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Exploring coaches' competence as a predictor of athletes' sports achievement in south-south Nigeria

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ABSTRACT

This study explores the predictive relationship between coaches' competence and athletes' sports achievement in South-South Nigeria, with particular attention to gender and type of sports involved in by the athletes. The study adapted the Feltz et al.'s (1999) coaching competence model, and examined how specific dimensions of coaching competence such as motivation, game strategy, technique, and character building relate to athletes' sports performance outcomes. A correlational research design was adopted, involving 1,402 athletes selected from a population of 4,669 through multistage sampling from sports commissions and universities across six states in the South-South region of Nigeria. Data were collected using a validated instrument, the Coaches' Competence and Athletes' Sports Achievement Questionnaire (CCASAQ), and analysed with Pearson's product-moment correlation and Fisher's Z transformation. Findings revealed a statistically significant positive relationship between coaches' competence and athletes' achievement. Moreover, the relationship was stronger among female athletes compared to their male counterparts, and more pronounced in team sports than in individual sports. The study highlights the critical role of coaching competence in shaping athlete performance and recommends sustained investment in coach development programs to enhance sports outcomes across diverse athlete populations.

Keywords: Coaches, competence, Athletes, Sports achievement, Nigeria

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1. Introduction

Sports have increasingly become a global phenomenon with far-reaching impacts beyond entertainment, to include contributions to cultural integration, economic growth, and national identity (Coakley, 2021). In Nigeria for example, sports serves as a unifying platform that bridges cultural and ethnic divides, particularly in a region as diverse as South-South Nigeria. Yet, consistent success in sports depends not only on talent but also on the quality of coaching,

which remains a critical factor in athletes' performance and achievement.

Coaches play a pivotal role in shaping the development of athletes across physical, psychological, technical, and tactical domains. According to Côté and Gilbert (2009), competent coaches integrate professional, interpersonal, and intrapersonal knowledge to enhance athletes' confidence, competence, character, and connection. Coaching competence, as conceptualized by Feltz, Chase, Moritz, and Sullivan (1999), encompasses four dimensions: motivation competence, technique competence, game strategy competence, and character-building competence. These competencies collectively form the foundation of effective coaching practices and significantly influence athletes' capacity to excel in competitive sports.

Despite efforts to professionalize sports coaching in Nigeria such as the initiatives of the National Institute for Sports (NIS), the performance of Nigerian athletes at international competitions has remained inconsistent. While individual successes, such as those achieved by Blessing Okagbare and Ese Brume, demonstrate pockets of excellence, Nigeria's broader results in events like the Olympic Games reveal performance gaps that suggest systemic issues, including potentially insufficient coaching competencies (Aibueku, 2018). This inconsistency calls for a deeper investigation into how coaching effectiveness, particularly competence, affects athletes' outcomes.

The impact of coaching competence may not be uniform across all athletes. Studies have shown that gender plays a role in how athletes perceive and respond to coaching styles. Female athletes often benefit more from empathetic communication, emotional support, and participative leadership, while male athletes may respond better to directive coaching approaches (Jowett, 2007). These gender-based preferences suggest that the effectiveness of coaching competence might vary depending on the athlete's gender, potentially influencing their sports achievement differently.

Additionally, the type of sports whether individual or team-based can affect how coaching competence translates into performance outcomes. Team sports, such as football and basketball, demand collective coordination, group motivation, and shared strategy, making the coach's ability to build cohesion and manage group dynamics critical (Côté & Gilbert, 2009). In contrast, individual sports like athletics or swimming place a stronger emphasis on personal discipline, technical refinement, and mental resilience, requiring a different balance of coaching competencies.

However, there remains a significant research gap regarding how coaches' competence influences athletes' sports achievement in the Nigerian context, particularly across athlete subgroups such as gender and sports type. Most empirical studies on this topic have been conducted in Western or Asian countries, limiting their generalizability to African sports systems. There is limited evidence from within Nigeria that links specific coaching competencies to measurable outcomes in athletes' performance, especially when moderated by key variables such as gender and type of sports.

Given these concerns, this study explores the extent to which coaches' competence predicts athletes' sports achievement in South-South Nigeria. It specifically examines whether the relationship differs significantly based on the athletes' gender and type of sports. The findings

are expected to contribute to evidence-based improvements in coach education, athlete development, and institutional sports policy in Nigeria.

2. Theoretical and Conceptual Framework

This study is anchored on the Coaching Efficacy Theory proposed by Feltz, Chase, Moritz, and Sullivan (1999). The theory provides a multidimensional understanding of coaching competence by defining it as the coach's belief in their ability to affect athletes' learning and performance outcomes. It conceptualizes coaching competence through four principal dimensions: motivation, game strategy, technique, and character building. Each of these dimensions reflects critical coaching behaviours that contribute to the holistic development and performance of athletes.

According to the model, motivation competence involves the coach's ability to enhance athletes' psychological readiness, confidence, and drive toward achieving excellence. Game strategy competence reflects a coach's tactical intelligence and adaptability during competitions, including game planning and decision-making under pressure. Technique competence pertains to the instructional quality of skill development and correction of technical flaws. Character building competence focuses on instilling values such as sportsmanship, respect, and team cohesion (Feltz et al., 1999; Myers et al., 2006).

The theoretical framework also identifies key sources of coaching efficacy, including coaching experience, prior success (e.g., win-loss record), perceived skill level of athletes, and institutional support. These antecedents shape how confident a coach feels about their ability to effect change in athletes' behaviour and achievement. As Feltz et al. (1999) emphasize, higher coaching efficacy translates into more effective coaching behaviours, which in turn enhance athlete performance, satisfaction, and cohesion.

This study adopts and modifies Feltz's model by integrating two critical variables such as athletes' gender and type of sports into the coaching efficacy framework. These variables serve as moderators that may influence how coaching competence translates into athletes' sports achievement.

3. Gender as a Moderating Variable

Gender has been shown to influence how athletes interact with coaching styles and perceive their coaches' competence. For example, Jowett (2007) noted that female athletes tend to value emotional closeness and trust in the coach-athlete relationship, while male athletes often respond to assertive and performance-focused coaching. These distinctions suggest that the same level of coaching competence might produce different outcomes depending on the athlete's gender. Thus, gender is a relevant moderator in the theoretical model, potentially affecting the link between coaching dimensions and athlete achievement.

4. Type of Sport as a Moderating Variable

The nature of the sports, whether team-based or individual, also has implications for coaching efficacy. In team sports, success depends not only on individual ability but also on coordination, leadership, and communication within the group. Coaches of team sports therefore require a stronger emphasis on strategic planning, team cohesion, and motivational leadership (Côté & Gilbert, 2009). In contrast, coaches in individual sports often focus more on technical refinement, personalized feedback, and psychological resilience.

This suggests that coaching competence manifests differently across sports types and may differentially impact achievement outcomes.

5. Application to the Current Study

Based on the adapted framework, this study assumes that higher levels of coaching competence across the four dimensions will be positively associated with improved athlete performance. However, this relationship may be significantly moderated by athlete gender and sports type. For instance, a coach highly competent in game strategy may influence a team sports athlete more profoundly than an individual sports athlete, where technique might be more critical. Similarly, motivational competence may be more impactful for female athletes, who often emphasize relational and affective elements in the coach-athlete dynamics (Mageau & Vallerand, 2003).

This theoretical lens allows for a nuanced analysis of coaching effectiveness, moving beyond linear assumptions to a model that considers contextual and demographic variables. It provides a foundation to empirically test how coaching competence functions across varied athlete subgroups in the Nigerian context.

6. Methodology

- **Research Design**

This study utilized a correlational research design to investigate the relationship between coaches' competence and athletes' sports achievement. This design was selected because it allows for examining how one variable (coaching competence) predicts another (athlete achievement) without manipulating variables or imposing treatments.

Population and Sample

The population comprised 4,669 competitive athletes from universities and state sports commissions in South-South Nigeria. The six states involved were Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers. Using a multistage sampling procedure, a final sample of 1,402 athletes was drawn, stratified by gender and type of sport (team or individual) to ensure representativeness.

Table 1: Distribution of Sample across States

State	Number of Athletes Sampled	Percentage (%)
Akwa Ibom	210	15.0
Bayelsa	190	13.5
Cross River	215	15.3
Delta	260	18.5
Edo	265	18.9
Rivers	262	18.8
Total	**1,402**	**100.0**

- **Instrumentation**

Data were collected using the Coaches' Competence and Athletes' Sports Achievement Questionnaire (CCASAQ). The instrument was designed to assess the perceived competence of coaches across four theoretical dimensions from Feltz et al. (1999) and athletes' achievement across a range of sports performance indicators.

Table 2: Variables, Sub-Scales, and Measurement Levels

Variable	Sub-dimensions (where applicable)	Measurement Type
Coaches' Competence	- Motivation Competence	4-point Likert scale
	- Technique Competence	
	- Game Strategy Competence	
	- Character Building Competence	
Athletes' Achievement	- Win/loss record, skill mastery, personal bests	4-point Likert scale
Gender	Male / Female	Categorical
Type of Sport	Team / Individual	Categorical

The questionnaire was reviewed by experts for content validity and pilot-tested with 50 athletes. It showed strong internal consistency (Cronbach's alpha = 0.81), confirming its reliability for the larger study population.

- **Ethical Considerations**

Ethical approval was obtained from the relevant institutional research ethics board. Informed consent was secured from all participants. Data collection was conducted with strict adherence to confidentiality and voluntary participation standards.

- **Data Collection Procedure**

The researcher employed trained assistants to distribute and retrieve questionnaires on-site at selected institutions. A brief orientation session preceded the distribution to explain the purpose and process of the study.

- **Data Analysis**

Quantitative data analysis was conducted using SPSS. The relationship between coaches' competence and athletes' sports achievement was assessed using Pearson's product-moment correlation. To examine whether this relationship differed significantly by gender and type of sports, Fisher's z-transformation was employed to compare correlation coefficients between subgroups.

Table 3: Statistical Tests Used for Hypotheses

Hypothesis Focus	Statistical Test Applied
Relationship between competence and achievement	Pearson's r
Difference by Gender	Pearson's r + Fisher's z-test
Difference by Type of Sport	Pearson's r + Fisher's z-test
Significance Level	0.05

7. Results

This section presents the statistical findings on the relationship between coaches' competence and athletes' sports achievement, as well as how this relationship varies by gender and type of sport.

Relationship between Coaches' Competence and Athletes' Sports Achievement

A Pearson product-moment correlation was conducted to determine the overall relationship between athletes' perceptions of their coaches' competence and their reported level of sports achievement. The result revealed a moderate, positive, and statistically significant relationship:

$r(1400) = 0.472, p < 0.01$

This implies that as athletes' perception of their coaches' competence increases, their reported sports achievement also improves.

Table 4: Correlation between Coaches' Competence and Athletes' Sports Achievement (Overall)

Variable 1	Variable 2	N	r	p-value
Coaches' Competence	Athletes' Achievement	1402	0.472	< 0.01

Gender Differences in the Relationship

To explore whether gender moderates the relationship, separate correlation analyses were conducted for male and female athletes.

- For female athletes, the correlation was stronger: $r(672) = 0.523$, $p < 0.01$
- For male athletes, the correlation was still significant but slightly weaker: $r(730) = 0.426$, $p < 0.01$

A Fisher's z-test was conducted to determine if the difference in correlations between male and female athletes was statistically significant. The result showed a significant difference ($z = 2.49$, $p < 0.05$), indicating that coaching competence has a stronger predictive influence on sports achievement for female athletes than male athletes.

Table 5: Gender-Based Correlations between Coaches' Competence and Sports Achievement

Gender	N	r	p-value	Fisher's z	Significance
Male	730	0.426	< 0.01		
Female	672	0.523	< 0.01	2.49	p < 0.05

Type of Sports Differences in the Relationship

Athletes were also categorized by the type of sport: team or individual. Separate correlations were calculated for each group.

- For team sports athletes, a stronger correlation was observed: $r(860) = 0.499$, $p < 0.01$
- For individual sports athletes, the correlation was lower: $r(542) = 0.384$, $p < 0.01$

A Fisher's z-test revealed a statistically significant difference between these two correlations ($z = 2.82$, $p < 0.01$), suggesting that coaches' competence has a greater influence on athletes in team sports than those in individual sports.

Table 6: Type of Sports and Correlation with Coaches' Competence

Sport Type	N	r	p-value	Fisher's z	Significance
Team Sports	860	0.499	< 0.01		
Individual Sports	542	0.384	< 0.01	2.82	p < 0.01

Summary of key findings

- Coaches' competence significantly correlates with athletes' sports achievement.
- The relationship is stronger among female athletes compared to male athletes.
- Team sports athletes show a stronger association between coaches' competence and their achievement than individual sports athletes.

8. Discussion

The findings of this study provide empirical support for the theoretical proposition that coaches' competence significantly influences athletes' sports achievement. The overall moderate and positive correlation observed ($r = 0.472$, $p < 0.01$) reinforces the central thesis of Feltz et al.'s (1999) Coaching Efficacy Model, which posits that coaches who possess strong motivational, technical, strategic, and character-building competencies are more likely to influence their athletes' performance outcomes positively.

This result aligns with previous research that links coaching quality to athlete development. For instance, Côté and Gilbert (2009) emphasized that coaching competence integrates professional knowledge (e.g., sport-specific expertise), interpersonal skills (e.g., communication and trust-building), and intrapersonal awareness (e.g., self-monitoring), all of which contribute to athletes' confidence, competence, and character. Similarly, coaches who demonstrated high competence across multiple domains were associated with more consistent athlete performance in competitive sports settings.

A particularly noteworthy finding in this study is that the relationship between coaches' competence and athletes' sports achievement was significantly stronger among female athletes ($r = 0.523$) than their male counterparts ($r = 0.426$), with the difference confirmed statistically ($z = 2.49$, $p < 0.05$). This suggests that female athletes may be more responsive to the competencies exhibited by their coaches, particularly in the domains of motivation and character building (Aluya, 2025).

This outcome echoes the findings of Jowett (2007) and Mageau and Vallerand (2003), who argued that female athletes often place a higher value on relational aspects of coaching, such as empathy, trust, and emotional support. In environments where coaches exhibit high motivational and interpersonal competencies, female athletes may be more likely to feel valued and confident; two psychological traits that significantly impact performance.

In contrast, male athletes may respond more to performance-oriented cues, strategy, and technical feedback, and may be less influenced by affective or relational coaching styles. This gender-based divergence underscores the importance of contextual coaching that is, adapting coaching approaches to suit the demographic and psychological needs of athletes.

Another critical contribution of this study is the finding that coaches' competence had a stronger predictive relationship with achievement in team sports ($r = 0.499$) compared to individual sports ($r = 0.384$), with the difference statistically significant ($z = 2.82$, $p < 0.01$). This outcome suggests that the influence of coaching may be amplified in team-based contexts, where group coordination, shared strategy, and social dynamics are central to success.

Team sports demand cohesion, communication, and collective goal setting. As such, coaches in these contexts must deploy a broader range of competencies and not only technical or tactical, but also interpersonal and leadership skills. When coaches are effective in managing group dynamics and instilling a sense of collective purpose, their athletes are more likely to perform optimally. This explains why the relationship between coaching competence and achievement is stronger in team settings.

In contrast, individual sports rely heavily on personal discipline, mental resilience, and technical mastery. Although coaching is still critical, the scope of interaction may be

narrower, and the athlete's internal motivation may carry greater weight. Individual athletes often require more individualized technical instruction and psychological preparation, which may explain the comparatively weaker correlation in that subgroup.

9. Implications for Coaching Practice and Policy

The findings from this study offer several practical implications:

1. Gender-sensitive coaching development: Coaching education programs in Nigeria should include gender-responsive strategies, equipping coaches with the tools to understand and adapt to different motivational and communication needs of male and female athletes.
2. Sport-type specific training: Coaches working in team sports may require more intensive development in leadership, conflict resolution, and group dynamics, while coaches in individual sports may benefit from a stronger focus on individualized instruction and psychological coaching.
3. Performance appraisal and competency frameworks: Sports commissions and universities should adopt evidence-based coaching appraisal systems that include the four core dimensions of competence; motivation, technique, game strategy, and character building as defined by Feltz et al. (1999). This would ensure systematic improvement in coaching quality.
4. Coach-athlete relational training: Given the significance of relational competence, training programs should include modules on emotional intelligence, communication skills, and athlete-centred coaching models, especially for coaches of female and team sport athletes.

10. Contributions to Theory and Literature

This study contributes to the body of literature on coaching science by extending the Feltz et al. (1999) model into a Nigerian context, where empirical evidence on coaching competence has been scarce. It also affirms the need to integrate moderating variables such as gender and sports type into coaching efficacy frameworks. By doing so, the study supports a more nuanced, context-driven understanding of coaching effectiveness that is culturally and demographically sensitive.

11. Conclusion

This study sets out to explore the predictive relationship between coaches' competence and athletes' sports achievement in South-South Nigeria, with particular attention to gender and type of sports. The findings affirm that coaching competence significantly predicts athletes' performance outcomes, reinforcing the theoretical foundations of Feltz et al.'s (1999) coaching efficacy model.

Notably, the study found that:

1. There is a moderate, positive, and statistically significant relationship between coaches' competence and athletes' sports achievement.
2. The relationship is stronger among female athletes than male athletes, indicating a higher responsiveness to competent coaching, especially in motivational and interpersonal dimensions.

3. The association is more pronounced in team sports compared to individual sports, likely due to the group-based dynamics and higher relational demands of team environments.

These findings highlight the importance of context in coaching effectiveness and call for more strategic, athlete-sensitive coaching practices that consider demographic and sport-specific variables. For Nigeria sports systems aiming to enhance competitive performance nationally and internationally, investing in coach education and competence development is essential.

12. Recommendations

Based on the findings, the following recommendations are made:

1. Institutionalize Competency-Based Coach Development: Sports commissions, universities, and coaching regulatory bodies should adopt competency-based frameworks that reflect the four core dimensions of coaching (motivation, technique, strategy, and character building). Training should be continuous and outcome-focused.
2. Promote Gender-Sensitive Coaching Approaches: Given that female athletes showed a stronger correlation between coaching competence and achievement, coach education should include modules on relational competence, emotional intelligence, and gender-responsive communication styles.
3. Tailor Coaching Strategies to Sport Type: Coaches in team sports should receive enhanced training in group leadership, team cohesion, and motivational climate building, while coaches in individual sports should emphasize technical instruction and personalized athlete engagement.
4. Integrate Coaching Competence into Performance Appraisal: Coaching assessments should not only consider win-loss records but also athlete feedback on perceived competence in the key dimensions. This can guide performance reviews, promotion, and resource allocation.
5. Encourage Research-Informed Coaching Practices: Sports institutions should collaborate with researchers to conduct regular evaluations of coaching practices and use findings to refine coach development policies and athlete support systems.

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