

## Ambidextrous Leadership and Its Role in Driving University Students' Motivation for Sports

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### Abstract

**Background:** This study aims to examine the relationship between ambidextrous leadership style, the dual approach of transformational (explorative) and transactional (exploitative) leadership, and university student-athletes' motivation for sports. This research paper aimed to quantify the strength of the relationship between the two variables and how the ambidextrous leader's characteristics, such as innovation, flexibility, creativity, discipline, consistency, optimization, and efficiency of performance, relate to both extrinsic and intrinsic motivation among university student-athletes. **Methodology:** By adopting a quantitative research method and cross-sectional study design, the responses were collected from individuals with specific skills, knowledge, and experience applicable to the research problem through a purposive sampling method, which was further assessed with a standardized questionnaire, comprising the 13 items of Ambidextrous Leadership Scale (Rosing, et al. 2011) and the 18 items of student-athletes' Motivation for Sports Scale (Pelletier et al. 1995). A total of 64 participants, from private and public universities of Lahore, including sports teams' leaders, e.g., captains, vice-captains, ex-captains, and competent student-athletes, conveyed their valuable thoughts for this research. **Results:** The gathered data from specialized individuals was further analyzed through

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SPSS software, conducting Pearson correlation and regression analysis. The Ambidextrous Leadership Scale produced a Cronbach's Alpha of 0.809, a student-athletes' Motivation for Sports Scale value of 0.887, and a combined reliability value of 0.894, which indicates excellent internal consistency. The results demonstrate a significant and moderate positive correlation ( $r = 0.451$ ,  $p < 0.01$ ) between ambidextrous leadership and student-athletes' motivation for sports. The linear regression revealed that 20.3% of the variance in sports motivation is explained by ambidextrous leadership ( $R\text{-squared} = 0.203$ , adjusted  $R\text{-squared} = 0.191$ ). The coefficient of regression ( $B = 0.463$ ,  $p < 0.001$ ) indicates that a one-unit increase in ambidextrous leadership is associated with a 0.463-unit enhancement in the student-athletes' motivation. Conclusions: Ambidextrous leaders who proficiently integrate the explorative aspect of ambidextrous leadership, like creativity, adaptability, and innovation, with the exploitative aspect of ambidextrous leadership, like discipline, structure, and efficiency, encourage an environment in educational institutions that is associated with higher sports engagement, discipline, creativity, flexibility, innovation, and efficiency in sports performance among university student-athletes. The results validate the study hypothesis ( $H_1$ ), indicating that ambidextrous leaders who effectively balance innovation and efficiency are significantly associated with both intrinsic and extrinsic motivation among university student-athletes. The findings suggest that an ambidextrous leadership approach is positively associated with balancing creativity and control, providing a comprehensive framework to the domain of sports management and leadership to stimulate creativity, enhance efficiency in sports performance, and motivate student-athletes' participation in sports.

**Keywords:** Ambidextrous leadership, University Student-athletes' Motivation for Sports, Sports Motivation, Exploration and Exploitation, Transformational and Transactional Leadership, Sports Leadership, Sports Performance

## Introduction

Leadership refers to the process of influencing and motivating individuals to work in a productive way to achieve organizational goals (Cai et al., 2024). An effective leader in sports plays a significant part in shaping a positive, healthy, respectful, optimistic, and cooperative atmosphere. Emphasizing challenges and inclusivity, such a leader motivates and inspires athletes to work effectively to overcome difficulties, team coordination, nurture skills, and become effective contributors to their academics and co-curricular community, including sports (Mateescu et al., 2024). Leadership in the academic perspective goes beyond structured organization to advance an environment that facilitates or empowers students-athletes to achieve excellence, create an innovative approach, and provides the foundations to encourage student-athletes to flourish academically and in co-curricular pursuits.

Ambidextrous leadership is characterized by its ability to flexibly incorporate both the transformational (explorative) and transactional (exploitative) approaches, and holds significant potential in enhancing educational success in university students-athletes. Through persuading elements of creativity, adaptability, and efficiency, ambidextrous leaders can capitalize on the diverse motivational demands of students-athletes, hence exploiting their holistic development and continuous commitments (O'Brien, 2018). The technique of pursuing the exploration and the exploitation aspect of ambidextrous leadership efficiently has been demonstrated to grow organizational effectiveness (Sanmugam Annamalah et al., 2023). Leadership style is an approach that an organization practices to affect the individual motivation and team performance positively. Within educational environments, the extent to which motivation can be associated with student-athletes is not only dependent upon the leadership style but also upon support mechanisms, communication strategies, and organizational culture. Ambidextrous leadership is the ability to apply explorative as well as exploitative approaches at the same time to achieve organizational objectives that demand flexibility, creativity, discipline, and efficiency (Aiza Yasmeen & Saran Khan Ajmal, 2023).

Educational Institutions, especially in developing nations, face several challenges, including limited resources and diverse students-athletes' needs, inadequate sports facilities, a lack of sports competencies, and effective sports leadership strategies. These difficulties need progressive and effective leadership approaches to stimulate student-athletes and enhance their performance proficiently. Conservative leadership practices, although operative in particular contexts, often neglect and deny speaking to the dynamic necessities of students-athletes in academic institutions. Ambidexterity, as well-defined, is the capacity of a leader to navigate between the requirements for exploration to stimulate innovation and flexibility and exploitation that assures efficiency and discipline (Lissillour & Rodriguez-Escobar, 2022). The adaptation of effective and advanced leadership approaches, such as ambidextrous leadership, is limited in undeveloped nations, highlighting a notable and significant research gap (Rosing et al. 2011). Despite its ability to adopt creativity, innovation, flexibility, and discipline being promising, ambidextrous leadership has not been comprehensively studied in developing nations like Pakistan, especially its application in inspiring students towards participation in sports and co-curricular activities in universities. This method has been promising in enhancing organizational efficiency in various disciplines, but its addition to sports psychology and leadership, especially motivating university student-athletes for sports, is still ambiguous (Ahsan et al., 2020). This study aims to examine the relationship between ambidextrous leadership style, the dual approach of transformational (explorative) and transactional (exploitative) leadership, and university student-athletes' motivation for sports.

## Methodology

### Study Design

This study employed a quantitative approach and a cross-sectional research design to examine the association between ambidextrous leadership and student-athletes' motivation for sports. The data was collected at a particular point, which is valuable to consider the existing situation of the phenomenon under consideration and to provide the degree of interrelation of both variables (Creswell & Creswell, 2018).

### Variables

This study consists of two primary variables, including ambidextrous leadership (Rosing et al., 2011), a balance of the transformational method (creativity, flexibility, and innovation) and the transactional method (discipline, structure, and efficiency), and the university student-athletes' motivation for sports (Pelletier et al., 1995).

### Participants

A total of 64 participants, comprising sports team leaders and experienced student-athletes (e.g., captains, vice-captains, and ex-captains), were recruited from public and private universities within Lahore city, which have demonstrated a commitment and dedication to sports development, including University of Lahore and University of the Punjab, Superior University, Lahore College for Women University, and COMSAT University Lahore. Because the target population was specialized and skilled, a non-probability purposive sampling method was employed to select participants (Creswell & Creswell, 2018). This research scope was not restricted by gender to accept a comprehensive analysis of sports leadership perspectives within the universities.

### Sample Size

The researchers aim for a sample that is both practically attainable and statistically sufficient to draw meaningful conclusions. The researcher gathered data from 64 participants through non-probability purposive sampling for this study to measure the relationship between Ambidextrous Leadership behavior and student-athletes' motivation for sports. Although the sample is relatively small due to limited captains, vice-captains, and ex-captains, but considered adequate for correlation and regression to provide initial conclusions about the hypothesized relationship within the context of the present study (Creswell & Creswell, 2018).

### Selection Criteria

#### Inclusion Criteria

The participants, including male and female student-athletes who have demonstrated leadership roles such as captains, vice-captains, and ex-captains of sports teams at the university within Lahore city, the experienced student-athletes who are actively engaged in inter-university or intra-university sports competitions, and currently studying in any department of the university (bachelor's, master's, mphil or phd programs) were included in this research work.

#### Exclusion Criteria

The male and female student-athletes below 18 years of age at university sports, the student-athletes with no leadership experience in university sports, and the student-athletes who are training only to maintain fitness without competition aspiration and have never participated in university sports competition, were also excluded from this research work.

### Tool of Data Collection

Data was collected through a structured questionnaire using a Google Form, which consists of two standardized instruments and brief demographic information. The Ambidextrous Leadership Scale, developed by Rosing et al. (2011), is based on 13 items consisting of two

dimensions, explorative approach and exploitative approach, and the Student-athletes' Motivation for Sports scale, developed by Pelletier et al. (1995), based on 18 items consisting of two dimensions, intrinsic motivation and extrinsic motivation. Both instruments were administered in English as this was the medium of instruction for participants' universities, and they could easily understand the language. Minor contextual wording adaptation (replaced manager with sports administrator) in the ambidextrous leadership scale, and addition in demographic information was made, such as adding (university status, position in sport type, number of years associated with university sports as captain/vice-captain (in any capacity) to improve contextual clarity for student-athletes while maintaining original constructs and meaning of the items.

### **Validity Consideration**

Both the ambidextrous Leadership Scale (Rosing et al., 2011) and the Sports Motivation Scale (Pelletier et al., 1995) are well-established tools with a solid theoretical basis that have been validated in various international organizational, educational, and sports contexts. The ambidextrous leadership scales developed by Rosing et al., (2011) have been used to measure creative self-efficacy, self-resilience, trust in supervisors and employee innovative performance in the Pakistan telecom industry (Khan et al., 2022) as well as ambidextrous leadership impact on project success with innovation as a mediator and self-efficacy as a moderator in management & social sciences studies at Capital University of Science and Technology, Islamabad (Ahsan et al., 2020). This highlights ambidextrous leadership scales contextual relevance in social sciences and local settings, since the current research also focuses on the social sciences discipline, assessing the role of sports leaders in Pakistani universities. The Sports Motivation Scale has also been applied to sports motivation and mindfulness among college athletes in Pakistan (Ahmed & Jamshaid, 2014; Javaid & Najam-us-Sahar, 2018), ensuring its relevance and use in sports settings.

### **Statistical Method**

To ensure precision and clarity in results, SPSS (Statistics Package for Social Sciences) version 26 was used for evaluating the data. The responses were statistically analyzed on a five-point Likert scale (1 = strongly disagree; 2= disagree; 3= neutral; 4= agree; 5= strongly agree), conducting descriptive statistics, Cronbach's Alpha for reliability, Shapiro-Wilk for normality, Pearson correlation, and linear regression analysis to observe the relationship between the variables.

### **Ethical Consideration**

Efforts were made to minimize the bias while selecting specialized student-athletes to collect data, upholding rigorous ethical standards. All participants were provided with an informed consent statement at the beginning of the Google Form used for data collection. The consent page professionally conveyed the purpose of the research, the voluntary nature of participation, whether to fill the form, the expected time required to fill the questionnaire form, the rights afforded to participants, and clearly mentioned that no emails, names, or any identifying information would be gathered; everything would be anonymous. Respondents were assured that their data would be safely collected only for scholarly research purposes. The male and female student-athletes above 18 years of age could participate in the research voluntarily. Data confidentiality was maintained throughout the study, and all findings are presented only in aggregate form to prevent any revelation of participants.

### **Settings**

The study was conducted within the department of sport sciences and physical education, University of Lahore, and the researcher further collected data for this study from male and





female student-athletes of the University of Lahore, the University of the Punjab, Superior University, Lahore College for Women University, and COMSAT University Lahore.

Results

A total of 64 valid responses were collected from university student-athletes with no missing data, including 42 males (65.6%) and 22 females (34.4%). Approximately 56.3% were aged 25–30 years, which is the most productive working age for university sports leadership positions. Further, 40.6% of them were in Bachelor's, 29.7% in MS/MPhil, and in terms of experience, 70% of the respondents had experienced up to 5 years serving as captain or vice-captain, or as individual athletes for university sports. The majority of respondents, 59.4% represented private universities, whereas 40.6% were enrolled in public universities. Cronbach's Alpha is used to examine the reliability for assessing the internal consistency of items in each scale. The Ambidextrous Leadership Questionnaire, which consists of Transformational (explorative) as well as Transactional (exploitative) dimensions, produced a Cronbach's Alpha of 0.809, presenting good reliability. Moreover, both the Intrinsic and Extrinsic Motivation sub-scales of the Student-athletes' Motivation for Sports possessed a Cronbach's Alpha value of 0.887, which is a measure of excellent internal consistency among its items. Cronbach's Alpha reliability value of 0.894 from the total of 31 items combined, showing great consistency, and further proceeds to predict the relationship of Ambidextrous Leadership with University Students' Motivation for Sports. In the Shapiro–Wilk test of both variables, the p-values for Leadership Mean ( $p = 0.180$ ) and Motivation Mean ( $p = 0.377$ ) are both greater than 0.05, which indicates that the data of both variables are normally distributed. Before proceeding to correlation and regression analysis, the fulfillment of other assumptions was also examined. Both variables are measured on continuous scales, and the scatterplot of standardized residuals against standardized predicted values revealed linearity. The results show the residuals are within acceptable ranges ( $-2.947$  to  $2.123$ ), which confirms no outliers were identified (maximum value of Cook's distance = 0.114). Durbin-Watson Statistic value of 2.020 revealed the independence of residuals. The visual presentation of the residual plot showed homoscedasticity. This recommends that the dataset meets all the assumptions needed to perform Pearson correlation and regression analysis.

**Table 1: Correlation between Ambidextrous Leadership and student-athletes' Motivation for Sports (n=64)**

Variables		Motivation Mean
Leadership Mean	Pearson Correlation	.451**
	Sig. (2-tailed)	<.001

Table 1 displays the Pearson correlation coefficient ( $r = 0.451$ ,  $p < 0.01$ ) reveals a moderate positive and statistically significant relationship between the Ambidextrous Leadership and student-athletes' Motivation for Sports, suggesting that with an increase in the degree of ambidextrous leadership (transformational (explorative) and transactional (exploitative) behavior), the motivation of university student-athletes towards sports also increases.



**Table 2:** *Inter-Correlation among Ambidextrous leadership (Transformational and Transactional dimensions and Motivation Type (Intrinsic and Extrinsic Motivation) (n=64)*

		TL Mean	TranL Mean	IntM Mean	ExtM Mean
Transformational Mean	Pearson Correlation	1	.363**	.417**	.295*
	Sig. (2-tailed)		.003	.001	.018
Transactional Mean	Pearson Correlation	.363**	1	.394**	.255*
	Sig. (2-tailed)	.003		.001	.042
Intrinsic M Mean	Pearson Correlation	.417**	.394**	1	.586**
	Sig. (2-tailed)	.001	.001		<.001
Extrinsic Mean	M Pearson Correlation	.295*	.255*	.586**	1
	Sig. (2-tailed)	.018	.042	.000	

Table 2 displays the correlation matrix between Ambidextrous Leadership dimensions (Transformational Leadership (TL) and Transactional Leadership (TranL) and Student-athletes' Motivation dimensions (Intrinsic Motivation (IntM) and Extrinsic Motivation (ExtM)). The Transformational Leadership is significantly correlated with Intrinsic Motivation ( $r = .417$ ,  $p < 0.01$ ) and Extrinsic Motivation ( $r = .295$ ,  $p < 0.05$ ), indicating that transformational (explorative) leadership in universities is significantly correlated with both intrinsic and extrinsic forms of student-athletes' motivation for Sports boosted through university sports leaders' creativity, innovation, and flexibility. The Transactional (exploitative) Leadership is also significantly correlated to Intrinsic Motivation ( $r = .394$ ,  $p < 0.01$ ) and Extrinsic Motivation ( $r = .255$ ,  $p < 0.05$ ), suggesting that Transactional (exploitative) Leadership in universities also positively and significantly correlates with both intrinsic and extrinsic forms of student-athletes' motivation for Sports boosted through reward, structure, discipline, efficiency, and organized direction. The strong positive correlation between Intrinsic and Extrinsic Motivation ( $r = .586$ ,  $p < 0.01$ ) suggests that both forms of motivation go hand in hand; student-athletes who are self-motivated (intrinsic Motivation) will also have positive ratings for extrinsic motivation.

**Regression Analysis:**

**Table 3: Descriptive Statistics (n=64)**

	Mean	Std. Deviation
Motivation Mean	4.0755	.47061
Leadership Mean	3.8341	.45811

Table 2 indicates that the mean for student-athletes' Motivation for Sports is 4.08, demonstrating that the respondents generally reported strongly agree with motivation towards sports participation. The mean for Ambidextrous Leadership is 3.83, indicating that student-athletes moderately agree that their sports leaders' practical ambidextrous (transformational or explorative and transactional or exploitative) leadership behavior.

Table 4: Model Summary ambidextrous leadership and university student-athletes' motivation for sports (n=64)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
					R Change	Square F Change	df1
1	.451 <sup>a</sup>	.203	.191	.42339	.203	15.836	1
Change Statistics							
Model	df2		Sig. F Change		Durbin Watson		
1	62		<.001		2.020		

In the linear regression test, the R-value (R=0.451) predicts a moderate positive relationship between ambidextrous leadership and student-athletes' motivation for Sports. The model is statistically significant, F (1, 62) =15.836, p <0.001, and the R-squared value (0.203, adjusted = 0.191) predicts that 20.3% of the variance in motivation among student-athletes is explained by ambidextrous leadership. This means that leadership behavior predicts approximately one-fifth of the motivational variance among university student-athletes, while the other 79.7% is explained by other factors such as institutional support, peer encouragement, or individual motivation. The estimated standard error is 0.423, and the Durbin-Watson excellent value 2.020 confirms independence of residuals.

Table 5: Anova (Model Fit) of Ambidextrous Leadership and University Student-Athletes' Motivation For Sports (n=64)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.839	1	2.839	15.836	<.001 <sup>b</sup>
	Residual	11.114	62	.179		
	Total	13.953	63			

The ANOVA outcome (F = 15.836, p < 0.001) validates that the regression model is statistically significant, i.e., Ambidextrous Leadership is a significant predictor of student-athletes' Motivation for Sports. This means that ambidextrous leadership behavior meaningfully predicts student-athletes' motivation to participate in university sports.

Table 6: Coefficients of ambidextrous leadership and university student-athletes' motivation for sports (n=64)

Model		Unstandardized Coefficients		Standardized t Coefficients Beta	Sig.
		B	Std. Error		
1	(Constant)	2.299	.450		.000
	Leadership Mean	.463	.116	.451	.000
95.0% Confidence Interval for B					
Model		Lower Bound	Upper Bound	Zero-order	Partial Part
1	(Constant)	1.400	3.198		
	LeadershiopMean	.231	.696	.451	.451

The coefficient of regression (B = 0.463, p < 0.001) indicates that a one-unit increase in ambidextrous leadership is associated with a 0.463-unit enhancement in the student-athletes' motivation for sports. The positive standardized coefficient value of (Beta = 0.451) also predicts



a direct significant relationship, i.e., with increased effectiveness in ambidextrous leadership, student-athletes' motivation towards sports activity also increases. The t-value (3.980,  $p < 0.001$ ) and 95% confidence interval also reflect that the relationship between the two variables is statistically significant.

**Regression Equation:** Motivation =  $2.299 + 0.463$  (Leadership)

### Discussion

Before conducting correlation and regression analysis, the reliability of the scales used to measure both leadership and motivation was assessed. The Ambidextrous Leadership Questionnaire, consisting of transformational (explorative) and transactional (exploitative) dimensions, produced a Cronbach's Alpha of 0.809, presenting good reliability. Furthermore, Intrinsic Motivation and Extrinsic Motivation sub-scales of the Student-athletes' Motivation for Sports possessed a Cronbach's Alpha value of 0.887, which is a measure of excellent internal consistency among its items. Cronbach's Alpha reliability value of 0.894 for all 31 constructs, reflecting great consistency of the instruments, and further proceeds to predict the relationship between Ambidextrous Leadership and University student-athletes' Motivation for Sports. In the Shapiro–Wilk test of both variables, the p-values for Leadership Mean ( $p = 0.180$ ) and Motivation Mean ( $p = 0.377$ ) are both greater than 0.05, which indicates that the data of both variables are normally distributed. The correlation analysis showed a moderate positive and significant relationship ( $r = 0.451$ ,  $p < 0.01$ ), supporting the assumption that the ambidextrous leadership, a combination of transformational and transactional leadership, correlates with student-athletes' motivation for sports (Cascio 2023). The regression analysis further predicts and validates this association; an R value = 0.451 reflects a moderate positive relationship between ambidextrous leadership and student-athletes' motivation for Sports, and  $R^2 = 0.203$  explains approximately 20.3% variance in student-athletes' motivation for sports due to ambidextrous leadership. The adjusted  $R^2$  of 0.191 predicts that the relationship is statistically significant even after sample size adjustment. The F-statistic ( $F = 15.836$ ,  $p < 0.001$ ) indicates that the statistical regression model was significant, verifying that ambidextrous leadership does significantly and meaningfully predict student-athletes' motivation for sports. In the coefficients table, the unstandardized coefficient ( $B = 0.463$ ,  $p < 0.001$ ) indicates that with every one-unit increase in ambidextrous leadership behavior predicts approximately 0.46 units in student-athletes' motivation are predicted. The 95% confidence interval for B (0.231–0.696) further validates the predictor as significant. The standardized beta value ( $\beta = 0.451$ ) also predicts a moderate positive relationship as per the correlation coefficient.

The results predict that leaders who balance exploratory behaviour like creativity, adaptability, and openness to innovation with exploitative behavior such as discipline, structure, and efficiency are better able to enhance motivation among the university student-athletes (Krueger 2024). The findings are compatible with earlier research (e.g. Tung, 2016) in Organizational psychology and management (leadership and innovation), which determine that leaders who are capable to flexibly switch between explorative (transformational/innovative) and exploitative (transactional/routine) behaviors plays a key role in empowering team innovation, boost higher motivation, creativity, and maintain discipline and efficiency in performance amongst their followers.

### Conclusion

This research predicts that ambidextrous leadership plays a crucial role in motivating university student-athletes' for sports. Leaders who are able to integrate explorative characteristics like creativity, adaptability, and innovation with exploitative characteristics like

discipline, structure, and efficiency provide an environment that provokes engagement in sports as well as performance among university student-athletes (O'Brien, 2018). The statistical findings indicate a moderate positive and significant relationship between ambidextrous leadership and student-athletes' motivation for sports.

The findings are compatible with the existing theories (e.g., Tung, 2016), suggesting that ambidextrous leaders who proficiently adopt creativity, innovation, flexibility, efficiency, and discipline in leadership patterns by switching between transformational (explorative) and transactional (exploitative) approaches promote commitment, dedication, and determination, and satisfaction, intrinsic and extrinsic motivation of sports among university student-athletes. Not only do such leadership styles inspire student-athletes to be innovative and trailblazers, but they also provide stability in performance via structural guidance (Braunstien-Minkove et al., 2022). These findings suggest that university sport leaders should adopt an ambidextrous leadership style to maximize athlete motivation, satisfaction, and performance. Innovation (exploration) as well as discipline and efficiency (exploitation) training programs would be the primary consideration in constructing more motivated and self-determined sport teams at the university level (Marques et al., 202).

### **Limitations of the Study**

The present research is limited because of its small sample size ( $n = 64$ ) and purposive sampling technique conducted among universities in Lahore, limiting its generalizability. The research uses a cross-sectional research design and self-reported measures at a particular time, which do not allow causal inference and may highlight common method bias. The model explained only 20.3% of the variance in sport motivation is explained by ambidextrous leadership, which indicates several unmeasured constructs such as infrastructure, coaching, and personality traits. Minor modifications were made in the demographics of the Ambidextrous Leadership Scale without revalidating it among this sample.

### **Recommendation**

The following are the recommended practices and future research suggestions:

1. Larger, more diverse samples from different provinces and universities should be utilized to improve generalizability and strengthen statistical validity.
2. Comparative and longitudinal research can be conducted between private and public universities to analyse how organizational culture mediates the relationship between ambidextrous leadership and sports motivation.
3. A qualitative or mixed-methods design can be used to disclose a deeper understanding of how particular leadership behaviors impact student-athletes' motivational experience in sport.

### **Practical Implications**

Universities should develop a leadership model for sports managers, directors, coaches, and captains, emphasizing explorative behavior like creativity, innovation, and exploitative behavior like discipline and efficiency, and its integration in sports discipline. Sports leaders should create an environment that motivates student-athletes for excellence, values their commitments, creativity, and inspires them to accept challenges to apply new approaches to their games while maintaining discipline and efficiency. These student-athletes can apply an ambidextrous leadership approach beyond sports, like academic activities, and engage student communities to do so.

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## Conflict of Interest

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