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# THREE ESSAYS ON STRATEGIC HUMAN CAPITAL, MANAGERS AND COMPETITIVE ADVANTAGE

by

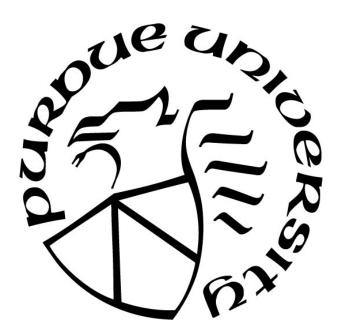
#### Jongsoo Kim

#### **A Dissertation**

Submitted to the Faculty of Purdue University

In Partial Fulfillment of the Requirements for the degree of

#### **Doctor of Philosophy**



Krannert School of Management
West Lafayette, Indiana
May 2018

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This dissertation is dedicated to my parents and my wife.

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#### **ABSTRACT**

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Title: Three Essays on Strategic Human Capital, Managers and Competitive Advantages

Committee Chair: Richard Makadok

In this dissertation, I investigate the interplay between strategic human capital and the role of managers in an organization. In Essay 1, using a natural experiment setting with a dataset on change of interdependence that an organization requires, and unexpected employee exit in a professional sports league for the period 1992 to 2010, I examine the consequence of losing strategically important human resources (HR) and shows that how specific organizational recovering techniques for dealing with HR can help the firm's strategic renewal process. The data present that the consequential impact of losing employees is depending upon the type of interdependence that organization relies on, which are pooled interdependence and reciprocal interdependence. Furthermore, the results indicate that: (1) during the individual-focused period (pooled interdependence), loss of *star* employees harms organizational performance, but this harm can be mitigated by strong resource-picking skill, and (2) during the collaboration-focused period (reciprocal interdependence), loss of *non-star* employees harms organizational performance, but this harm can be mitigated by strong *capability-building* skill.

In Essay 2, I try to answer following question: when promoted to management, do former star performers become superior managers? If so, why? Using performance data from a professional sports league, this study finds that organizational performance is greater under starperformers-turned-managers (SPTM's) than other managers. Organizational performance is driven by the visibility of the manager's prior career to employees for SPTM's only, but driven by

managerial competence for other managers only, suggesting a substitution effect between skill and inspirational role modeling. Consistent with social-comparison and self-enhancement theories, this inspirational role-modeling effect of SPTM's on performance is contingent upon the need for self-enhancement by subordinates, and situational salience of the manager's stardom. The results are consistent across robustness checks that control for potential selection issues, endogeneity concerns, and outliers.

In Essay 3, I assess the causal impact of stakeholder orientation on the impact of corporate social responsibility and CEOs' wealth and prominence. To obtain exogenous variation in stakeholder orientation, I exploit the enactment of state-level constituency statutes, which allow corporate executives and directors to consider non-shareholders' interests when making business decisions. Using a cross-section of Texan firms during 2002-2012, I have found that the enactment of constituency statutes leads to significant increases in the quality of a firm's corporate social responsibility (CSR); however, the effect of CSR does not necessarily lead to superior firm performance or value. I further argue and provide evidence suggesting that the obligated stakeholder orientation decreases the impact of CSR on CEOs' compensation but increases the impact of CSR on CEOs' media exposure. Finally, I posit that the impact of non-shareholder orientation on CEOs' wealth and prominence is salient in non-consumer-focused industries.

#### CHAPTER 1. INTRODUCTION

A firm with rare, valuable resources gains competitive advantages over its competitors, resulting in superior organizational performance (Barney, 1991; Mahoney & Pandian, 1992; Peteraf, 1993; Wernerfelt, 1984). To maintain this superior performance, the resources that firms own must prevent competitors from imitating them amid isolating mechanisms and causal ambiguity (e.g., Amit & Schoemaker, 1993; Dierickx & Cool, 1989; Lippman & Rumelt, 1982). Merely possessing superior resources and implementing strong safeguards to prevent imitation do not necessarily guarantee the sustainability of competitive advantages since the quality of firm resources would not last forever, and competitive environment would not be static (e.g., BretonMiller & Miller, 2015; Sirmon, Hitt, & Ireland, 2007). Accordingly, effective management of firm resource is the ultimate determinant of organizational performance.

With respect to the human resource, not physical resource, effective resource management becomes further important because the process that creates value from the human resources depends heavily on their skills and commitment, and a firm could temporarily borrow the value from them by contracting (e.g., Snell & Dean, 1992). For example, in the view of a firm, superior employees are attractive to both their current organization and other competitors, since their expertise could be valuable, and rare resources to every organization. If the current firm wants to retain the superior expertise, it would provide the employee with more favorable contract term than others do. In the view of an employee, the employee might be reluctant to invest in her own human capital, since too much firm-specific human capital limits the chance to move to other competing firms (Coff, 1997). Thus, retaining and developing human resources are complex, and dilemmatic procedures in both firms and employees, and the problems link with critical organizational issues such as employee mobility, external environment changes, and motivation

of employees. Resolving these organizational issues, managers play a critical managerial role because the managers could attenuate the disadvantages from outward employee mobility, make their employees voluntarily commit themselves to the organization, and further contribute to value creation. Therefore, in this dissertation, I would propose underexplored managerial roles/capabilities that affect organizational value creation with respect to "star human capital".

The main argument in Essay 1 (Chapter 2) is to dig deeper into the details of strategic renewal process when loss of strategically important human capital. By asking specific research question: What specific techniques do organization use to recover from the loss of key human-capital resources, and how is the relative effectiveness of these techniques affected by the organization's particular situation? Furthermore, I try to empirically construct two possible recovery techniques, which have labeled "resource picking" and "capability building" (Makadok, 2001) and examine how the relative effectiveness of the two techniques are depending upon the type of interdependence that an organization requires and how the two techniques are dealing with the loss of human capital.

The main purpose of Essay 2 (Chapter 3) is to introduce the new type of managers that prior literature has not considered: star performer-turned manager (SPTM). By revisiting two conventional wisdom about managers: Matthew effect (former star individual contributors make better managers) and Peter Principle (people get promoted to their own level of incompetence, and then get stuck at that level), the research question is whether SPTM's outperform other managers depends upon whether the Matthew effect dominates the Peter Principle, or vice versa. This question is important because having a star performer as a manager may incur considerable costs, both ex ante and ex post -- e.g., expensive compensation packages, long contractual terms, uncertain performance, or potential frictions with incumbent employees.

The main purpose of Essay 3 (Chapter 4) is to argue that the potential impact of stakeholder orientation enforced by a government on CSR and its further effects on firm performance and CEO's wealth and prominence (i.e., status, reputation). Implementation of CSR should be followed by a current organization's needs and capabilities since firms are expected to be efficient, profitable, and to keep shareholder interests in mind while CSR concerns societal expectations, such as the expectation that organizations will conduct their affairs in fair and just ways. Given that one of mechanisms that explain the positive relationship between CSR and firm performance is that satisfying the need for CSR of stakeholders, and various stakeholders encourage firms to engage in more and better CSR activity, I examine an unexplored concern about CSR by asking several research questions: does enforced CSR activity lead to superior firm performance and firm value? does superior CSR performance lead to superior CEO wealth and status? The questions are important since 1) it would shed new light on the link between CSR and firm performance, and 2) verifying one mechanism how CEOs obtain wealth and prominence followed by social norms. Many researchers have examined the advantages or disadvantages of having extreme quality of human capital (e.g., Groysberg & Lee, 2009), however, little research is concerned with how the extreme case of human capital such as stardom arises.

In this dissertation, I explore not only those research questions, but also explore important business issues such as exogenous policy changes, employee mobility, and corporate social responsibility. Moreover, this dissertation is designed by multi-/interdisciplinary spirits, which are including socio-psychology, policy economics, law studies, sports management, OBHR studies with strategic management.

# CHAPTER 2. THE EFFECTIVENESS OF MANAGERIAL TECHNIQUES IN THE RECOVERY FROM THE UNEXPECTED LOSS OF EMPLOYEES: EVIDENCE FROM A NATURAL EXPERIEMENT

#### 2.1 Introduction

For many organizations, human capital is a key resource for creating economic value and maintaining competitive advantage (e.g., Barney & Wright, 1998; Coff, 1997; Huselid, 1995). Accordingly, much research about employee mobility has focused on the benefits of gaining superior human capital, with studies examining the contingency factors on the side of the acquiring organization (Campbell, Saxton, & Banerjee, 2014; Groysberg, Lee, & Nanda, 2008), the *ex ante* and *ex post* determinants for obtaining human capital (e.g., Carnahan, Agarwal, & Campbell, 2012), and other relevant contextual factors (Marx, Strumsky, & Fleming, 2009).

By comparison, relatively little employee mobility research has focused on the effects of *losing* strategically important human capital, or on how managers can most effectively help their organizations to recover from such losses. This question is relevant and important because human capital cannot be owned by an organization. After all, human capital resides in employees with free will who, with only very few exceptions (e.g., military service), have the legal right to leave the organization at any time and may even, in many cases, choose to defect to a direct competitor (Coff, 1997; 1999). So, the loss of valuable human capital is a ubiquitous threat, and for an organization in a human-capital-intensive industry, such losses may disrupt its established capabilities, strategic plan, and business routines so severely that restoring success may require full-blown strategic renewal in order to recover a damaged competitive advantage (Agarwal & Helfat, 2009). However, strategic renewal is fraught with managerial challenges even under the

best of circumstances (Floyd & Lane, 2000), so these challenges may be more severe in situations where strategic human capital, with all of its attendant management dilemmas (Coff, 1997), is the resource that most needs to be renewed. Managers serve various roles in this recovery because their attention is needed for several aspects of an organization's resource management process (e.g., Mintzberg, 1973; Simons, 1994; Sirmon, Hitt, & Ireland, 2007).

Specifically, managers are responsible for recognizing the need for recovery after losing human capital and for alleviating the impact of that loss (Helfat et al., 2009), which may require specifying which particular capabilities should be renewed, reorganizing existing resources, and acquiring new resources and integrating them into the organization's existing structure (Grant, 1996). Conventional wisdom suggests that the damage is more pronounced when a losing a high-ranking, centrally positioned, or highly skilled employee. However, this may not necessarily be true if managerial capabilities mitigate the detrimental consequences of losing human assets. For example, organizational capabilities research provides insight into how the strategic renewal process can repair a damaged advantage under dynamically competitive conditions (e.g., Helfat & Martin, 2015).

The purpose of this chapter is to dig deeper into the details of this strategic renewal process by asking the question: What specific techniques do managers use to recover from the loss of key human-capital resources, and how is the relative effectiveness of these techniques affected by the organization's particular situation? Standard resource-based theory would suggest two possible recovery techniques, which have labeled "resource picking" and "capability building" (Makadok, 2001). The resource-picking technique consists of acquiring new superior-quality resources into the organization at a cost that is less than the value that they are expected to create for the organization. If the resource markets were sufficiently efficient, theory suggests that consistent

success with this technique requires managers to develop superior insight about the hypothetical value that a given resource would generate for a particular use by a particular owner (Barney, 1986). By contrast, the capability-building technique consists of increasing the value created by whatever resources the organization controls (Dierickx & Cool, 1989), which may lead to a sustainable advantage in the presence of some "isolating mechanism" (Rumelt, 1984).

So, the research question boils down to: When recovering from the loss of strategically important human capital, is it more effective for managers to focus their efforts on recruiting the best replacements for departing employees (resource picking) or on improving the performance of the remaining employees (capability building)? Does the relative effectiveness of these two techniques vary according to the organization's situation? If so, how and why?

For reasons to be explained in the following section (Theory and Hypotheses), I argue that the answer depends critically on the type of interdependence the organization requires Thompson (1967) distinguishes pooled interdependence, where the separate performance of each individual employee is more important than the collaboration between employees, from sequential or reciprocal forms of interdependence, in which collaboration between employees is more important than individual performance of each employee. Under an individual-focused business model with pooled interdependence, successfully recovering from the loss of a star requires finding a new star to replace the outgoing one, so I hypothesize that the resource-picking approach is more beneficial in such situations. Conversely, I also hypothesize that the capability-building approach is more beneficial under a collaboration-focused business model with sequential or reciprocal interdependence, since the success of such organizations requires building a team with a shared experience of working together effectively.

An ideal empirical setting for testing these hypotheses would provide: (1) objective and unambiguous measures of performance at both the individual and organizational levels, (2) some clearly identifiable variation (either cross-sectional variation between organizations, or longitudinal variation between time periods) in the type of interdependence that affects the relative importance of individual skills versus collaboration, and (3) some measure for each organization's use of each of the two techniques – i.e., resource picking and capability building. The search for an ideal empirical setting that would satisfy all three of these criteria – especially the latter two, which are particularly difficult to find in almost any industry context – led us to professional sports teams. In particular, I exploit a natural experiment in the National Basketball Association (NBA) that exogenously and dramatically shifted the primary basis for competition from individual skill to collaborative teamwork – namely, the "zone defense" rule change in April 2001. Prior to 2001, zone defenses were disallowed in NBA play, so "man-to-man" defense was the norm, which made the height, weight, strength, and skill of each individual player critical to overall team success. Since 2001-02 season, the legalization of zone defenses has made collaboration between teammates relatively more important, while also diminishing the relevance of individual star players because the new zone-defense rules now allow a defending team to more easily thwart an opposing star's offensive capabilities via "double-teaming" – i.e., assigning two defenders to guard the opposing team's strongest offensive player. So, in effect, this natural experiment made the type of interdependence between a team's players less pooled and more reciprocal, thereby creating longitudinal variation in the relative importance of individual skill versus collaborative teamwork.

I exploit this longitudinal variation to test the relative effectiveness of resource picking versus capability building in response to loss of human capital. Thanks to the availability of

<sup>&</sup>lt;sup>1</sup> I use this common parlance, despite its gender-specificity, because "The term is commonly used in both men's and women's sports" (<a href="https://en.wikipedia.org/wiki/Man-to-man defense">https://en.wikipedia.org/wiki/Man-to-man defense</a>).

individual-level performance data on NBA players, I measure *resource picking* as a manager's ability to recruit into the organization new employees whose performance subsequently improves relative to their previous job, and I measure *capability building* as a manager's ability to improve the performance of extant employees who were already in the organization. Both before and after the natural experiment, I examine how effectively each of these two approaches mitigates the damage to performance that occurs following the departures of both star and non-star employees.

Consistent with expectations, the results indicate that: (1) during the *individual*-focused period *before* the natural experiment, loss of *star* employees harms organizational performance, but this harm can be mitigated by strong *resource-picking* skill, and (2) during the *collaboration*-focused period *after* the natural experiment, loss of *non-star* employees harms organizational performance, but this harm can be mitigated by strong *capability-building* skill.

#### 2.2 Theoretical Background and Hypotheses

Superior human capital can be a source of competitive advantage (e.g., Barney & Wright, 1998; Hatch & Dyer, 2004) and thereby boost organizational performance (e.g., Aime, Johnson, Ridge, & Hill, 2010; Franco & Filson, 2006). Yet, in contrast to other resources like physical assets or intellectual property, human capital cannot be owned by the organization that seeks to exploit its value. So, even the mere threat that the employee who owns this human capital can leave the organization, and even possibly go to work for a competitor, creates dilemmas for managers (Coff, 1997) and limits an organization's ability to appropriate the value generated by the human capital it hires (Castanias & Helfat, 1991; Coff, 1999). When this threat of departure is actually realized, the loss of valuable human capital to a competitor disrupts both the individual and collective capabilities of the organization (Tan & Rider, 2017). Indeed, the loss of an organization's most

important employees may be so damaging as to necessitate outright strategic renewal in order to recover a lost competitive advantage (Agarwal & Helfat, 2009).

What is the best method for managers to accomplish such a recovery? Resource-based theory offers two obvious options. On one hand, strategic factor market logic suggests that a manager seeking to fill the void left by a key employee's departure should find bargains by using private information to identify potential replacements who are systematically undervalued by other potential employers in the labor market (Barney, 1986), or who would have greater synergies with the manager's own organization than with other organizations (Barney, 1988). On the other hand, the logic of asset stock accumulation (Dierickx & Cool, 1989) suggests that, rather than acquiring new human capital from the outside to replace a departing employee, a manager could instead focus on internal development of resources by investing in improving the human capital that still remains within the organization. Makadok (2001) studied the relationship between these two mechanisms, labeling the strategic factor market method as "resource picking" and the asset stock accumulation method as "capability building." For convenience, I adopt this same terminology.

In the specific case of human capital, resource picking is likely to reside, at least in part, in an organization's recruitment and selection processes, while capability building is likely to reside, at least in part, in its training and development processes. Human capital resource picking requires identifying, attracting, selecting, and recruiting the best new hires from the external labor market, despite the facts that certain talents are difficult to replace (Lewis & Heckman, 2006) and that location-specific and firm-specific requirements affecting the value of human capital (Campbell et al., 2014; Huckman & Pisano, 2006) may impede the organization's ability to forecast how the recruit will perform in a new job. On the other hand, human capital capability building requires training, socializing, grooming individuals from a pool of incumbent employees, as well as

creating systems and operating procedures to improve their individual and collective performance – i.e., an ability to develop resources internally (Ruigrok, Georgakakis, & Greve, 2014).

Since both of these approaches are skilled tasks, different organizations, or even different managers within the same organization, may differ from each other in their levels of ability for either approach. For example, Procter & Gamble (P&G) is an outstanding exemplar of superior resource picking for human capital, because the company's unique proprietary analytical tool called Human Resources Research & Analytics (HRRA) assists the company in selecting suitable employees by integrating a set of fragmented data and visualizing the results of each candidate's potential. On the other hand, General Electric (GE) is an outstanding exemplar of superior capability building for human capital, due to its extensive set of training programs for incumbent employees, such as the Human Resources Leadership Program (HRLP), which can be customized for targeted employee groups, such as entry-level employees, mid-career middle managers, and upper-level executives. Of course, I would never suggest that P&G ignores training of incumbent employees or that GE makes no effort to hire superior new recruits, but rather I simply note that organizations like P&G and GE differ in their relative emphasis on the two, so it is important to understand where and when each one is more effective.

I propose that the relative effectiveness of using resource picking versus capability building to recover from the loss of human capital depends critically on how human capital affects organizational performance in the first place – in particular, on whether the organization's overall performance is driven more by the separate performance of each individual employee or more by the effectiveness of collaboration between employees. In business models where individual skill is paramount and collaboration is relatively unimportant, the performance of the whole can never be very different from the sum of the parts. This type of organizing is what Thompson (1967)

called "pooled interdependence." By contrast, in business models where the effectiveness of collaboration trumps the skill of the individual, synergies between the parts make overall performance greater than just the sum of the parts. Thompson (1967) called this type of organizing either "sequential interdependence" in cases where one part's performance affects another part's performance in a unidirectional way, or "reciprocal interdependence" in cases where the performance of any two parts can affect each other in a mutual way.

For example, in manufacturing, pre-industrial craft production systems depended more on the deep skills of individual craftspeople and therefore exhibited pooled interdependence, while industrial mass production systems – especially those that rely on modern "lean manufacturing" methods – depend more on effective collaboration than on specific workers' skills, and therefore exhibit more sequential or reciprocal forms of interdependence. Similar distinctions can even be found in the realm of management, where Collins (2001) separates what he calls "level 5 management" with "deep and strong executive teams" from the more individual-focused "genius with a thousand helpers' model" of management, where the former experience reciprocal interdependence while the latter experience merely pooled interdependence.

When a star performer departs, what the organization loses – and what the organization must therefore recover from – depends upon the type of interdependence its business model uses. Under a more individual-focused model with pooled interdependence (e.g., craft production or "genius with a thousand helpers"), a lost star can only be replaced by another star, since anything less than a star replacement would not restore the organization's performance. In such situations, the fundamental problem to be solved is finding the highest quality replacement employee the organization can afford with its scarce funds, which requires skill in resource picking. By contrast, under a collaboration-focused model with more sequential or reciprocal forms of interdependence

(e.g., lean manufacturing or "level 5 management"), the departure of a key person really represents the loss of an integral part of a system, as if a gear had been removed from a precision clockwork mechanism. Filling that gap does not require finding the world's best gear, but rather finding the gear that fits best into the system – i.e., with the right size and shape to replace the missing gear in a way that meshes seamlessly with the other parts. In such situations, the fundamental problem to be solved is to mold the replacement employee and the rest of the organization to fit well with each other so that they work smoothly together, which requires skill in capability building.

Furthermore, I also propose that the type of interdependence embedded in an organization's business model also affects the relative amount of damage done by the loss of star versus non-star employees. Under all types of interdependence, it makes sense to expect that the loss of a star performer would be more harmful than the loss of a non-star. However, since pooled interdependence makes individual performance paramount, it makes sense to expect that pooled interdependence would exhibit a large gap between the damage caused by the loss of a star and the damage caused by the loss of a non-star. Conversely, since sequential or reciprocal forms of interdependence make individual performance relatively less important than collaboration, it makes sense to expect these forms of interdependence to exhibit a relatively smaller gap between the consequences of losing stars versus non-stars.

There are two possible reasons why this gap might be larger under pooled interdependence than under sequential or reciprocal interdependence: Either the loss of a star is more damaging under pooled interdependence than under sequential or reciprocal interdependence, or the loss of a non-star is more damaging under sequential or reciprocal interdependence than under pooled interdependence, or some combination of both. I investigate both of these possibilities.

To summarize all of the arguments outlined above, I hypothesize:

Hypothesis 1: Losing star employees hurts organizational performance more under pooled interdependence than under reciprocal interdependence.

Hypothesis 2: Losing non-star employees hurts organizational performance more under reciprocal interdependence than under pooled interdependence.

Hypothesis 3: Resource picking is more effective at mitigating the harm from losing human capital, especially the loss of star employees, under pooled interdependence than under reciprocal interdependence.

Hypothesis 4: Capability building is more effective at mitigating the harm from losing human capital, especially the loss of non-star employees, under reciprocal interdependence than under pooled interdependence.

These hypotheses exclude the possibility of sequential interdependence simply because it is not relevant in particular empirical context, but if sequential interdependence did occur, one would expect it to behave more like reciprocal interdependence than pooled interdependence.

#### 2.3 Data and Methodology

#### 2.3.1 Context: National basketball association

I test hypotheses using data from a major professional sports league in North America, the National Basketball Association (NBA). <sup>2</sup> In the highly competitive sport of professional basketball, teams have similar numbers of human assets, which managers combine and utilize to perform similar interdependent tasks. Basketball team managers (head coaches in this context) generally have a primary responsibility for undertaking actions involving the management of the

<sup>&</sup>lt;sup>2</sup> Founded in 1946 as the Basketball Association of America, the NBA adopted the name National Basketball Association after merging with the rival National Basketball league in 1949. In 1976, it then merged with the rival American Basketball Association (NBA official website). The current setting is fixed to the beginning of the 2004–05 season. From the 1995–96 season through the 2004–05 season, the NBA had four divisions (Atlantic, Midwest, Central, and Pacific) with a total of 29 teams. There were 27 teams in these four divisions from the 1991–92 season to the 1994–95 season. Today, the NBA comprises 30 teams—29 from the United States and one from Canada (Toronto Raptors)—divided into two conferences (Eastern and Western), each with three five-team divisions (Eastern Conference: Atlantic, Central, and Southeast divisions; Western Conference: Northwest, Pacific, and Southwest divisions).

organization, such as acquiring and training HR and devising specific plans to achieve better organization performance. Chief executive officers (CEO) in conventional business organizations perform similar tasks and duties<sup>3</sup>.

Several features make the NBA especially suitable for testing the hypotheses. First, the main argument concerns how organizational capability for manipulating firm resources (e.g., resource picking and capability building) from inside and outside the organization (e.g., newlyhired and incumbent employees) affects the strategic renewal process. To better understand this relationship, I take that losing (both star and non-star) employees is a situation that is needed to reform organizational strategic initiatives. Taking advantage of widely available archival data on individual players and managers allows for tracing every employee's mobility and the motivation for this mobility (e.g., trade, waive, free-agent). This is important because employee mobility out is related to an endogeneity concern that poor performance of players or the team cause the employee mobility, thus, I am able to exploit a player's voluntary out as an exogenous shock to alleviate the concern. Second, this sport setting provides us with objective and unambiguous measures of performance at both individual and organizational levels. Detailed individual-level performance statistics are available to identify stars and non-stars, and to isolate their respective effects on organization performance. Third, historical archival data for head coaches allow us to construct their historical HR management and development with their players.

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<sup>&</sup>lt;sup>3</sup> I recognize that general manager also involves in delivering the players, hiring coaching staff, and carrying out owner's philosophy (https://www.sbnation.com/2010/7/22/1582380/nba-general-manager-rankings-pat-riley-heat). Given that the GM recognizes his coach's capability, thus, it is hard to believe that GM made hiring decision independently. As a robustness check, I control for GM's tenure as a general manager, prior player and coaching experience and obtain similar results.

#### 2.3.2 Exogenous shock that affects interdependence: Eliminating illegal defense

One of important research questions in this paper is that the effectiveness of resource picking and capability building would vary according to the type of interdependence an organization requires. In order to capture identifiable variation in the type of interdependence that affects the relative importance of individual skills versus collaboration, I carried out a natural experiment showing a change in industry regulation by a court-rule reform. Before the commencement of the 2001–02 NBA season, the NBA commissioner announced that the league was eliminating illegal defense entirely (April 12, 2001) to improve the flow and pace of the game and to reduce the dependency of a few star players. Up to this point, the NBA had allowed a zone defense that was a cooperative defensive strategy. This practice was outlawed since January 1947.

Before eliminating illegal defense alignments, each NBA team deployed a one-on-one defensive strategy, because *Illegal Defensive Alignments 1981-82* did not allow double-teamed defensive strategies on the weak side.<sup>4</sup> Teams often used an isolation offensive strategy: once one player got the ball, other teammates moved to the other side of the court to draw their defenders as far away from the ball as possible, while the ball-handler tried to beat his opponent one-on-one. In this strategy, the importance of star players that can beat a one-on-one match-up was significant.

Every team ran isolation strategies, particularly in end-of-quarter or end-of-game situations. Yet there was a significant downside to the isolation strategy; teams that become too reliant on a single star player could become stagnant on offense, too one-dimensional, and too vulnerable to teams that had one lock-down defender who can thwart the isolation play. After eliminating the illegal defensive strategy, two or three players could face one star player on the floor, and some players could make a zone that restrained a star player's penetration. From this rule change,

<sup>&</sup>lt;sup>4</sup> 1981-82 Illegal Defensive Alignments (c): Player without the ball may not be double-teamed from weak side.

cooperative, team-oriented tactics became much more important than before, shaping from pooled interdependence to reciprocal interdependence that each team requires <sup>5</sup>. Figure 2.1 describes how the rule revision shapes a team's defensive strategy before and after the rule change <sup>6</sup>.

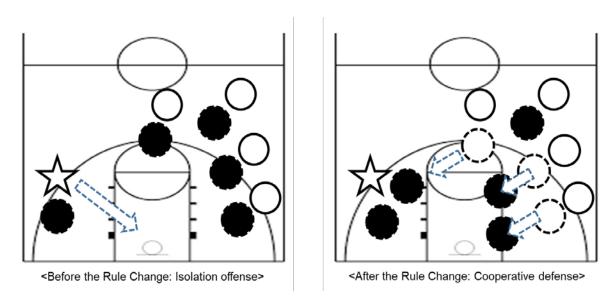


Figure 2.1 Effect of the rule change on the court defensive strategy<sup>7</sup>

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<sup>&</sup>lt;sup>5</sup> I also recognize that the 2001 rule reform referenced was accompanied by another new rule: "a new defensive three-second rule" that prohibits a defensive player from remaining in the box for more than three consecutive seconds. Although it is still difficult for teams to employ a purely zone defensive strategy or even a meaningful man-help scheme, however, many teams practiced the way of 'zoning' at the boarder of box (just a few inch off from the box) and staying in the box for 2.9 seconds.

<sup>&</sup>lt;sup>6</sup> Some may argue that the rule change in 2001 was endogenously determined collectively by team leaders. At that time, only a few selective committee members made the decision during two months, and some opponents of the rule changes privately accused commissioner David Stern. One of reasons was "the rule change was too radical".(https://www.nytimes.com/2001/04/12/sports/pro-basketball-nba-s-illegal-defense-rule-will-most-likely-be-eliminated.html)

<sup>&</sup>lt;sup>7</sup> Before the rule change, if a player was not within arms-length away from someone for three seconds it was illegal defense. What this meant is that teams were able to spread the floor more and double-teams were not as effective. After the rule change, double team-defense and zone-defense were legalized. After the rule change, a star's isolation strategy was likely to face a double-team defense team and other defensive players could set up a zone that blocked the attack.

#### 2.3.3 Sample

The research sample consisted of data on sports teams that competed in the NBA from the 1992–93 season through the 2009–10 season. This resulted in a total of 522 samples (255 before the rule change and 267 after the rule change)<sup>8</sup>. Each regular NBA season begins in late October or early November and runs through May of the next year. In general, each team plays 82 regular games in a single season, and the top 16 teams have playoff games to determine the league champion. Only regular-season games were considered, as most organizations use different game strategies and rosters in the post-season.

#### 2.3.4 Dependent variable: organizational performance

To measure performance, I used organizational performance as the percentage of team wins within each season. A team's winning percentage not only is a visible, intuitive metric of performance in this context but is consistent with absolute measures of organizational performance used in prior studies on sports teams (e.g., Berman, Down, & Hill, 2002; Hill, Aime, & Ridge, 2016; Holcomb, Holmes Jr, & Connelly, 2009; Moliterno & Wiersema, 2007). An alternative operationalization was the financial performance of games (e.g., attendance, ticket sales). To improve the competitive balance, each NBA team pays similar player salaries due to salary caps and revenue sharing (Fonti & Maoret, 2015; Fort, Sanderson, & Siegfried, 2003) imposed under the philosophy that teams should "cooperate financially in order to compete effectively" (Day, Gordon, & Fink, 2012: 401; Fonti & Maoret, 2015). Therefore, financial performance does not capture the competitive dynamics among teams. Game performance is a more reliable

<sup>&</sup>lt;sup>8</sup> During the sample period, there were 27 teams from the 1992–93 to 1994–95 seasons. From the 1994–95 to 2002–03 seasons, there were 29 teams, and the current 30 teams setting holds as of the 2003–04 season. In addition, NBA players carried out two lockouts, in the 1998–99, seeking changes to the league's salary cap system and a ceiling on individual player salaries. Consequently, the 1998–99 season comprised 50 games.

measurement for the theoretical argument focusing on motivating and stimulating subordinate employees to invest in human capital<sup>9</sup>.

#### 2.3.5 Independent variables: Stars and non-stars employees lost

To capture the impact of outward employee mobility on the organizational outcome, I traced inter-team movement during the sample period. Taking advantage of the current sports setting, the data allowed for identifying if an employee's (e.g., player's) exit was voluntary or involuntary. This identification was critical because it would not be a serious situation for a firm that needed strategic renewal if the turnover was the intention of the firm and not the employee. For example, in general, team waives and trades are regarded as exemplifying involuntary turnover and the modification HR as exemplifying a strategic action on the part of the team. In other words, outward free-agent (FA) mobility driven by a player is likely to be an example of voluntary turnover, which affects the organization's routine and current team strategy. In addition, involuntary turnover on the part of low performers should occur more often in an organization (Carnahan et al., 2012); thus, I limited the focus to starters, rather than rotators, in a game roster. Furthermore, these starters had changed employment status since the previous off-season. In order to understand the effect of losing employees, I categorized two types of employee mobility with respect to their previous rating.

I defined a star employee as a player listed in the top 5% of the league in terms of their Player Efficiency Rating (PER) (e.g., Fonti & Maoret, 2015). For example, 2006-07 season, there

<sup>&</sup>lt;sup>9</sup> As a robustness check, I perform an OLS with alternative dependent variable, financial performance, that is measured as the number of attendance and find qualitatively consistent results.

<sup>&</sup>lt;sup>10</sup> For the clarification, here voluntary and involuntary are at the employee-level.

<sup>&</sup>lt;sup>11</sup> I can recognize whether a player is a starter or rotator by observing the number of games they played as starters. I define a starter as a player who played the most games during the season. Additionally, Real GM and Basketball-Reference, a prominent website for NBA information, yielded information about whether a certain player was a starter or not.

were total 333 registered players and 17 players (=333\*0.05) would categorize into the stars. After 2006-07 season, Zach Randolph, who ranked 15<sup>th</sup> in terms of PER out of 333, voluntarily moved from Blazers to Knicks. So I coded that Blazers lost one star loss before 2007-08 season. PER was calculated by accurately weighting multiple individual statistics (e.g., points scored, missed shots, rebounds, steals, blocks, turnovers, assists) and by standardizing for minutes played and the team paces resulting from offensive and defensive team strategies. The resulting indicator most closely captured individual players' quality, ruling out the possible team effects. I coded 1 for a voluntarily outgoing player listed in the top 5% of the league, and then counted the total number of specific cases. Thus, the variable *Star Employee Out* represents the number of outward star players before a focal season. Similarly, I defined a non-star player as one with a rating in below the top 5%. I coded the variable *Non-Star Employee Out* as 1 in the case of a voluntarily outgoing player listed below the top 5% of the league, and then counted the number of cases <sup>12</sup>.

#### 2.3.6 Measuring resource picking and capability building

In general, every NBA team has two options for filling vacancies from the loss of valuable HR. The first option is to find a replacement from external markets, including from competing opponents, foreign basketball leagues, and rookie drafts from domestic universities. The second option is to fill vacancies with incumbent players who have been on a team. In order to capture the two distinctive techniques with respect to HR, I collected items that represent the improvements in the quality of HR. Using the seasonal depth chart provided at Real GM.com and Basketball

<sup>&</sup>lt;sup>12</sup> In general, about 300–350 players are listed in the NBA league. For example, in the 2004–05 season, there were 336 players listed in the league, and 17 players were listed in the top 5%. Our calculations revealed a possible maximum PER of 30 and a league average of 15. In that season, the best player in PER was Kevin Garnett (MIN, 28.29) and the 17th player was Manu Ginobili (SAS, 22.2). The two players were also chosen as the ALL Star game in the season too.

Reference.com, reliable websites for basketball statistics and transactions, I traced every player's off-season mobility in and out as well as the change of the player's rating between the seasons. From the process, I categorized two different player's pool which are 'newly-hired' and 'incumbents' and gathered eight items (components) that may represent the organization's HR management capability: (1) the amount of change in a newly-hired starting player's efficiency rating over the previous season, (2) the number of improved newly-hired starting players, (3) the amount of change in a newly-hired rotating player's efficiency rating over the previous season, (4) the number of improved newly-hired rotating players, (5) the amount of change in an incumbent starting player's efficiency rating over the previous season, (6) the number of improved incumbent starting players, (7) the amount of change in an incumbent rotating player's efficiency rating over the previous season, and (8) the number of improved incumbent rotating players.

Assuming that the improvement of newly-hired employees is related to resource picking and that of incumbent employees is related to capability building, I first conducted exploratory factor analysis to account for potential differences in the correlation and to examine the dimensionality among the items. By using factor analyses, I was able to confirm eight components were falling into two factors, since there are two factors that exceeded one in eigenvalues (see screeplot in the Appendix B). Table 2.1 presents the results of a principal components factor analysis after varimax rotation. The two factors that were retained explained 70.1 percent of the variance in the data. It appears that the two factors deal with qualitatively different types of organization resource techniques. In the case of first factor, the components that are related to "newly-hired employees", and therefore confirmed this factor 'resource picking'. The second factor, by contrast, relates with "incumbent employees". I therefore labeled this factor 'capability building'.

Table 2.1 Varimax rotated factor pattern

Items	Resource Picking (Factor 1)	Capability Building (Factor 2)
The amount of change in a newly-hired starting player's PER over the previous season	0.5082	-0.3882
The amount of change in a newly-hired rotating player's PER over the previous season	0.1984	-0.0407
The number of improved newly-hired staring players	0.5901	-0.5618
The number of improved newly-hired rotating players	0.2801	-0.0995
The amount of change in an incumbent starting player's PER over the previous season	0.1566	0.5485
The amount of change in an incumbent rotating player's PER over the previous season	-0.1654	0.1969
The number of improved incumbent starting players	0.4458	0.9119
The number of improved incumbent rotating players	-0.0503	0.1957
Variance of Explained	7(	).1

Note: Bold print indicates the largest factor loading for each component of dealing with organization HR

#### 2.3.7 Control variables

To exclude alternative explanations and endogenous concerns, I included various control variables at different levels: team, manager, and external market levels. First, I controlled for the general team level property affecting team performance. I controlled for previous organizational performance, measured as previous season's winning percentage. Assuming that the relationship between the age of player and organization performance would be inverted U-shape, I controlled for player's age and its squared term. In the similar vein, I controlled for a manager's age and its squared term. Additionally, to eliminate the concern that certain characteristics of managers may affect organizational performance, I included various variables related to managers' idiosyncratic features as controls: manager-GM dual role, a manager hired from an outside team, manager's

other league experience, and manager's organizational and league tenures. Some NBA managers have a dual role, serving as both head coach and team executive (or general manager) (e.g., Don Nelson, Gregg Popovich, Mike Dunleavy). I controlled for manager outsider status because the origin of a manager might affect firm performance (e.g., Karaevli, 2007; Zhang & Rajagopalan, 2010). I also controlled for a manager's experience in foreign or amateur leagues (e.g., NCAA league) by counting the number of seasons that each manager served as head coach. I also separated manager's NBA experiences into team-specific and league tenures. Manager's organizational tenure was measured by counting the number of seasons with the current team, and manager's league tenure was measured by counting the number of seasons of assuming the head coach role in the NBA.

Next, following the literature on organization performance, I measured organization payroll by total compensation. Additionally, I included the number of rookies on a roster. I controlled for each team's market size because teams from large markets are likely to hire better players and managers. The indicator variable took the value of 1 for the top 15 teams by the population of the city where their stadiums are located, and 0 otherwise. Finally, season, division, and team dummies were included to control for unobserved differences at various levels.

#### 2.3.8 Empirical models

Organizational performance, the dependent variable, is continuous, indicating the appropriateness of the use of ordinary least squares (OLS) regression model for estimating the relationship between the two distinct mechanisms of facing the loss of employees and

organizational outcomes.<sup>13</sup>. First, the relationship between the outcomes and loss of employees is represented by the following equation:

Organizational Performance<sub>i,t</sub> = 
$$\alpha + \theta_i + \delta + T_t + \beta_1 Loss$$
 of  $Stars_{i,t} + \beta_2 Loss$  of  $Non - stars_{i,t} + \beta_3 Post$  Rule Change +  $\beta_4 Resource$  Picking<sub>i,t</sub> +  $\beta_5 Capability$  Building<sub>i,t</sub>  $X_{i,t}\beta_i + \varepsilon_{i,t}$ , --- Eq. (1)

where i indexes teams and t indexes seasons (years). Loss of star employee is a discrete variable relating to the number of star players that left between seasons, and loss of non-star employee is a discrete variable relating to the number of non-star players that left between seasons.  $X_{i,t}$  is a vector of control variables that can determine a team's performance, and  $\theta_i$ ,  $\delta$ , and  $T_t$  represent manager (head coach), firm, division and season fixed effects. In order to compare the magnitude of coefficients between before and after rule change separately, I run add the interaction term of *Post Rule Change X Loss of Stars* and *Post Rule Change X Loss of Non-stars* to the Equation (1) to test H1-H2. In addition, I add three-way interaction terms to verify how the two distinct mechanisms to mitigate the loss of employee loss to the Eq. (1) (e.g., *Post Rule Change X Loss of Stars X Resource Picking* (H3), *Post Rule Change X Loss of Non-stars X Capability Building* (H4)). Robust standard errors clustered at the team-season level account for the non-independence of the observations (Peterson, 2009).

#### 2.4 Results

Table 2.2 presents the descriptive summary statistics and correlation matrix for the variables used to estimate organizational performance. Table 2.3 reports the results of the panel OLS regression model with team fixed effects. Models 1-4 in Table 2.3 present full sample analyses to show the consequence of loss of stars and non-stars employee. Models 5 and 6 display

 $<sup>^{13}</sup>$  As a robustness check, I perform Tobit regression since the winning percentage limited between 0 and 100 and find qualitatively consistent results.

the impact of outward employee mobility before and after rule change, separately. In Model 1 (baseline), the coefficients for Star employee loss and non-star employee demonstrate the employee loss is detrimental to organization performance, not surprisingly suggesting that the loss of star is more hurt to organization performance than the loss non-star employee ( $\beta_{star\,loss}$ = -0.111, p < 0.05,  $\beta_{non-star\,loss} = -0.021$ , p < 0.05). To test hypothesis 1, focal explanatory variable that is the interaction term of Post rule change X Star employee loss is added to Model 2. The coefficient on the Star employee loss variable in Model 2 demonstrates that the negative relationship between the loss of a star and the organizational outcome is mitigated when an organization requires reciprocal interdependence. In other words, the loss of a star hurts more when an organization requires pooled interdependence ( $\beta = 0.104$ , p < 0.05), supporting hypothesis 1. Conversely the coefficient on the post rule change X non-star employee loss in Model 3 demonstrates that the relationship between the loss of a non-star employee and organizational outcome is negatively moderated ( $\beta = -0.019$ , p < 0.05). It suggests that losing non-star employees hurts organizational performance more under reciprocal interdependence than under pooled interdependence, supporting hypothesis 2. The results indicate that the negative impact on the loss of human resource is depending upon the type of interdependence that an organization requires. In particular, the value of star employee is much more important under pooled interdependence, but the value of non-star employee is much more important under reciprocal interdependence.

In order to better understand the hypotheses 1 and 2, I conduct subsample analyses by separating before and after the rule change in Models 5 and 6. Interestingly the loss of star is detrimental to the organization, however, the loss of non-star is not necessarily detrimental to the organization performance before the rule change. Conversely, the star departures do not negatively affect organization performance after the rule change, but the non-star departures hurt organization

performance. To compare the two coefficients from two different equations, I conduct Chow test (Chow, 1960). The Chow test presents that the null hypothesis that the two coefficients on star employee loss from Models 5 and 6 are same was rejected at 95 significance level (before-after; -5.73\*\*). In a similar vein, the Chow test rejects the null hypothesis that two coefficients on non-star employee loss from Models 5 and 6 are same (before-after; 9.73\*\*\*). The Figure 2.2 is a coefficient plot to compare the coefficients in Table 2.3, suggesting that the consequential impact of loss of employees is depending upon the type of interdependence that organizations require. Further, this shows that the loss of star employees is not always harmful, but sometimes the loss of non-star employees is critical for creating firm value.

Table 2.2 Descriptive statistics and correlation matrix

Variables	M	SD	Min.	Max.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Organization Performance	0.50	0.16	0.13	0.88	1																
2. Star Loss	0.04	0.19	0.00	1.00	-0.09	1															
3. Non-star Loss	1.20	1.09	0.00	5.00	-0.34	0.06	1														
4. Post Rule Change	0.51	0.50	0.00	1.00	0.00	-0.01	0.02	1													
<ol><li>Previous Org.</li><li>Performance</li></ol>	0.50	0.16	0.00	0.88	0.65	0.00	-0.29	0.01	1												
<ol><li>Resource picking</li></ol>	0.00	1.00	-3.63	4.20	0.06	0.15	-0.02	-0.06	-0.01	1											
7. Capability Building	0.00	1.00	-3.15	3.01	0.18	0.00	-0.15	0.01	0.03	0.04	1										
8. Employee Age	27	1.43	23	31	0.50	-0.08	-0.17	-0.22	0.56	-0.05	-0.17	1									
9. Employee Age Squared	741	78.22	555	1019	0.50	-0.08	-0.17	-0.22	0.56	-0.05	-0.17	0.99	1								
10. Manager Age	49	7.65	33	71	0.07	0.02	-0.10	0.13	0.09	0.05	-0.10	-0.05	-0.05	1							
11. Manager Age Squared	2536	784	1089	5041	0.07	0.02	-0.10	0.14	0.09	0.04	-0.10	-0.05	-0.05	0.99	1						
12. Manager-Exec. Duality	0.09	0.28	0.00	1.00	-0.08	-0.02	-0.01	-0.14	-0.11	0.00	-0.01	0.00	-0.01	0.01	0.01	1					
13. Manager Outsiderness	0.77	0.42	0.00	1.00	-0.08	0.01	0.01	0.05	-0.13	0.02	0.01	-0.10	-0.10	0.17	0.15	0.12	1				
14. Manager Other Exp.	0.42	0.49	0.00	1.00	0.01	-0.04	0.02	0.02	-0.03	0.04	0.02	0.04	0.04	0.08	0.08	0.07	0.09	1			
15. Organization Payroll	17.54	0.53	15.70	18.66	0.13	-0.03	-0.02	0.75	0.16	-0.05	-0.02	0.03	0.03	0.15	0.16	-0.09	0.06	0.03	1		
16. Manager Org. Tenure	3.38	3.07	1.00	20.00	0.30	0.00	-0.15	0.03	0.30	0.01	-0.15	0.15	0.15	0.17	0.16	0.02	-0.16	-0.07	0.05	1	
17. Manager. Lea. Tenure					l				0.21	0.00	-0.11	0.05	0.05	0.74	0.76	0.06	0.17	-0.05	0.12	0.22	1

Note: N=522. Bolded pairwise correlations are significant at the 0.05 level.

Table 2.3 The effect of employee loss on organization performance

Panel OLS Fixed Effects	Dependent Variable			Organization	Performance					
Sample	•	· ·								
Hypotheses			Full S	Subsample						
Models	Hypotheses	Baseline			Full					
Star Employee Out		1	2	3	4	5	6			
Post Rule Change X   Non-Star Employee Out	Post Rule Change X		0.104**		0.098*					
Non-Star Employee Out	Star Employee Out		(0.053)		(0.055)					
Non-Star Employee Out	Post Rule Change X			-0.019**	-0.016*					
Non-Star Employee Out	Non-Star Employee Out									
Non-Star Employee Out	Star Employee Out			-0.096***	-0.113***	-0.118***				
Post Rule Change	Star Employee Out			` ′						
Post Rule Change	Non-Star Employee Out		-0.022***			1	-0.033***			
Resource Picking	11011 Buil Employee Out			. ,		(0.008)	(0.007)			
Resource Picking	Post Rule Change									
Capability Building	1 ost Ruic Change			` '						
Capability Building         (0.005)         (0.005)         (0.005)         (0.005)         (0.008)         (0.0007)           Previous Organization Performance         (0.047)         (0.045)         (0.047)         (0.047)         (0.047)         (0.047)         (0.047)         (0.072)         (0.065)         (0.005)         (0.008)         (0.072)         (0.065)**         0.175***         0.175***         0.283****         0.260****         0.175***         0.175***         0.008         0.109**         (0.065)         0.008         0.007         (0.065)         0.008         0.017**         (0.047)         (0.047)         (0.072)         (0.065)         0.023         0.026         0.023         0.023         0.018         0.108         0.265         0.023           Employee Age Squared         -0.001         -0.002         -0.001         -0.001         -0.004         0.000         0.002         (0.002)         (0.002)         (0.003	Resource Picking						0.022***			
Capability Building   (0.005)	Resource 1 leking			` '						
Previous Organization   0.282***   0.303***   0.280***   0.280***   0.260***   0.175***	Canability Building	0.026***	0.025***	0.025***	0.025***		0.030***			
Performance         (0.047)         (0.045)         (0.047)         (0.047)         (0.072)         (0.065)           Employee Age         0.098         0.150         0.081         0.108         0.265         0.023           Employee Age         (0.109)         (0.107)         (0.108)         (0.109)         (0.169)         (0.175)           Employee Age Squared         -0.001         -0.002         -0.001         -0.001         -0.004         0.000           Manager Age         -0.006         -0.007         -0.004         -0.005         0.019         -0.032**           Manager Age Squared         0.000         0.000         0.000         0.000         0.000         0.000         0.000           Manager-Executive         -0.022         -0.024         -0.023         -0.023         0.004         -0.021           Duality         (0.020)         (0.019)         (0.020)         (0.020)         (0.020)         (0.020)         (0.020)         (0.020)         (0.020)         (0.020)         (0.020)         (0.020)         (0.023)         (0.024)           Manager Other League         0.017         0.017         0.018         0.015         (0.023)         (0.024)           Experience         (0.011) <td>1 .</td> <td></td> <td></td> <td>` '</td> <td></td> <td></td> <td></td>	1 .			` '						
Employee Age         0.098 (0.109)         0.150 (0.108)         0.081 (0.109)         0.0169 (0.169)         0.023           Employee Age Squared         -0.001 (0.002)         -0.002 (0.002)         -0.001 (0.002)         -0.003 (0.003)         -0.003           Manager Age         (0.002) (0.002)         (0.002) (0.002)         (0.003)         (0.003)         (0.003)           Manager Age         (0.009) (0.008)         (0.009) (0.009)         (0.014) (0.014)         (0.014)           Manager Age Squared         (0.000) (0.000)         (0.000) (0.000)         (0.000) (0.000)         (0.000) (0.000)         (0.000) (0.000)           Manager-Executive Duality         -0.022 (0.024)         -0.023 (0.020)         -0.023 (0.024)         -0.021           Manager Outsiderness         (0.020) (0.019)         (0.020) (0.020)         (0.020)         (0.028)         (0.038)           Manager Other League Experience         (0.017) (0.014) (0.011) (0.015) (0.015) (0.023) (0.024)         (0.023) (0.024)         (0.028) (0.017) (0.015) (0.015) (0.023) (0.024)           Manager Tenure         (0.028) (0.017) (0.011) (0.011) (0.011) (0.011) (0.018) (0.017)         (0.028) (0.017) (0.029) (0.029) (0.048) (0.039)           Manager League Tenure         (0.002) (0.002) (0.002) (0.002) (0.002) (0.002) (0.003) (0.003)           Season/Div/Org-/ Manager FE         Yes         Yes	Previous Organization	0.282***	0.303***	0.280***	0.283***	0.260***	0.175***			
Employee Age	Performance	(0.047)	(0.045)	(0.047)	(0.047)	(0.072)	(0.065)			
Columbia   Columbia	Employee Age	0.098	0.150	0.081	0.108	0.265	0.023			
Employee Age Squared         (0.002)         (0.002)         (0.002)         (0.003)         (0.003)           Manager Age         -0.006         -0.007         -0.004         -0.005         0.019         -0.032**           Manager Age Squared         (0.009)         (0.008)         (0.009)         (0.009)         (0.014)         (0.014)           Manager-Executive Duality         (0.000) <td< td=""><td>Employee Age</td><td>(0.109)</td><td>(0.107)</td><td>(0.108)</td><td>(0.109)</td><td>(0.169)</td><td>(0.175)</td></td<>	Employee Age	(0.109)	(0.107)	(0.108)	(0.109)	(0.169)	(0.175)			
Manager Age         (0.002) (0.002) (0.002) (0.002) (0.002) (0.003) (0.003)         (0.003) (0.003) (0.003)         (0.003) (0.003) (0.003)         (0.003) (0.003) (0.003)         (0.003) (0.003) (0.003)         (0.003) (0.003) (0.000)         (0.000) (0.000) (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.000)         (0.000) (0.000) (0.002)         (0.028) (0.038)         (0.021) (0.021) (0.021) (0.023) (0.023) (0.024)         (0.024) (0.023) (0.024)         (0.011) (0.011) (0.011) (0.011) (0.011) (0.011) (0.018) (0.017)         (0.017) (0.011) (0.011) (0.011) (0.011) (0.011) (0.018) (0.017)         (0.018) (0.017) (0.029) (0.029) (0.029) (0.024) (0.003) (0.003)         (0.002) (0.002) (0.002) (0.002) (0.002) (0.002) (0.003) (0.003)         (0.002) (0.002) (0.002) (0.002) (0.002) (0.002) (0.002) (0.002)         (0.002) (0.002) (0.002) (0.002) (0.002) (0.002)         (0.002) (0.002) (0.002) (0.002) (0.002) (0.002)         (0.002) (0.002) (0.002) (0.002) (0.002)         (0.002) (0.002) (0.002) (0.002) (0.002)         (0.002) (0.002) (0.002) (0.002) (0.002) (0.002)         (0.002) (0.002) (0.002) (0.002) (0.002) (0.002)         (0.002) (0.002) (0.002) (0.002) (0.0	Employee Age Squared	-0.001	-0.002	-0.001	-0.001	-0.004	0.000			
Manager Age         (0.009)         (0.008)         (0.009)         (0.009)         (0.014)         (0.014)           Manager Age Squared         0.000	Employee Age Squared	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)			
Manager Age Squared         (0.009)         (0.009)         (0.009)         (0.014)         (0.014)           Manager Age Squared         0.000         0.000         0.000         0.000         0.000         0.000         0.0021         0.0021         0.006         0.048*         0.0024         0.0021         0.006         0.048*         0.0024         0.0021         0.006         0.048*         0.0024         0.0024         0.0023         0.0024         0.0024         0.0023         0.0024         0.0024         0.0024         0.0023         0.0024         0.0024         0.0029         0.0023         0.0024         0.0027         0.0017         0.011         0.011         0.011         0.011         0.011         0.0011         0.0029         0.0029         0.0029         0.0029	Managar Aga	-0.006	-0.007	-0.004	-0.005	0.019	-0.032**			
Manager Age Squared         (0.000)         (0.000)         (0.000)         (0.000)         (0.000)         (0.000)         (0.000)           Manager-Executive Duality         -0.022         -0.024         -0.023         -0.023         0.004         -0.021           Manager Outsiderness         0.022         0.021         0.021         0.021         0.006         0.048*           Manager Other League Experience         0.017         0.017         0.018         0.019*         0.009         0.033*           Experience         (0.011)         (0.011)         (0.011)         (0.011)         (0.011)         (0.011)         (0.011)         (0.011)         (0.011)         (0.017)         0.018         0.019*         0.009         0.033*           Organization Payroll         0.066**         0.013         0.076***         0.071**         0.073         0.067*           Manager Tenure         0.006***         0.0013         0.076***         0.0029         (0.029)         (0.048)         (0.039)           Manager League Tenure         0.002         0.002         0.002         0.002         0.002         0.002         0.005**         0.005**         0.000           Season/Div./Org./ Manager FE         Yes         Yes         Yes <td>Manager Age</td> <td>(0.009)</td> <td>(0.008)</td> <td>(0.009)</td> <td>(0.009)</td> <td>(0.014)</td> <td>(0.014)</td>	Manager Age	(0.009)	(0.008)	(0.009)	(0.009)	(0.014)	(0.014)			
Manager-Executive Duality         -0.022         -0.024         -0.023         -0.023         0.004         -0.021           Manager Outsiderness Duality         (0.020)         (0.019)         (0.020)         (0.020)         (0.020)         (0.028)         (0.038)           Manager Outsiderness         0.022         0.021         0.021         0.021         0.006         0.048*           Manager Other League Experience         0.017         0.017         0.018         0.019*         0.009         0.033*           Experience         (0.011)	Managan Aga Sayanad	0.000	0.000	0.000	0.000	-0.000	0.000**			
Duality         (0.020)         (0.019)         (0.020)         (0.020)         (0.028)         (0.038)           Manager Outsiderness         0.022         0.021         0.021         0.021         0.006         0.048*           Manager Other League Experience         0.017         0.017         0.018         0.019*         0.009         0.033*           Experience         (0.011)         (0.022)         (0.024)         (0.024)         <	Manager Age Squared	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)			
Manager Outsiderness         0.022         0.021         0.021         0.021         0.006         0.048*           Manager Other League Experience         (0.015)         (0.014)         (0.015)         (0.015)         (0.023)         (0.024)           Manager Other League Experience         (0.011)         (0.017)         0.018         0.019*         0.009         0.033*           Experience         (0.011)         (0.011)         (0.011)         (0.011)         (0.011)         (0.018)         (0.017)           Organization Payroll         0.066**         0.013         0.076***         0.071**         0.073         0.067*           (0.028)         (0.017)         (0.029)         (0.029)         (0.048)         (0.039)           Manager Tenure         0.006***         0.005**         0.005**         0.005**         0.007**         0.002           Manager League Tenure         0.002         0.002         0.002         0.002         0.002         0.005**         0.005**         0.005**         0.005**           Manager FE         Yes         Yes         Yes         Yes         Yes         Yes           Constant         -2.368         -2.116         -2.259         -2.534         -5.390**         -0.641 <td>Manager-Executive</td> <td>-0.022</td> <td>-0.024</td> <td>-0.023</td> <td>-0.023</td> <td>0.004</td> <td>-0.021</td>	Manager-Executive	-0.022	-0.024	-0.023	-0.023	0.004	-0.021			
Manager Outsiderness         (0.015)         (0.014)         (0.015)         (0.015)         (0.023)         (0.024)           Manager Other League Experience         0.017         0.017         0.018         0.019*         0.009         0.033*           Experience         (0.011)         (0.011)         (0.011)         (0.011)         (0.018)         (0.017)           Organization Payroll         0.066**         0.013         0.076****         0.071**         0.073         0.067*           Manager Tenure         0.006***         0.005**         0.005**         0.0029)         (0.048)         (0.039)           Manager League Tenure         0.002         (0.002)         (0.002)         (0.002)         (0.002)         (0.003)         (0.003)           Manager FE         Yes	Duality	(0.020)	(0.019)	(0.020)	(0.020)	(0.028)	(0.038)			
Manager Other League Experience         0.017         0.017         0.018         0.019*         0.009         0.033*           Organization Payroll Manager Tenure         0.066**         0.013         0.076***         0.071**         0.073         0.067*           Manager Tenure         0.006***         0.013         0.076***         0.071**         0.073         0.067*           Manager Tenure         0.006***         0.005**         0.005**         0.005**         0.007**         0.002           Manager League Tenure         0.002         0.002         0.002         0.002         0.002         0.002         0.002         0.005**         0.005**         0.000           Season/Div./Org./ Manager FE         Yes	Managar Ontoldamasa	0.022	0.021	0.021	0.021	0.006	0.048*			
Experience         (0.011)         (0.011)         (0.011)         (0.011)         (0.018)         (0.017)           Organization Payroll         0.066**         0.013         0.076***         0.071**         0.073         0.067*           Manager Tenure         0.0028)         (0.017)         (0.029)         (0.029)         (0.048)         (0.039)           Manager Tenure         0.006***         0.005**         0.005**         0.005**         0.007**         0.002           Manager League Tenure         0.002         0.002         0.002         0.002         0.002         0.005**         0.000           Season/Div./Org./ Manager FE         Yes         Yes         Yes         Yes         Yes           Constant         -2.368         -2.116         -2.259         -2.534         -5.390**         -0.641           (1.552)         (1.502)         (1.537)         (1.545)         (2.519)         (2.405)           Observations         522         522         522         522         255         267	Manager Outsiderness	(0.015)	(0.014)	(0.015)	(0.015)	(0.023)	(0.024)			
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Manager Other League	0.017	0.017	0.018	0.019*	0.009	0.033*			
Organization Payroll         (0.028)         (0.017)         (0.029)         (0.029)         (0.048)         (0.039)           Manager Tenure         0.006***         0.005**         0.005**         0.005**         0.007**         0.002           Manager League Tenure         0.002         0.002         0.002         0.002         0.002         0.005*         0.000           Season/Div./Org./ Manager FE         Yes         Yes         Yes         Yes         Yes         Yes           Constant         -2.368         -2.116         -2.259         -2.534         -5.390**         -0.641           Observations         522         522         522         522         522         525         267		(0.011)	(0.011)	(0.011)	(0.011)	(0.018)	(0.017)			
Manager Tenure         0.006***         0.005**         0.005**         0.005**         0.007**         0.002           Manager League Tenure         0.002         0.002         0.002         0.002         0.002         0.002         0.003         0.003         0.003           Season/Div./Org./ Manager FE         Yes	Ouranization Passall	0.066**	0.013	0.076***	0.071**	0.073	0.067*			
Manager Tenure         0.006***         0.005**         0.005**         0.005**         0.007**         0.002           Manager League Tenure         0.002         0.002         0.002         0.002         0.002         0.002         0.003         0.003         0.000           Season/Div./Org./ Manager FE         Yes	Organization Payroll	(0.028)	(0.017)	(0.029)	(0.029)	(0.048)	(0.039)			
Manager League Tenure         0.002         0.002         0.002         0.002         0.002         0.002         0.003         0.005*         0.000           Season/Div./Org./ Manager FE         Yes	Management		0.005**							
Manager League Tenure         (0.001)         (0.001)         (0.001)         (0.001)         (0.001)         (0.002)         (0.002)           Season/Div./Org./ Manager FE         Yes         Yes         Yes         Yes         Yes         Yes           Constant         -2.368         -2.116         -2.259         -2.534         -5.390**         -0.641           (1.552)         (1.502)         (1.537)         (1.545)         (2.519)         (2.405)           Observations         522         522         522         522         255         267	Manager Tenure	(0.002)	(0.002)	(0.002)	(0.002)	(0.003)	(0.003)			
Manager League Tenure         (0.001)         (0.001)         (0.001)         (0.001)         (0.001)         (0.002)         (0.002)           Season/Div./Org./ Manager FE         Yes         Yes         Yes         Yes         Yes         Yes           Constant         -2.368         -2.116         -2.259         -2.534         -5.390**         -0.641           (1.552)         (1.502)         (1.537)         (1.545)         (2.519)         (2.405)           Observations         522         522         522         522         255         267	Managan I carres Tarres	` '		. ,						
Manager FE         1es	Manager League Tenure	(0.001)	(0.001)	(0.001)	(0.001)	(0.002)	(0.002)			
Constant         -2.368         -2.116         -2.259         -2.534         -5.390**         -0.641           (1.552)         (1.502)         (1.537)         (1.545)         (2.519)         (2.405)           Observations         522         522         522         522         255         267		Yes	Yes	Yes	Yes	Yes	Yes			
Constant         (1.552)         (1.502)         (1.537)         (1.545)         (2.519)         (2.405)           Observations         522         522         522         522         255         267		-2.368	-2.116	-2.259	-2.534	-5.390**	-0.641			
Observations         522         522         522         522         255         267	Constant									
	Observations									
Adjusted K =   0.515   0.585   0.526   0.526   0.594   0.500	Adjusted R <sup>2</sup>	0.515	0.583	0.526	0.526	0.594	0.500			

Note: Robust standard errors clustered at the organization in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

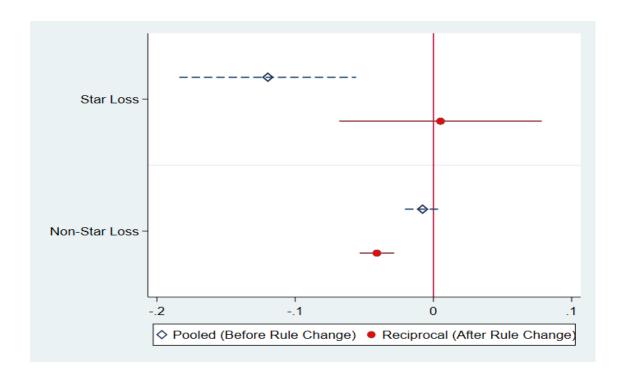


Figure 2.2 The coefficient plots of the consequence from unexpected employee loss.<sup>14</sup>

Tables 2.4 and 2.5 present how organization's resource picking and capability building heterogeneously affect the recovery of the loss of employees. To capture the effects of resource picking and capability building on the recovery of the loss before and after the elimination of illegal defense, I conduct three-way interactions analyses. Table 2.4 shows whether resource picking is more efficient on the recovery from the loss of star employee under pooled or reciprocal interdependence. Model 7 in Table 2.4 demonstrates that presents superior resource picking is more efficient when the business model relies on pooled interdependence than reciprocal independence ( $\beta$  = -0.057, p < 0.1). In order to better understand the three-way interaction term, I conduct subsample analysis by separating before and after the rule change. Models 8 and 9 show

<sup>&</sup>lt;sup>14</sup> The error bars in the coefficient plots represents 95% confidence interval.

that the rate of recovery from the loss of star employee is more efficient when the business model is driven by pooled interdependence, suggesting that resource picking is valid when the loss of star employees matters.

Table 2.5 presents whether capability building is more efficient on the recovery from the loss of non-star employee under pooled or reciprocal interdependence. Model 10 in Table 2.5 demonstrates that the negative relationship between after rule change and the loss of non-star employee out is mitigated when the business model is driven by reciprocal interdependence, suggesting that capability building is more efficient when the loss of non-star employees is impactful on the organization performance. In a similar vein, I conduct subsample analysis in order to understand the three-way interaction results. In particular, Model 12 demonstrates that the capability building is valid when the illegal defense is eliminated, suggesting that capability building is efficient on the recovery from loss of non-star employees.

Table 2.4 The effect of resource picking on recovery from loss of star employee

Dependent Variable		ganization Performa						
Estimation		Panel OLS Fixed Effects						
Sample	Full		ample					
Hypotheses	Н3	Before	After					
Models	7	8	9					
Post Rule Change X Star Employee Out X	-0.057*							
Resource Picking	(0.033)							
Post Rule Change X Star Employee Out	0.141*							
1 ost Rule Change A Star Employee Out	(0.070)							
Star Employee Out X Resource Picking	0.065***	0.054**	0.016					
Star Employee Out A Resource Flexing	(0.018)	(0.024)	(0.031)					
Star Employee Out	-0.161***	-0.161***	-0.033					
Star Employee Out	(0.036)	(0.038)	(0.061)					
Non-Star Employee Out	-0.018***	-0.008	-0.031***					
Tion Star Employee Out	(0.005)	(0.009)	(0.008)					
Post Rule Change	-0.084*							
1 ost Rule Change	(0.045)							
Resource Picking	-0.003	-0.008	0.022***					
Resource Ficking	(0.010)	(0.011)	(0.006)					
Capability Building	0.025***	0.009	0.031***					
Capability Building	(0.006)	(0.011)	(0.007)					
Previous Organization Performance	0.419***	0.269***	0.182*					
Trevious organization remormance	(0.056)	(0.067)	(0.096)					
Employee Age	0.093	0.252	0.008					
Employee rige	(0.119)	(0.257)	(0.180)					
Employee Age Squared	-0.001	-0.004	0.000					
Employee rige squared	(0.002)	(0.005)	(0.003)					
Manager Age	-0.009	0.016	-0.035**					
	(0.006)	(0.012)	(0.013)					
Manager Age Squared	0.000	-0.000	0.000**					
	(0.000)	(0.000)	(0.000)					
Manager-Executive Duality	-0.013	-0.001	-0.020					
Trianager Executive Buainty	(0.020)	(0.035)	(0.033)					
Manager Outsiderness	0.013	0.013	0.052**					
	(0.011)	(0.029)	(0.025)					
Manager Other League Experience	0.012	0.010	0.035*					
	(0.010)	(0.023)	(0.020)					
Organization Payroll	0.052	0.070	0.068**					
	(0.034)	(0.058)	(0.033)					
Manager Tenure	0.008***	0.007*	0.002					
	(0.001)	(0.004)	(0.002)					
Manager League Tenure	0.000	0.005*	0.000					
Transport Zonguo Tonuio	(0.001)	(0.003)	(0.002)					
Post Rule Change X Resource Picking	0.023*							
	(0.012)							
Season/Div./Org./Manager FE	Yes	Yes	Yes					
Constant	-1.932	-5.076	-0.396					
	(1.388)	(3.169)	(2.438)					
Observations	522	255	267					
Adjusted R <sup>2</sup> te: Robust standard errors clustered at the organizat	0.515	0.604	0.492					

Note: Robust standard errors clustered at the organization level in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2.5 The effect of capability building on recovery from loss of non-star employee

Dependent Variable	Org	ganization Performa	nce		
Estimation	Full	Subsample			
Hypotheses	H4	Before	After		
Models	10	11	12		
Post Rule Change X Non-Star Employee Out X	0.018**				
Capability Building	(0.008)				
	-0.015*				
Post Rule Change X Non-Star Employee Out	(0.009)				
No. Con Francis of O. V. Constate D. Hills	-0.004	-0.002	0.011**		
Non-Star Employee Out X Capability Building	(0.007)	(0.007)	(0.005)		
Non-Granden Co.	-0.016*	-0.007	-0.029***		
Non-Star Employee Out	(0.008)	(0.009)	(0.007)		
G. F. I. O.	-0.065**	-0.117***	-0.028		
Star Employee Out	(0.029)	(0.032)	(0.039)		
D (D 1 C)	-0.128*	, ,			
Post Rule Change	(0.064)				
D D' 1'	0.017*	0.012	0.020**		
Resource Picking	(0.009)	(0.010)	(0.009)		
G 135 P 315	0.014***	0.001	0.022***		
Capability Building	(0.005)	(0.010)	(0.006)		
	0.278***	0.259***	0.177***		
Previous Organization Performance	-0.045	(0.065)	(0.062)		
F 1	0.152	0.269	0.008		
Employee Age	(0.139)	(0.249)	(0.166)		
	-0.002	-0.005	0.000		
Employee Age Squared	(0.003)	(0.004)	(0.003)		
	0.001	0.019	-0.029**		
Manager Age	(0.008)	(0.012)	(0.013)		
M A C 1	-0.000	-0.000	0.000**		
Manager Age Squared	(0.000)	(0.000)	(0.000)		
M	-0.036	0.004	-0.017		
Manager-Executive Duality	(0.025)	(0.037)	(0.035)		
M 0	0.005	0.006	0.039		
Manager Outsiderness	(0.018)	(0.033)	(0.024)		
M. Od. I. F.	0.015	0.009	0.027		
Manager Other League Experience	(0.015)	(0.024)	(0.017)		
0 1 1 1 1	0.105**	0.074	0.076**		
Organization Payroll	(0.043)	(0.058)	(0.037)		
	0.006***	0.007*	0.002		
Manager Tenure	(0.002)	(0.004)	(0.003)		
M. J. T.	0.005***	0.005	0.001		
Manager League Tenure	(0.001)	(0.003)	(0.002)		
D. II. I. W. I. W. D. III.	0.003	` /	ì /		
Reciprocal Interdependence X Capability Building	(0.013)				
Season/Div./Org./Manager FE	Yes	Yes	Yes		
<del>U</del> <del>U</del>	-3.858**	-5.460*	-0.635		
Constant	(1.733)	(3.095)	(2.285)		
Observations	522	255	267		
Adjusted $R^2$	0.567	0.592	0.535		

Note: Robust standard errors clustered at the organization level in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## 2.4.1 Supplementary analyses

Despite the argument that the NBA's elimination of illegal defense that allowed any type of defensive strategy would affect the value of top performers and the impact of the loss of HR, the results raised another question about how the rule reform indeed affected the value of individual players. Accordingly, I performed several supplementary analyses to strengthen the validity of the suggested arguments. First, I assumed that dependency upon star players might decrease because isolation offense (pooled interdependence) would be weaker under any type of defense and would affect the value of each player after the rule change (reciprocal interdependence). In other words, the value of star players who are skilled at defeating opponent players one-on-one would decrease, while the value of non-star players who can be part of a systematic defensive strategy would increase. The conjecture that follows is that the exogenous shock would affect each team's compensation structure. In fact, after the rule change, the organizational payroll would be flatter compared to the isolation era. Thus, I measured compensation dispersion and observed the dispersion differences between the periods before and after the rule change. Following other studies on compensation dispersion and labor economics (e.g., Bloom, 1999; Carnahan et al., 2014), I used the Gini coefficient to measure compensation dispersion. This coefficient ranged between zero (totally egalitarian pay structure) and one (totally hierarchical structure), and it was calculated with individual employee salary. The Gini coefficient was calculated as follows:

Gini coefficient = 
$$\frac{2\sum_{i=1}^{n} iy_i}{n\sum_{i=1}^{n} y_i} - \frac{n+1}{n},$$

where  $y_i$  is the salary of the *i*th ranked individual on a team and is indexed in non-decreasing order—that is, i = 1 indicates the lowest paid player and n is the number of players on the team. Notably, the team-level sample mean of the Gini Coefficient, 0.48, is greater than the average Gini

of 0.25 noted by Bloom and Michael (2002) in their study on managers in firms from a variety of industries, and lower than the Gini of 0.60 reported in Bloom's (1999) study on professional baseball teams. Appendix C shows the panel OLS regression results for the relationship between post-rule change and each team's compensation Gini coefficients. The coefficient on the post-rule change is negative and statistically significant ( $\beta = -0.025$ , p < 0.05). These results indicate that, on average, each team's compensation dispersion was flatter compared to the period before the rule change. This can be interpreted in two ways: first, dependency on star players would decrease; second, the importance of non-star players would increase. Indeed, both could also occur.

#### 2.5 Discussion and Conclusion

In the strategic renewal process, firm managers are critical agents who recognize the need for change, set the strategic initiatives, and assume the full responsibility for the restructuring process. Employee departures to join competing firms not only mean the immediate loss of the firm's competitive advantage but also further disrupt the firm's entire resource management process. However, researchers have not examined the strategic consequences of such departures from the perspective of the losing firms and how the losing firms respond to the loss of talent. The present study investigated an organization's two distinguished recovery techniques response in the aftermath of losing human capital to the fore by examining how employee mobility affects the losing firm's resource management by categorizing two types of employees—high and mundane performers—in the context of resource picking and capability building. This research integrates works in resource-based view (RBV), HRM, and the dynamic managerial capability to contribute new insights into employee mobility and the firm strategic renewal process.

In order to understand how the type of interdependence that an organization require affect the loss of unexpected employee departure, and the how two distinct mechanisms for dealing with the loss of human resources heterogeneously affect the recovery process, I exploit a natural experiment provided by radical rule changes in NBA court, 2001, which transfers from pooled interdependence to reciprocal interdependence. Benefited by the availability of individual-level performance data on NBA players, I first propose a new construct of *resource picking* as an organizational ability to recruit into the organization new employees whose performance subsequently improves relative to their previous job, and I also propose a new construct of *capability building* as an organizational ability to improve the performance of extant employees who were already in the organization. Thus, I examine how effectively each of these two approaches mitigates the damage to performance that occurs following the departures of both star and non-star employees before and after the rule changes.

Consistent with expectations, the results indicate that: (1) during the *individual*-focused period (*before* the rule change), loss of *star* employees harms organizational performance, but this harm can be mitigated by strong *resource-picking* skill, and (2) during the *collaboration*-focused period (*after* the rule change), loss of *non-star* employees harms organizational performance, but this harm can be mitigated by strong *capability-building* skill.

Therefore, the results suggest that a firm that has superior managerial expertise in HRM can adapt and change more successfully than a firm that is less effective in the renewal process. The specific managerial capability outlined in this research help a firm effectively recover from a disruption in its human resource pool, and the effectiveness of the managerial capability also depends on the type of loss and the level of interdependence that an organization needs. This has implications for competitive advantage and disadvantage as firms.

The implications of this study extend beyond extant research on strategic renewal by focusing on managerial capability under conditions of change. Although many scholars have

documented the importance of the strategic renewal process and managerial roles, few empirical studies have been conducted because it is difficult to observe specific factors under conditions of change and measure managerial capability. By using a natural experiment under conditions of change and measuring the two distinct types of managerial expertise, this research not only provided a proper empirical setting for the topic at hand but also depicted very specific managerial effects on firm recovering.

This study also reveals the importance of industrial conditions (e.g., desired interdependence) for firm HRM and development. The consequences of industrial environmental change have been well-documented. However, researchers have recently acknowledged the need to better understand the impact of external factors and the role of managers in the strategic renewal process (Helfat & Martin, 2015). The present study was a response to this call by proposing managerial capabilities as an important mechanism for recovering a firm's established capabilities and routines that have been disrupted by unexpected external and internal hazards. Superior resource picking is more effective when an organization capability is driven by a few talented human assets, and capability building is much more important when an organization capability is driven by coordinated human capital.

The results of this study also partly answer the question of how managerial capabilities and their underpinnings interact with a firm's resource portfolio to influence strategic renewal (e.g., Helfat & Martin, 2015). Expertise in dealing with HR from an internal or external market can alleviate or sometimes exacerbate the organizational renewal efforts (Finkelstein, Hambrick, & Cannella, 2009). For instance, an organization which has a high level of resource picking is not beneficial to certain organizations that lose many mundane performers (see Appendix C). This suggests that the matching between certain managerial capabilities and the quality of HR is critical

for reorganizing a firm's resource portfolio, and each firm should recognize what kind of managerial expertise its top managers possess for managing HR in order to generate more firm value.

Lastly but not least, this study theoretically and empirically complements the existing literature which focuses on the effectiveness of recruiting and training human resources (e.g., Baird & Meshoulam, 1988; Huselid, 1995). Theoretically, although many researchers in HRM have documented that the effectiveness of recruiting and training programs on firm performance and boundary conditions on the effectiveness, however, little literature touches upon the possibility that effectiveness is depending on the quality of human resources, and the interdependence that an organization requires. Furthermore, little literature considers the fact that the value of human resources is depending upon the type of interdependence. Many researchers in HR examine that the effectiveness of recruiting or training on firm performance separately, since the effect of recruiting and training is hard to be decomposed and measured empirically. Due to our new suggested constructs for two techniques, I am able to test the effectiveness of recruiting and training simultaneously and to capture the relative effectiveness of two practices that deal with human resources in an organization.

In general, given the conditions of change and human capital loss with restructuring the organizational resource, this topic has implications for research into both resource configuration and organization design. Its focus on individual managers and managerial HR capabilities have a critical role to play in research on the micro-foundations of strategic leadership.

#### 2.5.1 Limitations and future research

All studies have limitations, and like all studies, the limitations of this study can offer

opportunities for future research. Despite the advantages of the sports team setting, these organizations do not represent all the features of organizational activities. The roles of sports team managers (head coaches or general managers (GM)) are similar to those of managers in business corporations—namely, selecting, deploying, and developing resources, including HR. The zero-sum competition and winner-take-it-all regime of sport teams' competitive environment (e.g., Yanadori & Cui, 2013), however, are not the case in the real business world. Even though I could observe each organizational ability to deal with HR by taking advantage of the sports setting, it might be beneficial to complement the findings of this study with research in a general business setting.

Regarding another important limitation of this study, it is not possible to suggest that a correspondence exists between annual winning percentages and overall organizational performance. Although the winning percentage is a critical source of general organization outcomes in sports industries, this does not reflect the outcome for the entire organization. Since a manager's specific status can have different effects on various aspects of the organization, it could be interesting to investigate how much a particular manager's status contributes to overall organizational performance and how strongly it affects different parts of the organization. In addition, I propose that a causal relationship exists between the loss of employees and organizational outcomes, but the loss of a manager would incur other problems. Therefore, a field study method combining qualitative research and a longitudinal setting could complement the current research outcomes and setting. I hope that future research will explore such issues in other contexts and identify the causal mechanisms that might be needed to extend the generalizability of the present findings.

Although I distinguish two different managerial capabilities for dealing with HR under conditions of change, the two managerial capabilities are not completely exclusive. The two

distinct but related managerial capabilities could be complemented or substituted to create organizational value (Makadok, 2001) . Thus, future research should examine the interaction between these two different managerial capabilities in the organizational outcome. Further, the two mechanisms could be determinants for employee mobility. For instance, some employees who believe that they are underdeveloped would prefer to work with managers who are experts at developing their subordinates, or very talented employees may not care what kind of employers or managers they work for, if they believe that they do not need to be developed. This kind of need for motivation or self-enhancement would serve as another determinant of employee departures. In future studies, it might be interesting to test the effects of the two possible recovery techniques on employee turnover decisions and the underexplored relationship between the micro-foundations of the effectiveness of techniques and interactions between employees and their managers.

# CHAPTER 3. WHERE THE STARS STILL SHINE: WHETHER AND WHY FORMER STAR PERFORMERS BECOME SUPERIOR MANAGERS

#### 3.1 Introduction

The best way to support dreams and stretch is to set apart small ideas with big potential, then give people positive role models and the resources to turn small projects into big businesses.

Jack Welch (Former GE CEO)

Some employees are obviously more valuable to an organization than others. Researchers have consistently found that employees at the top of the performance distribution are many times more valuable than their lower-performing colleagues (e.g., Groysberg et al., 2008; Hess & Rothaermel, 2011; Lepak & Snell, 1999). The highest-performing star employees often generate superior economic value, providing a rare but critical opportunity for an organization to increase its competitive advantage through human capital, especially in situations where the contribution of a star employee cannot easily be replaced by alternative options, such as hiring a larger number of non-star employees or substituting non-human resources (Barney & Wright, 1998). Indeed, many organizations have a practice of filling management positions with employees who have previously demonstrated star-level performance in an individual contributor role, either at the same organization or at a competing organization, resulting in the phenomenon of the star-performerturned-manager (SPTM). Although this practice of promoting star performers into management roles is so common as to be taken for granted, little research has examined either its goals or its effectiveness. On one hand, organizations may benefit from this practice even before a star actually gets promoted. For example, many organizations use the prospect or promise of promotion to management as one weapon in the "war for talent" (Chambers, Foulon, Handfield-Jones, Hankin,

& Michaels, 1998; Michaels, Handfield-Jones, & Axelrod, 2001) by establishing career ladders in order to attract, motivate, and retain top-performing individual contributors (e.g., Bloom & Michel, 2002; Zenger, 1992).

However, it would seem surprising if this practice of promoting stars into management were adopted for such motivational reasons *alone*. One would naturally expect some part of the organization's benefit from this practice to occur *after* the promotion takes place. Yet little research has addressed questions about such post-promotion benefits: Do SPTM's achieve more success in managerial roles than other managers? If so, why? What factors or mechanisms determine the performance of SPTM's? Are those different than the factors or mechanisms that determine the performance of other managers?

## 3.1.1 Performance of SPTM's: Matthew effect vs. Peter principle

Conventional wisdom about whether former star individual contributors make better managers is split, pitting the Matthew effect against the Peter Principle. On one hand, research on the Matthew effect <sup>15</sup> indicates that past success begets subsequent success in a broad range of fields as diverse as science (Merton, 1968), politics (Richards, 1969), health care (Link & Milcarek, 1980), education (Walberg & Tsai, 1983), publishing (Levitt & Nass, 1989), investment banking (Podolny, 1993), litigation (Cooney, 1994), semiconductors (Podolny, Stuart, & Hannan, 1996), venture capital (Hsu, 2004), motion pictures (Waguespack & Sorenson, 2010), engineering (Simcoe & Waguespack, 2010), and wine (Roberts, Khaire, & Rider, 2011). Indeed, research indicates that past success in one activity can even beget subsequent success in a different but

<sup>&</sup>lt;sup>15</sup> This term is derived from the New Testament Book of Matthew: "For whoever has will be given more, and they will have an abundance. Whoever does not have, even what they have will be taken from them." (Matthew 25:29 NIV)

related activity (Van Looy, Ranga, Callaert, Debackere, & Zimmermann, 2004). This Mattheweffect logic suggests one might reasonably expect that past success as an individual contributor in a given field may beget subsequent success as manager in that same field.

On the other hand, conventional wisdom from the Peter Principle (Peter & Hull, 1969) suggests, somewhat cynically, that people get promoted to their own level of incompetence, and then get stuck at that level, so that past success may actually diminish subsequent success. As reviewed by Lazear (2004), evidence in favor of the Peter Principle may be seen in the performance patterns of mutual fund managers (Grubel, 1979), sales managers (Anderson, Dubinsky, & Mehta, 1999), government employees (Lewis, 1997), engineers (Kennedy, 2009), and financial service personnel (Barmby, Eberth, & Ma, 2012), in the general effect of organizational tenure on job performance (Ng & Feldman, 2010), and in the effects of job tenure on both compensation (Baker, Gibbs, & Holmstrom, 1994; Lazaer, 1992) and self-evaluations of performance (Medoff & Abraham, 1980).

So, the question of whether SPTM's outperform other managers depends upon whether the Matthew effect dominates the Peter Principle, or vice versa. This question is important because having a star performer as a manager may incur considerable costs, both *ex ante* and *ex post* -- e.g., expensive compensation packages, long contractual terms, uncertain performance, or potential frictions with incumbent employees.

## 3.1.2 Typology of possible SPTM performance effects

However, the question of *whether* SPTM's outperform other managers is easier to answer than the question of *why* SPTM's might outperform other managers. Perhaps the two most obvious possible mechanisms for the success of SPTM's would be *skill-based* and *motivation-based*. Let

us consider each of these two categories of mechanisms in turn, and I shall see that within each category, some mechanisms are *employee-focused* in the sense that they involve the SPTM directly and personally changing the employees' skills or motivations themselves, while other mechanisms are *organization-focused* in the sense that they involve the SPTM changing the way that employees' skills or motivation are deployed/harnessed. Table 3.1 summarizes these dimensions as a typology.

Table 3.1 Typology of possible mechanisms for SPTM's to benefit organizational performance

	Skill-Based Mechanisms	Motivation-Based Mechanisms
Employee- Focused	Teaching:  SPTM is more effective than other managers at transferring star-level skills to employees.	Inspiring:  SPTM is more effective than other managers at motivating employees, due to inspirational role modeling.
Organization- Focused	Positioning:  SPTM is more effective than other managers at recognizing specific skills of individual employees and using this knowledge of employees' individual skills to assign specific employees to specific roles or tasks.	Monitoring:  SPTM is more effective than other managers at recognizing or measuring employees' effort or performance, and using this knowledge to dole out rewards and punishments in a more precisely targeted way.

Skill-based mechanisms would focus on ways in which the SPTM either improves the skills of his/her employees or improves the utilization or deployment of their skills. On one hand, the SPTM may be able to teach employees the skills that made him/her a star performer in the first place, in a way that other managers cannot. This teaching mechanism (top left cell in Table 3.1) would represent an *employee-focused* effect of the SPTM on the organization's skills, in the sense that it directly changes an employee's skills themselves. On the other hand, SPTM's may have a superior ability to recognize the specific skills of each employee (as in the adage, "It takes one to know one"), and therefore may do a better job than other managers in assigning specific roles and tasks to specific employees. In this way, the SPTM may be able to utilize each employee's existing skills more thoroughly and deploy them more effectively than other managers, even if the SPTM does nothing to improve the employees' skills themselves. This mechanism of positioning (bottom left cell in Table 3.1) would represent a contextual organization-focused effect of the SPTM on the organization's skills, because it extracts more value from individual employees' skills by simply positioning those skills in the right place at the right time to do the most good, while leaving the skills themselves unchanged.

In contrast to skill-based explanations, motivation-based explanations would focus on ways in which the SPTM increases the level of effort that employees apply in their work. For example, if SPTM's have a superior ability to recognize or measure each employee's effort or performance, then they may dole out rewards and punishments with greater precision and effectiveness than other managers can, and thereby motivate greater effort from each employee. This mechanism of monitoring (bottom right cell of Table 3.1) would be an *organization-focused* way for a SPTM to boost the motivation of employees. On the other hand, simply working for a boss who is a former star performer may be intrinsically motivational in itself if the employee

views the SPTM as an inspirational role model. Role modeling occurs when a person admires and identifies with a reference individual, and seeks to emulate the behavior and values of that individual (Lockwood & Kunda, 1997; Merton, 1957). This mechanism of inspiring (top right cell of Table 3.1) would be an *employee-focused* way for a SPTM to boost employees' motivation.

# 3.1.3 Empirical challenges to measuring SPTM effects

An ideal empirical setting for this topic would allow the researcher to identify SPTM's, measure their relative success versus other managers, and then decompose this relative success into distinct components that are due to each of the four mechanisms in this taxonomy – i.e., separate percentages due to teaching (intrinsic skill-based mechanism), to positioning (extrinsic skill-based mechanism), to monitoring (extrinsic motivation-based mechanism), and to inspiring (intrinsic motivation-based mechanism). Although one might be able to artificially construct such an idealized context in a laboratory experiment, it is not readily available in any real-world organization because it would require *direct* measures for *all four* mechanisms.

However, as an imperfect substitute, one type of real-world organization that allows for *indirect* measures for *some* of these mechanisms is a professional sports team managed by a team coach. This empirical context is particularly well-suited for four reasons: First, it is easy to identify which team coaches were previously star athletes in their sport. Second, it is easy to measure the performance of each coach, since the goal of winning games is universally shared, unambiguous, and objectively measured. Third, one of the four mechanisms – inspiring – is at least indirectly measurable. For example, as mentioned earlier, admiration of the role model is an essential ingredient of inspirational role modeling, and admiration of sports stars is highly geographically specific. Although every rule has its exceptions, the overwhelming majority of sports fans'

admiration is focused on hometown heroes from the local team, both due to their greater visibility in the local media and due to geographic loyalties. <sup>16</sup> Thus, an athlete who shares a geographic connection with a coach – e.g., growing up in the same city where the coach had played on a professional team, or attending the same college where the coach had played on a collegiate team - is more likely to have admired that coach as a role model. So, even though inspiring may seem like a highly subjective mechanism, it can nevertheless be measured at least somewhat objectively. Finally, the fourth reason why professional sports teams offer a particularly useful context for studying SPTM's is that another one of the four mechanisms – monitoring – can largely be eliminated from consideration as irrelevant in this particular organizational setting, thereby simplifying the task of isolating the other mechanisms. Monitoring is relatively unimportant in this setting for two reasons: (1) Because a professional athlete's performance is done in a public setting - indeed, often televised, as well as scrutinized by journalists - the team coach has little advantage over anyone else in monitoring that performance. (2) The coach has relatively little discretionary influence over the allocation of financial rewards and punishments to members of the team. Any performance-based financial incentives written into the athlete's contract are negotiated with the team's owner, president, or general manager, rather than with the coach. Furthermore, the performance criteria for an athlete to earn such incentives (e.g., points scored, games won) are objectively measured in a way that does not require any involvement from the coach.

Although the empirical setting of professional sports teams helpfully allows us to measure the mechanism of inspiring (at least indirectly) and to simplify the analysis by eliminating the mechanism of monitoring, unfortunately it does not provide much help in distinguishing or

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<sup>&</sup>lt;sup>16</sup> Exceptions to this rule would include the few international superstars who epitomize the very pinnacle of performance in their sport (e.g., Michael Jordan, Wayne Gretzky, David Beckham, Babe Ruth), since their fans are more geographically dispersed.

measuring the other two mechanisms of teaching and positioning. Therefore, the scope of this study is limited to studying just the one specific mechanism of inspirational role modeling.

#### 3.1.4 Unpacking the mechanism of inspirational role modeling

Drawing from the literature on social comparison theory and self-enhancement processes (e.g., Collins, 1996; Festinger, 1954; Kilduff, Landis, & Burt, 2010), I focus on inspirational role model effects. Although researchers have documented that a star's individual performance can directly boost overall organizational performance (e.g., Goodall, Kahn, & Oswald, 2011; Groysberg, 2010; Groysberg & Lee, 2009; Kehoe & Tzabbar, 2015), little research has considered how star performers can also indirectly influence organizational performance by motivating their coworkers to improve. Since people naturally observe their similarities and differences with others in order to compare status (Ertug & Castellucci, 2013; Martin, Feldman, Hatch, & Sitkin, 1983), the status inequality between stars and non-stars may prompt the latter to emulate and strive toward the former, especially when star-level performance is understood to be a route for promotion into management. In this regard, SPTM's may be an even stronger source of inspiration to employees than other star coworkers.

Similarly, the determinants of success for SPTM's may be different than for other managers, who cannot provide the same kind of inspiration. Specifically, in the professional sports context, I show that geographic connections between members of the team have and their coach (e.g., attending the same college, or living where the coach had played professionally) boost performance only for SPTM's but not for other coaches. This result makes sense in light of interpretation of such geographic connections as a proxy for inspirational role modeling. In contrast, prior success in coaching boosts performance for other coaches, but not for SPTM's. So,

I interpret these two pairs of results as indicating that the performance of SPTM's is driven by the mechanism of inspiring rather than by skill-based mechanisms, that the performance of other managers is driven by skill-based mechanisms rather than by inspirational role modeling, and that these two mechanisms serve as substitutes for each other.

Furthermore, the empirical results also demonstrate when a SPTM's inspirational role modeling matters the most. By its very nature as a process of social comparison, the inspirational role modeling of SPTM's would naturally be more effective under two types of circumstances: (1) The SPTM's prior stardom is highly salient in the minds of employees, and (2) the employees have a high need for inspirational motivation toward self-enhancement. Consider each of these in turn.

First, the salience of a SPTM's prior stardom is stronger in the minds of employees who have directly observed that past star performance for themselves. For example, in professional sports team context, if the SPTM coach is substantially older than the players on the team, then they may be too young to have personally witnessed the coach as a star player, which would reduce the salience of the coach's prior star performance in their minds. Empirical results support this effect. Also, the salience of a SPTM's prior stardom in the minds of employees can be diluted or obscured in the presence of other stars who can also serve as alternative inspirational role models. In professional sports, when the team has a current star player who is in the game, other players may look to that teammate for their inspiration, and thereby have less need for inspiration from a SPTM. Conversely, if a current star player is absent from the game (e.g., due to injury) and thereby deprives teammates from this substitute source of inspiration, then the SPTM's role modeling becomes more salient. The empirical results also support this effect. Second, the need for inspirational motivation toward self-enhancement is greater among employees who are less secure about whether their skills can meet the challenges of the job. For example, inexperienced

employees with underdeveloped skills have a greater need to invest in their human capital in order to fulfill their potential (e.g., Huselid, 1995; Zhang & Bartol, 2010). Empirical results support this effect as well.

## 3.2 Theoretical Background and Hypotheses

## 3.2.1 Star performer and star performer-turned-manager

Strategic human capital researchers have examined the important role of star employees in creating economic value and boosting an organization's competitive advantage (Groysberg & Lee, 2009; Groysberg et al., 2008; Sonnenfeld & Peiperl, 1988) via at least four different mechanisms: First, star performers themselves are valuable, rare, and inimitable resources. For example, Groysberg (2010) finds that a star computer programmer is eight times more productive than a non-star, and that the top one percent of investors are five to ten times more productive than others. Hess and Rothaermel (2011) find that the top one percent of scientists in the pharmaceutical industry account for almost 40 percent of all publications. Second, a star performer's superior expertise opens new opportunities for value creation. For instance, Kehoe and Tzabbar (2015) show that a star performer increases organizational innovation performance by facilitating access to and management of tangible and intangible resources. Extreme performers also have the ability to recognize opportunities to identify, evaluate, and pursue successful business projects (Goodall et al., 2011; Paruchuri, 2010). Third, star performers also provide knowledge spillovers and developmental support to colleagues. For example, Azoulay, Zivin, and Wang (2008) find that academic collaborators suffer an 8.79% decrease in their publication rate after their superstar coauthor dies. Fourth, from a relational perspective, star performers have better social capital than non-star performers. (e.g., Burt, 2010; Oldroyd & Morris, 2012). Former star employees are highly visible in the labor market, and others are likely to seek relationships with them, so star performers can develop very high levels of social capital that can positively affect firm performance (Groysberg et al., 2008; Oldroyd & Morris, 2012).

Organizations try to retain the star performers, not only because their superior human capital leads to organizational success, but also because they may leave to work for a competing organization, or create their own organization that competes directly with their former employers (e.g., Campbell, Coff, & Kryscynski, 2012; Carnahan et al., 2012; Groysberg & Lee, 2009). One common employee retention tool is a promotion ladder (Bloom & Michel, 2002). For example, Groysberg *et al* (2008) found that, in 8.4% of employee turnover cases in the investment bank industry, employees were promoted within the organization in order to retain them. In addition to this retention benefit, promotion ladders may also help solve the problem of motivating employees to make investments in firm-specific human capital (e.g., Campbell et al., 2012; Hatch & Dyer, 2004; Huselid, 1995; Snell & Dean, 1992), insofar as the prospect of promotion to management may increase an employee's incentive to make such investments. Note that this motivational benefit may encourage organizations to offer promotion ladders even if star performers do not necessarily become particularly good managers.

Despite making great efforts to understand the role of star performers, researchers have given little attention to understanding the role of SPTMs. Although the prevalence of SPTM's in business environments makes practitioners keenly interested in finding ways to help them to succeed (Adler, 1996; McKee, 2015), rigorous research on this topic is scarce. For example, even though firms may expect (or at least hope) for their star employees to become star managers, as in the Matthew Effect, the question of whether they actually do remains a largely untested hypothesis. Indeed, the Peter Principle predicts the opposite, for several reasons: Expertise may decrease over

time if it is not updated, or may be so organization-specific or situation-specific that it lacks relevance in a managerial role. Most importantly, an employee's job is different than a manager's, and skill at performing in an employee role may be very different from skill at managing others in that role. Having a skill is different from teaching that skill, and having motivation to perform is different from motivating others to perform. Managers also have more responsibilities than employees, such as setting organization goals, synchronizing a variety of resources, and resolving conflicts between employees (e.g., Holcomb et al., 2009; Mannor, Shamsie, & Conlon, 2015; Sirmon et al., 2007).

## 3.2.2 Inspirational role model effects of the star performer-turned-manager

Inspirational role modeling is a motivational mechanism, so it may contribute to the longstanding quest by strategic human capital researchers (e.g., Campbell et al., 2012; Hatch & Dyer, 2004; Huselid, 1995; Snell & Dean, 1992) to find methods of motivating employees to invest in improving their human capital. After all, unlike financial and physical resources, increasing or improving a person's skills requires the person to exert effort in training and/or practice, either of which requires motivation (Huselid, 1995). As illustrated earlier in Table 3.1, inspirational role modeling is only one of several ways that a SPTM might outperform other managers, but it is the one that can most easily be measured, albeit indirectly, in this empirical context.

Individuals seek career role models whom they perceive as similar to them in certain characteristics because they assume that those characteristics would apply to their own career as well (Bandura, 1986). Therefore, SPTM's exemplify the possible goals of their subordinate employees' career paths. Social comparison theory supports the idea that SPTM's are good role models to subordinate employees. Social comparison refers to the human tendency to observe

similarities and differences and compare one's situation to those of others. This tendency is important in the workplace for discipline, ability, personal status, rewards, promotion, and interaction with coworkers—including managers (e.g., Festinger, 1954; Kacperczyk, Beckman, & Moliterno, 2015). Moreover, an individual employee might suffer from social deprivation or might feel superior based on social comparisons across "neighbors" or "near peers" (Burt, 2010: 256; Kacperczyk et al., 2015). So, the psychological process of upward comparison to superior colleagues can serve as a motivational source that encourages employees to invest in improving their human capital, inspires them toward higher levels of performance, and helps them define their self-concept (Bucher & Stelling, 1977; Ibarra, 1999).

Self-concept orientation is the general tendency to consider the self in terms of individual characteristics, role relationships, reference groups, social status, roles, and goals (Cooper & Thatcher, 2010). In the social comparison process at the workplace, individuals are likely to observe and compare themselves to others. Hogg and Terry (2000) argue that self-enhancement is motivated by the desire to view oneself positively in relation to others whose attributes, status, and other characteristics can be reference points for what an individual pursues. In this compare-and-contrast process with reference individuals (or groups), role model effects can lead to self-enhancement, consisting of the beliefs like "I want to be like that person" or "I wish I could be that person." In a similar vein, Lockwood and Kunda (1997) argue that another's status as a star performer in a similar domain is likely to encourage employees' self-enhancement, providing positive role model effects. These possible (but underexplored) mechanisms can extend current literature on the role of stars, the effect of a manager's prior stardom, and human resource management. Accordingly, I posit that, in this way, the presence of a star performer-turned-manager can serve as an inspirational role model (Collins, 1996; Lockwood & Kunda, 1997; Wood,

1989), and the role model effect will positively impact organization performance: an individual's effectiveness in completing his or her core job or role-based responsibilities (e.g., Kehoe, Lepak, & Bentley, 2016). Thus, I propose the following baseline hypothesis.

Hypothesis 1: Ceteris paribus (even after controlling for each manager's capability), an organization managed by a star performer turned manager experiences greater organization performance than an organization managed by other managers (i.e., non-star performer turned manager).

## 3.2.3 Distinguishing inspirational role modeling from skill-based mechanisms

In order to verify that the effect of the prior stardom of a SPTM on organizational performance is driven by inspirational role-model effects, it is necessary to carefully control for the skill-based mechanisms described earlier in Table 3.1.17. Although several studies suggest that the expertise of managers is an important source of competitive advantage (e.g., Goodall et al., 2011; Kehoe & Tzabbar, 2015), it is certainly possible that the effects expertise and inspiration have been conflated in past research, since no studies have seriously attempted to separately identify these two effects empirically. What allows us to distinguish these two effects in the particular empirical context is the fact that I can observe a proxy for the past visibility of managers' performances in their prior careers to each employee.

Such visibility is important because inspirational motivation depends upon the employee having observed the role model's past performance (Lockwood & Kunda, 1997). An employee who has been carefully following a person's career for a long time is more likely to consider that person as a role model. Such visibility of the potential role model's career performance is certainly

<sup>&</sup>lt;sup>17</sup> As mentioned earlier, the other motivation-based mechanism in Table 3.1 – namely, monitoring – is irrelevant in our particular empirical context. So, here I focus only on distinguishing inspirational role modeling from skill-based mechanisms.

greater when the two people have been in the same place at the same time – i.e., a geographic connection. Indeed, because social comparison is an act of imagination, it is impossible without visibility. In order for role modeling to work, the inspired person must imagine becoming more like the role model, which requires observing a role model that one can realistically imagine oneself being. If nobody similar to oneself can be visibly observed in a given role, then it becomes more difficult to realistically imagine oneself in that same role. For instance, in a randomized natural experiment, Beaman, Duflo, Pande, and Topalova (2012) show that visibility of female leadership influences adolescent girls' career aspirations and educational attainment. In this regard, similarity may enhance visibility, since employees may simply disregard a potential role model who is so different from themselves that they cannot imagine becoming like that person (e.g., Beaman et al., 2012; Marx, Ko, & Friedman, 2009). Accordingly, I hypothesize:

Hypothesis 2: Ceteris paribus (even after controlling for managerial capability), the organizational performance benefit of a visibility connection (e.g., geographic connection) between managers and their subordinate employees is greater for SPTM's than for other managers (e.g., non-SPTM).

# 3.2.4 Are inspirational role modeling and skill complementary?

Since a manager's former stardom can provide an intangible asset that is unavailable to other managers, one might expect SPTM's to take different paths in affecting organizational performance (e.g., Pfarrer, Pollock, & Rindova, 2010). For example, do skill-based mechanisms matter more for the performance of SPTM's than for other managers, or vice versa? On one hand, strategy research provides both theoretical rationale (Makadok, 2003) and empirical evidence (Feldman & Montgomery, 2015) for a synergistic, complementary relationship between incentive-based motivation and skill. By this logic, if inspirational motivation works similarly to incentive-based motivation, then managerial skill will have a greater benefit for organizational performance

under the inspirational leadership of SPTM's than under the leadership of other managers who cannot motivate employees via inspirational role modeling. Accordingly, I hypothesize:

managerial capability) are greater for SPTM's than for other managers (e.g., non-SPTMs).

However, some anecdotal evidence directly contradicts the conclusion of this logic. For example,

I interviewed one 13-year veteran Korean professional basketball league player, who commented

Hypothesis 3: The organizational performance benefits derived from expertise (e.g.,

that:

Two coaches that I had been with were sort of stars when they were players. In my opinion, their playing capability does not necessarily lead to their managerial capability, because sometimes they didn't understand when a player failed to do some tactical movement that they easily did as star players. At the same time, star player-turned-coaches are very charismatic, so most players generally trust and follow what they say even if their strategy sometimes seems not doable... So, I don't think that every star player-turned-manager is a better manager, but I don't think their prior stardom should be ignored either.

#### 3.2.5 Contingent effects of inspirational role modeling on organization performance

Employees' need for self-enhancement. Because individuals differ in their human capital, they may also differ in their need for self-enhancement (Leavitt & Sluss, 2015). Economic and psychological research indicates that younger individuals are more likely to seek to enhance themselves in comparison to older role models and their behaviors (e.g., Bettinger & Long, 2005; Smoll, Smith, Barnett, & Everett, 1993) because younger workers may have weaker self-identity, greater plasticity or flexibility to change, less power, and stronger incentives to follow role models. In the career-development theory proposed by Super (1963), the process of self-concept development, or self-enhancement, moves toward stability, ending at the "establishment" stage around age 40. Moreover, Cross and Markus (1991) find that older and younger individuals differ in their "possible selves" because older people have more concrete self-concepts than younger people, and younger people are more likely to experiment with different possible selves in many

domains. During this process, role models may help younger people to both define their self-concept and motivate their self-enhancement.

I interviewed several junior-level employees (tenure 3-5 years) and one partner-level employee (tenure 12 years) in an investment bank to understand the nature of interactions between junior-level employees and their seniors or managers, and to gain clarity regarding how former star employees create firm value and interact with their subordinates. One junior employee commented that:

Actually, my boss was a legendary person in our industry because he performed very well – even in the financial crisis era. He had been awarded "the employee of the year" many times. His compensation had been increased exponentially. I am not just excited to work with him, I also sincerely reflect myself in him as a mirror. Sometimes as his subordinate it is really stressful for me to meet his expectations, but I have been trying to do my best. Yes, I really want to be a star like him – actually, like the star employee that he was.

By contrast, the comments of a veteran partner-level employee who manages a group of 15 junior-level bankers clearly show how this inspirational source of motivation diminishes with age and seniority:

I remember one of my seniors. I thought he was doing really well; he always came to the office at 5:00 a.m., and he was promoted to partner level quickly. So I also tried to be in the office earlier, and I think that led to my current position. However, now I don't have anyone else that I want to be anymore. I want to create my own story, instead of mirroring myself to others.

Similarly, the 13-year veteran Korean professional basketball league player mentioned earlier also said:

My current coach took the head coach position three years ago, which was my tenth career season. He was a very famous star guard, and he was my teammate for three seasons. To me, my image of him was not a coach; it was a teammate. I was less excited to have him as a coach because I was very familiar with him, and I doubted his coaching experience. However, my other colleagues, especially younger players who had watched the coach's playing on television, were excited to have him as their coach because he is a kind of star to them. Actually, one of my current teammates told me the coach was his role model.

#### Accordingly, I hypothesize:

Hypothesis 4a: The positive effects of SPTM on organizational performance is stronger when the subordinate employees are younger.

Furthermore, inspirational role model effects may be magnified when employees have experienced lower performance, since motivation for self-enhancement may rise when one's performance falls below expectations or aspirations (Liu, Lee, Hui, Kwan, & Wu, 2013), in order to sustain and improve self-esteem (Gecas, 1982). Role models can assist in this process, as indicated by how a follower's self-esteem is affected by leadership style (Shamir, House, & Arthur, 1993). Accordingly, I hypothesize:

Hypothesis 4b: The positive effects of SPTM on organizational performance is stronger when previous performance of subordinate employee is lower.

Situational salience of the role-model. Prior research on role modeling has typically assumed that the salience of the role model is static. In this context, I assume that a manager's prior stardom might be more or less relevant to the motivation of employees, depending upon the organization's situation. Specifically, I consider three particular conditions that may affect the salience of a SPTM's past performance: First, when there are other star employees present in the organization, then employees have an alternative source of inspirational role modeling available as a substitute for a SPTM, thereby diluting or obscuring the inspirational effect of the SPTM. By contrast, when other stars are absent, a SPTM is the only available source of inspirational role modeling, and therefore more salient to employees. Second, employees' familiarity with their managers' heyday of star performance may strengthen the role model effects, as indicated by the veteran Korean basketball player's comment that "players who had watched the coach's playing on television, were excited to have him as their coach because he is a kind of star to them." However, employees who are much younger than a SPTM may never have personally witnessed

that star performance, making it less salient to them. Furthermore, a large age difference may also lead employees to believe – either correctly or incorrectly – that the SPTM's past success is no longer relevant to them because it was so long ago that the competitive or organizational environment has changed drastically since then. The manager's tenure in the organization may also have similar effects, independent of age. So, I hypothesize:

Hypothesis 5a: The positive effect of a SPTM on organizational performance is stronger when a star employee is absent in the organization.

Hypothesis 5b: The positive effect of a SPTM on organizational performance is weaker when the manager has longer tenure in the organization.

Hypothesis 5c: The positive effect of a SPTM on organizational is weaker when the manager is older.

#### 3.3 Methods

#### 3.3.1 Data and sample

I test the hypotheses on a sample of managers (head coach), employees (players), and organizations (teams) in the National Basketball Association (NBA), one of four major sports leagues in North America. Several features make the empirical context of professional sports teams, and especially the NBA, particularly well-suited for testing these hypotheses. Availability of individual-level data has made professional sports teams an attractive context for empirical studies of strategic human capital (e.g., Berman et al., 2002; Ertug & Castellucci, 2013; Hill et al., 2016; Holcomb et al., 2009). For the purposes of the present study, objective performance measures, reliably and transparently observed at both the individual and team levels, allows

<sup>&</sup>lt;sup>18</sup> Founded in 1946 as the Basketball Association of America, the NBA adopted the name National Basketball Association after merging with the rival National Basketball league in 1949. In 1976, it further merged with the rival American Basketball Association. During our sample period, the NBA grew from 27 to 30 teams, and its number of regional divisions grew from 4 to 6.

managers to be tracked through their entire career histories, including their prior performance as players on professional and collegiate teams. In this way, it is straightforward to identify SPTM's and compare their performance to other coaches. Furthermore, detailed biographical data allows us to recognize connections between coaches and their players that can be used as a proxy for inspirational role modeling. Finally, as mentioned earlier, another benefit of using professional sports teams to isolate the inspirational role modeling effect of SPTM's is that the monitoring mechanism from Table 3.1 is irrelevant in this context because (1) the public nature of a player's performance leaves the coach with little or no observational advantage over anyone else, (2) financial performance incentives are contractually fixed in a way that is outside the coach's control and based on objectively measured criteria that do not require the coach to verify.

Compared to other professional sports, basketball is better suited to capturing SPTM effects for three reasons: First, basketball teams are relatively smaller than other professional sports teams. In the NBA, the active team roster can be no larger than 15 players, compared to 23 for the National Hockey League (NHL), 25 for Major League Baseball (MLB), 25 for the Union of European Football Associations (UEFA), and 53 for the National Football League (NFL). This narrower span of control means that, on average, each NBA player can get more of the head coach's time and attention than players in other sports. Second, and perhaps more importantly, the roles of basketball players are relatively more fluid and flexible than players in other sports where roles are more rigidly specialized. Basketball has neither specialized defensive roles like goalkeeper (hockey or soccer) nor specialized offensive roles like quarterback or receiver (football), nor specialized roles for initiating play like pitcher (baseball) or placekicker (football). Indeed, basketball is virtually unique in that all players on must be heavily involved in both offensive and defensive phases of play, unlike football, hockey, soccer, and even, to some extent, baseball (with

its designated hitter). Since basketball players must necessarily play a more generalist role than players in other professional sports, basketball players may identify with SPTM's more than players in other sports where roles are more specialized. In baseball, for example, it may be more difficult for a pitcher to identify with a SPTM whose playing career was spent as an outfielder than it would be for another outfielder. Indeed, Ted Williams, a former star outfielder turned manager who once said "Pitchers are the dumbest people in the world," was known to have strained relationships with the pitchers he managed. 19 Because of the more generalist nature of a basketball player's role, such role-specific barriers to a player identifying with a SPTM are largely absent. Finally, the third reason why basketball is better suited for capturing SPTM effects than other sports is that basketball teams have the smallest and flattest hierarchy of coaches. Obviously, the smaller and flatter a coaching staff is, the less hierarchical distance separates the players from their head coach, and therefore the closer their relationship can be. NBA head coaches typically oversee only about 5 or 6 assistant coaches, with league rules limiting teams to only 3 assistant coaches on the bench during games. Also, NBA assistant coaches generally report directly to the head coach, for a two-level hierarchy. By contrast, in 2014, every NFL team had at least 16 assistant coaches, with some teams having as many as 25, and with a league average of 21. Indeed, the coaching staff for some NFL teams has as many as four levels of hierarchy. Between the two extremes of NBA and NFL, the coaching staffs of MLB teams range from 9 to 13. With their smaller and flatter coaching hierarchies, NBA teams can have closer relationships between players and their head

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<sup>&</sup>lt;sup>19</sup> He also said, "Pitchers are dumb. They don't play but once every four days. They're scratchin' their a\*\* or pickin' their nose or somethin' the rest of the time. They're pitchin', most of 'em, because they can't do anything else." For details, see: <a href="https://sportsday.dallasnews.com/texas-rangers/2015/12/16/five-greatest-characters-rangers-history-mick-quick-amazing-emu">https://sportsday.dallasnews.com/texas-rangers/rangers/2015/12/16/five-greatest-characters-rangers-history-mick-quick-amazing-emu</a>, <a href="https://www.esquire.com/sports/interviews/a1460/learned-ted-williams-0499">https://www.esquire.com/sports/interviews/a1460/learned-ted-williams-0499</a>, and <a href="https://www.newspapers.com/newspage/110242096">https://www.newspapers.com/newspage/110242096</a>.

coaches than other professional sports, which one would naturally expect to make any SPTM effects easier to observe.

In this paper, the sample consists of every game played by every NBA team from the 1991–92 season to 2014–15 season, for a total of 27,940 unique games. <sup>20</sup> Each NBA team plays 82 regular games in a season, after which the top 16 teams have playoff games for the league championship. <sup>21</sup> I consider only regular-season games since most teams use different game strategies and rosters in the post-season.

# 3.3.2 Dependent variable: winning a game

The performance of sports teams is often measured by each team's winning percentage at the end of the season. A team's winning percentage not only is a visible, intuitive metric of performance in this context but is consistent with absolute measures of organizational performance used in prior studies on sports teams (e.g., Berman et al., 2002; Hill et al., 2016; Holcomb et al., 2009; Moliterno & Wiersema, 2007). <sup>22</sup>

<sup>20</sup> In each game's observation, I take the home team as the focal team in order to avoid having the same game appear twice in the data set. So, a team's away games only appears in the data set as the opponent's home game. In addition to avoiding duplication, this choice of focusing on the home games has the benefit of eliminating any potential for location-specific effects due to the focal team playing in different venues.

<sup>&</sup>lt;sup>21</sup> During the sample period, two NBA seasons were shortened due to lockouts, in 1998–99 (50 games) and 2011–12 seasons (66 games). Also, one game (Indiana at Boston) was canceled after the Boston Marathon bombing during the 2012–13 season.

<sup>&</sup>lt;sup>22</sup> An alternative measure would be financial performance. However, to improve the league's competitive balance, the NBA imposes salary caps and revenue sharing (Fonti & Maoret, 2015; Fort et al., 2003) under the philosophy of that teams should "cooperate financially in order to compete effectively" (Day et al., 2012: 401; Fonti & Maoret, 2015). So, financial measures do not capture a coach's performance. Empirical results in Table 2 support this argument. The focal team's payroll and opponent team's payroll have a high correlation (0.86). In any case, game performance is more relevant for this paper's theoretical argument focused on motivating subordinate employees to invest in human capital.

However, I use individual games, rather than entire seasons, as the unit of observation for several reasons: First, the main argument in this paper is that specific characteristics embedded in managers might affect organization performance, but in the NBA, managers' jobs are often terminated even during the regular season, and many managers are hired during the season. During the sample period, 81 managers held positions during the season. Also, game-level data are better for observing inspirational role model effects on performance than season-level data. For example, the absence of star players can best be tracked on a game-by-game basis, as a potential indicator of the situational salience of SPTM effects. Finally, game-level data reveal the dynamics of the opponent teams' quality and that of each division, which is helpful because competitors' resource quality significantly affects the studied organization's performance. The *winning a game* dependent variable takes a value of 1 if the focal team wins the game and 0 otherwise.

## 3.3.3 Independent variables

The main independent variable in the model is *star performer-turned-manager*. I define a star performer-turned-manager as a manager who had been selected to play in the NBA All-Star Game<sup>24</sup>. Of the 169 managers in the sample, 32 managers (19%) had star status as NBA players (see Appendix F).

I use two variables to disentangle inspiration from skill-based mechanisms. First, to capture inspirational role-model effects, I measure the degree of *geographic connection* between a team and its coach. I count the number of players in a game's roster who born in the same state

<sup>&</sup>lt;sup>23</sup> The dataset for the sample period has 169 managers (or head coaches). From the first season (1946–47) to the final sample season in this study (2014–15), the NBA has had 309 managers. Thus, the sample includes approximately 55% of entire NBA history.

<sup>&</sup>lt;sup>24</sup> During our sample period, starting players for the All-Star Game were chosen by vote of the fans, and reserve players were chosen by vote of each division's coaches, who were prohibited from voting for players on their own team.

or attended same college as their coach. For example, in his first game of the 1997-98 season, SPTM head coach Larry Brown of the Philadelphia 76ers had three players who graduated from his alma mater University of North Carolina (Eric Montross, Jerry Stackhouse, Scott Williams), and one who was born in his home state of New York (Kebu Stewart). As discussed earlier, the logic behind this measure is that inspirational effects are enhanced when players are managed by their hometown hero, since the visibility of the role-modeling source is stronger. Second, to capture skill-based mechanisms, I measure each coach's individual managerial capability. Managerial capability has been defined as the knowledge, skills, and experience that reside with and is utilized by managers (e.g., Hitt, Biermant, Shimizu, & Kochhar, 2001; Kor, 2003), and it derives from the two main sources of domain expertise and resource expertise (Holcomb et al., 2009). Domain expertise refers to managers' understanding of the industry context and their organization's strategies, markets, and routines (e.g., Kor, 2003). Resource expertise refers to managers' ability to select and configure optimal resource bundles from their current resource portfolios and the expertise is also related to avoid possessing less valuable resources (Makadok, 2001; Sirmon et al., 2007). Following research on managerial capability (e.g., Dirks, 2000; Holcomb et al., 2009), I calculate the weighted career winning percentage for each manager over the entire NBA head coaching career to assess the extent to which each manager has been consistently successful or unsuccessful: career winning percentage before a focal game X (1-(1/total number of games as a head coach)). To calculate this measure, I track every manager's career history before the sample period.<sup>25</sup>.

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<sup>&</sup>lt;sup>25</sup> For example, Kevin Loughery, the Miami head coach during the 1991–1995 season, started his career as an NBA head coach in the 1972–73 season. I calculate his career winning percentage starting from his initial season (1972). Some adjustments to this measure were necessary for rookie managers at the very start of their NBA careers: First, I used zero as the prior career winning percentage for a manager's first NBA career game. Also, I did not scale the career winning percentage by the number of games at his second game, since doing so would produce zero. From third career game, I applied the formula as shown above. As a robustness check, for the rookie managers, I applied their career winning percentage averaged by 18 games (25% of a season's 82 games), and 41 (50% of a season's 82 games)

## 3.3.4 Contingent variables

I test for the contingency of inspirational role model effects on two proxies for employees' need for self-enhancement (age of employees, previous performance of employees) and three proxies for the situational salience of the manager's prior stardom (star performer absence, manager organization tenure, manager age). Age of employees refers to the average age of the employees managed by a manager. Every NBA team has to disclose a game roster before matches begin. I calculate the average age of player on every game roster. Previous performance of employees refers to the average pre-season performance of the players managed by a coach, reflecting the quality of their human capital. Specifically, I use the Player Efficiency Rating (PER) to measure each player's prior performance. Developed by John Hollinger, the Vice President of Basketball Operations for the NBA's Memphis Grizzlies and a former analyst and writer for ESPN and Sports Illustrated, PER provides an all-in-one weighted rating of a player's overall contributions per minute, adjusting for the pace of the game, and taking into account both successes (e.g., rebounds, assists, blocks, steals, and various types of scoring) and failures (e.g., missed shots, turnovers, and fouls) and has therefore proven useful in prior strategic human capital research (e.g., Fonti & Maoret, 2015). <sup>26</sup> To account for the quality of each team's human resources, I consider the players available to each team at the beginning of each game and average their PER based on their previous season record.<sup>27</sup> Star performer absence refers to whether a star player plays in a given game, where star players are identified by their selection for the NBA All-Star Game in the previous season. This indicator variable is coded 1 if a star performer does not play a game and 0

for their first and second games, and the results are consistent with our main results. Moreover, more broadly, I applied the number of seasons rather than the number of games and obtain consistent results.

<sup>&</sup>lt;sup>26</sup> The mere fact that a single overall performance metric like PER can be meaningfully applied to basketball players, regardless of position, is further evidence for our earlier point that basketball players take more flexible and fluid generalist roles than players of other sports. Such a universal performance metric would be impossible in sports with more rigidly specialized roles, like baseball, football, hockey, or soccer.

<sup>&</sup>lt;sup>27</sup> Rookie players in their first NBA season have no prior NBA performance, so I exclude them from this average.

if the star performer does plays a game. <sup>28</sup> Manager organization tenure is measured by counting the years since a manager began a career as a head coach on a given team.

#### 3.3.5. Control variables

To exclude alternative explanations, I include various control variables at different levels: the manager, team, and game levels. First, at the manager level, I control for managers' league tenure and current status. I measure league tenure by counting the years since a manager first served as a head coach in the NBA, and current status by whether a manager received a Coach of the Year award in the previous season (Holcomb et al., 2009). Also, to eliminate concerns that certain types of managers may affect organizational performance, I include dummy variables to control for three types of managers – namely, manager/executive dual roles, managers hired from an outside team, and interim managers. I control for manager outsider status because the origin of a manager might affect firm performance (e.g., Karaevli, 2007; Zhang & Rajagopalan, 2010). I control for interim manager status because it is an indicator that some kind of disruption (e.g., firing or resignation) has occurred, perhaps unexpectedly, and the interim manager may therefore be viewed as less prepared and/or less qualified. I also control for experience coaching in foreign or amateur leagues (e.g., Spanish league, NCAA) and as a NBA assistant coach. These two variables are measured by counting the number of years that a manager has worked in those roles.

Next, at the team level, I control for the team's total payroll compensation, team age (years since founding), team size (number of players on game rosters), and media market size. Similarly, at the game level, I control for the opponent team's human capital quality and total payroll. Finally,

<sup>&</sup>lt;sup>28</sup> In a robustness check, I recalculate this measure in a way that ignores cases where a star player is intentionally missing (e.g., giving star players rest during the last few regular-season games in order to prepare for playoffs), and the main findings remain largely consistent.

I include season, division, team, and game order dummy variables to control for unobserved differences at these levels.

#### 3.3.6 Statistical methods

The dependent variable is dichotomous, and the independent variables are measured at several levels of analysis, including the individual manager level, the organization level, and the game level. Moreover, the models include cross-level interaction term (e.g., manager-level X organization-level, manager-level X game-level). Without considering these cross-level aspects of the data, the coefficient might be biased due to non-independence and heteroscedasticity problems (e.g., Aguinis, Gottfredson, & Culpepper, 2013; Bliese, 2000; Hofmann, 1997). Thus, I use a multilevel mixed logistic regression model. In addition, robust standard errors are clustered at the manger level to account for heteroscedasticity and non-independence of the observations..<sup>29</sup>

#### 3.4 Results

Table 3.2 presents the descriptive summary statistics and correlation matrix for the data. In Table 3.3, I report the results of the multi-level mixed logit regression model. Model 1 displays the results of the baseline hypothesis whether a SPTM performs better or worse than other managers (non-SPTM). Specifically, the coefficient on the SPTM variable in Model 1 is positive and statistically significant ( $\beta$ =0.151, p<0.01), supporting hypothesis 1. The outcome variable is the result of the non-hierarchical regression model, so I take the coefficient in calculating its marginal effects to interpret its economic impact (Hoetker, 2007). An analysis of the practical

<sup>&</sup>lt;sup>29</sup> As a robustness check, I perform clustering at the organization level and find qualitatively consistent results.

significance of the findings indicates that, on average, after controlling for all of the other factors discussed earlier, an organization managed by a SPTM has a 5.6 percentage point higher winning probability than an organization managed by other managers. To put the magnitude of this into perspective, out of the 24 NBA teams that did not finish the 2015–2016 season as their division's leader, 8 of those teams (33.3%) would have gained at least one position in the division's rankings (for example, moving from second place to first place) if they had raised their winning percentage by 5.6 percentage points, and 3 of them (12.5%) would have gained two positions in rank (for example, moving from third place to first place). So, although 5.6% may sound relatively small in the context of a single game, nevertheless, in aggregate over an entire season, it is certainly big enough to have a substantial effect on a team's overall final standing.

Models 2–4 display the multivariate results for the tests of hypotheses 2 and 3. Hypothesis 2 posits that SPTMs have stronger effects on organizational performance when they have more employees with whom they are geographically connected, since that magnifies their visibility of the former stardom. The coefficient of the interaction term between SPTM and geographic connection in Model 2 is positive and significant ( $\beta$ =0.055, p<0.05), supporting hypothesis 2. In order to verify whether skill-based mechanism and motivation-based mechanism substitute or complement each other, I use another interaction term – namely, SPTM with managerial capability – to test hypothesis 3. Surprisingly, the coefficient of this interaction term in Model 3 is negative and significant ( $\beta$ = –0.493, p<0.01), directly contradicting hypothesis 3. In other words, it seems that the motivation-based mechanism of inspirational role modeling actually substitutes for, rather than complements, the skill-based mechanism. In order to better analyze this interaction, I also split the full sample into three subsamples based on each manager's status when he was an

<sup>&</sup>lt;sup>30</sup> Following common practice, I interpret marginal effects each logit coefficient while keeping other variables at their mean values.

employee (i.e., player): (1) All-Star NBA player (i.e., SPTM), (2) NBA player but non-All-Star, or (3) no NBA player experience. Models 5-7 show these subsample results, which show that the *geographic connection* effect is positive and statistically significant ( $\beta$ =0.050, p<0.05) for the SPTM subsample of Model 5, but non-significant for both non-SPTM subsamples in Models 6 and 7. Conversely, the *managerial capability* effect is positive and statistically significant for both non-SPTM subsamples in Model 6 ( $\beta$ =0.561, p<0.01) and Model 7 ( $\beta$ =0.561, p<0.01), but non-significant for the SPTM subsample of Model 5.<sup>31</sup> This result suggests that SPTM's and non-SPTM's affect organizational performance through different causal mechanisms: SPTM's succeed more when they can serve as inspirational role models for more of their employees, but not when they have greater managerial skill. By contrast, other managers succeed when they have greater managerial skill, but not due to any inspirational role modeling. In effect, these two causal mechanisms seem to substitute for each other.

<sup>&</sup>lt;sup>31</sup> I recognize a possible endogeneity issue that a manager is likely to select or draft players from same hometown or college. So, as a robustness check, I exclude certain players that were hired after a manager takes his position and perform same regression process. I find consistent support for the finding in Table 3.3

Table 3.2 Descriptive statistics and correlation matrix

	M	SD	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1. Winning a Game	0.60	0.49	0	1	1																				
2. SPTM	0.23	0.42	0	1	0.03	1																			
3. Employee Age	27.1	1.45	23.5	31.9	0.16	0.02	1																		
4. Prev. Perf	13.1	1.01	9.84	16.6	0.15	0.00	0.20	1																	
5. Star Absence	0.08	0.26	0	1	-0.01	-0.02	0.09	0.07	1																
6. Manager Tenure	2.33	3.13	0	21	0.11	0.15	0.17	0.18	0.04	1															
7. Manager Age	50.5	7.72	32	71	0.02	0.16	-0.05	0.10	0.03	0.34	1														
8. Geo. Connection	1.82	1.69	0	6	-0.02	0.17	-0.01	-0.01	0.00	-0.08	-0.10	1													
9. Manage. Cap.	0.45	0.21	0	0.85	0.12	0.06	0.25	0.18	0.09	0.41	0.32	0.00	1												
10. Manager Leg.	6.93			31	0.06	0.16	0.07	0.14	0.05	0.44	0.71	0.05	0.50	1											
11. Manager Status	0.03	0.18	0	1	0.07	-0.03	0.02	0.13	0.02	0.04	0.01	-0.04	-0.01	0.03	1										
12. Manager-GM	0.07	0.26	0	1	-0.03	-0.01	0.02	-0.05	-0.02	-0.03	0.02	0.09	0.03	0.07	-0.02	1									
13. Manage. Out.	0.74										0.19						1								
14. Interim Manager											-0.03														
15. Ass. Manager	1.48										0.02														
16. Other Man. Exp											0.20														
17. Org. Payroll			15.7								0.16														
18. Org. Age	36.7										0.10														
19. Org. Size	16.1										0.01														
20. Opp. Prev. Perf																									
21. Opp. Payroll												-0.09	-0.01	0.04	0.00	-0.09	0.09	-0.01	0.12	0.00	0.86	0.29	0.23 -	-0.08	1

Note: N=27,940. Bolded pairwise correlations are significant at the 0.05 level.

Normally, the average winning percentage in a sport setting has a 0.5 mean due to its zero-sum property. To avoid duplicating games effects, I compile every game played at each team's home stadium to capture unique game effects. Thus, the mean of wins is 0.6. Interestingly, the 60% shows home-advantage effects as well.

Table 3.3 The effect of SPTM on organizational performance

Dependent Variable	Win (1) Loss (0)											
Estimation	Multi-level Mixed Logit Regression											
Models	1	2	3	4	5	6	7					
Hypotheses	H1	H2	Н3	Full	Tea	asing Mechanism						
					SPTM	Non-	SPTM					
Sample		Full S	ample	NBA All-Star	Non-Star Player	Never Played in NBA						
SPTM X		0.055**		0.056**								
Geographic Connection		(0.026)		(0.026)								
SPTM X			-0.493***	-0.491**								
Managerial Capability			(0.173)	(0.212)								
Star Performer Turned	0.151***	0.373***	0.018	0.223*								
Manager (SPTM)	(0.038)	(0.085)	(0.096)	(0.130)								
Geographic	-0.009	-0.011	-0.030**	-0.029**	0.050**	-0.013	0.014					
Connection	(0.009)	(0.009)	(0.013)	(0.013)	(0.022)	(0.014)	(0.018)					
Managarial Canabilitae	0.633***	0.728***	0.407***	0.523***	-0.161	0.579***	0.561***					
Managerial Capability	(0.087)	(0.092)	(0.107)	(0.117)	(0.213)	(0.141)	(0.151)					
A see of Emmloses	0.159***	0.191***	0.165***	0.140***	0.133***	0.143***	0.067***					
Age of Employees	(0.012)	(0.015)	(0.017)	(0.014)	(0.026)	(0.019)	(0.024)					
Prior Performance of	0.190***	0.158***	0.141***	0.162***	0.123***	0.170***	0.173***					
Employees	(0.015)	(0.012)	(0.014)	(0.017)	(0.037)	(0.024)	(0.024)					
Star Performer	-0.330***	-0.328***	-0.340***	-0.339***	-0.091	-0.414***	-0.416***					
Absence	(0.050)	(0.050)	(0.051)	(0.051)	(0.115)	(0.074)	(0.084)					
Manager Org. Tenure	0.007	0.009	0.000	-0.000	-0.021	0.013	0.029**					
ivialiager Org. Tenure	(0.007)	(0.006)	(0.009)	(0.009)	(0.016)	(0.014)	(0.013)					
Manager Age	-0.009***	-0.010***	-0.010*	-0.010*	0.003	-0.001	-0.008*					
Wanager Age	(0.003)	(0.003)	(0.006)	(0.006)	(0.016)	(0.007)	(0.005)					
Manager League	0.001	0.002	0.002	0.002	-0.005	0.002	-0.013*					
Tenure	(0.004)	(0.004)	(0.007)	(0.007)	(0.014)	(0.007)	(0.008)					
Manager Social Status	0.725***	0.725***	0.657***	0.649***	0.472**	0.737***	0.872***					
Wanager Social Status	(0.083)	(0.083)	(0.089)	(0.089)	(0.216)	(0.114)	(0.172)					
Manager-Executive	-0.086	-0.089*	-0.220***	-0.215***	-0.049	-0.249***	-0.115					
Dual Roles	(0.054)	(0.054)	(0.080)	(0.080)	(0.146)	(0.096)	(0.090)					
Manager Outsiderness	0.022	0.008	0.024	0.025	0.528***	-0.096	0.064					
wianager Outstuctness	(0.038)	(0.038)	(0.067)	(0.067)	(0.189)	(0.070)	(0.073)					
Interim Manager	-0.201***	-0.203***	-0.176**	-0.168**	0.105	-0.333***	-0.046					
mormi managei	(0.060)	(0.060)	(0.070)	(0.070)	(0.194)	(0.096)	(0.089)					

Table 3.3 continued

Assistant Manager	-0.017	-0.013	-0.025	-0.024	-0.121**	-0.085***	0.028	
Experience	(0.013)	(0.013)	(0.023)	(0.023)	(0.061)	(0.029)	(0.019)	
Other League Manager	0.007**	0.008**	0.009	0.010	-0.007	0.010	-0.002	
Experience	(0.003)	(0.003)	(0.007)	(0.007)	(0.024)	(0.006)	(0.006)	
Ouganization Daymall	0.468***	0.465***	0.620***	0.629***	0.573***	0.784***	0.868***	
Organization Payroll	(0.078)	(0.077)	(0.074)	(0.074)	(0.180)	(0.094)	(0.125)	
Organization Ass	-0.080	0.002	0.019***	0.018***	0.027*	-0.003	-0.012	
Organization Age	(0.062)	(0.003)	(0.007)	(0.007)	(0.015)	(0.007)	(0.008)	
O	-0.030***	-0.031***	-0.028***	-0.028***	-0.036***	-0.018*	-0.034***	
Organization Size	(0.007)	(0.007)	(0.007)	(0.007)	(0.013)	(0.010)	(0.010)	
Opponents' Previous	-0.009***	-0.009***	-0.010***	-0.010***	-0.006	-0.004	-0.041	
Performance	(0.003)	(0.003)	(0.003)	(0.003)	(0.006)	(0.004)	(0.043)	
0 15 11	-1.043***	-1.041***	-0.920***	-0.917***	-0.913***	-0.802***	-0.805***	
Opponents' Payroll	(0.065)	(0.065)	(0.058)	(0.058)	(0.135)	(0.092)	(0.098)	
Constant	7.519**	3.830**	-0.298	-0.442	0.035	-4.566***	-2.884*	
Constant	(3.113)	(1.627)	(1.102)	(1.101)	(2.156)	(1.341)	(1.570)	
Season/Market/Div./ Org./Game-Order dummy	Included.	Included.	Included.	Included.	Included.	Included.	Included.	
N (Managers)	27, 940 (169)	27, 940 (169)	27, 940 (169)	27, 940 (169)	6,420 (32)	11,672 (60)	10.364 (77)	
Wald $x^2$	2003.1***	2013.5***	2013.2***	2015.8***	558.8***	1109.5***	886.6***	

Note: Robust standard errors clustered at the manager level in parentheses. SPTM refers to Star performer-turned-manager. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

In Table 3.4, I report the results of contingent effects of the inspirational role model effects. Hypothesis 4a predicts that SPTM's have stronger effects on organizational performance when the employees are younger. The coefficient of the interaction in Model 8 is negative and statistically significant ( $\beta$ = -0.050, p<0.05), supporting hypothesis 4a. Hypothesis 4b predicts that SPTMs have stronger effects on organizational performance when the employees' previous performance is lower. The coefficient of the interaction in Model 9 is negative and statistically significant ( $\beta$ = -0.088, p<0.05), supporting hypothesis 4b.

Hypothesis 5a predicts that star performer absence positively moderates the relationship between organizational performance and managers' previous star-performer status. Based on the coefficient of the interaction term reported in Model 10 ( $\beta$ =0.273, p<0.02), the hypothesis has statistical support. In other words, the inspirational role model effects are stronger when an organization lacks star performers. Models 11 and 12 show the results of the tests for hypotheses 5b and 5c. Model 11 examines whether managerial organization tenure weakens the relationship between organization performance and SPTM's. The results support hypothesis 5b, which posits that the relationship weakens as a manager's experience as a manager grows longer in an organization, because the coefficient of the interaction term is negative and significant ( $\beta$ = -0.031, p<0.01). Model 12 tests the interaction between manager age and star performers turned managers. The coefficient for the interaction term between the age and type of manager is negative and statistically significant ( $\beta$ = -0.009, p<0.10), supporting hypothesis 5c. <sup>32</sup>

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<sup>&</sup>lt;sup>32</sup>Model 13, the full model, includes all the interaction terms. SPTMs are found to be significantly and positively related to organization performance (p<0.01). The interaction effects of the managers with characteristics of employees (age and previous performance), star performer absence, and manager career tenure remain significant. However, the interaction of managers with manager age becomes marginally insignificant; the empirical formulation might have included too many interactions associated with the same variables, leading to high correlations among covariates. Therefore, the interpretation of the results is based on Models 8–12.

Table 3.4 Contingent effects of SPTM on organizational performance

Dependent Variable	Win (=1) Loss (=0)									
Estimation	Multi-Level Mixed Logit Regression									
Models	8	9	10	11	12	13				
Hypotheses	H4a	H4b	H5a	H5b	Н5с	Full				
CDCDAYA CE 1	-0.050**					-0.053**				
SPTM X Age of Employees	(0.024)					(0.024)				
SPTM X Previous Performance of		-0.088**				-0.075**				
Employees		(0.035)				(0.036)				
CDTM V Cton Donforman Alexander			0.273**			0.321**				
SPTM X Star Performer Absence			(0.125)			(0.125)				
CDTM V Manager Terring				-0.031***		-0.035***				
SPTM X Manager Tenure				(0.012)		(0.013)				
CDTM V Managan Aga					-0.009*	0.003				
SPTM X Manager Age					(0.005)	(0.005)				
Star Performer Turned Manager	1.499**	1.297***	0.133***	0.208***	0.613**	2.442***				
(SPTM)	(0.636)	(0.462)	(0.039)	(0.044)	(0.246)	(0.844)				
A C.F	0.172***	0.160***	0.159***	0.158***	0.175***	0.172***				
Age of Employees	(0.013)	(0.012)	(0.012)	(0.012)	(0.012)	(0.014)				
Decision Decision of Francisco	0.194***	0.209***	0.190***	0.188***	0.189***	0.205***				
Previous Performance of Employees	(0.015)	(0.017)	(0.015)	(0.015)	(0.014)	(0.017)				
Company Alexandra	-0.328***	-0.332***	-0.383***	-0.329***	-0.305***	-0.393***				
Star Performer Absence	(0.050)	(0.050)	(0.055)	(0.050)	(0.050)	(0.055)				
Manager Organization	0.008	0.007	0.007	0.020**	0.011*	0.020**				
Tenure	(0.007)	(0.007)	(0.007)	(0.008)	(0.007)	(0.009)				
Manage	-0.010***	-0.010***	-0.009***	-0.010***	-0.009***	-0.010***				
Manager Age	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)				
	-0.012	-0.011	-0.009	-0.008	-0.008	-0.010				
Geographic Connection	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)				
Manager 1 Complete	0.628***	0.636***	0.635***	0.605***	0.633***	0.596***				
Managerial Capability	(0.086)	(0.087)	(0.087)	(0.087)	(0.086)	(0.087)				
	0.002	0.001	0.001	0.001	0.005	0.001				
Manager League Tenure	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)				
W G : 16.	0.744***	0.725***	0.718***	0.718***	0.851***	0.717***				
Manager Social Status	(0.083)	(0.083)	(0.084)	(0.084)	(0.083)	(0.084)				
Marriage E. a. C. D. 1D.1	-0.090*	-0.094*	-0.085	-0.087	-0.118**	-0.094*				
Manager-Executive Dual Roles	(0.054)	(0.055)	(0.055)	(0.054)	(0.054)	(0.055)				
Marriage	0.007	0.029	0.023	0.019	0.032	0.026				
Manager Outsiderness	(0.038)	(0.039)	(0.038)	(0.039)	(0.039)	(0.039)				
Total Co. No.	-0.207***	-0.199***	-0.201***	-0.199***	-0.208***	-0.199***				
Interim Manager	(0.060)	(0.060)	(0.060)	(0.060)	(0.060)	(0.060)				

Table 3.4. continued

-0.015	-0.018	-0.017	0.014	0.014	
		-0.017	-0.014	-0.014	-0.016
(0.013)	(0.013)	(0.013)	(0.013)	(0.013)	(0.013)
0.007**	0.007**	0.007**	0.007**	0.011***	0.006*
(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
0.453***	0.461***	0.472***	0.462***	0.530***	0.450***
(0.077)	(0.078)	(0.078)	(0.078)	(0.078)	(0.078)
0.002	-0.076	-0.082	-0.082	-0.079	-0.074
(0.003)	(0.062)	(0.062)	(0.062)	(0.062)	(0.062)
-0.031***	-0.030***	-0.031***	-0.032***	-0.042***	-0.032***
(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)
-0.009***	-0.009***	-0.009***	-0.009***	-0.010***	-0.009***
(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
-1.042***	-1.044***	-1.044***	-1.042***	-1.035***	-1.044***
(0.065)	(0.065)	(0.065)	(0.065)	(0.065)	(0.065)
3.662**	7.215**	7.547**	7.768**	8.441***	7.063**
(1.629)	(3.118)	(3.114)	(3.115)	(3.122)	(3.127)
Included.	Included.	Included.	Included.	Included.	Included.
27,940	27,940	27,940	27,940	27,940	27,940
-(	0.007** (0.003) 0.453*** (0.077) 0.002 (0.003) 0.031*** (0.007) 0.009*** (0.003) 1.042*** (0.065) 3.662** (1.629) included.	0.007**         0.007**           (0.003)         (0.003)           0.453***         0.461***           (0.077)         (0.078)           0.002         -0.076           (0.003)         (0.062)           0.031***         -0.030***           (0.007)         (0.007)           0.009***         -0.009***           (0.003)         (0.003)           1.042***         -1.044***           (0.065)         (0.065)           3.662**         7.215**           (1.629)         (3.118)           Included.         Included.	0.007**         0.007**         0.007**           (0.003)         (0.003)         (0.003)           0.453***         0.461***         0.472***           (0.077)         (0.078)         (0.078)           0.002         -0.076         -0.082           (0.003)         (0.062)         (0.062)           0.031***         -0.030***         -0.031***           (0.007)         (0.007)         (0.007)           0.009***         -0.009***         -0.009***           (0.003)         (0.003)         (0.003)           1.042***         -1.044***         -1.044***           (0.065)         (0.065)         (0.065)           3.662**         7.215**         7.547**           (1.629)         (3.118)         (3.114)           Included.         Included.         Included.	0.007**         0.007**         0.007**         0.007**           (0.003)         (0.003)         (0.003)         (0.003)           0.453***         0.461***         0.472***         0.462***           (0.077)         (0.078)         (0.078)         (0.078)           0.002         -0.076         -0.082         -0.082           (0.003)         (0.062)         (0.062)         (0.062)           (0.031***         -0.030***         -0.031***         -0.032***           (0.007)         (0.007)         (0.007)         (0.007)           (0.003)         (0.003)         (0.003)         (0.003)           (0.003)         (0.003)         (0.003)         (0.003)           (0.065)         (0.065)         (0.065)         (0.065)           3.662**         7.215**         7.547**         7.768**           (1.629)         (3.118)         (3.114)         (3.115)           Included.         Included.         Included.	0.007**         0.007**         0.007**         0.007**         0.011***           (0.003)         (0.003)         (0.003)         (0.003)         (0.003)           0.453***         0.461***         0.472***         0.462***         0.530***           (0.077)         (0.078)         (0.078)         (0.078)         (0.078)           0.002         -0.076         -0.082         -0.082         -0.079           (0.003)         (0.062)         (0.062)         (0.062)         (0.062)           (0.031***         -0.030***         -0.031***         -0.032***         -0.042***           (0.007)         (0.007)         (0.007)         (0.007)         (0.007)           (0.003)         (0.003)         (0.003)         (0.003)         (0.003)           (0.003)         (0.003)         (0.003)         (0.003)         (0.003)           (0.065)         (0.065)         (0.065)         (0.065)         (0.065)           (0.065)         (0.065)         (0.065)         (0.065)         (0.065)           3.662**         7.215**         7.547**         7.768**         8.441***           (1.629)         (3.118)         (3.114)         (3.115)         (3.122)

Note: Robust standard errors clustered at the manager level in parentheses. SPTM refers to Star performer-turned-manager. \*\*\* p<0.01, \*\* p<0.05, \*p<0.1

To illustrate the effect of stardom visibility, Figure 3.1 shows how SPTM's differ from other managers in the effect of geographic connection between a manager and subordinate employees, showing that there is a very small difference of winning percentage between SPTM and other managers when the managers have smaller number of employees geographically connected (1 standard deviation below the mean), but a much bigger difference when the managers have larger number of employees geographically connected (1 standard deviation above the mean). I also plot the significant interactions for both SPTM and Non-SPTM, defining "significant" here as p<0.10, in Figures 3.2–3.6. Figures 3.2–3.3 display the contingent effect of subordinate human capital on inspirational role model effects, showing that although SPTM-managed organizations perform better overall, this performance boost is greater when subordinates are younger, and less-developed.

Figures 3.4–3.6 illustrate the contingent effects of the salience of a manager's stardom on inspirational role models effects. Figure 3.4 shows that organizational performance is better when an organization has star performers at the employee-level, regardless of its type of manager, but a SPTM-managed organization is less vulnerable to reduced performance with the absence of their star employees. In Figure 3.5, the slope of organizational performance becomes much steeper when the manager's organization tenure is shorter. Interestingly, the Figure shows that there is almost no difference of winning percentage between SPTM and non-SPTM when the managers have longer organizational manger career.<sup>33</sup> Additionally, Figure 3.6 shows that the slope is much steeper for an organization with younger managers than an organization with older managers. The Figures 3.5 and 3.6 imply that the inspirational role model effects decrease as managers gain more experience as managers and get farther from their heyday as star employees.



Figure 3.1 Effects of geographic connection on organizational performance

<sup>33</sup> In the slope of longer manager organization tenure, the graph illustrates that averaged winning percentage of star performer-turned-manager is 0.624, and that of non-star performer-turned-manager is 0.621.

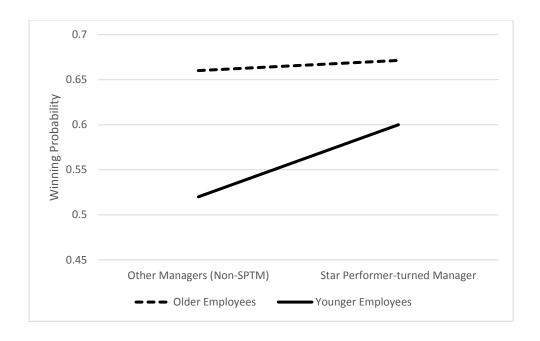


Figure 3.2 Effects of employee age on organizational performance

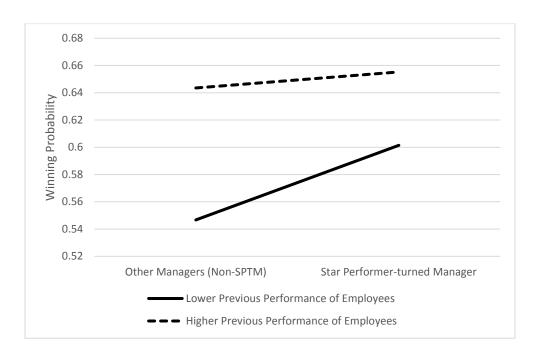


Figure 3.3 Effects of prior performance on organizational performance

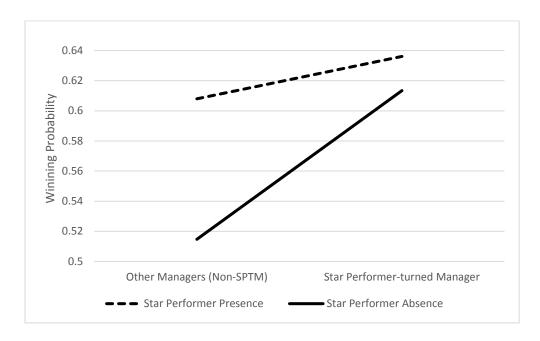


Figure 3.4 Effects of star performer absence on organizational performance



Figure 3.5 Effects of manager tenure on organizational performance

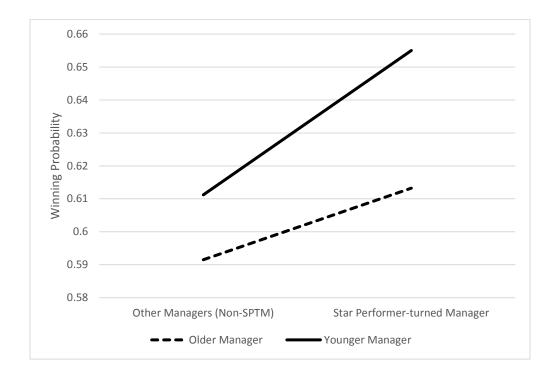


Figure 3.6 Effects of manager age on organizational performance

#### 3.4.1 Robustness checks

I investigate the robustness of the main results in several ways. First, I examine the possibility that the hiring of SPTM's is endogenous, rather than random. I assume that labor-market demand for managers among the best performers as employees might exceed the supply of the certain type of managers because star performers turned managers might have celebrity effects, i.e., certification, visibility, or fame (e.g., Hayward et al., 2004; Wade, Porac, Pollock, & Graffin, 2006), on the audience and the decision makers who have authority over the hiring process. So, I use a two-stage instrumental-variable probit model to correct for any potential biases due to such an endogeneity problem. I use two distinct dichotomous instruments in this analysis: The first takes the value of 1 if a manager was born in the state where a team that he currently manages is located, or 0 otherwise. The second takes the value of 1 if a manager attended high school in the state where a team that he currently manages is located, or 0 otherwise. The logic for using these

instrumental variables is that family and personal ties to a state increase the likelihood of taking a job there, but that the location of a manager's birth or education is unlikely to have a direct effect on the team's current performance.

In Table 3.5, I report the results of the first- and second-stage models of the two-stage instrumental variable probit estimation, using the ivprobit command in STATA 15. The results of the first-stage model indicate that both instrumental variables are meaningful in explaining the presence of a star performer turned manager with a team (p<0.01). To ensure the validity of the instruments, I perform several diagnostic tests for under-identification, weak-identification, and exogeneity of the instruments. The under-identification statistic, Kleibergen-Paap rk LM, results in a p value of less than 0.01, suggesting that the instruments have sufficient correlations with the endogenous variable. The weak identification test statistics, the Kleibergen-Paap Wald F statistics, are greater than the 10-percent maximal IV size Stock-Yogo critical values, confirming the relevance of the instruments (Stock & Yogo, 2005). In addition, the two instrumental variables are found to be exogenous and valid because the Sargan test of overidentifying restriction cannot reject the null hypothesis of instrument exogeneity (p=0.3445). Unsurprisingly, the two instrument variables are both positive and statistically significant (p<0.01). Consistent with the main findings, the results of the second stage indicate that the coefficient of the instrumental value of star performer turned manager on organizational performance is positive and statistically significant (p<0.05). For interaction effects, I obtain largely consistent results, except for age of employees and star performer absence that are insignificant.<sup>34</sup>

<sup>&</sup>lt;sup>34</sup> To correct the forbidden regression when performing the 2SLS-IV regression (Angrist & Pischke, 2008; Wooldridge, 2010), I estimate the 2SLS using instruments and fitted probabilities of endogenous and other variables. In addition, when estimating interactions with the endogenous variable, I input the products of an instrument between a contingent variable to correct the 2SLS-IV (e.g., born in the state X age of employees). This leads to a multicollnearity problem in the model, so the results might be different from the main results in Table 3.3

Table 3.5 Robustness check: two-stage instrumental variable probit regression model

Estimation				2SLS-IV Pro	bit Regressi	on Model			-
Hypotheses	1st	2 <sup>nd</sup> (H1)	H2a	H2b&c	H3a	H3b	H4a	H4b	H4c
Models	1	2	3	4	5	6	7	8	9
SPTM X Geo.			0.042*						
Connection			(0.024)						
SPTM X				-0.418*					
Managerial Capa.				(0.241)					
SPTM X					-0.033				
Age of employees					(0.039)				
SPTM X						-0.165***			
Pre. Performance						(0.062)			
SPTM X Star							-0.212		
Performer absence							(0.255)		
SPTM X Manager								-0.039***	
organization tenure								(0.015)	
SPTM X									-0.022***
Manager age									(0.006)
Star performer-		0.524**	0.398***	0.397***	1.132	2.434***	0.194**	0.201**	1.292***
turned -manager		(0.221)	(0.151)	(0.145)	(1.095)	(0.874)	(0.086)	(0.083)	(0.338)
Born in the state	0.099***								
	(0.010)								
Attended a high	0.123***								
school in the state	(0.010)								
Control Variables	Included	Included	Included	Included	Included	Included	Included	Included	Included
Season/Div,/Org./ Game order dummy	Included	Included	Included.	Included	Included	Included	Included	Included	Included
C	-2.142***	-0.147**	8.939***	2.680***	1.035**	2.189***	2.456***	2.688***	2.957***
Constant	(0.480)	(0.075)	(3.100)	(0.731)	(0.482)	(0.721)	(0.717)	(0.727)	(0.744)
N (Manager)				27	7,940 (169)				
Underidentification			187.57**	296.29**					259.10**
(Kleibergen-Paap rk		229.88***	*	*	218.27***	112.28***	151.56***	306.77***	*
LM) Weak identification									
(Kleibergen-Paap		140.16	46.94	74.445	59.37	31.67	43.84	94.65	82.28
Wald)		170.10	70.77	77.77	37.31	31.07	TJ.0T	77.03	02.20
Sargan test (p-		0.2445	0.4961	0.4208	0.2094	0.6749	0.4512	0.1050	0.2005
value)		0.3445	0.4861	0.4298	0.2084	0.6748	0.4512	0.1959	0.3095

Note: Robust standard errors are in parentheses. STATA 14 does not provide post-estimation after the 2SLS IV model when calculating and using clustered standard errors, so I use only robust standard errors in this model. The main model for this robustness check was a two-stage instrumental variable probit regression model (ivprobit in Stata 14). However, an ivprobit does not provide post-estimation after the regression, so I use ivreg2 to calculate the post-estimation. The reduced form in an ivprobit is the same linear equation as appears in a standard 2SLS estimation framework, so treating the 1st stage equation in the ivprobit as linear would not violate (Wooldridge 2015)<sup>35</sup>. The Sargan test of overidentifying restrictions does not reject the null hypothesis of instrument exogeneity (Wooldridge, 2006).

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

<sup>35</sup> http://www.statalist.org/forums/forum/general-stata-discussion/general/1295919-underidentification-and-weakidentification-test-for-ivprobit

I also consider the possibility that extreme outliers might bias the results. For example, legendary NBA manager Jerry Sloan, who was also a two-time NBA All-Star player, and a four-times NBA All-Defensive First Team during his 755 games in the NBA league, and won 1,221 of 2,024 games (60.3% total career winning percentage) in his career from the 1979–2011 season to his retirement as a head coach in the 2010–2011 season. Over his 24-year career as a head coach, he won two West Conference championships, led his team to the post-season 20 times, and was named to the Naismith Memorial Basketball Hall of Fame as a head coach in 2009. Such extreme performance as a player and as a manager might produce upward bias to the empirical results. To exclude this possibility, I test a subsample without games involving Sloan. The results are largely consistent with the main results and support all the hypotheses (with the same directions and small differences in coefficients and significance levels). These results are available upon request.

#### 3.5 Discussion and Conclusion

In this essay, I highlight how a manager's previous performance as an employee can affect overall organizational performance. Drawing on social comparison theory and the self-enhancement mechanism in the socio psychology literature (e.g., Collins, 1996; Festinger, 1954; Wood, 1989), the results suggest that SPTMs succeed more when they can serve as inspirational role models for employees – in contrast to other managers, whose success is driven more by skill-based mechanisms. The managerial impacts of the inspirational role models provided by SPTM's are contingent upon both the human capital characteristics of subordinate employees and the visibility and situational salience of the manager's former stardom. In particular, inspirational role model effects are stronger when the subordinates are less experienced, when star-performing

subordinates are absent, and when the SPTM is younger. These results imply that, by serving as inspirational role models, SPTM's can benefit organizational performance.

This study contributes to understanding the effects of stars on organizational performance in several ways: First, this study contributes to strategic human capital research by highlighting the ongoing roles that star performers can continue to play even after being promoted into management. Specifically, the taxonomy I introduce in Table 3.1 contributes to theory by categorizing the various mechanisms that a SPTM might, at least in principle, employ to help an organization create and/or capture more value than other managers. Second, this study introduces the SPTM as a new concept for strategic human capital research – moreover, a phenomenon that merits further study because it is already known to be of great interest and practical relevance to managers (Adler, 1996; McKee, 2015). Third, I specifically disentangle how SPTM's and other managers differ in the mechanisms by which they succeed. Specifically, the results suggest that SPTM's can improve organizational performance via inspirational role modeling, while other managers do not. Finally, I capture manager-specific, subordinate-specific, and situation-specific contingency factors that influence the strength of this inspirational role modeling effect in a way that is consistent with social comparison theory. In this regard, the present study provides a bridge between the resource-based view of human capital and socio-psychological theories of human resource development.

The findings also have practical managerial implications for human capital recruitment. By identifying the importance of an effective match between employees and their manager, the results can begin to answer questions like: What kinds of employees should be hired to work under SPTM's versus other managers? What kinds of organizations should hire SPTM's versus other managers? For example, the results suggest that SPTM's can be more effective as managers of

employees who: (1) have themselves directly witnessed the manager's prior star-level performance, (2) are less experienced, (3) have experienced poor performance, (4) do not have star-level colleagues, and (5) are closer in age to the SPTM. So, organizations composed of such employees may benefit more from hiring a SPTM, and organizations that are led by a SPTM may benefit more from hiring such employees.

#### 3.5.1 Limitations and future research

Like all studies, the limitations of this study can offer opportunities for future research. Perhaps the most obvious limitation of this study is the generalizability of its results. In this regard, the professional sports context is a double-edged sword. While this context provides data at a level of transparency and specificity that is generally unavailable elsewhere, professional sports teams also clearly differ from other organizations in numerous ways that may severely limit the relevance of results to other industries. For example, with a total of fewer than 25 players and coaches combined, a NBA team is a fairly small and simple organization, with a single purpose and no diversification. Also, the zero-sum, winner-take-it-all nature of sports competition (e.g., Yanadori & Cui, 2013) is different from many industries. Furthermore, the fact that NBA players and coaches do much of their work in public and are subject to intense press scrutiny is also quite unusual. In addition, unlike many industries, NBA teams do not promote players to coach simply to provide a motivational career ladder. For these reasons, it will be valuable to compare the findings to future research in other settings.

This study highlights the importance of inspirational role modeling as a mechanism by which SPTM's affect organizational performance, but its measurement of this effect is indirect and coarse-grained, based on geographic connections between employees and their manager. It

would be useful for future research to measure inspirational role model effects in a more direct and fine-grained way, perhaps through interviews or surveys of employees, in order to capture their actual thoughts and feelings about their manager, and thereby measure the degree to which they identify with their manager, view their manager as a role model, and feel inspired by the manager's example. Such detailed data would allow for a more fine-grained analysis of the conditions under which SPTM's and other managers inspire employees to take specific actions.

In addition, although empirical context enabled this study to isolate the inspirational role model mechanism from the other three mechanisms in Table 3.1, this is only a first step toward answering the question of how SPTM's affect organizational performance. Ideally, in order to fully answer this question, it would be important for future studies to find measures for all four mechanisms from Table 3.1, so that their relative strengths could be compared and so that any interactions between them could be captured.

Finally, although this study has focused on organizational performance as its dependent variable, it would also be useful to understand the effects of SPTM's on other outcomes as well. For example: Are SPTM's more susceptible to the kind of hubris or overconfidence that has been shown to affect organizational risk-taking and other strategic actions (e.g., Hayward & Hambrick, 1997; Malmendier & Tate, 2005; Malmendier & Tate, 2008)? What is the relationship between SPTM's and phenomena like charisma, narcissism, and further transformational leadership (e.g., Chatterjee & Hambrick, 2007; Dvir, Eden, Avolio, & Shamir, 2002)?

# CHAPTER 4. TAKEN FOR GRANTED? THE IMPACT OF STAKEHOLDER ORIENTATION ON CORPORATE SOCIAL RESPONSIBILITY AND CEO'S WEALTH AND PROMINENCE: EVIDENCE FROM A NATURAL EXPERIMENT

#### 4.1 Introduction

With the heightened expectations on corporations as influencers in the social and environmental sphere, not only more companies are addressing corporate social responsibility (CSR) in their board rooms, but also general consumers are also expressing the need for CSR. The 2017 Global CSR survey for in U.S. conducted by Cone Communication, reported that the 87 percent of consumers that are said they would purchase a product because a company supported an issue they care about. More importantly, a whopping 76 percent will refuse to buy from a company if they learn it supports an issue contrary to their own beliefs. More interestingly, more than 60 percent of American consumers hope firms will drive social and environmental change in the absence of government regulation.

The importance of CSR has been strongly noted by research: the CSR is a business approach that contributes to sustainable development by delivering economic, social, and environmental benefits to all stakeholders (e.g., McWilliams & Siegel, 2000; Surroca, Tribó, & Waddock, 2010; Waddock & Graves, 1997). According to latest chief executive officer (CEO) survey, 64 percent of CEOs say that "CSR is core to business rather than being a stand-alone program because they care about building trust with consumers, partners, governments, and employees." (PwC Global CEO survey, 2016). Taken together, a firm's CSR strategy is interacted with its stakeholder's call and expectation. Recent, the firm's CSR is not driven by a firm solely. For example, the Indian government enacted a law about corporate giving in April 2014. Following a change in Indian company law, businesses with annual revenues of more than 10

billion rupees (approximately \$131 million) must give away 2% of their net profit to charity (India's. Companies Act of 2013). These arenas in which Indian businesses can invest the 2% of their net profit include education, poverty, gender equality, and hunger, and, as such, CSR becomes a business requirement rather than voluntary.

Many companies engage in a spectrum of CSR initiatives and heavily invest in publicizing these social actions. While the intrinsic satisfaction of social responsibility and engagement is important, CSR programs tend to be meaningful and sustained only when they align with corporate financial needs (e.g., profit, revenue, and growth) or social needs (e.g., people, community, and environment). Although firms' CSR activities have been receiving more attention from non-shareholders, and stakeholders are more likely to pressure firms to engage in increased CSR, there are still long-standing academic and practical debates regarding the value of shareholders and legal obligations to society that question how the plethora of CSR initiatives or superior CSR performance beget positive (e.g., Freeman, 1984; Orts, 1992). Some firms have responded to these concerns by devoting more resources to CSR. Other companies' managers have resisted, arguing that additional investment in CSR is inconsistent with their efforts to maximize profits. In order to reconcile these views about the value of CSR for shareholders and non-shareholders, many researchers have explored whether CSR that reflects a form of alignment of firm policy leads to superior firm performance or whether CSR indeed increases the shareholder's value (e.g., Aupperle, Carroll, & Hatfield, 1985; Waddock & Graves, 1997). Surprisingly, few studies have examined the effects of exogenous pressure for CSR by institutions, such as governments, communities, and political parties. The implementation of CSR should be followed by a current organization's needs and capabilities since firms are expected to be efficient and profitable and maintain shareholder interests in mind while CSR is concerned with societal

and community expectations, such as the expectation that organizations will conduct their affairs in fair and just ways. Given that one of the mechanisms that explain the positive relationship between CSR and firm performance is satisfying the CSR need among stakeholders, and various stakeholders encourage firms to engage in more and better CSR activity, I examine an unexplored concern about CSR by asking several research questions: does enforced CSR activity lead to superior firm performance and firm value? does superior CSR performance lead to superior CEO wealth and status?

In this chapter, I argue that the potential impact of corporate attention to nonfinancial shareholders on CSR and its effects on firms and CEOs. This question is difficult to empirically address since stakeholder orientation is likely endogenous with respect to implementation of the CSR. In particular, finding a positive relationship between stakeholder orientation and the quality of CSR performance may be spurious if such relationship is driven by unobserved firm characteristics that enhance a firm's propensity to engage in both CSR performance and stakeholder-friendly initiatives. This concern is particularly severe given that firm-level attributes, such as firm performance or top management team's attention to the corporate philanthropy activities, while difficult to observe, are likely to drive a firm's commitment to CSR and stakeholder orientation alike. Moreover, the relationship between stakeholder-friendly policies and CSR performance and its further impact is subject to reverse causality concerns. For example, a positive relationship between stakeholder orientation and CSR performance may indicate that superior CSR performance occurs among firms that allocate more resources to cater to the interests of non-shareholders. In short, while empirically challenging, leveraging a research design that provides a clean, causal estimate is central to understanding the impact of a firm's stakeholder orientation on CSR and an organization's CEO.

I address this empirical challenge by exploiting a natural experiment provided by the enactment of constituency statutes in the state of Texas in 2006. These statutes encourage corporate executives and directors to consider non-shareholders' interests when making business decisions, and, hence, they provide an exogenous variation in the weight that U.S. public corporations give in the interest of nonfinancial stakeholders (Flammer & Kacperczyk, 2015; Orts, 1992). During 2002-2012, I apply a natural experiment approach to observe the impact of constituency statutes within a firm in Texas. In 2006, the state of Texas enacted the constituency statutes, and the legal enactments encouraged the Texan firms to take stakeholder's values into consideration. I find that the enactment of constituency statutes leads to a significant increase in the quality of CSR; however, the superior CSR performance does not necessarily lead to superior firm performance or value. These findings indicate that stakeholder orientation does indeed incite firms to engage in better CSR activity; however, the more firms engage in superior CSR activities, the less they gain from being corporate philanthropists. I argue that once CSR becomes an enforced social responsibility, the marginal impact of CSR decreases compared to when firms enact CSR on a voluntary basis.

I further argue that stakeholder orientation inhibits a firm's CEO from obtaining more compensation when they achieve superior CSR performance because the enactment of the constituency statutes increases stakeholders' expectations of CSR performance. For example, a CEO may claim a larger compensation package in terms of their CSR performance before the statutes were activated; however, after the statutes were enacted, the commitment to the CSR would become enforced tasks. This enforced stakeholder orientation would decrease the marginal impact of corporate philanthropic activities since the expectation of stakeholders is much more increased, or the CSR effects on the shareholder's value is decreased, or both.

In addition, I posit that stakeholder orientation promotes a firm's CEO to gain positive exposure via public media, suggesting that external stakeholders prefer a CEO who engages in superior CSR activity under an enforced stakeholder orientation era. Finally, the impact on individual CEO's wealth and status is larger for firms in non-consumer-focused industries (i.e., the business-to-business sector) since superior CSR performance is more conspicuous in sectors where the CSR is not believed to be a common activity. Overall, evidence supports the view that stakeholder orientation plays an important role not only in shaping corporate social responsibility but also in influencing a CEO's individual wealth and status because the policy changes would affect stakeholder's expectations of corporate philanthropic activities. In the following, I develop the theoretical arguments in detail, describe the methodology, and present the empirical results and implications.

# 4.2. Theoretical Background and Hypotheses

The concept of CSR refers to "voluntary managerial actions that appear to further some social good, beyond interests of the firm and that which is required by regulation and policy" (e.g., Carroll, 1999; McWilliams & Siegel, 2001). In other words, CSR is a form of corporate self-regulation integrated into a business model. CSR policy functions as a self-regulatory mechanism whereby a business monitors and ensures its active compliance with not only legal and ethical standards but also national and international norms (Rasche, Morsing, & Moon, 2017). The aim is to increase long-term profits and shareholder trust through positive public and social relations and high ethical standards to reduce business and legal risk by firms taking responsibility for corporate actions. CSR strategies encourage firms to employ positive impacts on society and the

environment as well as stakeholders, including consumers, employees, investors, communities, and others.

CSR proponents support that corporations increase long-term profits by implementing CSR activities while critics argue that CSR distracts from the primacy of shareholders. (e.g., Hine & Preuss, 2009; Prahalad, 1994). To reconcile these conflicts, many studies have examined the relationship between CSR and a shareholder's value. The results from these studies have reported positive, negative, and neutral positions in regards to the value of shareholders. For example, Aupperle et al. (1985) found no relationship between corporate social performance (CSP) and profitability, and McGuire et al. (1988) found that prior performance was more closely related to CSR than was subsequent performance; additionally, Waddock and Graves (1997) found significant positive relationships between an index of CSP and performance measures, such as ROA in the following year.

The inconsistency of the results from these studies is unsurprising since the effectiveness of corporate philanthropic activities on firm performance is dependent on how stakeholders interpret the value of CSR as a meaningful firm activity. A key feature of CSR is its voluntary nature (e.g., Carroll, 1999). Voluntarism advocates firms to allocate resources, including tangible and intangible assets in a socially efficient way that generates the optimal value for both the firm and the society. Recently, governments, however, have imposed mandatory social, environmental, and ethical reporting for companies for the community, society, and further non-shareholders. For instance, India recently mandated CSR spending for the firms operating in the country. As per the clause 135 of the Companies Act 2013, a firm operational in India should minimally spend 2% of its average profit of the last three years on CSR activities. For the optimum value for stakeholders, it is not uncommon that governments support the implementation of CSR not only

through regulation but also through various bureaucratic mechanisms, including taxes, subsidies, and charges (Nyquist, 2003). Some researchers in policy economics and corporate ethics have argued whether CSR should remain voluntary or become mandatory: this argument is a long-standing academic debate over corporations' purposes and legal obligations to society (e.g., Flammer & Kacperczyk, 2015; Orts, 1992).

Managers are continually subject to demands from multiple stakeholder groups to devote firm resources to CSR. Conventionally, stakeholders are defined as persons or groups that have or claim ownership and rights or interests in a corporation and its activities, past, present, and future. Stakeholders with similar interests, claims, or rights can be classified as belonging to the same group, such as employees, shareholders, and customers (Clarkson, 1995). While external stakeholders have no financial stakes in a firm, they indirectly influence a firm's strategic behavior while internal stakeholders are directly and/or financially involved in a firm's operational processes. Satisfying these stakeholders is a fundamental task for both a firm and its CEO.

#### 4.2.1 Stakeholder orientation and expectation of corporate social responsibility of stakeholders

Stakeholder theory examines the firm in the context of a wider range of internal and external stakeholders having legitimate expectations, urgent claims, and/or power regarding the firm (Freeman, 1984; Mitchell, Agle, & Wood, 1997). The pressures for superior CSR performance emerge from not only internal stakeholders, like employees, directors of board, or institutional shareholders, but also external stakeholders, such as customers, community groups, governments, and public media. Based on an assumption that firms implement CSR strategies to capitulate to pressure from stakeholders, CSR literature puts more emphasis on its economic

aspects and consequences. Little research has, however, considered how stakeholders take the value of CSR, that is enforced by one of stakeholders (i.e., government).

A company's stakeholder orientation represents how much a company attends to the interests of all its relevant stakeholders. Many researchers have defined stakeholder orientation at the firm-level perspective. For example, Jain, Aguilera, and Jamali (2017) defined stakeholder orientation as the top management's viewpoint of their firm's legitimate stakeholders. Dhaliwal, Li, Tsang, and Yang (2014) defined it as the extent to which management's vision of its roles and responsibilities includes the interests and claims of non-shareholders. These studies have examined the impact of stakeholder orientation on a firm's performance as well as further strategic initiatives. For instance, Jain et al. (2017) argued that stakeholder orientation constitutes a legitimacy signal consciously employed by firms to demonstrate their shareholder and specific non-shareholder orientations amid institutional pressures emerging from country and industry contexts. Flammer and Kacperczyk (2015) found that stakeholder orientation promotes a firm's innovation performance by ameliorating the relationship between the focal firm and its employees. In a similar vein, I focus on the possibility that stakeholder orientation driven by an institution would affect the expectation of stakeholders in respect to a firm's CSR implementation and activity. In other words, I argue that the enforced stakeholder orientation would affect the perceived level of each stakeholder. As mentioned previously, the key feature of CSR is its aspect of being voluntary: firms should choose whether they are implementing specific CSR strategies based upon their demands and capabilities. However, what if a firm is receiving institutional pressure by stakeholders? Would a firm's CSR strategy be effective? Or, would stakeholders appreciate the firm's CSR activity under the era of pressured CSR?

The central claim in this paper posits that stakeholder orientation affects the level of expectation of perceived CSR performance, and, further, it would affect firm performance as well as CEOs' individual compensation and prominence. Assuming that translating CSR performance to firm performance and further impact depends upon 1) how stakeholders appreciate a firm's CSR, and 2) the extent of the visibility or rarity of a firm's CSR activity. I argue that stakeholder orientation imposed by an institution would be one of the key factors to affect the link between CSR and the value of shareholders. By focusing on the enactment of constituency statutes in the U.S., which is one of the institutional pressures to foster a firm's CSR implementation, I argue that institutional pressure would affect the perceived value of each company's CSR, from voluntary to mandatory CSR.

### 4.2.2 The enactment of constituency statutes and the perceived value of CSR by stakeholders

A constituency statute, also called a stakeholder statute, allows corporate directors, in the exercise of their fiduciary duties, to consider broader interests than merely profit maximization for shareholders. In other words, the statute puts more emphasis on the non-shareholders' interests when making business decisions, and a firm should be lead in the interests of more groups than just shareholders. For example, under these statutes, a firm's executives, and directors are allowed to consider the interests of employees, customers, suppliers, communities, environments, and any other potentially affected constituency (Gelter, 2009; Hiller, 2013). Before enactment of the constituency statutes, a firm's top management team and board of directors are not explicitly permitted by written law to consider non-shareholders' interests in their decision-making. Therefore, the enactment of constituency statutes provides corporate leaders the ability to cater to

non-shareholder interests without hurting their fiduciary obligations to shareholders. For example, Ohio's statute reads as follows:

[A] director, in determining what he reasonably believes to be in the best interests of the corporation, shall consider the interests of the corporation's shareholders and, in his discretion, may consider any of the following:

- (1) The interests of the corporation's employees, suppliers, creditors, and customers;
- (2) The economy of the state and nation;
- (3) Community and societal consideration;
- (4) The long-term as well as short-term interests of the corporation and its shareholders, including the possibility that these interests may be best served by the continued independence of the corporation.

-OHIO REV. CODE ANN. § 1701.59[E]

Although the details may be state specific, the main motivation of the legislation remains the same: constituency statutes emphasize the importance of considering the interests of nonfinancial stakeholders and, hence, pursuing interests that are not limited to their own direct shareholders. Most constituency statutes in the U.S. are permissive, which means "no penalty" for violators. In other words, executives and directors in the top management team (TMT) may not be required to take stakeholder interests into account. There are no express constraints on the TMT's discretion in deciding whether to consider stakeholder interests, and, if they decide to do so, the TMT can choose which constituency groups' interests to consider (Bainbridge, 1991). I presume, however, that the enactment of a constituency statute by state legislation would make stakeholders take a firm's CSR for granted. Also, many firms would join the CSR implementation followed by the call for institutions as well as for other competing firms. Therefore, I expect that the impact of CSR on firm performance would be greater when the CSR activity encompasses relevant tasks oriented by a firm rather than when CSR is pressured by stakeholders.

Hypothesis 1. The positive relationship between CSR performance and firm performance is negatively moderated when stakeholder orientation is stronger in society.

## 4.2.3 The impact of constituency statutes of CSR performance on CEO compensation

A CEO's compensation is determined by assessing their performance standards and expectations from internal stakeholders, such as directors. Many researchers have examined the relationship between CSR performance and compensation for CEOs. Prior literature suggests that the compensation structure (e.g., bonus and ownership) constitutes a major factor in motivating CSR strategies at the firm level (e.g., Cai, Jo, & Pan, 2012; Mahoney & Thorn, 2006) <sup>36</sup> Mahoney and Thorn (2006) examined the impact of a lagged executive compensation structure on CSR engagement and conclude that the importance of the executive compensation structure influences an executive's focus on CSR. By using a U.S. sample and one-year of data, McGuire et al. (2003) argued that there is a significant, positive correlation between CEO compensation and CSR engagement. These studies observe that CEO compensation is one of the most important factors of CSR engagement.

Based upon the perspective that enforced CSR implementation affects a stakeholder's evaluation and its effects on firm performance, I, likewise, argue that CSR is important for CEO compensation. Effective CSR activities enable a manager and firm to establish and maintain positive relationships that are congruent with the perceptions they want to convey to their

<sup>&</sup>lt;sup>36</sup> I recognize that Cai et al. (2011) examines that there is a negative relationship between CSR performance and CEO compensation. In the present paper, I examine the relationship between the growth of CEO pay and CSR performance rather than "absolute amount of CEO pay" and CSR, by controlling for previous CEO pay. This is important to consider, as the current level of CEO pay is highly correlated with previous CEO pay or vice versa (previous CEO pay can explain almost 60.9% of current CEO pay). There are some differences between this paper and Cai et al., (2011). I am measuring CSR performance with ASSET4, which provides z-score between zero and 100, that is designed for benchmarking within and cross sectors, but the Cai et al (2011) is measuring CSR with KLD dataset, that is based on the discrete number of strength and weakness, that is not able to consider idiosyncratic features at the industry-level. My focus in this paper is that the amount of increasing in CEO pay due to the quality of CSR performance, not the entire CEO compensation package.

stakeholders. Through the lens of internal stakeholders (e.g., board of directors, shareholders, and employees), successful CSR implementation would be a sort of "right impression" that facilitates desired social and financial outcomes. In this process, a CEO with successful CSR would convey an impression of competency in the workplace (Jones & Pittman, 1982). Additionally, the positive impression on internal stakeholders could trigger material rewards, such as higher salaries or better working conditions for their CEOs.

Arguably, a CEO with superior CSR performance would be more attractive to internal stakeholders. Reiterating the logic developed earlier, as firms become more successful in CSR, their CEOs will be appraised by internal stakeholders. As a result, I expect some CEOs to be observed more than other executives as the ability to capture the information arising from such demand for CSR is also valuable human capital. Considering that the level of competition for CEO positions is greater than ever (e.g., Burns, Minnick, & Starks, 2017), many firms provide attractive compensation structures (Carnahan et al., 2012), promotion ladders (Bloom & Michel, 2002), and rewards (Giarratana, Mariani, & Weller, 2018). Given that the ability of implementing CSR strategies is also a form of valuable human capital for CEOs, internal stakeholders would assess each CEO's commitment and quality to being a "corporate philanthropist"; a CEO with superior CSR performance could negotiate their future compensation with internal stakeholders, such as compensation directors and chairpersons of boards. However, the diffusion of stakeholder orientation affects the perceived value of CSR by external stakeholders, and it further affects the impact of CSR on firm performance. In other words, the enforced CSR activity would be less appreciated by stakeholders compared to when it is voluntarily implemented by a firm. Thus, I expect the following:

Hypothesis 2: The positive relationship between CSR performance and CEO compensation is negatively moderated when stakeholder orientation is stronger in the society.

## 4.2.4 The impact of constituency statutes of CSR performance on CEO prominence

While the literature examines the post-impact of CEO prominence on firms' strategic actions and outcomes, little research addresses how superior human capital arises through the interaction with external stakeholders, such as CEOs appearing in public media and their potential status as a business celebrity. Hayward, Rindova, and Pollock (2004) described that a celebrity CEO is born when public media (e.g., magazines and journalists) attribute a firm's positive performance to its CEO's actions. Public media appraise specific CEOs and firms about their financial achievements, innovations, and significant transactions, such as M&A. Public awareness is increasing in terms of social, environmental, and humanitarian issues. Responsible external stakeholders are urging firms to ethically behave both in society and toward their stakeholders. Firms should maintain and expand communication with their external stakeholders and keep them informed of initiatives and projects, related to CSR. Public media, one of the major external stakeholders, creates and distributes information related to CSR activity, and, then, further evaluates its quality. Public media is recognized as a relevant channel for enhancing and fostering relations between the effectiveness of impression management and external stakeholders; thus media channels are becoming an important tool used to propagate CSR efforts.

The media has a critical role to play in how CSR is broadcast to society. It is not enough for firms to engage in CSR for social causes or for the media to pressure firms into actively and wisely practicing CSR. The public media have a prominent role in advocating for corporations to follow socially conscious policies and programs, and major public news groups, such as CNN, Financial Times, and Businessweek frequently issue special reports about the CSR activities of global firms. The media not only appraise the success of CSR but also penalize corporate social irresponsibility (i.e., CSI) (Kölbel, Busch, & Jancso, 2017). Achieving superior CSR performance

with stakeholders is often considered a means of contributing to public perception of a company while inferior CSR performance or CSI can harm a firm's reputation.

I expect, therefore, that superior CSR performance would lead to a firm's CEO attaining media exposure by or getting appraised by external stakeholders. However, the suggested relationship would be more pronounced when the diffusion of stakeholder orientation is prevalent in society. Thus, I expect stakeholder orientation to yield a positive impact of CSR performance on the change of CEO's exposure to the media, and I hypothesize the following:

Hypothesis 3: The positive relationship between CSR performance and CEO prominence is positively moderated when stakeholder orientation is stronger in the society.

# 4.2.5 Contingent effect of industry characteristic on constituency statutes

I further expect that the impact of stakeholder orientation is also dependent upon the extent to which CSR activity is more prevalent in the industry. For instance, CSR is a common strategic initiative in a consumer-oriented industry, such as the retailing industry. In the business-to-consumer (B2C) industry, most consumers agree that while achieving business targets, companies should engage in CSR effort at the same time (Homburg, Stierl, & Bornemann, 2013), and consumers believe companies doing charity work will receive a positive response. Somerville (2013) also found that consumers are loyal and willing to spend more on retailers that support charity. Thus, companies in B2C industries are under more pressure from their stakeholders than in B2B industries. When stakeholder orientation is stronger after the enactment of constituency statutes, the difference between the impact of constituency statutes of CSR on CEO compensation is larger in the B2B industry than in the B2C industry. In fact, CSR activity by a firm is much more conspicuous and effective in the B2B industry where competing firms are less likely to engage in CSR before the enactment of constituency statutes; however, the effectiveness of CSR

activities would decrease in the B2B industry after the enactment of constituency statutes. In the consumer-oriented industry (B2C), where CSR is taken for granted (Lev, Petrovits, & Radhakrishnan, 2010), there would be fewer difference in the effectiveness of CSR because CSR strategies are a common resource endowment regardless of enforced stakeholder orientation.

Likewise, similar logic can be applied to the argument for CEO prominence. The public media are likely to highlight CSR when it is less likely to be expected. In other words, CSR activity in the B2C industry is more likely to be regarded as general firm initiatives, but the activity in the B2B industries would be seen as more meaningful to stakeholders because it is less expected. Thus, the suggested causal relationship is more pronounced in the B2B industry where CSR is not taken for granted.

## 4.3 Methods

## 4.3.1 The enactment of constituency in the state of Texas in 2006

To date, a total of 35 states in the U.S. have adopted constituency statutes: two of them adopted a constituency statute during the sample period (2002-2012), including Texas in 2006 and Nebraska in 2007. Since there are only three companies from Nebraska in the sample, I use Texan firms to implement a natural experiment that can observe the impact of "the obligation" from "the responsibility" regarding CSR and CEOs' wealth and prominence. In order to capture whether the setting is proper to test research questions in this paper, I checked the impact of the 2006 constituency statutes in Texas by searching articles that mentioned "corporate social responsibility," "CSR," or "non-shareholders" by Texan local media (i.e., news, articles, journals, etc). Figure 4.1 depicts that the number of articles referencing "CSR" increased after the enactment of constituency

statutes. Interestingly, the number of articles is similar between 2006 and 2007, and represents a one-year time lag for media attention.

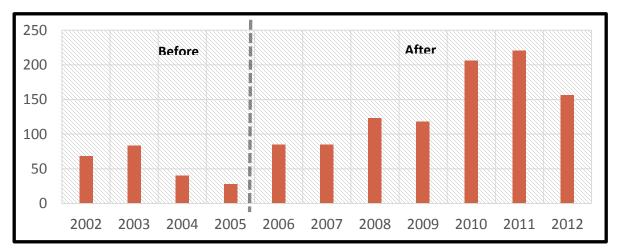


Figure 4.1 The number of articles that mentioned "corporate social responsibility" in Texan local media

Note: From Factiva, I count the number of articles (i.e., journals, magazines, newspaper) that mention "corporate social responsibility" or "CSR" in Texan local media during 2002-2012. The constituency statutes in Texas were effective January 1, 2006.

## 4.3.2 Sample

I will combine multiple data sources and construct a hand-collected dataset to study the effects of stakeholder orientation on CSR performance on CEO wealth and prominence that includes the following data: (i) Thomson Reuter Asset4; (ii) CEO-level data from Securities and Exchange Commission (SEC) filings and Execucomp; (iii) accounting and financial data from Compustat and the Center for Research in Security Prices (CRSP); (iv) information regarding corporate governance from I/B/E/S; (v) other data from company websites and other web-based sources, such as Factiva, Bloomberg Businessweek, Financial Times, and Forbes.

The primary sample for this study starts from 1,000 of the largest U.S. firms that are listed as having publicly traded in the U.S. during 2002-2012. I then matched these firms with those in

the Asset4 database by a firm identifier and tracked CEO pay and prominence changes at the focal firm-year level using prominent media sources and other web-based materials. This process incurred 901 firms and 5,638 firm-year observations with 1,391 CEOs for the sample period. To capture the impact of stakeholder orientation as exogenous shock and observe the within-variation at a focal firm, I limited the sample firms that were only in the state of Texas during the period. Thus, the final sample consisted of 88 firms and 595 firm-year observations with 146 CEOs (see Appendix F).<sup>37</sup>.

# 4.3.3 Dependent Variables

To measure the impact of stakeholder orientation on CSR and CEO, I followed common practice in CSR literature and used firm-level proxies for firm performance and CEO-level proxies for CEO's wealth and prominence.

Firm level: Firm performance and firm value. Return on assets (ROA), return on equity (ROE), and Tobin's q are primary performance measures. I estimated ROA as using net income scaled by the book value of total assets.<sup>38</sup> and ROE as using net income scaled by the book value of total equity. In addition, I estimated Tobin's q as the market value of total assets divided by the replacement cost of assets.

CEO level: CEO pay and CEO prominence. The first dependent variable at the CEO-level is CEO pay, which reflects a CEO's individual wealth. This variable is measured by total CEO pay, consisting of salary, bonuses, the value of restricted stock granted, the value of options granted,

(EBITDA) divided by the book value of total assets and obtained similar results.

<sup>&</sup>lt;sup>37</sup> During the panel analyses, one firm was dropped since the observations were not enough to get lagged and forwarded value. In addition, initial observations at the firm-year level were dropped since all dependent variables were forwarded. Thus, final observation included an analysis of 87 firms with 505 firm-year observations. <sup>38</sup> In robustness checks, I calculated ROA measured as earnings before interests, tax, depreciation, and amortization

logarithmic value. The information is derived from EXECUCOMP and SEC filings (e.g., Custódio, Ferreira, & Matos, 2013). The second dependent variable is CEO media exposure, reflecting a CEO's prominent status to non-shareholders. Following prior literature (Chatterjee & Hambrick, 2007; Roussanov & Savor, 2014), I calculated the number of articles that mention a CEO's name based on the Factiva Dow Jones database.

## 4.3.4 Independent variable: measuring CSR performance

The main independent variable in the model is CSR performance. I derived the information from Thomson Reuters Asset4 database, which provides objective, relevant, auditable, and systematic CSR information and ratings (Chatterji, Durand, Levine, & Touboul, 2016; Cheng, Ioannou, & Serafeim, 2014). This Swiss-based institution provides a standardized z-score for four major domains: environmental performance, social performance, corporate governance, and economic performance. Using approximately 250 key performance indicators, the Asset4 scales CSR performance between 0-100.

This indicator qualifies CSR efforts at each firm and asks several questions. Has the company received product awards with respect to environmental responsibility? Does the company use product labels (e.g., FSC, Energy Star, MSC), indicating the environmental responsibility of its products? Does the company describe, claim to have, or mention processes in place to improve its use of sustainable packaging? Does the company promote the social responsibility of its products or services through product labels, fair trade labels or local suppliers support labels that the company is qualified to use or has received? For this analysis, CSR

performance in this paper is measured as an equally-weighted average value of the sum of ESG domains (environmental, social, and governance) (Cheng et al., 2014).

## 4.3.5 Contingent variables

I further examined whether the effect of stakeholder orientation on CSR performance and CEOs' wealth and status differs depending on industry characteristics. To distinguish between the B2C and B2B sectors, I used the partition based on the four-digit Standard Industrial Classification (SIC) codes (Lev et al., 2010: 188). I refer to B2C industries as "CSR-prevalent industries" and B2B as "CSR-less-prevalent industries," assuming that the impact of stakeholder orientation on CSR and CEOs is more salient in the industry where CSR is not a common strategic initiative.

## 4.3.6 Control variables

In the analysis, I controlled for a vector of CEO- and firm-level characteristics that may affect firm performance and CEO's wealth and prominence.

CEO-level controls. CEO age is measured in years (logarithmic value), and CEO ownership is constructed as the proportion of outstanding shares owned by corporate CEOs in a given year. I included CEO tenure, which is a proxy for experience in a given firm, and CEO duality to account for managerial discretion (Rechner & Dalton, 1991).

Firm-level controls. In order to control for corporate governance features, I included Board size (the logarithmic value of number of board members), Female board (the number of female directors), Active CEO director (the number of directors who serves other firm's CEO simultaneously), Multiple director (the number of directors who serves other firm's director

simultaneously), and *Outside director* (the number of outsider directors). I also included institutional ownership as the proportion of ownership held by all institutional investors.

I further controlled for firm size, which is the natural logarithm of the total sales. To capture the effects of capital availability and capital structure on a firm's CSR initiatives, I controlled for *Firm cash* as a natural logarithm value of total cash at a focal firm. Also, I controlled for *R&D expenditure* measured as a natural logarithm value of R&D expenditure in order to rule out the concern that R&D is highly correlated with CSR performance (McWilliams & Siegel, 2000). I controlled for a focal *Firm's status* since the firm's current reputation is likely to affect their employees' welfare and prominence as well as firm performance. *Fortune* magazine annually reports *Most Admired Companies*<sup>39</sup>, and I coded one if a focal firm had been listed in "*Top 50 Most Admired Companies*" in a given year and zero otherwise.

# 4.3.7 Empirical design

To examine whether an increase in a firm's orientation toward stakeholders affects CSR performance and its further impact on the firm and CEO, I used a panel OLS with fixed effect based on the enactment of constituency statutes in Texas in 2006 (see Table 4.1). <sup>40</sup> Specifically, I estimated the following regression:

$$y_{it} = \alpha_i + \alpha_t + \alpha_d + \beta X Constituency Statutes_t + \gamma^i X_{it} + \varepsilon_{it}$$

Where i indexes firms; t indexes years; d indexes industries;  $\alpha_i, \alpha_t$  and  $\alpha_d$  are firm, year, and industry-fixed effects, respectively. The dependent variables of interest are y, which are firm

<sup>40</sup> During the sample period, there were two states that enacted the constituency statutes. Texas enacted the statutes in 2006, and Nebraska enacted the statutes in 2007. In the full sample, there were only three firms in Nebraska. Thus, I use only Texan samples to capture the effects of stakeholder orientation.

performance (e.g., ROA, ROE, Tobin's q, CEO compensation, CEO prominence). Constituency statutes is the "treatment dummy" (i.e., a dummy variable that equals one after the year of 2006 and zero otherwise). Constituency statutes in Texas were effectively enacted on January 1, 2006. X is the control variable that included the model. All control variables were lagged by one year.  $\varepsilon$  is the error term. The regression was estimated by ordinary least squares (OLS) with fixed effects in order to capture the impact of constituency statutes within variation. Robust standard errors were clustered at the firm level to account for heteroscedasticity and non-independence of the observations.

Table 4.1 Constituency statutes by state in U.S.

State	Year
Ohio	1984
Illinois	1985
Maine	1986
Arizona	1987
Minnesota	1987
New Mexico	1987
New York	1987
Wisconsin	1987
Idaho	1988
Louisiana	1988
Tennessee	1988
Virginia	1988
Florida	1989
Georgia	1989
Hawaii	1989
Indiana	1989
Iowa	1989
Kentucky	1989
Massachusetts	1989
Missouri	1989
New Jersey	1989
Oregon	1989
Mississippi	1990
Pennsylvania	1990
Rhode Island	1990
South Dakota	1990
Wyoming	1990
Nevada	1991
North Carolina	1993
North Dakota	1993
Connecticut	1997
Vermont	1998
Maryland	1999
Texas	2006
Nebraska	2007

#### 4.4 Results

Table 4.2 presents the descriptive summary statistics and correlation matrix for the data. The main results are presented in Table 4.3. In Model 1, the dependent variable is CSR performance. As shown, the coefficient on the constituency statue dummy is positively significant  $(\beta=13.540, p<0.01)$ . The result shows that the stakeholder orientation encourages Texan firms to engage in better CSR activity. Since CSR performance is rated on a 0-100 score, the enactment of constituency statutes increased by 13.54 points compared to before the enactment. In Appendix G, I assess the dynamics of the post constituency statutes. To do so, I replaced the constituency statutes dummy with a set of nine dummy variables, indicating the four years prior to the enactment (Constituency Statue [-4], Constituency Statue [-3], Constituency Statue [-2], and Constituency Statue [-1]); the year of the enactment (Constituency Statue [0]); the first, second, third year (Constituency Statue [1], Constituency Statue [2], and Constituency Statue [3], respectively); and, four or more years after the enactment (Constituency Statue [+4]). As shown, Constituency Statutes (-4) are negatively significant, and the other coefficients of all pre-enactment dummies are insignificant. This finding affirms that, before enactment of constituency statutes, on average, Texan firms were less likely to engage in superior CSR activity. However, after the enactment of constituency statutes, all coefficients are positively significant except for the year of enactment, which is 2006. It may suggest that it takes about one year for the increase in stakeholder orientation to translate into a firm's focus on CSR activities. The coefficients of Constituency Statue (2), Constituency Statue (3), and Constituency Statue (+4) remain large and positively significant, indicating that stakeholder orientation has a long-lasting effect on a firm's endeavor in CSR.

Models 2 to 4 in Table 4.3 demonstrate that increased stakeholder orientation affects the impact of superior CSR activity on firm performance. The dependent variables for firm performance are ROA, ROE, and Tobin's q as proxy for firm value. Interestingly, superior CSR

performance leads to greater firm performance (ROA and ROE), but it does not necessarily increase firm value. In Model 2, the coefficient of interaction terms, Post Constituency Statutes X CSR Performance is negatively significant on ROA ( $\beta$ =-0.002, p<0.05), suggesting that the impact of CSR on firm performance is greater when CSR activity is voluntarily derived. In other words, the impact of CSR on firm performance is smaller when stakeholder orientation is prevalent in the society. To elaborate on the interpretation of the stakeholder orientation and CSR performance on firm performance, I plotted the interaction while holding other variables at their mean values. Figure 4.2 indicates that the impact of CSR on firm performance is greater when there is less stakeholder orientation; however, the impact of CSR on firm performance is less when there is more stakeholder orientation. Analysis of the economic significance of this finding indicates that before the enactment of constituency statutes, a firm's ROA increased 7.39% from mean of CSR to mean plus one standard deviation of CSR while a firm's ROA increased 1.71% from mean of CSR to mean plus one standard deviation of it after enactment of constituency statutes.<sup>41</sup>. In Model 3, the impact of stakeholder orientation on CSR and ROE shares similar results with the result shown in Model 2 ( $\beta$ =-0.003, p<0.05), suggesting that, with more stakeholder orientation in society, the marginal effects of CSR performance on firm performance becomes smaller and ineffective. Model 4 shows that the interaction term on firm value measured as Tobin's q is insignificant, conveying that, in the long run, CSR performance is indifferent from increases in the firm value.

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<sup>&</sup>lt;sup>41</sup> Before the enactment of constituency statutes, the change of slope is calculated as ((1.091281-1.016138) /1.091281)=0.0739496, and, after the enactment of constituency statutes, the change of slope is calculated as ((0.9446609-0.9287887)/0.9287887)=0.01708914

Table 4.2 Descriptive statistics and correlation matrix

Variables	M	SD	Min	Max	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
1. Con. Statutes	0.74	0.44	0	1	1																					
2. CSR Perf.	56.2	21.9	11.8	97.4	0.11	1																				
3. CEO Comp.	8.65	1.33	0	11.3	0.01	0.26	1																			
4. CEO Prom.	128	191	0	1394	0.00	0.19	0.03	1																		
5. CEO Age	4.02	0.12	3.69	4.32	0.01	0.05	0.03	0.07	1																	
6. CEO Own.	0.01	0.03	0	0.31	0.10	-0.04	-0.34	-0.04	0.09	1																
7. CEO Tenure	1.72	0.82	0	3.61	0.08	0.01	0.00	0.03	0.37	0.25	1															
8. CEO Duality	0.63	0.48	0	1	-0.08	0.12	0.12	0.01	0.26	0.04	0.25	1														
9. Board Size	2.26	0.23	1.61	2.83	-0.05	0.39	0.25	0.11	0.02	-0.17	-0.18	0.07	1													
10. Female Dir.	1.11	1.09	0	6	-0.04	0.50	0.16	0.11	-0.04	-0.04	-0.16	0.12	0.61	1												
11. CEO Dir.	0.43	1.16	0	10	0.22	0.07	0.05	-0.03	-0.03	-0.05	-0.08	0.01	0.18	0.20	1											
12. Multi Dir.	1.95	1.26	0	6	-0.43	0.19	0.14	0.02	0.10	-0.12	-0.04	0.14	0.22	0.20	0.17	1										
13. Outside Dir.	7.39	2.43	1	15	0.00	0.48	0.29	0.10	0.03	-0.19	-0.11	0.15	0.81	0.56	0.20	0.20	1									
14. Inst. Own.	0.76	0.24	0	1.13	0.14	-0.08	0.05	-0.10	0.12	-0.13	0.03	0.00	-0.19	-0.18	-0.04	-0.01	-0.15	1								
15. Firm Size	8.74	1.36	6.03	12.9	-0.06	0.61	0.38	0.32	0.21	-0.24	-0.15	0.19	0.55	0.54	0.16	0.26	0.56	-0.22	1							
16. Firm Cash	5.60	1.93	0	10.4	0.00	0.39	0.19	0.26	0.13	-0.14	-0.15	0.03	0.31	0.30	0.08	0.21	0.32	-0.08	0.61	1						
17. R&D Exp.	1.50	2.41	0	7.69	-0.03	0.45	0.17	0.14	-0.14	0.00	-0.03	0.09	0.22	0.34	0.08	0.23	0.32	-0.05	0.32	0.30	1					
18. Firm Status	0.07	0.25	0	1	-0.06	0.17	0.00	0.34	-0.03	0.01	-0.11	0.02	0.12	0.27	0.03	0.01	0.09	-0.10	0.27	0.18	0.20	1				
19. ROA	0.95	0.76	0.13	3.90	-0.04	0.21	-0.05	0.05	0.13	-0.07	-0.11	0.11	0.17	0.33	0.06	0.03	0.16	-0.09	0.43	0.23	-0.02	0.14	1			
20. ROE	0.12	0.33	-1.99	1.79	0.10	0.17	0.12	0.00	0.01	-0.01	0.06	0.04	0.01	0.03	0.02	0.00	0.08	0.13	0.07	-0.02	0.13	0.06	0.10	1		
21. Firm Value	1.40	0.78	0	5.66	-0.08	0.02	-0.12	-0.03	-0.05	0.10	0.13	0.06	-0.15	0.04	-0.01	0.02	-0.12	0.16	-0.18	-0.08	0.31	0.15	0.13	0.15	1	
22. B2C Ind.	0.14	0.34	0	1	-0.01	-0.03	-0.14	0.11	-0.08	0.02	0.01	0.13	0.27	-0.02	-0.07	0.05	-0.20	0.09	-0.01	-0.17	0.05	0.48	0.41	-0.04	0.03	1

Note: N=585. Bolded pairwise correlations are significant at the 0.05 level.

Table 4.3 The effect of enforced stakeholder orientation on CSR and firm performance

Estimation	Panel OLS FE								
Models	1	2	3	4					
Dependent Variable	CSR Performance t	ROA <sub>t</sub>	ROE <sub>t</sub>	Tobin's Q <sub>t</sub>					
Post Constituency Statutes t-1 X		-0.002**	-0.003**	-0.001					
CSR Performance t-1		(0.001)	(0.001)	(0.002)					
	13.540***	-0.002	0.099	-0.057					
Post Constituency Statutes $_{t-1}$	(3.374)	(0.084)	(0.094)	(0.179)					
COD D C	0.396***	0.003***	0.003**	0.000					
CSR Performance $_{t-1}$	(0.056)	(0.001)	(0.002)	(0.002)					
ano a	0.951*	-0.012	-0.023	0.002					
CEO Compensation $_{t-1}$	(0.570)	(0.011)	(0.017)	(0.039)					
CEO D :	0.001	0.000	-0.000	-0.000					
CEO Prominence $_{t-1}$	(0.005)	(0.000)	(0.000)	(0.000)					
CEO A	-4.571	-0.161	0.124	-0.035					
CEO Age <sub>t-1</sub>	(8.984)	(0.170)	(0.263)	(0.310)					
CEO O	13.934*	-0.425	-1.836**	-0.592					
CEO Ownership $_{\rm t-1}$	(7.717)	(0.556)	(0.857)	(0.723)					
CFO T	1.523*	-0.006	-0.002	0.006					
CEO Tenure <sub>t-1</sub>	(0.870)	(0.020)	(0.030)	(0.056)					
CEO Decelies	-0.361	0.033	-0.041	0.113*					
CEO Duality <sub>t-1</sub>	(1.462)	(0.032)	(0.049)	(0.063)					
D. I.C.	4.366	0.091	-0.299*	0.075					
Board Size <sub>t-1</sub>	(5.891)	(0.112)	(0.175)	(0.253)					
Famala Dimentari	-0.831	0.010	0.031	0.021					
Female Director $_{t-1}$	(1.106)	(0.018)	(0.028)	(0.038)					
A -ti CEO Dit	-0.198	-0.024**	-0.025	-0.021					
Active CEO Diretor $_{t-1}$	(0.681)	(0.011)	(0.016)	(0.029)					
Multiple Discretes	0.455	0.016	0.027**	-0.016					
Multiple Director $_{t-1}$	(0.532)	(0.011)	(0.013)	(0.023)					
Outoide Diventor	-0.720	0.001	0.054***	0.016					
Outside Director $_{t-1}$	(0.661)	(0.010)	(0.016)	(0.026)					
In atitutional Over analysis	-11.308*	0.005	-0.171	0.340					
Institutional Ownership $_{t-1}$	(6.648)	(0.130)	(0.195)	(0.240)					
Einm Circ	1.535	0.011	0.004	-0.344***					
Firm Size t-1	(2.019)	(0.035)	(0.050)	(0.079)					
Firm Cash <sub>t-1</sub>	-0.642*	0.006	-0.020	0.063**					
riiiii Casii <sub>t-1</sub>	(0.379)	(0.009)	(0.014)	(0.029)					
R&D Expenditure <sub>t-1</sub>	-0.363	0.009	0.018	0.034					
R&D Expenditure t-1	(1.451)	(0.019)	(0.030)	(0.054)					
Firm Status <sub>t-1</sub>	0.144	-0.020	-0.012	0.118					
riim status <sub>t-1</sub>	(1.837)	(0.048)	(0.073)	(0.170)					
ROA <sub>t-1</sub>	-0.681	0.229***	-0.100	0.127					
NOA <sub>t-1</sub>	(2.915)	(0.055)	(0.078)	(0.102)					
ROE <sub>t-1</sub>	1.720	0.039	0.191***	0.051					
NOE <sub>t-1</sub>	(1.097)	(0.032)	(0.049)	(0.053)					
Tobin's Q <sub>t-1</sub>	0.841	0.044*	0.096***	0.244***					
	(1.231)	(0.024)	(0.031)	(0.085)					
Year/Industry FE	Yes	Yes	Yes	Yes					

Table 4.3 continued

Constant	30.304	0.928	0.148	3.044**
Constant	(34.683)	(0.709)	(1.091)	(1.501)
N (Firms)	505 (87)	505 (87)	505 (87)	505 (87)
Adjusted R <sup>2</sup>	0.387	0.389	0.379	0.368

Note: Robust standard errors clustered at the firm level in parentheses

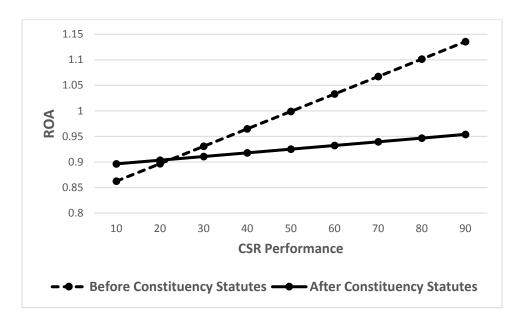


Figure 4.2 Interaction plot of stakeholder orientation of CSR on firm performance

Table 4.4 demonstrates how CSR performance affects CEO compensation and CEO prominence before and after the enactment of constituency statutes. First, a CEO that performs superior CSR will be offered greater compensation ( $\beta$  =0.009, p<0.05). If a CEO achieved one point more in terms of CSR performance during 2002-2012, the CEO's compensation increased by 0.9%. Given that the average CEO compensation in the Texan firm is \$9 million, it is a considerable amount of money (approximately \$81,000). However, the positive relationship between CSR performance and CEO compensation is negatively moderated after the enactment of

<sup>\*\*\*</sup> p<0.01, \*\* p<0.05, \* p<0.1

constituency statutes. In order to better understand the stakeholder orientation of CSR on CEO compensation, I plotted the interaction plot in Figure 4.3, which illustrates that the slope of CSR on CEO compensation before the enactment of constituency statutes is much steeper than after the enactment. Analysis of the economic significance of the finding indicates that, before the enactment of constituency statutes, CEO compensation increased approximately 2.61% from mean of CSR to mean plus one standard deviation of CSR while CEO compensation increased 0.16% from mean of CSR to mean plus one standard deviation of it after the enactment of constituency statutes. In fact, the benefit from superior CSR performance on CEO compensation is greater when the CSR is not mandatory. (i.e., not obligated by the government). After the enactment of the constituency statutes, superior CSR performance may not directly transfer firm performance well, or there would be many firms that start with CSR activity, so the efforts of CSR would not be visible by stakeholders. To support the evidence, I tested a subsample analysis to confirm the causal relationship. In order to better understand the impact of constituency statutes, I split the full sample into two sub categories: B2C (business-to-company) in Model 2 and B2B (business-tobusiness) in Model 3, respectively. The underlying logic maintains that, if the impact of CSR on CEO compensation depends on how stakeholder perceives the value of CSR, the effect would be greater in the industry where CSR is not a common strategic initiative. Interestingly, in the B2C industry, stakeholder orientation has no effect at all; however, in the B2B industry, the social atmosphere toward stakeholders reduces the impact of CSR on CEO compensation. In particular, before the enactment of constituency statutes, in the B2B industry, if CSR performance increased from mean to mean plus one standard deviation, it would increase 3.9% more for CEO compensation. After the enactment of constituency statutes, however, it only increased by 1.23%.

While constituency statutes reduced the marginal effect of CSR on CEO compensation, the stakeholder orientation helped CEOs gain public media exposure. Model 4 demonstrates that superior CSR performance positively affected CEO prominence, and the positive relationship is much stronger under strong stakeholder orientation ( $\beta$  =1.079, p<0.05). Likewise, the stakeholder orientation enhances the relationship between CSR performance and CEO prominence, and Model 6, shows that the relationship is much more salient in the B2B industry. Figure 4.4 demonstrates that the impact of CSR performance on CEO prominence is much greater in the era of stakeholder orientation. Intuitively, CEOs may use their CSR performance as means to increase their status or fame by being exposed by the public media when stakeholders increase the pressure on firms to engage in CSR  $^{42}$ .

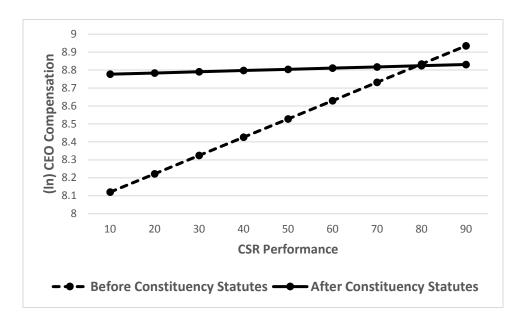


Figure 4.3 Interaction plot of stakeholder orientation of CSR on CEO compensation

<sup>42</sup> CSR performance increases from mean to mean plus one standard deviation; the number of CEO media exposure increases 38% before the enactment of stakeholder orientation while 71% increases after the enactment of stakeholder orientation.

Table 4.4 The impact of enforced constituency statutes on CSR and CEO wealth and prominence

Estimation	Panel OLS FE							
Models	1	2	3	4	5	6		
Dependent Variable	CEO	Compensatio	on <sub>t</sub>	C	EO Prominer	ice <sub>t</sub>		
Sample	Full	B2C	B2B	Full	B2C	B2B		
Post Constituency Statutes t-	-0.012**	-0.017	-0.013**	1.079**	2.125	1.039**		
CSR Performance t-1	(0.005)	(0.019)	(0.005)	(0.469)	(2.960)	(0.482)		
Doob Compliance Challen	1.265**	0.355	1.585**	-17.897	-168.49	-13.811		
Post Constituency Statutes t-	(0.591)	(1.003)	(0.706)	(29.485)	(154.08)	(30.361)		
CSR Performance t-1	0.009**	0.022	0.013**	0.857*	2.857	0.589		
CSR refformance <sub>t-1</sub>	(0.004)	(0.018)	(0.004)	(0.494)	(2.955)	(0.538)		
CEO Compensation t-1	0.040	0.170	0.031	-0.922	19.622	-0.977		
CEO Compensation <sub>t-1</sub>	(0.082)	(0.224)	(0.098)	(5.288)	(24.088)	(5.564)		
CEO Prominence <sub>t-1</sub>	-0.003*	-0.005**	-0.002*	0.229***	0.031	0.236***		
CLO I folimience t-1	(0.001)	(0.001)	(0.001)	(0.041)	(0.175)	(0.043)		
CEO Age <sub>t-1</sub>	0.535	-5.836	1.261	19.639	-40.494	16.221		
CLO Age <sub>t-1</sub>	(0.946)	(3.340)	(1.254)	(82.564)	(348.249)	(90.091)		
CEO Ownership <sub>t-1</sub>	2.444	-17.829	2.601	37.580	6,050.1	41.367		
CEO Ownership <sub>t-1</sub>	(1.548)	(74.930)	(1.665)	(268.977)	(8,112.1)	(262.216)		
CEO Tenure <sub>t-1</sub>	-0.081	0.068	-0.106	-5.089	52.339	-7.901		
CEO Tellure <sub>t-1</sub>	(0.097)	(0.205)	(0.136)	(9.511)	(38.419)	(10.594)		
CEO Duality <sub>t–1</sub>	0.242	1.253	0.132	-22.833	-84.137	-27.005*		
CEO Duality t-1	(0.173)	(0.787)	(0.194)	(15.618)	(73.147)	(16.239)		
Board Size <sub>t–1</sub>	-0.076	-0.239	0.207	-109.4*	19.112	-85.658		
board size t-1	(0.447)	(1.580)	(0.471)	(54.980)	(285.886)	(59.834)		
Eamala Dinastan	-0.117	-0.041	-0.116	-25.09*	-30.748	-22.974**		
Female Director <sub>t-1</sub>	(0.073)	(0.106)	(0.084)	(8.927)	(33.461)	(9.525)		
Active CEO Diretor <sub>t-1</sub>	0.083*	0.018	0.081*	-9.590**	3.414	-9.691**		
Active CEO Diretor <sub>t-1</sub>	(0.042)	(0.073)	(0.048)	(4.171)	(17.412)	(4.332)		
Multiple Director <sub>t-1</sub>	0.050	-0.066	0.071	4.422	-19.096	4.772		
Multiple Director <sub>t-1</sub>	(0.059)	(0.154)	(0.060)	(5.141)	(17.929)	(5.516)		
Outside Director <sub>t–1</sub>	0.038	0.003	0.019	2.851	-11.961	1.873		
Outside Director <sub>t-1</sub>	(0.044)	(0.085)	(0.045)	(5.073)	(20.684)	(5.485)		
Institional Oumarchin	-0.153	-0.244	-0.399	127.134*	-240.455	187.214**		
Institional Ownership $_{t-1}$	(0.496)	(0.967)	(0.448)	(61.461)	(303.394)	(64.779)		
Firm Sizo	0.175	1.420**	0.084	41.548**	252.22**	32.037*		
Firm Size <sub>t-1</sub>	(0.131)	(0.477)	(0.152)	(16.815)	(105.00)	(17.384)		
Firm Coch	0.061**	0.128	0.035	0.700	-15.076	-0.070		
Firm Cash <sub>t-1</sub>	(0.028)	(0.084)	(0.031)	(4.290)	(16.629)	(4.557)		

Tab	10.1	1	continued
1 an	IC 4	4	communea

D&D Evnanditura	-0.093	-0.177	-0.031	-41.048**	10.769	-49.398**
R&D Expenditure <sub>t-1</sub>	(0.078)	(0.164)	(0.079)	(9.303)	(38.190)	(10.159)
Einm Ctatus	-0.108	0.100	-0.108	50.624**	96.543	35.357
Firm Status <sub>t-1</sub>	(0.122)	(0.257)	(0.149)	(23.009)	(65.983)	(25.483)
DOA	0.161	-1.099	0.092	-14.033	-13.588	-28.871
ROA <sub>t-1</sub>	(0.156)	(0.737)	(0.132)	(25.585)	(109.712)	(27.341)
DOE	-0.042	0.251	-0.035	7.374	40.551	3.479
ROE <sub>t-1</sub>	(0.079)	(0.271)	(0.141)	(12.374)	(39.044)	(19.028)
Tobin's Q <sub>t-1</sub>	-0.186	0.224	-0.206	2.370	-64.164	11.982
Tobiii s Q <sub>t-1</sub>	(0.175)	(0.460)	(0.205)	(9.799)	(43.521)	(10.246)
Year/Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Constant	4.093	17.841*	1.547	-50.686	-1,537.839	-47.641
Constant	(4.139)	(9.153)	(5.298)	(343.741)	(1,383.511)	(381.859)
N (Firms)	505 (87)	70 (13)	435 (74)	505 (87)	70 (13)	435 (74)
Adjusted R <sup>2</sup>	0.252	0.509	0.256	0.041	0.108	0.055

Note: Robust standard errors clustered at the firm level in parentheses

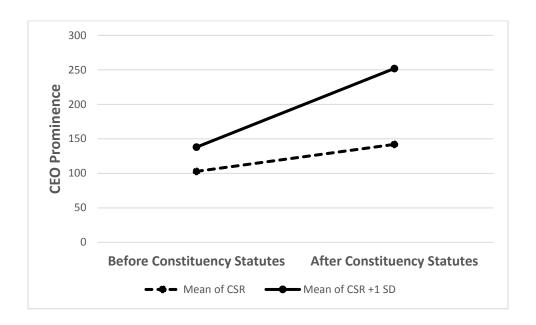


Figure 4.4 Interaction plot of stakeholder orientation of CSR on CEO prominence

<sup>\*\*\*</sup> p<0.01, \*\* p<0.05, \* p<0.1

#### 4.5 Discussion and Conclusion

How can companies transfer their CSR performance to firm performance without friction? How does stakeholder orientation affect CEOs' wealth and further human capital? Should CEOs follow the call from non-shareholders as being corporate philanthropists? Since the norm of CSR is ubiquitous, those questions have received considerable attention in scholarship, yet very little is known about the role of stakeholder orientation on both companies and CEOs. Motivated by this research gap, this study examines if and how an inclination to the company's nonfinancial shareholders affects the impact of CSR on firm performance and CEOs' individual welfare and prominence.

To examine the impact of stakeholder orientation on CSR and firms and CEOs, I exploited a natural experiment provided by the 2006 enactment of constituency statutes in the state of Texas. These constituency statutes encouraged corporate TMTs and directors to account for nonshareholder interests when making corporate strategic initiatives and, hence, provide exogenous variation in the way public U.S. corporations cater to stakeholders. I found that the introduction of constituency statutes lead to a significant increase in CSR performance; however, superior CSR performance does not necessarily transfer to superior firm performance because mandatory CSR activities that is shaped by enforced constituency statutes may lose a key feature of CSR: the voluntary aspect of it. These findings may elucidate how CSR leads to firm performance. The effectiveness of CSR on firm performance would be highly related with the view of nonshareholders around the companies. The marginal effect of CSR would be more effective when stakeholders regarded a firm's CSR as "pro-society voluntary activity." In other words, after enactment of constituency statutes, stakeholders then regarded CSR activity by a firm as an obligation. Since there would be more companies joining in on CSR activities, whether voluntary or mandatory, the impact of CSR by a firm would be diluted.

I further argue that stakeholder orientation refrains each CEO from obtaining greater compensation even when they achieve superior CSR performance. I explain the logic behind this result in three ways: 1) Under stakeholder orientation, internal stakeholders (i.e., directors and compensation committees) may not be impressed by the superior CSR performance compared to under non-stakeholder orientation; 2) CSR performance may not lead to superior shareholder's value under stakeholder orientation; or, 3) a CEO's CSR performance is less likely to be conspicuous under the era of stakeholder orientation. In support of this argument, I find that the causal relationship between CSR performance and CEO compensation is more salient in a lessconsumer-oriented industry where CSR activities lack prevalence, indicating that CSR performance is dependent upon how stakeholders interpret the value of CSR activity by a firm or CEO. I also find that a CEO that has superior CSR performance attracts more attention by the public media under stakeholder orientation than under non-stakeholder orientation, suggesting that meeting the expectations of stakeholders help CEOs gain celebrity status. In support of this argument, I find that the impact of stakeholder orientation on CEO prominence through superior CSR performance is becoming salient in less-consumer oriented industries, implying that the effects of CSR on firms as well as on CEOs are dependent on how specific stakeholders take account for the value of CSR performance and its visibility. Moreover, stakeholder orientation heterogeneously affects CEO wealth and prominence since the determinants of CEO wealth are driven by internal stakeholders while prominence is driven by external stakeholders.

This study relates to the large body of literature on CSR and the attention to stakeholders and performance outcomes (e.g., Flammer, 2013; McWilliams, Siegel, & Wright, 2006; Teece, Pisano, & Shuen, 1997). The results presented in this paper may provide one answer for the underexplored mechanisms regarding the caveat that firms that engage in CSR earn the same rate

of profit as firms that do not engage in CSR: since obligated CSR may not impress stakeholders or stakeholders may not value corporate philanthropic activities, this would not lead to superior firm performance (e.g., Aupperle et al., 1985; McWilliams & Siegel, 2000). Moreover, the results indicate that the impact of CSR on firm performance is related to exogenous institutional factors such as policy, rules or legal aspects (Jones, 1995). Interestingly, governments and policy makers may encourage firms to engage in more CSR activity so that firms performance would increase by establishing better relationship with stakeholders; however, this may not be the case. Reconciling the tradeoff of the value of shareholders and non-shareholders and encouraging CSR activity requires implementing proper policies and expecting the right reactions from stakeholders.

This study also contributes to the vibrant body of work regarding the origin of human capital (Miller, Xu, & Mehrotra, 2015; Schultz, 1961). By evidencing that a CEO can increase their compensation by implementing superior CSR, a CEO that satisfies the need for stakeholders in terms of being a corporate philanthropist has more visibility with the public media. It contributes to the human capital literature by showing that a person's human capital (i.e., wealth and status) can be achieved by meeting the expectations of stakeholders. Many researchers have documented that superior human capital is one of the main sources of attaining a competitive advantage (Coff, 1997; Wright, Coff, & Moliterno, 2014); yet, the origin of human capital or how a CEO obtains superior human capital, however, has been unexplored by research.

This essay's finding also can be linked with the corporate governance literature. Given the fact that there are still 15 states in the U.S. that have not enacted constituency statutes (i.e., California and Michigan), corporate directors should evaluate whether corporate CSR yields superior firm performance or whether their CEO should personally appropriate corporate resources to gain better compensation or better visibility to stakeholders. Not surprisingly, higher

institutional ownership deters CSR performance (see Model 1 in Table 4.3) may indicate that there would be agent behavior in pursuing corporate CSR (e.g., Chang, Oh, Park, & Jang, 2017). To the extent that stakeholder orientation can be both beneficial and detrimental to firms and CEOs (benefits include increased firm performance, increased CEO compensation, and increased CEO prominence while the negatives include CSR performance not leading to firm performance and CEOs overinvesting in CSR to increase their CEO status), directors actively account for the benefits and costs.

#### 4.5.1 Limitations and future research

Like all studies, the limitations of this study can offer opportunities for future research. Perhaps the most obvious limitation of this study is that measuring CSR performance is based upon outputs rather than inputs, assuming that superior outputs are highly related with greater inputs. Even though the data provided by Asset4 is a comprehensive and reliable source for measuring CSR performance, the data may not provide exact mechanisms on how superior CSR can be achieved. Furthermore, the results cannot reveal whether CEOs' increased compensation or prominence would hurt their shareholders' value. Also, CEOs' political ideologies are evident manifestations of their different personal views about CSR. Each CEO may exercise different powers according to their organizational outcomes and missions. In fact, their political ideologies are expected to influence their preferences for CSR outcomes and its further impact on a CEO's wealth and prominence. Making ground on these questions is a promising avenue for future work.

## CHAPTER 5. **CONCLUSION**

In this dissertation, I attempt to advance our understanding on underexplored aspects of strategic human capital and the role of managers on competitive advantage. In Essay 1, I argue that superior resource recovery technique that embedded in an organization or a manager would be one of critical sources of firm heterogeneity in creating value. The implications of Essay extend beyond extant research on strategic renewal by focusing on distinctive managerial techniques for dealing with organizational human capital in the context of interdependence that an organization requires. Although many scholars have documented the importance of the strategic renewal process and managerial roles, few empirical studies have been conducted because it is difficult to empirically measure two distinctive resource management techniques: resource picking and capability building and objectively capture the value of strategic human capital within an organization. By using a natural experiment that affects the type of interdependence, shifting from pooled interdependence to reciprocal interdependence, Essay 1 (Chapter 2) not only provided a proper empirical setting for the topic at hand but also depicted very specific managerial effects on firm recovering from unexpected human capital loss.

Essay 1 also reveals the importance of business model conditions (e.g., desired interdependence) for firm HRM and development. The consequences of industrial environmental change have been well-documented. However, researchers have recently acknowledged the need to better understand the impact of external factors and the role of managers in the strategic renewal process (Helfat & Martin, 2015). The present study was a response to this call by proposing managerial capabilities as an important mechanism for recovering a firm's established capabilities and routines that have been disrupted by unexpected external and internal hazards. Superior resource picking is more effective when an organization capability is driven by a few talented

human assets, and capability building is much more important when an organization capability is driven by coordinated human capital.

In Essay 2, I mainly propose one new concept for an organizational manager, which is a star performer-turned manager (SPTM). By focusing on the possibility that a manager's prior stardom can inspire the manager's current subordinate employee and motivate them to invest in their human capital more voluntarily. Essay 2 (Chapter 3) contributes to understanding the effects of stars on organizational performance in several ways: First, this study contributes to strategic human capital research by highlighting the ongoing roles that star performers can continue to play even after being promoted into management. Specifically, the taxonomy I introduce in Table 3.1 contributes to theory by categorizing the various mechanisms that a SPTM might, at least in principle, employ to help an organization create and/or capture more value than other managers.

Second, the Chapter 3 introduces the SPTM as a new concept for strategic human capital research – moreover, a phenomenon that merits further study because it is already known to be of great interest and practical relevance to managers (Adler, 1996; McKee, 2015). Third, I specifically disentangle how SPTM's and other managers differ in the mechanisms by which they succeed. Specifically, the results suggest that SPTM's can improve organizational performance via inspirational role modeling, while other managers do not. Finally, I capture manager-specific, subordinate-specific, and situation-specific contingency factors that influence the strength of this inspirational role modeling effect in a way that is consistent with social comparison theory. In this regard, the results of Chapter 3 provide a bridge between the resource-based view of human capital and socio-psychological theories of human resource development.

The findings also have practical managerial implications for human capital recruitment. By identifying the importance of an effective match between employees and their manager, the results

can begin to answer questions like: What kinds of employees should be hired to work under SPTM's versus other managers? What kinds of organizations should hire SPTM's versus other managers? For example, the results suggest that SPTM's can be more effective as managers of employees who: (1) have themselves directly witnessed the manager's prior star-level performance, (2) are less experienced, (3) have experienced poor performance, (4) do not have star-level colleagues, and (5) are closer in age to the SPTM. So, organizations composed of such employees may benefit more from hiring a SPTM, and organizations that are led by a SPTM may benefit more from hiring such employees.

In Essay 3 (Chapter 4), I propose one underexplored mechanism to explain the missing link between CSR performance and firm performance. Essay 3 relates to the large body of literature on CSR and the attention to stakeholders and performance outcomes (e.g., Flammer, 2013; McWilliams, Siegel, & Wright, 2006; Teece, Pisano, & Shuen, 1997). The results presented in Essay 3 may provide one answer for the underexplored mechanisms regarding the caveat that firms that engage in CSR earn the same rate of profit as firms that do not engage in CSR: since obligated CSR may not impress stakeholders or stakeholders may not value corporate philanthropic activities, this would not lead to superior firm performance. Moreover, the results indicate that the impact of CSR on firm performance is related to exogenous institutional factors such as policy, rules or legal aspects (Jones, 1995). Interestingly, governments and policy makers may encourage firms to engage in more CSR activity so that firm performance would increase by establishing better relationship with stakeholders; however, this may not be the case. Reconciling the tradeoff of the value of shareholders and non-shareholders and encouraging CSR activity requires implementing proper policies and expecting the right reactions from stakeholders.

Chapter 4 also contributes to the vibrant body of work regarding the origin of human capital (Miller, Xu, & Mehrotra, 2015; Schultz, 1961). By evidencing that a CEO can increase their compensation by implementing superior CSR, a CEO that satisfies the need for stakeholders in terms of being a corporate philanthropist has more visibility with the public media. It contributes to the human capital literature by showing that a person's human capital (i.e., wealth and status) can be achieved by meeting the expectations of stakeholders. Many researchers have documented that superior human capital is one of the main sources of attaining a competitive advantage (Coff, 1997; Wright, Coff, & Moliterno, 2014); yet, the origin of human capital or how a CEO obtains superior human capital, however, has been unexplored by research.

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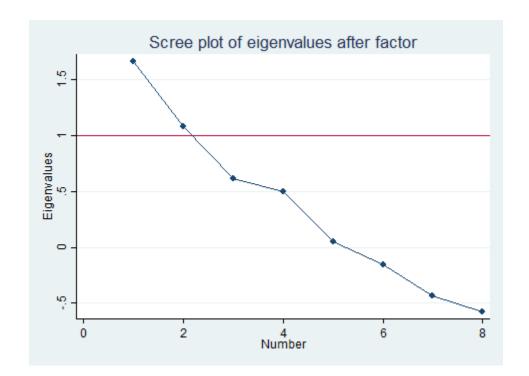
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# APPENDIX A. DIMENSIONS FOR RESOURCE PICKING AND CAPABILITY BUILDING IN HUMAN RESOURCE

Variables	Components
	1. the amount of change in a newly-hired starting player's PER over the previous season
Resource Picking	2. the number of improved newly-hired staring players
	3. the amount of change in a newly-hired rotating player's PER over the previous season
	4. the number of improved newly-hired rotating players
	1. the amount of change in an incumbent starting player's PER over
	the previous season
Capability Building	2. the number of improved incumbent starting players
Capability Bullding	3. the amount of change in an incumbent rotating player's PER over
	the previous season
	4. the number of improved incumbent rotating players

# APPENDIX B. SCREEPLOT AFTER FACTOR ANALYSIS



# APPENDIX C. RESULTS OF THREE-WAY INTERACTION OF UNTESTED HYPOTHESES

Dependent Variable	Organization	Performance
Estimation	Panel OLS I	Fixed Effects
Models	A1	A2
Post Rule Change X Star Employee Out X	-0.063	
Capability Building	(0.044)	
Cton Formations Out V Constitute Positions	0.026	
Star Employee Out X Capability Building	(0.029)	
D. ( D. 1. Cl V C 1.11 ( D. 111	0.020*	
Post Rule Change X Capability Building	(0.011)	
Dest D. L. Cherry V. Cherr Freedom O. A.	0.085	
Post Rule Change X Star Employee Out	(0.070)	
Post Rule Change X Non-Star Employee Out X		0.018
Resource Picking		(0.013)
N G E 1 O (ND P'1'		-0.013
Non-Star Employee Out X Resource Picking		(0.012)
		-0.002
Post Rule Change X Resource Picking		(0.013)
		-0.015
Post Rule Change X Non-Star Employee Out		(0.011)
	-0.085**	-0.047
Star Employee Out	(0.037)	(0.033)
	-0.014***	-0.006
Non-Star Employee Out	(0.005)	(0.007)
	-0.007	-0.087*
Post Rule Change	(0.033)	(0.046)
	0.012**	0.016
Resource Picking	(0.005)	(0.010)
	0.010	0.021***
Capability Building	(0.010)	(0.006)
	0.220***	0.220***
Previous Organization Performance	(0.060)	(0.058)
	0.031	0.021
Employee Age	(0.127)	(0.128)
	-0.000	-0.000
Employee Age Squared	(0.002)	(0.002)
	-0.002	0.002)
Manager Age	(0.006)	(0.005)
	0.000	-0.000
Manager Age Squared	(0.000)	(0.000)
	-0.025	-0.023
Manager-Executive Duality		
- ·	(0.024)	(0.024)
Manager Outsiderness	0.022*	0.024*
<u>-</u>	(0.013)	(0.013)
Manager Other League Experience	0.008	0.007
	(0.012)	(0.011)
Organization Payroll	0.061*	0.064**
<u> </u>	(0.032)	(0.029)
Manager Tenure	0.006***	0.006***
	(0.002)	(0.001)

# **APPENDIX C. continued**

Season/Organization/Division Dummies	Yes	Yes
Constant	-1.258	-1.146
	(1.563)	(1.622)
Observations	522	522
Adjusted R <sup>2</sup>	0.570	0.578

Note: Robust standard errors clustered at the organization-level in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

# APPENDIX D. ADDITIONAL ANALYSIS: RULE CHANGE AND COMPENSATION GINI COEFFICIENT

Dependent Variable	Compensation Gini		
Dependent variable	Coefficient		
Estimation	Panel OLS Regression		
Model	1		
A fran Durla Channa	-0.025**		
After Rule Change	(0.010)		
Organization Payroll	0.079***		
Organization Fayron	(0.009)		
Organization Siza	0.005***		
Organization Size	(0.001)		
0	0.000		
Organization Quality	(0.003)		
Previous Organization	0.087***		
Performance	(0.027)		
Ouzaniantian Aza	0.000		
Organization Age	(0.003)		
The Number of Stor Employees	0.009**		
The Number of Star Employees	(0.004)		
The Number of Rookies	0.005*		
The Number of Rookies	(0.003)		
BIG Market	-0.059***		
BIG Market	(0.023)		
Season/Organization/League	Included.		
	-1.014***		
Constant	(0.159)		
N	609		
Adjusted R <sup>2</sup>	0.277		

Note: Robust standard errors clustered at the organization-level in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

# APPENDIX E. LIST OF STAR PERFORMER-TURNED-MANAGERS

Coach Name	Playing Seasons in NBA	Selections as All-Star	NBA Head Coaching Experience
Danny Ainge	1982-1995	1	1996-2000 (PHO*)
Butch Beard	1970-1979	1	1994-1996 (NJN)
Larry Bird	1980-1992	12	1997-2000 (IND)
Larry Brown	1968-1972	3	1988-1992 (SAS), 1992-1993 (LAC), 1993-1997 (IND), 1997-2003 (PHI),
		<u> </u>	2003-2005 (DET), 2005-2006 (NYK), 2008-2010 (CHB)
Bill Cartwright	1980-1995	1	2001-2003 (CHI*)
Mack Calvin	1970-1981	5	1991-1992 (LAC)
Maurice Cheeks	1979-1993	4	2001-2005 (POR), 2005-2008 (PHI*), 2013-2014 (DET)
Doug Collins	1974-1981	4	1986-1989 (CHI), 1995-1998 (DET), 2001-2003 (WAS), 2010-2013 (PHI*)
Dave Cowens	1971-1983	8	1996-1999 (CHH), 2000-2001 (GSW)
Lionel Hollins	1976-1985	1	1999-2000 (VAN), 2003-2004 (MEM), 2009-2013 (MEM), 2014-2016 (BKN)
Jeff Hornacek	1987-2000	1	2013-2016 (PHO*)
Dan Issel	1971-1985	7	1992-1995 (DEN*), 1999-2002 (DEN*)
Mark Jackson	1988-2004	1	2011-2014 (GSW)
Dennis Johnson	1977-1990	5	2002-2003 (LAC)
Magic Johnson	1980-1991, 1995-1996	11	1993-1994 (LAL*)
Jason Kidd	1995-2013	12	2013-2014 (BKN), 2014-2017 (MIL)
Bob Lanier	1971-1984	8	1994-1995 (GSW)
Kevin McHale	1981-1993	7	2004-2005 (BOS), 2008-2009 (MIN), 2011-2015 (HOU)
Doug Moe	1968-1972	3	1980-1991 (DEN), 1992-1993 (PHI)
Terry Porter	1986-2002	2	2003-2005 (MIL); 2008-2009 (PHO)
Doc Rivers	1984-1996	1	1999–2003 (ORL), 2004–2013 (BOS), 2013–Present (LAC*)
Paul Silas	1965-1980	2	1999-2002 (CHH), 2002-2003 (NOH), 2003-2005 (CLE), 2010-2012 (CHB)
Jerry Sloan	1966-1976	2	1988-2011 (UTA)
Reggie Theus	1979-1991	2	2007-2008 (SAC)
Isiah Thomas	1982-1994	12	2000-2003 (IND), 2006-2008 (NYK)
Rudy Tomjanovich	1971-1981	5	1992-2003 (HOU*), 2004-2005 (LAL)
Wes Unseld	1969-1981	5	1987-1994 (WAS*)
Kiki Vandeweghe	1981-1993	2	2009-2010 (NJN)
Paul Westphal	1970-1984	5	1992-1995 (PHO*), 1998-2000 (SEA*), 2009-2012 (SAC)
Lenny Wilkens	1961-1975	9	1986-1993 (CLE*), 1993-2000 (ATL), 2000-2003 (TOR), 2004-2005 (NYK)
Brian Winters	1975-1983	2	1995-1997 (VAN)

Notes: \* indicates a team that SPTM both played for and coached. "Present" indicates 2016-2017 season.

# APPENDIX F. DESCRIPTION OF INDUSTRY BY A FIRM

Industry description	Firms	Observations
Oil & Gas Extraction	27	207
General Building Contractors	2	18
Heavy Construction, Except Building	3	25
Special Trade Contractors	1	4
Food & Kindred Products	2	15
Paper & Allied Products	2	20
Chemical & Allied Products	2	9
Petroleum & Coal Products	4	28
Stone, Clay, & Glass Products	2	6
Primary Metal Industries	2	10
Industrial Machinery & Equipment	8	45
Electronic & Other Electric Equipment	2	15
Transportation Equipment	2	13
Instruments & Related Products	1	2
Water Transportation	1	4
Transportation by Air	1	11
Communications	1	10
Electric, Gas, & Sanitary Services	9	53
Wholesale Trade – Durable Goods	1	3
Wholesale Trade – Nondurable Goods	1	11
General Merchandise Stores	1	11
Food Stores	1	10
Furniture & Home furnishings Stores	1	8
Eating & Drinking Places	1	4
Miscellaneous Re	1	2
Personal Services	1	4
Business Services	7	36
Health Services	1	11
Observations	88	595

Note: During the panel analyses, one firm was dropped since the observations were not enough to get lagged and forwarded value. In addition, initial observations at the firm-year level were dropped since all dependent variables were forwarded. Thus, final observation in the analyses 87 firms with 505 firm-year observations.

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# APPENDIX G. THE IMPACT OF CONSTI STATUTES ON CSR PERFORMANCE

Estimation	Panel OLS FE	
Model	1	
Dependent Variable	CSR Performance t	
	-9.720**	
Constituency Statue (-4)	(3.690)	
Constituence States (2)	-3.022	
Constituency Statue (-3)	(2.614)	
Constituence Status (2)	-0.147	
Constituency Statue (-2)	(2.193)	
Constituency Status (1)	-2.321	
Constituency Statue (-1)	(2.068)	
Constituency Statue (0)	1.146	
Constituency Statue (0)	(2.852)	
Constituency Statue (1)	5.596**	
Constituency Statue (1)	(2.425)	
Constituency Statue (2)	6.919**	
Constituency Statue (2)	(2.682)	
Constituency Status (3)	12.341***	
Constituency Statue (3)	(2.460)	
Constituency Statue (4+)	14.038***	
Constituency Statue (4+)	(2.378)	
All Control Variables	Included	
Constant	37.180	
Constant	(37.853)	
N (Firms)	505 (87)	
Adjusted R <sup>2</sup>	0.251	

Note: Robust standard errors clustered at the firm level in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

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  - o The earlier version of the paper received **Winner of** *Outstanding PhD student Paper* in the PhD Colloquium 2017, New York

- The earlier version of the paper received Winner of the Best PhD Student Paper Award, Association of Korean Management Scholars (AKMS), 2017 with Samsung Economic Research Institute (SERI) Scholarship
- o The earlier version of the paper received **Winner of the Janet. A Henquinet Scholarship** from Midwest Academy of Management, 2017, Chicago
- o The earlier version of the paper received **Finalist of Best Conference PhD Paper Prize** in Strategic Management Society (SMS) 2017, Houston
- Are founder CEOs better innovators? Evidence from S&P 500 firms with Joon Mahn Lee and Joonhyung Bae.
  - o Academy of Management Proceedings 2016 (1), 13311
  - o Invited to 2<sup>nd</sup> Round Revision at Research Policy
  - Listed on SSRN's Top Ten download list for: CGN: Investment in R&D Innovation and IRPN: Innovation & Leadership, Feb 2018
- Founder CEOs, target selection and acquirer return: Evidence from IPO firms with Joon Lee (Purdue University) and Jeffrey Reuer (University of Colorado at Boulder).
  - o Academy of Management Proceedings 2016 (1), 13386
  - Received Reject and Resubmit by Strategic Management Journal and preparing to resubmit to the journal

## **Proceedings**

- When do founder CEOs take more risk than professional CEOs? The moderating effects of managerial discretion" with Joon Mahn Lee (Purdue University) and Gerry McNamara (Michigan State University).
  - o Academy of Management Proceedings 2016 (1), 13376
  - o Preparing to submit to Organization Science

## Work in Progress

- The effectiveness of managerial techniques in the recovery from the unexpected loss of employees: Evidence from a natural experiment with Richard Makadok (Purdue University)
  - o Preparing to submit to Strategic Management Journal
- Taken for granted? The impact of enforced stakeholder orientation on corporate social responsibility and CEO's wealth and prominence: Evidence from a natural experiment
  - o Preparing to submit to Management Science
- When a SPTM becomes a bad manager with Youngsu Kim (University of Massachusetts)
  - o Preparing to submit to Strategic Management Journal

#### OTHER PUBLICATIONS

#### Journal Publications

- [3] Lee, Y., Hemmert, M., **Kim**, **J** (2014). What drives the international ownership strategies of Chinese firms; The role of distance and home-country institutional factors in outward acquisitions. *Asian Business and Management* 13 (3): 197-225.
  - o Earlier version of this paper has been nominated in Best Paper, *Euro-Asia Management Studies Conference*, Singapore, 2012
- [2] **Kim, J.**, Moon, J., Kim, I. (2011). China's outward foreign direct investment: Evidence from 2003-2008. *International Business Review*, 22(3): 29-64.

# **Book of Chapter**

• [1] Kim, I., **Kim, J**.., Ban, Y (2010). The different dream between Shanghai Automotive Industry Corporation (SAIC) and SSang-Yong Motor. *FKI Media*. The Way of Corporation Management. ISBN: 9788963740072

## **INVITED PRESENTATIONS**

- "Where the Stars Still Shine: Star performer turned managers and organization performance"
  - [14] Midwest Academy of Management, Chicago, 2017
  - [13] Strategic Management Society Conference, Houston, 2017
  - [12] Academy of Management Annual Meeting, Atlanta, 2017
  - [11] Midwest Strategy Meeting, Iowa State University, Ames, 2017
  - [10] Fordham University Business PhD Colloquium, Fordham University, New York, 2017
- [9] Purdue Krannert Pro-Seminar Series, Purdue University, West Lafayette, 2017 "Founder CEO, Managerial Discretion and Risk-Taking" with Joon Mahn Lee and Gerry McNamara
  - [8] Strategic Management Society Conference, Berlin, 2016
  - [7] Academy of Management Annual Meeting, Anaheim, 2016
- "Founder CEO and Innovation? Evidence from S&P 500 firms" with Joon Mahn Lee and Joonhyung Bae
  - [6] Academy of Management Annual Meeting, Anaheim, 2016
  - [5] Wharton Technology Innovation Conference, 2016
- "Founder-CEO and M&A behavior and performance: Evidence from IPO firms" with Jeff Reuer and Joon Mahn Lee

- [4] Academy of Management Annual Meeting, Anaheim, 2016
- [3] Purdue Krannert Pro-Seminar Series, Purdue University, West Lafayette, 2016
- [2] Strategic Management Society Conference, Denver, 2015
- [1] Midwest Strategy Meeting, Washington University in St. Louis, 2015

## **TEACHING EXPERIENCE**

#### **FULL-TIME LECTURER**

- [2] MGMT 459, International management (Undergraduate Elective Course; Fall 2016, Fall 2018)
  - o 3 credits, one-semester class
  - o Teaching Evaluation: Overall 4.92/5\* for Fall 2016, 4.97/5\* for Fall 2018
- [1] MGMT 451, Strategic management (Undergraduate Capstone Course; Spring 2016)
  - o 3 credits, one-semester class
  - o Teaching Evaluation: Overall 4.7/5\*

#### TEACHING ASSISTANT

[1] MGMT 688, Developing a global business strategy (Krannert MBA course; Fall 2016)

#### **HONORS AND AWARDS**

#### RESEARCH EXCELLENCE AWARDS

- [8] Finalist, Best Conference PhD Paper Prize, Strategic Management Society 2017
- [7] Winner, Janet A. Henquinet Scholarship, Midwest AOM, Chicago 2017
- [6] Winner, Samsung Economic Research Institute (SERI) Scholarship, 2017
- [5] Winner, *Distinguished Student Paper Award*, BPS Division, Academy of Management, 2017
- [4] Winner, *Best PhD Student Paper Award*, Association of Korean Management Scholars, 2017
  - [3] Winner, Outstanding Ph.D Paper Awards, Ph.D Colloquium, New York 2017
  - [2] AOM Best Paper Proceedings 2017, Atlanta, 2017
  - [1] Best Paper Nomination, Euro-Asia Management Studies Conference, Singapore, 2012

#### TEACHING EXCELLENCE AWARDS

- [4] 2018 Fall Krannert Certificate for Distinguished Teaching Award\*
  - o MGMT459 (International Management)
- [3] Top 3 best student lecturers: Interview presents in Krannert Magazine 2017
- [2] 2016 Fall Krannert Certificate for Distinguished Teaching Award\*
  - o MGMT459 (International Management)
- [1] 2016 Spring Krannert Certificate for Distinguished Teaching Award\*
  - o MGMT451 (Strategic Management)

\*Highest possible award for Ph.D

Lecturer

#### TRAVEL GRANTS

- [3] Purdue University, 2017
- [2] Purdue University, 2016
- [1] University of Illinois at Urbana-Champaign, 2012

#### **SCHOLARSHIP**

- [6] Janet A. Henquinet Scholarship, 2017
- [5] Samsung Economic Research Institute (SERI) Scholarship, 2017
- [4] Purdue Krannert Fellow Scholarship, 2017
- [3] Purdue Krannert Full Scholarship, 2013-2017
- [2] Korea University Business School Full Scholarship, 2009-2011
- [1] Korea University Scholarship, 2007-2008

#### RECOGNITION / MEDIA COVERAGE

- [2] SSRN Top 10% of Authors on SSRN by total new downloads within the last 12 month, August 22<sup>nd</sup>, 2017
- [1] CHOSUN Biz "Losing Entrepreneurship" -one of leading business magazines in South Korea, August 2<sup>nd</sup>, 2016

# **ACADEMIC SERVICE**

Conference Reviewer: Academy of Management, Academy of International Business

# PROFESSIONAL EXPERIENCE

- [2] Paralympic 2008 official translator for Korean Paralympic players and government (2008)
- [1] U.S Army, Korean Army augmented to the 8<sup>th</sup> U.S. Army (2003-2005)
  - o Serviced as a combat engineer (MOS 12B)