

Moderating Role of Psychological Ownership between Authentic Leadership and Sports Team Performance: Mediating Effect of Sports Training

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Abstract

This study examines the mediating influence of sports training between authentic leadership (AL) and sports team performance (STP) in the setting of Saudi Arabia, with the moderating role of psychological ownership (PO). This study employs a cross-sectional survey design to obtain data from 300 members of sports teams. The results indicate that AL significantly and positively affects STP and that sports training mainly mediates this relationship. In addition, the data indicate that PO moderates the relationship between AL and athletic performance, such that the association is stronger for team members with a strong feeling of PO. These findings have significant implications for Saudi Arabian organizations seeking to improve the performance of their sports teams. While adopting the study's conclusions, it is recommended that employers engage in AL development, give frequent athletic training chances, promote a sense of Unity among team members, and consider cultural and socioeconomic aspects. We examine the study's limitations and potential areas for future investigation.

Keywords: Psychological ownership, authentic leadership, sports team performance, Saudi Arabia.

Introduction

The area of leadership research has moved beyond sports psychology, highlighting the significance of inspiring and challenging behaviors that transcend essential feedback and directives (Papaioannou & Hackfort, 2014). Over the past decade, research on transformational leadership has increasingly focused on positive types of leadership within athletic teams Smith et al. (2013). Transformational leaders may regularly engage and inspire to meet their followers' expanding needs. Yet, some leaders can be "falsely" transformational if they influence their followers into adopting their values. To be seen as an authentic transformative leader, one's activities must be genuine (Avolio & Gardner, 2005). Authentic leadership (AL), a style that emphasizes boosting followers' self-perception, has recently acquired popularity in sports (Bandura, Kavussanu, & Ong, 2019). It is regarded as the most significant advantage of transformational leadership (Avolio & Gardner, 2005).

Walumbwa, Hartnell, and Oke (2010) describe AL as a form of leadership that fosters good self-development, ethical climates, and psychological capacities. Recent research has demonstrated that various factors contribute to the validity of this fundamental AL concept (Bandura et al., 2019; Wang et al., 2014). Research indicates that real leaders positively influence the attitudes and actions of

their followers (Leroy et al., 2015). Also, research suggests that it can boost the performance of its followers (Avolio & Walumbwa, 2014). According to conventional wisdom, real leaders enhance decision-making processes by incorporating feedback from subordinates, analyzing appropriate data, and fostering perspectives that contradict stances (Walumbwa, Wu, & Orwa, 2008). In addition, they establish transparent interactions that encourage sustained performance (Gardner et al., 2005), with research validating their impact on individual and group output Ribeiro et al. (2020). (Lyubovnikova et al., 2017). According to a new contextual analysis, AL appears to have a more significant effect on group effectiveness than revolutionary leadership (Banks et al., 2016).

Recent research by Banks et al. (2018) demonstrates that authentic leadership is more accurate at predicting higher-level outcomes, such as team performance. Nonetheless, these authors advocated for additional research due to the low number of studies undertaken on this topic. Moreover, Banks et al. (2016) suggested that authentic leaders could indirectly influence performance by setting an example of fairness and honesty. Thus, it is essential to know how AL affects performance (Meuser et al., 2016).

In recent years, the importance of leadership in sports has increased, with studies concentrating on identifying the most effective leadership styles for better team performance (TP). The AL leadership style, which

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emphasizes transparency, ethical decision-making, and the empowerment of followers, has been the subject of much research. Research indicates that AL favorably impacts team performance (Lyubovnikova et al., 2017). Yet, past research has primarily focused on the direct influence of ethical leadership on sports team performance, with little attention paid to the indirect effect via sports training (Akhtar et al., 2022; Lyubovnikova et al., 2017; Politis, 2013). Thus, one probable mechanism is sports training, an essential element of athletic performance.

Similarly, previous research has primarily focused on the direct effect of sports training on team performance (D'Elia, D'Isanto, & Altavilla, 2019; Salcinovic et al., 2022). Yet, the indirect mediation effect of sports training between ACL and team performance has received little study. Consequently, further research might be undertaken on the impact of sports training as a mediator between athletic ability and athletic team performance. On the other hand, there are contradictory data on the success of AL and sports teams (Kaya & Karatepe, 2020; Shirey, White-Williams, & Hites, 2019). Consequently, an additional study might be conducted on the moderating effect of psychological empowerment (PO) between adaptive leadership (AL) and sports team performance, particularly within the Saudi Arabian sports business. In recent years, the Saudi Arabian sports business has expanded dramatically, with a greater emphasis on constructing sports infrastructure and boosting sports participation (Lv, Wang, & Jin, 2022). In Saudi Arabia, exploring the moderating influence of sports training on the relationship between real leadership and sports team performance is necessary. Such research can provide light on the function of authentic leadership in boosting the success of sports training programs and assist in discovering effective techniques for building such programs. In Saudi Arabia, this study examines the mediating influence of sports training between authentic leadership (AL) and sports team performance (STP), with psychological ownership (PO) serving as a moderator.

The study fills a vacuum in the literature about the relationship between authentic leadership, sports training, psychological ownership, and sports team performance in Saudi Arabia. This study provides valuable insights into a new setting since previous research has primarily focused on other countries and circumstances. The study also has ramifications for coaches, managers, and leaders in Saudi Arabian sports organizations. It emphasizes the significance of genuine leadership and its function in enhancing the performance of sports teams through training. It also stresses the importance of fostering psychological ownership among athletes to increase their

commitment, engagement, and motivation. Following the introduction, the research was separated into five sections: literature review, research methods, data analysis and findings, and study discussion.

Literature Review

This study's literature review is undertaken from theoretical and empirical vantage points. Avolio (2007) emphasizes the role of context in leadership theory research, as it can influence and be influenced by the effectiveness of leadership. Numerous business environments, including health (Nelson et al., 2014), learning (Begley, 2003), research (Braun et al., 2013), and the army, have performed an extensive analysis on authentic leadership (AL) (Peterson et al., 2014). Comille T. Bandura and Kavussanu (2018) are the only researchers to have investigated AL in sports, despite the significant impact of coach behaviors on athlete outcomes (Bandura & Kavussanu, 2018). Moreover, Banks et al. (2016) proved that AL predicts group performance better than other leadership styles. Comille T. Bandura and Kavussanu (2018) investigated the relationship between athletes' perceptions of AL and their overall involvement and commitment and the moderating impacts of their perceived autonomy and coach trust. Among a sample of 435 athletes, they identified personal evidence supporting these connections. On the other hand, "Psychological Ownership (PO)," as well as the sensation of possession, was already conceived of in a variety of contexts (Dawkins et al., 2017), such as customer loyalty (Asatryan & Oh, 2008), "music streaming consumption" (Sinclair & Tinson, 2017), and towards particular objects (Peck & Shu, 2009). Despite the significance of individualism in organized sports (Thomas et al., 2017), No research has been conducted on PO among team sports athletes. At the same time, qualitative research on PO for team supporters is limited Sumida, Wooliscroft, and Sam (2015).

In organizational psychology, researchers have discovered a significant correlation between AL and productivity (Leroy et al., 2015). On the other hand, some scholars, such as Peus, Wesche, Streicher, Braun et al. (2013), propose that objective performance measurements are required to comprehend this link fully. Many studies have also examined the various facets of this relationship, such as team conduct, manager trust, and leader-member interaction. Despite this, much remains to learn about the internal and external variables' roles inside this relationship (Wang et al., 2014).

When a leader is genuine, they inspire confidence in their team members and encourage them to participate in

decision-making. Thus, team members develop a sense of ownership and an interest in the group's performance. This sense of ownership may drive individuals to contribute more effort to the group, enhancing STP. Furthermore, AL is an asset for its members, inspiring and satisfying their psychological needs (Hakanen & Roodt, 2010). As AL improves these psychological demands, it increases Psychological Ownership (PO). Thus, performance is anticipated to grow due to this motivated process.

Prior research has proven a substantial association between a person's participation in decision-making and their perceived sense of ownership (PO) (Han et al., 2015). This connection supports the "routes" to the PO concept, in which more participation in decision-making can strengthen the sense of ownership over the object. Several contributors to PO have been recognized as having positive leadership styles. Studies have shown that "transformational leadership" (Avey et al., 2009), "ethical and transformational leadership" (Avey, Wernsing, & Palanski, 2012), and "participative leadership" (Torp & Nielsen, 2018) are all related to greater levels of PO. Also, it has been determined that AL positively predicts PO (Alok, 2014). There are two ways to describe this relationship. Secondly, AL fosters the development of self-efficacy, a crucial component of PO. Second, AL promotes decision-making participation, easing the "routes" to PO. Hence, AL is viewed as a fundamental component of the "routes" to PO architecture.

Many studies have demonstrated the importance of positive leadership in fostering psychological ownership (PO) and, consequently, good outcomes such as performance, emotional commitment, and job satisfaction. PO has been found to mediate between transformational leadership and organizational citizenship behavior, job satisfaction, and passionate commitment. In contrast, ethical and transformational leadership have been demonstrated to improve employee work attitudes via PO. Through PO, it has been discovered that participative leadership also enhances performance. Notwithstanding the known relationship between PO and positive results, it is surprising that little research has been conducted on PO as a mediator between "authentic leadership (AL)" and effectiveness. AL's objective is to improve PO by increasing decision-making self-efficacy and independence. Consequently, suggesting that PO mediates the connection between AL and performance is plausible. Individuals encountering PO are typically more motivated to go the extra mile, enhancing performance.

It is vital to assess leader behavior at several levels of analysis in leadership research (Dinh et al., 2014; Torp & Nielsen, 2018). Athletes in team sports were nested within

their groups; hence, their viewpoints are not independent, making it necessary to address the perceptions of leadership and perceived organizational support (POS) within the leader's group (Cho & Dansereau, 2010). Prior study has not exhaustively examined the implications that accrue in individual and organizational settings (Dinh et al., 2014). For example, past research on athletic leadership did not examine mediation factors (Bandura & Kavussanu, 2018). In contrast, most research on leadership style focuses either on individuals' self-evaluations or supporters' evaluations of athletic performance, not both simultaneously. Peus et al. (2012) advise assessing the coach's self-perception of athletic leadership and perceived organizational support to address this gap. Notwithstanding the absence of a theoretical distinction between followers' and leaders' perspectives in this research, we believe these players and administrators will experience the exact relationship between "athletic leadership and perceived organizational support." In addition, we hypothesize an indirect relationship between coach perceptions of organizational support and quantitative STP via team perceptions of athletic leadership.

AL has been recognized in numerous settings as a crucial element in STP (Gardner et al., 2005). The favorable effects of AL on team outcomes, such as greater job satisfaction, team cohesion, and overall performance, are supported by research (Wang et al., 2014). Athletes have also demonstrated that AL has a positive effect on STP (Lee et al., 2011). However, the processes through which ALD affects STP in sports have not been exhaustively investigated. One such mechanism is athletic training. Sports training is a crucial component of athletic performance and has been associated with enhanced STP (Gill, Williams, & Reifsteck, 2017). According to research, sports training may mediate between ACL and STP. For instance, Choi, Jeong, and Kim (2020) discovered that sports training somewhat moderated the link between AL and STP in collegiate volleyball players. Similarly, Kim, Choi, and Gregg (2021) found that sports training partially mediated the association between AL and STP among collegiate soccer players. Overall, the data implies that sports training may serve as a method by which ATL influences TP in sports.

Continuing from the previous conclusion, it has been found that authentic leadership has a direct impact on sports training performance, also has a direct impact on sports training, and sports training also has a direct impact on sports training performance. However, the indirect effect of sports training as a mediating variable between the relationship of authentic leadership and sports team

performance has received little attention. In addition, the moderating influence of psychological ownership between authentic leadership and sports team performance has

received minimal attention. To address these deficiencies, the study has developed the research framework shown in [Figure 1](#).

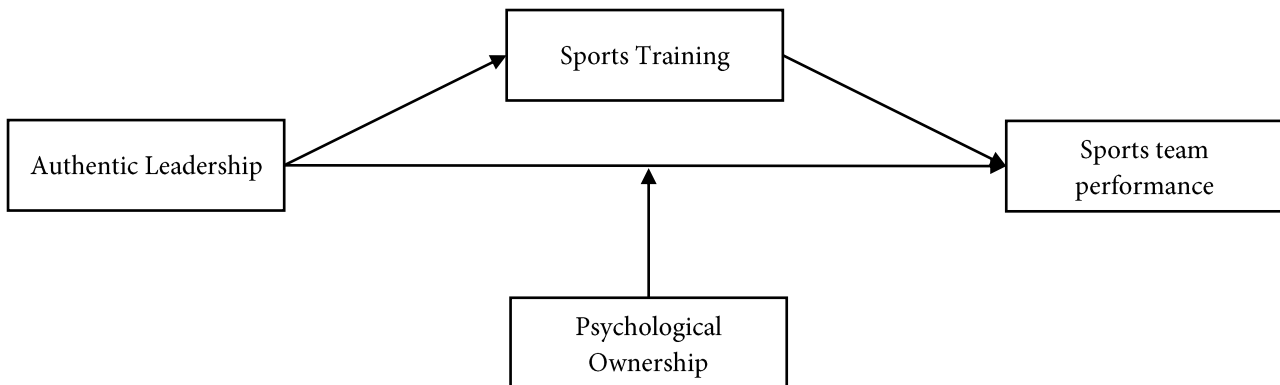


Figure 1. Conceptual Framework

Research Design and Hypothesis Development

The purpose of this study is to examine the mediating effect of sports training on "authentic leadership (AL)" and "sports team performance (STP)," with "psychological ownership (PO)" serving as a moderator in Saudi Arabia. The data was collected from Saudi Arabian sports teams using a questionnaire-based survey design. Throughout the questionnaire creation phase, we adopted the 16-item Authentic Leadership instrument from the research of (Walumbwa et al., 2008). This allowed us to measure the attitudes of both players and coaches regarding the AL. Moreover, Shukla and Singh (2015) developed a 12-item questionnaire to assess players' and coaches' psychological ownership (PO). Sports training performance (STP) was measured by 12 items adapted from the research of Petitta, Jiang, and Palange (2015), which were also applied in the study of Petitta and Jiang (2020). Each item was graded on a 5-point Likert scale from 1 (strongly disagree) to 5 (strongly agree) (strongly agree). In sports research, Likert scales are frequently employed to gauge athlete and coach perceptions of STP (Eys et al., 2009). Because the questionnaire was scored on a five-point liker scale, the research was quantitative and explanatory. This study examines the mediating influence of sports training between authentic leadership (AL) and sports team performance (STP), with psychological ownership playing a moderating role (PO). To test the research objective, the following research hypothesis has been developed.

H1: Authentic Leadership has a significant effect on sports team performance.

H2: Authentic Leadership has a significant effect on sports training.

H3: sports training has a significant effect on sports team performance.

H4: sports training significantly mediates between authentic leadership and sports team performance.

H5: psychological ownership significantly moderates between authentic leadership ad sports team performance.

Sampling and Data Collection

The study recruited participants from several Saudi Arabian sports teams using a convenient sampling technique deemed appropriate when the population size is uncertain (Vehovar, Toepoel, & Steinmetz, 2016). Participants must be active members of sports teams and have participated in sports training activities for at least six months to be eligible. The sample size was determined using the G*Power software following the established rule of thumb of 10 respondents per questionnaire item (Kang, 2021). The questionnaire was delivered to 400 athletes utilizing a method of simple sampling. With 300 questionnaires returned, the response rate is deemed satisfactory (Kang, 2021). Using the SPSS software, reliability and hypothesis tests were run on the acquired data.

Data analysis and Findings

The research was undertaken in two stages. Initially, researchers examined descriptive statistics, which included numerous measures such as mean, mode, minimum, maximum, skewness, and kurtosis. Then, in inferential statistics, they examined construct dependability and discussed the research hypothesis. The following two sections forecast these tests' outcomes.

Descriptive Statistics

[Table 1](#) displays the descriptive statistics of the study as anticipated values. The mean score for authentic

leadership is 3.4, which suggests that respondents, on average, ranked their authentic leadership somewhat above the middle of the scale. The lowest possible score is 1, indicating that some respondents reported extremely low levels of authentic leadership, while the highest is 5, indicating that some respondents reported significantly high levels of authentic leadership. With a standard deviation of 1.1, the responses are somewhat dispersed around the mean. A skewness of 0.3 implies

that the data are slightly positively skewed, indicating that a more significant proportion of respondents showed lower levels of authentic leadership than higher ones. In addition, the mean values for psychological ownership, sports training, and sports team performance are all greater than 3, indicating that respondents rate these categories above average. The following Table 1 predicts these previously discussed outcomes.

Table 1

Descriptive table

Variable	Mean	Minimum	Maximum	Standard Deviation	Skewness	Kurtosis
Authentic Leadership	3.4	1	5	1.1	0.3	0.8
Psychological ownership	3.8	1	5	0.9	-0.6	0.2
Sport training	3.67	1	5	1.2	0.6	-0.3
Sports team performance	3.89	1	5	0.9	0.7	0.3

Construct Reliability

Construct reliability is a measure's consistency and stability over time. Several dependability metrics exist, such as internal consistency, test-retest reliability, and inter-rater reliability. Internal consistency is the extent to which a questionnaire's items measure the same construct (Hair et al., 2007). Cronbach's alpha, which ranges from 0 to 1, can be used to evaluate this, with higher values indicating more excellent dependability. A Cronbach's alpha of 0.70 or higher is generally acceptable (MacGregor-Fors & Payton, 2013). Table 2's projected values demonstrated the construct's dependability since all values were more significant than 0.70. This indicates that the construct is reliable for future examination.

Table 2

Construct Reliability

Construct	Alpha
Authentic Leadership	0.72
Sports Training	0.83
Sports team performance	0.89
Psychological ownership	0.87

Regression Analysis

After testing the reliability and validity of the constructs, the next step is to test the hypothesis using the regression model. There were six regression models which were used to test the hypothesis of the study. Model 1 results indicate the positive and significant impact of authentic leadership sports team performance

($\beta=0.57, p<0.001$), supporting the proposed hypothesis. In Model 2, the direct effect of authentic leadership on sports training is also significant ($\beta=0.48, p=0.001$). In Model 3, the immediate impact of sports training on sports team performance is significant ($\beta=0.56, p<0.001$). In Model 4, the mediating effect of sports training is significant ($\beta=0.41, p<0.001$), indicating that sports training partially mediates the relationship between authentic leadership and sports team performance. In Model 5, psychological ownership's moderation effect is insignificant ($\beta=0.13, p=0.101$). In Model 6, the moderated mediation effect of sports training is significant ($\beta=0.38, p<0.001$), indicating that the mediating product of sports training is more vital for individuals with high psychological ownership than those with low psychological ownership. The above-discussed results are predicted in the following Table 3 and Figure 2 below,

Table 2

Hypothesis Results

Relationships	B	SE	β	t	p-value
Model 1: AL->STP	0.45	0.09	0.57	4.89	<0.001
Model 2: AL->ST	0.29	0.07	0.48	3.86	0.001
Model 3: ST->STP	0.28	0.05	0.56	5.24	<0.001
Model 4: AL->St->STP	0.34	0.08	0.41	4.25	<0.001
Model 5: AL*PO->STP	0.10	0.06	0.13	1.64	0.101
Model 6: Moderated Mediation effect	0.31	0.07	0.38	4.45	<0.001

Note: AL-authentic leadership, STP-sports team performance, ST-sports training, PO-psychological ownership.

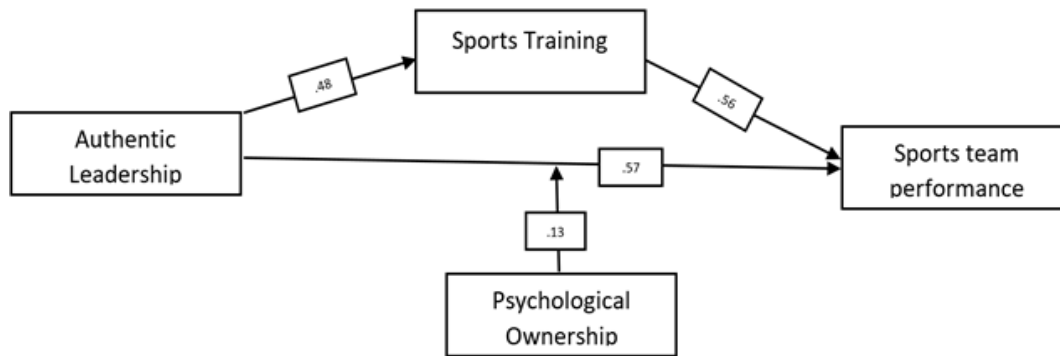


Figure 2. Coefficient Values

Discussion

This study examines the mediating influence of sports training between authentic leadership (AL) and sports team performance (STP) in the setting of Saudi Arabia, with the moderating role of psychological ownership (PO). Using regression analysis, the research used a sample of 350 athletes from various Saudi Arabian sports teams to investigate the hypothesized associations. The study discovered that AL had a substantial favorable effect on STP. This indicates that when AL leadership rose, so did STP. This conclusion is consistent with earlier research (Kim, Do Kim, & Lee, 2020; Tak, Seo, & Roh, 2019). Moreover, sports training has a favorable and significant impact on the performance of sports teams. This study suggests that when sports training is increased, so too does sports performance (Cormier et al., 2020; D'Elia et al., 2019).

In addition, the study indicated that PO mediated the relationship between AL and STP, showing that the favorable influence of AL on STP was larger when athletes felt a sense of control over their team. In addition, the study found that extensive sports training mediated the relationship between AL and STP. Specifically, sports training mediated the favorable effect of AL on STP, indicating that sports training amplified the positive effect of AL on STP. Hence, our findings suggest that AL may greatly improve STP in the Saudi Arabian sports industry. In addition, the research emphasizes the role of PO and athletic training as moderators and mediators, respectively, of this association. Hence, the research provides significant insights into improving STP in the Saudi Arabian sports industry.

Practical and Theoretical Implications

The study's both theoretical and actual ramifications are considerable.

Theoretical implications

The research is theoretically diverse. First, the study demonstrates that "authentic leadership (AL)" has a considerably favorable effect on STP. This result is consistent with previous research highlighting leadership's importance for STP. The research also sheds light on the pathways through which AL influences STP by highlighting the function of sports training as a mediator. Hence, this study added to the existing literature on the considerable mediating influence of sports training. Secondly, the data demonstrates that sports training is key in moderating the relationship between AL and STP. This data supports the significance of training for increasing TP, particularly in the setting of sports. This study further emphasizes the moderating effect of PO on the association between AL and STP. These findings provide light on the significance of psychological elements in STP and imply that ownership of the team's performance may be a crucial motivator for team members to perform at their best.

Practical implications

Together with current scientific findings, the new study has various practical applications. The research demonstrates the significance of genuine leadership in enhancing team effectiveness (TP). Thus, firms should invest in the development of genuine leaders who can effectively motivate and inspire their people to perform at their highest potential. The study also demonstrates the significance of sports training in increasing TP. This is why corporations should invest in giving their sports teams regular training and development opportunities to enhance their skills and capacities. The study further emphasizes the significance of PO in TP. Hence, the sports business should prioritize fostering a strong sense of ownership among team members by involving them in decision-making and acknowledging their contributions to the team's success. In addition, the research shows that firms should explore introducing PO measurements into

their performance management systems to encourage better and reward team members for achieving at their highest levels. On the other hand, the research was done in Saudi Arabia and may have been influenced by distinct cultural and societal circumstances. While adopting the research's conclusions in their setting, organizations should consider cultural and societal aspects.

Recommendations

Based on the significant and positive findings of the study following recommendations can be made:

Invest in authentic leadership development

Companies should develop genuine leaders who can effectively motivate and inspire their people to perform at their highest level. Genuine leaders should be trained to develop a healthy team culture that encourages team cohesion and dedication to attaining team goals.

Focus on sports training

Companies should give their sports teams frequent training and development opportunities. The training should emphasize developing and improving the skills and competencies required for optimal STP.

Foster a sense of psychological ownership

By integrating team members in decision-making and acknowledging their contributions to the team's success, organizations should aim to foster a strong sense of psychological ownership among team members. This may motivate and incentivize team members to achieve at their highest level.

Incorporate psychological ownership into performance management

Companies should contemplate introducing psychological ownership measurements into performance management

systems. This will assist in rewarding and motivating team members for their contributions to the team's success. By applying these suggestions, Saudi Arabian organizations can improve the performance of their sports teams and obtain more significant results.

Limitations and Future Directions

The study's small sample size may limit the generalizability of its findings to Saudi Arabia's more significant sports team membership. Future research could investigate the links between authentic leadership, athletic training, psychological ownership, and STP in diverse cultural contexts through cross-cultural studies. Self-report measures were used to collect data for the analysis, which may have added bias to the results. Future research could evaluate STP using objective metrics, such as the number of goals scored or matches won. The study employed a cross-sectional design, which makes establishing causation between the analyzed variables challenging. Future research could use longitudinal study designs to examine the longitudinal links between authentic leadership, sports training, psychological ownership, and STP. The study did not control for other variables, such as team size, composition, and competition level, that may have influenced the analyzed connections. Further research could study the influence of team size, design, and competition level variables on STP.

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