

## Associations of Goal Orientation Achievement, Intrinsic Motivation, and Sport Commitment among University Soccer Players

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### Abstract

*Understanding the dynamics of motivation and commitment in sports is important due to these complexities that affect the ability of the players as well as their success. The current research aims to establish the effect of intrinsic motivation on sports commitment and goal-oriented achievement of university soccer players. Three hundred nineteen (319) university soccer players completed the motivation, commitment, and achievement questionnaires to determine their responses. SEM was used in the study as a statistical tool to test the causal relationships between the variables. The results confirmed significant positive correlations between intrinsic motivation and the commitment to sports, as well as the commitment to sports and goal-oriented achievement. Therefore, intrinsic motivation was found to have a strong positive effect on goal-oriented achievement, and this effect was mediated by sports commitment the sample comprised university soccer players in Pakistan. However, based on the findings of this study, further research is recommended to replicate these findings in other sports, with different ages, and in other regions of the world. The longitudinal research might help identify how these factors are related to cause and effect. Enhancing athletes' intrinsic motivation and sports commitment standards could improve their performances and persistence. It reveals that coaches and sports psychologists could develop the right strategies and programs to enhance athletes' motivation and commitment, improving performance outcomes.*

**Keywords:** Intrinsic motivation, Sports commitment, Goal-oriented achievement, Soccer players

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## Introduction

Health is one of the most essential elements, everyone seeks and wants to sustain regardless of age. According to the World Health Organization (WHO), regular participation in physical activities is crucial in leading a happy life and promoting modern people's health (Nuriddinov, 2023). Sports for all has recently been recognized as a significant form of leisure in that it not only provides opportunities to relieve the various kinds of stress modern people have living in industrialized and urbanized modern society through continuous physical activities but also plays the role of promoting mental and physical health and boosting the will to live, thereby improving the quality of life (Marzo et al., 2023). This is because sports for all can be an effective means to satisfy the high-dimensional self-actualization needs of modern people and the primary and social needs of humans in a desirable direction (Choi, 2023).

Sports require motivation since it improves performance and makes the activity more enjoyable. Sports require motivation since it improves performance and makes the activity more enjoyable (Schüler, Wolff, & Duda, 2023). Intrinsic motivation is the reward a person gains from self-enjoyment. It happens when individuals participate in activities solely for the good feelings that arise from the activities and for the interest in the new information acquired. Deci, Olafsen, and Ryan (2017) defined internal motivation as a situation where a person engages in an activity to enjoy the activity they are doing (Moura, Eusébio, & Devile, 2023). According to Deci et al. (2017), people are only internally driven when they participate in an activity for its own sake, for the sheer delight, entertainment, or satisfaction it provides. On the other hand, prompt learning, understanding, and willingness to learn are focused on achieving goals and desire and interest in engaging activities, as pointed out by Ahmed et al. (2020), which shows that intrinsic motivation concentrates on these aspects.

The state of being wholly absorbed in something while participating in a particular activity because of an individual's intrinsic passion is known as sports commitment Schüler et al. (2023). Sports commitment is a significant psychological condition that integrates the best experiences from participating in sports. Corvino, Martinez-Damia, Belluzzi, Marzana, and D'Angelo (2023), and numerous types of research have shown that sports participation motives favor sports commitment Maciel et al. (2023). According to Kang et al. (2020), meeting these psychological requirements and preserving motivation to exercise regularly is critical since they are significant predictors of sports continuity. One such psychological aspect is the commitment to sports (Roby, 2023). People stick with something or stay involved because they are committed to it Ganzevoort and van den Born (2023). Consequently, commitment is defined as a person's sense of mind-body oneness or control when fully engrossed in something.

Cereda (2024). This phenomenon can be observed in a variety of everyday activities as well as sports.

As it is stated by Englert and Taylor (2021) university athletes, particularly soccer players, face a unique set of challenges as they strive to excel in both their academic and athletic pursuits. The dual demands of academic responsibilities and high-pressure sports environments place significant stress on these athletes, making it crucial to understand the factors that drive their motivation and performance. Despite the importance of intrinsic motivation in fostering sustained engagement and high performance, the specific pathways through which it influences goal-oriented achievement among university soccer players remain underexplored. This study seeks to address this gap by examining the intricate relationships between intrinsic motivation, sports commitment, and goal-oriented achievement (Kucukibis & Gul, 2019).

Intrinsic motivation refers to the internal drive to engage in activities for their inherent satisfaction and enjoyment, rather than for external rewards or pressures (Fishbach & Woolley, 2022). In the context of university soccer, intrinsic motivation can manifest as a genuine love for the game, the thrill of competition, and the personal satisfaction derived from improving one's skills (Boyd, 2020). Research has consistently shown that intrinsically motivated athletes are more likely to exhibit higher levels of performance, persistence, and psychological well-being. However, the mechanisms through which intrinsic motivation influences goal-oriented achievement, particularly among university soccer players, have not been thoroughly investigated. This study aims to explore these mechanisms, focusing on the mediating role of sports commitment.



**Figure 1:** Research Framework

Sports commitment is a multifaceted construct that encompasses both affective and behavioral dimensions. It reflects the emotional attachment and dedication an athlete has towards their sport, as well as the consistent effort they invest in training and competition (Uğraş et al., 2024). High levels of sports commitment are often linked to greater persistence, adherence to training regimens, and overall performance. However, the specific role of sports commitment as a mediating variable in the relationship between intrinsic motivation and goal-

oriented achievement remains unclear. This study posits that sports commitment may serve as a crucial bridge, facilitating the translation of intrinsic motivation into sustained engagement and higher performance outcomes (Uğraş et al., 2024).

Goal-oriented achievement refers to the attainment of specific outcomes that athletes strive for, such as winning competitions, achieving personal bests, and gaining recognition (Lachman, 2014). For university soccer players, these goals are not only a measure of athletic success but also play a significant role in their overall development and future career prospects. Understanding the factors that influence goal-oriented achievement is vital for developing effective coaching strategies and support systems that enhance athletes' performance and well-being (Wachsmuth, Feichtinger, Bartley, & Höner, 2024). This study seeks to explore how intrinsic motivation and sports commitment interact to shape goal-oriented achievement, providing valuable insights for stakeholders in the field of university athletics.

While substantial research has been conducted on motivation in sports, there is a noticeable gap in studies focusing specifically on university athletes, particularly soccer players. Most existing research has either concentrated on professional athletes or adolescents, leaving a critical gap in understanding the unique motivational dynamics of university athletes (Nijland, Toering, Watson, de Jong, & Lemmink, 2024). This study aims to fill this gap by providing a comprehensive examination of how intrinsic motivation and sports commitment interact to influence goal-oriented achievement among university soccer players. By doing so, it seeks to contribute to the broader body of knowledge on sports psychology and motivation.

This study addresses a critical gap in the literature by focusing on the motivational dynamics that influence athletic performance among university soccer players. By examining the relationships between intrinsic motivation, sports commitment, and goal-oriented achievement, the research seeks to offer valuable insights that can inform practical interventions and strategies to enhance the performance and well-being of university athletes. The findings of this study could contribute to the development of targeted programs that support athletes in balancing their academic and athletic commitments, ultimately helping them achieve their full potential both on and off the field. This research aims to provide a comprehensive understanding of the factors that drive goal-oriented achievement among university soccer players. By elucidating the pathways through which intrinsic motivation influences performance and highlighting the mediating role of sports commitment, the study seeks to offer a nuanced perspective on how to best support university athletes in their pursuit of excellence.

## Research Methods

The hypotheses of the study were tested by using a sample of Soccer players from public and private universities in Punjab, Pakistan were chosen through convenience sampling for this study. The variables and the items of current research have been adapted from past studies. Though, the research questionnaire is divided into two major parts. The first part is intended to get the respondents' demographic data and the second part contains five Likert-type scale items ranging from 1 chosen for "strongly disagree", 2 for "disagree", 3 for "neutral", 4 for "agree" 5 for "strongly agree".

All steps required to collect the data ethically were taken during the research, and the respondents of the study were taken into confidence for the privacy of their responses. The responses were collected with the help of WhatsApp, emails, and Facebook through Google Forms. In total 400 employees were contacted as a result of the sampling process out of which 350 questionnaires were received back, the returned and useable questionnaires were 319 and excluded questionnaires were 31, and the number of questionnaires not received from respondents was 50. Hence, only 319 questionnaires were used for subsequent analysis which gives a valid response rate of 80% and a total response of 87.5%.

## Data Analysis and Results

### Assessment of the Measurement Model

The PLS-SEM approach has been used to validate the theory and suggests that the association exists. Nonetheless, the measurement model must be used in the model assessment to verify its reliability and validity. The measurement model's evaluation using PLS-SEM has been adequately assessed by the usage of Smart-PLS 4.0 (Ringle, Sarstedt, & Schlittgen, 2014). Reliability, discriminant validity, and convergent validity of the measurement of constructs were noted and thoroughly investigated, leading to the conclusion of the measurement model.

Before determining if the variables were connected, the researchers examined each variable's measurement quality to ensure there were no issues. Hair, Henseler, Dijkstra, and Sarstedt (2014), state that no further text appears. Please send me the entire text so I can simplify it. We can declare a survey accurate if each question has a score greater than 0.5. Figure 2 demonstrates that every value for the object under investigation is greater than the lowest value that was required. Table 6 presents the quality of the measurements for all the variables under investigation. Every measurement exceeds our standards of excellence.

Furthermore, the alpha value determination criteria were devised by George and Mallery (2003), and goes as follows:  $\alpha > 0.9$  = Excellent,  $\alpha < 0.8$  = Good, and  $\alpha < 0.7$  = Acceptable. Nonetheless, the results of the present investigation

demonstrate that each variable has a Cronbach's alpha value of 0.8, as seen in Table 6. This proves the consistency of the study, then.

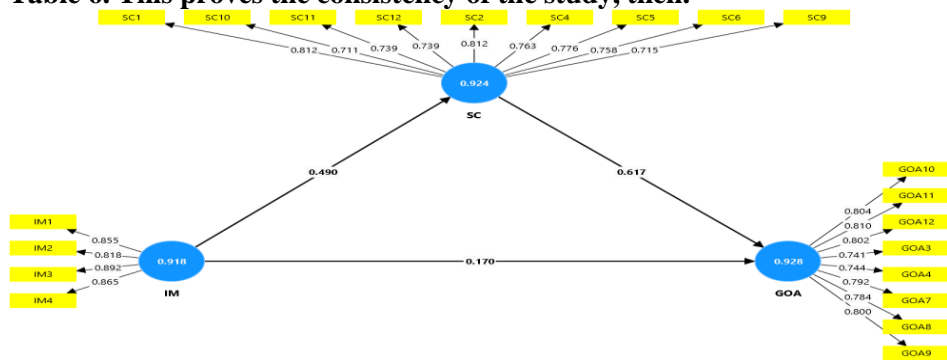


Figure 2: Measurement Model Results

Table 1: Measurement Model's Results

Constructs	Items	Outer Loadings	Cronbach's alpha	Composite Reliability	Average Variance Extracted
Goal Oriented Achievement	GOA10	0.804	0.911	0.928	0.616
	GOA11	0.810			
	GOA12	0.802			
	GOA3	0.741			
	GOA4	0.744			
	GOA7	0.792			
	GOA8	0.784			
	GOA9	0.800			
Intrinsic Motivation	IM1	0.855	0.880	0.918	0.736
	IM2	0.818			
	IM3	0.892			
	IM4	0.865			
Sports Commitment	SC1	0.812	0.908	0.924	0.576
	SC10	0.711			
	SC11	0.739			
	SC12	0.739			

SC2	0.812
SC4	0.763
SC5	0.776
SC6	0.758
SC9	0.715

In this article, we discuss how examining the relationships between various elements (latent variables) may help determine if a model makes sense. By examining their association, we achieve this. It is also mentioned in the text that we may use the "square root of AVE's" to compare the values of these components. The table indicates fewer linkages between the various topics under study than indicated by the bolded numbers.

**Table 2:** *Discriminant Validity Matrix (Fornell-Larcker Criterion)*

	GOA	IM	SC
Goal Oriented Achievement (GOA)	<b>0.785</b>		
Intrinsic Motivation (IM)	0.472	<b>0.858</b>	
Sports Commitment (SC)	0.700	0.490	<b>0.759</b>

Discriminant validity is a measure of the distinct portion of a concept that is not accounted for by any other concept in the model. The Fornell-Larcker criterion can determine this by comparing the square root of the average variance extracted (AVE) of a construct with its correlations with other constructs. The Heterotrait-Monotrait ratio (HTMT) is another composite ratio. It is recommended that values below 0.85 indicate strong discriminant validity (Sarstedt, Ringle, & Hair, 2021).

**Table 3:** *Discriminant Validity Matrix of (Heterotrait-Monotrait Ratio (HTMT))*

	GOA	IM
Goal Oriented Achievement (GOA)		
Intrinsic Motivation (IM)	0.525	
Sports Commitment (SC)	0.766	0.546

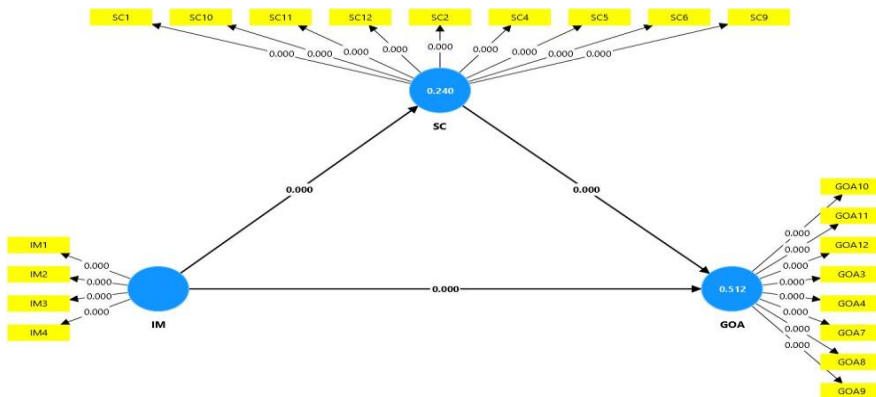
### Structural Model

After verifying the measurement tool's correctness, the next stage is to assess the model's structure using Smart-PLS 4.0. Several experiments have been conducted to verify the model's structure. They examined elements such as the relative importance of each component of the model and its predictive accuracy.

**Testing Hypotheses and Direct Effect:**

The Smart-PLS structure model's inner-model analysis revealed a direct correlation between the examined variables, including t-values and path coefficients. According to Henseler, Ringle, and Sinkovics (2009), the path coefficients of regression analysis and the standardized beta coefficient are equivalent. The coefficients of regression and t-values are examined regardless of the beta values to establish the constructs' significance level.

However, as explained by Hair et al. (2014), the bootstrapping approach was employed (with 5000 sample iterations for 96 cases/observations) to get the regression coefficient's beta-values and the t-values, which need to be higher than 1.96 to be deemed significant. To make decisions on the offered hypotheses based on the collected results. The current study uses a structural model to evaluate the model by examining direct links and testing the hypothesized correlations among the variables. Nonetheless, it was discovered that all three of the hypotheses examined in this study under straight connections were true. Additionally, Figure 2 illustrates the direct effects of each predictor on the dependent variable.



**Figure 3:** Results of Structural Model (p-values)

The Structural Model Direct Relationships: As indicated in Table 4, a hypothesis will be rejected if its t-value is less than 1.96. If it meets this requirement, it will be accepted. Moreover, Table 4, which provides a comprehensive description of Tables 2 and 3, displays the effects of all independent factors on the dependent variable, Goal-Oriented Achievement (GOA). According to the R-square value of the Smart-PLS output, combining all of the constructs tends to reduce the variability in the dependent variable by 51%.



**Table 4:** *Summary of Direct Hypotheses Testing*

S r. #	Hypotheses	Beta	SD	t- Statistic	p- Values	Decision	Effect Size	Q <sup>2</sup>	R <sup>2</sup>
1	IM -> SC	0.490	0.039	12.513	0.000	Supported		0.316	0.240
2	IM -> GOA	0.472	0.040	11.685	0.000	Supported		0.477	0.512
3	SC -> GOA	0.617	0.039	15.869	0.000	Supported		0.779	0.822

Mediation Model: The resampling mediation approach (bootstrapping) was utilized to investigate the indirect influence of each variable in the current study. Similarly, most research finds bootstrapping a non-parametric resampling method to be more responsive since it is believed to be the most promising approach for examining and assessing the mediation effect (Hayes, 2009; Zhao, Zhou, & Zhao, 2009). Furthermore, Hair et al. (2014), noted that because it can be used for very small sample sizes, the PLS-SEM bootstrapping approach for mediation analysis is the most appropriate for quantitative investigations. Nevertheless, according to Hair et al. (2014), the Preacher and Hayes (2008) mediation approach must be followed to analyze mediation effects, and bootstrapping the distribution of samples of in-direct effects is necessary for both simple and multiple models. Thus, Smart-PLS 4.0 F. Hair Jr, Sarstedt, Hopkins, and G. Kuppelwieser (2014) has been utilized to analyze the employment of sports commitment (SC) as a mediating variable in this study. The bootstrapping approach and 5000 resampling have been employed to get the t-value. The study examined the relationships between several objects. They discovered that players' dedication to their games, accuracy in their work, and exclusive concentration on goal attainment are all indicators of intrinsic motivation. Table 05 shows the relationship between an inwardly driven individual dedicated to their work and accomplishing their goals.

**Table 5:** *Summary of Indirect Hypothesis Testing*

Hypothesis	Path coefficient	Standard deviation	T statistics	P values	Decision
IM -> SC -> GOA	0.302	0.027	11.278	0.000	Partially Mediated

**Model’s Predictive Relevance**

The predictive relevance also referred to as Q<sup>2</sup> is also used in Partial Least Squares Structural Equation Modeling (PLS-SEM) to determine the predictive accuracy of the model. While the former is used to measure the fitness of the

model, the latter evaluates the precision of the model in predicting the other data points which are not employed in the estimation of the model. This test gives an index of the model sample's predictive ability of the model guaranteeing that the model is not just a good data explainer but also a good data predictor (Hair Jr, Matthews, Matthews, & Sarstedt, 2017).

This cross-validated redundancy analyses the model's ability to predict the dependent variable's relevance and describes the model's overall quality. Thus, Table 6 thoroughly represents the variable's cross-validated redundancy. Furthermore, Table 06 shows that the model's predictive relevance is validated in the fourth column,  $Q^2$ , with values of 0.477 for goal-oriented achievement (GOA) and 0.316 for sports commitment (SC).

**Table 6:** *Predictive Relevance of the Model*

Variables	SSO	SSE	1-SSE/SSO
GOA	115.035	88.324	0.477
SC	88.697	55.322	0.316

## Discussion, Conclusion, and Implications

### Discussion

The first research objective of this study was to determine the correlation between IM and goal-oriented achievement among soccer players. With the research question is there a positive and significant relationship between intrinsic motivation and goal-oriented achievement? Hypothesis H1: There is a positive and significant relationship between intrinsic motivation and goal-oriented achievement. Thus, the results of current research support the first hypothesis and reveal a positive and significant correlation between intrinsic motivation and goal-approach achievement among university soccer players. The path coefficient for the relationship of intrinsic motivation and goal-oriented achievement is 0.472, with an STDEV of 0.040, and a t statistic of 11. It is compared employees' perceptions of narrowly defined PMSs and Broadly defined PMSs. that is,  $M = 685$ , and  $p = 0.000$ . Thus, based on the results, it can be concluded that when intrinsic motivation is high, goal-oriented achievement motivation becomes significantly higher. Self-motivation, which is defined as motivation stemming from the enjoyment of a specific activity, is one of the necessary elements that are required to achieve a goal set (Ryan & Deci, 2000b). The results of this study support the literature by showing that the level of intrinsic motivation is significantly related to the athletes' tendency to set and attain composite challenging (Gillet, Vallerand, Amoura, & Baldes, 2010). The strong positive correlation established in this study further supports the need for learners' motivation to improve goal-directed achievement. The conclusion

drawn from this study corresponds with previous substantive studies that have established the correlation between intrinsic motivation and achievement-related determinism. For example, Vallerand (2007) observed that people showing higher levels of intrinsic motivation are likely to exhibit higher levels of approach, to goal setting, and goal achievement. In the same manner, Gillet et al. (2010) concluded that athletes with intrinsic motivation yielded better performances in their endeavors than those athletes with extrinsic motivation. The results of this study are in line with Pelletier et al. (1995) who highlighted that AM played a positive role in persistence, effort, and performance in sports. To this effect, the strong and positive correlation between intrinsic motivation and goal-oriented performance established in this study affirms these discoveries with a special highlight on the indispensable part of motivation in sports performance.

The second research objective of this study focused on the nature of the interaction between IM and SC among soccer players. Accordingly, the analysis of the results of this study revealed a strong positive correlation between self-report management of intrinsic motivation and sports commitment to support the second hypothesis of the relationship between them.

As for the magnitude of the causal effect on the relationship between intrinsic motivation and sports commitment, the path coefficient ( $\beta$ ) was 0.490. The average value of yield is 490 with  $STDEV = 0$ . The calculated values include 0.39 and a highly significance T statistic of 12.513 ( $p=0.000$ ) Supporting this, Rintoul and Jones, in a study that compared the clinical outcomes of 130 medical patients with dysphagia to a matched control of 130 patients without dysphagia, noted that the former group had a significantly higher number of hospital admissions (\*\*Mean  $\pm$  SD number of admissions within the last two years, dysphagia group. concern, this means that for every increment in intrinsic motivation by one unit there is a similar increment in confusion by 0.490. In the case of the university soccer players, an increase of 490 units in sports commitment was observed. This strong positive effect provides evidence that individuals' intrinsic motivation level is positively related to their level of commitment to sport. The current study is in synchrony with the previous studies revealing the direct relation between autonomous motivation and positive consequences in sports settings such as commitment, persistence, and performance (Pelletier et al., 1995; Ryan & Deci, 2000b). Therefore, the current study contributes to the extant literature by examining the IM commitment among university soccer players and offering evidence to support this relationship within this population.

The third objective of this study was to examine the relationship between sport commitment and goal-oriented achievement among university soccer players. With a research question is there a positive and significant relationship between

sport commitment and goal-oriented achievement? H2: There is a positive and significant relationship between sports commitment and goal-oriented achievement. The findings of this research study confirm the third hypothesis, indicating a strong and meaningful correlation between sports dedication and achievement-oriented athletes among university football players. The research shows that the direct effect, or path coefficient ( $\beta$ ), for sports commitment and achievement-oriented objective is 0.617, with a standard deviation (STDEV) of 0.397 and a t statistic of 15.869, and the p-value equaled to 0.000. Thus, the findings of this research suggest that as the levels of sport commitment rise, the levels of goal-oriented achievement rise by a significant measure.

It could be concluded that the conclusion of the current study also supports the prior studies, which reveals that sports commitment has a positive correlation with the achievement of goal-directed goals. Weiss et al. (2007) pointed out that research has shown that athletes with greater degrees of sports commitment, that is, commitment to the sport itself rather than commitment to a specific team, will achieve their goals more effectively, and score correspondingly better in their sport. In the same respect, Poczwardowski, Diehl, O'Neil, Cote, and Haberl (2014) indicated that committed athletes are likely to display higher levels of effort, as well as perseverance, and performance.

This study's findings are also by the Sport Commitment Model where self-perceived enjoyment, available involvement opportunities, and personal investments affect the athlete's commitment towards his/her sport (Scanlan, Carpenter, Simons, Schmidt, & Keeler, 1993). Consequently, the theoretical perspectives of this study are upheld by the above-seen significant positive correlation between the level of sports commitment and goal-oriented achievement confirmation. The latter overwhelming finding assures the paramount importance of sports commitment within the ambit of sporting performance.

The fourth objective of this study was to explore the mediating role of sports commitment in the relationship between intrinsic motivation and goal-oriented achievement among university soccer players and with a research question does sports commitment mediate the relationship between intrinsic motivation and goal-oriented achievement? Hypothesis H4: Sports commitment mediates the relationship between intrinsic motivation and goal-oriented achievement. The analysis of the results in this study confirms the third hypothesis that sports commitment fully mediates the extent of the association between intrinsic motivation and goal-related performance. Therefore, the path coefficient (O) of sport commitment as a mediator is 0. Mean = 302, while STDEV = 0.027, an overall analysis of variance F statistic of 430.07 and a geometric mean ES of 0.834 to 1.526 and a T statistic of 11.41, and the p-value of 0 respectively.000.

Based on the findings of the current study, it could be concluded that intrinsic motivation has a positive relationship with goal achievement through sports commitment.

This paper's findings support prior literature that has established commitment as a moderator in the motivation performance nexus. The review of the literature indicated that whenever athletes report high levels of intrinsic motivation, they are likely to display a high level of commitment to the sport, thus yielding improved performance and greater accomplishment of goals as postulated by (Vallerand, 2007) as well as (Weiss et al., 2007). This study's findings are therefore consistent with the accumulated knowledge about motivation and commitment in sports in general. For example, Pelletier et al. (1995) studied the relationship between intrinsic motivation and effort and persistence two constructs central to the definition of sport commitment. The present study has concurred with these studies as this research has a significant mediating impact in support of the necessity of promoting intrinsic motivation along with sports commitment to facilitate goal-oriented achievement.

### **Conclusion**

Finally, this research mainly supports the postulates as to the positive and significant correlation of motivated-intrinsically oriented goal achievement among university soccer players. The conclusions correspond with Self-Determination Theory and prior studies focusing on the fact that intrinsic motivation is invaluable when it comes to improving the goals' attainment. It is recommended that the relationship of dynamic motivational constructs should be specified over time and innovative ideas should be developed to establish the effects of motivational constructs on goal achievement so that a broader perspective of the factors influencing performance and success among athletes will be known. Therefore, the findings of the present research attest to the theoretical and empirical assertion that sports commitment favors a positive goal-oriented achievement amongst the soccer players of the university.

Therefore, the present research establishes a strong positive correlation between intrinsic motivation and sports commitment of university soccer players. The study adds to knowledge and practices in the field of sports psychology to indicate that intrinsic motivation should be cultivated to increase the athlete's interest and dedication to sports. This paper demonstrates how key concepts of Self-Determination Theory can be enacted in the context of sports coaching to inform practitioners how to enhance athletes' intrinsic motivation to pursue their sports activities and achieve sustainable levels of commitment and performance.

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