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# Tenure matters for team cohesion and performance: The moderating role of trust in leadership

# ABSTRACT

This study examines team's performance as a function of team's boundary conditions (team tenure, cohesion and trust in leadership). Specifically, we propose a moderatemediation model to explain whether they translate into objectives measure of future team performance. Sample for the study consist of 680 players belonging to 73 teams in professional and top amateur basketball leagues. We find support for the mediating role of team cohesion conditioned upon different levels and dimensions of trust (high cognitive and low affective trust in the coach). Findings provide a fine-grained perspective on explaining trust's contribution in fostering team's dynamic and how team's tenure translates into future team performance. Practical implications of this study suggest the importance for leaders to understand how team dynamics articulate perceptions of cognitive trust in influencing team performance. Suggestions for future research are also addressed.

# Key words:

Affective Trust in Leadership, Cognitive Trust in Leadership, Team cohesion, Objective future performance, Moderated-mediation.

# Tenure matters for team cohesion and performance: The moderating role of

# trust in leadership

Immediately after winning the final of the 2019 Roller Hockey World Cup, the hero of the game, the Portuguese guardian Ângelo Girão said: 'we are a real team ... we are a family'. The idea that team cohesion is a fundamental aspect of sports performance is not only well established in the sports world, but also well documented in research (Beal, Cohen, Burke, & McLendon, 2003; Castaño, Watts, & Tekleab, 2013). Team cohesion can be defined as 'a dynamic process which is reflected in the tendency for a group to stick together and remain united in the pursuit of its goals and objectives' (Carron, 1982, p. 124). Members of a team can develop strong bonds to other team members and to the team itself. This attachment to the group or attractiveness to its members, tends to promote higher levels of team performance (Beal et al., 2003; Mullen & Copper, 1994). However, high cohesion in teams not necessarily predicts high productivity (e.g. Wise, 2014), and although the cohesion-performance relationship has been thoroughly analyzed, its boundary conditions have been subject to little empirical research. We aimed to address this gap by testing a model in which different facets of trust in the leader moderate the mediation of team cohesion between team tenure and performance.

Several scholars have established a positive effect of team tenure on cohesion (Michel & Hambrick, 1992), and on performance (Kozlowski, Gully, Nason, & Smith, 1999). We argue that cohesion serves as a mechanism to improve the performance of tenured teams. Additionally, in accessing the boundary conditions for the cohesion-performance relation, scholars have focused on the nature and the size of the team (Mullen & Copper, 1994), and gender composition (Carron, Colman, Wheeler, & Stevens, 2002). We argue that beyond team characteristics, there are cognitive and affective elements

affecting the relation cohesion-performance. We claim that the type of trust – affective or cognitive – has different effects on the way team performance is influenced by cohesion.

Aiming to continue shedding light and elucidating how team dynamics translate into team effectiveness and performance, this study makes two contributions to the team and leadership literatures. First, the study explores the extent to which team cohesion mediates the relationship between team tenure and performance in sports teams, suggesting that when team members work together they develop internal bonds that ultimately will increase team performance. Second, the paper evaluates trust on the team leader as a moderator on the effect of cohesion on performance. In particular, the study provides a fine-grained perspective on the trust's contribution fostering team's dynamic. We build on the literature that operationalizes trust as a multifaceted construct comprised of cognitive and affective dimensions (Cummings & Bromiley, 1996; McAllister, 1995; Webber & Klimoski, 2004), to argue that, in the context of interactive sports teams, where objective team performance is most critical, the coach has to specifically work on the cognitive aspect of trust. While recent studies have suggested that the effects of incompetent behavior resulting in poor performance are less detrimental to a leader than integrity in the public's eye (Lin, Che, & Leung, 2009), we offer a different explanation for the effect of trust on leaders within teams, further contributing to the literature on trust and leadership.

### Theoretical foundations and hypotheses development

# Team tenure and performance

Team tenure can be defined as the length of time team members interacted with each other (Katz, 1982). Although several scholars argue that team tenure has a positive impact on performance (e.g. Kozlowski et al., 1999), meta-analytical studies suggest that the implications of this relationship are still inconclusive (Bell, Villado, Lukasik, Belau, & Briggs, 2011). By spending time together, team members develop coordination mechanisms and remove some process barriers such as collecting information about other team members, allowing them to focus on task performance (David, Mohammed, Joseph, Anna, & Scott, 2003). Team members develop a shared understanding of tasks and learn to anticipate others reactions (Pelled, Eisenhardt, & Xin, 1999). Moreover, team tenure enables the development of common perspectives, facilitates knowledge sharing, and promotes specialization among team members (Hirst, 2009). But there is a negative side to team tenure.

Using data from the American National Basketball Association, Berman, Down and Hill (2002) found that team tenure positively affects team performance through tacit knowledge accumulation. However, the authors argue that shared experience may also lead to knowledge ossification, whose negative effects on performance may outweigh the benefits of collective knowledge accumulation. In fact, some authors argue that there is a nonlinear relationship between team tenure and team performance. For example, Katz (1982) asserts that teams that spent a long time working together might become less adaptive and innovative since they might increasingly rely on the group's own expertise. Ultimately, the influence of team tenure on performance depends on the extent to which it translates into constructive interpersonal interactions, based on trust and social acceptance (Koopmann, Lanaj, Wang, Zhou, & Shi, 2016).

# Team tenure and cohesion

The impact of team tenure on team cohesion is less inconclusive. Team tenure duration can even be considered a proxy for cohesion level, since with time team members share experiences and develop a common vocabulary increasing the level of socialization (Michel & Hambrick, 1992). Members of teams that have been together for a longer time tend to be more attracted to the group and display a sounder social interaction (Smith et al., 1994). Over time and gradually, group members learn what works well, and what causes work or relational problems, and the result may be the development of habitual patterns to which members are most committed (Gersick & Hackman, 1990). The passage of time induces in teams a self-selection process in which the remaining members are those who adopt certain norms and perspectives, being willing or allowed to remain in the team (Michel & Hambrick, 1992).

## Team cohesion and performance

Team cohesion is shown to have critical relevance to team performance when the teams work in highly stressful and task oriented environments (Charbonneau & Wood, 2018), which explains why cohesion is such a vital ingredient for the success of sports (Kozachuk, Foroughi, & Freeman, 2016). The sports teams literature have found evidences that team cohesion has a positive impact on all dimensions of team effectiveness – performance, satisfaction, and viability (Hackman, 1983). Cohesive teams tend to perform better (Carron, Bray, & Eys, 2002), exhibit satisfied team members, which are willing to remain with the team (Onağ & Tepeci, 2014).

In the particular case of performance, the evidence is solid with several metaanalyses linking cohesion to performance (Beal et al., 2003; Carron, Colman, et al., 2002; Castaño et al., 2013; Evans & Dion, 1991; Mullen & Copper, 1994). Cohesive group members are willing to exert more effort in performing tasks (Bray & Whaley, 2001) for the intrinsic pleasure of completing a task that group members enjoy (Mullen & Copper, 1994). Strong cohesion has been shown to accelerate individual effort and relentlessness towards accomplishing team objectives in such a way that group actions are in harmony (Mach, Dolan, & Tzafrir, 2010). Also, from a task dimension perspective, cohesion has an impact on team process and output by influencing every members' decision making process and response rate (i.e., players would not need to spend any time worrying about themselves if they are assured of their team members' skills/willingness to watch their back). In the process of fighting together and accomplishing tasks, members of a sports team start to develop camaraderie and a sense of belongingness to the team, which further contributes to increasing team cohesion and performance (Freeman & Wohn, 2017). This effect is stronger when cohesion is driven from within the team as opposed to directed by coaches (Anderson & Dixon, 2019). According to Brawley, Carron and Widmeyer (1987), strong team cohesion encourages shared responsibility in the face of adversity and allows members to withstand the negative consequences of disruptive events.

We have seen that tenured teams tend to perform well, mostly if they are able to base their interpersonal interactions on trust and social acceptance (Koopmann et al., 2016). Concerning the relationship between tenure and performance, the literature highlights not only the importance of human capital associated with tenure, but also the social dynamics developed among team members (Steffens, Shemla, Wegge, & Diestel, 2016). Teams with high dispersion and low cohesion are characterized by poor patterns in terms of team communication which in turn, negatively influence team performance (Eisenberg, Post, & DiTomaso, 2019). In line with the work of Michel and Hambrick (1992), we argue that trust and social cohesion are characteristic to cohesive teams and, therefore, through cohesiveness team tenure will improve the likelihood of good performance. Stated formally,

*Hypothesis 1: Team cohesion mediates the positive relationship between team tenure and team performance.* 

# Trust in leader as a boundary condition

As 'a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another' (Rousseau, Sitkin, Burt, & Camerer, 1998, p. 395), trust in the leader has been argued to have a positive impact on team performance (e.g. Clapp-Smith, Vogelgesang, & Avey, 2009; Dirks, 2000). When team members trust the leader, they reduce their doubts and personal motivations and focus on achieving the team's goals (Dirks, 2000). They also increase their psychological availability (Li & Tan, 2013), or the perception that they have resources (physical, emotional and intellectual) available to perform their tasks (Kahn, 1990). Building on this perspective and the argument that the team's cohesion-performance relationships do not exist in a vacuum and are subject to pressure from a variety of sources of influence (Mathieu, Kukenberger, D'Innocenzo, & Reilly, 2015), we propose that vertical and horizontal team dynamics are tightly intertwined. Not only the links among team members are related to team performance, but also the sense of trusting the coach influences this relationship. In other words, we propose that trust in leader can manifest as a moderator, setting the context for team members dynamics – team performance relationship.

# Cognitive and affective trust in leader

Even though an unidimensional approach to trust has dominated the literature (Dirks & Ferrin, 2002), researchers have increasingly proposed a competency-based (cognitive) and an emotionally-based (affective) trust typology (e.g. Cummings & Bromiley, 1996; McAllister, 1995; Webber & Klimoski, 2004). We conceptualize cognitive trust as the confidence in others' competence; and affective trust as interpersonal care (Cook & Wall, 1980; Cummings & Bromiley, 1996; McAllister, 1995; Yang & Mossholder, 2010). As proposed by Yang and Mossholder (2010), distinguishing the two types of trust can allow a more subtle analysis of trust in leaders. While cognitive trust enables comfortable task-related exchanges, affective trust facilitates socio-emotional communication (Dirks & Ferrin, 2002). When teams trust in the competence of their leader (cognitive trust), they increase their confidence on their ability to perform

(Schaubroeck, Lam, & Peng, 2011), and when they display affective trust, they improve their commitment (Zhu, Newman, Miao, & Hooke, 2013). Following this line of argument, we expect competency-based cognitive trust in the coach to demonstrate a different pattern of influence on the cohesion-performance relationship, as compared to affective trust in the coach. As such, we propose to investigate these types of trust separately.

In the sporting context, we contend that team members' perceptions about their leaders' competences and technical skills (cognitive trust) play a critical role, which is different from the role of affective trust. Our argument is that objective performance remains the major, if not single, criterion for success in sports. As such, it is more important for the team members to believe that their coach is a top professional, rather than only building social bonds with her or him. As we have seen, when teams trust in the competence of their coach they strengthen their confidence on their capacity to perform, which means they will see more effort as directing contributing to team success. Therefore, cognitive trust in the leader will reinforce the relation cohesion-performance. The moderating effect of cognitive trust in leader constitutes the second hypothesis of this study.

*Hypothesis 2:* Cognitive trust in coach will moderate the strength of the mediated relationship between team tenure and team performance via team cohesion, such that the mediated relationship will be stronger under high cognitive trust in coach than under low cognitive trust in coach.

It has been argued that affective trust improves follower-leader cooperation (Zhu et al., 2013), within team cooperation (Ng & Chua, 2006), and promotes behavioral outcomes (Yang & Mossholder, 2010). When team members affectively trust their coach, they believe that the coach is concerned about their welfare (Dirks & Ferrin, 2002). All

these perspectives consider a positive situation – high affective trust. Let's now consider the opposite situation, i.e. when teams have a low affective trust in the leader. This implies that the leader will have little effect on team cooperation and member behavioral outcomes. There is some empirical evidence suggesting that leaders who scored low on affective trust showed high visioning behavior and higher intellectual stimulation behavior (Jacoub, 2014). Contexts of low affective trust from leaders introduce new challenges and interpersonal dynamics with the group (Hogg & Terry, 2000) that strength cohesiveness in tenured teams, thus increasing team performance. More experienced teams have established conflict management strategies, trust within members and increased perceptions of respect (Koopman et al., 2016; Schulte, Cohen, & Klein, 2012). In scenarios of low affective trust from leaders, these tenured teams are more able to extend cooperation (and cohesion) within the group members in a way that complements the lack of affect provided by the leader. Then, in such situations the relevance of cohesiveness to performance becomes critical since by sharing responsibility, teams will be able to face adversity and reduce the negative consequences of potential threats. This means that in the event that team members have little affective trust in their coach the effects of team cohesion on team performance becomes even more relevant. This interaction configures a negative moderation of affective trust on the cohesionperformance relationship. This represents the third hypothesis of this study.

**Hypothesis 3:** Affective trust in coach will moderate the strength of the mediated relationship between team tenure and team performance via team cohesion, such that the mediated relationship will be stronger under low affective trust in coach than under high affective trust in coach.

The research model is depicted in Figure 1.

Insert Figure 1 about here

## Methods

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### **Participants and procedures**

Study sample consisted of 680 players belonging to 73 teams in the basketball leagues in the Nord East area of Spain; 22 teams belonging to the women's league and 51 teams to the men's league. Thus, 69.9% of the team sample are men. Players' average tenure on the same team is 3 seasons (SD = 3.4) and the average age is 23.9 years (SD = 4.76). Surveyed players belong to both professional and top amateur leagues. As only one team refused to participate in this study, the response rate was 98.65%.

Data collection was performed before or after a regular training session held at the beginning of the second part of the season. Constructs were collected at the individual level and used to create the team level constructs. In addition to the questionnaires, we also collected team performance indicators and several control variables for each team.

### Measures

For the purpose of greater reliability and to avoid common method variance data was collected from different sources and at two different points in time. The field work for predictor variables was carried out at the beginning of the second half of the season (between middle January early March), and the criteria variable (objective performance) was obtained at the end of the season (June) from independent sources.

# **Objective Team Performance**

Objective performance data was gathered from official sources (Basketball Federation league records). The team's overall performance was measured by the number of match wins at the end of the season, relatively to the total possible in the team's respective leagues (T2) (see Berman et al., 2002). Thanks to the fact that data collection on the predictors was surveyed just at the mid-point of the championship (T1), we used

only the ratio points obtained at 2nd half of the regular league (T2-T1). Thus, the higher the ratio, the better the team's performance.

#### Team tenure

Team tenure was measured by the average time all members remained on the team (see Koopmann et al., 2016).

# Cohesion

To measure players' perceptions regarding team cohesion, we used a modified version of the Group Environment Questionnaire (Carron, Widmeyer, & Brawley, 1985), specifically the nine items from subscales 'group integration task' and 'group integration social', and we aggregated them into a single dimension (Mach et al., 2010). The rationale behind this decision (see Hogg, Abrams, Otten, & Hinkle, 2004) was due to the wish to capture the group level processes, both social and task oriented, following Salas, Grossman, Hughes and Coultas (2015) suggestion to define cohesion with task and social subdimensions. Sample items included: '*We all take responsibility for any loss or poor performance by our team*', '*Our team is united in trying to reach its performance goals*' and '*Members of our team would rather go out on their own than go out together as a team*'.

## Trust in coach's leadership

The 9-item Trust Questionnaire developed by McAllister (1995) and adapted to sports settings by Dirks (2000) was used to assess team members' perception of trust in leadership. The referent person was the main coach. High scores represent a higher level of trust in the coach leadership. Sample items included: *'The coach approaches his job with professionalism and dedication'* and *'I will have a sense of loss if the coach left to take a job elsewhere'*.

In all scales used, respondents indicated their agreement with each statement on a nine-point Likert-scale ranging from 1 (strongly disagree) to 9 (strongly agree).

## Control variables

We used as controls several contextual variables pertaining to the team success in interactive sports. We controlled for *gender*, average team's *age*, average *seasons trained by the main coach*, and type of *league*. Furthermore, given the reciprocal relation between cohesion and performance (Mathieu et al., 2015), and to avoid the effect on team's cohesion from the previous performance, on the first half of the season, we also include as a controls, the subjective performance assessment from three different sources: peers, coach and self-assessment.

Subjective perception of member's performance was assessed by the peers, the coach and self-assessment with four statements designed by authors as a result of a focus group with basketball experts. On a nine-point Likert-scale, the head coach and every member of the team provided an assessment of every other team member. The results were aggregated to the team level. Sample items included: "*S/he is very effective and works together with teammates to accomplish team objectives*".

# Analyses

## Analytic strategy

We report results in the order that the analyses were performed. First, we performed a confirmatory factor analyses and analyzed the validity and reliability of the scales, followed by an assessment of aggregation to the team level. Second, we test the hypotheses with the level of analysis being the team (n=73), and we used the SPSS *PROCESS* macro developed by Hayes, which assess the moderated mediation effects (Hayes, 2018). Process is a computational tool for path analyses-based moderations and mediation analysis as well as their combination as a conditional process model. In

addition to estimating the coefficients of the model using ordinary least squared (OLS) regression-based path analytical framework, *PROCESS* may generate direct and indirect effects in mediation models, conditionals effects in moderation models, and conditional indirect effects in moderated mediation models, among other things (Hayes, 2018). This macro also facilitates the recommended bootstrapping methods (MacKinnon, Lockwood, & Williams, 2004), and provides a means to probe the significance of the conditional indirect effect. A 10,000 bootstrap re-samples, and a bias-corrected 95% confidence interval at each level of the moderator was used for the analyses (Preacher, Rucker, & Hayes, 2007).

# Confirmatory factor analysis.

To evaluate the underlying factor structure of trust measures and cohesion, we performed a confirmatory factor analysis (*CFA*) in <u>R</u> version 3.2.3, using the lavaan package. According to the *CFA* results, the two-factor structure was acceptable. For the cognitive and affective trust measures we correlated the residuals of two items because the modification index was very high. The items are in the same factor – affective trust – and it is theoretically justifiable the performance of such correlation. The items are: '*I can freely talk to the coach about difficulties I am having on the team and know that he will want to listen*'; and '*I have a sharing relationship with the coach, I can freely share my ideas, feelings, and hopes with him*'. Both items refer to how openly the team member can talk to the coach. The items provided a good measure of **trust** for both dimensions. Both factors presented good Cronbach's alphas ( $\alpha = .87$  for cognitive trust,  $\alpha = .88$  for affective trust). As suggested by Hu and Bentler (1999) for samples smaller than 250, to test the fit of the two factor model we used combination of the comparative fit index (CFI) and the standardized root mean square residual (SRMR). Values of CFI above 0.95, and

of SRMR below .08 are considered acceptable. The CFA yielded a good fit level with  $\chi^2(df = 25) = 68.20$ , CFI = .95, and SRMR = .06.

Regarding the **cohesion scale**, we removed two items that were not loading adequately (see Ayoko & Chua, 2014), one from social cohesion and one from task cohesion. The remaining 7 items provided an adequate measure of team cohesion with an acceptable Cronbach's alpha ( $\alpha = .73$ ). Also in this scale we correlated the residuals of two items of social cohesion. The modification index was high and it is theoretically justifiable the perform the correlation. The items are: 'our team members rarely party together'; and 'members of our team stick together outside of practices and games'. Both items refer to how team members get together outside work environment being one item reversed. The results from the factor analysis revealed one distinct factor, with a  $\chi^2(df = 13) = 19.98$ , and showing CFI/SRMR values within an acceptable range (CFI = .98, SRMR = .04).

# Data aggregation

Our model needs to be confirmed at the team level, so we evaluated whether responses from individual team members could be aggregated at team level. First we evaluated the degree to which the ratings of different people within a team are interchangeable. For this we calculated the inter-rater agreement indexes ( $r_{wg(j)}$ ) for each measure (James, Demaree, & Wolf, 1984, 1993; Klein et al., 2000). Then we used interclass correlations [ICC(1) and ICC(2)] to evaluate interrater reliability, and group mean reliability, respectively (Bliese, 2000; Klein et al., 2000). Aggregation is justified when  $r_{wg(j)}$  values are above .70 (Klein et al., 2000), ICC(1) are above .20, and ICC(2) are higher than .50 (Bliese, 2000). All indicators met the adequate criteria, justifying the aggregation to a team level of cohesion ( $r_{wg(j)} = .86$ , ICC(1) = .40, ICC(2) = .86), cognitive trust ( $r_{wg(j)} = .82$ , ICC(1) = .42, ICC(2) = .87), and affective trust ( $r_{wg(j)} = .71$ , ICC(1) =

.26, ICC(2) = .77). All team level variables were computed using the mean of the individual level scores.

# Results

Table 1 reports the means, standard deviations, reliability coefficients, and correlations for the research variables at the team level (n = 73 teams). We can observe that cognitive (B = .51, p < .01) and affective (B = .34, p < .01) trust in leader are both positively related to team cohesion and that team performance (B = .29, p < .05) is also correlated with team cohesion.

Insert Table 1 about here

#### The mediating role of cohesion

Hypothesis 1 proposed that team cohesion mediates the relationship between team tenure and team performance. Table 2 shows the results of the mediation using the *PROCESS* macro model 4 (Hayes, 2018). Team tenure has a significant direct effect on team cohesion (B = .13, p < .05), but not on team performance (B = .00, p = .86). Team cohesion also does not have a significant effect on team performance (B = .07, p = .07). Moreover, the bootstrap procedure does not reveal an indirect effect of team tenure on team performance through team cohesion (B = .01, CI = [-.001, .023]). Therefore, hypothesis 1 is not supported.

Insert Table 2 about here

### The moderating role of cognitive trust in coach

To test hypotheses 2 and 3, we analyzed the hypothesized moderated mediations with the *PROCESS* macro model 16 (double moderation) (Hayes, 2018). Team cohesion, cognitive trust in coach, and affective trust in coach were centered to avoid

multicollinearity with their product terms (Aiken & West, 1991). Hypothesis 2 suggests that cognitive trust in leader positively moderates the mediation of team cohesion between team tenure and future team performance. The results show that team tenure has a direct effect on team performance (B = 0.13, p < .05) and that team cohesion has also a direct effect on team performance with a moderate significance (B = 0.09, p = .05). The results also reveal that the effect of the interaction between cognitive trust in leader and team cohesion is also significant and positive (B = 0.13, p < .05) in predicting team performance, corroborating the importance of cognitive trust. Furthermore, the indirect effect is significant only when considering teams with a high or mean level of cognitive trust (mean and one standard deviation above the mean). The 95% bootstrap confidence intervals reported for conditional indirect effects did not contain zero; therefore, they are significant and suggest that future team performance can be interpreted as a function of the interplay between cognitive trust in leadership and team cohesion among its members.

Finally, findings reveal that the index of moderated mediation is significant and positive (*Index* = .02; *SE* = .01; [CI = .002, .037]) when considering the moderation role of cognitive trust in leader (see Table 3 for details).

Insert Table 3 about here

Figure 2 shows the interaction effect, represented by the slopes for the effect of high and low team cohesion under high and low cognitive trust in leader (Dawson, 2014). When cognitive trust in leader is high, the effect of team cohesion on team performance is significantly positive. These findings suggest that when teams have a cognitive-base trust in their leader, they will strongly benefit from being cohesive. This benefit does not exist when teams have low or do not have a cognitive-base trust in their leader. Therefore, hypothesis 2 was supported.

Insert Figure 2 about here

### The moderating role of affective trust in coach

Hypothesis 3 specifies that affective trust in leader negatively moderates the mediation of team cohesion between team tenure and team performance. The results suggest that the effect of the interaction between affective trust in leader and team cohesion on team performance is significant and negative (B = -.13, p < .05). Moreover, as can be seen in Table 3, we analyze the conditional indirect effect of team tenure on team performance at three levels of affective trust in leadership moderator. The 95% bootstrap confidence intervals indicate the indirect and negative effect of team tenure on future team's performance through cohesion when affective trust in leadership exists, but this was only observed when affective trust in leadership is average to low, and not when affective trust is high. Finally, the results indicate that the index of the moderated mediation is significant and negative (Index = -.02; SE = .01; [CI = -.039, -.002]).

In Figure 3 is displayed this interaction effect, represented by the slopes for the effect of high and low team cohesion under high and low affective trust in leader (Dawson, 2014). When affective trust in leader is low, the effect of team cohesion on team performance is significant. In opposition to what was observed for cognitive trust, when teams do not have an affective-base trust in their leader they will strongly benefit from being cohesive. Therefore, hypothesis 3 was supported.

Insert Figure 3 about here

# Discussion

Previous research has shown evidence of the relationship between team tenure and performance (e.g., Kozlowski et al., 1999). However, some doubts remain regarding the intermediate paths explaining the relationship between these constructs (Bell et al., 2011). In order to shed light on some inconsistencies found in the literature, the present study aimed to fill this gap by studying whether team tenure in sports could be related to objective measures of basketball performance through the role of team cohesion considering different levels of trust in the leader.

Contrary to hypothesis 1, the overall patterns of our findings showed that the relationship between team tenure and outcomes of team performance were not explained by the level of cohesion among team members. These unexpected results may be attributed to the inconclusive (Bell et al., 2011) and non-linear (Katz, 1982; Koopman et al., 2016) relationship between team tenure and performance. In fact, previous studies have emphasized the complexity of the studied relationship, showing that there is an indirect curvilinear effect between team tenure and average team performance through the role of team psychological safety (Koopman et al., 2016). Apparently, the linear indirect effect between team tenure and performance is conditioned upon different levels of psychological safety climate strength. According to the social identity theory (Tajfel & Turner, 1979), moderate and longer tenured teams may perceive different roles in team cohesion, thus explaining the indirect relationship between team tenure and team performance. For example, new teams tend to develop a shared group membership which reinforces distinctiveness between the in- and out-group (Hogg & Terry, 2000). Moderately and longer tenured team members are characterized by deeper task expertise and interpersonal knowledge with increased perceptions of respect, team psychological safety and trust (Koopman et al., 2016; Schulte, Cohen, & Klein, 2012). These complex dynamics explain why other contextual variables (e.g., trust in leader) may be required to understand the complex role of team cohesion in the linear relationship between team tenure and performance.

Previous studies have shown that trusting the coach is positively related to team cohesion (Mach et al., 2010). The literature has also shown that trusting the leader has a positive impact on team performance (Clapp-Smith et al., 2000). As expected, findings suggested that the indirect effect of team tenure on performance through team cohesion was only significant for high and middle values of cognitive trust in the coach. This is in line with hypothesis 2 and reinforces empirical evidence suggesting that cognitive trust in leaders enables comfortable task exchange (Dirks & Ferrin, 2002) and increases confidence in others' competence (Yang & Mossholder, 2010). This evidence provides further support for the assumption that team members' perception about their leaders' competences is a required condition to understand the path between team tenure and team performance through the role of team cohesion. In other words, under contexts of middle / high levels of cognitive trust in the coach, team cohesion is the missing path that explains the linear relationship between team tenure and performance in basketball teams.

We also found in hypothesis 3 that when affective trust in the coach was low, the indirect effect of team cohesion in the relationship between team tenure and team performance was positive. Team cohesion appeared as a compensatory mechanism that helped athletes deal with perceived lack of emotional bonds, and reduced care provided by the coach (McAllister, 1995). Accordingly, when players perceived low affective trust from the coach, they tended to develop team interpersonal relationships and increased ties with the group (Hogg & Terry, 2000). These group dynamics benefit the role of team cohesion in explaining why a higher team tenure (i.e., a team with high task expertise and interpersonal knowledge) increases team performance in basketball teams.

This study went beyond previous research on performance in sports in several ways. Firstly, concerns associated with common method bias were minimized because we included objective measures of team tenure and team performance, as well as we

include several distinct sources of information (players, peers and coach). Secondly, we went beyond the unidimensional approach of trust in leadership (e.g., Dirks & Ferrin, 2002) and conceptualized cognitive and affective trust as distinct constructs. Thirdly, this study went further previous studies suggesting the need to distinguish the affective and cognitive dimensions of trust in mediating established relationships when explaining team performance (Schaubroeck, Lam, & Peng, 2011). Therefore, the current study reinforces the need to understand the role of each dimension of trust in moderating the indirect relationship between team tenure and performance in sports.

# Limitations and Future Research

Despite the contributions, several limitations of this research were identified. Firstly, our sample included 73 teams from woman and men's leagues playing in the northeastern area of Spain. Therefore, cultural and gender bias may have contributed to explaining the hypothesized relationships studied in the current study. Considering Spain an average collectivist country in Europe (Hofstede, 2001), future research could seek to understand how these variables contribute to team performance in other higher or lower individualistic cultural backgrounds (e.g., EUA, Indonesia), along with other less tenured sports (e.g., soccer).

Secondly, our data included self-reported measures of team cohesion and trust in the coach, which may raise concerns of common method bias. However, as informed before, the self-reported measures included in this study presented good psychometric evidences. As described in Siemsen, Roth and Oliveira (2010), interaction effects (such as the ones in hypotheses 2 and 3) cannot be artifacts of common method effects. To deal with these potential limitations, we apply two remedies; first, the study includes objective measures of team tenure and team future performance, and second, we control for perceived performance measures that were assess by a round robin from peers and the main coach and aggregated at team level, which provided additional support for the current study.

As we measure the self-reported predictor variables only at one-time point, the measure of within-team variance across the basketball season was limited. We recommend that future research study the role of team cohesion and trust in the coach at different stages of the season to better understand the slopes of the effects (linear and curvilinear) (e.g., Katz, 1982; Koopman et al., 2016), and unveils whether they remain stable over time.

Lastly, since we use a modify unidimensional scale for team cohesion (Carron et al., 1985), comprising items from the task and social group integration dimensions, further research could be designed specifically to capture the contribution of task and social cohesion, separately, and to test their differential mediating role in fostering team performance. (e.g.; Carless & De Paola, 2000, suggested that task cohesion was more strongly related to job performance than social cohesion).

# **Practical Implications**

This research raises a couple of practical questions; Can team tenure improve team performance? What are the main variables explaining this relationship? In fact, understanding the processes around how team dynamics articulate cohesion among team members and perceptions of trust in the coach can be important for group performance. The findings of this study show that team tenure plays an important role in eliciting positive performance in basketball athletes through the development of team cohesion. This indirect relation is conditioned upon the scenarios of both high cognitive trust in coaches and low affective trust in coaches. In order to enhance team performance, organizations should start by encouraging their coaches and leaders to put more effort into improving the amount of work they do with players, and their competences, to ensure athlete's high cognitive trust. Results of the current study showed that it would not be relevant to simply promote team cohesion without taking cognitive trust in the coach into account. In leadership training programs, more attention should be devoted to providing their coach and leaders with strategies that could be undertaken to increase cognitive trust among team members.

In contexts of low affective trust in the coach, our results provided evidence supporting the need to encourage team cohesion in long tenured teams. Managers could be encouraged to develop interventions to target an increased empathy, autonomous motivation and moral identity, thus promoting prosocial behavior and the adoption of norms and team cohesion in teams (Pizzi & Stanger, 2019). Increasing cohesion will positively impact the development of shared knowledge states, which in turn, explain the importance of team experience in increasing objective performance in sports. While promoting knowledge/information sharing and the development of mutual trust, socioemotional communication among team members may increase (Dirks & Ferrin, 2002), hence, compensating for the lack of affective trust in coaches.

#### Conclusion

Studies examining the role of team tenure in sports' performance has primarily focused on studying the correlates with team and individual performance, and the study of the mediators and moderators of these relationships has been scarce. The current study introduced a novel perspective into understanding the mediating role of team cohesion conditioned upon different levels of trust in the coach considering a trust typology that distinguishes competency-based (cognitive) and emotionally based (affective) trust. Results highlighted a new perspective, where the role of team cohesion in explaining that tenured teams have a higher team performance, is conditioned upon different scenarios of trust in the coach (high cognitive and low affective trust in the coach). Accordingly, our research provides interesting implications for sport managers, sport coaches, leaders and policy makers on the consequences of team characteristics (e.g., tenure) and for sport team's dynamics (e.g., team cohesion and trust in the coach) in explaining successful team's performance.

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# Tables

Constructs	М	SD	1	2	3	4	5	6	7	8	9
1. Perceive performance <sup>1</sup>	4.71	.35									
2. Gender	.30	.46	.05								
3. Seasons trained by											
coach	2.60	1.06	.07	05							
4. Age	23.92	4.76	.16	35**	.22						
5. League	4.95	1.39	17	.70**	.05	21					
6. Team tenure	3.06	1.49	05	.01	.30*	.09	.09				
7. Team cohesion	6.69	.86	.67**	.11	.63	.00	.00	.18			
8. Cognitive trust in leader	6.97	1.08	.35**	.10	.10	13	07	02	.51**		
9. Affective trust in leader	6.85	1.24	.23*	14	.14	.80	18	.06	.34**	.82**	
10. Team performance <sup>2</sup>	0.50	0.21	.18	01	14	.06	01	.03	.29*	.15	.05

 Table 1. Means, standard deviations, and correlations

*Note*: N = 7 \* p < .05, \*\* p < .01, two-tailed. <sup>1</sup> Control variable measured in the middle of the season. <sup>2</sup> Dependent variable - objective performance of the second half of the season.

	Direct effects on team cohesion							
Variables	В	SE	t	р				
Intercept	-8.01	1.31	-6.13	.000				
Team tenure	.13	.05	2.53	.014				
Perceive performance <sup>a</sup>	1.79	.22	7.96	.000				
Gender	09	.25	36	.717				
Seasons trained by coach	03	.07	42	.675				
Age	04	.03	-1.25	.215				
League	.07	.09	.88	.382				

 Table 2. Mediating effect of cohesion between team tenure-team performance

 relationship

	Direct effects on team performance						
Variables	В	SE	t	р			
Intercept	.38	.55	.70	.487			
Team tenure	.00	.02	.17	.863			
Team cohesion	.07	.04	1.82	.074			
Perceive performance <sup>a</sup>	01	.10	05	.958			
Gender	04	.08	34	.734			
Seasons trained by coach	04	.02	-1.51	.135			
Age	.01	.01	.70	.487			
League	.01	.03	.35	.728			

Total, direct, and indirect effect of team tenure on team performance									
	B	SE	р	Boot LL	Boot UL				
Total effect	.01	.02	.466	022	.048				
Direct effect	.00	.02	.863	033	.039				
Indirect effect (team cohesion)	.01	.01		001	.023				

*Note.* N = 73 teams. Results are based on 10,000 bootstrap samples. 95% Level of confidence for all confidence intervals in output. Process macro (model 4). <sup>a</sup>Control variable measured in the middle of the season

Outcome: Team Cohesion								
Variables	В	SE	t	р	$R^2$			
Constant	-8.01**	1.307	-6.128	.000				
Team tenure	.13*	.052	2.526	.014				
Perceive performance <sup>a</sup>	1.79**	.224	7.961	.000				
Gender	09	.246	364	.717				
Seasons trained by coach	03	.074	421	.675				
Age	04	.035	-1.252	.215				
League	.07	.078	.881	.382	.522			

**Table 3.** Moderated mediation model of team's tenure and cohesion on future team

 performance at values of the moderators (Cognitive and affective trust in leadership).

Outcome: Tean	n Performar	ice							
Variables	В	SE	t	р	$R^2$				
Constant	.416	.545	.763	.449					
Tenure	.011	.019	.605	.548					
Team Cohesion (TC)	.093*	.047	1.986	.050					
Cognitive Trust in leader (CTiL)	.070	.050	1.393	.169					
TC x CTiL	.132*	.059	2.232	.029					
Affective Trust in Leader (ATiL)	077	.048	-1.610	.113					
TC x ATiL	132*	.057	-2.298	.025					
Perceive performance <sup>a</sup>	016	.103	157	.875					
Gender	053	.086	623	.536					
Seasons trained by coach	043	.025	-1.680	.098					
Age	.008	.012	.701	.486					
League	.007	.026	.252	.802	.207				

Conditional indirect effect at values of moderators (cognitive and affective trust in leader)

	Cognitiv e trust in	Affective trust in	Effect	SE	t	р	Boot	Boot
Mediator	leader	leader				*	LL	UL
Team Cohesion	-1.002	-0.828	.070	.051	1.384	.172	031	.171
Team Cohesion	-1.002	0.161	060	.069	867	.389	199	.079
Team Cohesion	-1.002	1.040	176	.111	-1.591	.117	397	.045
Team Cohesion	0.201	-0.828	.229	.085	2.691	.009	.059	.399
Team Cohesion	0.201	0.161	.099	.048	2.044	.045	.002	.195
Team Cohesion	0.201	1.040	017	.058	293	.771	133	.099
Team Cohesion	1.001	-0.828	.334	.126	2.649	.010	.082	.587
Team Cohesion	1.001	0.161	.204	.079	2.577	.012	.046	.363
Team Cohesion	1.001	1.040	.089	.056	1.598	.115	022	.200

Indices of partial moderated mediation								
Moderators	Index	SE	Boot LL	Boot UL				
Cognitive Trust in Leader	0.017	0.009	.002	.037				
Affective Trust in Leader	-0.017	0.010	039	002				

*Note*. N = 73 teams. 95% Level of confidence for all confidence intervals in output. Results are based on10,000 bootstrap samples. Process macro (model 16).

<sup>a</sup> Control variable measured in the middle of the season.

	Cognitive trust in	Affective trust in	Effect	SE	t	D	Boot LL	Boot UL
Mediator	leader	leader		~-	-	r		
Team Cohesion	-SD	-SD	.070	.051	1.384	.172	031	.171
Team Cohesion	-SD	Mean	060	.069	867	.389	199	.079
Team Cohesion	-SD	+SD	176	.111	-1.591	.117	397	.045
<b>Team Cohesion</b>	Mean	-SD	.229	.085	2.691	.009	.059	.399
<b>Team Cohesion</b>	Mean	Mean	.099	.048	2.044	.045	.002	.195
Team Cohesion	Mean	+SD	017	.058	293	.771	133	.099
<b>Team Cohesion</b>	+SD	-SD	.334	.126	2.649	.010	.082	.587
<b>Team Cohesion</b>	+SD	Mean	.204	.079	2.577	.012	.046	.363
Team Cohesion	+SD	+SD	.089	.056	1.598	.115	022	.200

# Figures



Figure 1. Research model and hypotheses. Dashed arrows represent the mediating effect.



**Figure 2.** The interaction effect between cognitive trust in leader and team cohesion on team performance.



**Figure 3.** The interaction effect between affective trust in leader and team cohesion on team performance.