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Differences in Performance Indicators Between Winning and Losing Teams in the Malaysia Super League 2024



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Abstract | Match analysis in soccer involves the systematic study of various elements of a game to understand performance, strategy, and outcomes. It is a critical component for coaches, analysts, and teams aiming to enhance their performance and gain competitive advantages. However, there is no study that has been reported on Malaysia elite football players. Analyzing the differences in performance indicators between winning and losing teams in the Malaysia Super League can provide insights into what factors contribute to a team's success. Thus, the first aim of this study is to determine the key metrics for performance indicators that distinguish winning teams from losing and then to compare the differences between these teams in the Malaysia Super League season 2024. Data was collected from one hundred and forty-three players ($N = 143$) in thirteen matches ($N = 13$) using a camera (Video Cam 3). The video was transferred and analyzed using a match analysis system (LongoMatch). Performance indicators will be analyzed in ball possession, number of passes, number of shots and number of goals. The teams will be divided into three categories: Top Rank, Middle Rank and Bottom Rank. One-way ANOVA will be used to determine the differences in these three groups. It was expected that winning teams tend to have good scores in all key metrics that have been investigated. The findings in this study will provide valuable insight for coaches, players, and analysts by highlighting the critical areas of performance that can influence a team's chances of winning. At this point, it can be concluded teams can enhance their chances of winning by knowing the performance indicators that they should focus on. Further research could explore the impact of other variables such as player fatigue, psychological factors, and in-game decision-making on match outcomes.

Keywords: Match analysis, soccer, elite athletes, performance indicator, Malaysia.

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I. INTRODUCTION

Football, or soccer, is a highly complex sport incorporating interplay between physical and technical factors [1]. Most research has explored the physical, physiological, and technical requirements of match-play [2], but limited studies have integrated these facts of match-play to gain a more holistic understanding of football performance [3]. Performance analysis in football involves the systematic study of various elements of a game to understand performance, strategy, and outcomes [4]. It may provide significant details of football performance. For instance, the key performance indicators that can be identified to separate between winner and loser [5]. This understanding is crucial for coaches, players, and analysts to enhance performance and gain competitive advantages. The Malaysia Super League (MSL) is one of the most prestigious competitions of the men's top professional football division of the Malaysian football league system [6]. Known as administered by the Malaysian Football League (MFL). The MSL is one of the most popular annual sports tournaments in Malaysia, and fans are interested in the games and the title winners. Nevertheless, with a history of 20 years of MSL, a lack of studies has been reported on Malaysian elite football players. Analyzing performance in the MSL may provide various important metrics and factors that contribute to a team's success or failure, such as ball possession, total of passes, successful passes, and number of shots [7]. Analyzing these metrics can provide insight into the factors that contribute to a team's success. The aim of this study is to determine the key metrics for performance indicators in soccer that distinguish winning teams from losing teams and to compare the differences between these teams in the Malaysia Super League season 2024.

II. METHODS

A total sample of one hundred and forty-three professional football players ($N = 143$) will be analysed in thirteen matches ($N = 13$) during the MSL 2024. The game format was based on Fédération Internationale de Football Association (FIFA) rules and regulations. The match consists of two halves, each 45 minutes long, with one half time break of 15 minutes. Each team was allowed to have five substitutions during the match-play. The game was scheduled for the weekend (between Friday and Sunday). The MSL played in a double round-robin format in which each team in the league played twice against every other club; one home match and an away match. The club that gained the highest point will be considered the champion of the league.

Data will be collected from the first round of MSL 2024. Matches will be recorded using a video camera and transferred to the Longomatch system to be analysed. LongoMatch is a video analysis software used to analyse key performance metrics in sports. This system operated and provided details about players on the field, such as ball possessions, number of passes, number of shots, and number of goals [8]. Only outfield players will be included in the analysis, with players excluded if they did not complete the whole match. The team will be grouped into three groups: top rank, middle rank, and bottom rank. These three groups will be compared in the performance metrics. All results were reported as mean \pm standard deviation. Analysis of Variance (ANOVA) will be used to compare the means of each performance indicator between winning and losing teams. All statistical analyses were performed using SPSS software (version 21.0, SPSS Inc., Chicago, IL), with the level of significance set at $p \leq 0.05$.

III. RESULTS AND DISCUSSION

It is expected that the winning teams will have good scores in all the key metrics that have been investigated. For instance, the result for key metrics in performance indicators such as ball possessions within the winning team are expected to be high as to above 60%, which will be expected to influence the number of passes (high), number of shots (high) and number of goals (high) and the match outcomes (victory). Conversely, losing teams are expected to show a lower percentage of ball possession, which is below 40% and other key metrics in performance indicators which create differences between winning and losing teams. The aim of this study is to determine the key metrics for performance indicators in soccer that distinguish winning teams from losing teams and to compare the differences between these teams in the MSL season 2024. Comparing winning and losing may therefore result in potential meaningful information on MSL team performance profiles.

The findings In this study are expected to provide insights and information on how the selected performance indicators, such as ball possessions, number of passes, number of shots, and number of goals, could really influence match outcome and help to highlight the tactical advantages by focusing into these key metrics and executing effective strategies [9]. Understanding these differences between winning and losing teams could help to refine a team's overall performance and strategies for a better match outcome in the MSL. Improving a team's possession retention, for example, may result in a more planned and controlled game, which raises the possibility of scoring and lowers the chance of goals being conceded and influences overall team performance enhancement.

IV. CONCLUSION

At this point, it can be concluded that teams can enhance their chances of winning by knowing the performance indicators that they should focus on. Further research could explore the impact of other variables such as player fatigue, psychological factors, and in-game decision-making on match outcomes.

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