

# Total Team Spending and Profitability Leads Results in a Higher League Ranking in the English Premier League\*

An Analysis of Economic Predictors on League Rank in the 2023-2024 Season

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April 3, 2024

First sentence. Second sentence. Third sentence. Fourth sentence.

## 1 Introduction

You can and should cross-reference sections and sub-sections. We use R Core Team (2023) and Wickham et al. (2019).

The remainder of this paper is structured as follows. Section [2](#)....

Figure 1: Average Matchday Attendance in Relation to League Position for the 2023–2024 Season

Correlation coefficient: 0.694060419947882

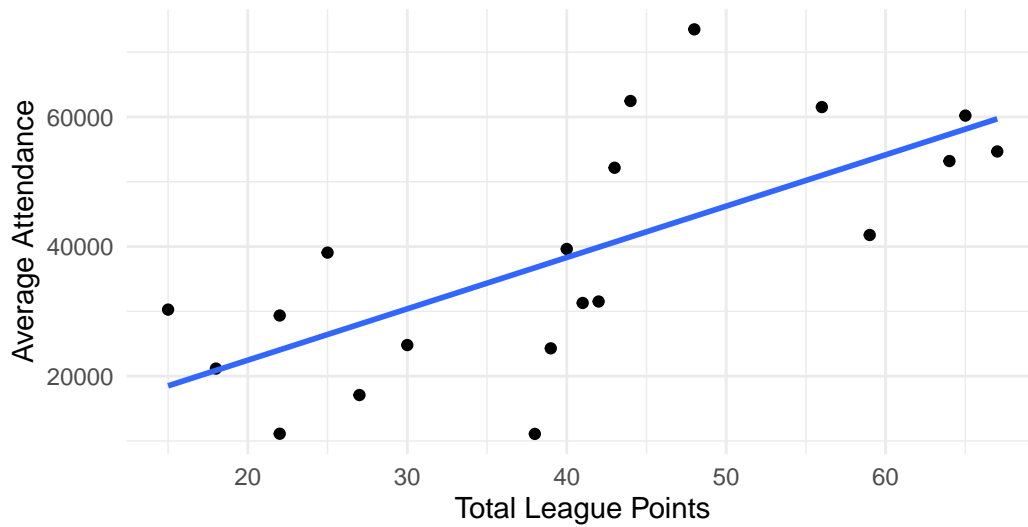


Figure 1: Figure 1 presents a scatter plot illustrating the relationship between total league points and average matchday attendance during the 2023-2024 season. Each point represents a team, plotted with their total points on the x-axis and their average home attendance on the y-axis. The trend line, added using linear regression analysis, suggests a correlation between team performance and matchday turnout. The correlation coefficient of 0.694060419947882 indicates a positive association with moderate correlation, where teams with higher league points tend to have greater average attendance.

Figure 2: Total Payroll in Relation to League Points for the 2023–2024 Season

Correlation coefficient: 0.770829037567151

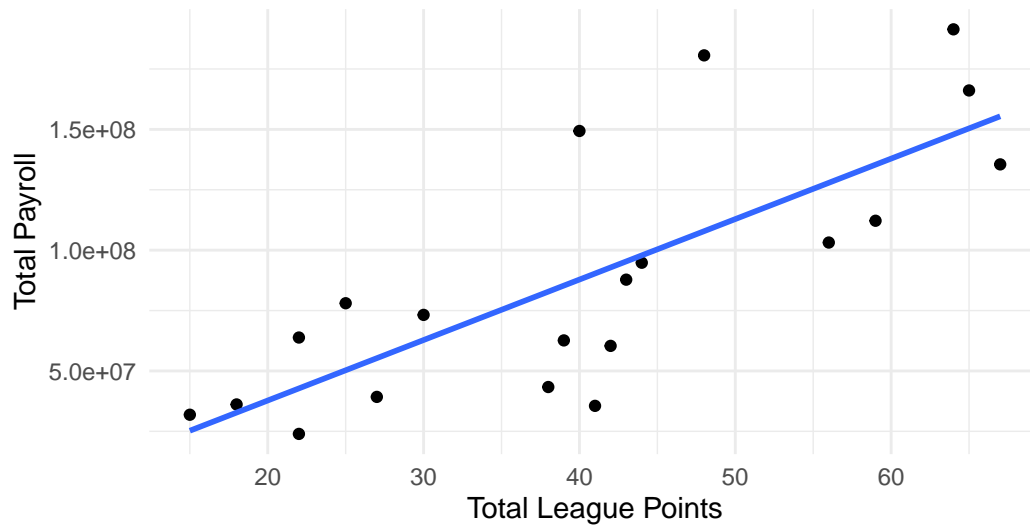


Figure 2: Figure 2 depicts the association between total league points and the total payroll for teams in the 2023-2024 season. Each point on the plot corresponds to a team, positioned according to their accumulated points for the season along the x-axis and their respective payroll on the y-axis. The linear regression trend line suggests a correlation between a team's financial expenditure on payroll and their success in the league. A correlation coefficient of 0.770829037567151 reflects a positive relationship, implying that teams with higher payrolls may be more likely to accumulate greater league points.

Figure 3: Average Transfer Spending in Relation to League Points for the 2023–2024 Season

Correlation coefficient: 0.417985956450557

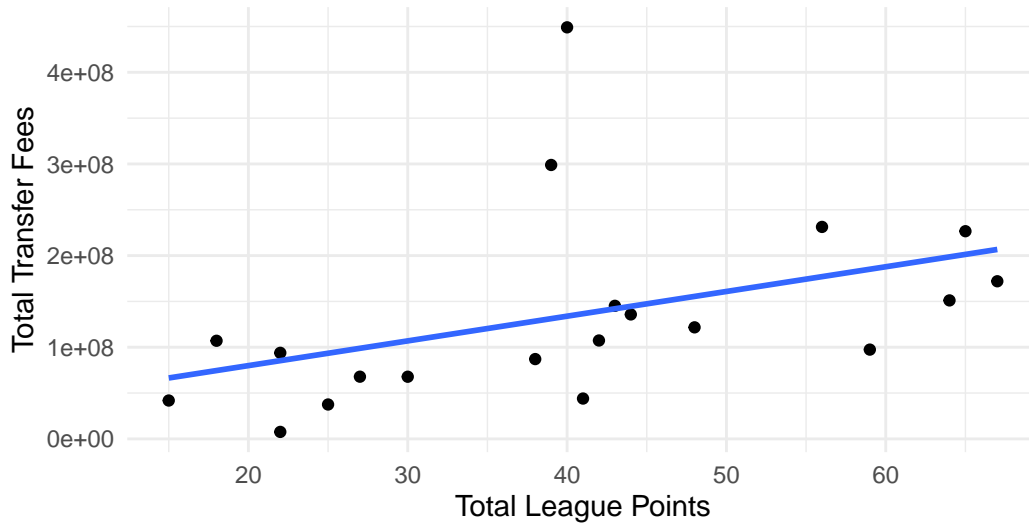


Figure 3: Figure 3 illustrates the relationship between teams total transfer spending and their corresponding league points for the 2023-2024 season. The scatter plot shows each team as a distinct point, positioned by their total league points on the x-axis and their transfer spending on the y-axis. The trend line, calculated with linear regression, indicates a moderate positive correlation, with a correlation coefficient of approximately 0.417985956450557. This suggests that higher league points tend to coincide with increased transfer spending, although the relationship is not strongly linear.

Figure 4: Current Market Value in Relation  
to League Points for the 2023–2024 Season

Correlation coefficient: 0.849962012423038

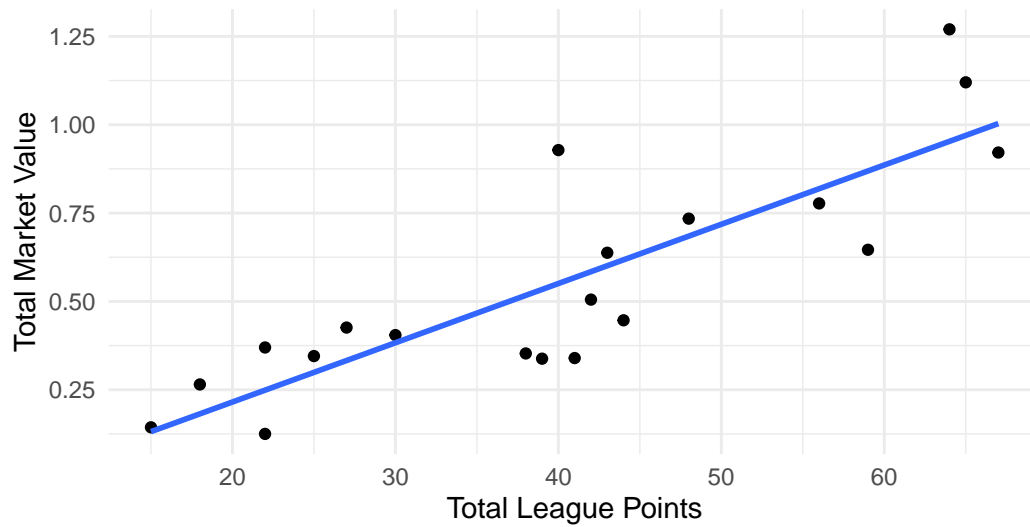


Figure 4: Figure 4 demonstrates the correlation between the current market value of teams and their accumulated league points for the 2023-2024 season. The scatter plot places each team by the total points they have secured on the x-axis against their market value on the y-axis. A pronounced upward trend represented by the linear regression line, with a correlation coefficient of 0.849962012423038, indicates a strong positive relationship. This suggests that teams with higher market values tend to amass more league points, underlining a potential link between financial strength and on-field success.

## **2 Data**

### **2.1 Model set-up**

#### **2.1.1 Model justification**

## **3 Model**

## **4 Results**

## **5 Discussion**

### **5.1 First discussion point**

### **5.2 Second discussion point**

### **5.3 Third discussion point**

### **5.4 Weaknesses and next steps**

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\*Code and data are available at: [LINK](#).

## **Appendix**

### **A Additional data details**

### **B Model details**

#### **B.1 Posterior predictive check**

#### **B.2 Diagnostics**

## References

- R Core Team. 2023. *R: A Language and Environment for Statistical Computing*. Vienna, Austria: R Foundation for Statistical Computing. <https://www.R-project.org/>.
- Wickham, Hadley, Mara Averick, Jennifer Bryan, Winston Chang, Lucy D'Agostino McGowan, Romain François, Garrett Grolmund, et al. 2019. “Welcome to the tidyverse.” *Journal of Open Source Software* 4 (43): 1686. <https://doi.org/10.21105/joss.01686>.