our study offers four key contributions. First, through examining differences in orientation towards internal and external CSR in firms undergoing decline, we contribute to the CSR literature by offering a view that reconciles the cost-focused and benefit-focused perspectives of CSR. Second, we add to the literature on stakeholder management by showing how firms use CSR strategically to align themselves with their key stakeholders at a time when these stakeholders' support is especially critical. Although the decline stage represents a situation of scarce resources, firms attempt to sustain their socially responsible behaviors towards their important stakeholders. Third, we contribute to the research on organizational decline by investigating an unexplored non-market strategy – CSR engagement – that firms use to manage a decline situation, when stakeholder support becomes more critical. Finally, our study generates important managerial implications by pointing out that, instead of reducing different kinds of CSR activities uniformly during decline, managers can invest strategically their scarce resources in CSR activities that target key stakeholders. Overall, we bring an important empirical context to the study of the divergent perspectives on CSR by exploring how and why firms subscribe to these different views.

THEORETICAL BACKGROUND AND HYPOTHESES DEVELOPMENT

CSR - Internal and External Orientations

Research based on the benefit-focused view has uncovered several motivations for firms. Some studies note the instrumental perspective (Bansal & Roth, 2000) – the belief that CSR is good for business and can enhance firm competitiveness. Others refer to normative reasons like moral responsibility or duty (Aguilera, Rupp, Williams, & Ganapathi, 2007) to stakeholders such as the community and society in general. This can in turn improve the legitimacy of the firm and improve its access to critical resources necessary for survival (Suchman, 1995; Wang & Qian, 2011). Firms can choose to engage in several actions that benefit various stakeholders to differing extents. The portfolio of CSR actions is typically oriented towards securing the support of the firm’s most important stakeholder set.

An important theoretical distinction in the CSR orientation of firms is based on the location of the constituents – internal or external – with respect to the boundary of the firm. CSR actions aimed mainly at attaining positive endorsement by *external* stakeholders (McDonnell & King, 2013) constitute the firm’s external CSR initiatives. For instance, firms may have a greater focus on ensuring compliance with environmental standards in situations where community acceptance and legal compliance are key to avoiding penalties for irresponsible actions; firms also invest heavily in operational processes in the development of their products to maintain safety standards for their consumers. Such actions reflect a need to retain public endorsement. Firms can also adopt established CSR actions focusing on processes and policies that affect mostly their *internal* stakeholders such as its employees and managers. These internal CSR actions directed at ensuring shareholder alignment can include committing to robust hiring and promotion policies aimed at ensuring equal opportunities for all employees and creating an inclusive and diverse workforce, as well as corporate governance initiatives to monitor the top management team and its executives.

Every firm has its own portfolio of CSR actions, with various levels of involvement in externally and internally oriented initiatives. Along with an understanding of what each stakeholder expects from the firm, studies have also focused on stakeholder salience, describing factors that determine which stakeholders firms pay attention to (Mitchell, Agle, & Wood, 1997). In general, this approach examines stakeholder expectations and explores the changing hierarchy of stakeholder importance to the firm. However, the relative importance of stakeholders can vary with changes in firm conditions. In the following sections, we argue that the acute need for continued support of certain groups of stakeholders can lead firms to pay more attention to the current expectations of these stakeholders by modifying the firm's approach to internal and external CSR.

CSR Focus during the Decline Stage

Firms in the decline stage face a loss of legitimacy in the eyes of their stakeholders and the attention of managers in such firms is drawn to reevaluating investments and resource allocations (Dooley & Lerner, 1994). With a decrease in firm growth and diminishing profits, firms are more constrained in terms of resources to meet the needs of their stakeholders. According to threat-rigidity theory (Staw, Sandelands, & Dutton, 1981), firms that face adversity are likely to respond to the threat with a focus on increased efficiency, including cost-cutting and, more importantly, curtailment of marginal expenditure (Starbuck & Hedberg, 1977). Although CSR activities have been shown to have several direct and indirect benefits on firm financial performance, they are not a part of the core business of the firm and therefore may be deprioritized under conditions of financial distress. According to the cost-focused view, CSR activities are costly to the firm and could be loosely linked to improving firm performance under situations of financial distress. This

is because the benefits of CSR activities typically accrue through enhancement of trust and legitimacy over time. However, the relative and immediate benefits may be unclear when a firm is in poor financial health. Stakeholders, including shareholders, are likely to understand a reduction in firm CSR activities when such activities become beyond the means of the firm. Based on a sample covering U.S. firms' philanthropic activities over the 19-year period from 1991 to 2009, Cuypers et al.'s (2016) study found that stakeholders were likely to perceive firm philanthropic actions as more sincere depending on the nature of the philanthropic action as well as the lifecycle stage of the company. Although the study compared the relative impact on firm performance of firms engaging in different types of philanthropy, it did not look at how firms change their investment in philanthropy across lifecycle stages. We suggest that when firms are in the decline stage, the combination of less available resources and the need to save these resources to meet the primary needs of the firm's stakeholders will lead to a reduced focus on socially responsible actions, as predicted by the cost-focused view.

First, the need to preserve cash in a tough financial situation could lead to reductions in externally oriented CSR actions. Firms in decline are likely to cut costs by temporarily lowering investments in environmental initiatives since these go beyond the core activities of the firm. Additionally, firms may be under pressure to release products with fewer attributes and less stringent testing in order to enhance revenues. Firms in decline are also likely to devote fewer resources to their internal CSR actions. With fewer resources, firms may be unable to meet industry standards regarding compensation and hiring practices. Due to critical short-term pressures, corporate governance may not be implemented as strictly as previously or as required. For example, in the midst of bankruptcy, Sears cut life insurance benefits for over 90,000 of its retired

employees (Shoulberg, 2019). Additionally, the closing of several of its stores caused disruption to its ability to service customer complaints. Thus, we hypothesize the following.

Hypothesis 1a. Organizational decline is negatively associated with overall CSR.

Such a reduction in CSR is not expected to be uniform across all dimensions following decline. Overall, we expect that firms shall determine a hierarchy of which dimensions of CSR must be changed in order to manage their stakeholders and stem the decline. External actions typically involve CSR initiatives that are highly visible and are aimed at securing the legitimacy and endorsement of the general public and other outside audiences (Hawn & Ioannou, 2016; Al-Shammari, Rasheed, & Al-Shammari, 2019). Internal actions are focused on internal constituents of a firm, with less public initiatives than external CSR. For example, internal CSR could involve ensuring equal treatment for women and minorities and fair and inclusive hiring and promotion policies. Although these may also help improve public perception and engender support from a larger audience including external stakeholders, the effects are smaller and are more likely to gain approval from internal stakeholders such as employees. When organizations are in decline, it makes sense for them the perception of a broader audience so that there is continued support from the broader public for the firm's products and services and the media coverage is not very negative, so that smooth continuation of a firm's operations is achieved. Although firms manage the balance of internal and external CSR at all stages, the relative importance of external stakeholders over internal stakeholders is expected to be pronounced when a firm is in decline. Based on these arguments, we suggest that firms would prefer to reduce their internal CSR more readily than their external CSR under decline.

Hypothesis 2. The negative effect of organizational decline on internal CSR than external CSR.

Strategic Emphasis and Stakeholder Saliency

When an organization is in the decline stage, it can either achieve a successful turnaround of the situation or proceed through further stages of increasing severity in performance, ultimately resulting in bankruptcy or even possible dissolution (Weitzel & Jonsson, 1989). One consequence of a poor financial situation is that the expectations of several stakeholders, including shareholders, investors, creditors and customers, are violated (Gomulya & Mishina, 2017). This is at a time, however, when retaining the continued support of stakeholders is critical for the firm to ensure its survival.

While the influence of external CSR is expected to be large for organizations on an average due to the reach and visibility, firms cannot ignore the degree to which internal and stakeholders are critical to their competitive advantage. Based on stakeholder theory, we explore how dependence on stakeholders differs for firms in the decline stage based on the characteristics of the industry they belong to. The criticality of resources controlled by multiple stakeholders is exacerbated when a firm is financially disadvantaged. The CSR strategy of a firm is likely to be affected by the stakeholder(s) it is most dependent on and the categories of CSR directly relevant to these stakeholders. In short, the greater the intensity of dependence on a stakeholder, the greater the degree of that stakeholder's influence and the greater the need to direct CSR initiatives toward the stakeholder.

It is likely that a firm in financial decline focuses on those stakeholders that are most central to its business strategy and less on peripheral stakeholders who only infrequently or trivially

influence the firm. Thus, the level of dependence during a situation in which the firm's very survival is threatened reflects the nature of the firm itself and the strategic emphasis of the industry. For example, companies in the consulting field are strongly dependent on its human capital (Hitt, Bierman, Shimizu, & Kochhar, 2001) and thus have a high level of dependence on its employees. In contrast, firms in a predominantly manufacturing industry rely on suppliers for constant and well-priced inputs, requiring their support particularly when the company needs to sustain production to achieve a turnaround. For companies that are in consumer-focused industries, retaining market share becomes critical in sustaining competitive advantage and therefore such firms are more likely to adopt consumer-oriented strategic initiatives, including CSR actions, to ensure continued customer patronage. In conclusion, we contend that a firm depends on its key stakeholders more when it is financially distressed, and that the determination of these stakeholders is largely dependent on the nature of the industry the firm belongs to. In the following section, we describe how the industry strategic emphasis determines the set of stakeholders it is most dependent on and hypothesize how such dependence changes a firm's CSR actions during times of poor financial health.

Strategic Emphasis and CSR Focus

Firms distribute their resources to two key strategic processes – value creation and value capture (Mizik & Jacobson, 2003). While value creation focuses on innovating and delivering products, value capture involves extraction of profits from the marketplace. Each of these processes depends on different stakeholders for effective outcomes. Although a firm has to deal with multiple stakeholders, every firm is distinct in its pattern of stakeholder interactions. At any particular time, the interests of certain stakeholders gain prominence due to the power that these

stakeholder groups hold over the firm. Such an increase in the relative salience of a stakeholder group (Mitchell et al., 1997; Tantalo & Priem, 2016) shifts attention of the firm towards prioritizing resource allocation in favor of these stakeholders. While this implies that some key decisions of the firm are aligned with the preferences of salient stakeholders, it does not suggest that other stakeholders are completely disregarded. With reference to CSR, firms may consider the balance of utility that comes from deferring to salient stakeholder preferences while deviating from the expectations of others. We analyze below how the strategic emphasis is associated with both stakeholder salience and shifts in CSR orientation in a situation of firm decline.

To balance the needs of its key stakeholders with those of its shareholders, a firm is likely to maintain its CSR commitment towards stakeholders that are critical to its survival while reducing its CSR commitment towards other stakeholders. In particular, we look at actions that affect internal stakeholders (i.e., internal CSR) and actions that involve external stakeholders (i.e., external CSR) and suggest that the focus of a declining firm on each of these types of actions depends on its core strategy.

Value Creation Emphasis and CSR Focus in the Decline Stage

Firms in industries with a high value creation strategic emphasis are oriented strongly towards creating novel value for their customers. Such firms aim to obtain a competitive advantage by constantly innovating and staying ahead of the competition in terms of key product offerings. For such firms, research and development (R&D) activities form a cornerstone of their strategic emphasis to build and develop superior products and services. R&D in firms is indicative of investment in transforming tacit and explicit knowledge into valuable outputs for the firm. Firms with high R&D intensity are considered knowledge-intensive and therefore typically draw heavily

on the knowledge of their educated workforce (Coff, 1999). The success of such firms depends on their ability to generate new knowledge and develop innovative products that add to firm competitive advantage. Innovation requires risk-taking and creative effort and R&D investments are associated with large expenditure and uncertain returns (Greve, 2003).

Overall, much of the value generated in a knowledge-intensive organization depends on the motivation and ability of its skilled workforce. Thus, retaining valuable employees becomes critical to the organization, especially during a time of crisis. When an organization is in the decline stage, its employees perceive a situation that is harmful to their vital interests (Amabile & Conti, 1999). The potential for downsizing looms large and pay cuts are likely to come into effect. Such conditions can affect employee morale, survivors' reactions to layoffs, creative behaviors and overall job performance. Other consequences include work overload, burnout and high levels of perceived uncertainty (Tombaugh & White, 1990). Given such conditions, we expect that employees pay far more attention to areas that are related to employee welfare, such as a safe and pleasant work environment, competitive benefits and employee growth and welfare.

Studies have shown that engaging in CSR initiatives increases employee trust (Turban & Greening, 1997) and improves employees' relationship with the organization (Berman, Wicks, Kotha & Jones, 1999). More specifically, we argue that a firm's attempt to be socially responsible will receive favorable responses from its key employees in areas that concern employee welfare. Thus, a company that is very dependent on its talented workforce is more likely to focus on *internal* CSR when it is undergoing decline. Therefore,

Hypothesis 3a. Industry value creation emphasis will moderate the relationship between organizational decline and internal CSR such that the negative effect of decline on internal CSR is weaker for declining firms in industries with higher value creation emphasis.

Value Capture Emphasis and CSR Focus in the Decline Stage

Firms in industries that have a high value capture emphasis are oriented towards making sure that a high proportion of the value of a firm is appropriated through profits. Unlike in industries where firms compete mainly on value creation, firms in industries with a value capture focus are driven towards setting mechanisms in place that ensure maximum benefits accrue to the firm (Gans et al., 2008; Mizik & Jacobson, 2008). These firms focus on defending fiercely their market position and profits by extending the time during which their products and services are considered valuable. While firms may achieve this through many means, advertising is a key mechanism by which a firm can differentiate its products from those of competitors and increase its market share. Firms spend on advertising to increase their visibility, brand equity (Aaker, 1996) and the receptiveness of consumers and distribution partners to their products (Kaufman, Jayachandran, & Rose, 2006). High advertising intensity implies that a firm invests heavily in increasing brand equity and the ability to demand premiums from its customers (Ailawadi, Neslin, & Lehmann, 2003) and has a higher value capture emphasis. Overall, such firms depend on consumer loyalty and sales in order to stay competitive and protect themselves from competitors, especially during difficult times such as economic downturns (Veliyath & Ferris, 1997). In other words, customers are key stakeholders for firms with high advertising intensity and the ability of such firms to navigate and emerge successfully from the decline stage rests on the continued support and loyalty of their customers.

Research has suggested that being socially responsible allows a firm to access resources that can help it differentiate itself from other organizations and increase its competitiveness (Hart, 1995; Russo & Fouts, 1997). Some findings also indicate a complex, context-dependent relationship. For example, Hull and Rothenberg's (2008) study of U.S. firms indicates that corporate social performance acts not only as a substitute for innovation in enhancing firm differentiation but also as a source of uniqueness for the firm that gives customers a reason to choose its products over those of others. This line of reasoning is supported by the findings of Yoon, Gurhan-Canli and Schwarz's (2006) that consumers attribute more sincere motives to firm CSR activities when the benefit salience of CSR to the focal organization was low. Financially struggling firms avoid superfluous costs that do not directly contribute to their bottom-line, such as CSR initiatives that do not have immediate short-term effects. As such, we argue that a firm in decline will focus on being socially responsible in areas that encourage the perception of customers that it is committed to its social responsibility, no matter how difficult the circumstances are. Spillover effects can also foster customer perception that the firm will continue to deliver safe and reliable products and to enhance consumer evaluations of new products (Brown & Dacin, 1997). Overall, such firms hesitate to withdraw efforts from those areas of CSR that impact their customers and related external stakeholders. Therefore, we posit the following:

Hypothesis 3b. Industry value capture emphasis will moderate the relationship between organizational decline and external CSR such that the negative effect of decline on external CSR is weaker for declining firms in industries with higher value capture emphasis.

DATA AND METHODOLOGY

Sample

We developed a list of US-based firms for the period 2000 to 2013 that were covered by the Kinder, Lydenberg & Domini (KLD) database that we used for our analysis. The KLD database is a popular database used in previous CSR studies published in management and other disciplines (e.g., Deng, Kang & Low, 2013; Goss & Roberts, 2011; Hull & Rothenberg, 2008; Ioannou & Serafeim, 2015; Kim, Park, & Wier, 2012). We obtained data on firms' internal and external CSR scores from the KLD database starting from the year 2000 as many of the data points corresponding to internal and external CSR were available from then on and stopped at 2013 because KLD changed its reporting structure after 2013. We obtained firm-level financial data and industry-level data from COMPUSTAT. After merging the data, we were left with a final sample of 22,483, 22,139 and 22,060 firm-year observations for the total, internal and external CSR analyses respectively.

Dependent Variables

We used the CSR ratings from KLD, which covers a wide range of corporate social performance attributes. The KLD ratings provide data on firm CSR in seven areas: Diversity, Corporate Governance, Employee Relations, Environment, Community, Human Rights and Product. The KLD ratings report each dimension in terms of strengths and weaknesses, with every data point under each dimension scored as 0 or 1 for firms each year. To arrive at the net CSR score, for each dimension, we subtracted the total weaknesses from the total strengths (Choi & Wang, 2009; Graves, Waddock, & Kelly, 2003). Further, we standardized the net score on each dimension to ensure that all dimensions were comparable and could be used to form an overall index (Hillman & Keim, 2001) corresponding to the different categories of CSR.

Total CSR. We summed the net z-score values across all dimensions to arrive at a firm's overall CSR levels.

Internal CSR. We divided the seven dimensions of CSR into two different subgroups based on the orientation of the CSR actions. Following Hawn and Ioannou (2016), we classified internally oriented actions as *Internal CSR*. For each firm-year, we added the net z-scores corresponding to the Diversity, Corporate Governance and Employee Relations dimensions to reflect actions focusing on internal stakeholders (Tang, Hull, & Rothenberg, 2012), since these cover decisions associated with internal organizational policy.

External CSR. Similarly, we grouped those dimensions of CSR that were externally oriented in terms of stakeholder claims within *External CSR* (Hawn & Ioannou, 2016). This includes actions that affect external stakeholders and the potential customer space. We added the z-scores along the four dimensions of Environment, Community, Human Rights and Product to indicate the firm's external CSR for every firm-year.

Independent Variable

Organizational Decline Stage. To identify the organizational lifecycle stage of decline, we adopted the classification developed by Dickinson (2011), using cash flow patterns from Investing Activities, Financing Activities and Operating Activities. Based on the sign of each of these cash flows, Dickinson (2011) developed a configurational indicator of whether a firm is in one of the five lifecycle stages: Introduction, Growth, Maturity, Shakeout and Decline. For example, if the sign of cash flow from operating activities and financing activities are both negative but cash flow from investing activities is positive, it indicates that the firm is in a decline stage. Following Cuypers et al. (2011), we combined Introduction and Growth into a single category of Growth,

and combined Shakeout and Decline stages into a single stage of Decline to simplify the analysis. Decline and Shakeout stages are both characterized by declining growth rates (Dickinson, 2011) and therefore present huge challenges to the firm in its flexibility in using its resources.

Moderating Variables

Industry Value Creation Emphasis. We measured the *Industry Value Creation Emphasis* using the level of R&D intensity (R&D expenditure divided by sales). Since R&D expenditure has several missing values, we replaced the missing values with zero. We use the industry level of the variable for our measure of value creation emphasis for two reasons. First, in conditions of decline, there can be large fluctuations in the R&D intensity of firms due to resource constraints (Latham & Braun, 2009). Second, the fundamental strategy of the firm in terms of its focus on innovation to sustain its competitive advantage is unlikely to change drastically. For instance, software firms require much greater focus on R&D than firms in the electric utilities industry. Therefore, to account for the change in R&D simultaneous with decline while also being able to measure the general strategic emphasis of the firm, we arrived at the final measure of industry R&D intensity using the mean of R&D intensity for all firms in the 2-digit SIC level each year (Gupta, Briscoe, & Hambrick, 2017).

Industry Value Capture Emphasis. *Industry Value Capture Emphasis* is determined by the extent to which firms focus on appropriating value using their existing offerings. Therefore, we used advertising intensity as an indicator of value capture emphasis (Mizik & Jacobson, 2003). We replaced missing values with zero since firms do not report values that are very small. As with the measure for *Industry Value Creation Emphasis*, we used the industry level mean for all firms

in the same SIC 2-digit industry each year to arrive at the final measure of *Industry Value Capture Emphasis*.

Control Variables

We used several control variables to account for the effects of factors that could influence a firm's CSR. We controlled for *Prior CSR* since it reflects the historical pattern of firm CSR activity (Barnett, 2007). We included previous levels of *Total CSR* for the analysis of overall CSR and controlled for internal and external CSR in analyzing the effects on *Internal* and *External CSR*. *Firm Size* was measured as the log of total assets of a firm. We measured *Firm Age* as the number of years from a firm's IPO or when a firm first appeared in COMPUSTAT. A key factor that can indicate the ability of a firm to engage in CSR is its short-term availability of resources or *Slack*. We measured slack as the ratio of cash and short-term investments to total assets (Tang, Mack, & Chen, 2018). We also controlled for *Industry Capital Intensity*, measured as the average of capital intensity (capital expenditures divided by total sales) of firms in that industry-year.

Since there are three main stages of organizational lifecycle, we included a variable to indicate if a firm was in the *Growth* stage, retaining the *Maturity* stage as the base category (Cuypers et al., 2011). This was to take into account the differences within non-decline firms as per the original classification.

We included an indicator variable, *R&D Replacement Dummy* to indicate if there was a missing value of R&D expenditure, replaced with zero to control for any effects associated with these firms (Shi, Connelly, Mackey, & Gupta, 2019). Similarly, we included an *Advertising Replacement Dummy* variable to indicate if a missing advertising expenditure value was replaced

with a zero. Each of these dummies took the value of 1 if there was a replacement and 0 otherwise. Finally, we controlled for time-based effects using year dummy variables.

Methodology

We used separate models for each of the dependent variables. For each model, we used ordinary least squares (OLS) regression, with standard errors clustered by firm to account for any unobserved heterogeneity. We ran the Hausman test to check for the better model between fixed and random effects estimations. From the Hausman test ($p < 0.000$), we found that random effects estimation would not be consistent; therefore, we used fixed-effects OLS estimation to test our hypotheses. All independent variables were lagged by one year.

RESULTS

Table 1.1 presents descriptive statistics and correlation coefficients of the variables used. Tests using variance inflation factors showed that values were below the rule-of-thumb of 10 with an average VIF of 3.35, eliminating any multicollinearity concerns. Around 14% of the total firms in our sample were in a decline stage of their lifecycle, while 40% and 46% of firms were in the growth and mature stage respectively.

Table 1.1. Descriptive Statistics & Correlations

Variables	Mean	S.D.	1	2	3	4	5	6	7	8
1 Total CSR	-0.17	3.28	1.00							
2 Internal CSR	-0.12	1.86	0.74	1.00						
3 External CSR	-0.05	2.29	0.83	0.24	1.00					
4 Decline Stage	0.15	0.35	-0.02	-0.04	0.00	1.00				
5 Growth Stage	0.40	0.49	-0.02	-0.03	0.00	-0.34	1.00			
6 Prior Total CSR	-0.30	3.15	0.77	0.53	0.67	-0.01	-0.01	1.00		
7 Prior Internal CSR	-0.15	1.79	0.51	0.67	0.18	-0.03	-0.01	0.72	1.00	
8 Prior External CSR	-0.15	2.25	0.67	0.21	0.79	0.01	0.00	0.83	0.21	1.00
9 Slack	0.17	0.20	0.02	-0.05	0.07	0.20	0.03	0.04	-0.04	0.08
10 Firm Size	7.45	1.74	0.08	0.23	-0.08	-0.07	-0.04	0.01	0.18	-0.12

Table 1.1, continued

11	Firm Age	22.46	16.50	0.06	0.19	-0.06	-0.05	-0.16	0.02	0.15	-0.09
12	ROA	0.02	0.16	0.05	0.08	0.01	-0.16	-0.10	0.03	0.05	0.00
13	Industry Capital Intensity	0.09	0.11	-0.10	0.04	-0.18	-0.07	0.04	-0.13	0.03	-0.20
14	Industry Value Creation Emphasis	0.05	0.06	0.07	0.01	0.09	0.07	-0.02	0.08	0.01	0.10
15	Industry Value Capture Emphasis	0.01	0.01	0.03	0.01	0.04	-0.01	-0.07	0.04	0.01	0.05
16	R&D Replacement Dummy	0.45	0.50	-0.05	0.02	-0.08	-0.03	0.04	-0.04	0.02	-0.08
17	Advertising Replacement Dummy	0.59	0.49	-0.08	-0.05	-0.08	0.00	0.01	-0.08	-0.05	-0.08
		9	10	11	12	13	14	15	16	17	
9	Slack	1									
10	Firm Size	-0.46	1.00								
11	Firm Age	-0.28	0.41	1.00							
12	ROA	-0.20	0.16	0.11	1.00						
13	Industry Capital Intensity	-0.22	0.20	0.28	-0.02	1.00					
14	Industry Value Creation Emphasis	0.47	-0.30	-0.08	-0.15	-0.30	1.00				
15	Industry Value Capture Emphasis	0.15	-0.17	-0.11	0.02	-0.33	0.12	1.00			
16	R&D Replacement Dummy	-0.30	0.22	0.04	0.06	0.33	-0.50	-0.12	1.00		
17	Advertising Replacement Dummy	-0.02	0.02	0.08	-0.07	0.22	0.04	-0.36	0.06	1.00	

Note: N=22,060

The regression results of the various factors on *Total CSR* are presented in Table 1.2. Model 1a includes only the control variables. As expected, *Prior Total CSR* of the firm is positively associated with current total CSR. Further, older firms, better performing firms and firms in the growth stage all have higher levels of CSR. In Model 1b, we added the independent variable of *Decline* stage. In Hypothesis 1, we posited that *Decline* would reduce *Total CSR* in firms. The result of this model supports Hypothesis 1 since the coefficient of *Decline* is negative and significant ($b=-0.111, p<0.05$).

The remaining hypotheses are based on the effects of *Decline* on *Internal* and *External CSR* components, so we analyze these in separate models predicting *Internal CSR* (Models 2a – 2c) and *External CSR* (Models 3a – 3c). Hypothesis 2 suggests that the effect of *Decline* on *Internal CSR* will be greater than that on *External CSR*. From the coefficient of *Decline* on *Internal CSR* is Model 2a ($b=-0.089, p<0.01$), we find that firms in decline reduce *Internal CSR*. However, we find no significant relationship between *Decline* and *External CSR* as seen from Model 3a ($b=-0.014$). From these two results, we conclude that the effect of *Decline* on *Internal CSR* is more negative than that of *Decline* on *External CSR*, providing support for H2.

Model 2b depicts the hypothesized interaction effect between *Decline* and *Industry Value Creation Emphasis* on *Internal CSR*, and Model 2c includes the effect of *Decline* and *Industry Value Capture Emphasis* for further analysis. Hypothesis 3a predicts that a high *Industry Value Creation Emphasis* moderates the relationship between *Decline* and *Internal CSR* in such a way that the negative effect of *Decline* is weaker for firms in industries with a greater *Value Creation Emphasis*. Model 2b provides support for this hypothesis, since the sign of the coefficient of the interaction term is positive (as expected) and significant ($b = 1.073, p < 0.05$). The effect is positive and significant even when controlling for the interactive effect of *Decline* with *Industry Value Capture Emphasis* in Model 2c. Further, there is no significant effect of the interaction between *Decline* and *Industry Value Capture Emphasis* on *Internal CSR*, showing that the choice of changes in *Internal CSR* is only strong for firms whose primary stakeholders are internal.

Models 3a through 3c show the impact of *Decline* on *External CSR*. We posited in Hypothesis 3b that a firm's dependence on its external stakeholders, as indicated by its *Industry Value Capture Emphasis*, positively moderates the relationship between *Decline* and *External*

CSR. The interaction between *Industry Value Capture Emphasis* and *Decline* in Model 3b indicates a positive moderation effect ($b=7.796, p < 0.05$), thereby supporting Hypothesis 3b, that is robust to the inclusion of the interaction between Industry Value Creation Emphasis and Decline in Model 3c.

Table 1.2. Effects of Decline Stage on CSR and moderating effects of Strategic Emphasis

Variables	DV: Total CSR		DV: Internal CSR			DV: External CSR		
	Model 1a	Model 1b	Model 2a	Model 2b	Model 2c	Model 3a	Model 3b	Model 3c
Decline		-0.111*	-0.089**	-0.147***	-0.151**	-0.014	-0.093+	-0.102+
		-0.049	(0.029)	(0.039)	(0.050)	(0.034)	(0.051)	(0.057)
Decline*Industry Value Creation Emphasis				1.073*	1.066*			0.192
				(0.455)	(0.458)			(0.510)
Decline*Industry Value Capture Emphasis					0.409		7.796*	7.619*
					(3.189)		(3.506)	(3.548)
Growth	0.071*	0.039	-0.023	-0.021	-0.021	0.081**	0.080**	0.080**
	-0.033	-0.036	(0.021)	(0.021)	(0.021)	(0.026)	(0.026)	(0.026)
Prior Total CSR	0.583***	0.582***						
	-0.012	-0.012						
Prior External CSR			0.067***	0.066***	0.066***	0.586***	0.586***	0.586***
			(0.007)	(0.007)	(0.007)	(0.015)	(0.015)	(0.015)
Prior Internal CSR			0.477***	0.477***	0.477***	0.031*	0.031*	0.031*
			(0.009)	(0.009)	(0.009)	(0.012)	(0.012)	(0.012)
Slack	0.168	0.191	0.108	0.110	0.110	0.050	0.051	0.052
	-0.175	-0.176	(0.110)	(0.110)	(0.110)	(0.111)	(0.110)	(0.110)
Firm Size	-0.044	-0.047	-0.023	-0.022	-0.022	-0.015	-0.015	-0.015
	-0.055	-0.055	(0.030)	(0.030)	(0.030)	(0.037)	(0.037)	(0.037)
Firm Age	0.125***	0.125***	0.043***	0.043***	0.043***	0.106***	0.106***	0.106***
	-0.016	-0.016	(0.006)	(0.006)	(0.006)	(0.008)	(0.008)	(0.008)
ROA	0.226*	0.204*	0.089	0.098	0.098	0.118+	0.119+	0.120+
	-0.102	-0.101	(0.068)	(0.068)	(0.068)	(0.067)	(0.067)	(0.067)
Industry Capital Intensity	-1.979	-1.96	-0.537	-0.513	-0.512	-1.735+	-1.719+	-1.715+
	-1.518	-1.516	(0.756)	(0.755)	(0.755)	(1.043)	(1.042)	(1.042)
Industry Value Creation Emphasis	6.349**	6.368**	0.990	0.925	0.928	4.155**	4.189**	4.177**
	-2.367	-2.368	(1.428)	(1.428)	(1.427)	(1.505)	(1.505)	(1.505)
Industry Value Capture Emphasis	-6.55	-6.597	-11.412*	-11.258*	-11.319*	5.139	3.985	4.039
	-8.813	-8.812	(4.623)	(4.621)	(4.671)	(6.267)	(6.286)	(6.286)
R&D Replacement Dummy	0.165	0.166	0.127	0.127	0.127	-0.014	-0.013	-0.013
	-0.211	-0.21	(0.086)	(0.086)	(0.086)	(0.129)	(0.129)	(0.129)
Advertising Replacement Dummy	0.152+	0.152+	0.036	0.035	0.035	0.106*	0.107*	0.107*
	-0.082	-0.082	(0.053)	(0.053)	(0.053)	(0.053)	(0.053)	(0.053)

Table 1.2, continued

Constant	-2.670***	-2.623***	-0.684**	-0.695**	-0.695**	-	2.523***	-2.512***	-2.515***
	(0.255)	(0.255)	(0.255)	(0.255)	(0.255)	(0.369)	(0.369)	(0.369)	(0.369)
Year fixed effects	Included	Included	Included	Included	Included	Included	Included	Included	Included
Firm fixed effects	Included	Included	Included	Included	Included	Included	Included	Included	Included
Observations	22483	22483	22139	22139	22139	22060	22060	22060	22060
R-squared	0.403	0.403	0.386	0.386	0.386	0.409	0.409	0.409	0.409

Note: Standard errors in parentheses; + p<0.10 *p<0.05 ** p<0.01 ***p<0.001

To facilitate interpretation, we include plots of the moderation effects in Figures 1 and 2, displaying the effects of *Decline* on *Internal* and *External CSR* respectively, at low (-1 SD) and high (+1 SD) values of the moderators. Figure 1 shows a plot of the interaction effects of decline of the moderator, value creation, on internal CSR. The relationship between *Decline* and *Internal CSR* is represented by a negative slope that is less steep when the value creation emphasis of the firm is higher. That is, decrease in *Internal CSR* is less when the firm's industry places greater emphasis on value creation than it is in those firms that belong to industries with a lower value creation emphasis. This is further supported by the simple slopes analysis that show that the relationship between *Decline* and *Internal CSR* is significant for low *Industry Value Creation Emphasis* but not when *Industry Value Creation Emphasis* is high. Figure 2 presents the interaction effects between *Decline* and *External CSR*. The downward slope when value capture emphasis is low shows that the relationship between decline and external CSR is negative. Further, the upward slope when value capture emphasis is high suggests that the negative effect of decline on external CSR is weaker when the value capture emphasis of the firm is greater. The effect is further supported from the significance of the slopes from the simple slopes analysis. In other words, when firms that emphasize value capture are in decline, they continue to invest in external CSR. Overall, our results provide support for the central idea that dependence on different stakeholders affects

the extent of CSR activity in firms undergoing decline due to these stakeholders' different needs and perspectives.

Supplementary Analyses and Robustness Checks

We undertook several robustness checks to test the validity of our results. First, we addressed the issue of possible endogeneity in the main effect. It is possible that firms could have been impacted

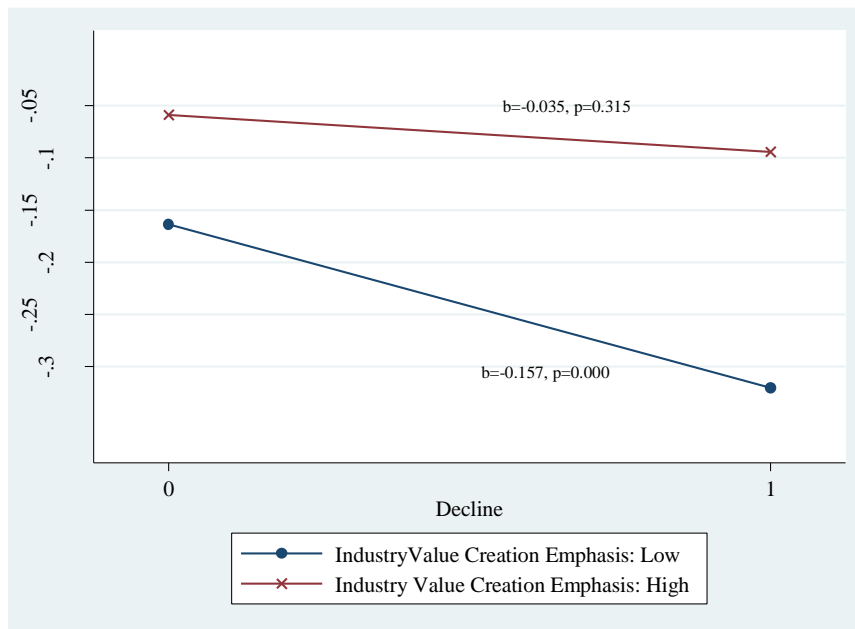


Figure 1.1. Interaction effects of Decline Stage & Value Creation Emphasis on Internal CSR

by some unobservable characteristics that may have influenced both their likelihood to enter into a decline stage of their organizational lifecycle as well as their likelihood to reduce CSR. Therefore, we used a propensity score matching approach to obtain a sample of firms that had entered a decline stage and a matched sample of firms experiencing the counterfactual event of not having entered a decline stage but still having similar characteristics. We used a logit model to match firms based on size, age, firm performance (ROA) and industry; larger and older firms may

be “too large to fail” and could be associated with lower likelihood of entering into a decline stage, while firms within a particular industry may have had a greater likelihood of entering decline because of the structural characteristics of the industry. Using Stata’s psmatch2 function (Leuven & Sianesi, 2003), we obtained a sample of 3233 firms in decline matched with 3233 firms that were not in decline.

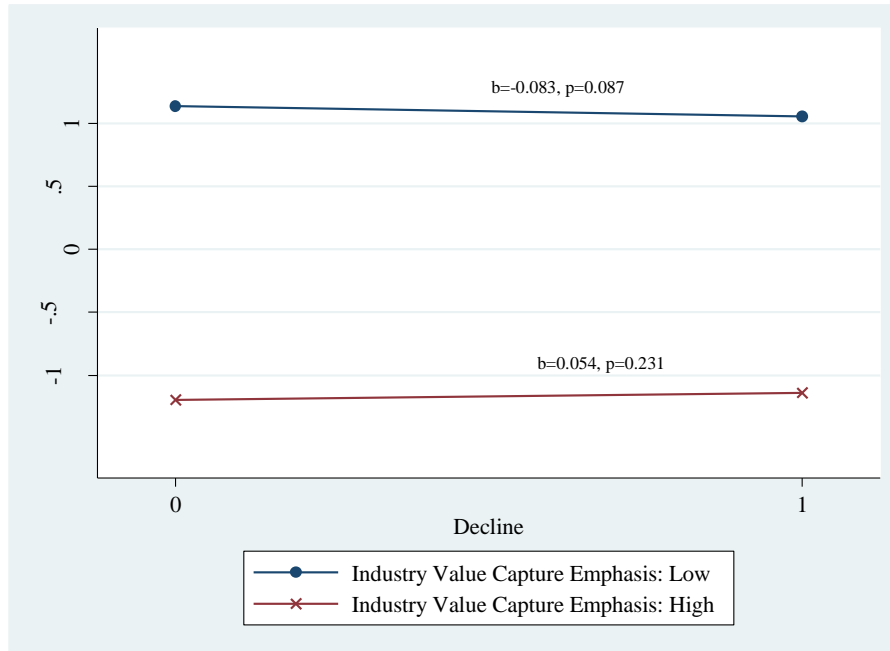


Figure 1.2. Interaction effects of Decline Stage & Value Capture Emphasis on External CSR

Using this sample, we performed a fixed-effects regression to isolate the effect of decline on total, internal and external CSR. As shown in Table 1.3, we found support for Hypothesis 1 ($b = -0.224, p < 0.01$). From the coefficient of *Decline* in Models 2 and 3 predicting *Internal* and *External CSR* respectively, we find that *Decline* is negatively associated with *External CSR* ($b = -0.190, p < 0.05$) but not *Internal CSR* ($b = -0.107, p > 0.10$). Comparing the coefficients, we do not find support for hypothesis H2 that *Decline* is associated with a greater decrease in *External CSR* than *Internal CSR*. We find marginal support for the hypothesis that Industry Value Creation Emphasis reduces the negative effect of decline on *Internal CSR* from Model 2 ($b = 1.052,$

$p < 0.10$), but do not find support for the corresponding hypothesis on Value Capture Emphasis and External CSR as shown in Model 3.

Table 1.3. Robustness check: Regression on propensity score matched sample

Variables	Model 1	Model 2	Model 3
Decline	-0.224** (0.082)	-0.107 (0.076)	-0.190* (0.084)
Decline*Industry Value Creation Emphasis		1.052+ (0.617)	-0.808 (0.683)
Decline*Industry Value Capture Emphasis		-3.816 (5.020)	9.041 (5.556)
Growth	-0.206* (0.095)	-0.101+ (0.059)	-0.106 (0.065)
Prior Total CSR	0.516*** (0.014)		
Prior Internal CSR		0.445*** (0.016)	0.006 (0.017)
Prior External CSR		0.051*** (0.013)	0.515*** (0.014)
Slack	-0.132 (0.310)	0.045 (0.189)	-0.189 (0.209)
Firm Size	-0.079 (0.084)	-0.066 (0.051)	-0.005 (0.057)
Firm Age	0.030 (0.019)	0.046*** (0.012)	-0.014 (0.013)
ROA	0.865 (2.607)	3.052+ (1.591)	-2.220 (1.761)
Industry Capital Intensity	5.315 (3.962)	2.618 (2.431)	2.303 (2.691)
Industry Value Creation Emphasis	4.325 (17.552)	-10.953 (11.095)	11.277 (12.282)
Industry Value Capture Emphasis	0.167 (0.295)	0.193 (0.180)	0.012 (0.200)
R&D Replacement Dummy	0.182 (0.155)	0.034 (0.094)	0.163 (0.105)
Advertising Replacement Dummy	-0.152 (0.713)	-0.772+ (0.437)	0.556 (0.484)
Year fixed effects	Included	Included	Included
Firm fixed effects	Included	Included	Included

Table 1.3, continued

Constant	6466	6466	6466
R-squared	0.338	0.382	0.337

Note: Standard errors in parentheses; + p<0.10 *p<0.05 ** p<0.01 ***p<0.001

Next, use seemingly unrelated regression to formally test the difference between the effect sizes of *Decline* on *Internal* and *External CSR* as required for Hypothesis 2. Seemingly unrelated regression simultaneously estimates both models predicting internal and external CSR with the same set of independent variables, taking into account cross-equation error correlation (Zellner, 1962; Kiss, Libaers, Barr, Wang, & Zachary, 2020). This allows us to perform a stronger test of comparison of the coefficients on *Decline* in both models. From the results indicated in Table 1.4, we find that the effect of *Decline* on *Internal CSR* is negative and significant ($b=-0.090, p<0.001$), while the effect of *Decline* on *External CSR* is not significant, providing some more evidence in support of H2. However, a test of the difference between the two coefficients (using the *lincom* command on Stata) shows no significant difference between the two effects ($b=-0.057, p=0.100$).

Table 1.4. Robustness check: Seemingly unrelated regression analysis

Variables	DV: Internal CSR	DV: External CSR
Decline	-0.090*** (0.025)	-0.033 (0.030)
Growth	-0.084*** (0.018)	0.036+ (0.022)
Prior Internal CSR	0.702*** (0.005)	0.038*** (0.006)
Prior External CSR	0.041*** (0.004)	0.748*** (0.005)

Table 1.4, continued

Slack	0.211*** (0.059)	0.024 (0.070)
Firm Size	0.127*** (0.007)	0.048*** (0.008)
Firm Age	0.004*** (0.001)	0.001 (0.001)
ROA	0.139** (0.053)	0.175** (0.063)
Industry Capital Intensity	-0.200 (0.435)	-1.259* (0.515)
Industry Value Creation Emphasis	0.978 (1.067)	4.741*** (1.263)
Industry Value Capture Emphasis	-8.460* (3.846)	4.477 (4.552)
R&D Replacement Dummy	-0.017 (0.028)	-0.041 (0.033)
Advertising Replacement Dummy	-0.048* (0.021)	0.011 (0.025)
Constant	-0.885*** (0.189)	-0.471* (0.224)
Year fixed effects	Included	Included
Industry fixed effects	Included	Included
Observations	22339	22339
R-Square	0.623	0.654

Note: Standard errors in parentheses; + p<0.10 *p<0.05 ** p<0.01 ***p<0.001

DISCUSSION

In the domain of CSR research, an important topic that has attracted a great deal of attention is whether and how far CSR contributes to firm performance. There are two main camps, which we classify as cost-focused and benefit-focused CSR perspectives. The former argues that engaging in CSR generate benefits for firms by enhancing their legitimacy and developing favorable perceptions among stakeholders, whereas the latter deems that engaging in CSR incurs direct costs

and is thus an inefficient use of firm resources. Firms change their strategic investments significantly in the face of decline to ensure survival and achieve a successful turnaround. As such, the tension between these two opposing views is particularly salient when firms experience financial decline. Firms subscribing to the cost-focused view tend to reduce substantially their investment in CSR activities. On the other hand, instead of cutting CSR investment uniformly, firms subscribing to the benefit-focused view may adjust investment such that CSR activities that are less likely to generate benefits are curtailed. In short, organizational decline provides an excellent context to investigate the extent to which changes in CSR activities are in line with either, or both, of the two views.

In this paper, we argue that CSR is likely to be one of those key areas that a firm withdraws resources from when faced with a critical shortage of resources. When a firm is in a decline stage, the expectations of its key stakeholder – the shareholder – are violated. In line with the cost-focused view, the firm attempts to restore its ability to meet its obligations to shareholders by minimizing expenditure, such as that related to CSR activities, that does not provide an immediate return. Our results indicate that decline indeed has a negative impact on overall CSR, with a greater negative impact on internal than external CSR activities.

In addition, the benefit-focused view suggests that a declining firm will continue investing in areas of CSR that are perceived as increasing its chances of achieving a turnaround. It is likely that such firms will continue socially responsible actions that involve stakeholders whose support is critical to the firm's core strategy. In times of decline, these stakeholders become crucial since the success of firm strategy depends partly on the favorable responses of these stakeholders. Thus, we argue that internal CSR activity will be greater for declining firms whose strategies have a

greater value creation emphasis than for declining firms without such an emphasis. By the same token, firms in industries with a greater value capture emphasis depend more on stakeholders who can help the firm leverage its existing products or services; therefore, such firms will have a higher level of external CSR. An interesting and somewhat unexpected finding observed from Figure 2 is that external CSR for firms with a high value capture emphasis actually increases moderately when these firms are in decline. In other words, it appears that these firms increase CSR activities targeted at their key stakeholders (external stakeholders) in order to leverage firm strategy. This provides strong support for the argument that firms change their CSR allocation as an active strategy to manage stakeholder support during decline. Overall, our findings suggest that firms in decline modify their CSR in accordance with their strategic emphasis.

Contributions

Our study makes at least four major contributions. First, the relationship between CSR and firm performance, which has been well researched, is associated with two opposite views – cost-focused and benefit-focused CSR perspectives. An important but neglected research question is: to what extent do the two views reflect firms' actual CSR activities? We chose organizational decline as the context to study this question because the tension between the two views is most salient when firms experience financial difficulties. Somewhat surprisingly, our results provide support for both views. When firms are in decline, they reduce their CSR commitment, which is consistent with the prediction of the cost-focused view. However, the reduction is not uniform across all CSR categories. As the benefit-focused view suggests, firms adjust their CSR activities with respect to their key stakeholders such that more benefits can be generated for the same amount of CSR investment. Our study sheds light on the debate between the cost-focused and benefit-

focused views by showing that both views, though seemingly contradictory, have an impact on CSR activities.

Our study also enriches the benefit-focused view by showing that beyond the concept of both long-term and short-term CSR *stock* that acts as insurance for firms experiencing negative events (Godfrey, 2005; Shiu & Yang, 2017), firms pivot actively their focus towards their key stakeholders through adjusting their CSR investment *flows* to ensure that the decline does not have a severe negative impact on key stakeholders. Further, previous research has indicated that engagement in CSR provides share value protection for firms experiencing adverse events pertaining to moral, legal and ethical violations. Here, we add to this stream of research by analyzing the role of CSR in dealing with the adverse event of decline.

Second, we contribute to the stakeholder literature by studying how firms undergoing decline manage their stakeholders given that these firms have failed to meet the financial performance expectations of their shareholders. When firms are in a decline stage, they face changing and competing stakeholder needs that have to be managed carefully in order to ensure firm survival (Pajunen, 2006). Therefore, it is important to understand how firms behave in response to decline and what criteria they use in identifying and influencing their key stakeholders (D'Aveni & MacMillan, 1990). Similar to Tantalo & Priem (2016), we add to the “how” of stakeholder management. Hawn & Ioannou (2016) found that greater differences in internal and external CSR led to lower market value. However, it is unclear *why* firms choose to differ in their internal and external approaches to CSR in the first place. Our study found that when firms experience extreme resource shortage, their CSR focus reflects consideration of whether internal or external stakeholders are more important. Overall, our study reveals how stakeholder-specific

modifications are made in CSR strategy during instances of firm performance lapses. In a way, firms manage CSR as a strategic tactic for maintaining alignment with the needs of their multiple stakeholders.

Third, we contribute to the research domain of organizational decline by analyzing an underexplored strategy that firms adopt in their attempt to emerge successfully from decline – CSR adjustment. Prior research on managing stakeholder expectations addressed mainly how ownership structures (Daily & Dalton, 1994; Gomez-Meija, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007), CEO succession (Chen & Hambrick, 2012) and other operational changes (Bruton et al., 2003; Love & Nohria, 2005) could be used to emerge from distress situations and organizational decline. However, the issue of how non-market strategies change in response to the decline stage has been neglected. Although actions such as downsizing and CEO change have a direct and immediate impact on firm performance, actively managing CSR during decline is critical since stakeholder support is essential to achieving turnaround. By examining the relative changes in the two dimensions of CSR, internal and external, our study enhances the understanding of how a firm experiencing financial distress can use CSR engagement to reflect its alignment with its dominant stakeholders' expectations.

Finally, our paper generates some useful managerial implications. Most firms experience financial difficulties at some point in time. Instead of simply curtailing CSR expenditure uniformly, managers making strategic decisions regarding CSR must keep in mind the potential returns on CSR investment during such difficult times. Further, managers should have an in-depth understanding of the firm's different stakeholders and identify the primary stakeholder group. In addition to maintaining CSR activities targeted at this stakeholder group, managers should also

estimate how other stakeholders will react to changes in approach to CSR in order to avoid negative repercussions.

Limitations and Future Research Directions

While our study makes significant empirical and theoretical contributions, it has some limitations. The study uses moderation variables that are a proxy for the dominant stakeholder group to be managed. However, it may be the case that although a certain, single stakeholder is the most important, the onset of decline may increase the complexity of stakeholder influence, including a different set of stakeholders becoming temporarily more critical and driving CSR decisions. Further, this study uses industry advertising intensity as a measure of value capture orientation, reflecting dependence on all external stakeholders. While these external stakeholders may include institutional customers, intermediate buyers, end-consumers, community and media, advertising intensity is a rather narrow indicator that is related mainly to consumer centricity (Flammer, 2015). Future research could utilize measures that would be broader indicators of this group of stakeholders.

Second, it would be interesting to explore how the presence of multiple key stakeholders can shape firm decisions. Interactions between stakeholders and their responses may lead to iterative changes in CSR strategy, which are not captured in our study.

Finally, we restrict our study to a limited set of primary stakeholders. Research suggests that secondary stakeholders such as the government and the community may be critical to firms in ensuring their sociopolitical legitimacy (Li & Lu, in press; Mellahi, Frynas, Sun, & Siegel, 2016; Su & Tsang, 2015). Future research could extend to exploring other stakeholders within a similar framework. While the government is not a primary source of finance, it could play a key role in

influencing the risks faced by declining firms. In short, our study opens up fruitful avenues for research at the nexus of CSR and organizational decline.

CONCLUSION

This paper studies the management of stakeholder perceptions through CSR activities by firms in organizational decline, which offers an excellent context for examining the contrast between benefit- and cost-focused views. Our findings suggest that firms aim to garner the support of certain groups of stakeholders by adjusting their CSR investment towards those that would be preferred by these stakeholders. We find that firms decrease their CSR activity in response to decline (consistent with the cost-focused view), but the degree and nature of the reduction depends on the strategic emphasis of the industry they belong to (consistent with the benefit-focused view). Firms decrease their overall CSR, but this decline is primarily through internal rather than external CSR. Firms in industries with a greater value creation emphasis reduce their internal CSR to a lesser extent while firms belonging to industries that have a greater value capture emphasis show a smaller decrease in their external CSR upon entering the decline stage. Our paper suggests that CSR may be used as a tool to manage decline and is a critical component of the turnaround strategy. To conclude, our study has both significant theoretical and practical implications for CSR and organizational decline and demonstrates the use of CSR as a strategic tool for garnering stakeholder support during decline.

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CHAPTER 2

CEO CAREER HORIZON AND FIRM STRATEGY:

A TEMPORAL PERSPECTIVE

Abstract

Prior research assumes that legacy preservation motives make CEOs with shorter career horizons loss-averse, suggesting they prefer the status quo and initiate fewer strategic changes. However, we take a temporal perspective and argue that the influence of CEO legacy preservation varies with CEOs' subjective interpretation of time. Specifically, we propose that CEO legacy preservation motive depends not only on career horizon (objective time) but also on CEOs' past focus (subjective time). We argue that higher CEO past focus increases the salience of their legacy, weakening the positive impact of their career horizon on strategic change and that the moderating effect is stronger when the firm is closer to bankruptcy. Our hypotheses are supported by a dataset consisting of publicly listed U.S. firms between 2008 and 2020. This study advances our knowledge of CEO career horizons and executive decision-making by examining how CEOs' perception of their legacy impacts decision-making.

INTRODUCTION

Don't just count your years, make your years count.

- George Meredith (Poet & novelist, 1828-1909)

Strategy research has long been interested in studying the effects of CEO motivation on decision-making, noting CEO career stage as a major source of such motivation. In particular, the stage of a CEO's career, indicated by closeness to retirement, is important in determining the degree of incentive the CEO has to make long-term and risky decisions in the firm (Lee, Park, & Folta, 2018; Matta & Beamish, 2008). The expected time remaining in office until retirement, also referred to as CEO career horizon, affects risky decision making, as CEOs increasingly seek career stability and security towards the end of their tenure. CEOs with shorter career horizons are more likely to focus on the short-term implications of their strategic decision-making (Kang, 2016), because their claims on the organization are restricted largely to the duration of their remaining time in office (Lee et al., 2018). The closer CEOs are to retirement, the greater is their stock of accomplishments and reputation as corporate leaders, also known as their legacy. When CEOs have shorter horizons, decisions that they undertake are more likely to focus on leaving behind a reasonably positive legacy built over time, rather than engaging in new attempts to build their legacy. For instance, studies have found that CEO career horizon is associated positively with the likelihood of international acquisitions (Matta & Beamish, 2008) and research and development (R&D) intensity (Heyden, Reimer, & Van Doom, 2017). Current research argues that CEOs with shorter career horizons, motivated by a desire to preserve their legacy (and wealth) and avoid potential losses that could be difficult to reverse in the short time prior to

their retirement, exhibit myopic loss aversion, leading to an “accentuated career horizon problem” (Matta & Beamish, 2008).

Across studies on CEO career horizon, scholars have treated career horizon as a construct that captures the objective time that a CEO has left in the office. As a result, the meaning and implication of a CEO’s legacy are assumed to be similar for CEOs with the same career horizons. Although studies incorporate the effect of factors that can alter the effect of a CEO’s career horizon such as compensation structures and firm ownership (Matta & Beamish, 2008; Lee et al., 2018), there is limited understanding of the intra-subjective variations in how time itself is perceived and evaluated differently by CEOs. This is important to address since studies have shown that individuals differ in the way they understand and interpret time and their experiences of the past, present, and future (Shipp & Jansen, 2021). Specifically, the influence of objective, clock-time based CEO career horizon is likely to be affected by subjective temporal orientation of CEOs based on how they direct their attention to the particular time periods of relevance (Nadkarni, Chen, & Chen, 2016; Shipp & Jansen, 2021).

Integrating research on subjective time and studies on career horizon, we suggest that CEOs’ perceptions of their legacy that shape their decision-making are influenced by their individual temporal orientations. Rather than the influence of objective time alone, legacy preservation motives of CEOs shall be based on the subjective time as indicated by their temporal focus. An individual’s temporal focus is a cognitive characteristic that refers to the tendency of the individual to pay attention to specific time periods – past, present and future (DesJardine & Shi, 2021; Nadkarni & Chen, 2014; Shipp, Edwards, & Lambert, 2009). We expect that CEO temporal focus determines the subjective salience of their legacy in their

decision-making. As CEO legacy is related predominantly to accomplishments situated in the past, we look specifically at one dimension of CEO temporal focus – their *past focus*. We first argue that a CEO with greater past focus assigns greater salience to their legacy across career stages, reducing the effect that CEO career horizon has on their risky decision-making. Further, we argue that a firm’s performance context will further moderate the interactive relationship between objective (CEO career horizon) versus subjective time (CEO past focus) on a CEO’s legacy salience and thereby their strategic decision making. As performance outcomes are usually attributed to the CEO’s leadership, any organizational performance issues are likely to taint the reputation of the CEO (Cho, Arthurs, Townsend, Miller, & Barden, 2016), with an increased likelihood that the CEO will be blamed for such performance issues when they leave the office. Therefore, firm performance lapses become critical determinants in decisions that CEOs take to ensure that they are remembered for the positive outcomes they made in their organizations.

We explore how these factors together influence CEOs’ decisions on firm strategy. We consider strategic change as the pertinent outcome to study for two reasons. First, strategic change is a temporally relevant construct since it is a dynamic process involving decision-making over time and continuous management of multiple considerations such as stakeholder interests and environmental conditions. Second, and more importantly, it is a long-term process that is complex and ambiguous in nature. Due to this, the returns to such changes are often uncertain and can take a significant time to accrue. Therefore, time considerations (both objective and subjective) are important determinants of a CEO’s choice to initiate new projects and changes within the organization (Bilgili, Campbell, O’Leary-Kelly, Ellstrand, & Johnson,

2020). CEOs with shorter career horizons are more concerned about preserving their legacy and avoid large strategic changes, reflecting short-termism and risk avoidance to avoid any harm to their reputation. Further, when CEOs have a greater past focus their strong orientation towards their past achievements shall reduce the impact that the objective time consideration has on strategic change. Finally, we argue that the relative effects of objective time and subjective time differ depending on the firm's performance concerns that can alter how CEOs allocate their attention between objective and subjective time influences. Based on a sample of U.S. publicly listed firms during the period 2008-2020, our study found that the positive influence of CEO career horizon on strategic change is moderated by the subjective temporal perspective of the CEO (past focus). We also found that the greater the firm's proximity to bankruptcy, the stronger the moderating effect of CEO past focus on the relationship between CEO career horizon and strategic change.

Our paper makes several contributions. First, we contribute to filling a critical gap in the CEO career horizon literature by arguing that the influence of clock-time-based career horizon on a CEO's decision-making may be affected by their subjective perception of time (temporal focus). We argue that whether CEOs have a high past focus and whether their firms are close to bankruptcy are critical boundary conditions for the complex interactions between objective and subjective time. In doing so, we show that the effects of objective time constructs such as career horizon are better understood when incorporating a subjective view of time. Second, we contribute to upper echelons research by providing a deeper understanding of how legacy matters to CEOs. Studies describing legacy as an important factor in CEOs' decision-making assume that it is predominantly measured by the years that have passed. We contend that CEO characteristics

can shape the salience of their legacy and the importance they give to their legacy. Next, we add to the literature on strategic change by detailing temporal factors as antecedents. Studies exploring CEOs and board characteristics that influence strategic change largely focus on the information-based arguments and risk-related motivations of CEOs (Hermann & Nadkarni, 2014; Westphal & Fredrickson, 2001). We extend these findings by describing how undertaking strategic change is impacted by temporal considerations of CEO career horizon and past focus, thereby responding to recent calls that ask, “How does strategic change behavior vary with “subjective” and “objective” time constructs?” (Kunisch et al., 2017: 1044).

THEORETICAL BACKGROUND

CEO Career Horizon – The Objective Time Influence

Studies of managerial careers have revealed that career influences reflect the capabilities and motivations of decision makers, manifesting in the form of outcomes at both individual and organizational levels (Ali & Zhang, 2015; Crossland, Zyung, Hiller, & Hambrick, 2014; McClelland, Barker, & Oh, 2012). Researchers have shown increasing interest in studying the impact of CEO career horizon, defined as the expected amount of time remaining until a CEO retires (Antia, Pantzalis, & Park, 2010; Krause & Semadeni, 2014). Measured in months or years, it represents a conceptualization of time based on “clock-time” or “objective time”, which is linear, homogeneous, and uniform (Ancona et al., 2001; Shipp & Fried, 2014). CEO career horizon is distinct from other related time-based constructs such as CEO tenure and CEO age, even though they are correlated and some studies use them interchangeably (e.g., Cho & Kim, 2017). CEO career horizon captures a time-based *expectation* of the CEO based on a socially constructed limiter of retirement age, whereas tenure and age capture the passage of time but

does not directly imply what it means for the CEO in terms of a sense of time pressure.

Therefore, the mechanisms underlying CEO tenure-based effects are more to do with narrow perspectives and reduced open-mindedness or increased learning, reflecting a deterministic and passive influence of time. In contrast, CEO career horizon relates to economic short-termism and legacy preservation motives that are the result of more active cognitive processes. This makes CEO career horizon an appropriate indicator of how the passage of objective time influences decision-making.

Studies have indicated that CEO career horizon has an impact on a range of outcomes, including organization R&D intensity (Heyden et al., 2017), form of board-chair separation (Krause & Semadeni, 2014), opportunistic forecasting behavior (Antia et al., 2010), international acquisitions (Matta & Beamish, 2008) and real-options intensity (Lee et al., 2018), among others. This stream of research has identified a key factor associated with the influence of time until retirement on CEO decision-making patterns: their legacy preservation motives (Kang, 2016; Matta & Beamish, 2008). According to this view, CEOs with a shorter career horizon have less time until they retire and, consequently, have a shorter period of time to influence the strategy and performance outcomes of their organization. Moreover, such CEOs reduce their risk-taking behavior as they get closer to retirement to preserve their existing success (Matta & Beamish, 2008). Prior research assumes that CEOs at a later stage of their career (short career horizon) must have already achieved a greater degree of success than those with longer horizons, otherwise it would be unlikely that they could have reached such an advanced stage in their career (Heyden et al., 2017). In line with such arguments, scholars have found that CEO career horizon is associated positively with the R&D intensity and international acquisitions. Since

these are often both risky and long term, they are less attractive to short-horizon CEOs (Cazier, 2011; Heyden et al., 2017).

CEO Past Focus – The Subjective Time Influence

Time does not merely exist objectively but is also subjectively experienced by individuals in an organization based on their characteristics, beliefs and external situations (Bluedorn, 2002; Shipp & Cole, 2015). Individuals differ in how they perceive and interpret time and the attention they pay to different time periods (Tang et al., 2019). Of particular interest to our study is the CEO's temporal focus, which refers to the extent to which individuals characteristically direct their attention to the past, present and/or future (Nadkarni & Chen, 2014; Shipp et al., 2009). A high past focus is associated with reflection on the past and repeated use of past memories in decision making. Individuals with a strong present focus possess a "here and now" orientation and emphasize the current time frame in decision making; this tendency is associated with seizing of opportunities and spontaneous behaviors. Future focus is primarily concerned with thinking about what the future holds and with envisioning future events (Bluedorn, 2002). Past, present, and future foci are distinct dimensions, rather than opposite ends of a continuum. CEOs have different patterns of temporal foci (Nadkarni & Chen, 2014). As seen in previous research involving CEO temporal focus, not every dimension is expected to have a meaningful impact on the context being studied. Scholars identify which dimensions are relevant to the research question and phenomenon, as individuals' tendencies to focus on past, present and future have independent effects on their decision making (DesJardine & Shi, 2021; Gamache & McNamara, 2019). For example, in their study on the impact of negative media evaluations of acquisition announcements and subsequent acquisition spending, Gamache and McNamara (2019) have

hypothesized moderating effects of CEO past and future foci but not present focus. This is because past and future foci influence the decision-making criteria of CEOs evaluating a past occurrence (media evaluations) and anticipating future outcomes (acquisition performance) whereas present focus has less relevance. In our study, we aim to examine the influence that legacy accumulated through the career history of a CEO impacts their decision making. Such a research question highlights the importance of the attention that a CEO pays to the past, rather than the present or future. Therefore, we hypothesize effects related to CEO past focus but do not explicitly make any predictions based on CEO present or future focus.

HYPOTHESES DEVELOPMENT

CEO Career Horizon and Strategic Change

CEO career horizon (or the expected amount of time to retirement) plays an important role in firm decisions and strategies since it reflects changes in priorities and preferences of CEOs as they approach retirement (Antia et al., 2008; Matta & Beamish, 2008). The decision horizon of CEOs may change in predictable ways at different stages of their career (Hambrick & Fukutomi, 1991). Given that they have built their reputation on their accomplishments as a leader of the company for a number of years, short-horizon CEOs are likely to perceive a gain context (Bilgili et al., 2020; Matta & Beamish, 2008). In other words, their career legacy is a result of years of past achievements that they would like to preserve before retirement. There are two key reasons for CEOs close to retirement wanting to preserve their legacy. First, their legacy is reflective of their reputation as a leader and is critical when they face retirement, a phase of self-evaluation during a period of social identity loss as well as personal reckoning (Bilgili et al., 2020; Haslam, Jetten, Postmes, & Haslam, 2009; Sonnenfeld, 1988). Second, the legacy is

associated with economic benefits in the form of post-retirement career and wealth opportunities, such as board appointments. As a result, CEOs with short career horizons may not be interested in the firm's long-term investment and success (Barker & Mueller, 2002; Cassell, Huang, & Sanchez, 2013; Dechow & Sloan, 1991; Naveen, 2006) and thus are less likely to initiate strategic changes.

For longer-horizon CEOs, the effect of legacy preservation is not as strong because their legacy is still under development. Instead, building a legacy motivates them to engage in more strategic change and they aim for accomplishments that can contribute to their legacy. For example, Yim's (2013) study of S&P 1500 firms found that a firm's acquisition propensity decreases with the age of its CEO, because an acquisition creates strong financial incentives for younger CEOs with a longer career horizon and less to lose. Given that legacy preservation is a stronger impetus for CEOs with shorter horizons, they will aim to prevent career-related damage by avoiding risky strategic decisions. As strategic change is a risky process with uncertain outcomes and timelines, CEOs with shorter horizons will minimize the strategic change they implement. CEOs with longer horizons are less affected by concerns of legacy conservation and therefore more open to undertaking greater degrees of strategic change in their firms. The discussion leads to our first hypothesis.

Hypothesis 1. CEO career horizon is positively associated with strategic change.

Legacy Emphasis: Moderating Effect of CEO Past Focus

Our core argument for the positive relationship between CEO career horizon and strategic change is that CEOs with shorter career horizons want to preserve their legacy by taking fewer risks. The more important question is if all CEOs reduce strategic change in response to lower

career horizons. The answer to this question depends on the extent to which legacy is a function of the passage of time (i.e., clock time moving closer to retirement) versus a more stable concern based on subjective time characteristics (i.e., past focus). Over two decades of psychology research has shown that an “individual’s temporal focus can influence profoundly how they attend to current and future outcomes” (DesJardine & Shi, 2021: 265), which in turn affects their decisions. We apply this insight of varying temporal focus to our study and argue that CEOs with the same career horizon may behave differently, depending on the extent to which they exhibit a focus on the past.

Building on previous research on temporal characteristics (e.g., Kaplan & Orlikowski, 2013; Nadkarni & Chen, 2014), we explain how CEOs engage in strategic change by rethinking their legacy and revisiting their career concerns. Intuitively, a high past focus could be considered to increase the effect of CEO career horizon by drawing attention to the past and thereby the CEO’s legacy, as the effect of career horizon is based on a motivation to preserve legacy. However, an individual’s temporal focus including past focus is relatively stable over time and situational contexts (Tang et al., 2019). CEOs who are more past focused tend to care more about what they have accumulated in the past and have “greater reliance on tried-and-true recipes from the past” (Nadkarni & Chen, 2014, p.1814). Given their strong tendency to direct attention towards past events, CEOs with a high past focus (compared to those with a low past focus) are likely to assign greater importance to events that have already occurred (Nadkarni & Chen, 2014). Their attention is allocated largely to historical events such as their professional accomplishments, praise by media and career milestones. Reliving the past directs their focus towards the reputation they have built and increases their preoccupation with conserving their

legacy. This suggests that a high past focus would prime CEOs to focus on their legacy based on their trait-like tendencies to allocate attention to the past through the years of their career and such ‘legacy emphasis’ less likely to vary over time. Thus, their motivation to initiate strategic change is lower and does not vary much with the objective time horizons they face. In other words, the effect of high past focus on strategic change trumps the effect of career horizon.

Compared to their low past focus counterparts, CEOs with a high past focus tend to have a stronger gain context, derived from their constant attention to past memories associated with their accrued legacy. In other words, the salience of the past takes precedence for CEOs with a high past focus, creating a strong “legacy emphasis”. Individuals with a low past focus are not automatically drawn to evaluate their legacy since their attention is less directed to the past. Therefore, the effect of objective time horizons is likely to play a key role in determining the salience of their legacy, and thereby the motivation to preserve it. Therefore, career horizon of high past focused CEOs is less critical in their decision to engage in strategic change, whereas it matters more to those who have low past focus. Based on the above logic, we make the following prediction:

Hypothesis 2. The positive relationship between CEO career horizon and strategic change is weakened with the level of CEO past focus. The relationship is stronger for CEOs with a lower level of past focus.

Legacy Preservation: Combined Effects of Temporal Focus and Performance Shortfalls

Given that there is a tension between the stable force of subjective time (past focus) and the dynamic impact of objective time, we expect that critical contextual cues shall shape the relative importance of these time factors in driving strategic change. Thus, we further argue that

the dominating effect of CEO past focus over career horizon proposed in H2 is strongest when firm performance presents a negative context for CEOs to respond to, making them more defensive of their legacy. Put differently, the interactive effect of CEO career horizon and CEO past focus on strategic change is even more pronounced when the firm is close to bankruptcy, a situation that brings the salience of legacy to the foreground.

Research suggests that the influence of an individual's allocation of attention can be modified when, for example, they encounter "things that evoke a strong positive or negative affective reaction" (Shipp et al., 2009, p. 2). According to this view, a CEO's target of attention, as highlighted by the goals and demands of their job, can affect the extent to which their past influences their decision-making, over and above other factors. Proximity to bankruptcy is one such stimulus that may alter the importance of CEO temporal focus relative to career horizon. When a firm's survival is threatened, the CEO perceives a strong threat to their individual legacy. Such a threat not only arouses an emotional reaction and self-reflection by the CEO but can also prompt the board of directors and external stakeholders such as shareholders, general investors and bank lenders to call into question the ability of the CEO to head the firm competently. For example, Daily and Dalton's (1995) study of U.S. firms found that CEO turnover is higher during the five-year period immediately prior to bankruptcy, indicating that CEOs are often held responsible for the dire financial situation their firms find themselves in.

Therefore, a CEO whose firm is in a situation of high proximity to bankruptcy finds their reputation in jeopardy, leading them to focus on evaluating their past achievements at a time when they are facing potential status loss (Bilgili et al., 2020). If a CEO undertakes strategic change under high proximity to bankruptcy, the potential upside is the survival of the firm, that is

not necessarily a glowing addition to the CEO's legacy as past accomplishments of high positive performance and other achievements. On the other hand, the downside risk of the firm filing for bankruptcy, leading to probable dissolution, would result in the potential for harm (i.e., bankruptcy that wipes out a CEO's legacy) being more salient than the potential for gain to a CEO's legacy. Thus, in a situation of high proximity to bankruptcy, CEOs become far more attentive to their legacy and preserving it. Such an orientation towards past achievements strengthens the effect of high past focus of CEOs relative to the importance of their career stage characterized by their career horizon.

In contrast, the relative importance of subjective and objective time influences between is unlikely to be affected when firm proximity to bankruptcy is low as it does not represent a legacy threat or any form of time pressure. Under such circumstances, there is normally no strong stimulus altering the importance a CEO assigns to various aspects of time. Thus, the above-discussed salience of past achievements that triggers the effect of past focus is absent. Therefore, we argue the following:

Hypothesis 3. Proximity to bankruptcy moderates the interactive relationship between CEO career horizon, past focus, and strategic change such that the negative interaction between CEO past focus and CEO career horizon on strategic change is stronger (more negative) under high proximity to bankruptcy.

METHODS

Data and Sample

We obtained data for our study from the Wharton Research Data Services (WRDS) databases including COMPUSTAT, Execucomp, and Capital IQ. We downloaded data

pertaining to all firms listed on COMPUSTAT for our dependent variable (strategic change), one of the two moderators (proximity to bankruptcy) and other firm-level control variables. We obtained data on CEO career horizon and other CEO-related controls from Execucomp, which covers primarily a subset of U.S. publicly listed firms, mainly those on the S&P 1500 list. Finally, we used earnings call transcripts data from Capital IQ to develop our measures of CEO past, present and future foci through text analysis. Although COMPUSTAT and Execucomp data for earlier years is available, complete data on earnings call transcripts in Capital IQ begin only in 2008. Therefore, we used data for publicly listed U.S. firms covered by these databases from 2008 to 2020. After merging the data from all these sources and removing observations with missing data for any of the necessary variables, our final sample consisted of a total of 8178 firm-year observations comprising 1,5469 distinct U.S. firms and 2,106 CEOs between 2008 and 2020.

Measures

Strategic change

Following prior research (Finkelstein & Hambrick, 1990; Zhang, 2006), we measured strategic change using a composite measure of six items that tracked changes in strategic resource allocation over time. The six items used as indicators of strategic outlays were advertising intensity (advertising expenditure/sales); R&D intensity (R&D expenditure/sales); nonproduction overhead (selling, general & administrative expenses/ sales); plant and equipment newness (net plant & equipment/gross plant and equipment); leverage (total debt/ total assets) and inventory levels (inventory/ net sales) (Triana, Miller, & Trzebiatowski, 2014; Zhang & Rajagopalan, 2010). To capture strategic change at time t , we used the change scores of each

dimension between time (t-1) and t, which has been considered an appropriate duration to study strategic change, particularly with respect to the influence of CEOs (Quigley & Hambrick, 2012; Zhang & Rajagopalan, 2010). We took the absolute value of the change scores of each dimension and standardized each change score by obtaining their z-scores to combine them into a single index (Quigley & Hambrick, 2012; Triana et al., 2014; Zhang & Rajagopalan, 2010). Finally, we summed these standardized absolute scores to obtain a final measure of strategic change (Zhang & Rajagopalan, 2010).

CEO career horizon

Existing studies on CEO career horizon use different measures to capture a CEO's expected time to retirement. The measures vary in what they define as the expected limiter of a CEO's career in terms of years, that then determines how many years they have left in their role. A common measure of CEO career horizon uses an age of 65 (or 70) as the expected age for retirement of CEOs (e.g., Krause & Semadeni 2014; Matta & Beamish, 2008) and subtracts the CEO's age from this to arrive at the value of CEO career horizon. However, this assumes that all CEOs expect to retire around such an age, which is troublesome for two reasons. First, a retirement age is not mandated by all companies for their CEOs. In the U.S., the Age Discrimination in Employment Act (ADEA) protects individuals from being forced into mandatory retirement based on their age. Although this is exempted for those in a high policymaking position such as CEOs, it implies that companies have discretion in determining the retirement policies for their CEOs. For instance, around 50% of S&P 1500 firms have a

mandatory retirement policy¹. However, even that is reversible at the discretion of the company, as evidenced from several recent examples of CEOs who were allowed to stay longer than the original retirement age mandated by their companies (e.g., Steven Kandarian of MetLife).² Therefore, there is considerable uncertainty and variance in the retirement age of CEOs.

Second, studies indicate that the average age of CEOs varies by the industry (Antia et al, 2010; Lee et al., 2018), suggesting that CEOs are on an average younger in some industries and would therefore be retiring earlier (Hambrick, Geletkanycz, & Fredrickson, 1993). The alternative measure of CEO career horizon used in prior studies aims to address these concerns by developing a measure that uses the average age and tenure of CEOs as a reference for expected retirement time. They argue that a CEO's expectation of her tenure with the firm depends on whether she is younger and newer compared to peers in their industry (Lee et al., 2018). Therefore, their measure of CEO career horizon is as follows:

$$\text{CEO career horizon}_{i,t} = [\text{CEO age}_{\text{ind medi}, t} - \text{CEO age}_{i,t}] + [\text{CEO tenure}_{\text{ind medi}, t} - \text{CEO tenure}_{i,t}]$$

where $\text{CEO age}_{\text{ind medi}, t}$ and $\text{CEO tenure}_{\text{ind medi}, t}$ are the industry medians for CEO age and tenure, respectively, at time t and $\text{CEO age}_{i,t}$ and $\text{CEO tenure}_{i,t}$ are the focal firm CEO's age and tenure, respectively, at time t .

We acknowledge that this measure incorporates the variance among industries and more accurately determines the expected horizon of CEOs. However, comparing with average age and tenure of CEOs in the industry only indicates that the CEO is expected to stay on in the firm for

¹ <https://www.wsj.com/articles/retirement-age-senior-executives-11627489957>

² <https://www.wsj.com/articles/metlife-waives-retirement-policy-for-ceo-steven-kandarian-1465915783?mod=ST1>

that long, and does not mean that they would retire at that age. CEOs in some industries may be younger but that does not suggest they retire earlier. As we believe that legacy considerations are more critical when considering retirement rather than just an exit from the firm, it is important to identify the *retirement age* of CEOs in the industry for a more accurate benchmark. Therefore, we utilize the comprehensive dataset developed by Gentry, Harrison, Quigley, & Boivie (2021) that distinguishes between different types of CEO turnover to identify actual occurrences of retirement.³ Specifically, they classify CEO departures into multiple categories of involuntary departures (due to death, illness, dismissal for performance issues or dismissal for personal issues) and voluntary departures (due to retirement or new career opportunity). Therefore, we use the instances of CEO turnover coded as involuntary departures due to retirement, to arrive at average retirement ages of CEOs within each SIC 2-digit industry each year. We then compare the focal CEO's age with the median retirement age in the given industry-year to determine their career horizon based on the following equation:

$$\text{CEO career horizon}_{i,t} = [\text{CEO retirement age}_{\text{ind } m, t} - \text{CEO age}_{i,t}]$$

where $\text{CEO age}_{\text{ind } m, t}$ is the industry mean of CEO retirement age at time t and $\text{CEO age}_{i,t}$ is the focal firm CEO's age at time t . We believe that this is a more robust measure of CEO career horizon as it addresses the variances across industries and also points to a more accurate reference age.

³ We thank the authors for making this data available. (<https://zenodo.org/record/4543893#.YoJaJeiMKUk>, version V02032021. Accessed 29 November 2021).

CEO past focus

We measured CEO past focus using the psycholinguistic approach (Pennebaker, Francis, & Booth, 2001) wherein an individual's psychological characteristics are deduced from the words he/she uses in a given text of written or spoken words. Research suggests that the language employed by executives can indicate their underlying characteristics and be used to measure a range of cognitive characteristics of CEOs such as CEO regulatory focus (Gamache, McNamara, Mannor, & Johnson, 2015) and CEO temporal focus (DesJardine & Shi, 2021; Nadkarni & Chen, 2014). For our study, we make use of quarterly earnings calls with analysts as the source of text for analyzing the language used by CEOs. Previous studies have considered earnings call transcripts to be an appropriate source for analyzing CEO language, particularly vis-a-vis temporal focus. Moreover, earnings calls are widely and more frequently available and provide a less scripted text source than options such as letters to shareholders. Additionally, the discussion in earnings calls include several topics that provide ample scope for revealing the CEO's temporal focus.

We downloaded earnings call transcripts from Capital IQ, beginning in 2008 when earnings call data first became available through this source. Capital IQ provides access to the quarterly earnings call transcripts of over 8,000 publicly listed companies, with each transcript containing information such as company name, date, time, and person speaking. It uses a rigorous data collection process for transcripts including multiple individuals to develop and edit the transcripts for accuracy. After downloading the transcripts, we extracted from them CEO presentations and Q&A sessions and used Linguistic Inquiry and Word Count (LIWC) text analysis software to perform text analysis of the language spoken by CEOs during these earnings

calls (including both presentations and Q&As). The LIWC text analysis program has been used widely in management research for text analysis, particularly to capture CEO characteristics such as CEO temporal focus. To measure CEO past focus, we used the in-built dictionary of words in LIWC to calculate the percentage of past-focus words spoken by the CEO in each transcript. Once we had measured CEO past focus for each quarter, we averaged it yearly to arrive at an annual measure of CEO past focus.

Proximity to bankruptcy

When a firm is in extreme financial distress, it is on the verge of bankruptcy (Iyer & Miller, 2008). The Altman-Z score (Altman, 1968) is an indicator of a firm's distance from bankruptcy and is measured by an index based on five accounting variables using the following formula:

$$Z = 1.2 X_1 + 1.4 X_2 + 3.3 X_3 + 0.6 X_4 + 0.999 X_5$$

where X_1 = working capital/total assets; X_2 = retained earnings/total assets; X_3 = earnings before interest and tax (EBIT)/total assets; X_4 = market value equity/total liabilities; and X_5 = sales/total assets. To capture a firm's proximity to bankruptcy, we multiplied the Altman-Z score by -1.

Control variables

We controlled for both firm and CEO characteristics that could have an impact on decisions to engage in risky action and initiate strategic change. First, at the firm-level, we controlled for firm size (natural logarithm of assets) and firm age (logged), as prior research indicates these factors can influence strategic change (Haynes & Hillman, 2010; Mintzberg, 1978). We also included firm leverage and slack (ratio of cash and marketable securities to liabilities) (Mishina, Dykes, Block, & Pollock, 2010) since both factors could influence the need

for and ability to make change. We also included multiple CEO-related controls. We controlled for CEO total compensation, as CEO wealth is known to affect risky decision making (Benartzi & Thaler, 1999; Matta & Beamish, 2008). We also controlled for CEO stock ownership (Lee et al., 2018), measured by the shares owned by the CEO (excluding options) as a percentage of the firm's total outstanding common stock. Further, we accounted for the possibility that the CEO's decision making may have been impacted by whether there was an heir apparent in the firm, particularly in the case of CEOs with shorter horizons. Heir apparent was measured using an indicator variable if an executive other than the CEO was the President or Chief Operating Officer of the firm and was at least five years younger than the CEO (Shen & Cannella, 2003). Although our temporal focus dimension of interest is CEO past focus, the level of a CEO's present and future foci may also impact their subjective view of time and thereby their legacy. Therefore, we also controlled for CEO present focus and future focus, measured similarly to CEO past focus, i.e., by text analysis of the earnings call transcripts, using the corresponding dictionaries of words for each of these two dimensions (Nadkarni & Chen, 2014; Shipp et al., 2009). Finally, we included year- and SIC 2-digit industry-dummies to account for time and industry fixed effects. All independent and control variables were lagged by one year.

Statistical Modeling

For our main analyses, we used random-effects ordinary least squares (OLS) analysis with robust standard errors. Our choice to use random effects was driven by the fact that our theory would be applicable to both within- and between-firm effects of the key variables including CEO career horizon. Fixed-effects estimations can address the issue of unobserved heterogeneity of firms (Certo & Semadeni, 2006) but could also lead to type II errors when the

independent variable does not vary significantly over time within the same firm (Lee et al., 2020). Therefore, we chose to use random-effects regression for our main analyses. In our supplementary analyses, we use generalized estimating equations (GEE) and an identification approach to check the robustness of our results. We excluded the first year of each CEO’s tenure from our sample as it is a period of transition and multiple changes (Fredrickson, Hambrick, & Baumrin, 1988; Lee, Gupta, & Hambrick, 2022).

RESULTS

We present the means, standard deviations and correlations of the variables in Table 2.1. To eliminate concerns of multicollinearity, we tested the variance inflation factors (VIFs) of the variables in our model. The VIFs of the variables are below 3, which is far below the recommended cut-off of 10 (Cohen, Cohen, West, & Aiken, 2003), suggesting that multicollinearity is unlikely to be an issue. The average retirement age of CEOs in our sample was around 50 years, and the average career horizon of CEOs in our sample was around 3.79 years.

Table 2.1. Descriptive Statistics and Correlations

	Variables	Mean	S.D.	1	2	3	4	5	6
1	Strategic Change	-1.016	1.138	1					
2	CEO career horizon	3.790	7.956	0.05	1				
3	CEO past focus	2.829	0.752	-0.06	-0.01	1			
4	Proximity to bankruptcy	-2.671	2.310	0.13	0.05	-0.06	1		
5	Firm size ^a	7.607	1.635	-0.17	-0.04	0.05	0.04	1	
6	Firm age ^a	2.972	0.841	-0.15	-0.12	0.07	-0.02	0.3	1

Table 2.1, continued

7	Leverage	0.221	0.216	0.03	0.02	0.06	0.21	0.3	0.01
8	Slack	0.625	1.190	0.13	0.04	-0.15	-0.05	-0.36	-0.18
9	Total compensation ^b	5796.129	4725.407	-0.07	-0.06	0.01	-0.01	0.71	0.21
10	CEO stock ownership	1.721	4.003	0.03	-0.17	-0.04	-0.06	-0.24	-0.16
11	Heir apparent ^c	0.196	0.397	-0.03	-0.28	0.02	-0.04	0.09	0.04
12	Future focus	1.956	0.526	0.04	-0.09	-0.12	0.08	0.03	0.04
13	Present focus	12.106	1.774	0	-0.13	-0.1	-0.01	0.07	0.04
		7	8	9	10	11	12	13	
7	Leverage	1							
8	Slack	-0.36	1						
9	Total compensation	0.2	-0.2	1					
10	CEO stock ownership	-0.14	0.11	-0.19	1				
11	Heir apparent	0.05	-0.07	0.08	0.05	1			
12	CEO future focus	0.03	0.01	0	0	0.01	1		
13	CEO present focus	0.03	-0.03	0.07	0.08	0.05	0.18	1	

Note: n=8178

^bNatural logarithm

^cIn thousands

^dBinary

Table 2.2 presents the results of random-effects OLS regression analysis. Model 1 includes all control variables and moderating variables. In Model 2, we included the independent variable CEO career horizon to test H1, which suggests that CEOs with longer career horizons engage in more strategic change than CEOs with shorter horizons. Model 2 shows that the coefficient of CEO career horizon is positive and significant ($b=0.004$, $p<.05$), lending support to H1.

In H2, we argue that the relationship between CEO career horizon and strategic change is weaker when CEO past focus is higher. As indicated in Model 3, the coefficient of the moderating effect between CEO career horizon and past focus is negative and significant ($b = -0.004, p < .05$), providing support for H2. In Figure 1, we plotted the moderating effect of CEO past focus on the relationship between CEO career horizon and strategic change. As shown, we find that the positive relationship between CEO career horizon and strategic change is weaker when CEO past focus is high. Further, simple slopes analysis suggests that the effect of CEO career horizon is only significant at low levels of past focus ($b = 0.005, p = .015$) and that the effect is insignificant when past focus is high ($b = -0.001, p = .597$).

According to H3, we propose that this negative moderating effect is strongest when the firm's proximity to bankruptcy is high. We tested H3 in two different ways. First, we used the 3-way interaction term between CEO career horizon, past focus and firm proximity to bankruptcy. Model 4 includes the moderating effect of proximity to bankruptcy as well as the corresponding 2-way interaction components. The coefficient of the 3-way interaction term is negative and significant ($b = -0.002, p < .05$), supporting H3. Second, we performed a subsample analysis of the interaction effect between CEO career horizon and past focus by dividing the sample into firms that have low and high levels of proximity to bankruptcy. The subsamples were generated by splitting the overall sample at the median value of proximity to bankruptcy. As shown in Model 6, we find that the negative moderating effect of CEO past focus is indeed more negative and significant at higher levels of proximity to bankruptcy ($b = -0.009, p < .01$). Moreover, we find from Model 5 that the effect is insignificant when the firm is not close to bankruptcy (low values of proximity to bankruptcy).

In terms of interaction plots, at low levels of proximity to bankruptcy (Figure 2a), we find that CEO past focus has a slightly positive moderating effect. However, simple slopes analysis indicates that the slopes at both low ($b=0.002$, $p=.525$) and high levels ($b=0.003$, $p=.510$) of past focus are not significant. From Figure 2b, the simple slopes analysis for the plots at high proximity to bankruptcy shows a positive significant effect at low levels of past focus ($b=0.012$, $p=.001$) and a negative but insignificant effect at high past focus ($b=-0.004$, $p=.307$). Based on the direction and size of effects observed, we find that the effect of CEO career horizon on strategic change is least positive (most negative) when past focus is high and proximity to bankruptcy is high, supporting H3.

Table 2.2. Results of Random-effects OLS Estimation of CEO Career Horizon on Strategic Change

Variable	3-way interaction effect			Subsample analysis		
	(1)	(2)	(3)	(4)	(5)	(6)
CEO career horizon (H1)		0.004*	0.015**	0.036***	-0.001	0.031***
		(0.002)	(0.006)	(0.010)	(0.007)	(0.009)
CEO career horizon*CEO past focus (H2)			-0.004*	-0.011***	0.001	-0.009**
			(0.002)	(0.003)	(0.002)	(0.003)
CEO career horizon*CEO past focus*Proximity to				-0.002*		
				(0.001)		
CEO past focus	-0.010	-0.009	0.001	0.077	0.010	0.009
	(0.019)	(0.019)	(0.019)	(0.084)	(0.023)	(0.030)
Proximity to bankruptcy	0.035*	0.034*	0.035*	-0.033	-0.039*	0.044+
	(0.014)	(0.014)	(0.014)	(0.060)	(0.018)	(0.024)
CEO career horizon*Proximity to bankruptcy				0.007*		
				(0.003)		
CEO past focus*Proximity to bankruptcy				0.025		
				(0.026)		
Firm size	-0.129***	-0.130***	-0.130***	-0.132***	-0.101***	-0.123***
	(0.019)	(0.019)	(0.019)	(0.020)	(0.025)	(0.024)
Firm age	-0.106***	-0.101***	-0.101***	-0.098***	-0.103***	-0.100**
	(0.024)	(0.024)	(0.024)	(0.024)	(0.027)	(0.034)
Leverage	0.159	0.160	0.163	0.159	0.236+	0.164
	(0.137)	(0.137)	(0.137)	(0.136)	(0.121)	(0.216)
Slack	0.065**	0.065**	0.064**	0.068**	0.048*	0.109**
	(0.021)	(0.021)	(0.021)	(0.021)	(0.021)	(0.040)
Total compensation	0.008+	0.008*	0.008*	0.009*	0.002	0.009
	(0.004)	(0.004)	(0.004)	(0.004)	(0.006)	(0.006)
CEO stock ownership	-0.006+	-0.005	-0.005	-0.004	-0.004	-0.005
	(0.004)	(0.004)	(0.004)	(0.004)	(0.005)	(0.008)

Table 2.2, continued

Heir apparent	-0.027 (0.028)	-0.010 (0.029)	-0.012 (0.029)	-0.014 (0.030)	-0.041 (0.043)	-0.014 (0.040)
CEO future focus	0.033 (0.026)	0.036 (0.026)	0.035 (0.026)	0.034 (0.026)	-0.057+ (0.034)	0.105** (0.039)
CEO present focus	-0.004 (0.009)	-0.003 (0.009)	-0.003 (0.009)	-0.004 (0.009)	-0.001 (0.013)	-0.000 (0.012)
Constant	1.411* (0.571)	1.028*** (0.306)	0.959** (0.308)	0.745* (0.362)	0.768* (0.344)	0.779 (0.707)
Observations	8178	8178	8178	8178	4089	4089
R square	0.1396	0.1404	0.141	0.1423	0.1609	0.1702

Note: Industry and year fixed effects included in all models. Standard errors are in parentheses.

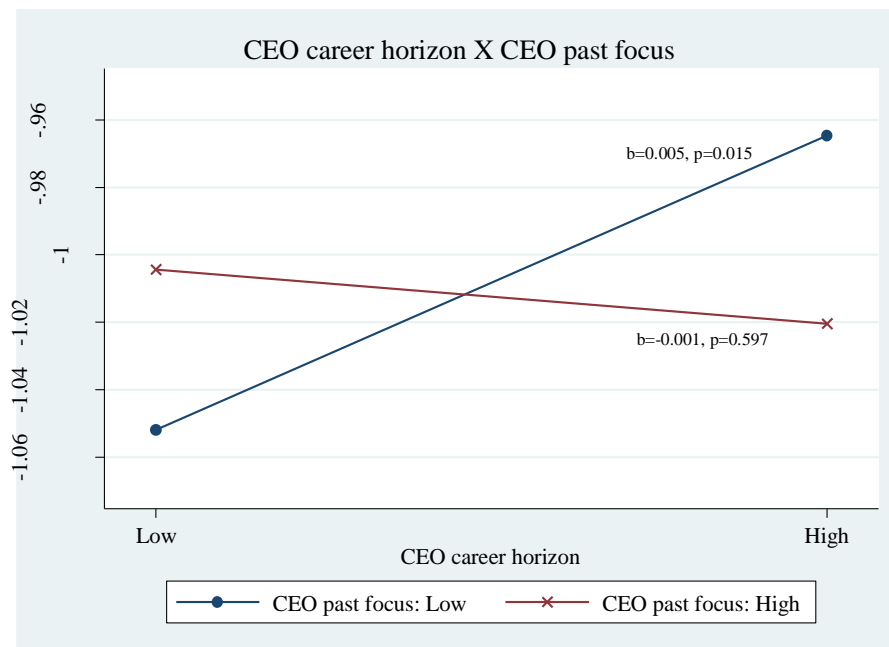


Figure 2.1. Interaction between CEO Career Horizon and CEO Past Focus

Supplementary Analyses

We performed supplementary analyses to check the robustness of our results as described below.

GEE estimation. First, we used generalized estimating equations (GEE) to test our hypotheses, as shown in Table 2.3. Generalized estimating equation models provide population-averaged

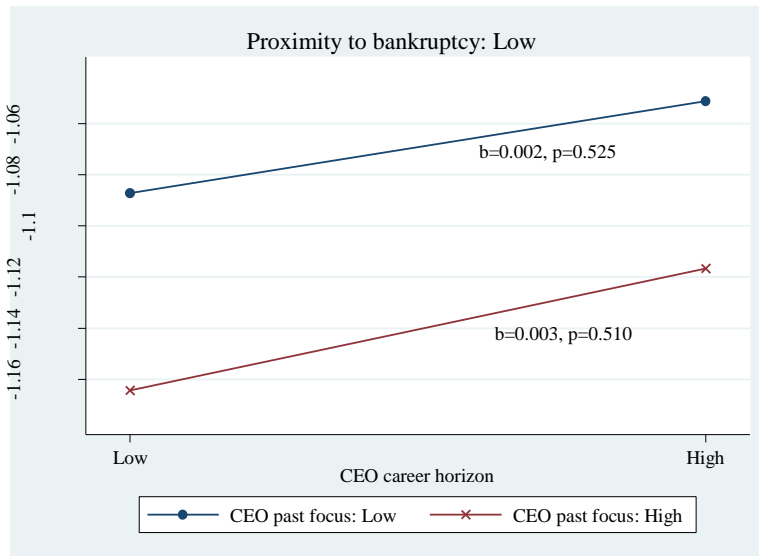


Figure 2.2a. Interaction between CEO Career Horizon and CEO Past Focus at Low Level of Proximity to Bankruptcy

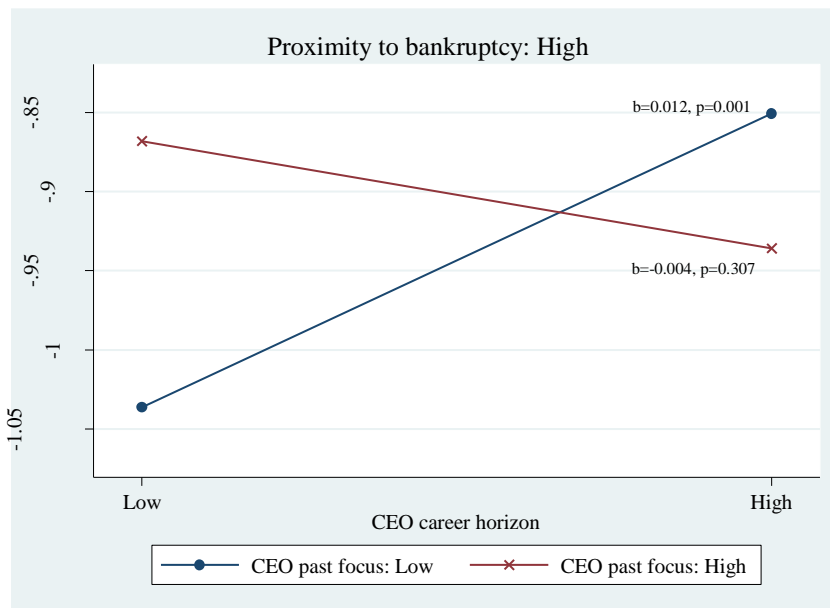


Figure 2.2b. Interaction between CEO Career Horizon and CEO Past Focus at High Level of Proximity to Bankruptcy

maximum likelihood estimates that account for the non-independence of multiple observations from the same firm. Since our dependent variable is continuous, we specified a normal distribution and an identity link function (Quigley, Hubbard, Ward, & Graffin, 2020) and an independent correlation structure. We used the command *xtgee* in Stata to test all our hypotheses. Our results show that CEO career horizon is associated positively with strategic change ($b=0.004, p<.05$) and that this effect is reduced when past focus is high ($b=-0.004, p<.05$), lending support to hypotheses H1 and H2, respectively. The effect of CEO career horizon on strategic change is weakest when both past focus and proximity to bankruptcy are high, as seen from the coefficient ($b=-0.002, p<.05$) on the 3-way interaction term in Model 3, further supporting H3.

Table 2.3. Results of Generalized Estimating Equations (GEE) Analysis

Variable	(1)	(2)	(3)
CEO career horizon (H1)	0.004*	0.015**	0.037***
	-0.002	-0.006	-0.01
CEO career horizon*CEO past focus (H2)		-0.004*	-0.012***
		-0.002	-0.003
CEO career horizon*CEO past focus*Proximity to bankruptcy (H3)			-0.002*
			-0.001
CEO past focus	-0.011	0.000	0.070
	-0.019	-0.019	-0.081
Proximity to bankruptcy	0.039**	0.039**	-0.024
	-0.014	-0.014	-0.058
CEO career horizon*Proximity to bankruptcy			0.007*
			-0.003
CEO past focus*Proximity to bankruptcy			0.023
			-0.025
Firm size	-0.132***	-0.132***	-0.134***
	-0.018	-0.018	-0.019
Firm age	-0.100***	-0.100***	-0.098***
	-0.023	-0.023	-0.024

Table 2.3, continued

Leverage	0.189	0.193	0.188
	-0.123	-0.122	-0.122
Slack	0.068**	0.068**	0.071***
	-0.021	-0.021	-0.021
Total compensation	0.009*	0.009*	0.010*
	-0.004	-0.004	-0.004
CEO stock ownership	-0.004	-0.005	-0.004
	-0.004	-0.004	-0.004
Heir apparent	-0.012	-0.014	-0.015
	-0.029	-0.029	-0.029
CEO future focus	0.038	0.037	0.036
	-0.025	-0.025	-0.025
CEO present focus	-0.003	-0.003	-0.004
	-0.009	-0.009	-0.009
Constant	1.021***	0.952**	0.750*
	-0.307	-0.308	-0.363
Observations	8178	8178	8178
Wald Chi-Square	890.12	894.35	900.83

Note: Industry and year fixed effects included in all models. Standard errors are in parentheses.

Alternative measure of CEO career horizon – Identification Approach. Second, it is possible that common unobserved factors influence both CEO career horizon and strategic change, leading to endogeneity concerns. Therefore, to test our main effect, we employed an identification technique used in prior research (Aktas, Boone, Croci, & Signori, 2021) to measure exogenous reductions to the CEO’s career horizon. As we only test our main effect, we expanded our sample back to the year 1990 to identify events where the CEO’s career horizon shortened suddenly due to either a serious illness diagnosed in the CEO or a close relative, or the death of a close relative (Aktas et al., 2021). We then used a difference-in-differences approach to examine the effect of the reduced CEO career horizon by matching these firm-year events with up to 5 other observations from the same industry and year and similar asset size, following

the firms from years $t=-3$ to $t=+3$, where the shock occurred at time $t=0$. The variable “shock” was set to 1 for the treatment firms while matched control firms that did not have the exogenous shock were given a value of 0. The variable “post” is a categorical variable that was set to 1 for all years after the shock and to 0 for the other years. We estimated the effect using the model given below:

$$SC_{it} = a_1 shock + a_2 post + a_3 (shock * post) + a_4 controls_{it} + year + industry$$

where SC refers to strategic change of firm i at time t and year and industry refer to time- and industry-fixed effects. We also controlled for firm size, performance and slack and used robust standard errors. The coefficient of the interaction term “shock*post” indicates the difference in strategic change between the treatment and control firms before and after the exogenous shock to career horizon. Based on the coefficient of shock*post ($b= -0.137, p<.05$) in Model 1 of Table 2.4, we find that reduction in CEO career horizon has a negative impact on strategic change. In other words, CEO career horizon is positively associated with strategic change, providing further support to H1.

Table 2.4. Supplementary Analysis: Effect of Exogenous Shock to CEO Career Horizon on Strategic Change

Variable	(1)
Post	-0.042 (0.068)
Shock	-0.150 (0.098)
Shock × Post (H1) ^a	-0.137* (0.068)
Firm size	-0.021 (0.033)
Firm performance	-1.356* (0.541)
Slack	0.025 (0.036)
Constant	-0.487 (0.303)

Table 2.4, continued

Year & Industry fixed effects	Yes
Observations	968
R-squared	0.118

Note: ^a Variable “Shock × Post” represents an exogenous reduction in career horizon and therefore is expected to have a negative relationship with strategic change as per H1. Industry and year fixed effects included. Standard errors are in parentheses.

DISCUSSION

This paper advances our understanding of how a CEO’s expectation of their remaining tenure influences their risk-taking behavior, taking the consequences to their legacy into account. Prior research explored how career horizon could impact a CEO’s strategic decisions, e.g., investing in real-options and undertaking international acquisitions. Using a temporal lens in relation to CEO legacy, we propose that such legacy preservation motives extend to decisions about change in firm strategy, manifesting in the form of changes to resource allocation patterns. With less time until retirement as the company leader, short-horizon CEOs are expected to be more conservative so as to protect their legacy built over the years and thus avoid engaging in large strategic changes that could be risky and only generate results in the long-term. Our results lend support to this hypothesis, suggesting that CEOs become more wary of redirecting resources and changing the course of their company’s strategic directions as they approach retirement.

More importantly, we explore the boundary conditions for the aforementioned effect, based on factors that alter the legacy emphasis of CEOs. Along with career horizon, which is measured by objective time, we study the effect of CEO temporal focus, which reflects individually perceived subjective time. More specifically, we examine the moderating effect of past focus, which is particularly relevant to testing our legacy preservation mechanism. As CEO past focus leads to a focus on historical achievements, the gain context in terms of legacy dominates, reducing the effect that objective time (CEO career horizon) has on strategic change.

Therefore, the relationship between career horizon and strategic change becomes weaker, suggesting that the construal of one's legacy is likely to be subjectively different based on cognitive characteristics such as temporal focus.

Further, we set out to understand how severe threats to legacy affect the interplay between objective time (CEO career horizon) and subjective time (past focus). We consider the case where the firm is in financial distress and the CEO faces a threat to his/ her legacy. Examining the moderating effect of proximity to bankruptcy, we find that the negative moderating effect of CEO past focus on the relationship between career horizon and strategic change is strongest when the firm is closer to bankruptcy. In such dire situations, a CEO's concern with preserving their legacy is likely to intensify the focus on their past achievements and therefore lead to a stronger negative moderating effect of past focus on strategic change vis-à-vis their career horizon.

Contributions

Our study contributes to the literature on CEO career horizon by bringing in a temporal perspective to deepen our understanding of CEO legacy preservation motives. Previous studies examined describe legacy concerns as a key reason for short-termism exhibited by CEOs with shorter horizons (Matta & Beamish, 2008). However, our understanding of the black box of legacy is rather limited. These studies assume that the influence of career horizon is homogeneous across CEOs such that CEOs with the same career horizon will view the importance of their legacy similarly in their decision-making. In our study, we show that legacy goes beyond the years that have accrued and varies in salience based on the subjective perceptions of individual CEOs.

Adopting a temporal perspective, we argue that the influence of CEO career horizon – an objective-time measure of remaining time in office – is affected by CEO past focus (perception of the salience of the past). Introducing subjective time into the study of the influence of career horizon on strategic change better reflects how multiple temporal factors are intertwined in practice. CEOs having the same career horizon may perceive their legacy differently depending on the extent to which they are past-focused. Moreover, the dynamics of career horizon and past focus are affected by the contextual factor of proximity to bankruptcy, which brings the salience of threat to CEO legacy to the foreground. In summary, our study enriches career horizon literature by recognizing the fact that career horizon is measured by objective time and, as such, its influence is subject to a CEO's subjective experience of time. Taking into account the effect of subjective time provides a more comprehensive understanding of career horizon.

Finally, we contribute to the research on strategic change and risky decision-making by detailing CEO career horizon and cognition as an important antecedent of such decisions, specifically answering calls for further research incorporating change agents' perception of time in predicting strategic change (Kunisch, Bartunek, Mueller, & Huy, 2017). Strategic change reflects the firm's response to the need to adapt to changes in the environment (Carpenter, 2000; Triana et al., 2014) and has been known to be impacted by several factors, including board and CEO characteristics (Finkelstein & Hambrick, 1990; Haynes & Hillman, 2010; Triana et al., 2014) and managerial compensation (Carpenter, 2000). Our study adds to the understanding of strategic change by exploring an under-researched mechanism that takes into consideration the effect of a change agent's (CEO's) perception of time – past focus – on legacy preservation motives.

This study also contributes to practice. Firms that have CEOs with shorter horizons need to be aware of how the legacy concerns of such CEOs could affect the decisions they take, particularly through the influence of their cognitive characteristics. For example, prior studies have shown that corporate governance initiatives such as long-term incentives may help reduce the risk-averse behavior of short career horizon CEOs (Lee et al., 2018). However, our study highlights the need to consider individual cognitive characteristics of CEOs beyond their career horizon in determining what incentives to provide. Moreover, a firm's severe financial distress may also change the balance of importance CEOs assign in their decision making to their expected tenure versus their more stable characteristics such as past focus. Firms must pay special attention to designing compensation and other governance factors in such extreme performance contexts.

Limitations and Future Research

This study has some limitations. While we explore the effect of CEO career horizon using a measure of expected time to retirement in a linear manner, it would be interesting to see whether the effects vary across the different seasons of a CEO's career. For example, future studies could examine whether performance crises are most significant for CEOs in the final year of their tenure or the first year of their appointment. Researchers could also compare behaviors of early-, mid- and late-career CEOs and investigate whether, for example, the notion of a "mid-career crisis" exists among CEOs (see Vongalis-Macrow, 2011)

We did not test explicitly the mechanism or the actual process of CEO decision making. That said, our test of the boundary conditions does provide some evidence of the underlying mechanism of loss aversion. Future studies could adopt a qualitative approach by interviewing

CEOs of various career horizons, performing an experiment with CEOs included as subjects, or conducting a questionnaire/survey of CEOs. Finally, it might also be interesting to see if positive performance contexts such as exceeding analyst expectations reduces the salience of legacy preservation concerns, resulting in an opposite effect. While offering these suggestions, we also understand the difficulties inherent in these approaches vis-a-vis limited research access to CEOs.

CONCLUSION

Our study enhances the understanding of how CEO career horizon affects risk-taking behavior in firms. Using an overarching theory of objective and subjective time, we find that CEO career horizon is associated positively with strategic change. Further, the effect of career horizon on strategic change is weakened when CEOs have high past focus. This effect is further strengthened by firm proximity to bankruptcy. To conclude, our results provide a clearer picture of how temporal factors drive the impact of CEO career horizon on their strategic decision-making.

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CHAPTER 3
THE IMPACT OF CEO SOCIAL CLASS ORIGIN ON FIRM COMPETITIVE
REPERTOIRES

Abstract

Drawing from the literature on social class, we argue that CEO social class impacts the characteristics of firm competitive actions. Specifically, we suggest that CEO social class impacts whether CEOs favor complex versus simpler competitive actions and engage in competitive conformity versus non-conformity. Using a socio-cognitive lens, we theorize that social class influences how CEOs' view their relationships with others and therefore their ideas of how to compete. We find that social class is associated with greater competitive complexity and non-conformity and these effects are strengthened when CEOs face threats to their social status. We test our predictions with a sample of 601 firm-year observations from S&P 1500 firms and find support for our hypotheses. We contribute to the research on competitive strategy and show how social class impacts socially embedded risk-taking.

Why do firms differ in their competitive actions? Some firms compete, for example by relying on a simple strategic repertoire, meaning that these firms exploit existing strengths via limiting their competitive actions to what they do well (Ferrier & Lyon, 2004; Ferrier, Smith & Grimm, 1999; Miller, 1993). In contrast, other firms compete by relying on a complex strategic repertoire, meaning that these firms seek new strengths via trying a broad variety of competitive actions (Ferrier, 2001; Ferrier & Lyon, 2004; Ndofor, Sirmon, & He, 2011; Connelly, Tihanyi, Ketchen, Carnes, & Ferrier, 2017). Firms may also follow the norms of their industry or choose to rely instead on non-conformist competitive actions to manage their competitive environment (Miller & Chen, 1996). Existing research provides various explanations for why firms differ in such competitive actions. Such explanations range from external competitive pressures such as stability of the industry environment (Miller & Chen, 1996), to top management team heterogeneity (Hambrick, Cho, & Chen, 1996), managerial racial diversity (Andrevski, Richard, Shaw, & Ferrier, 2014), firm ownership and CEO-TMT pay gap (Connelly, Hoskisson, Tihanyi, & Certo, 2010; Connelly et al., 2017). Consistent with Upper Echelons Theory (UET), previous research also suggests that the beliefs and experiences of the key decision-maker in the firm - the CEO - are likely to have a decisive impact on firms' competitive actions via their impact on CEO priorities and preferred courses of action (Chin, Hambrick, and Trevino, 2013; Hambrick & Mason, 1984; Hambrick, 2007). Research in this area, however, has been limited to looking at the effect of CEO industry experience (Marcel, Barr, & Duhaime, 2011) and CEO provocativeness and humility on firm competitive dynamics (Hill, Recendes, & Ridge 2019). In this study, we suggest that a less explored CEO experience - CEO social class origin - may be particularly relevant in terms of impact on firm competitive actions. Competitive action

repertoires, or sets of actions (Miller & Chen, 1996; Ferrier, 2001), differ as to whether they prioritize effective resource utilization and good relationships with stakeholders, such as customers and competitors (simple competitive actions), or beating the competition at a cost to resources (complex competitive actions). Competitive repertoires also differ in the tendency to fit in with the competition (conformist competitive repertoires) vs. a preference to achieve competitive advantage via deviating from industry norms (non-conformist competitive repertoires). We argue in this paper that CEO social class-based tendencies impact CEO priorities and preferences in resource utilization; surprising and beating market competition; and adherence to norms of competing, thus affecting their firms' competitive repertoires.

Using an overarching social-cognitive lens, we explore how social class-based experiences generate differences in preferred modes of actions in a social context (Côté, 2011; Markus & Fiske, 2012). Individuals who come from a lower-class background are expected to care more about effective resource utilization than those from higher class background due to the former's experience with resource scarcity (Côté, 2011; Williams, 2012). Additionally, CEO social class origin is expected to affect how they choose to maneuver a challenging competitive environment. They could choose to build a stable relationship with customers and other competitors and succeed through ensuring predictability or they could provoke the competition and engaging in aggressive or unique competitive actions. Lower class individuals tend to be socialized to see themselves as interdependent with others, to strive to maintain good relationships with others and to fit in via conforming with community norms (Stephens, Townsend, Markus, & Phillips, 2012; Stephens, Markus, & Philips, 2014). In contrast, higher class individuals are socialized to see themselves as less interdependent with others and strive for individual achievement that

distinguishes them from others (Kraus, Piff, Mendoza-Denton, Rheinschmidt, & Keltner, 2012; Kraus, Tan, & Tannenbaum, 2013). Our premise is that CEOs from lower social classes shall use competitive repertoires of lower complexity and non-conformity than their higher-class counterparts, in line with their ideas of what are appropriate and ideal means in a social context. We further expect that status threat makes salient their values and beliefs about relationships and social norms and strengthens their original choices of how to compete.

Our research makes make three main contributions. First, we contribute to research on competitive actions in two ways. One, we contribute to the research via highlighting the importance of CEO social class origin in shaping competitive actions. Previous research on firm competitive actions paid little attention to the impact of CEO characteristics and experience on firm competitive actions (see Hill, Recendes & Ridge, 2019, as an exception). By highlighting the role of CEO social class origin in impacting competitive actions, we suggest a new answer to the age-old question of why firms compete in different ways (Chen & Miller, 2012). Two, we highlight that competitive action repertoires differ as to whether they prioritize the desire to maintain a good relationship with customers or other competitors, or else are oriented towards being highly competitive in market competition and distinguishing themselves from other competitors. While it is implicit in research on competitive dynamics that competitive repertoires differ in these domains (Chen & Miller, 2012; Smith, Grimm, Gannon, & Chen, 1991), we make explicit these important differences in competitive actions and rely on them to explain the relationship between CEO social class origin-based experiences and competitive repertoires.

Second, we contribute to the research on upper echelons theory (Hambrick & Mason, 1984) by articulating a novel mechanism through which CEO characteristics influences their

decision-making: their independent or interdependent self-construal. We show that the influences of class-based tendencies differ depending on the type of risk entailed. We theorize that a CEO's early experience with social interdependence/independence impacts their priorities and perceived best course of action, which we argue are the mechanisms that link CEO social class origin to firm competitive repertoires. While previous studies have explored how CEO social class can impact risk-taking that is internally focused (Kish-Gephart & Campbell, 2017), it is critical to understand how such effects differ when actions are socially situated.

Our third contribution is to contingency research on the effect of CEO social class origin on firm competitive actions. Given that social status threat - specifically a loss in relative status - can affect the perception of individuals' relationship with others, we explore how this changes the response of CEOs from different classes in their competitive actions. Previous work suggests that individuals from all social classes are sensitive to such threats and may alter competitive behavior when faced with such a threat (Fritsche & Jugert, 2017; Markus & Stephens, 2017).

We tested our predictions with different data sources, including hand-collected survey data from 106 CEOs in S&P 1500 companies as at 2019 that captured CEO social class origin and secondary data from RavenPack News Analytics that allows us to calculate competitive repertoire complexity and non-conformity. These data sources yielded a sample of 601 firm-year observations. We found support for our hypotheses. In the following sections, we discuss the theory on social class and competitive dynamics and develop our hypotheses.

SOCIAL CLASS

Childhood experiences with social class tend to have a long-lasting and powerful effect on individual beliefs and experiences that in turn affect individual priorities and preferences for

action across situations (Kish-Gephart & Campbell, 2015; Stephens, Markus & Fryberg, 2012). Early experiences with social class may impact beliefs via family socialization into attendant norms, beliefs and practices that correspond to shared social contexts (Markus & Kitayama, 2010; Stephens et al., 2014). These experiences may additionally impact beliefs via ‘imprinting’, “a process whereby, during a brief period of susceptibility, a focal entity develops characteristics that reflect prominent features of the environment and continue to persist despite significant environmental changes in subsequent periods” (Marquis & Tilcsik, 2013: 199).

Childhood socialization and imprinting into social class contexts shape an individual’s understanding of who they are, their relationship with others and the material and societal constraints that one needs to deal with (Kraus et al., 2012; Feng & Johansson, 2018; Stephens et al., 2014). Lower class contexts, characterized by material constraints and limited avenues for exerting control and choice, result in an *interdependent* model of the self. Such interdependent models of self assume that the ideal way for a person to act or exercise agency is to adjust to the social context, view themselves as interdependent with others and try to fit in with or be similar to the group, highlighting a focus on communal norms (Stephens et al., 2012, 2014). For instance, individuals from lower class contexts perform better when working together in teams (Dittman, Stephens, & Townsend, 2020), as they are acculturated to engaging in collaborative actions such as integrating different perspectives (Brienza & Grossman, 2017) and being socially responsive (Kraus & Keltner, 2009).

In contrast, upper class contexts are characterized by an abundance of opportunities to exercise choice and a focus on independent thought and action (Markus & Kitayama, 2003), promoting an *independent* model of the self that assumes that it is most appropriate and preferred for an

individual to take charge, express their own interests and goals and act distinct from others (Stephens, Markus, & Townsend, 2007). Such a perspective emphasizes individual merit and achievement over the wishes and goals of others (Kraus, Piff, & Keltner, 2009; Belmi & Laurin, 2016).

We suggest that childhood socialization into social class and social class-related experiences that shape their relationships with others affects CEO priorities and choices when it comes to the type of competitive repertoires they use.

HYPOTHESES DEVELOPMENT

Competitive repertoires

Competitive actions - also called competitive repertoires - are a sequence and combination of competitive moves that a firm uses over a given period of time to attract customers and to gain legitimacy and market power (Ferrier, 2001; Yu, Subramaniam, & Cannella, 2009). Competitive repertoires are characterized by a) *competitive complexity*, with simple and predictable sets of actions at one end vs. complex and unpredictable actions at the other end of the competitive complexity spectrum; and b) *competitive (non) conformity*, with actions that conform with industry norms at one end and actions that deviate from industry norms at the other end of the competitive (non) conformity spectrum. A firm may use a wide variety of competitive actions in the areas of marketing: introduction of new commercials; pricing, such as cutting product prices; and initiatives involving partnerships such as strategic alliances (Connelly et al., 2010, 2017). When a firm uses only a few actions repeatedly and follows similar patterns of using certain competitive actions, the repertoire is considered to be simple. Such a simple competitive repertoire is aimed at optimizing resource usage and creating

a predictable, positive relationship with stakeholders, including regulators, customers, and competitors. These competitive repertoires are often effective in improving firm performance, particularly in the shorter term and within a stable industry environment (Miller & Chen, 1996).

Some firms may, however, elect to try competitive actions that they have not used previously, introduce a wider variety of competitive actions and change their competitive action patterns over time. Such complex competitive repertoires are marked by elements of surprise, unpredictability and diversity that become more complicated and difficult for competitors to retaliate against. Complex repertoires are resource intensive but may improve firm competitive advantage in the long run and impact other outcomes such as profitability (Ndofor, Sirmon, & He, 2011; Ferrier & Lyon, 2004) and firm reputation (Basdeo, Smith, Grimm, Rindova, & Derfus, 2006). However, these are also marked by aggressive tactics aimed at disrupting the status quo in the industry (D' Aveni, 1994).

Firm competitive repertoires are also characterized by conformity vs. non-conformity with industry norms. Some firms use sets of competitive actions that adhere closely to de facto norms in the competitive market, adopting more isomorphic or conformist repertoires (Ndofor et al., 2011). Such repertoires, because they are associated with greater legitimacy, can be useful for gaining approval from external stakeholders such as regulators and customers. On the other hand, some firms may gain competitive advantage by deviating from typical patterns of action in a way that can be distinct and difficult for rivals to retaliate against but that can also evoke hostile reactions from competitors (Miller & Chen, 1996). Along a continuum, non-conformist repertoires imply uniqueness and independent thought, while conformist repertoires imply interdependence and convergence in decision-making.

CEO social class origin and competitive complexity

The social class origin of a CEO is expected to have an impact on competitive repertoire complexity through affecting the CEO's priorities in a competitive context to either gain approval from customers and competitors or to beat the competition and gain market power through tough action. Complex repertoires involve a sequence of competitive attacks expected to create disruption and unpredictability in the competitive environment and therefore is an aggressive strategy that makes the individual firms stand out. Individuals with lower class upbringings are socialized to see themselves as interdependent with others, which prompts them to seek harmony and good relationship with others and to fit in by following community norms. Due to these lower-class origin-based experiences, we expect lower class CEOs to avoid devoting excess resources to gaining market power via pursuit of complex repertoires of competitive actions. Instead, these CEOs are likely to prefer focusing on existing strengths via pursuit of simple strategic repertoires that allow for effective utilization of existing resources and are less aggressive towards competitors.

In contrast, upper class CEOs have experience with an abundance of resources, a strong safety net and the ability and desire to exert their unique, personal choices (Kraus et al., 2012). Such individuals are not only socialized to norms that encourage expression of preference and choice but also have more self-oriented psychological tendencies. They tend to seek to control and influence their social environment, an approach that is driven by the life circumstances of an upper-class upbringing, including greater wealth and freedom (Domhoff, 1998). Finally, the upper-class origins of a CEO are expected to manifest in the CEO's more internal orientation, focused on their own goals, emotions and motives (Markus & Kitayama, 2010). Such an agentic

view promotes self-oriented actions that are likely to increase competitive motivations. Further, choosing and implementing complex competitive repertoires involves decision-making techniques involving conflicting opinions, debate, and contentious discussion (Ferrier, 2001; Simons, Pelled, & Smith, 2000). It is more likely that upper class CEOs engage in such disagreements with the rest of the top management team and others involved, in order to implement complex repertoires. Together, these arguments suggest that upper class CEOs are more likely to prefer competing via use of complex competitive actions that allow them to build market power. Therefore, we hypothesize the following:

Hypothesis 1a: CEO social class origin is positively associated with competitive repertoire complexity.

CEO social class origin and competitive non-conformity

Competitive action repertoires that deviate or differ markedly from those of the industry's repertoires are said to be non-conformist. Competitive non-conformity is reflected by a focus on a mix or sequence of competitive strategies that are unlikely to be used by competitors (Miller & Chen, 1996; Ndofor et al., 2011). Typically, firms tend to follow strategies that conform with industry norms to achieve acceptance from various stakeholders (e.g., customers). Based on economic and sociological explanations, it has been noted that firms tend to use similar actions, such as geographic expansion and price-cutting, if these are commonly used by their industry peers (Fligstein, 1985; Miller & Chen, 1996). In contrast, when firms use non-conformist repertoires, they seek to change the rules of the game for their advantage (Chen & MacMillan, 1992; D' Aveni, 1994). Such highly aggressive actions towards business rivals can create competitive advantages and improve performance if used appropriately (Ndofor et al., 2011), but

may also lead to unwanted counter attacks from competitors and increased costs associated with convincing customers about their novel approaches (Miller & Chen, 1996).

The social class origin of a CEO is expected to affect whether the CEO prefers to conform with industry norms or follow non-conformist strategies. Individuals from lower classes tend to see themselves as interdependent and connected with others (Kraus et al., 2012: 552). This leads to communally oriented actions, meaning a preference for actions that reflect common choice and blend in with the social environment in which they occur. Upper class individuals are more independent vis-a-vis the construal of self; here, the emphasis is on one's own choices, control over one's outcomes and standing out or being independent from others (Markus & Fiske, 2012; Markus & Kitayama, 2003, 2010). A number of studies have confirmed that individuals differ in self-construal based on social class and thus in preference for conforming with others. For example, in a study of social class as defined by the levels of parental educational attainment, it was found that lower class individuals were more likely to choose a pen that was similar to other pens, while upper-class individuals picked a unique pen (Stephens et al., 2007). This emphasizes the communal orientation of lower-class individuals and the independent orientation of upper-class individuals that has them seeking to stand out from others through their choices. These class-related tendencies vis-a-vis communal decisions versus self-oriented decisions are likely to produce systematic influences on an individual's decision-making as a CEO in a social context. As such, lower class background CEOs are more likely to evaluate positively actions that are similar to those of others and thus engage in more isomorphic competitive actions, while CEOs from higher class backgrounds are likely to perceive favorably uniqueness and adopt competitive

action sets that are distinctive and divergent from the norm. Based on these arguments, we hypothesize the following:

Hypothesis 1b: CEO social class origin is positively associated with competitive repertoire non-conformity.

Social Status Threat and Competitive Repertoire Characteristics

No matter their social background, individuals are concerned with maintaining their relative social standing and positive evaluation by the community (Domhoff, 1998). For CEOs in a competitive context, threat comes from failing to perform at the level of industry peers; in other words, not meeting *social aspirations* (the performance of peer firms) (Cyert & March, 1963; Bromiley, 1991). When such relative social standing is under threat, individuals tend to respond by altering their priorities and preferred course of action (Fritsche & Jugert, 2017; Markus & Stephens, 2017). The way people respond to social status threat - which we operationalize here as the distance of performance below that of competitors - may vary depending on how individuals construe their relationship with others (Hu, Wang, Pruessner, & Yang, 2018).

An important consequence of the upbringing of different social classes is the nature of ties with others. Individuals from lower social classes are exposed to strong, cohesive and enduring networks of relationships and are typically used to norms of support and reciprocity with others. The ties with others in the community are an important source of “bonding capita” required for growth and survival (Carey & Markus, 2017). Along with the benefits of these ties, they are also subject to social sanctioning when these norms are violated. With such an interdependent construal, meeting the expectations of others and adjusting to the social context is considered a means of achieving success. This triggers a preference for actions aimed at fitting in

(Kish-Gephart, 2017) when there appears to be a decline in social status, as such a loss in status is viewed as a lapse in appropriately acting within the social context by lower class individuals. In contrast, individuals who see themselves as independent from others are concerned with individual achievement and see their status as a reflection of individual actions and choices. When such individuals are underperforming, this calls into question their ability to influence their context, threatening their self-evaluation (Grossman & Varnum, 2011). Individuals from a higher social class are used to relationships that function as “bridging capital”, facilitating their access to better opportunities and higher status (Carey & Markus, 2017). Severing ties and forging new ones are common and acceptable actions to undertake when faced with a socio-economic threat, as these relationships are relatively weaker and largely instrumental.

Given that lower class individuals construe themselves as interdependent with others, when a lower-class CEO’s performance deviates below social aspirations, they are more likely to view the threat as one that could restrict further their utilization of resources, priming their need for more cooperation and support from their stakeholders. Further, it is likely that such CEOs prefer modes of competing that are less aggressive towards competitors, in line with their interdependent construal. Thus, lower class origin CEOs are likely to respond to social threats by narrowing further the types of competitive actions they use. Therefore, CEOs of lower classes are likely to follow a strategy of identifying and adopting narrower repertoires that can leverage their core competencies, rather than aiming to create competitive advantage through experimenting with newer actions.

In contrast, upper class CEOs, who construe themselves to be independent from others, are expected to view status threat as failure of merit on their part, having not done enough to

control the environment. As they tend to believe that they must shift outcomes by individual choice and by controlling the environment, including the outcomes of their competitors, upper class CEOs are expected to engage in more complex competitive repertoires when faced with a threat to their social standing.

Overall, the initial tendencies of both lower- and higher-class CEOs are reinforced by deviation from social aspirations. Therefore, we propose:

Hypothesis 2a: The positive relationship between CEO social class origin and competitive repertoire complexity is strengthened with performance deviation below social aspirations.

Threat to social standing also induces different motivations regarding conformity.

With their interdependent self-construal, lower class individuals likely see social status threat as a result of failing to comply with industry norms and not acting in a communal manner. Therefore, they aim to increase the similarity of their repertoires to that of industry peers. With increased deviation from social aspirations, lower class CEOs seek to establish greater conformity with their environment, while upper class CEOs aim to increase the uniqueness of their repertoires.

In contrast, with their independent self-construal and belief that they have enhanced control over social threats, upper class origin CEOs focus more on their internal goals and motivations (Varnum, Na, Murata & Kitayama, 2012; Kraus et al., 2013). Upper class individuals are more likely to take social risks (Anderson & Galinsky, 2006), keen on defending their identities and becoming more outwardly focused (Smith, Menon, & Thompson, 2012). Studies show that when upper class individuals' options become more limited, they respond with

a greater preference for their original distinctive choices (Snibbe & Markus, 2005). With greater social threat, CEOs from upper class backgrounds are thus expected to be more likely to increase non-conformist repertoires aimed at surprising rivals, as their beliefs of agency involve approach-oriented actions. Therefore, we predict that:

Hypothesis 2b: The positive relationship between CEO social class origin and competitive repertoire non-conformity is strengthened with performance deviation below social aspirations.

METHODS

Data

Our sample includes CEOs from the S&P 1500 as of March 2019. We sent out mail surveys to all current CEOs of S&P 1500 firms to obtain data on their social class origin. In addition, we also sent online to CEOs at their current email addresses the same survey and set of instructions. The final number of responses, at 146 in total, represents a response rate of 11%, a rate that is comparable to other studies surveying chief executives (Kish-Gephart & Campbell, 2015). After removing entries with missing data, the final number of usable survey responses was 136.

We obtained data on firm competitive actions from the RavenPack News Analytics database that collates data from news articles and press releases (Connelly et al., 2017, 2019). Demographic and compensation data on CEOs was drawn from the Execucomp database available within the Wharton Research Database (WRDS). The COMPUSTAT database from WRDS provided data on firm characteristics and the BoardEx database was used for corporate governance data.

We matched the survey results of the CEOs with their corresponding firms so that we had a final dataset of CEO social class origin along with firm-year data on other variables. Each CEO was matched with those firm-years in which they were also the CEO. Therefore, a CEO may be matched with multiple firms and for the years that correspond to their tenure as CEO. After removing observations with missing data on variables, our final sample consisted of 601 firm-year observations of 104 CEOs over the 20-year period 2001-2019.

Measures

Independent variable: CEO social class origin. We evaluated the social class origin of CEOs based on a measure validated by previous research (Smith et al., 2012) using the following five-category survey item (Kish-Gephart & Campbell, 2015): “Which of the following best describes your family’s socioeconomic situation while you were growing up: lower class (bottom 20%), working class (20-30%), middle class (30-80%), upper class (80-90%), or highest class (Top 10%)?” The distribution of responses under these five categories was as follows: lower (36.05%), working class (5.03%), middle class (46.97%), upper class (6.24%) and highest class 5.72(%). As some of these categories were sparsely populated - and to simplify the analyses - we derived a three-level measure by aggregating the two lower classes (lower and working) into one category and combining the upper and highest class into the upper-class category (Smith et al., 2012; Kish-Gephart & Campbell, 2015). We include the one-year lagged version of the variable in our models. In robustness checks, we also performed analyses using the expanded five-level measure.

Dependent variable: Competitive complexity and competitive non-conformity. We follow prior research in defining competitive actions as those that are externally directed,

observable (Ferrier et al., 1999; Connelly et al., 2017; Connelly, Lee, Tihanyi, Certo, & Johnson, 2019) and significant enough to be covered as a specific competitive action in business news. We measured our dependent variables using data from RavenPack News Analytics that analyzes news content from several sources including Dow Jones Newswires, the Wall Street Journal and other news networks (Hayward & Fitza, 2017). Using a real-time tracking system, RavenPack aggregates information from every news article tracked to provide identifying information regarding a) the entity involved (company); b) its role in the news article; c) the date of the article; and d) the source of the news. Additionally, RavenPack uses proprietary text-analysis algorithms to extract for analysis usable information, such as classification of actions covered by the news article, into one of several categories of competitive action. For our analysis, for every action by a company, we used only the first observation associated, removing any duplicates of the same event (Connelly et al., 2019).

As in prior studies, we considered in the database eight categories of competitive actions that were in line with those described in the broader competitive dynamics research (Connelly et al., 2017). The categories include new product actions, capacity changes, pricing actions, marketing actions, acquisitions, strategic alliances, market expansion and legal actions. Our data shows that firms' competitive repertoires consist of an average of 8 competitive actions per firm in a year, which is similar to the numbers observed in prior research (Derfus, Maggitti, Grimm, & Smith, 2008; Connelly et al., 2017). To calculate competitive repertoire complexity, we examined the extent to which the repertoires reflect diversity, unpredictability/change and newness (Connelly et al., 2017). To measure diversity, we used the Shannon Index, which is an entropy measure

similar to the Hirschman-Herfindahl Index, but which also incorporates the notion of predictability of future actions. The Shannon Index is calculated as

$$S = -\sum_{i=1}^R p_i \ln p_i$$

Where p_i is the proportion of total competitive actions belonging to category i of R possible categories of actions.

The change component of complexity was measured using Euclidean distance, which is the difference in competitive repertoires of the focal firm between the current year and the prior year, calculated as follows:

$$D_{(t-1)t} = \text{Sqrt}[(A1_{(t-1)} - A1_{(t-1)})^2 + (A2_{(t-1)} - A2_{(t-1)})^2 \dots (A8_{(t-1)} - A8_{(t-1)})^2]$$

Where $A1..A8$ are the number of actions taken in a given year by the focal firm in categories 1 through 8, respectively. We incorporated the newness aspect by counting the number of new actions, which is the number of categories of actions that the firm used in year t that was not used in the previous year ($t-1$). We created a composite measure of competitive complexity by creating z-scores of the Shannon Index, Euclidean Distance and new action count and summing them.

To calculate competitive non-conformity, we considered the four broad categories of commonly used competitive actions: pricing, new product introduction, marketing and expansion actions. Competitive repertoire non-conformity was measured as the deviation of the focal firm's portfolio of actions in a given year from that of its competitors, where the competitors are identified as those that belong to the same SIC 2-digit industry. It is calculated as:

$$\text{Competitive non-conformity} = \sum (P_i - P_{i,ind})^2$$

Where P_i refers to the proportion of competitive actions used by a firm in a given year belonging to the i 'th category and $P_{i, ind}$ is the industry mean of the proportion of competitive actions of category i of the total actions (Ndofor, Sirmon & He, 2011).

Moderator: Performance deviation below social aspirations. To measure social status threat as the extent to which performance of the focal firm falls below that of its peers, we calculated performance deviation below social aspirations using the following spline function (Mishina, Dykes, Block & Pollock, 2010):

$$\begin{aligned} \text{Performance below historical aspirations}_{it} &= ROA_{ind,t} - ROA_{i,t} \text{ if } ROA_{i,t} < ROA_{ind,t} \\ &= 0 \text{ if } ROA_{i,t} \geq ROA_{ind,t} \end{aligned}$$

Where ROA is the return on assets of the focal firm in year t and $ROA_{ind,t}$ is the average performance of firms in the same 2-digit SIC industry. The moderating variable was lagged by one year in the analyses.

Control variables. We included a number of controls in our analysis to ensure that our results were not confounded by the effects of any other variables. We controlled for firm size, measured by the natural logarithm of assets, since prior research has found that larger firms have more complex repertoires (Ndofor et al., 2011) and firm age (logged), as older firms may be more inertial (Connelly et al., 2017). As corporate governance factors can have an impact on competitive repertoires (Connelly et al., 2017), we controlled for CEO duality using an indicator variable that takes a value of 1 if the CEO is also the chair of the board and zero otherwise. We also controlled for CEO tenure and CEO salary, as these factors can impact a CEO's motivation to engage in competitive actions (Connelly et al., 2017). We controlled for performance deviation above social aspirations, measured similarly to performance below aspirations, but

with a difference measured when performance of the focal firm is greater than the industry average. Finally, we also controlled for the total volume of competitive actions (total number of actions in a given year), as we are only interested in the characteristics of the repertoires (Connelly et al., 2017). This variable is measured in the same year as the dependent variable, while all other controls were lagged by one year. We also controlled for year-fixed effects and Fama-French 49 industry-fixed effects (Lee, Park & Folta, 2018) in our models.

Analysis

Our dataset contains panel data that has repeated observations of the same firm and CEOs with fixed values of social class origin for each CEO. Therefore, we cannot use fixed effects models and instead use random effects OLS models with standard errors clustered by firm to account for non-independence of observations from the same firm. In our robustness checks, we also examined our results using generalized estimating equations (*GEE*).

RESULTS

We present the summary statistics and correlations of our variables in Table 3.1. The variance inflation factor (VIF) of the substantive variables ranges from 1.07 to 1.89, much below the recommended cut-off of 10, reducing any concerns of multicollinearity (Cohen, Cohen, West & Aiken, 2003).

Table 3.1. Descriptive statistics and correlations

		Mean	S.D.	1	2	3	4	5
1	Competitive repertoire complexity	0.258	1.551	1.000				
2	Competitive non-conformity	0.174	0.217	0.011	1.000			
3	CEO social class origin	0.697	0.646	0.164	0.121	1.000		
4	Performance below social aspirations	0.002	0.016	-0.005	-0.023	0.106	1.000	
5	Performance above social aspirations	0.347	0.324	0.068	0.080	-0.018	-0.120	1.000

Table 3.1, continued

6	Total volume of competitive actions	8.592	15.828	0.649	0.032	0.110	0.009	0.102
7	CEO tenure	8.403	7.328	-0.061	-0.195	-0.230	-0.040	-0.017
8	CEO duality	0.379	0.486	0.053	-0.107	0.040	-0.006	-0.177
9	Salary	808.272	282.471	0.233	-0.012	0.012	-0.031	-0.121
10	Firm age	3.192	0.671	0.080	-0.041	0.012	-0.015	-0.031
11	Firm size	7.801	1.493	0.295	0.015	0.123	-0.108	-0.317
		6	7	8	9	10	11	
6	Total volume of competitive actions	1						
7	CEO tenure	0.01	1					
8	CEO duality	0.068	0.324	1				
9	Salary	0.199	0.12	0.11	1			
10	Firm age	0.063	-0.05	0.063	0.301	1		
11	Firm size	0.25	-0.113	0.263	0.475	0.369	1	

Note: N=601.

Table 3.2 presents the effects of CEO social class origin on competitive repertoire complexity and Table 3.3 the results of the analyses for competitive repertoire non-conformity. In Table 3.2, Model 1 includes the control variables and moderator variable, and Models 2 and 3 add in the independent variable and interaction effects, respectively. As can be seen from Model 1, CEOs with a higher salary and belonging to larger firms implement more complex competitive actions. Model 2 includes the test of our hypothesis *H1a* that suggests the higher the social class a CEO originates from, the more complex the competitive repertoires they use. As noted from the coefficient in Model 2 ($b=0.188$, $p<0.05$), we find support for this hypothesis. In Model 3, we test hypothesis *H2b*, that the effect of social class origin on competitive repertoire complexity becomes more positive with performance deviation below social aspirations. The coefficient of the interaction between social class origin and performance below social aspirations is positive and significant ($b=8.991$, $p<0.01$), providing support for our hypothesis.

Table 3.2. OLS models predicting effects of social class origin on competitive repertoire complexity

Variables	Model 1	Model 2	Model 3
CEO tenure	-0.011 (0.011)	-0.008 (0.010)	-0.008 (0.010)
CEO duality	0.101 (0.140)	0.084 (0.136)	0.096 (0.135)
Salary	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)
Firm age	-0.072 (0.118)	-0.072 (0.112)	-0.064 (0.113)
Firm size	0.176** (0.067)	0.186** (0.064)	0.194** (0.064)
Performance above social aspirations	-0.284 (0.331)	-0.227 (0.327)	-0.248 (0.326)
Performance below social aspirations	7.405*** (2.123)	6.682** (2.187)	-9.330+ (5.267)
Total volume of competitive actions	0.049*** (0.009)	0.048*** (0.009)	0.048*** (0.009)
CEO social class origin		0.188* (0.085)	0.182* (0.086)
CEO social class origin*Performance below social aspirations			8.991** (2.892)
Constant	-1.354+ (0.706)	-0.438 (1.205)	-0.496 (1.207)
Year fixed effects	Included	Included	Included
Industry fixed effects	Included	Included	Included
Observations	601	601	601
R-squared	0.5325	0.5361	0.537

Note: Standard errors in parentheses; + p<0.10 *p<0.05 ** p<0.01 ***p<0.001

The effects of social class origin on competitive repertoire non-conformity are shown in Table 3.3. Model 1 of Table 3.3 presents the effects of the control and moderating variables on competitive non-conformity. We find that CEOs with shorter tenure undertake more non-conformist competitive patterns. Hypothesis H1b suggests that CEO social class origin is associated positively with non-conformity of the competitive repertoires used. From the results

in Model 2, we find that the coefficient of social class origin is positive and significant ($b=0.051$, $p<0.01$), lending support to our hypothesis. Finally, we argue that this effect is stronger when performance deviation from social aspirations is higher (H2b). As shown in Model 3, we find support for the hypothesis from the coefficient of the interaction between social class origin and performance below social aspirations ($b=1.639$, $p<0.05$).

Table 3.3. OLS models predicting effects of social class origin on competitive repertoire non-conformity

Variables	Model 1	Model 2	Model 3
CEO tenure	-0.005** (0.002)	-0.005** (0.002)	-0.005** (0.002)
CEO duality	-0.012 (0.027)	-0.016 (0.026)	-0.014 (0.026)
Salary	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Firm age	-0.006 (0.019)	-0.007 (0.019)	-0.005 (0.019)
Firm size	0.008 (0.010)	0.011 (0.011)	0.013 (0.011)
Performance above social aspirations	0.103* (0.051)	0.114* (0.052)	0.110* (0.053)
Performance below social aspirations	0.145 (0.493)	0.009 (0.523)	-2.875+ (1.610)
Total volume of competitive actions	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)
CEO social class origin		0.051** (0.019)	0.050** (0.019)
CEO social class origin*Performance below social aspirations			1.639* (0.800)
Constant	0.124 (0.168)	0.092 (0.168)	0.081 (0.169)
Year fixed effects	Included	Included	Included
Industry fixed effects	Included	Included	Included
Observations	601	601	601
R-squared	0.1933	0.2062	0.2073

Note: Standard errors in parentheses; + $p<0.10$ * $p<0.05$ ** $p<0.01$ *** $p<0.001$

We plot the results of our analyses at low and high levels of CEO social class origin to get a clearer picture of our moderation effects. In Figure 1, we plot the effects of CEO social class origin at low and high values of performance below social aspiration, measured at 1 standard deviation below and above the mean, respectively. As can be seen, with firm performance much lower than that of the industry (performance below social aspirations - High), the positive relationship between CEO social class origin and competitive complexity becomes stronger. Similarly, Figure 2 indicates the effects for competitive non-conformity. From the plots, we see that when the magnitude of performance below social aspirations is great, the positive association between CEO social class origin and competitive non-conformity becomes more pronounced.

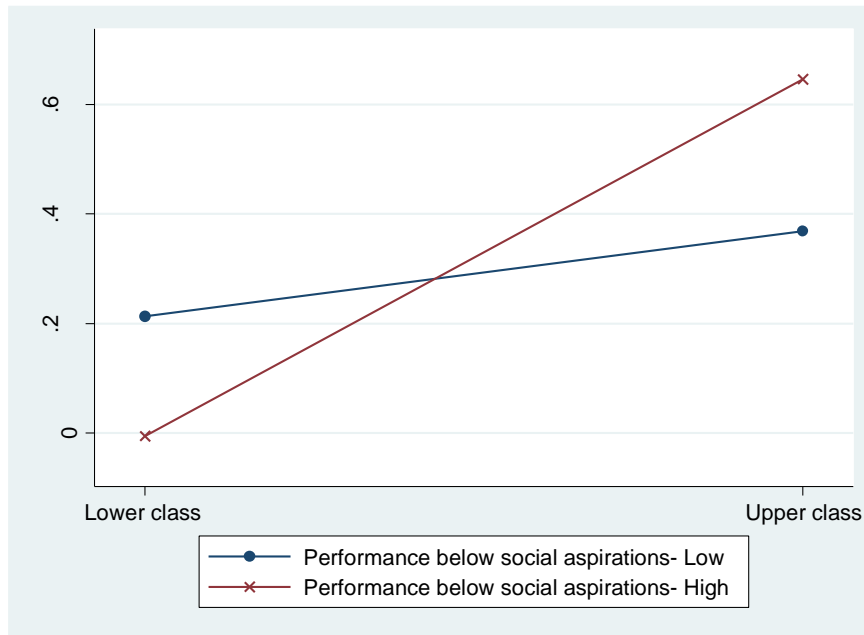


Figure 3.1. Interaction between CEO social class origin and performance below social aspirations predicting competitive complexity

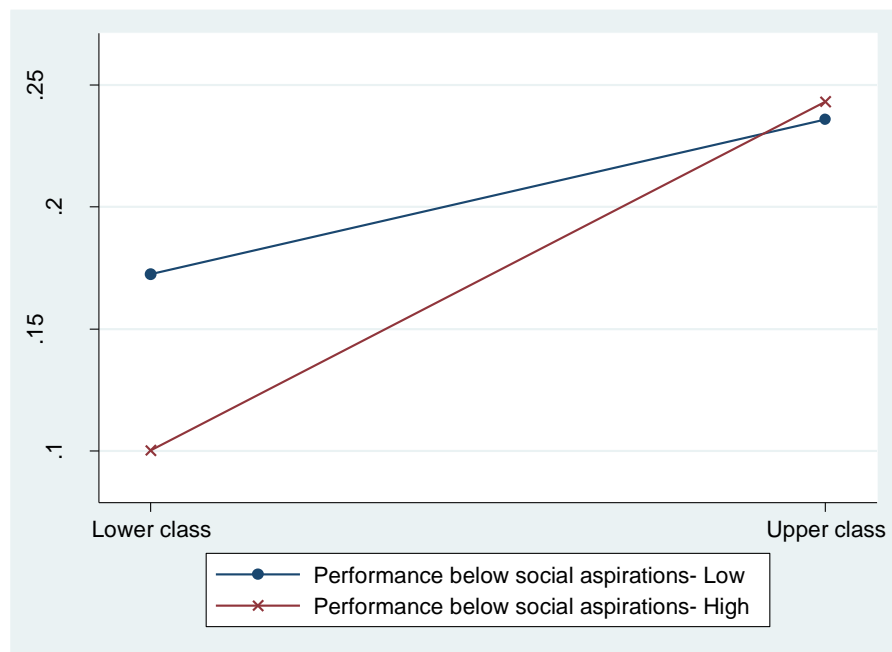


Figure 3.2. Interaction between CEO social class origin and performance below social aspirations predicting competitive non-conformity

Robustness Checks

Expanded measure of CEO social class origin. For our main analyses, we collapsed the 5 levels of CEO social class origin into 3 levels (lower, middle and upper) to avoid the small number of observations in a couple of categories skewing the results. In further analyses, we also test our hypotheses using the original five-level measure. We present the OLS models of our analyses in Table 3.4. Models 1a-1c include the analyses for competitive repertoire complexity and Models 2a-2c are the results of the analyses on competitive repertoire non-conformity. From Model 1b, we find a weak positive effect of CEO social class origin on competitive complexity and a positive moderating effect of performance below social aspirations on the main effect,

lending marginal support to H1a and supporting H2a. In models 2b and 2c, we see that the coefficients for CEO social class origin and the interaction between CEO social class origin and performance below aspirations are both positive and significant, providing further support for H1b and H2b.

Table 3.4. OLS models with five-level social class measure

Variables	Competitive Complexity			Competitive Non-conformity		
	Model 1a	Model 1b	Model 1c	Model 2a	Model 2b	Model 2c
CEO tenure	-0.011 (0.011)	-0.009 (0.010)	-0.009 (0.010)	-0.005** (0.002)	-0.005** (0.002)	-0.005** (0.002)
CEO duality	0.101 (0.140)	0.087 (0.137)	0.103 (0.137)	-0.012 (0.027)	-0.016 (0.027)	-0.014 (0.026)
Salary	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Firm age	-0.072 (0.118)	-0.084 (0.110)	-0.076 (0.112)	-0.006 (0.019)	-0.010 (0.019)	-0.009 (0.019)
Firm size	0.176** (0.067)	0.186** (0.064)	0.195** (0.064)	0.008 (0.010)	0.011 (0.010)	0.013 (0.011)
Performance above social aspirations	-0.284 (0.331)	-0.232 (0.326)	-0.253 (0.325)	0.103* (0.051)	0.113* (0.052)	0.110* (0.053)
Performance below social aspirations	7.405*** (2.123)	6.766** (2.172)	-17.639* (7.156)	0.145 (0.493)	0.025 (0.513)	-3.767+ (2.050)
Total volume of competitive actions	0.049*** (0.009)	0.048*** (0.009)	0.048*** (0.009)	-0.002* (0.001)	-0.002* (0.001)	-0.002* (0.001)
CEO social class origin		0.134+ (0.074)	0.126+ (0.075)		0.037* (0.014)	0.035* (0.015)
CEO social class origin*Performance below social aspirations			8.754*** (2.571)			1.370* (0.684)
Constant	-1.354+ (0.706)	-0.524 (1.206)	-0.584 (1.207)	0.124 (0.168)	0.068 (0.169)	0.059 (0.171)
Year fixed effects	Included	Included	Included	Included	Included	Included
Industry fixed effects	Included	Included	Included	Included	Included	Included
Observations	601	601	601	601	601	601
R-squared	0.5325	0.5358	0.5367	0.1933	0.2046	0.2049

Note: Standard errors in parentheses; + p<0.10 *p<0.05 ** p<0.01 ***p<0.001

Alternative method using Generalized Estimating Equations (GEE) . With Generalized Estimating Equation (GEE) models, we obtain population-averaged maximum likelihood

estimates that account for non-independence of observations of the same firm and CEO. As our dependent variables are both continuous, we included a normal distribution and an identity link function (Quigley, Hubbard, Ward & Graffin, 2020) as our specifications. The results of our tests for the hypothesized effects using GEE are presented in Table 3.5. From the values of the coefficients shown, we find that the results are identical to our main analyses and thus strongly support all our hypotheses.

Table 3.5. Generalized estimating equations (GEE) models predicting effects of social class origin on competitive repertoire complexity and non-conformity

Variables	Competitive Complexity			Competitive Non-conformity		
	Model 1a	Model 1b	Model 1c	Model 2a	Model 2b	Model 2c
CEO tenure	-0.012 (0.011)	-0.009 (0.010)	-0.009 (0.010)	-0.006** (0.002)	-0.005** (0.002)	-0.005** (0.002)
CEO duality	0.101 (0.131)	0.080 (0.125)	0.092 (0.125)	-0.003 (0.025)	-0.008 (0.024)	-0.006 (0.024)
CEO Salary	0.000* (0.000)	0.000* (0.000)	0.000* (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Firm age	-0.076 (0.115)	-0.073 (0.110)	-0.064 (0.111)	-0.011 (0.017)	-0.010 (0.016)	-0.009 (0.017)
Firm size	0.192** (0.061)	0.203*** (0.056)	0.208*** (0.056)	0.011 (0.009)	0.013 (0.009)	0.014 (0.009)
Performance above social aspirations	-0.265 (0.320)	-0.179 (0.317)	-0.200 (0.316)	0.080+ (0.044)	0.102* (0.046)	0.099* (0.046)
Performance below social aspirations	8.158*** (1.977)	7.400*** (2.040)	-7.075 (5.545)	0.233 (0.414)	-0.004 (0.459)	-2.331* (1.070)
Total volume of competitive actions	0.050*** (0.008)	0.050*** (0.008)	0.050*** (0.008)	-0.002* (0.001)	-0.002** (0.001)	-0.002** (0.001)
CEO social class origin		0.193* (0.079)	0.190* (0.080)		0.050** (0.017)	0.050** (0.017)
CEO social class origin*Performance below social aspirations			8.017** (3.030)			1.284* (0.552)
Constant	-0.413 (1.165)	-0.552 (1.148)	-0.596 (1.148)	0.127 (0.162)	0.094 (0.159)	0.086 (0.160)

Table 3.5, continued

Year fixed effects	Included	Included	Included	Included	Included	Included
Industry fixed effects	Included	Included	Included	Included	Included	Included
Observations	601	601	601	601	601	601
Wald chi-squared	577.14	612.03	607.5	151.04	177.4	177.39

Note: Standard errors in parentheses; + p<0.10 *p<0.05 ** p<0.01 ***p<0.001

Overall, these supplementary analyses show that our results are robust to alternative measures and estimation methods, providing further support for our hypotheses.

DISCUSSION

We expand upper echelons research by examining an important yet underexplored CEO experience that influences strategic decision-making: CEO social class origin. Specifically, we theorize that CEO social class origin-based interdependent/independent self-construal play a role in a CEO's priorities regarding preferred ways to manage the competitive environment. To this end, we explored the effects of CEO social class-based experience on choosing competitive actions, as decisions regarding how to compete are often related to preferred ways of managing the social environment. Our study offers three main contributions to research and has some practical implications as well.

First, we contribute to the literature on competitive dynamics in two ways. We identify an important antecedent of competitive action repertoires by integrating social class theory with competitive dynamics. As research suggests that perceptions matter in the decision-making process regarding competitive action (Chen & Miller, 2012), we aim to answer the call for more research to understand how the social, cognitive and psychological characteristics of decision makers affect competitive actions and responses (Chen & Miller, 2012: 173). Our second,

equally important contribution is to deepen understanding of what it means to use simple (complex) and conformist (non-conformist) competitive repertoires. We provide a more comprehensive conceptualization and definition of competitive repertoires that accounts for the differences in the relationship with stakeholders and rivals. Although prior studies implicitly assumed that complex repertoires involved putting a greater number of resources at risk due to the experimental nature of such repertoires, we delineate how CEOs would like to manage their relationships in the competitive environment as an important criterion in choosing the characteristics of repertoires. Previous studies that determined when firms choose complex repertoires focused on how the *output* characteristics of those repertoires drive CEOs' decisions, i.e., the risk of error or the potential for strategic long-term advantage (Connelly et al., 2017). What was missing from these conceptualizations is the input characteristics of complex repertoires, in particular the differences in social implications it entails. Similarly, previous studies on competitive non-conformity largely focused on the resource constraints that could hinder the ability to engage in unique and deviating actions by reducing the available buffer and by increasing dependency on partners. In our paper, we use a novel lens to view competitive non-conformity in terms of the relationship it entails with competitive rivals and other stakeholders. By viewing conformity as a choice that aims to reassure stakeholders rather than confuse them, we provide a better understanding of what it means to compete using isomorphic versus deviating repertoires. Although some studies discuss how conformity implies better relationships with stakeholders, the predominant argument is that legitimacy concerns motivate such decisions. We differ from this perspective by arguing that, rather than legitimacy concerns, CEO priorities in terms of relationship with their social environment (rivals and stakeholders),

determined by their independent or interdependent orientations, drive these decisions. In summary, our paper contributes to strengthening understanding of competitive repertoires, thereby opening up new avenues for exploring the antecedents and consequences of complex (simple) and non-conformist (conformist) repertoires.

Our second contribution is to the research on the Upper Echelons Theory (UET) framework (Hambrick & Mason, 1984; Hambrick, 2007). We contribute in two ways. First, while UET emphasizes the impact of CEO personal, professional and work-related experiences on firm strategic actions (Finkelstein, Hambrick, & Cannella, 2009), research in this area has tended to limit itself to CEO professional and work-related experiences (Graf-Vlachy, Bundy & Hambrick, 2020; Crossland, Zyung, Hiller & Hambrick, 2014), with CEO personal experiences often restricted to race and gender (Faccio, Marchica, & Mura, 2016; Hill, Upadhyay, & Beekun, 2014). UET is increasingly recognizing this weakness by starting to extend research on CEO personal experiences to other life areas and events such as parenthood (e.g., Cronqvist & Yu, 2017) and even death (Chen, Crossland, & Huang, 2020). Our paper contributes to this emerging trend by highlighting the importance of CEO social class origin-based experience as a factor that may affect firm actions in important ways (see Kish-Gephart & Campbell (2015) for another paper in this area). Second - and new to our paper - we theorize on the impact of CEO social class-based experiences on competitive actions, which has an important social risk component. Our focus on competitive actions distinguishes our work from the study by Kish-Gephart and Campbell (2015) that investigated the effect of CEO social class origin on CEO risk-taking tendencies, as indicated by choices on internal, firm-specific strategy (e.g., R&D investment; capital expenditure; and value of long-term debt) (Kish-Gephart & Campbell, 2015). While a

focus on the impact of CEO social class origin on such internal strategy is important, it is similarly important to consider the impact of CEO class-based experiences on *socially* embedded competitive actions. CEO social class origin-based experiences are unique in their association with both resource scarcity/abundance and social context; hence, we suggest in this paper that the latter would have distinct implications for competitive actions. We suspect, however, that CEO social class also has an impact on other actions that have social relevance, such as community engagement; treatment of employees; and customer relationship, to name just a few. It may also be interesting to explore the effect of CEO social class-based construal on how CEOs relate to members of their top management teams or to board directors and so make decisions about TMT membership and compensation. Our paper opens up a new path to future research to test these possibilities.

Third, we contribute to research on social class by expanding understanding of firm responses to poor performance relative to social aspirations. Studies that looked at the effects of not meeting performance aspirations suggested that firms with relative underperformance attempt to engage in ‘problem-solving’ through risk-taking (Greve, 1998), resource management (Morrow, Sirmon, Hitt & Holcomb, 2007) and advice-seeking actions by the CEO from similar others (McDonald & Westphal, 2003). Further, the research suggested that firms whose performance falls below that of peers become more concerned with legitimacy and managing stakeholder expectations (Arrfelt, Wiseman & Hult, 2013). However, what was largely missing from these studies is explanations of differences in *how* CEOs seek to ‘problem-solve’ and how choices are made when such decisions also affect directly the very peers they are compared with. Our study thus contributes to enhancing understanding of different choices of competitive strategy driven by

CEO social status concerns that arises from performance below that of their peers. We argue that CEOs from different social classes develop different solutions to the same problem of negative performance relative to social aspirations as a result of them having been socialized to respond differently to social status threat. Individuals from lower class origins have interdependent construals while individuals from higher classes develop more independent construal (Markus & Kitayama, 2003; Snibbe & Markus, 2005) that alter differently their view of threats in their social context and the appropriate means of response. We suggest that for those with a lower-class background, the possibility of losing social status signifies a stronger need to fit in with the environment as an appropriate means by which they can restore their position in the social environment. For CEOs from a higher-class background, their independent tendencies get strengthened, as their beliefs on status are centered on their individual choices and actions, with a view to controlling and influencing the environment. Thus, we find that CEO social class effects on competitive repertoires are strengthened with deviation below social benchmarks. This is important for deepening understanding of how social aspirations shape socially embedded decision-making by CEOs.

Our study also has some practical implications. Our findings suggest that CEOs have specific preferences regarding competitive strategy based on their social class origins. Firms need to be cognizant of how this aligns with the firm's overall strategy and the characteristics of their industry. As certain characteristics of competitive repertoires are shown to be more appropriate depending on factors such as industry growth, firm slack (Ferrier, 2001) and top-management team heterogeneity (Ferrier & Lyon, 2004), firms must ensure CEO styles of competing are optimal for firm performance. Specifically, boards should consider the social class origin of

CEOs when hiring or as part of their monitoring activities. Depending on whether simple, conformist competitive actions, or more aggressive, non-conformist competitive actions are more beneficial to the firm, the tendencies of CEOs from different social classes are likely to be differentially useful.

CONCLUSION

Our study shows that CEO social class origin influences the characteristics of firm competitive repertoires via these CEOs' experiences with resource scarcity/abundance and in relation to the social environment. We find CEO social class origin is associated positively with competitive repertoire complexity and non-conformity. Further, these effects are strengthened with threats to CEO social status, as indicated by their firm's performance relative to their competitive peers. In conclusion, social class has enduring effects on an individual's priorities and choices and is an important factor to consider in the study of organizational decision-making, especially in socially situated contexts.

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BIOGRAPHICAL SKETCH

Pavithra Balaji is a PhD student at The University of Texas at Dallas. Her research focuses on two aspects of decision-making in organizations- negative performance contexts and CEO characteristics. Prior to joining The University of Texas at Dallas, she worked as an Assistant Manager at a healthcare start-up in India. She holds a post graduate diploma in management from the Indian Institute of Management Tiruchirappalli and a bachelor's degree in Electronics & Communication Engineering from Anna University, Chennai.

CURRICULUM VITAE

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EDUCATION

University of Texas at Dallas, Richardson, TX 2016-2022 (Expected)
PhD, Organizations, Strategy & International Management (**A.B.D.**)
(Major: Strategic Management)
Dissertation (proposal defended July 2020): 'Effects of Performance Shortfalls on Organizational Decisions and Outcomes'
Committee: Eric Tsang (Chair), Cuili Qian, Livia Markoczy, Jun Xia

Indian Institute of Management, Tiruchirappalli, India 2011-2013
Postgraduate Diploma in Management (MBA equivalent)
(Major: Strategy & Human Resources)

Anna University, Chennai, India 2007-2011
Bachelor of Engineering, Electronics & Communication

RESEARCH INTERESTS

Strategic Leadership, Executive Decision-making, Performance Shortfalls

RESEARCH

Manuscript under review (*Abbreviated title*)

Qian, C. & **Balaji, P.**, & Crilly, D. CEO Regulatory Focus and Employee Injuries. Resubmitted after **1st Revise & Resubmit** at *Journal of Management*.

Working papers

Balaji, P., Tsang, E.W.K., & Qian, C. CEO Career Horizon and Legacy Preservation. Revising manuscript for submission to *Journal of Management*.

Balaji, P., Qian, C., Khoo, E., & Lu, L. CEO Professional Experience and Stakeholder (Dis)engagement. Revising manuscript for submission to *Strategic Management Journal*.

Liu, Y., Qian, C., & **Balaji, P.** CEO Career Prospects and Corporate News Disclosure: The Case of IDD Adoption and Rejection. Revising manuscript for submission to *Academy of Management Journal*.

Balaji, P., Tsang, E.W.K., & Su, W. Organizational Decline and Changes in Stakeholder Dependence: Impact on Firm CSR. Revising manuscript for submission to *Journal of Business Ethics*.

Balaji, P., Markoczy, L., & Zaandam, A. Class Actions: The Impact of CEO Social Class Origin on Firm Competitive Repertoires. Data analysis phase.

Liu, Y., **Balaji, P.**, & Markoczy, L. CEO Underpayment: Influence of CEO Characteristics. Theory development phase.

INVITED PRESENTATIONS & CONSORTIA

‘Class Actions: The Impact of CEO Social Class Origin on Firm Competitive Repertoires’. *Strategic Management Society Annual Conference (Virtual)*, September 2021

‘Class Actions: The Impact of CEO Social Class Origin on Firm Competitive Repertoires’. *Academy of Management Annual Meeting (Virtual)*, August 2021

‘CEO Regulatory Focus and Workplace Safety: Evidence from Plant-Level Analysis’. *Academy of Management Annual Meeting (Virtual)*, August 2020

TCU Corporate Governance Doctoral Consortium, Fort Worth, 2020

SIM Doctoral Consortium, *Academy of Management Annual Meeting*, Boston, August 2019
‘Internal Uncertainties, Dependence Changes & CEO Pay’. *Strategic Management Society Special Conference*, Las Vegas, March 2019

‘Internal Uncertainties, Dependence Changes and CEO Pay Premiums’. *Strategic Management Society Annual Conference*, Paris, September 2018 (accepted for presentation)

‘Coming from Decline: Outsider CEOs' Prior Failure and Strategic Change’. *Academy of Management Annual Meeting*, Chicago, August 2018

‘Prior Experience of Entrepreneurial Teams and Innovation’. *Academy of Management Annual Meeting*, Atlanta, GA, August 2017

TEACHING

University of Texas at Dallas

Instructor

BPS 4305 Strategic Management (Traditional Classroom/ Hybrid)	Fall 2021
Teaching evaluation – 4.86/5	
IMS 3310 International Business (Online/ virtual)	Spring 2021
Teaching evaluation – 4.85/5	
BPS 4305 Strategic Management (Traditional Classroom)	Fall 2019
Teaching evaluation – 4.83/5	
BPS 4305 Strategic Management (Traditional Classroom)	Fall 2018
Teaching evaluation – 4.59/5	

Teaching Assistant

Classroom courses: OBHR 3310 Organizational Behavior (Fall 2016), IMS 3310 International Business (Spring 2017, 2019), BPS 4305 Strategic Management (Spring 2019, 2020), HMG 3100 - Professional Development (Spring 2020), BA 1100 - Business Basics (Spring 2020), BPS 4300 - Senior Project (Spring 2020)
Online/ hybrid: BPS 6310 Strategic Management (Summer 2019, 2020), BPS 4305 Strategic Management (Fall 2020), IMS 3310 (Fall 2020)

Certification

Graduate Teaching Certificate, Center for Teaching & Learning, University of Texas at Dallas

WORK EXPERIENCE

Perfint Healthcare, Chennai, India April 2013- May 2016
Assistant Manager, Human Resources

Managed all HR functions (recruitment, compensation, performance management, learning & development, employee engagement) at a healthcare start-up with global operations, reporting to the CEO.

Additionally managed Sales Operations and Manufacturing Operations for a few months. Coordinated company-wide efforts in securing regulatory approvals such as the US FDA.

SERVICE

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REFERENCES

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