

The impact of psychological factors on referee performance in Indonesian football

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ABSTRACT

This study investigated the influence of psychological factors—namely self-confidence and concentration—on motivation and referee performance in Indonesian football. A quantitative descriptive approach was used, involving 30 randomly selected certified referees from a total population of 67 registered with the Indonesian Football Association (PSSI) in South Sumatra. Data were collected through a structured questionnaire and analyzed using path analysis. The results revealed that both self-confidence and concentration significantly contribute to motivation ($p < 0.05$), and together, they have a stronger combined effect. In turn, self-confidence, concentration, and motivation each showed a significant positive impact on referee performance ($p < 0.05$). Collectively, these three psychological factors accounted for a substantial portion of the variance in performance, underscoring their critical role in enhancing officiating quality.

KEYWORDS

Self-Confidence; Concentration; Motivation; Referee Performance; Psychological Factors

1. INTRODUCTION

In football, referees serve as neutral authorities responsible for ensuring that matches are conducted fairly and in accordance with the rules. Beyond enforcing regulations, referees are also expected to manage the dynamics of the game and resolve on-field conflicts with impartiality (Yarmani & Irwanto, 2017). This role demands not only physical endurance but also strong psychological resilience, as referees often encounter a wide range of behaviors and emotional tensions from players, coaches, and spectators (Dimyati, 2023; Liu et al., 2017). Maintaining composure and objectivity in such environments requires a psychological state that is more stable than that of the athletes themselves (Pino-Ortega et al., 2021). Even those with excellent physical conditioning may underperform without adequate mental preparedness (Gandrapu & Rakesh, 2024).

Given these challenges, psychological maturity becomes a vital component of refereeing effectiveness. Key psychological factors such as self-confidence, concentration, and motivation are critical in enabling referees to maintain control and make accurate decisions under pressure (Vealey, 2024). Field observations and interviews with football referees registered under the Indonesian Football Association (PSSI) in South Sumatra suggest that many experience difficulties in maintaining focus, managing emotions, and sustaining motivation during matches. These challenges can significantly impair their decision-making and overall performance.

While previous studies have addressed the physical and technical aspects of referee performance, limited research has systematically explored the psychological dimensions—particularly within the Indonesian context. This study aims to fill that gap by analyzing the individual and combined contributions of self-confidence, concentration, and motivation to referee performance. Understanding these relationships may provide valuable insights for referee training programs and psychological interventions to enhance officiating quality.

2. METHODS

2.1. Study Design and Participants

This study employed a quantitative descriptive research design (Arikunto, 2010) aimed at analyzing the contribution of psychological factors—namely self-confidence, concentration, and motivation—to referee performance. The independent variables were self-confidence, concentration, and motivation, while the dependent variable was overall referee performance. The design was structured to examine both the direct and indirect effects among the variables through statistical modeling.

The population in this study comprised 67 certified football referees registered with the South Sumatra branch of the Indonesian Football Association (PSSI), consisting of 27 referees holding a National Certificate-1 (C-1) and 40 referees holding a regional Certificate-2 (C-2). Using a probability sampling technique—specifically, simple random sampling (Sugiyono, 2012), a sample of 30 referees was selected. The inclusion criterion required that each referee had officiated in a minimum of five official matches. The final sample included a balanced representation of referees with both C-1 and C-2 certifications.

2.2. Instrument

Data were collected using a structured, closed-ended questionnaire developed based on established psychological constructs. Each item used a Likert-type scale, allowing respondents to indicate their level of agreement with specific statements. Prior to full-scale data collection, the questionnaire underwent both validity and reliability testing. Validity was assessed using Pearson's correlation by comparing the calculated *r*-values against the critical *r*-table value at a 0.05 significance level. Items exceeding the critical value were considered valid. Reliability was tested using Cronbach's Alpha, which yielded a coefficient of 0.834, indicating high internal consistency across items.

2.3. Statistical Analyses

Data analysis involved several stages. First, assumption tests were conducted, including normality and linearity tests, both at the 0.05 significance level. Subsequently, path analysis was employed to examine the direct and indirect contributions of the independent variables to referee performance. Correlation analysis supported the computation of standardized path coefficients, which served as indicators of the strength and direction of relationships among variables. All statistical analyses were performed using SPSS for Windows, version 16.0.

3. RESULTS

Based on the results of path analysis, the study examined the direct, indirect, and total contributions of self-confidence (X1), concentration (X2), and motivation (X3) to referee performance (Y). The findings are summarized in Table 1 and interpreted below. The findings reveal that self-confidence significantly influences motivation among football referees, with a direct contribution of 15.6%, as indicated by a path coefficient of 0.395. Similarly, concentration shows a notable impact on motivation, with a direct contribution of 18.1% and a path coefficient of 0.426.

Table 1. Path coefficients and contribution values of self-confidence, concentration, and motivation to referee performance

Predictor Variables	Path Coefficient	Indirect via X3	Total Contribution (%)	R² Joint Contribution
X1 → X3	0.395	—	15.6%	—
X2 → X3	0.426	—	18.1%	—
X1 + X2 → X3	—	—	—	51.6%
X1 → Y	0.406	0.124	53.0%	—
X2 → Y	0.326	0.134	46.0%	—
X3 → Y	0.316	—	31.5%	—
X1 + X2 + X3 → Y	—	—	—	82.8%

When analyzed simultaneously, self-confidence and concentration jointly contribute 51.6% to the variance in referee motivation, while the remaining 48.4% may be attributed to other psychological or contextual factors such as the desire for achievement, personal goals, recognition, and environmental support.

In terms of performance outcomes, self-confidence contributes directly with a path coefficient of 0.406 and also exerts an indirect influence via motivation, adding approximately 12.4%, resulting in a total contribution of 53.0%. Concentration similarly contributes both directly (0.326) and indirectly through motivation (approximately 13.4%), amounting to a total contribution of 46.0%. Motivation alone accounts for a direct contribution of 31.5% to referee performance, with a path coefficient of 0.316. Collectively, the variables of self-confidence, concentration, and motivation explain 82.8% of the variance in referee performance, while the remaining 17.2% is likely explained by other factors such as job satisfaction, leadership effectiveness, organizational climate, reward systems, role clarity, and personal competence. These results underscore the critical importance of psychological preparedness—especially self-confidence and concentration—in enhancing the quality and consistency of referee performance, both directly and through their influence on motivation.

4. DISCUSSION

This study highlights the pivotal role of psychological factors—namely self-confidence, concentration, and motivation—in shaping football referee performance. The findings support the assertion by Hays et al. (2009) that referees who possess a positive mindset and believe in their own abilities are more likely to perform well. The significant contribution of self-confidence (16.4%) to referee performance confirms that those who are confident tend to make better decisions and exhibit stronger leadership on the field. Conversely, referees who struggle with self-doubt and negative self-talk are more prone to underperformance due to hesitation or reduced assertiveness.

Concentration was also found to have a substantial impact (10.6%) on referee performance. This is especially relevant considering that referees are required to maintain attention throughout the entire duration of a match, often under intense pressure and rapidly changing game dynamics.

Motivation, contributing 9.9% directly to performance, serves as a vital internal drive that sustains referees' consistency and enthusiasm over the course of matches. As noted by Jalagat (2024), motivation—alongside job satisfaction and organizational commitment—is a crucial determinant of work performance. For referees, motivation encompasses the desire to enforce fairness, achieve professional growth, and meet personal and organizational goals.

Importantly, the combined effect of self-confidence, concentration, and motivation explains 82.86% of the variance in referee performance. This substantial percentage underscores the interplay between these psychological components in enhancing a referee's capacity to perform effectively. The remaining 17.2% is likely influenced by other variables such as leadership support, organizational structure, decision-making autonomy, clarity of roles, and institutional recognition. Prior studies by Halilsoy (2024) affirm that individual performance in professional settings is not only influenced by cognitive and physical competence but also by motivation, clarity, and psychological resilience.

From a practical standpoint, the findings imply that referee development programs within PSSI and other football associations should incorporate structured psychological training focused on building self-confidence, sustaining concentration, and enhancing motivation. Workshops, simulation-based assessments, and mindfulness techniques could be integrated into referee education curricula to address these aspects systematically.

Limitations of the study include the relatively small sample size ($n=30$), which may restrict the generalizability of findings. Additionally, data were drawn exclusively from referees in South Sumatra, which limits regional diversity. The use of self-reported questionnaires also introduces the possibility of subjective bias, particularly in assessing psychological states.

Future research could explore longitudinal designs to assess how psychological factors evolve over a referee's career, and include physiological measures (e.g., heart rate variability, cortisol levels) to support psychological assessments. Further exploration into contextual factors—such as match importance, audience pressure, and environmental stressors—would also enrich the understanding of referee performance determinants.

5. CONCLUSIONS

This study concludes that self-confidence, concentration, and motivation significantly influence the performance of football referees under the Indonesian Football Association in South Sumatra. Self-confidence and concentration are key psychological factors that enhance referees' motivation and directly improve their performance on the field. Motivation, in turn, plays a mediating role and contributes meaningfully to consistent and effective officiating. Together, these three psychological components form a strong foundation for optimal referee performance. However, other factors outside the scope of this study—such as organizational support, leadership, job satisfaction, and work environment—may also play a role and warrant further investigation.

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All authors listed have made a substantial, direct and intellectual contribution to the work, and approved it for publication.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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