

**Assessing Star Value: The Influence of Prior Performance and Visibility on Compensation Strategy**

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**Abstract**

The greatest competition among rivals in many industries is not for market share but human capital. In the so-called talent war, organizations compete aggressively to attract star employees—individuals with disproportionate productivity and external visibility—in pursuit of competitive advantage. Building on human capital and resource-based view theories, we argue that firms' compensation strategies are influenced by the intangible assets that define stars. With data from Major League Baseball, we find that organizations are likely to pay higher wages to stars based on their prior performance and visibility. Furthermore, our data indicate that firm competitive position influences which of these intangible assets holds greater value for managers. We discuss the implications of these findings for organizations waging war for talent and suggest directions for future research on a matter that is far from over.

**Keywords:** star employees, resource-based view, human capital, talent management, intangible assets, compensation strategy

### Practitioner Notes

#### What is currently known

1. Stars are strategic human capital and assumed to disproportionately contribute to firm performance.
2. The competition for stars among organizations has become particularly acute.

#### What this study adds

1. The intangible assets possessed by stars influence a firm's compensation strategy.
2. Firm competitive position impacts which intangible asset has greater value for managers.

#### Study findings for practitioners

1. Managers tend to offer more generous compensation based on a star's prior performance and/or visibility.
2. Managers who perceive their firm to be in a strong competitive position are more likely to value a star's prior performance.
3. Managers who perceive their firm to be in a weaker competitive position are more likely to value a star's visibility.
4. When possible, managers should prioritize internal talent development rather than chase stars in the external labor market.

### **Introduction**

There is increasing recognition of the role that star employees play in organizational performance. They are not marginally more productive than their peers, but many times more productive and have the potential to add significant value to organizations (Aguinis & O'Boyle, 2014; Kehoe & Tzabbar, 2015). Not surprisingly, the competition for these star employees is particularly acute, and organizations view them as critical contributors to a firm's success (Aguinis & O'Boyle, 2014; Groysberg, Lee, & Nanda, 2008). This so-called war for talent has been acknowledged for over three decades at this stage and neither economic recessions nor other market conditions have dampened the competition for talent in key sectors (Collings, Mellahi & Cascio, 2019). The assumption that not all employees contribute equal strategic value (Delery & Shaw, 2001) and that managing these resources with a single "optimal" HR architecture may be overly simplistic and potentially value-destroying is increasingly acknowledged (Lepak & Snell, 1999). For example, stars can differentially contribute to strategic objectives but can also be a disruptive influence and detract from firm success. This calls for a differentiated approach to managing these employees as effective management of this pool of strategic human capital will likely have the most significant impact on value creation (Delery & Shaw, 2001; Lepak & Snell, 1999). Stars are thus likely to be disproportionately rewarded, and the factors which influence star compensation are likely to differ from the wider compensation decisions within organizations.

For example, star employees can typically command generous wages because managers assume that acquiring them will enhance firm performance and compensation decisions are often governed by different criteria to wider employee groups (Groysberg et al., 2008; Kehoe & Tzabbar, 2015). However, one concern is that in competing and winning this war for talent, firms may fall victim to the winner's curse whereby the compensation they pay exceeds the gains

realized from the hire, resulting in overpaying the star hire (Morris, Alvarez, & Barney, 2021). It is this tension that motivates our study. This is an important focus as we have a very poor understanding of how organizations value star employees and the alignment between compensation strategy and business strategy is critical for firm success (Gomez-Mejia, 1992).

This paper contributes to the stars literature in several ways. Drawing on the resource-based view (RBV), we identify two key aspects of star value—prior performance and visibility—and investigate the role that they play in compensation decisions. Both are intangible, rare, valuable, and not easily acquired by rivals offering significant potential for competitive advantage (Barney, 1991). Moreover, we show how an industry's competitive dynamics influences the value placed on these intangible assets.

While recent work has focused on stars' ability to create value for firms, we explicate the underlying factors that influence the assessment of a star's anticipated contribution to organizational success and the design of their compensation packages. Importantly, we demonstrate that firms focus on different intangible assets. Research in this area has been limited because compensation data is often proprietary and difficult to obtain. However, our novel use of the Major League Baseball (MLB) free agency market allows us to theorize and test hypotheses related to star employee acquisitions with publicly available and objective salary data.

The literature on stars has grown exponentially over the last decade, yet definitional and conceptual ambiguities remain (Call, Nyberg, & Thatcher, 2015). There is increasing recognition that a more nuanced star categorization (Kehoe, Lepak, & Bentley, 2018) and greater precision in identifying the mechanisms underlying stardom are needed (Prato & Ferraro, 2018). We extend this conversation by exploring the value organizations place on a star's prior performance and visibility. In so doing, we provide greater understanding of the mobility of star employees

and suggest that certain intangible assets may be more portable than others, depending on the competitive position of the recruiting organization. Finally, we offer practitioner insights to help navigate the external labor market when acquiring a star employee.

### **Theory and Hypotheses**

#### **Stars: A Resource-Based Perspective**

Recent decades have seen increased recognition of the unequal distribution of individual employees' contributions to performance in contemporary organizations. The reduction of situational constraints, such as geographic distance and slow technological dispersion, which constrained individual performance in the past, have transformed the potential for exceptional performance from a small, elite group of star employees (Aguinis & O'Boyle, 2014). The literature has primarily focused on two key aspects of star characteristics namely, they demonstrate disproportionately high levels of performance and exhibit superior external market visibility (Groysberg et al., 2008). Their position on a production distribution defines stars, and their performance is judged as disproportionally high, based on a comparison with the productivity of others. Their record of superior performance must also be stable over time, instead of a single exceptional achievement (Aguinis & O'Boyle, 2014; Call et al., 2015).

A second key characteristic of star employees is visibility. Visibility relates to the extent to which an individual's job performance and reputation are observable (Merton, 1968). Like performance, stars' visibility should be disproportionately high and prolonged (Call et al., 2015). The status achieved through enhanced visibility may lead to greater organizational awareness, new customers (Groysberg & Lee, 2010), and other external opportunities (Hess & Rothaermel, 2011).

Insights from the resource-based view help conceptualize how the characteristics of stars contribute to an organization's sustainable competitive advantage. According to resource-based logic, intangible assets are central to firm success because they are rare, valuable, and neither easily acquired nor replicated by rivals (Barney, 1991). Human capital theory suggests organizations seek individuals with the knowledge, skills, and abilities to help achieve and sustain a competitive advantage (Coff & Kryscynski, 2011). A firm's human capital serves as a critical source of competitive advantage because it is not easily imitated due to causal ambiguity and social complexity (Morris, et al., 2021; Wright, McMahan, & McWilliams, 1994). Star employees are particularly treasured sources of human capital because their output is far greater than other workforce members. Moreover, our definition of star employees aligns with the principles of intangible assets because a star's production cannot be replaced with multiple average employees or less productive substitutes (Rosen, 1981). Finally, a star's contribution directly impacts organizational performance, so they are considered both valuable and scarce (Aguinis & O'Boyle, 2014). Consequently, organizations develop compensation strategies to attract the talent they determine best contributes to achieving firm objectives (Yanadori & Marler, 2006).

A direct relationship between intangible assets and economic advantages exists, but placing an accurate value on this often-opaque asset is challenging (Ertug & Castellucci, 2013). Recent discussions within the RBV have examined the *ex-ante* value of firm resources, including human capital, and their relationship to competitive advantage (Schmidt & Keil, 2013). Stars have the potential to add unique value to organizations through their demonstrated record of sustained performance and greater visibility. As individual contributors, research indicates that stars improve the performance of organizations in a variety of industries, including

biotechnology (Grigoriou & Rothaermel, 2014), entertainment (Basuroy, Chatterjee, & Ravid, 2003), and sports (Ethiraj & Garg, 2012). Furthermore, the presence or addition of stars can negate the adverse effects of firm turnover (Taylor & Bendickson, 2020). As a scarce resource, stars are valuable across organizations and can command premium wages in the labor market (Mackey, Molloy, & Morris, 2014).

**Prior Performance.** Stars are identified, in part, by their disproportionately high and prolonged previous performance (Call et al., 2015; Rindova, Pollock, & Hayward, 2006). RBV identifies the importance of this type of intangible asset because it is typically considered an accurate predictor of future behavior (Ertug & Castellucci, 2013; Rindova et al., 2006). Organizations desire this asset and strive to recruit strategic human capital that may contribute to further strengthening their competitive position. Thus, a star's record of accomplishment is often related to the value they can command later in their career (Harris, Pattie, & McMahan, 2015). For example, hospitals often offer generous compensation packages to recruit physicians with strong records in their particular medical specialty area (Oxley & Lotto, 2019). Research-focused universities extend attractive offers to entice faculty with impressive curricula vitae (Boyd, Bergh, & Ketchen, 2010). Similarly, new biotechnology ventures use lucrative compensation packages to recruit key scientists who are accomplished in their field to improve IPO valuations (Higgins & Gulati, 2006).

Organizations appear to place greater value on intangible assets such as human capital, which they believe is tied most closely to addressing current organizational priorities (Ertug & Castellucci, 2013). Substantial evidence confirms that star performers are not just slightly, but *much* better performers than their non-star colleagues (Kehoe & Tzabbar, 2015). As organizations scan the labor market for cues to address current performance deficiencies, a star's

previous achievements may be interpreted as a key solution to an existing organizational problem and carry greater weight than other selection criteria (Bidwell & Keller, 2014). Furthermore, if an organization deems the individual's human capital as scarce within the labor market, they may perceive greater value and place a premium on such skills (Chadwick, 2017; Datta & Iskandar-Datta, 2014; Mackey et al., 2014).

*Hypothesis 1: A star's prior performance is positively related to the compensation offered by recruiting organizations.*

**Visibility.** The second necessary element for star identification is visibility. It refers to an individual's exposure within the organization (internal visibility) and outside the organization in the external labor market (external visibility) (Merton, 1968). Research clearly indicates that stars enjoy greater visibility than their colleagues and—intentionally or unintentionally—signal their current and potential contributions (Call et al., 2015).

Theoretically, the literature on celebrity is analogous to external visibility and is insightful from an RBV perspective. According to Rein, Kottler, Hamlin, and Stoller (2006), a person “whose name has attention-getting, interest-drawing, and profit-generating value” (p. 17) enjoys high visibility. Economic value is derived from the heightened public attention and interest derived from this celebrity—moreover, the more people who know and pay attention to this asset, the greater the value. Celebrity enhances an individual's power in the labor market, provides them with additional leverage in relationships, and increases their ability to acquire necessary resources. For example, CEO celebrity conveys competence (Hayward, Rindova, & Pollock, 2004)—and future firm success—through their perceived ability to acquire better employees, leverage relationships, and enjoy greater access to necessary capital (Fombrun, 1996).

Extant research supports the idea that stars enjoy greater exposure than their colleagues, and this heightened visibility may convey their current and potential contributions (Call et al., 2015). Hiring organizations scan the environment for cues of an individual's potential future performance, and past research suggests a more significant weight is placed on individuals' visibility when assessing human resource acquisitions (Wade, Porac, Pollock, & Graffin, 2006). Wade and colleagues suggest this is consistent with the "Matthew effect" and argue that a more visible individual will receive more credit than a less visible individual, even if their work or accomplishment is similar (Merton, 1968). Additionally, the visibility of stars may enhance an organization's reputation and could be used as a recruiting tool for attracting other stars or individuals who have star potential (Agrawal, McHale, & Oettl, 2014). Furthermore, stars may signal the organizations' prestige, influencing how stakeholders view the firm and, perhaps, altering the organization's entire identity (Call et al., 2015). We expect that organizations will place a premium on star visibility in the form of more generous compensation offers when attempting to acquire them.

*Hypothesis 2: A star's visibility is positively related to the compensation offered by recruiting organizations.*

### **The Role of Perceived Competitive Position**

Thus far, we have hypothesized that managers perceive great value and place a premium on the intangible assets that define star employees. We further argue that a manager's perception of their firm's competitive position relative to their rivals exacerbates how they calibrate various intangible assets when evaluating star acquisitions. We contend that rivalry and a firm's competitive position may induce managers to alter the aggressiveness of their human capital strategy based on the star's assumed added utility. This reasoning is rooted in tournament theory

and the generally accepted notion that reward structures are based on relative, rather than absolute, performance (Lazear & Rosen, 1981). Importantly, tournament-like structures occur in a variety of settings and contexts at both the individual and organizational levels, including executives vying for the CEO position (Bognanno, 2001), professional golfers (Ozbeklik & Smith, 2017), competitive weightlifters (Genakos & Pagliero, 2012), firms competing for government contracts, (Fullerton & McAfee, 1999) law firms, (Price, 2003) and mutual funds (Brown, Harlow, & Starks, 1996).

Tournament theorist suggests that participants are inclined to exert greater effort when the rewards are not explicitly contingent on absolute performance, but, instead, are a function of winners and losers (Connelly, Tihanyi, Crook, & Gangloff, 2014). As a result, slight differences in performance can result in significant differences in payouts. If the reward spread (e.g., the difference between winning and coming in second place) is insufficient, contestants are inclined to exert less than maximum effort. On the other hand, if the difference between winning and placing second is sufficiently high, participants are incentivized to exert more effort and maximize performance.

In addition to focusing on reward structures, tournament theory also highlights the role competitive ranking plays in actors' willingness to engage in relatively more aggressive or passive behaviors. In tournament-like formats, all parties know where they rank relative to each other, and decisions to improve a position or retain the status quo are based on this ranking. However, empirical results are inconclusive about how interim rankings influence behaviors. While most research suggests that laggards tend to engage in riskier decision-making (Brown et al., 1996; Genakos & Pagliero, 2012), contrarian results exist (Nieken & Sliwka, 2010). For example, when the competitive position differential is small, both leaders and followers may

embrace greater risk in direct response to each other's actions (Ozbeklik & Smith, 2017), and crowding from below can elicit more aggressive behaviors from leaders (Bothner, Kang, & Stuart, 2007). Building on this idea, we argue that firms will display a greater willingness to seek the payoff of offering more generous compensation to acquire star employees who possess valuable intangible assets that are perceived to contribute to competitive advantage based on the firms position relative to its rivals. Hence:

*Hypothesis 3: Firm competitive position moderates the positive relationship between a star's (a) prior performance and (b) visibility and the compensation offered by recruiting organizations such that the relationship will be more pronounced when firms are in a stronger competitive position.*

## **Data and Methods**

### **Study Context and Sample**

We considered Major League Baseball (MLB) free agents as proxies for star employees due to the rules outlined in the collective bargaining agreement (CBA) governing free agency. The free agent market of MLB provides an appropriate context with which to study organizations' acquisitions of star employees for several reasons. The CBA governing MLB free agency stipulates that players must have at least six years of active MLB service before qualifying for free agency. Players must spend a total of 172 days on a Major League team's active list to be credited with one year of Major League service (the duration of an MLB season is approximately 182 days on average). Thus, if a player is removed from a team's active list for any reason (e.g., performance deficiencies, injury, personal problems, etc.), the days removed do not count toward that player's Major League service record (MLB CBA 2012-2016).

Consequently, a player must demonstrate prolonged, MLB-caliber performance to qualify for free agency.

Since there are only 750 MLB players globally, it is reasonable to consider those who can remain on an MLB club's active roster for a minimum of six years exhibit disproportionately high and prolonged performance, thus satisfying one of the necessary conditions for being a star employee. Furthermore, because all 30 MLB teams know who has become an eligible free agent, it is reasonable to assume they are externally visible, satisfying the second condition of the star employee definition. Free agents represent .9% of the MLB-affiliated professional baseball population and is in line with other samples in the stars literature (e.g., Groysberg et al., 2008).

Baseball team owners and managers face the same task of maximizing performance as management in most organizations. *Ceteris paribus*, increased individual performance should lead to improved team performance, making the choice of compensation for acquired players a strategic decision (Bloom, 1999). Research examining reserve wages and compensation has been quite limited because detailed personnel data needed for statistical analysis are generally tightly held corporate secrets. This problem does not exist when using sports data because player salaries, and performance measures, are publicly available from several sources (Jane, 2013). Finally, professional sports are excellent settings for research on human resources (Hill, Aime, & Ridge, 2017; Chang, 2011). Advantages of this data source include the objectivity of individual and organization performance measures, which tend to be highly reliable and without bias, allowing us to place more confidence in our results (Chang, 2011; Taylor & Bendickson, 2020).

Our dataset contained five years (2012-2016) of free agent transaction information. We selected this time frame because it contained all years of a single CBA between MLB team owners and the Major League Baseball Players Association. Analyzing data from a single CBA

allowed us to control for any free agent transaction differences between agreements that might influence teams' motivation for acquiring free agents and/or the compensation offers made to such players. Free agent transaction data including records of their position, age, status (signed a new contract, retired, or remained unsigned), contract year team ( $team_{t-1}$ ), team they signed with in free agency, and terms of the free agency contract (salary and number of years) were available from *ESPN's MLB Free Agent Tracker* (ESPN, 2017). Player-level performance measures came from *Baseball-Reference.com* (Sports Reference, 2017).

We recorded free agent transactions for 333 individual players from 2012 to 2016. Of these 333 players, nine had missing performance data and were thus dropped. Complete transaction and performance information was available for the remaining 324 players over this time period. There were a total of 427 player-year transactions ( $n = 427$ ) because numerous players entered the free agency market more than once during the observation period: 243 players signed as a free agent once in our time frame ( $n = 243$ ), 63 players signed twice ( $n = 126$ ), 14 players signed free agent contracts in three of the five years ( $n = 42$ ), and four players signed free agent contracts in four of the five years ( $n = 16$ ).

### **Dependent Variable**

**Compensation.** Compensation was calculated as a player's average annual salary in free agency. For example, a free agent who signs a three-year, \$30 M contract was recorded as \$10 M.

### **Independent Variables**

**Prior performance.** Prior performance is measured using a decaying, three-year average of a player's wins above replacement (WAR). This approach is consistent with Ertug and Castellucci's (2013) measurement of *player reputation* in their study using NBA players. Thus,

performance during a player's contract year was divided by one, performance the year prior to the contract year was divided by two, and performance two years prior to the contract year was divided by three. These scores were then averaged to arrive at prior performance.

WAR was developed to capture how much better any one player is compared to a player available to replace him. While no single measure can comprehensively capture a player's true performance value to their team, the goal of WAR is to have a holistic, all-inclusive reference point for comparing players with different skill sets—both offense and defense—across the league (Slowinski, 2010). A positive WAR indicates that the focal player contributes more to team performance than a player who is available to replace him. In contrast, a negative WAR indicates the focal player contributes less than an available replacement player. WAR factors in positional adjustment, thus, recognizes the difference between pitchers and non-pitchers and provides the ability to compare players regardless of their position with a single statistic (Sports Reference, 2017).

**Visibility.** Visibility was measured by a search of each player within the Dow Jones Factiva database—a global news database of more than 33,000 sources. The search was conducted by setting date parameters for the respective MLB regular season and using the player's name and “baseball” as the search terms. The variable is a count of news articles in which the player's name appears within the database during the player's contract year—the entire season prior to qualifying for free agency. This measurement technique's validity is recognized and is generally consistent with celebrity in the RBV literature (Fralich & Bitektine, 2020; Weng & Chen, 2017).

**Firm competitive position.** Firm competitive position was measured by the number of games back a team was from winning their division in  $t-1$  and automatically qualifying for the

postseason. A lower number would indicate a better competitive position for the firm as teams in legitimate contention of reaching the postseason generally have more to gain from adding additional key talent (Krautmann & Ciecka, 2009).

**Control variables.** As reflected in Appendix A, the regression equations include several control variables. *Desirability* captures the bidding activity for individual free agents and is measured by the number of teams reported to be interested in acquiring the free agent. *Powerful agent* reflects whether a player was represented by a powerful sports agent/agency as determined by *Forbes* (Belzer, 2016). *Experience* captures the number of years since a player's MLB debut. *Free agency* is the number of times a player qualified for free agency in their career. *Contract* reflects the years of contract duration to acknowledge prior research demonstrating a positive relationship with salary (Krautmann & Oppenheimer, 2002). *Market size<sub>t-1</sub>* and *Market size* reflect the market size of the player's previous team and acquiring team, respectively (Krautmann, 2009). *Team revenue*<sup>1</sup> served as a proxy for the acquiring organization's financial resources. Performance of a free agent's previous team has been associated with increased future salary (Terry, McGee, & Kass, 2018) and was measured by winning percentage in t-1 (*Team performance<sub>t-1</sub>*).

To account for the possibility of systematic differences in acquiring free agents between competitive divisions or years, we include division variables (*AL East, AL Central, AL West, NL East, NL Central, and NL West*) and acquisition year. *Same team* accounts for differences in

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<sup>1</sup> The revenue figures [from Forbes] for each team include all money the teams get, including tickets and premium seating, media, concessions and merchandise, licensing and other distributions from MLB's central fund, as well as non-baseball stadium events like concerts and soccer games. Revenue are net of annual stadium debt service for which the team is responsible, as well as money teams receive, or pay, as part of the league's local revenue-sharing system. Luxury payroll tax figures paid to MLB are subtracted from the team's operating income. (Ozanian, 2016, paras. 22 & 23)

salaries when the free agent signs with his current team vs. signing with another team. Finally, we included a dichotomous variable to indicate if the free agent is a *pitcher* rather than a position player to control for the primary type of contribution a player makes to their organization.

### Results

With this dataset, we used a random effects model with robust standard errors clustered on the player level under the assumption that the unobserved effect is uncorrelated with our independent variables (Hill, Griffiths, & Lim, 2008; Wooldridge, 2015).

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Insert Table 1 about here

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Table 1 contains descriptive statistics and correlations of our dependent, independent, and control variables. Table 2 presents the results of the three regression equations. Model 1 contains the control variables regressed on compensation. Model 2 introduces prior performance and visibility. Finally, Model 3 adds the variables that capture the interaction between prior performance and visibility with firm competitive position. To enable a meaningful interpretation of the interaction effects, we show the average marginal effect of prior performance and visibility on compensation at different levels of firm competitive position in Figure 1a and Figure 1b, respectively. Further, we depict the moderating effect of firm competitive position on prior performance and visibility in Figures 2a and 2b, respectively.

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Insert Figure 1 about here

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Hypothesis 1 predicts that a star's prior performance is positively related to the compensation offered by recruiting organizations. The positive and significant coefficient supports this hypothesis ( $p < .01$ ). Hypothesis 2 argues that a star's visibility is positively related to future compensation and the significant coefficient ( $p < .01$ ) supports this hypothesized relationship.

Model 3 reflects the results of the anticipated influence of firm competitive position on the direct relationships previously discussed. Hypothesis 3a predicts that firm competitive position moderates the positive relationship between a star's prior performance and compensation. The significant, negative coefficient supports this hypothesis ( $p < .01$ ). Recall that firm competitive position is measured by the number of games a team was from winning their division in  $t-1$ . Thus, a team with a score of 0 indicates the strongest competitive position (larger numbers represent weaker positions). Figures 1a and 2a indicate that firms in stronger competitive positions (i.e., teams that were fewer games away from winning their division and automatically qualifying for the postseason) are more likely to offer higher salaries, based on a star's prior performance, than their counterparts in weaker positions. For example, as illustrated in Figure 1a, a firm in the strongest competitive position offers a significantly greater average salary than a firm in a weaker competitive position for each single unit increase in prior performance. Similarly, Figure 2a illustrates stars who exhibited higher prior performance received relatively higher salaries from firms in stronger competitive positions than firms in weaker positions.

Hypothesis 3b argues that firm competitive position moderates the positive relationship between a star's visibility and future compensation. The coefficient is significant ( $p < .01$ ) but in the opposite direction as predicted. This finding is depicted in Figure 1b and reveals that firms in weaker competitive positions offer significantly greater average salary than firms in stronger competitive positions for each single unit increase in visibility. Likewise, Figure 2b demonstrates that average salary is highest for a combination of greater visibility and weak competition position, and lowest for a combination of strong competitive position and lower visibility. While our hypothesized relationship is unsupported, this finding is interesting for at least two reasons. First, it suggests that firms focus on different intangible assets, depending on their perceived competitive position. Second, this result implies that firms in weaker competitive positions are more likely to allow a star's visibility to influence their compensation offers.

### **Discussion**

Since McKinsey's *War for Talent* release, talent management has become core to the mainstream management lexicon (Collings et al., 2019). Attracting, developing, and retaining talent has gained in importance as organizations recognize the value of human capital as a potential source of competitive advantage (Delery & Shaw, 2001; Wright & McMahan, 2011). Our results suggest that a desire to acquire individuals who possess valuable intangible assets influences the compensation strategy of firms seeking to hire stars. This study's findings also indicate that perceived competitive position moderates the value placed on prior performance and visibility, and further demonstrates that these desired intangible assets operate independently of one another.

While the literature on the relationships between intangible assets and compensation has focused on goal aspirations and resource alignment (e.g., Ertug & Castellucci, 2013), the moderating effect uncovered in this study suggests compensation decisions for star recruits may also be influenced by a firm's attempt to improve or maintain its competitive position.

Organizations appear to place a higher value on performance when they are in a competitively dynamic environment and attempting to attain or maintain a competitive advantage. Conversely, organizations place less value on this intangible asset when they are in a competitively vulnerable position. Rather than calibrating the anticipated contribution directly from prior performance, these organizations appear to place more value on a star's exposure and expect that their high external visibility will provide a more significant contribution to organizational success.

This value placed on a star's visibility by firms in weaker competitive positions is interesting but unexpected and may be an artifact of our data. Sports teams can be viewed as multiproduct firms with two outputs: on-field performance and entertainment (Stewart & Jones, 2010). Within this context, a star's prior output may be more highly valued for the on-field performance product, particularly when a team is competitive. On the other hand, their visibility and celebrity status may be more critical for enhancing the entertainment value for teams that are not competitive on the field. Research indicates that teams tend to shift from promoting team performance to promoting individual stars in these situations. Indeed, evidence suggests that star power, rather than on-court productivity, attracts fans, drives merchandise sales, and increases television ratings for National Basketball Association (NBA) teams (Berri, Schmidt, & Brook, 2004; Hausman & Leonard, 1997). Star power is similarly evident in the movie industry because celebrity actors can influence box office returns, despite negative reviews by critics for a film. Research indicates that stars may not help returns on average, but they can mitigate the impact of harsh critical reviews (Basuroy, et al., 2003). Furthermore, celebrity executives and board members provide prestige, credibility, and increased share price for newly public firms, independent of venture performance. These highly visible individuals signal legitimacy to the

market for firms with limited track records and performance histories (Acharya & Pollock, 2013; Higgins & Gulati, 2006).

Accurately estimating intangible assets, such as human capital, is critical for firms when navigating their current competitive position (Kaplan & Norton, 2004). The impact of an individual's intangible assets on unit-level outcomes is contextual and dependent, at least in part, on the firm's competitive position and current objectives (Nyberg, Reilly, Essman, & Rodrigues, 2018). Firms in stronger competitive positions may place greater value on a star's prior performance than visibility because the more critical objective in this competitive position is enhanced unit performance. Indeed, firms at the top or near the top of the industry would likely be looking to strengthen performance to maintain or take over the industry-leading position. Alternatively, firms in weaker competitive positions might see a star's visibility as a means of meeting unit objectives by enhancing its prestige or credibility (Call et al., 2015).

Specific to our dataset, baseball teams acquire stars because of the anticipated added value they will bring to the organization. Participating in the playoffs is a primary source of increased revenue for MLB clubs and teams enjoy a five-year bump in annual receipts by making just one postseason appearance (Feuer, 2019). On the other hand, non-playoff teams may seek players with enhanced celebrity to boost ticket and merchandise sales to compensate for the anticipated absence of postseason financial gains and simply maintain current revenue. However, an acquiring organization may underestimate prior team and institutional factors (e.g., team chemistry, training facilities, public relations, etc.) that influenced or helped develop the intangible assets they deem valuable. In such a case, the acquiring club may fall victim to the winner's curse where the compensation offer exceeds expected gains and the player is the only party extracting economic rents (Morris et al., 2021).

### **Theoretical Contributions**

Human capital theory posits organizations assemble individuals with unique characteristics that contribute to sustainable competitive advantage (Coff & Kryscynski, 2011). The intersection of this literature and compensation strategy research has largely focused on executive talent (Combs & Skill, 2003; Harris & Helfat, 1997) and suggests external candidates with greater levels of human capital generally enjoy higher compensation. This paper advances these literatures by explicitly examining the underlying mechanisms that firms use to assign the value of star employees and demonstrates a link between those mechanisms and an organization's compensation strategy. We note that while some of the implications of this study may be applicable to the broader workforce, compensation decisions for stars are more complex due to the anticipated disproportionate contributions to firm success. These expected benefits are derived from a star's sustained performance and visibility, distinguishing them from rank-and-file employees. Thus, the decision costs associated with acquiring these rare and in-demand individuals tend to be much more significant. Moreover, a differentiated HR architecture is typically justified to effectively manage this strategic talent (Lepak & Snell, 1999; Collings & Mellahi, 2009).

Compensation research indicates that alignment between compensation strategy and business strategy is critical for firm success (Gomez-Mejia, 1992). The literature reveals that these relationships are nuanced by several contingencies. For example, a considerable body of research focuses on the mechanisms, criteria, and consequences of executive pay (Combs & Skill, 2003; Gomez-Mejia & Wiseman, 1997). Beyond the executive level, the influence of a firm's strategy on compensation decisions for strategic employee groups has also received attention (Yanadori & Marler, 2006). Our study advances this literature by demonstrating that

perceived competitive rivalry adds fluidity to a firm's compensation strategy for key individuals (Collings & Mellahi, 2009). We examine the intangible assets that align with the dimensions used to define stars—performance and visibility—and demonstrate their positive relationship with compensation. Moreover, we discovered that the perceived competitive environment influenced compensation strategy, and the anticipated contributions of these two dimensions were valued independently of one another.

We demonstrate the importance of perceived organizational competitive position in star mobility, anticipated value, and human capital costs (Chadwick, 2017). Moreover, we contribute to the talent management literature introducing tournament theory as a lens through which to assess how perceived competitive position may influence compensation decisions for star employees (Collings et al., 2019). Our results indicate that managers place more importance on particular intangible assets based on their firm's perceived competitiveness. These contributions have significant implications for the stars who offer their services—and the organizations looking to retain them.

Finally, our study contributes to the conceptualization of stars as the development of this literature becomes more precise. We demonstrate that firms evaluate intangible assets originating from the elements that most typically define stars—*exceptional productivity and broad external visibility*—independently, suggesting this definition is not all-encompassing and supports recent proposals for more nuanced star categorization (Kehoe, et al., 2018). While this recent work has focused on categorizing stars by their unique sources of potential value creation, our work sheds light on their role in compensation decisions. Our findings provide a greater understanding of star employee mobility and suggest that certain intangible assets may enhance portability more than others, depending on the competitive position of the recruiting organization.

### **Practical Implications**

A reputation for prior performance is widely assumed to be an accurate predictor of future performance and is commonly used to establish compensation offers (Bidwell, 2011; Van Iddekinge, Arnold, Frieder, & Roth, 2019). However, extant research shows that stars who change employers often experience a significant decline in their individual performance (which usually persists for several years) before performing at the level attained in their original firm (Groysberg et al., 2008). Further, given that performance varies over time, depending on when the measurement is taken or observed, a non-star performer in any industry may look like a star performer, and vice versa (Pfeffer & Sutton, 2006).

While the visibility of a star may appear to help an organization achieve meaningful results, this potentially valuable intangible asset does not necessarily help increase firm productivity. Indeed, the celebrity of award-winning CEOs tends to positively impact compensation well beyond the performance differences between award-winners' and non-award-winners' firms (Wade et al., 2006). Furthermore, Wade and colleagues' results indicate that CEO's public accolades were negatively associated with market returns (see also Groysberg et al., 2008). Management should examine more closely whether the anticipated benefits of star visibility are a good fit for their current needs. More importantly, a critical eye is needed when assessing a star's credentials (independent of their visibility) to minimize the potential influence of the Matthew effect (Merton, 1968).

Our findings provide further support for the contention that organizations should prioritize internal talent development rather than chasing stars in the external job market. While our data provide some support for these arguments—particularly when sufficient time is available for adequate talent development or when employees will be working with proprietary

information—we recognize that internal recruitment is not always feasible or advisable. We echo previous recommendations in the talent management literature that firms combine internal development and external recruitment to manage the uncertainty of future business demands and pivotal position vacancies (Collings et al., 2019).

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

Perhaps this study's most obvious limitation is the generalizability of professional sports data. Professional baseball players are some of the worlds' highest paid individuals and may not represent the workforce in general. However, professional sports, particularly MLB, have proven to be quite good research settings for various human resource-related issues (Bloom, 1999; Hill et al., 2017; Howard & Miller, 1993). Targeted recruitment is not prevalent among the entire workforce; instead, it is concentrated among the more elite employees with competitive skill sets (Delery & Shaw, 2001; Lepak & Snell, 1999). Stars disproportionately contribute to the organization's strategic goals and should be the focus of such recruitment initiatives. In this context, MLB free agents serve as an appropriate proxy. Furthermore, gathering data on star employee mobility among companies in Silicon Valley (or elsewhere) is difficult—if not impossible—because of the proprietary nature of organizational recruiting tactics. Transparent and objective transaction, salary, and performance data is readily available for MLB players and provides the opportunity for greater insight into the explored relationships. Moreover, by examining a single industry, we can better control for extraneous factors. The fact that we are still able to arrive at significant results boosts the confidence of these findings.

Another limitation was our inability to precisely assess the *ex-post* impact of personnel transactions on firm performance. However, we conducted a post hoc analysis to determine if significant on-field performance impacts existed *ex-post* compared to *ex-ante*. Of the 324 players

in our sample, 29 players were still under active contracts. To examine the remaining 295 players' post-acquisition performance, we compared the average of the player's WAR over the length of their free agent contract to their prior performance. On average, we found that prior performance was significantly higher, indicating a decline in average performance after the player switched teams. We used the Granger-causality test to assess if the acquisition influenced overall firm financial performance and determine if free agent signings drove overall team revenues. The results of this analysis indicate this is not the case (p-value .575). Instead, we discovered revenues appear to drive free agent signings (p-value .042), suggesting that the teams do not seek to acquire these players until the clubs possess the resources to do so.

While we suggest stars are generously compensated, we are careful not to suggest these decisions are irrational. Rather, these premium wages offered to stars may be viewed as investments in developing a more competitive organization. Teams in playoff contention generally have more to gain by adding additional talent; thus, these compensation offers may be advantageous. Conversely, teams out of contention may seek a star with greater visibility and celebrity status to boost merchandise sales and other revenue streams to compensate for poor on-field performance. The efficacy of these types of investments warrants additional research as they were beyond the scope of the current study.

One of the implicit assumptions made in this study is that stars are attracted to organizations offering the most generous compensation, which neglects to acknowledge other individual and/or organizational factors that may influence star mobility. For example, stars in MLB may be willing to sacrifice higher salaries in exchange for an opportunity to play for a winning or historically significant team. Furthermore, a player's decision may be influenced by their preference for certain markets because of lifestyle and various off-field opportunities.

Similarly, stars outside of the sports arena may accept lower compensation offers with specific organizations because of the firm's prestige, advancement opportunities, and/or work/life balance issues (Chapman, Uggerslev, Carroll, Piasentin, & Jones, 2005). Future research should continue to address factors other than salary that stars find appealing which may outweigh the lure of an extravagant compensation package.

Another interesting avenue for future research is the role that rivalry intensity may play in star acquisitions<sup>2</sup>. To proxy for *intensity of rivalry*, we measured the difference of games won by the team that finished first in the division and the team that finished last. This value ranged from 15 to 45 in our sample where a lower number would indicate greater intensity of rivalry. Our estimates indicated that firms experiencing greater intensity of rivalry acquired stars at a higher rate. However, this finding should be interpreted with caution due to the low number of observations (30) for this particular analysis which introduces statistical power concerns.

While our study defined stars as disproportionately productive and externally visible individuals (e.g., Groysberg et al., 2008), others suggest that stars may also be defined by *who* they know as much as *what* they know. Call et al. (2015), for example, proposed that stars are in a better position to capitalize on valuable social affiliations or social capital. Social capital is the goodwill stemming from an individual's relationships and provides access to information, influence, and solidarity (Adler & Kwon, 2002) and can impact various outcomes. Stars may be better able to cultivate social capital that is *relevant* and holds important strategic value instead of the more generic social capital consisting of ties with little or no strategic significance (Call et al., 2015).

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<sup>2</sup> We thank an anonymous reviewer for this suggestion.

These current conceptualizations of stars are not all-encompassing, and future research should consider such dimensions of mobility and compensation offers of different types of stars. Kehoe et al. (2018) offer a typology of star employees: universal stars, performance stars, and status stars. While their definition of *universal stars* mirrors other common definitions (i.e., Groysberg et al., 2008), *performance stars* exhibit exceptional task performance, but lack external visibility, while *status stars* enjoy broad external status but demonstrate only moderate task performance. These definitional ambiguities require answers to several questions, including: Are firms more interested in one type of star over others when considering human capital acquisitions? What is the appropriate compensation strategy for stars, and/or, do strategies vary based on the type of star being pursued? Do decisions to attract star employees impact the compensation strategy for non-star employees?

### **Conclusion**

This paper was framed around the conceptual characteristics that define stars and distinguish them from non-star employees—disproportionately high and prolonged performance and external visibility (Groysberg et al., 2008). We agree that some of the implications of this study may apply to the broader workforce, but these individuals' intangible assets are likely underdeveloped and/or opaque. While all employees are critical resources for competitive advantage, not all employees contribute equal strategic value (Delery & Shaw, 2001). Stars disproportionately contribute to strategic objectives and require a differentiated HR architecture, including much more complex compensation decisions (Lepak & Snell, 1999). Stars command premium wages due to their scarce human capital and ability to create value at a firm that non-stars cannot (Mackey et al., 2014). However, stars may be a disruptive influence and have a detrimental impact on firm success, significantly magnifying the importance of making the

appropriate acquisition decisions, the costs of which may outweigh organizational gains (Delery & Shaw, 2001; Morris et al., 2021). The uncertainty surrounding a star's actual contribution and the salary necessary to recruit their scarce strategic human capital make these decisions much more consequential.

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**Table 1**

*Means, Standard Deviations, and Correlations*

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1. Compensation	6.62	5.59	1.00											
2. 2012	0.21	0.41	-.12 <sup>*</sup>	1.00										
3. 2013	0.17	0.38	-.05	-.23 <sup>**</sup>	1.00									
4. 2014	0.18	0.38	.04	-.24 <sup>**</sup>	-.21 <sup>**</sup>	1.00								
5. 2015	0.22	0.41	.12 <sup>*</sup>	-.27 <sup>**</sup>	-.24 <sup>**</sup>	-.25 <sup>**</sup>	1.00							
6. 2016	0.22	0.42	.01	-.27 <sup>**</sup>	-.24 <sup>**</sup>	-.25 <sup>**</sup>	-.28 <sup>**</sup>	1.00						
7. LnDesire	0.35	0.57	.41 <sup>**</sup>	.08	.03	-.01	-.06	-.04	1.00					
8. LnExperience	2.22	0.33	-.04	.01	.11 <sup>*</sup>	-.01	-.07	-.03	-.02	1.00				
9. LnContract	0.43	0.55	.66 <sup>**</sup>	-.05	.04	.03	.07	-.08	.33 <sup>**</sup>	-.10 <sup>*</sup>	1.00			
10. Free agency	2.54	1.95	-.23 <sup>**</sup>	.05	.05	.00	-.00	-.10 <sup>*</sup>	-.14 <sup>*</sup>	.51 <sup>**</sup>	-.23 <sup>**</sup>	1.00		
11. Team performance <sub>t-1</sub>	52.92	5.88	.23 <sup>**</sup>	.06	.02	-.06	.03	-.06	.15 <sup>*</sup>	.10 <sup>*</sup>	.19 <sup>**</sup>	-.03	1.00	
12. Pitcher	0.52	0.50	-.01	-.03	.02	.01	.01	-.01	-.05	-.03	-.00	.10 <sup>*</sup>	.01	1.00
13. Market size <sub>t-1</sub>	0.59	0.49	.06	.09 <sup>*</sup>	-.06	-.07	-.03	.05	.03	.07	-.06	.03	.08	.05
14. Market size	0.62	0.50	.11 <sup>*</sup>	.00	.01	-.00	-.06	.05	.09	.06	-.06	.07	.06	-.06
15. LnTeam revenue	5.58	0.27	.26 <sup>**</sup>	-.22 <sup>**</sup>	-.16 <sup>**</sup>	.02	.06	.28 <sup>**</sup>	.04	.01	.01	-.02	.12 <sup>*</sup>	-.01
16. Powerful agent	0.46	0.50	.09	-.12 <sup>*</sup>	.03	.07	.12 <sup>*</sup>	-.09	-.03	-.10 <sup>*</sup>	.04	-.02	-.06	-.04
17. Same team	0.26	0.44	.03	.10 <sup>*</sup>	-.01	-.06	.00	-.04	-.08	.02	-.06	.13 <sup>*</sup>	-.03	.04
18. All-Star	0.41	0.49	.37 <sup>**</sup>	-.03	.02	.03	.02	-.04	.23 <sup>**</sup>	.20 <sup>**</sup>	.19 <sup>**</sup>	-.02	.17 <sup>**</sup>	-.06
19. AL Central	0.16	0.37	.03	-.04	-.00	.07	.06	-.08	-.00	.04	.08	.01	-.04	.02
20. AL East	0.18	0.38	.09	.07	.02	-.00	-.06	-.02	-.01	-.08	.01	-.05	.11 <sup>*</sup>	-.11 <sup>*</sup>
21. AL West	0.17	0.37	-.09	-.02	.07	-.07	-.01	.03	-.00	-.08	-.09 <sup>*</sup>	-.00	-.07	-.02
22. NL Central	0.15	0.36	-.08	.09	-.07	.04	-.02	-.04	.00	-.04	.02	-.05	-.03	.06
23. NL East	0.18	0.39	-.00	-.04	-.03	-.02	.02	.07	-.02	.07	-.08	.06	-.01	-.05
24. NL West	0.16	0.37	.04	-.06	.01	-.01	.02	.03	.03	.09	.07	.04	.03	.10 <sup>*</sup>
25. Firm competitive position	13.05	11.03	-.19 <sup>**</sup>	.03	-.00	.03	-.09	.04	-.00	-.08	-.09	.04	-.25 <sup>**</sup>	.01
26. Prior Performance	1.20	1.21	.73 <sup>**</sup>	.01	-.01	-.01	.12 <sup>*</sup>	-.10 <sup>*</sup>	.34 <sup>**</sup>	-.02	.49 <sup>**</sup>	-.18 <sup>**</sup>	.22 <sup>**</sup>	-.15 <sup>*</sup>
27. Visibility	10.51	21.57	.54 <sup>**</sup>	-.11 <sup>*</sup>	-.16 <sup>**</sup>	.01	.21 <sup>**</sup>	.04	.16 <sup>**</sup>	-.00	.26 <sup>**</sup>	-.09 <sup>*</sup>	.17 <sup>**</sup>	-.08

Variable	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
13. Market size <sub>t-1</sub>	1.00														
14. Market size	.25 <sup>**</sup>	1.00													
15. LnTeam revenue	.16 <sup>*</sup>	.41 <sup>**</sup>	1.00												
16. Powerful agent	-.06	-.14 <sup>*</sup>	-.05	1.00											
17. Same team	.04	.01	.11 <sup>*</sup>	-.04	1.00										
18. All-Star	.01	-.01	.11 <sup>*</sup>	-.00	-.00	1.00									
19. AL Central	-.05	-.37 <sup>**</sup>	-.21 <sup>**</sup>	-.03	-.04	.03	1.00								
20. AL East	.00	.02	.21 <sup>**</sup>	.01	.08	.10 <sup>**</sup>	-.20 <sup>**</sup>	1.00							
21. AL West	-.00	.13 <sup>*</sup>	-.16 <sup>**</sup>	.03	-.05	-.06	-.19 <sup>**</sup>	-.21 <sup>**</sup>	1.00						
22. NL Central	-.11 <sup>*</sup>	-.22 <sup>**</sup>	-.00	-.03	-.03	-.02	-.18 <sup>**</sup>	-.20 <sup>**</sup>	-.19 <sup>**</sup>	1.00					
23. NL East	.07	.37 <sup>**</sup>	-.01	.01	-.01	-.03	-.21 <sup>**</sup>	-.22 <sup>**</sup>	-.21 <sup>**</sup>	-.20 <sup>**</sup>	1.00				
24. NL West	.08	.03	.15 <sup>*</sup>	.01	.05	-.03	-.19 <sup>**</sup>	-.21 <sup>**</sup>	-.20 <sup>**</sup>	-.18 <sup>**</sup>	-.21 <sup>**</sup>	1.00			
25. Firm competitive position	.03	-.01	-.25 <sup>**</sup>	-.01	-.16 <sup>**</sup>	-.07	-.02	-.06	.10 <sup>*</sup>	.03	.02	-.06	1.00		
26. Prior Performance	.10 <sup>*</sup>	.08	.12 <sup>*</sup>	.06	-.00	.30 <sup>**</sup>	.07	.09	-.05	-.07	-.05	.00	-.16 <sup>**</sup>	1.00	
27. Visibility	.14 <sup>*</sup>	.13 <sup>*</sup>	.24 <sup>**</sup>	-.02	.04	.28 <sup>**</sup>	-.06	.16 <sup>*</sup>	-.07	-.08	.04	.01	-.11 <sup>*</sup>	.43 <sup>**</sup>	1.00

Note: Pairwise correlations, N = 427

\* p < .05

\*\* p < .01

\*\*\* p < .001

**Table 2***Random Effects Models for Compensation*

Variables	Model 1	Model 2	Model 3
2013	-0.044 (0.399)	0.302 (0.363)	0.298 (0.365)
2014	0.596 (0.415)	0.828* (0.410)	0.734 (0.411)
2015	1.349** (0.518)	0.671 (0.439)	0.681 (0.449)
2016	0.884 (0.608)	1.041* (0.474)	1.008* (0.481)
LnDesirability	1.216** (0.324)	1.066** (0.282)	1.253** (0.294)
LnExperience	1.362 (0.762)	0.666 (0.615)	0.855 (0.601)
LnContract	5.144** (0.392)	3.689** (0.354)	3.500** (0.335)
Free agency	-0.455** (0.120)	-0.208* (0.083)	-0.245** (0.082)
Team performance <sub>t-1</sub>	0.006 (0.013)	0.002 (0.011)	0.004 (0.010)
Pitcher	0.506 (0.401)	1.007** (0.308)	0.942** (0.302)
Market size <sub>t-1</sub>	0.406 (0.317)	-0.109 (0.280)	-0.107 (0.268)
Market size	1.107** (0.420)	0.416 (0.319)	0.531* (0.305)
LnTeam revenue	2.436** (0.900)	2.305** (0.668)	2.091** (0.661)
Powerful agent	0.912* (0.363)	0.849** (0.298)	0.903** (0.295)
Same team	1.049* (0.422)	0.839* (0.386)	1.033** (0.387)
All Star	2.422** (0.422)	1.069** (0.322)	1.082** (0.318)
AL East	-0.541 (0.604)	-0.517 (0.469)	-0.620 (0.456)
AL West	-0.671 (0.559)	-0.191 (0.456)	-0.143 (0.437)
NL Central	-1.717** (0.507)	-0.932* (0.419)	-1.100** (0.404)
NL East	-0.840 (0.623)	-0.077 (0.527)	-0.245 (0.511)
NL West	-1.336* (0.568)	-0.727 (0.446)	-0.816 (0.436)
Firm competitive position	-0.024 (0.015)	-0.010 (0.013)	-0.002 (0.013)
Prior performance		1.718** (0.197)	1.562** (0.193)
Visibility		0.051** (0.010)	0.070** (0.011)
Firm competitive position*Prior performance			-0.040** (0.013)
Firm competitive position*Visibility			0.004** (0.001)
Intercept	-14.131** (4.77)	-13.654** (3.90)	-13.00** (3.90)
AIC	2245	2109	2094
Observations	427	427	427
Number of ID	324	324	324

*Note:* Robust standard errors clustered on the player shown in parentheses.

\*  $p < 0.05$ .

\*\*  $p < 0.01$ .