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**EXTENDED
ABSTRACT**

Impact of Substitute Players on Attacking Technical Performance: A Case Study of Johor Darul Ta'zim in the AFC Champions League Elite 2024/2025

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I. INTRODUCTION

This study investigates the influence of substitute players on the attacking technical performance of Johor Darul Ta'zim (JDT) during the 2024/2025 AFC Champions League Elite. By analyzing and comparing the performance of full-match players, substitutes, and those who were substituted, the study aims to uncover variations that can inform tactical decision-making and player deployment. Gaining a deeper understanding of these differences offers valuable insights for optimizing team strategies in elite-level football competitions [1].

II. METHODS

The participants in this study comprised players from Johor Darul Ta'zim, who featured in eight matches during the 2024/2025 AFC Champions League Elite season. Only those with a minimum of 15 minutes of playing time and no red card incidents were included in the analysis. Attacking performance indicators assessed included passes, crosses, shots on and off target, and goals. Data were collected using hand notational analysis, with reliability confirmed through test-retest procedures ($r > 0.80$, error $< 10\%$). Descriptive statistics were generated using Jamovi, and one-way ANOVA was employed to compare the performances of full-match players, substitutes, and those who were replaced [2].

III. RESULTS AND DISCUSSION



Fig. 1 The mean of passes among player groups.

Figure 1 presents a comparison of passing performance among full-match players, those who were substituted, and those who replaced others. The data clearly indicate that both

substituted and substitute players contribute significantly to passing actions. This finding underscores the role of substitutions in sustaining, and potentially enhancing, a team's passing output throughout the match [3].

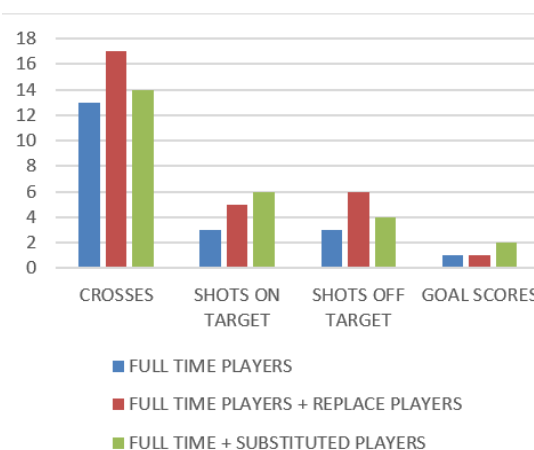


Fig.2 The mean comparison of attacking performance metrics (crosses, shots on/off target, and goal scores) among player groups.

Figure 2 illustrates that players categorized as full-time plus replaced exhibited the highest overall attacking performance. This outcome may be attributed to the combined contributions of those who started the match, impacting the game during its early phases, and substitutes who brought renewed energy and intensity in the later stages. Notably, substituted players demonstrated strong performances in crosses and shots on target, likely due to their higher energy levels and sharper focus upon entering the match. Their fresh presence on the field may have enhanced passing accuracy, particularly in delivering effective passes to forwards, thereby increasing the team's goal-scoring opportunities [2].

TABLE I
INFERENCE ANALYSIS OF ATTACKING PERFORMANCE AMONG PLAYER
GROUPS: ONE-WAY ANOVA (FISHER'S)

	F	df1	df2	p
Passes	0.632	2	21	0.541
Crosses	0.479	2	21	0.626
Shots On Target	0.752	2	21	0.484
Shots Off Target	0.770	2	21	0.475
Goal Score	0.176	2	21	0.840

Table 1 presents the comparative analysis of attacking performance indicators such as passes, crosses, shots on and off target, and goals, among full-time players, substituted players, and those who were replaced. The results revealed no statistically significant differences across these groups, as all *p*-values exceeded the 0.05 threshold. While certain groups demonstrated marginally higher values in specific actions, these differences were not substantial enough to indicate a meaningful effect. This finding suggests a level of consistency in attacking contributions regardless of player type, highlighting the collective effectiveness of the team's tactical approach. It also reflects the ability of substitutes and replacement players to maintain performance levels comparable to those who played the full match [4]. Such outcomes underscore the strategic depth of the squad, where all categories of players contribute meaningfully to attacking phases, supporting the notion that effective rotation and substitution strategies can sustain overall team performance in elite-level competitions [5].

IV. CONCLUSIONS

Substitute players demonstrated comparable attacking performance, with slightly higher shots on target, while full-time and replacement players excelled in passes and crosses. Although statistical differences were not significant, the results suggest that substitution timing and player continuity can subtly influence attacking dynamics. These insights can inform strategic decisions in elite football.

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