General manager and head coach exits in the NBA and the NFL

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Abstract

Purpose – This article seeks to enhance the understanding as to why head coaches and general managers (GMs) in the National Basketball Association (NBA) and the National Football League (NFL) exit from their positions.

Design/methodology/approach – Three hypotheses were investigated using a series of quantitative and qualitative data from the past 30 years. The samples analyzed are comprised of 891 GM and coach annual observations for the NBA clubs and 949 GM and coach observations for the NFL clubs. Analyses include a logit analysis for coach exit/retention, a logit analysis for GM exit/retention and textual analysis via topic modeling via latent Dirichlet allocation.

Findings – Results show a correlation between a coach exiting and a GM exiting simultaneously, thus amplifying the importance of these two roles in enhancing or destroying the success of a club and supporting the need for a deeper understanding of both roles, particularly the GM. The results further highlight cultural differences across clubs in terms of GM and coach turnover, a factor that often is heavily influenced by club ownership.

Originality/value – The results support the role of owners in exits, confirm the importance of winning in avoiding an exit, find a high level of interrelationship between GM and coach exits and show that past culture of firings influences future exit decisions.

Keywords Retention, Professional sport, Latent Dirichlet allocation, Coach exits, Logit analysis, Firing, GM exits

Paper type Research paper

Analysis and discussion of senior management exits from companies have a rich history, both in the business press and in the academic research literature. The few published studies of senior management exits in the sport industry, however, focus on head coach (hereafter coach) exits and concentrate on the role of on-the-field wins and losses. This paper extends that literature in five main ways. First, we examine exits of both general managers (GMs) as well as coaches. GMs are viewed within the sporting industry as a key part of club decision-making and often have longer tenures than coaches and frequently are quoted or interviewed when coach exits are announced. Often, GMs are responsible for the hiring of coaches. Second, we examine the phenomenon of both GMs and coaches simultaneously exiting (often

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called "cleaning house") for which multiple press anecdotes exist but not systematic research. Third, we document institutional patterns within sporting clubs with clubs that have, in the past, more (less) frequent exits of GMs or coaches who continue to have going forward a higher (lower) probability of exits. Fourth, we present evidence from a systematic analysis of press quotations at the time of GM or coach exit that provides richer insight into the above findings. Fifth, in contrast to most prior research on management in sporting leagues, we examine two leagues rather than a single league. The consistency across our findings for both the National Basketball Association (NBA) and the National Football League (NFL) increases our confidence in the reliability of the results we report. It also highlights one of our key findings that the GM function has more multifaceted aspects than does the coach function.

The playing side of most sporting clubs includes two key management functions: the GM function (identifying, acquiring and retaining/exiting the playing talent, coaching staff and support staff) and the coach function (playing squad including pregame preparation, game-day selections, in-game and postgame analysis). In most cases, different individuals lead the GM function and the coach function for a club. While individual clubs can differ in terms of the relative power and decision rights of a specific GM or coach, it is these two functions collectively that house the major playing side decisions of a club on an ongoing basis. We examine 159 GM exits and 269 coach exits in the NBA from 1988 to 2018, and 152 GM exits and 202 coach exits from the NFL from 1987 to 2017. The database includes all GMs and coaches who were in their jobs at the start of at least one season in the two leagues in the years being analyzed.

Traditional management/organization literature on executive exits

We structure this paper to link to research in the broader management and organization literature on senior management exits. We link to three particular strands of these literatures: agency theory, upper echelon theory and institutional logics theory. A research hypothesis is developed for each. To probe these three hypotheses, both quantitative and qualitative datasets were built and examined. Several of our findings reinforce those in the traditional management literature showcasing that the sports industry has several key characteristics that have been well documented in studies of a broader set of industries. We also highlight areas where more research can shed further insight into sporting club decisions on player side management exits.

Agency theory and management exit frequency

Agency theory is the framework that is most extensively used in many studies on senior management exits. A 2022 survey paper by Berns, Gupta, Schnatterky and Steele examined 179 articles published between 1985 and 2020 on management dismissals. The authors report that "the most prominent theory in the literature on CEO dismissal, accounting for approximately 50% OF CEO dismissal studies, is agency theory" (p. 374). Holmstrom (1979, 1982) outlines the structure of the principal–agent relationship where agents are evaluated on their ability to deliver performance relative to the goals of the principal.

In this study of GM and coach exits in the NBA and the NFL, the principal is the club owner, and the agents are the GM and the coach. Many different goals have been discussed regarding the goals of sporting club owners. One published classification of different goals of sporting club ownership is the "eight Ps" of performance, profit, platform, preemptive, purpose, profile, power and passion by Foster *et al.* (2020). While this classification has a large list, the authors note that performance (i.e. winning on the field) is often a primary motive. Al Davis, the long-time owner of the NFL's Oakland Raiders, expressed this as "Just Win, Baby!" Coaches likewise stress winning as a driving factor in overall team success. The phrase "winning isn't everything; it's the only thing" is attributed to the UCLA football coach Sanders (from a Los Angeles Herald-Express newspaper interview in 1953) and has been

repeated many times by other coaches, including legendary Green Bay Packers football coach Vince Lombardi. A related quote by NFL coach and commentator John Madden is as follows: "I've always said winning's the great deodorant, and conversely, when you have a bad record, everything stinks, and everything starts to unravel, and everything falls apart" (Grobeck, 2022). Based on agency theory, we investigate the following hypothesis.

H1. Coaches and GMs in clubs with a lower (higher) winning record on the sporting field exhibit a higher (lower) likelihood of being exited.

Upper-echelon theory (UET) and management exit frequency

The GM-coach relationship is an interdependent one, with the quality of the talent hired and retained by the GM impacting the likelihood of on-the-field wins and the quality of the coaching impacting the perceived quality of the hiring and retention decisions made by the GM. UET is a strand of the management literature that looks at the broader composition of a management team and not just the CEO. UET is based on the notion that "organization outcomes-both strategic and effectiveness-are viewed as reflections of the values and cognitive bases of powerful actors in the organization" (Hambrick and Mason, 1984, p. 193).

One strand of UET research examines management exits and the prompts to multiple exits of "powerful actors." Barron *et al.* (2011) use UET to examine the simultaneous exits of multiple executives when decisions by companies are made to discontinue an area of their operations: "discontinued operations are associated with a CEO departure only if at least one other top management team (TMT) member leaves the firm with the CEO. This result demonstrates the importance of management teams in determining the firm's real investment strategy" (p. 911).

The sport management literature has noted the interdependence between the GM and the coach functions. One example is the work of Peters *et al.* (2020) who research Major League Baseball clubs. A second example is the Foster and O'Reilly (2020) survey of sporting executives on the relative importance of different pairwise stakeholder relationships on the achievement of on-the-field objectives. The six stakeholders examined were owner, GM, coach, players, business executive and fans. The top five pairwise rankings out of fifteen combinations for positively achieving on-the-field objectives were (1) owner–GM, (2) GM–coach, (3) coach–player, (4) GM–player and (5) owner–coach. The top five pairwise rankings for negatively promoting on-the-field objectives were (1) owner–GM, (2) GM–coach, (3) owner–coach, (4) coach–player and (5) GM–player. These rankings highlight the owner (the principal) and two key agents (the GM and the coach), with regard to impacting the achievement of on-the-field objectives.

The general press often uses the "cleaning house" phrase to describe the simultaneous exiting of the GM and the coach. One example comes from the 2022 decision by the NFL's Chicago Bears to fire both their GM and their coach with a media report (Gannavarapu, 2022) describing the event as the "Chicago Bears clean house" and "a complete restructure." Of the 269 NBA coach exits identified in our database, 4.8% mechanically involve a simultaneous GM exit as they are the same individual. These observations were excluded from the analysis. In 26.0% of NBA coach exits, there is also a concurrent GM exit where different individuals have the coach and GM roles. Of the 202 NFL coach exits, 11.4% mechanically involve a coach that is also the GM. These observations were also excluded from the analysis. In 28.7% of NFL coach exits, there is also a GM exit where different individuals have the coach and GM roles. To date, the sport management literature has not systematically probed this linkage between GM exits and coach exits, which informed our second research hypothesis, as follows.

H2. The likelihood of a GM (coach) exit is increased if there is a simultaneous exit of a coach (GM).

Institutional logic theory and management exits

Organizations develop their own institutional logic such that the same situation is not handled similarly by different organizations. This is known as institutional logic theory (ILT). Thornton and Ocasio (1999) define "institutional logics" as "the socially constructed, historical patterns of cultural symbols and material practices, assumptions, values, and beliefs by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their daily activity" (p. 804). Examples of ILT research include (1) Lounsbury's (2011) study of whether trustees from different locations differ in the contracts they make with professional money managers, (2) Almandoz's (2014) research on how local bank founders with steeped in a financial logic differ in their risk behavior from founders motivated by a community logic and (3) Pahnke *et al.*'s (2015) study of how different kinds of funding partners influence early-stage firms in their search for innovation.

In the professional sporting club setting, these different logics can result in clubs having different frequencies by which GM and coach exits occur. The previously noted Foster and O'Reilly (2020) survey of sporting executives highlighted the perceived pivotal role that an owner plays in building a productive or destructive relationship with other stakeholders for achieving on-the-field objectives. Each of the top three most important pairwise relationships out of the fifteen possible included one or two of the owner, the GM or the coach. Owners of sporting clubs come from different backgrounds and heritages. Owners in sporting clubs also have different reputations for the culture they create as regards tolerating short-run periods of many losses. They also have differing reputations for the level of active involvement they seek in many key playing-side decisions. In this paper, we use prior behavior (i.e. the club's past propensity to exit GMs or coaches) as a proxy for an organization's "institutional logic" when probing the likelihood of a current GM or coach being retained or exited. As documented in this paper, there are very sizable differences across clubs in the frequency of their GM and coach exits, leading to the third research hypothesis.

H3. The likelihood of a GM (coach) exit is increased (decreased) if the club has in the past exhibited a higher (lower) propensity to exit GM's (coaches).

Sporting club research on general managers and coaches

The existing literature relating to club sporting-side exits has focused on coach exits reporting that clubs with a lower (higher) winning on-the-field record are found to exhibit a higher (lower) number of coach exits. The work of both Allen and Chadwick (2012) for NFL coach exits and Wangrow *et al.* (2017) for coach exits in the NBA support this. Related research on coach winning-on-the-field performance includes Pfeffer and Davis-Blake (1986), Soebbing and Washington (2011), Maxcy (2013) and Soebbing *et al.* (2015).

GM exits have previously not (to our knowledge) been systematically examined. Several studies have probed other GM-related topics. Wong and Deubert (2010) provide a discussion of the differing roles of the GM function and then an overview of how people holding the GM role have evolving backgrounds over time. They noted that "while . . . playing or coaching experience has declined; the education requirements have increased. Additionally, the image of a GM has changed over time, as there are younger GMs now than ever before and increasing minority representation" (p. 47). Juravich *et al.* (2017) examined hypotheses about GM-related variables that could explain differences in NBA team on-court performance. Variables associated with higher GM performance in the Juravich *et al.* (2017) study include prior NBA experience as a player, having a higher education degree, quality of playing squad and head coach longevity. The head coach variable was included to "control for the potential impact of tacit knowledge accumulation" (p. 472), with one finding being that "head coach longevity is positively associated with winning" (p. 475).

Discussion of GM–coach relationships and exits and institutional influences on exits is found in the popular press rather than the academic research literature. The prompt to many popular press discussions is a recent GM or coach exit. This discussion may then cite one or several anecdotes related to the GM or coach being exited or to the role of the club's owner in the decision. The timing of exits in the NFL is more concentrated at the end of the regular game season (16 game season in the period examined), whereas the NBA exits often occur during the regular game season (82 game season in the period examined). The mainstream press often uses the phrase "Black Monday" to describe the NFL exits after the last game of its regular game season. An example is from 2022 in *Bleacher Report*: "Black Monday is here, bringing the annual ritual in which underwhelming NFL head coaches and disappointing general managers are dismissed following the conclusion of the regular season" (Kay, 2022).

Quantitative database

Sports-Reference is an online information provider (www.sports-reference.com) of basic and advanced statistics and resources covering multiple North American professional and college sporting leagues. We use *Sports-Reference* to identify individuals we label as the GM or coach for a club. *Sports–Reference* uses the terms "the executive in charge of player personnel" and coach. Our qualitative data confirms that most individuals reported in media as GM were classified by *Sports-Reference* as "the executive in charge of player personnel." Using this source, we built an extensive database of win–loss records for each club, GM information year by year and coach information year by year. In a small number of cases, the same person simultaneously has held both the GM and coach titles.

Operationalization of exit and nonexit

An exit of a GM or coach is operationally defined as a GM or coach who starts a given season as the GM or coach but does not start the following season as the GM or coach of the same club. A nonexit is defined as a GM or coach who starts one season and the following next season as the GM or coach of the same club. This binomial classification was determined because there are multiple paths to an exit with limited clarity and some ambiguity due in part to the club's stated reasons or the media hypothesized reasons not always capturing the underlying facts.

Consideration of interim GM or coach in the data

The NBA regular season typically comprises 82 games over a seven-month period, from October to April, and a post season with up to a maximum of 28 extra games. In contrast, the NFL, prior to 2021, held a 16-game regular season over four months, going from September to early January, and a post season with a maximum of extra 4 games. When a GM or coach exits before the end of a season, an interim person is typically appointed. This paper only includes such interim occupants in the analysis when they start the next season as the confirmed GM or coach.

Sample profile

The samples analyzed have 891 GM and coach annual observations for the NBA clubs and 949 GM and coach observations for the NFL clubs. Each observation is representative of a club playing a season in each league. The number of clubs in the NBA sample ranged from 23 for the 1987–88 season to 30 onward from the 2004–2005 season. The number of clubs in the NFL ranged from 28 in 1987 to 32 starting with the 2002 season.

The mean and median tenures of GMs and coaches in the NBA (1998–2018) and NFL (1997–2017) over the years examined in this paper are as follows:

	NBA-GM	NFL-GM	NBA-Coach	NFL-Coach
Mean	4.82 Seasons	5.27 Seasons	3.07 Seasons	4.14 Seasons
Median	4.92 Seasons	5.17 Seasons	2.89 Seasons	3.43 Seasons

Given the 30+ year time frame examined, the high occurrence of exits results in a sizable database to probe the three research hypotheses. GM tenure in the years examined is typically longer than that for coaches in both the NBA and NFL. For the GM sample, on average, each year exits occurred for 17.8% of NBA clubs and 16.0% of NFL clubs. For the coach sample, the annual averages were 30.2% for NBA clubs and 21.3% for NFL clubs. Exits mid-season are more frequent in the NBA (20.8% of GM exits, 43.9% of coach exits) than in the NFL (0% of GM exits, 20.8% for coach exits).

Table 1 highlights the broad distribution of tenure held by GMs and coaches. Tenure is measured in seasons and calculated as a proportion of the number of games in their position prior to exit divided by the total number of regular season games in a season. The analysis includes nonexiting GMs or coaches up to the end of the 2017–2018 season for the NBA and the 2017 season for the NFL to better gain insight into the relative frequency with which all clubs in the databases have GM and coach exits. Examples of long-time coaches in our

General managers

	NBA (1988–2018)		NFL (1987–2017)	
Mean	4.82 Seasons		5.27 Seasons	
Median	4.92 Seasons		5.17 Seasons	
Lowest	Philadelphia 76ers	2.58	Cleveland Browns	2.80
	Brooklyn Nets	3.10	New York Jets	3.10
	New York Knicks	3.10	Washington Redskins	3.10
	Portland trail Blazers	3.44	San Francisco 49ers	3.44
	Minnesota Timber	3.63	Carolina Panthers	3.83
	Memphis Grizzlies	3.83		
Highest	Dallas Mavericks	7.75	Dallas Cowboys	10.33
	Oklahoma City	7.75	New York Giants	10.33
	Utah Jazz	7.75	Oakland Raiders	10.33
	Chicago Bulls	10.33	Pittsburgh Steelers	10.33
	Los Angeles Lakers	10.33	Cincinnati Bengals	15.50
	San Antonio Spurs	10.33	Baltimore Ravens	22.00

Head coaches

	NBA (1988–2018)		NFL (1987–2017)	
Mean	3.07 Seasons		4.14 Seasons	
Median	2.89 Seasons		3.43 Seasons	
Lowest	Detroit Pistons	2.21	Oakland Raiders	2.21
	Charlotte Hornets	2.33	Cleveland Browns	2.55
	Philadelphia 76ers	2.38	New York Jets	3.10
	Brooklyn Nets	2.38	San Francisco 49ers	3.10
	New York Knicks	2.38	Washington Redskins	3.44
	Sacramento Kings	2.38	Buffalo Bills	3.44
Highest	Portland Trail Blazers	4.43	Houston Texans	5.33
	Houston Rockets	4.43	Carolina Panthers	5.75
	Miami Heat	5.00	Cincinnati Bengals	6.20
	San Antonio Spurs	5.17	Baltimore Ravens	7.33
	Utah Jazz	7.75	Pittsburgh Steelers	10.33

Source(s): Created by the authors

Table 1.
Average tenure per club for NBA and NFL general managers and coaches

databases who had not exited in the time periods examined include Greg Popovich (San Antonio Spurs, NBA) and Bill Belichick (New England Patriots, NFL). In summary, the results shared in Table 1 illustrate the sizable range across clubs in their relative propensity to exit GMs or coaches.

Qualitative database

An online search was conducted for each GM and coach exit. The sites searched include Sports Business Daily, Bleacher Report and ESPN.com. The full text of each commentary on each GM or coach exit was incorporated into a database for each league. Given that the GM and coach exits analyzed started in 1988 for the NBA and 1987 for the NFL, many of the GM and coach exits in the early years have a relatively sparse number of articles available online. Over time, the number of online articles commenting on exits has increased. While this expansion is partly related to the build-up of online content, it is also due to the growth of interest in sports content sites, such as *Sports Business Daily* which did not have any depth of content online until the mid-1990s, and *Bleacher Report* whose online content began in 2005.

Topic modeling and LDA

We use topic modeling to gain insight into key themes in the media reports of GM and coach exits. Topic modeling is a general approach to researching qualitative data to seek patterns. There are multiple areas where Topic Modeling has been used in business and economics related research. These diverse areas of application include (1) e-commerce (Mou *et al.*, 2019), (2) organizations (Vilchez-Roman *et al.*, 2019), security analyst reports (Huang *et al.*, 2018) and social networking (Luo *et al.*, 2017). One topic of previous research germane to this paper is studies examining patterns over time, such as (1) economic history (Wehrheim, 2019), (2) engineering management (Kim and Chen, 2018), (3) quality (Carnerud, 2017), (4) small business (Weiss and Muegge, 2019) and (5) technology and innovation (McPhee *et al.*, 2017; Lee and Kang, 2018).

Latent Dirichlet allocation (LDA) is the topic modeling algorithm used in many papers seeking to understand or uncover hidden semantic patterns in big unstructured datasets. Topic areas are wide-ranging, including areas such as e-learning (Gurcan *et al.*, 2021), travel (Sutherland *et al.*, 2020) and pandemics (Cheng *et al.*, 2022). Ganegedara (2018) notes that "Topic modelling refers to the task of identifying topics that best describes a set of documents. These topics will only emerge during the topic modelling process (therefore called latent)" (para 1). During this process, LDA maps keywords to topics that best represent the data. There are multiple benefits from using LDA over the heuristic approach with preset categories used for many years in research. First, LDA facilitates replication by other researchers. Once a specific database is identified and a specific LDA software is identified, replication is facilitated. Second, LDA avoids the bias often found when heuristic approaches to data classification are used. Topics that are expected by a researcher to be predominantly found in the data can be either supported or rejected. Moreover, topics can be identified that are unexpected which is especially important in emerging research areas. Third, LDA software can accommodate large databases in an efficient way.

Analysis of hypotheses

Coach analysis

Table 2 reports the results of a logit analysis for coach exit and retention with a binominal dependent variable that is coded as 0 in season t if the coach starts in season t but does not start in season t+1 and is coded as 1 if the coach starts in season t and season t+1 for the same club. This analysis was completed for each league (NBA, NFL) as well as for a pooled

	NBA	NFL	Pooled
Panel A: coach regular season win–loss record in year of exit			
Intercept	<2e-16***(+)	<2e-16***(+)	1.30e-07***(+)
Year	0.0399*(+)	0.257	0.0296*(+)
Playoff progression t	0.2060	0.196	0.1728
Regular season t win–loss %	0.0005***(+)	2.36e-08***(+)	1.06e-11***(+)
GM retention/exit t	0.0005***(+)	1.45e-05***(+)	1.64e-08***(+)
Coach turnover history	8.77e-13***(−)	9.90e-12***(−)	<2e-16***(−)
League	N/A	N/A	0.2942
Accuracy	0.751	0.839	0.797
Sensitivity	0.372	0.361	0.360
Panel B: cumulative win–loss record of coach			
Intercept	<2e-16***(+)	<2e-16***(+)	5.94e-07***(+)
Year	0.0327*(+)	0.185	0.0178*(+)
Playoff progression t	2.21e-08***(+)	5.26e-07***(+)	2.50e-13***(+)
Cumulative win–loss %	0.0090**(−)	0.838	0.0800(−)
GM retention/exit t	0.0006***(+)	6.39e-07***(+)	6.67e-10***(+)
Coach turnover history	<2e-16***(−)	4.48e-14***(−)	<2e-16***(−)
League	N/A	N/A	0.3815
Accuracy	0.744	0.821	0.786
Sensitivity	0.338	0.300	0.302

Source(s): Created by the authors

Table 2.
Coach retention/exit logit analysis

sample including both leagues. The independent variables include year, playoff progression, regular season win–loss, GM retention and coach turnover (see below for descriptions of these variables).

Panel A in Table 2 reports the regular season win–loss percentage in that season for coaches who coach to the end of the season and the regular season t win–loss percentage to the point of exit for those exiting before the end of the regular season. Panel B of Table 2 reports the cumulative regular season win–loss percentage from the time the coach was hired to the end of regular season t for coaches who coach to the end of season t and up to time of exit for those exiting before the end of the regular season.

In Table 2, the year variable refers to the timing of the current season. The playoff progression is a score based on playing/advancing in the playoffs for season t. The variable is coded as 0 if the club does not make the playoffs, 1 if they lose in the first round, 2 if they lose in the second round, 3 if they lose in the third round, 4 if they lose in the fourth/championship round and 5 if they win in fourth/championship round. For coaches or GMs exited before the end of the regular season, the playoff progression variable is coded as a binomial variable. The GM retention variable in Table 2 is coded as 0 if the GM was in place at the start of season t but is not in place at the start of season t+1, and coded as a 1 if the GM is in place at the start of t and t+1. Coach turnover is coded as the number of coaches hired by the club in the ten years prior to the start of year t. For the pooled NBA and NFL sample, a league dummy variable is of 0 if NBA and 1 if NFL is included.

GM analysis

Table 3 reports the results of the logit analysis for GM exit/retention. This analysis was completed for each league (NBA, NFL) as well as for a pooled sample including both leagues.

The dependent variable and independent variables are coded in the same manner as for Table 2 (coaches) but with the data being the GM (not the coach). A few of the independent

	NBA	NFL	Pooled
Panel A: GM win–loss record in year of exit			
Intercept	<2e-16***(+)	<2e-16***(+)	<2e-16***(+)
Year	0.0084**(+)	0.0011**(−)	0.1697
Playoff progression t	0.2971	0.1429	0.0791(+)
Regular season t win–loss %	0.8602	0.0815(+)	0.2973
Coach retention/exit t	4.6e-06***(+)	7.13e-07***(+)	1.56e-12***(+)
GM turnover history	<2e-16***(−)	0.5597	1.25e-11***(−)
League	N/A	N/A	0.6421
Accuracy	0.832	0.839	0.837
Sensitivity	0.167	0.034	0.065
Panel B: cumulative win–loss record of GM			
Intercept	<2e-16***(+)	<2e-16***(+)	<2e-16***(+)
Year	0.0087**(+)	0.0011**(−)	0.1723
Playoff progression t	0.2941	0.0171*(+)	0.0139*(+)
Cumulative win–loss %	0.9732	0.1977	0.5085
Coach retention/exit t	3.33e-06***(+)	2.21e-08***(+)	4.27e-14***(+)
GM turnover history	<2e-16***(−)	0.6210(−)	2.21e-11***(−)
League	N/A	N/A	0.6500
Accuracy	0.832	0.842	0.840
Sensitivity	0.167	0.042	0.068

Source(s): Created by the authors

Table 3. GM retention/exit logit analysis

variables are adapted to focus GM. First, coach retention is added and coded a 0 if the coach is in place at start of year t but not the coach in place at the start of year t+1 and coded a 1 if the coach is in place for start of t and t+1 seasons. Second, GM turnover is coded as the number of GMs hired by the club in the ten years prior to the start of year t.

Hypothesis 1 analysis

The first hypothesis analyzed put forth that coaches and GMs in clubs with a lower (higher) winning record on the sporting field exhibit a higher (lower) likelihood of being exited. Panel A in Table 2 (coach) and Table 3 (GM) provide results for a given season t on regular season win–loss and playoff progression. Panel B includes cumulative win–loss and playoff progression for the coach and the GM.

For coach exits, the result in Panel A of Table 2 show that regular season win–loss is significant and positive, while the season t playoff progression is insignificant, indicating that the (current) regular season win–loss record is the more important variable in predicting a coach exit. Panel B in Table 2 reports that current season playoff progression is significantly positive while the cumulative (career with club) win–loss variable is significant at the $p < 0.05$ level for the NBA sample and insignificant for the NFL and pooled samples. These results suggest a recency effect regarding the role of current season win–loss record in predicting coach exits.

For GM exits, Panel A of Table 3 reports that neither the current regular season win-loss record nor playoff progression is significant. Panel B of Table 3 reports that when the cumulative win–loss record of the GM is combined with current season playoff progression, there is still no strong evidence that the win–loss variables predict GM exits. Current season

playoff progression is significantly positive only at the 0.1 level for the NFL and pooled samples and not significant for the NBA sample.

Hypothesis 1 is partially accepted as there is a strong relationship between team performance and coaching exits. However, results for Hypothesis 1 highlight that win–loss has strong support for the coach exit predictions but not for GM exit predictions. As will be discussed later in this paper, the modeling of the factors associated with GM exits appear to be more heterogeneous (i.e. based on a broader set of variables) than for coach exits. The inference that the coach retaining their job is related more to win–loss than the GM retaining their position is an important contribution.

Hypothesis 2 analysis

The second hypothesis is accepted, with the finding that the likelihood of a GM (coach) exit is increased if there is a simultaneous exit of a coach (GM). As noted, this is sometimes referred to in the media as "cleaning house." Hypothesis 2 predicts a positive coefficient on GM retention for the coach exit analysis in Table 2 and a positive coefficient on coach retention for the GM exit analysis in Table 3. The logit model results strongly support this prediction and Hypothesis 2. The GM tenure variable in Table 2 is significantly positive, consistent with a coach being more likely to be exited (retained) if the GM is exited (retained) in the same year. The coach tenure variable in Table 3 is significantly positive, consistent with a GM being more likely to be exited (retained) if the coach is exited (retained) in the same year. These results highlight the value in this analysis of examining both coach and GM exits in the analysis. Prior research on coach exits in sporting organizations did not systematically probe this important interaction between two key playing side executives in exit decisions.

Hypothesis 3 analysis

The third hypothesis tested is that the likelihood of a GM (coach) exit is increased (decreased) if the club has in the past exhibited a higher (lower) propensity to exit GM's (coaches). The results find a negative coefficient on coach turnover history in Table 2 and a negative coefficient on GM turnover history in Table 3, thereby supporting Hypothesis 3. For each of Panel A and Panel B in both Tables 2 and 3, this coefficient is significantly negative. This result is consistent with clubs continuing their past pattern of frequent (less frequent) turnover of coaches and GMs.

Insights from qualitative analysis: topic modeling

The reliability of topic modeling increases with the size of the database examined. Thus, the NBA and NFL qualitative databases of media quotations were pooled for the Topic Modeling. Three different samples were examined—(1) all coach quotations, (2) all GM quotations and (3) all coach and GM quotations combined. The quotations fell into two different topic areas in each of the (1) to (3) samples.

Table 4 presents the top 15 words observed in each of the two LDA topics. We label Topic 1 as "Win-Loss Record" and Topic 2 as "Beyond Win-Loss Record." Many of the words under Topic 1 have an underlying linkage to on-the-court or on-the-field playing success, including win, winning, loss, lost, as well as related words like record, playoffs, super and bowl. There is less underlying homogeneity in the words under Topic 2. Several of the Topic 2 words relate to contracting (deal, terms, signing), some to owners (Kroenke, Blank), and others refer to management positions (president, CEO). Topic 1 has 74.87% of the pooled coach quotations, while Topic 2 has 25.13% of the pooled coach quotations. In contrast, for GMs, Topic 1 has 50.40% of the pooled quotations and Topic 2 has 49.60% of the pooled quotations. This result

Coach (74.87%)	GM (50.40%)	Pooled (62.65%)
Panel A: topic 1 – win–loss record		
Record	Personnel	Record
Playoffs	Player	Playoffs
Defensive	Bowl	Defensive
Offensive	Super	Offensive
Super	Fans	Super
Bowl	Fire	Win
Win	Won	Lost
Lost	Playoff	Fans
Loss	Lost	Winning
Winning	Win	Playoff
Playoff	Final	Loss
Won	Winning	Won
Final	History	Fire
Fire	Success	Losing
Losing	Offseason	History
Coach (25.13%)	GM (49.60%)	Pooled (37.35%)
Panel B: topic 2 – beyond win–loss record		
Deal	Deal	President
Hire	Defensive	Player
Kroenke	Tenure	Personnel
Biggest	Losing	Deal
Dantoni	Hire	Willing
Blank	Loss	Daily
Terms	Chance	Terms
Means	CEO	Answer
Pressure	Gundy	Timing
Official	Signing	Quit
Spot	January	Discuss
Consider	Successful	Live
Rumors	Plan	Issue
Meet	Needs	Fit
Happy	Club	Community

Source(s): Created by the authors

Table 4.
LDA analysis of public media descriptions of coach and GM exits

reinforces the findings in Tables 2 and 3 that win–loss record (especially in the current season) is a more significant predictor for coach exits than for GM exits.

To provide richer insight into the topic modeling/LDA analysis, Table 5 shows illustrative quotes from the two categories in Table 4 for coach and GM exits. Each quotation includes a correlation variable that indicates the strength of its association with its topic category.

Many different aspects of the win–loss variable are noted in the quotations analyzed. These include regular season win–loss record, failure to achieve a post season berth and early exit from the playoffs. In Table 2, Panel A results show that when the focus is exclusively on the current season, it is the coach's regular season win–loss record that is significant. However, when the focus is on the regular season record over the full tenure of the coach, it is playoff progression in the current season that is significant. Thus, the lower the progression in the playoffs, the more likely a coach is to be exited. We interpret this as meaning that more recent win–loss information is more important than longer term records in coach exit decisions.

As noted previously, Table 3 reports much less support for the win–loss factor being as significant a factor for GMs. As noted above, the "Beyond Win-Loss" topic is challenging to label. The "beyond' term recognizes the heterogeneity across many of the 15 words under Topic 2 in Table 4, where the words do not have the same singular unifying focus as we observed for Topic 1. The quotes for Topic 2 in Table 5 and the broader sample reinforce the heterogeneity in Table 4, Topic 2 words. There is a very diverse set of stated reasons for a coach or GM exiting, including commentary related to poor fit with the organization, friction with an owner, friction with star players, friction with fans and perceived aggressive attempts by coaches to have owners do early renewals of contracts. Adding to the heterogeneity are a small number of Topic 2 cases where it appears that a GM or coach exits on their own terms as opposed to having been exited by a key decision maker in the sporting club. Reasons for these voluntary exits were found to include health-related issues or a move to a new opportunity. We caution here that in some cases what publicly appears as a voluntary exit may have an underlying "push" aspect. The higher percentage of quotes in Topic 2 for GMs reflects the greater preponderance of the above diverse factors affecting GM exits than for coach exits.

Discussion and directions for future research

This paper extends prior research on coach exits in sporting clubs and takes a multi-sport approach to probe three hypotheses linked to the traditional management and organization literatures. One key finding is highlighting multiple factors that impact the likelihood of GM and coach exits. Two variables not previously studied were found to be significant in our multivariate logit tests–the simultaneous exiting of both the GM and the coach, and the prior frequency of exits/turnover in each position. A second key finding is the stronger relationship between current period win–loss performance for coaches than GMs. Qualitative analysis of media quotations at the time of GM and coach exits highlighted the complexity of these decisions, suggesting that future research needs to model these decisions better with the explanation for GM exits being more involved than for coach exits.

Our results also highlight cultural differences across clubs in terms of GM and coach turnover, a factor that often is heavily influenced by club ownership. This finding is very important to multiple stakeholders. For example, GMs or coaches can factor into their salary and contract length negotiations differences in the likelihood they will be able to remain in their positions. Clubs with a track record of very frequent GM or coach turnover will likely find potential applicants wanting higher up-front guarantees or clauses that require full payout if an early exit does occur. A related reason is that coaches and GMs with strong track records may avoid joining clubs with prior high turnover and hence lower skilled persons are likely available to these past high turnover clubs for hiring. Free agent players who prefer to play for a club with a targeted GM or coach can better assess the likelihood that their preferred GM or coach will remain with the club given the past track record of the club in retaining GMs or coaches.

Future research on GM and coach exits should be part of a broader research agenda on the dynamics of key functional positions in a sporting club and on those who occupy them. A list of potential areas of future research include some of the following. First, a determination of the appropriate theory lens by which to view this topic is needed. As the current research shows, a number of theories can inform how we look at senior management exits in this context, with a need to understand the topic conceptually evident. Second, further study about the impact of a change of ownership on the key functional areas and decisions about the people in the GM and coach roles is needed. The quotations in our database include multiple examples of a new owner quickly exiting a coach or GM after purchasing a club. Studies on this topic should include work examining the outcome of such immediate changes on subsequent team performance.

Table 5. LDA results examples by topic for GM and coach

Topic	Stakeholder	Sample illustrative quote	Correlation to topic
"Win-loss record"	GM exits	○ "After a poor 2014 NFL season that saw the New York Jets once again fail to reach the playoffs, the team fired general manager John Idzik on Monday. Allowing the team to go into the season with Dee Milliner and Dimitri Patterson at cornerback, two players who weren't good enough or suited to Rex Ryan's defensive scheme, stands out. He drafted Geno Smith in 2013, who has been a disappointment this season. He signed Michael, who was arguably even more disappointing this season. The team's 2014 draft class in general underwhelmed this season, and Idzik traded for Percy Harvin in midseason, a player who simply hasn't produced as much as expected"	0.803
		○ "Chiefs Chair and CEO Clark Hunt addressed last month's firing of GM John Dorsey. Hunt said, "The decision was mine. . . It was a difficult decision, but after a thorough evaluation of our football operations, in the long-term interests of the Chiefs I felt it was best to make a change"	0.744
		○ "Donnie Walsh's career as an Indiana Pacers executive will end after this season after 24 years with the Pacers . . . The past three seasons have been littered with losing, personnel changes and off-court issues that have damaged the reputation of a franchise that has taken pride in doing things the right way. The Pacers have the league's lowest attendance record, and owner Herb Simon said recently everything except the ownership was subject to change"	0.690
	Coach exits	○ "Richie Petitbon was fired Tuesday after only one season as coach of the Washington Redskins. The Redskins said that Petitbon was dismissed following a meeting with club owner Jack Kent Cooke Tuesday morning. . . The Redskins finished last in the National Conference East with a 4–12 record, the team's worst finish since 1963"	0.995
		○ "The Houston Texans Monday announced the firing of head Coach Dom Capers. Capers said: "I understand this business and I understand your job as a head football coach is to win games." . . . "After a disappointing 2–14 campaign this season we had to make a change," said Texans owner Bob McNair"	0.992
		○ "Randy Wittman was fired by the Cleveland Cavaliers on Thursday . . .. His team's lost 102 games in two dismal seasons. Paxson [GM] said he and owner Gordon Gund had met in the past few days and had agreed on the firing"	0.936
		○ "The Golden State Warriors, who slumped to a 30–52 record this season and failed to make the playoffs for the third straight year, fired coach Rick Adelman and his assistants Monday. The firing of Adelman, who had a 66–98 record in two seasons with the Warriors, had been expected. "I pretty much knew it was coming," Adelman said"	0.871

(*continued*)

Table 5.

Topic	Stakeholder	Sample illustrative quote	Correlation to topic
"Beyond Win-Loss Record"	GM exits	○ "The [Philadelphia 76ers] Sixers announced [GM Brian] Colangelo agreed to resign Thursday in the aftermath of an extensive investigation detailing his alleged use of burner Twitter accounts to criticize his team's own players, coaches and coverage. The law firm hired to investigate the matter revealed Colangelo's wife, Barbara, admitted to establishing and operating the accounts," Ben Detrick of The Ringer Detrick detailed the head-turning tweets, many of which emanated in response to criticism Colangelo received for trades or other moves. Some of the tweets bashed his predecessor, Sam Hinkie"	0.832
		○ "The Magic yesterday announced that . . . GM Otis Smith and the club "agreed to part ways" after six years . . .. Many NBA observers believed that the "only chance" the Magic had to keep [star player] C Dwight Howard was "to let Van Gundy and Smith go"	0.701
	Coach exits	○ "One piece of the Los Angeles Clippers' decision not to re-sign Vinny Del Negro was point guard Chris Paul's refusal to back his head coach, reports CBS Sports' Ken Berger. Del Negro . . . went 128–101 in three seasons with the Clippers"	0.722
		○ "In the offseason [GM Mark] Jackson was fired [by the Golden State Warriors]. Considering Jackson presided over one of the most successful stretches of Warriors basketball in decades, the decision to part ways with him was seen as surprising. Rumors about his poor relationship with management and with his assistant coaches were out there but no one knew how bad things had gotten . . .. Owner Lacob said. "He did a great job, and I'll always compliment him in many respects, but you can't have 200 people in the organization not like you"	0.705
		○ "Reigning Coach of the Year Denver Nuggets' George Karl has been fired with one year left on his contract a week ago. Karl just guided to its best NBA regular-season record (57–25). He discussed the move with team president Josh Kroenke. Karl said he didn't demand an extension—I said to Josh, 'I will coach this team next year, I'm excited about coaching this team next year, but in the last year of a contract, there are things that could happen. I didn't say they would happen. I said they could happen"	0.666
		○ "With Bill Parcells announcing his resignation as coach of the Cowboys yesterday, he leaves one year remaining on a contract that would have paid him about $5.5 M. Sources said that Parcells "wanted an extension" and that it "was being discussed but ultimately fell through." Buck Harvey writes when Jones hired Parcells in '03, "he needed something solid to sell. . . Now Jones has a new stadium on the way, with [QB Tony] Romo and [WR Terrell Owens] to market. He doesn't need to pay millions for the publicity a name coach would bring"	0.640

Source(s): Created by the authors

Additional exploration is needed that assesses the quality of player acquisition and exiting decision-making by GMs. Multiple quotations in the LDA analysis refer to exits of GMs being associated with draft choices with bad outcomes. This is a challenging area for research. Even draft choices that subsequently become elite players (often) do not mature over the same time frame as owner decisions about GMs related to their draft success. Public criticism of GM draft choices invariably uses very short time horizons. A related point here is that the playing performance of drafted players will be a joint product of the playing squad they join and the coaching they receive. In addition, a key element in this area of study is assessing what would have been the performance of players that the GM chose not to draft when they could have made that selection. Yet another challenge is assessing the quality of a GM's negotiating acumen when they make decisions about salary levels, guaranteed payments and the length of contracts signed, where data are very challenging to obtain.

Another important research area is assessing the impact on exits of differences in how GMs or coaches embrace or more slowly recognize industry changes that may have the potential to transform win–loss dynamics. Data analytics in areas such as playing talent identification, in-game decision-making and health and fitness protocols have been differentially embraced and differentially executed by different GMs and coaches, which offers opportunities to examine the impact of this differential adoption on team performance as well as GM and coach longevity. Another area here is innovations in playing styles, such as the marked shift in the NBA to players who have high three-point shooting ability (see Foster *et al.*, 2021). However, not all of the "so-called data analytic innovations" or "new playing strategies" result in their promised outcomes. Research here faces the same challenges that entrepreneurship studies face when evaluating the differential adoption by companies of so-called disruptive technologies that in some cases result in minimal disruption or impact.

The assessment of the impact of organization changes in the management structure of sporting clubs also requires the attention of scholars. Historically, the two function organization structure of GM and coach has been dominant in sporting clubs. However, several sporting clubs are now moving to a three function structure by adding a third function, often called President of Operations or Chief Strategy Officer for the given sport. The new position typically either sits above or alongside the Coach and/or GM. An example is the Cleveland Browns (NFL) with the appointment in 2016 of Paul DePodesta as the Brown's Chief Strategy Officer, while maintaining their GM and Coach positions. In 2020, ownership of the Browns renewed DePodesta's contract to better align it with the contracts of their coach and GM, DePodesta "guided the search that led to their hiring in January 2020" (Ulrich, 2020). The San Fan Francisco Giants (MLB) similarly embraced this three function structure when, in 2018, Farhan Zaidi was appointed President of Baseball Operations with oversight over both the GM and Coach functions.

Not all such organizational structure changes result in the desired outcomes. An example is the role of Phil Jackson when appointed in 2014 as President of the New York Knicks, sitting above the Knicks GM and coach, with major decision rights over player acquisition and contracting. Three years later, the Knicks owner made the decision to exit Jackson mid-stream into his contract. The *New York Times* reported that "owner James Dolan said: 'After careful thought and consideration, we mutually agreed that the Knicks will be going in a different direction.' . . . the Jackson era in New York came to a spluttering unceremonious end . . ..In three full seasons under Jackson, the Knicks stumbled to a combined record of 80–166 and never sniffed the postseason" (Cacciola, 2017). Personality conflicts with key players and the signing of large contracts for players who subsequently underdelivered were cited as reasons for the Jackson exit as well as the Knicks win–loss record.

Reports on personality conflicts among key stakeholders as a factor in sporting club underperformance are often found as anecdotes in the media, albeit typically without well-documented evidence or analysis. These findings were common in our LDA analysis and data. Research on the role of interpersonal dynamics among key stakeholders (such as owner,

GM, coach and players) as a factor in explaining sporting club success or failure (however defined and quantified) would be of much interest. This is a challenging but highly important area for the sports management literature. Research here could be leveraged by incorporating advances in the organization behavior literature on group dynamics and the different ways that culture can shape how tensions and how disputes are productively managed in organizations.

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