

The Relationship Between Coach Communication and Coaching Competence and Athlete Satisfaction: The Mediating Role of Motivation Among Volleyball Athletes

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ABSTRACT: This study investigates the effects of coach communication and coach competence on athlete satisfaction, with athlete motivation as a mediating variable, among volleyball athletes in Sleman Regency. A quantitative explanatory design was employed, involving active volleyball athletes as research participants. Data were collected using structured questionnaires and analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM) to examine both direct and indirect relationships among variables. The results show that coach communication has a positive and significant effect on athlete satisfaction ($\beta = 0.406$; $t = 4.874$; $p = 0.000$). However, coach communication does not significantly affect athlete motivation ($\beta = 0.205$; $t = 1.943$; $p = 0.052$). Meanwhile, coach competence has a positive and significant effect on athlete satisfaction ($\beta = 0.374$; $t = 4.348$; $p = 0.000$) and athlete motivation ($\beta = 0.663$; $t = 6.434$; $p = 0.000$). Furthermore, athlete motivation significantly influences athlete satisfaction ($\beta = 0.165$; $t = 2.485$; $p = 0.013$). Mediation analysis indicates that athlete motivation does not significantly mediate the relationship between coach communication and athlete satisfaction ($\beta = 0.034$; $t = 1.556$; $p = 0.120$). In contrast, athlete motivation significantly mediates the relationship between coach competence and athlete satisfaction ($\beta = 0.109$; $t = 2.252$; $p = 0.024$).

KEYWORDS: coach communication, coach competence, athlete motivation, athlete satisfaction, volleyball

INTRODUCTION

Sport is no longer positioned merely as a physical activity aimed at improving physical fitness, but has evolved into a strategic medium for character development, psychological growth, and enhancement of overall quality of life (Domuschieva-Rogleva, 2020). In the context of elite and competitive sports, various factors contribute to the achievement of optimal athletic performance. Among these, athlete satisfaction has emerged as a crucial psychological construct that influences long-term participation, intrinsic motivation, psychological well-being, and competitive success (Adie et al., 2021; Li et al., 2024). Athlete satisfaction reflects individuals' cognitive and affective evaluations of their sport experience and is strongly associated with performance sustainability and career longevity.

Previous studies indicate that athlete satisfaction is shaped by multiple internal and external factors, including training quality, interpersonal relationships within the team, and the leadership behaviors of coaches (Ignacio et al., 2017; Kim et al., 2020). In particular, coaches play a central role in shaping athletes' sport experiences through their communication styles, leadership approaches, and interpersonal skills (Yang et al., 2015; Davis et al., 2019). Effective coach communication facilitates athletes' understanding of technical instructions, tactical strategies, and performance expectations, while also fostering motivation and commitment to training programs (Kassim & Boardley, 2018).

Coach–athlete communication has been identified as a critical determinant of relationship quality and team cohesion. Clear, open, and supportive communication contributes to positive interpersonal dynamics, reduces mental fatigue, and strengthens athletes' emotional attachment to their teams (Choi et al., 2020). Conversely, ineffective communication can lead to misunderstandings, increased stress, and feelings of alienation among athletes (Kim & Park, 2020; Cipriano, 2024). Consequently, communication patterns within coach–athlete dyads have gained increasing scholarly attention due to their implications for both performance and mental health (Lopes dos Santos et al., 2020).

In addition to communication, coaching competence represents another essential factor influencing athlete satisfaction and performance. Coaching competence encompasses technical expertise, training design, load management, methodological variation, and the ability to adapt programs to individual athlete needs (Inoue et al., 2022). Competent coaches are able to design

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effective training sessions that balance intensity, volume, and recovery, thereby enhancing athlete confidence and performance outcomes. Empirical evidence suggests that athletes' perceptions of coaching competence are positively associated with satisfaction, commitment, and continued sport participation (Pulido et al., 2020; Strauch et al., 2018).

Motivation constitutes a fundamental psychological mechanism underlying athletic engagement and performance. Athletes participate in sport due to both intrinsic motives (e.g., enjoyment, self-development, mastery) and extrinsic influences (e.g., rewards, social pressure, recognition) (Lisinskiene, 2018). High levels of motivation enable athletes to maintain training adherence, resilience, and performance stability over time (Razmaite & Grajauskas, 2021). Particularly among youth athletes, motivation plays a decisive role in sustaining effort and persistence during competition (Quinaud et al., 2020). Coaches are recognized as key social agents in shaping athletes' motivational orientations and facilitating skill development.

Recent empirical findings highlight the mediating role of motivation in the relationship between coach–athlete interactions and athlete satisfaction. Jin et al. (2022) demonstrated that motivation partially mediates the association between coach–athlete relationship quality and athlete satisfaction. Similar results were reported by Jin et al. (2023), who found that autonomous motivation serves as a partial mediator linking coach–athlete relationships and satisfaction. Furthermore, Imtihansyah et al. (2024) revealed that motivation mediates the influence of parental support on athletic achievement, underscoring its central role in performance development.

Despite the growing body of literature, existing studies have predominantly examined partial relationships among coach communication, coaching competence, motivation, and athlete satisfaction, often within individual sports or international contexts (Avci et al., 2018; Pulido et al., 2020). Limited attention has been given to integrative models that simultaneously assess these variables within team sports, particularly in developing sport systems. Moreover, empirical evidence from Indonesian sport settings remains scarce, especially in regional volleyball clubs.

Field observations conducted in volleyball clubs in Sleman Regency, Indonesia, revealed several practical challenges related to coach communication, coaching competence, athlete motivation, and satisfaction. Athletes reported unclear technical instructions, monotonous training programs, and limited personalized feedback, which negatively affected confidence, motivation, and training engagement. These findings suggest the need for a comprehensive examination of the interrelationships among these variables within local volleyball contexts.

Therefore, this study aims to examine the relationship between coach communication and coaching competence on athlete satisfaction, with motivation as a mediating variable, among volleyball athletes in Sleman Regency, Indonesia. This research is expected to contribute theoretically by expanding the sport psychology literature on athlete satisfaction determinants and practically by providing evidence-based recommendations for coaches and sport organizations to optimize communication strategies, enhance coaching competence, and sustain athlete motivation.

METHOD

This study employs a descriptive quantitative approach with an explanatory research design. Explanatory research is selected because the study not only aims to describe the characteristics of the variables but also to explain the causal relationships among independent variables, the mediating variable, and the dependent variable. According to Sugiyono (2019), explanatory research is a research method intended to clarify the position of the examined variables and to systematically analyze the influence of one variable on another through hypothesis testing. Therefore, this study focuses on causal (cause–effect) analysis that can be empirically tested using statistical techniques.

The population of this study comprises all volleyball athletes registered in official clubs in Sleman Regency, Indonesia. Based on statistical requirements for multivariate analysis, the minimum sample size required was 140 athletes. This sample size is considered adequate to ensure sufficient statistical power for Structural Equation Modeling analysis.

Coach communication was measured using an adapted version of the Scale for Effective Communication in Team Sports-2 (SECTS-2) developed by Sullivan and Short (2011). This instrument is widely used in sport research to assess interpersonal communication within team settings. Choi et al. (2020) reported standardized item coefficients ranging from 0.50 to 0.79, indicating strong construct validity. Internal consistency reliability values were satisfactory, with Cronbach's alpha coefficients of 0.79 (acceptance), 0.63 (distinctiveness), 0.65 (negative conflict), and 0.70 (positive conflict).

Coaching competence was measured using an instrument adapted from Juita et al. (2024) and Mu'ammal et al. (2022). Coaching competence refers to the coach's ability to train athletes effectively to achieve optimal performance. This construct consists of four dimensions: motivational competence, game strategy competence, character development, and technical competence.

Athlete motivation was measured using a questionnaire adapted from Prayoga et al. (2024). This instrument assesses athletes' drive, commitment, and willingness to consistently participate in training programs, both physically and psychologically. The scale

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consists of two dimensions: intrinsic and extrinsic motivation. Validity testing yielded a coefficient of 0.834, while reliability analysis showed excellent internal consistency (Cronbach's alpha = 0.937; CR = 0.948). Responses were measured using a 4-point Likert scale.

Athlete satisfaction was measured using an instrument adapted from Davis et al. (2019) and Prabowo (2024). Athlete satisfaction reflects subjective perceptions of training experiences and coaching quality, including individual performance and interpersonal interactions. Previous studies reported Cronbach's alpha values ranging from 0.78 to 0.95, indicating good reliability. Ahmad et al. (2021) reported an internal consistency coefficient of 0.81 for the individual performance subscale, supporting the instrument's reliability.

This study employed Partial Least Squares–Structural Equation Modeling (PLS-SEM) for data analysis. PLS-SEM was selected for several methodological reasons. First, the research model involves two independent variables (coach communication and coaching competence), one mediating variable (motivation), and one dependent variable (athlete satisfaction), requiring simultaneous mediation analysis. Second, PLS-SEM is variance-based and suitable for predictive research aimed at maximizing the explained variance of endogenous variables and examining complex causal relationships among constructs (Ghozali, 2021).

RESULT

Measurement Model Evaluation

The measurement model (outer model) was evaluated using Average Variance Extracted (AVE), Fornell–Larcker criterion, and reliability indices. As presented in Table 1, all constructs demonstrated AVE values exceeding the recommended threshold of 0.50, indicating adequate convergent validity. Athlete satisfaction (Y) showed an AVE of 0.592, coach communication (X1) 0.556, athlete motivation (Z) 0.613, and coaching competence (X2) 0.640. These results confirm that each construct explains more than 50% of the variance of its indicators.

Table 1. Average Variance Extracted (AVE)

Construct	AVE
Athlete Satisfaction (Y)	0.592
Coach Communication (X1)	0.556
Athlete Motivation (Z)	0.613
Coaching Competence (X2)	0.640

Table 2. Discriminant Validity (Fornell–Larcker Criterion)

Construct	X1	X2	Y	Z
Coach Communication (X1)	0.769			
Coaching Competence (X2)	0.713	0.745		
Athlete Satisfaction (Y)	0.874	0.880	0.883	
Athlete Motivation (Z)	0.850	0.810	0.811	0.880

Discriminant validity was evaluated using the Fornell–Larcker criterion, as shown in Table 2. The square root of the AVE for each construct exceeded its correlations with other constructs, demonstrating adequate discriminant validity. This finding indicates that each latent variable is empirically distinct and captures a unique theoretical concept.

Reliability was examined using Cronbach's alpha, composite reliability (rho_A), and composite reliability (rho_C). As shown in Table 3, all constructs demonstrated excellent reliability, with Cronbach's alpha values ranging from 0.919 to 0.962, and composite reliability coefficients exceeding the recommended threshold of 0.70 (Hair et al., 2021). These findings indicate strong internal consistency across all measurement scales.

Table 3. Reliability Test

Construct	Cronbach's Alpha	Composite Reliability (rho_A)	Composite Reliability (rho_C)
Coach Communication (X1)	0.937	0.939	0.946
Coaching Competence (X2)	0.962	0.963	0.965
Athlete Satisfaction (Y)	0.955	0.956	0.960
Athlete Motivation (Z)	0.919	0.919	0.934

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Reliability analysis was conducted using Cronbach's alpha, composite reliability (rho_A), and composite reliability (rho_C). As shown in Table 3, all constructs demonstrated excellent reliability, with Cronbach's alpha values ranging from 0.919 to 0.962 and composite reliability values exceeding 0.90. These results indicate strong internal consistency across all measurement scales. Overall, the results of the measurement model evaluation confirm that all constructs exhibit satisfactory convergent validity, discriminant validity, and internal consistency reliability. Therefore, the measurement model is considered robust and suitable for further structural model analysis.

Structural Model Evaluation

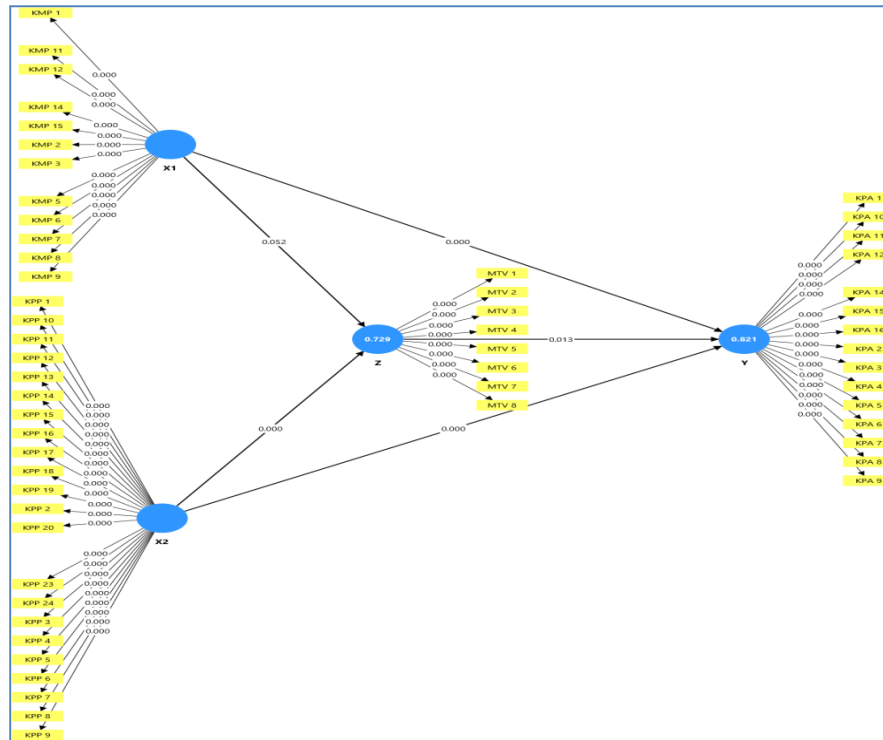


Figure 1. Inner Model

Table 4. Path Coefficients

Relationship	Original Sample (β)	Mean (M)	STDEV	T-value	P-value
X1 $\rightarrow$ Y	0.406	0.407	0.083	4.874	0.000
X1 $\rightarrow$ Z	0.205	0.203	0.105	1.943	0.052
X2 $\rightarrow$ Y	0.374	0.375	0.086	4.348	0.000
X2 $\rightarrow$ Z	0.663	0.662	0.103	6.434	0.000
Z $\rightarrow$ Y	0.165	0.161	0.066	2.485	0.013
X1 $\rightarrow$ Z $\rightarrow$ Y	0.034	0.032	0.022	1.556	0.120
X2 $\rightarrow$ Z $\rightarrow$ Y	0.109	0.107	0.049	2.252	0.024

The structural model (inner model) was assessed through path coefficients, t-statistics, and p-values obtained via bootstrapping (Figure 1 and Table 4). The results indicate that coach communication has a significant positive effect on athlete satisfaction ($\beta = 0.406$, $t = 4.874$, $p < 0.001$). However, the effect of coach communication on athlete motivation was marginally non-significant ($\beta = 0.205$, $t = 1.943$, $p = 0.052$).

Coaching competence significantly influenced athlete satisfaction ($\beta = 0.374$, $t = 4.348$, $p < 0.001$) and athlete motivation ($\beta = 0.663$, $t = 6.434$, $p < 0.001$). Furthermore, athlete motivation showed a significant positive effect on athlete satisfaction ($\beta = 0.165$, $t = 2.485$, $p = 0.013$).

Mediation effects were examined through indirect effect analysis (Table 4). The indirect effect of coach communication on athlete satisfaction through motivation was not statistically significant ($\beta = 0.034$, $t = 1.556$, $p = 0.120$), indicating that motivation does not mediate this relationship.

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In contrast, the indirect effect of coaching competence on athlete satisfaction through motivation was statistically significant ($\beta = 0.109$, $t = 2.252$, $p = 0.024$). This finding confirms that athlete motivation partially mediates the relationship between coaching competence and athlete satisfaction.

Overall, the findings demonstrate that both coach communication and coaching competence significantly enhance athlete satisfaction. However, only coaching competence indirectly affects satisfaction through motivation. These results highlight the dominant role of coaching competence in fostering athlete motivation, which subsequently enhances satisfaction levels.

DISCUSSION

The findings indicate that coach communication has a positive and significant effect on athlete satisfaction ($t = 4.874$; $p < .001$). This confirms that effective communication enhances athletes' perceptions of training quality, interpersonal relationships, and emotional support. This result aligns with previous studies showing that coaches' interpersonal communication skills play a crucial role in building trust and satisfaction (Aznan et al., 2025; Zubić, 2024). Effective communication not only transmits technical information but also fosters emotional support and relational closeness, which directly contribute to athletes' satisfaction (Siregar et al., 2025; Fehr, 2025).

However, coach communication did not significantly influence athlete motivation ($t = 1.943$; $p = .052$). Although the relationship was positive, it did not reach statistical significance. This suggests that motivation is a multidimensional construct influenced by broader relational and psychological factors beyond communication alone. Prior research emphasizes that motivation is shaped by leadership style, perceived autonomy support, and coach–athlete relationship quality rather than communication intensity alone (Mageau & Vallerand, 2003; Jowett & Cockerill, 2023). Similar findings were reported by Lubis et al. (2024), indicating context-dependent effects of communication on motivation.

In contrast, coach competence showed a significant positive effect on athlete satisfaction ($t = 4.348$; $p < .001$). This confirms that athletes who perceive their coaches as technically and interpersonally competent report higher satisfaction. These results support previous evidence that professional coaching competence enhances athletes' psychological well-being and training satisfaction (Soto García et al., 2021, 2023; Micua et al., 2024; Moen & Federici, 2023). Competent coaches create structured, fair, and supportive training environments that promote positive athlete experiences.

Furthermore, coach competence significantly influenced athlete motivation ($t = 6.434$; $p < .001$). This finding reinforces the idea that competent coaching enhances athletes' confidence, mastery, and engagement. Consistent with Self-Determination Theory, competent coaching fulfills athletes' psychological needs for competence and relatedness, thereby strengthening intrinsic motivation (Fransen et al., 2018). Similar results were reported by Juita et al. (2024) and Mu'ammal et al. (2024), confirming competence as a key motivational driver.

The results also show that athlete motivation significantly predicts athlete satisfaction ($t = 2.485$; $p = .013$). This finding is consistent with previous research indicating that motivated athletes experience greater enjoyment, engagement, and satisfaction (Longakit et al., 2024; Ji et al., 2025; Zhang, 2025). According to Self-Determination Theory, intrinsically motivated athletes tend to report higher satisfaction because their basic psychological needs are fulfilled (Liu et al., 2025).

Regarding mediation effects, motivation did not mediate the relationship between coach communication and athlete satisfaction ($p = .120$). This suggests that communication influences satisfaction directly rather than through motivational pathways. Similar findings indicate that communication functions as a relational support mechanism rather than a primary motivational driver (Triantoro & Rahardjo, 2023; Isoard-Gautheur et al., 2022).

Conversely, motivation significantly mediated the relationship between coach competence and athlete satisfaction ($p = .024$). This indicates that coach competence enhances satisfaction both directly and indirectly through increased motivation. This finding is consistent with meta-analytic evidence showing that competent coaching strengthens intrinsic motivation, which subsequently enhances satisfaction and engagement (Booth et al., 2025; Isoard-Gautheur et al., 2022). From a theoretical perspective, competent coaching fulfills athletes' psychological needs, fostering motivation that translates into higher satisfaction (Ryan & Deci, 2020).

CONCLUSIONS

Based on the results of data analysis, descriptive statistics, hypothesis testing, and discussion, the following conclusions can be drawn:

1. Coach communication has a positive and significant effect on volleyball athletes' satisfaction ($t = 4.874$; $p = 0.000 < 0.05$). This indicates that more effective communication from coaches leads to higher levels of athlete satisfaction.

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2. Coach communication does not have a significant effect on athletes' motivation ($t = 1.943$; $p = 0.052 > 0.05$). Although the relationship is positive, it does not reach statistical significance.
3. Coach competence has a positive and significant effect on athletes' satisfaction ($t = 4.348$; $p = 0.000 < 0.05$), suggesting that higher coaching competence enhances athletes' perceived satisfaction.
4. Coach competence has a positive and significant effect on athletes' motivation ($t = 6.434$; $p = 0.000 < 0.05$), indicating that competent coaches play a crucial role in strengthening athlete motivation.
5. Athlete motivation has a positive and significant effect on athlete satisfaction ($t = 2.485$; $p = 0.013 < 0.05$), demonstrating that more motivated athletes tend to experience higher satisfaction.
6. Motivation does not mediate the relationship between coach communication and athlete satisfaction ($t = 1.556$; $p = 0.120 > 0.05$), indicating that communication influences satisfaction directly rather than indirectly through motivation.
7. Motivation significantly mediates the relationship between coach competence and athlete satisfaction ($t = 2.252$; $p = 0.024 < 0.05$), meaning that coach competence enhances satisfaction both directly and indirectly through increased athlete motivation.

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