

Muhamad Noor Mohamed . Raja Nurul Jannat Raja Hussain .  
Mardiana Mazaulan . Noor Azila Azreen Md Radzi .  
Nurul Ain Abu Kasim . Nur Hani Syazwani Bakri .  
Umami Khaltum Mohd Mokhtar . Mohd Aizzat Adnan .

*Editors*

# Proceedings of the 1<sup>st</sup> International Summit Conference on Exercise Science, Sports Management, Outdoor Recreation, and Physical Education, ExSPORT 2024, 28<sup>th</sup> - 29<sup>th</sup> August, Malaysia

*Exporting Research Insights to Practical Applications in Sports  
Turning Challenges into Opportunities*

ORGANIZED BY



IN COLLABORATION



SUPPORTED BY



## Manchester City's Premier League Dominance: Longitudinal Study for 2021-2023



Muhammad Zunnurain Nor Aza, Arisya Ismail, Muhammad Nabil Esa, Anis Shafira Abdul Harith, Muhamad Noor Mohamed\*, Muhamad Safiq Saiful Annur and Mohd Aizzat Adnan.

**Abstract** | This study investigates the factors contributing to Manchester City Football Club's sustained dominance in the Premier League between the 2020/21, 2021/22 and 2022/23 seasons. Employing a longitudinal research design, the study examines the interplay between tactical details and the effect of player changing towards tactical details in Manchester City throughout the 2020/21, 2021/22 and 2022/23 seasons. Key areas of analysis include Guardiola's tactical philosophy, player recruitment and development, and the impact of player change. The sample size in this study was 114 matches ( $N = 114$ ) of the English Premier League, and it was divided into three seasons, which are 2020/21, 2021/22 and 2022/23. Furthermore, the methodology used was notational analysis and secondary data. The data is collected from Premier League Official Apps. Besides, based on analysis conducted by Kruskal-Wallis, the findings showed there are significant differences in terms of the shot-off target ( $X^2 = 8.33, p = 0.016$ ). The other variables show there is no significant difference in data and the  $p$ -value  $> 0.05$ . For successful passing ( $X^2 = 2.75, p = 0.253$ ), for unsuccessful passing ( $X^2 = 5.79, p = 0.055$ ), for shot on target ( $X^2 = 1.64, p = 0.440$ ), and for scoring ( $X^2 = 1.15, p = 0.564$ ). Moreover, the present study revealed that the significant difference was only found in shots off-target. Other than this, the variables show that there are no significant differences. This is because the effectiveness of a team's attacking force in scoring goals is largely determined by its formation, player characteristics, and shooting abilities. Other than that, this team's style of play emphasizes precise ball possession and methodical attacks, a formula that has been instrumental in their domestic and European triumphs. In conclusion, there is a significant difference in the shot-off target. But there is no significant difference in successful passing, unsuccessful passing, shot on target, and scoring.

**Keywords:** *Possession football, Manchester City, premier league, notational analysis, tactical detail.*

---

M.N., Nor Azam, A., Ismail, M.N., Esa, A.S., Abdul Harith, M.N., Mohamed\* (✉), M.S., Saiful Annur, and M.A., Adnan.

Faculty of Sports Science and Recreation, Universiti Teknologi MARA Negeri Sembilan Branch, Seremban Campus, Malaysia.

\*Corresponding author: [muhamad\\_noor@uitm.edu.my](mailto:muhamad_noor@uitm.edu.my)

## I. INTRODUCTION

Football is a unique sport because it requires very good strategy or tactics to defeat the opponent. After over 100 years, football has been introduced. A continuing evolution of the football game involves the need for continuous identification, registration and evaluation of players' game actions [1]. It has various tactics that have developed, such as possession football, direct football, and counter-attacking football [2]. The present study undertakes a critical analysis of Manchester City's 2020/21, 2021/22 and 2022/23 Premier League victory journeys, analysing the crucial elements that facilitated their success, such as team dynamics, managerial choices, and the competitive environment. In the present day, performance analysis involves the use of match statistics and the latest technology to improve athletes' performance [3]. Through an analysis of the variances of their achievements, this research offers insightful information about the dynamics of successful football management and provides inspiration for teams and clubs hoping to achieve a level of success. After all, many football teams and national football teams use various technologies to explore the tactical features to develop the best strategies for their teams [4].

## II. METHODS

The research utilises a specific sampling technique known as "purposive sampling" to choose matches for analysis. The data will be collected through a total of 114 official matches ( $N = 114$ ) played by Manchester City in the English Premier League 2020/21, 2021/22 and 2022/23 seasons. All the match statistics were taken from <https://www.premierleague.com/pl-app>. Notational analysis of matches includes manually coding specific events or actions that appear in the match statistics. Using the research question as a guide, this approach concentrates on collecting important performance indicators.

## III. RESULTS AND DISCUSSION

The Kolmogorov-Smirnov test indicates that the data was not normally distributed, as shots of the target between 2020/21, 2021/22, and 2022/23 have a significant value of  $p < 0.05$ . As defined here, kurtosis cannot be less than 1.00. Probability models with kurtosis values between 1.00 and 3.00 are light-tailed distributions. Probability models with kurtosis values more than 3.00 are considered to be heavy-tailed distributions [3]. As a result, the data were analysed using a non-parametric Kruskal-Wallis test.

The present study found that one tactical detail showed significant differences between Manchester City's 2020/21, 2021/22 and 2022/23 seasons. However, four tactical details did not show significant differences. These were successful passing, unsuccessful passing, shooting on target, and scoring. The  $p$ -value for these four tactical details was greater than 0.05, indicating no significant difference (Table 1).

The tactical detail that had a significant difference was shooting off target. Data showed that, shot off target recorded the highest mean and standard deviation during the 2020/21 season, with  $5.09 \pm 10.03$ . Nevertheless, 2021/22 had the lowest mean and standard deviation, with  $3.72 \pm 12.08$ . A Kruskal-Wallis test revealed a statistically significant difference in the playstyle of Manchester City between seasons 2020/21, 2021/22 and 2022/23 and no significant difference in the playstyle of Manchester City with different players between seasons 2021-2023 (Season 21,  $n = 38$ : shot off target, Season 22,  $n = 38$ : shot off target, Season 23,  $n = 38$ : shot off target),  $X^2(2, n = 114) = 8.33, p = 0.016$ . The Shot off target (Season

2021/22) recorded a higher median score ( $Md = 12.00$ ) than the other two seasons, with the 2020/21 season recording median values of 9.00 and the 2022/23 season recording a median value of 12.00.

TABLE I  
INFERENCE ANALYSIS OUTPUT FOR INDICATORS

	$X^2$	$df$	$p$
Successful Passing	2.75	2	0.253
Unsuccess Passing	5.79	2	0.055
Shot on Target	1.64	2	0.440
Shot off Target	8.33	2	0.016
Scoring	1.15	2	0.564

Descriptive statistics like mean, minimum, maximum, and standard deviation were used to present the collected data (Figure 1). The graph below shows the mean for each variable measured in this study for Manchester City between 2020/21, 2021/22 and 2022/23 seasons. The red graph represents successful passing, the green graph represents unsuccessful passing, the pink graph represents a shot on target, the yellow graph represents a shot off target, and the blue graph represents scoring.

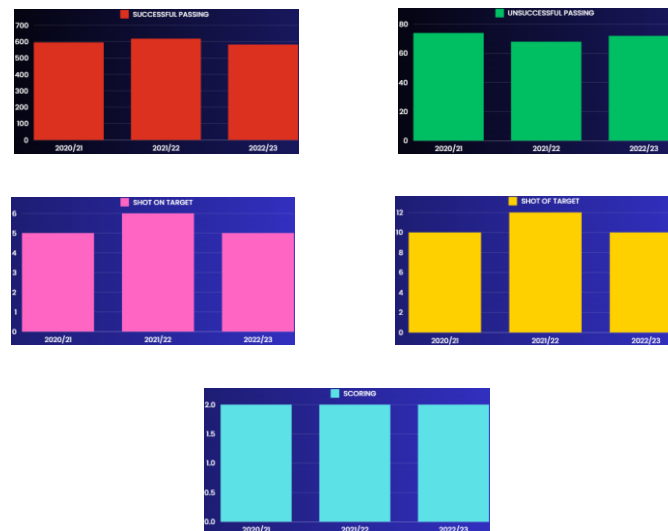


Fig. 1 Mean value for Manchester City indicators between 2020/21, 2021/22 and the 2022/23 Season.

#### IV. CONCLUSIONS

To sum up, the present study noticed that there is only one variable that shows significant difference, which is shot off target. Other than that, such as successful passing, unsuccessful passing, shots on target and scoring, there is no significant difference.

**ACKNOWLEDGMENT:** We would like to express our sincere gratitude to all members of the research team for their invaluable contributions to this study. Your dedication, expertise, and collaborative spirit were instrumental in the successful completion of this research.

## REFERENCES

- [1] A. Soroka, "Trends in the gameplay of European football players," *Baltic Journal of Health and Physical Activity*, vol. 6, no. 4, p. 4, 2014.
- [2] M. Kempe, M. Vogelbein, D. Memmert, and S. Nopp, "Possession vs. direct play: evaluating tactical behaviour in elite soccer," *International Journal of Sports Science*, vol. 4, no. 6A, pp. 35-41, 2014.
- [3] M. Hughes and I. Franks, *The Essentials of Performance Analysis: An Introduction*. Routledge, 2007.
- [4] M. Shafizadeh, M. Taylor, and C. L. Peñas, "Performance consistency of international soccer teams in Euro 2012: A time series analysis," *Journal of Human Kinetics*, vol. 38, p. 213, 2013.
- [5] E. M. Matore and A. Z. Khairani, "The pattern of skewness and kurtosis using mean score and logit in measuring adversity quotient (AQ) for normality testing," *International Journal of Future Generation Communication and Networking*, vol. 13, no. 1, pp. 688-702, 2020.