Success Factors in Ethiopian Premier League Soccer Clubs in 2023/24

Daniel Getnet Admit,[AD] Zelalem Melkamucc[D] Tegegne, Sisay Mengistu Alemu[D]

[12] Sport sciences, Hawassa University, Hawassa, Ethiopia
[2] port Academy, Bahir Dar University, Bahir Dar, Ethiopia
[3] Sport sciences, Hawassa University, Hawassa, Ethiopia

ABSTRACT

Bacgroud: Soccer is one of the most globally recognized and profitable industries in the entertainment sector. Knowledge of the success factors of professional soccer is critical. However, in the literature, the identification of success factors has primarily focused on the Big Five, which is not inclusive. **Methods:** This study examines the key factors that drive club performance in the Ethiopian Premier League (EPL) during the 2023/24 season, with the main goal of identifying and categorizing these factors using Explanatory Factor Analysis (EFA). Employing a quantitative, cross-sectional research design, was collected from 307 players, and systematically sampled from a population of 354 across all EPL clubs. The study was conducted in accordance with ethical guidelines was approved by the Research Ethics Review Committee of Hawassa University College of Natural and Computational Sciences Research Ethics Review Committee. A 36-item self-administered survey, developed and validated by expert panels, and piloted with 90 objective groups before use. The Kaiser-Meyer-Olkin (KMO) value of .819 and Bartlett's Test of Sphericity confirmed the appropriateness of the data for factor analysis. Principal Component Analysis (PCA) identified eight key components that influence club success, including fan engagement, financial management, leadership, and human capital. **Results:** Results show that fan support and media presence significantly impact club performance, while financial stability and strong leadership are crucial for operational success. Additionally, a club's history and culture contribute to fostering loyalty and sustained performance. Moreover, eight factors accounted for 75.76% of the variance, which is (27.17%, 14.27%, 8.67%, 7.08%, 6.08%, 4.539%, 3.97%, and 3.24). However, 23% of the variance in club success remains unexplained, suggesting that other factors are at play. **Conclusion:** In conclusion, success in the EPL is shaped by a combination of internal and external factors, including fan engagement, financial practices, leadership, and team depth.

Keywords: Success Factors , Ethiopian Premier League , Soccer Clubs

INTRODUCTION

Soccer is one of the most globally recognized and profitable industries in the entertainment sector (Miragaia et al., 2019), with 130,000 professional players and more than 4,400 clubs worldwide (Tomlinson, 2014). The sport's universality is underscored by FIFA's 211 member

associations, which exceeds even the number of United Nations member states (Erdoğan, Altınırmak, Şahin, & Karamaşa, 2020). Across the world, top-tier competitions and traditional home-and-away formats have become the norm, collectively driving football's financial and cultural appeal (García-Sánchez, 2007). These shared global structures highlight football's immense popularity, but they also highlight an increasingly complex web of factors that influence club success.

On an international level, soccer clubs must balance multiple objectives, ranging from sporting success to financial sustainability and fan engagement. Some clubs focus on sporting achievements, such as their final league standings and performances in knockout tournaments (Lozano Segura & Villa Caro, 2022; Pérez-González, de Carlos, & Alén, 2022). Others have emphasized social goals, including increasing fan attendance, brand usage, and overall club visibility (Jiménez, et al., 2023; Getnet, et al., 2024). These diverse priorities reflect the fact that success in soccer is multi-dimensional, with clubs striving to balance performance on the field and growth from it.

Despite soccer's global significance, much of the existing research focuses on developed countries and ignores the unique challenges faced by clubs in developing countries. In Ethiopia, almost 90% of football clubs are owned by government entities such as city mayors or regional administrations, a structure that differs significantly from privately owned clubs found elsewhere (Getnet et al., 2024). This ownership model creates a unique environment that affects how clubs are governed, financed and led. Thus, understanding the success factors of Ethiopian soccer clubs requires a tailored approach because socio-political and economic realities differ from those observed in wealthier nations. Previous studies have offered insights into the success of soccer clubs, primarily focusing on specific performance metrics, such as tactical capabilities, player performance, and training methodologies (Fang, et al., 2021; Lozano, 2024). However, these studies have largely analyzed clubs in established European and other developed leagues, with conclusions often tied to the local contexts of these countries (Miles, 2018). Additionally, Ethiopian football studies have focused narrowly on coaching behavior, fan attendance, and leadership styles,fan attendance, without examining broader dimensions of club success (Chekle, 2017; Alemayehu et al., 2016; Getnet et al., 2024).

This study aims to fill this gap by providing a more holistic examination of Ethiopian Premier League (EPL) clubs, integrating various dimensions such as governance, financial sustainability, leadership, human capital and fan engagement. By doing so, it addressed how these factors interact within the Ethiopian context, offering new insights into how clubs can enhance their performance and competitiveness both locally and internationally. EPL clubs are predominantly government-owned and have distinct management and decision-making dynamics. Unlike privately owned clubs, which are primarily profit-driven, government-owned clubs may prioritize political or social goals. These differences in priorities can affect resource allocation, long-term planning, and day-to-day operations. The current literature lacks an in-depth examination of how this ownership structure impacts club success. By analyzing how government control influences financial decision-making, leadership and operational strategy, this study offers crucial insights into an underexplored aspect of soccer governance.

Ethiopian soccer clubs operate in a resource-constrained environment, often lacking the financial backing that their global counterparts enjoy through sponsorships, broadcasting rights, and merchandise sales. These limitations affect not only the clubs' financial sustainability but also their ability to invest in infrastructure, training and talent development. Although financial resources are a well-documented success factor in football (Campa Planas & Kalemba, 2017; Arraya, 2022; Rija, et al., 2023), the specific ways in which Ethiopian clubs can navigate these constraints remain largely unexamined. This study addressed how clubs can maximize limited resources to improve their competitiveness and long-term viability.

Soccer in Ethiopia plays a critical social and cultural role, with fans heavily invested in the success of local teams. Fan engagement, stadium attendance, and brand loyalty are significant indicators of a club's social profile, which can influence a club's financial performance and overall success (Jiménez et al., 2023; Getnet et al., 2024). However, Ethiopian soccer clubs face unique challenges in maintaining fan engagement, particularly in an environment where financial resources for marketing and fan outreach may be limited. This study explores how clubs can build and sustain fan loyalty, even with limited financial means, to enhance their social and economic profiles.

Success factors in Ethiopian Premier League Soccer Clubs (2023/24) constitute timely and necessary contributions to soccer research. By addressing the unique challenges faced by Ethiopian clubs, including ownership, financial constraints, fan influence, clubs, the history of the club, leadership and governance, legal, game situation, human capital and media, this study fills a critical gap in the literature. Moreover, by integrating established success frameworks with a local understanding of Ethiopian soccer, the study offers valuable insights that can help Ethiopian clubs enhance their performance and competitiveness. Ultimately, this research can influence both academic discourse and practical decision-making in the Ethiopian soccer industry, contributing to the long-term success of EPL.

METHODS

Study Design and Participants

This study employed a quantitative, cross-sectional research design and collected data from all participating EPL clubs at a single point during the 2023/24 season. The primary objective was to identify and group key success factors influencing club performance into distinct categories using Explanatory Factor Analysis (EFA). EFA was deemed suitable for this study as it aims to uncover latent structures contributing to the performance and success of these soccer clubs by reducing complex data into a more manageable set of dimensions.

The research adhered to the principles outlined in the Helsinki Declaration (as revised in 2013) and received approval from the Hawassa University College of Natural and Computational Sciences Research Ethics Review Committee (CNCS-REC002/24). Informed consent was obtained from the participants through written and oral interviews, which explained the study's methodology and rationale.

A sample of 307 players was drawn from a population of 354, necessitating a well-defined sampling technique to ensure representativeness and validity. Systematic random sampling was employed as an effective method in this context, as it allows for each player to have an equal chance of being selected. In systematic random sampling, players are chosen at regular intervals from a list of the population. Initially, the players were arranged in a logical order based on their registration dates. A sampling interval (k) was calculated by dividing the total population (354) by the desired sample size (307), yielding k ≈ 1.15. This indicates that approximately every second player would be selected after choosing a random starting point within the first two players.

Procedure:
1. List the Population: Arrange all 354 players in a predefined order (by registration).
2. Determine the Sampling Interval: Calculate the sampling interval k, which is approximately 1.15.
3. Random Start: Randomly select a starting point between the 1st and 2nd players on the list.
4. Select Players: Starting from the chosen point, select every second player until a total of 307 players has been selected.

Instruments and Measurements

The data for this study were collected using a 36-item self-administered survey completed by soccer players. This survey was designed to be a valid, reliable, and objective instrument for assessing various factors contributing to the success of EPL soccer clubs. The development of the survey followed a comprehensive procedure overseen by a consortium of experts from fields including linguistics, statistics, sports management, pedagogy, and sports science.

The research team organized five expert panels to independently review the survey's framing, content, objectivity, and internal validity. Each panel brought specialized knowledge to ensure the robustness of the instrument. For instance, a linguistics expert managed the translation between English and Amharic (the local language), conducting both initial and back-translations to ensure accuracy. This group of specialists, including the language expert, reviewed the initial, translated, and reverse-translated iterations of the survey to identify inconsistencies and ensure that the questions were comprehensible and culturally appropriate for the respondents.

Following the independent reviews, the researcher and the study's supervisors compiled and assessed the feedback, which was carefully analyzed to make necessary revisions that enhanced the survey's quality. The updated version of the survey was pilot-tested with a group of 90 individuals. Based on the results of this pilot test, the expert panels finalized the survey, refining it to 36 items using a seven-point Likert scale ranging from (1) strongly agree to (7) strongly disagree. Data collection occurred from February 8 to 21, 2024, with the researcher personally administering the surveys face-to-face at the participants' reserved hotel to ensure a controlled and comfortable environment for data collection.

Data Analysis

The study used Explanatory Factor Analysis (EFA) as its primary methodological approach to investigate the latent associations among the observed variables related to the determinants of success for Ethiopian Premier League (EPL) soccer clubs during the 2023/24 season. The selection of relevant factors was guided by Eigenvalues greater than 1 and screen plot analysis. To enhance the clarity of the results, the Varimax rotation method of orthogonal rotation was applied, simplifying the factor loadings for easier interpretation. After the rotation, factors were interpreted by identifying the variables with strong loadings on each factor. In order to evaluate the stability and dependability of the specified variables, a reliability analysis was executed employing Cronbach's alpha coefficient. All statistical analyses were performed using SPSS version 26, adhering to a 95% confidence interval.

RESULTS

A total of 307 completed items by footballers were organized and presented in alignment with ethical guidelines.

Table 1. Cumulative factorial analysis using KMO and Bartlett's tests

KMO and Bartlett's test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.819
Bartlett's Test of Sphericity	Approx. Chi-Square	11404.977
	Df	630
	Sig.	.000

The KMO value is reported as .819, which falls into the "meritorious" range according to Kaiser (1974). KMO values range from 0 to 1, where a value closer to 1 indicates that the data is suitable for factor analysis, as correlations between variables can be explained by underlying

factors (Field, 2018). A KMO score of .819 suggests that the sample size is adequate and the variables have sufficient common variance to justify the application of factor analysis (Hair et al., 2020). According to Hutcheson and Sofroniou (1999), a KMO value between .80 and .89 is considered very good, confirming that the dataset is appropriate for further factorial exploration. The Bartlett's Test of Sphericity shows an Approximate Chi-Square value of 11,404.977 with 630 degrees of freedom (df) and a significance level (p-value) of .000. Bartlett's test examines whether the correlation matrix is significantly different from an identity matrix, which would indicate that the variables are uncorrelated (El-Masri, et al 2021). The test result is highly significant ($p < .001$), rejecting the null hypothesis that the correlation matrix is an identity matrix. This implies that the variables in the dataset are sufficiently correlated and factor analysis is suitable (Pallant, 2020). Taken together, the KMO measure and Bartlett's test results confirm the suitability of the dataset for cumulative factorial analysis. These findings suggest that the dataset has an adequate sample size, significant correlations between variables, and sufficient underlying structure for the factor analysis to proceed effectively.

Table 2. Eextracted Factors Loading

Factors	Extraction		Extraction
Fan influence (F1)	.831	Long -term contract (F19)	.686
Crowed-fan support ® (F2)	.749	Rules and regulations (F20)	.732
History of the club (F3)	.762	Burocracy (corrupted) system (F21):	.766
Lack of fan ®(F4)	.797	Extended objective (F22)	.717
Media (F5)	.679	Depth (diversity) coaching staff (F23)	.959
Culture of the club (F6)	.626	Depth (diversity) of medical staff (F24)	.949
Camp life (F7)	.702	Depth of the players (F25)	.961
Payment sham (unbalance) (F8)	.756	Experience (national team & club) (F26)	.892
Unbalanced club budget (F9)	.702	Diversity of players (nationality) (F27)	.946
Benefit (F10)	.632	Home grown players (F28)	.916
Hospitality/service (F11)	.771	Coaches frequently changed (F29)	.543
Untimed payment (F12)	.857	Format of competition (F30)	.580
Influence of sponsors (F13)	.872	Filed (training and competition) (F31)	.669
Insurance (F14)	.865	Tied Schedule (F32)	.744
Influence of club leader (F15)	.766	Frequent injury (F33)	.778
Conflict management (F16)	.724	Short Preparation time (F34)	.765
Motivation (F17)	.767	Long preparation time (R)(F35)	.774
Short contract (F18)	.778	International competition (F36)	.857

Note. N=307. The extracted method was a principal component in Varimax, Factor loadings > 0.30 are in bold. Reverse-scored items are denoted by ®

The table 2 presents the factor loadings (extraction values) for various variables using PCA. Factor loadings serve as an indicator of the magnitude of the association between each variable and the derived factors, with elevated values reflecting a more robust correlation. Fan Influence and Support Variables such as Fan Influence (F1), Crowded-fan support (F2) (.749), Lack of fan support (F4) (.797), and Media (F5) (.679) exhibit relatively high loadings. This indicates that fan-related factors play a significant role in explaining the variance within the dataset. Strong fan engagement and media influence are key contributors to a soccer club's performance, highlighting their importance in driving club success. These findings suggest that fan loyalty and media coverage directly influence club dynamics and overall success.

Club History and Culture History of the club (F3) (.762) and Culture of the club (F6) (.626) have notable extraction values. These findings underscore the substantial influence of a club's historical and cultural context on its enduring success. Clubs with deep-rooted traditions and a strong cultural identity are more likely to foster loyalty, build a solid fan base, and experience sustained success over time.

Financial Management Financial aspects such as Unbalanced club budget (F9) (.702), Payment schemes (F8) (.756), and Untimed payment (F12) (.857) show substantial factor loadings. This suggests that sound financial management is crucial for a club's performance and sustainability. Inefficient payment schemes, budget imbalances, and delays in financial obligations may severely undermine club operations and hinder success. Sponsorship and Insurance Influence of sponsors (F13) (.872) and Insurance (F14) (.865) are among the highest-loading variables, emphasizing the importance of financial backing and welfare provisions in supporting a club's success. Clubs with strong sponsorship and comprehensive insurance policies create a stable environment for both players and staff, which is conducive to sustained performance.

Leadership and Management Variables such as Influence of the club leader (F15) (.766), Conflict management (F16) (.724), and Motivation (F17) (.767) demonstrate high factor loadings. These findings underscore the critical role of effective leadership, governance, and player motivation in a club's operations. Effective leadership is paramount for upholding organizational stability, addressing disputes, and nurturing a constructive team atmosphere that propels achievement. Human Capital and Team Depth Human resource variables, including Depth of coaching staff (F23) (.959), Medical staff (F24) (.949), Players (F25) (.961), and Experience (F26) (.892), exhibit the highest factor loadings in the table. This underscores the notion that clubs characterized by profound, diverse, and seasoned teams both in the realm of players and support personnel are predisposed to superior performance. A well-rounded team with strong medical and coaching support contributes significantly to both short-term victories and long-term success.

Competition and Game Preparation Factors related to competition, such as Frequent injury (F33) (.778), Short preparation time (F34) (.765), and International competition (F36) (.857), also demonstrate significant loadings. These variables imply that extrinsic factors such as the physical exigencies of the competition, preparatory duration, and international exposure can significantly impact a club's success. Effective injury management, adequate preparation, and experience in international competitions enhance a club's ability to compete at higher levels. In summary, the table illustrates that success in soccer clubs is multifaceted, involving strong fan and media support, sound financial management, effective leadership, skilled human capital, and competitive readiness. Each of these factors is integral in shaping the performance and longevity of a soccer club.

Table 3. Total Variance Explained

Total variance explanation			
Rotation sums of the squared loadings			
Component	Total	% variance	Cumulative %
1	6.442	17.895	17.895
2	4.249	11.803	29.698
3	4.098	11.383	41.082
4	3.830	10.638	51.720
5	2.843	7.898	59.618
6	2.593	7.203	66.821
7	2.128	5.911	72.732
8	1.687	4.685	77.417
Extraction Method: Principal Component Analysis.			

The table 3 provided presents the total variance explained by eight extracted components, based on Principal Component Analysis (PCA). The results are presented in terms of the total eigenvalues, percentage of variance explained by each component, and the cumulative percentage of variance explained. Component 1 has an eigenvalue of 6.44, which explains 17.89% of the total variance in the dataset. This suggests that Component 1 is the most significant factor, contributing the highest proportion of variance among the eight components. Component 2 explains an additional 11.80% of the variance, with a cumulative variance of 29.698%. Combined, the first two components account for nearly 30% of the variance, indicating their importance in representing the underlying data structure. Component 3 adds 11.38% of the variance, resulting in a cumulative variance of 41.082%. At this point, the first three components explain over 40% of the total variance. Component 4 contributes 10.63%, bringing the cumulative variance to 51.720%. This suggests that the first four components together explain more than half of the variance in the dataset, which is a significant amount in factor analysis. Components 5 through 8 explain decreasing percentages of the variance, ranging from 7.89% for Component 5 to 4.68% for Component 8. Collectively, these components add an additional 25.69% to the explained variance. By the time all eight components are extracted, they explain a cumulative 77.41% of the total variance in the dataset. This suggests that these eight components represent a substantial portion of the data's variability, leaving about 22.583% unexplained, which might be attributed to smaller or irrelevant factors.

The extraction of eight components using Principal Component Analysis (PCA) resulted in a total cumulative variance of 77.41%, which is considered high in exploratory factor analysis (El-Masri, et al 2021). Typically, researchers aim to retain components that cumulatively explain at least 60-70% of the variance (Field, 2018). In this case, the first four components alone explain more than half of the variance (51.72%), indicating their significance. As components beyond the fourth contribute progressively less variance, their practical relevance may be limited but still useful in capturing additional data dimensions. The relatively high cumulative variance suggests that the extracted components provide a strong and comprehensive representation of the original dataset's structure, suitable for further analysis and interpretation.
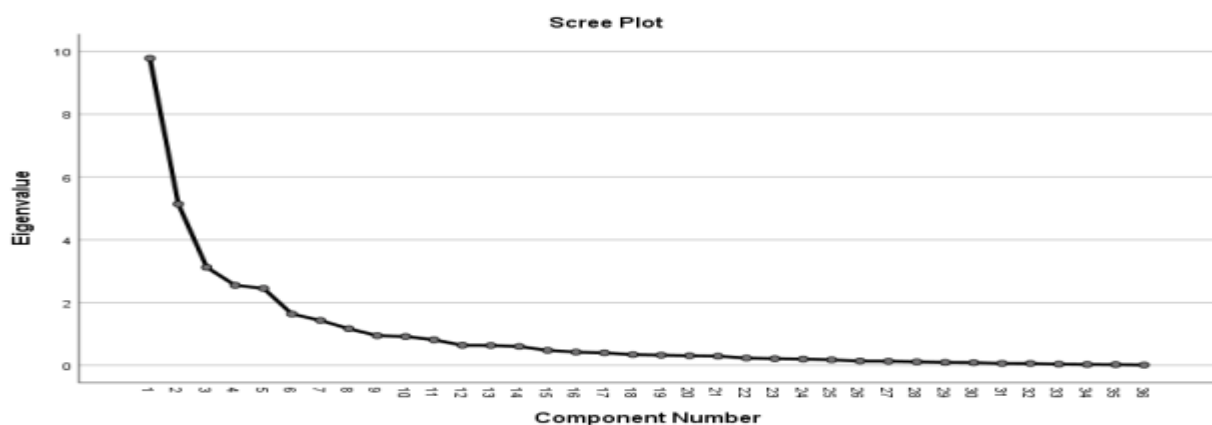

Figure 1. Screen Plot

The score plot displays observations for 36 factors, with the first component showing a notably high eigenvalue of approximately 10, indicating it accounts for the largest portion of variance in the dataset. After the first component, there is a steep decline in eigenvalues, with the second and third components around 4 and 2, respectively. This significant drop suggests that these initial components capture most of the variance.

The elbow of the plot occurs at the fourth component, where the curve begins to flatten, indicating that additional components contribute much less to explaining the variance. Beyond this point, the eigenvalues stabilize, approaching values near 1 or lower, which implies that the remaining components offer minimal explanatory power. According to Nkansah's criterion Nkansah (2011), components with eigenvalues greater than 1 should be retained for further analysis. In this scree plot, the first three components meet this criterion, while those beyond the third have eigenvalues below 1. Furthermore, the elbow criterion suggests retaining three components, as the slope of the eigenvalues decreases sharply after the third. Thus, the scree plot supports keeping three factors for further analysis, as these explain the majority of the variance in the data. This aligns with previous research on factor analysis, which indicates that the first few factors generally account for the most variance, while subsequent factors capture progressively less (Field, 2018).

Table 4. Extracted Rotated component matrices

	Rotated component matrix							
	Components							
	1	2	3	4	5	6	7	8
Depth of the players (F25)	.954							
Depth (diversity) coaching staff (F23)	.941							
Experience (national team & club) (F26)	.938							
Depth (diversity) of medical staff (F24)	.924							
Home grown players (F28)	.915							
Diversity of players (nationality) (F27)	.901							
Payment sham (unbalance) (F8)		.813						
Unbalanced club budget (F9)		.771						
Benefit (F10)		.686						
Influence of sponsors (F13)		.675						
Untimed payment (F12)		-.653						
Camp life (F7)		-.629						
Hospitality/service (F11)		-.437						
Influence of club leader (F15)			.811					
Extended objective (F22)			.811					
Motivation (F17)			.799					
Burocracy (corrupted) system (F21)			.696					
Coaches frequently changed (F29)			.666					
Format of competition (F30)				.810				
Filed (training and competition) (F31)				.806				
Tied Schedule (F32)				.622				
Frequent injury (F33)				.615				
Short Preparation time (F34)				.607				
Long preparation time (R)(F35)				-.606				
International competition (F36)				.587				
Short contract (F18)					.473			
Long -term contract (F19)					.837			
Insurance (F14)					.762			
Conflict management (F16)					.631			
Rules and regulations (F20)					.595			
Culture of the club (F6)						.871		

History of the club (F3)	.861	
Fan influence (F1)		.712
Crowed-fan support ® (F2)		.681
Lack of fan ®(F4)		.621
Media (F5)		.805

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. The rotation converged in 12 iterations.

Table 4 reports the inter-correlations of the extracted components of the variables. The rotated component matrix presents the factor loadings of various variables after applying Principal Component Analysis (PCA) with Varimax rotation. This method identifies which variables strongly correlate with specific components, helping to explain the factors that contribute to success in Ethiopian Premier League soccer clubs.

Component 1: Human Capital and Player Depth This component is defined by high loadings on variables related to human resources and team structure. Key factors include depth of players (F25) (.954), diversity of coaching staff (F23) (.941), experience (F26) (.938), and diversity of medical staff (F24) (.924). These variables suggest that the success of a club is strongly influenced by the depth, diversity, and experience of its players and staff. Additional high loadings for homegrown players (F28) (.915) and diversity of players by nationality (F27) (.901) emphasize the importance of nurturing local talent while integrating players from different nationalities.

Component 2: Financial Stability This component focuses on the financial elements of club management. High loadings for variables such as payment sham (unbalance) (F8) (.813), unbalanced club budget (F9) (.771), and benefit (F10) (.686) highlight the importance of financial resources. Negative loadings for untimed payment (F12) (-.653) and camp life (F7) (-.629) suggest that financial mismanagement and poor living conditions undermine stability. Effective financial management through balanced budgets, timely payments, and sponsor involvement emerges as a critical factor for a club's overall success.

Component 3: Leadership and Governance Leadership and governance variables such as influence of the club leader (F15) (.811), extended objective (F22) (.811), and motivation (F17) (.799) load highly onto this component. These findings suggest that strong leadership, strategic goal-setting, and player motivation are essential for a club's performance. However, the presence of bureaucracy (corrupted system) (F21) (.696) and frequent changes in coaching staff (F29) (.666) may negatively impact club success, signaling that inefficiencies in administration and coaching instability can be detrimental.

Component 4: Competition and Training Conditions This component highlights the significance of competition format (F30) (.810), training facilities (F31) (.806), and factors such as tied schedule (F32) (.622) and frequent injuries (F33) (.615). These factors indicate that the format of competitions, training conditions, and injury management have a considerable impact on a club's sustainability and performance. Interestingly, long preparation time (F35) (-.606) has a negative loading, suggesting that overly extended preparation times may hinder a team's competitive sharpness.

Component 5: Contractual and Financial Stability Variables related to financial and contractual security load highly on this component, including long-term contract (F19) (.837) and insurance (F14) (.762). These factors are vital in retaining key players and managing financial risks related to injuries. Other important variables include conflict management (F16) (.631) and rules and regulations (F20) (.595), which underscore the need for a structured organizational framework and adherence to policies for long-term stability.

Component 6: Club History and Culture This component underscores the significance of a club's history and culture. High loadings for culture of the club (F6) (.871) and history of the club (F3) (.861) suggest that clubs with a rich cultural and historical background tend to foster loyalty, attract fans, and perform well over time. A club's heritage and traditions play a major role in its identity and ongoing success.

Component 7: Fan Engagement Fan engagement is a key component, with variables such as fan influence (F1) (.712), crowd-fan support (F2) (.681), and lack of fan support (F4) (.621) showing strong loadings. The results suggest that fan presence and support are directly linked to club success, as fan loyalty helps drive performance and create momentum for the team.

Component 8: Media Influence Media exposure is the primary variable in this component, with media (F5) (.805) being the most significant factor. Media coverage plays a crucial role in building a club's brand and increasing its visibility. This finding indicates that strong public relations and media presence can enhance a club's appeal and influence both on and off the field. In summary, the rotated component matrix highlights the multifaceted factors influencing the success of Ethiopian Premier League soccer clubs, ranging from human capital and financial stability to leadership, fan engagement, and media presence. Each component provides insight into the diverse elements that contribute to the overall performance and sustainability of a club.

DISCUSSION

This study employed a quantitative, cross-sectional research design to gather data from all participating Ethiopian Premier League (EPL) clubs during the 2023/24 season, aiming to identify and categorize the key success factors influencing club performance through Explanatory Factor Analysis (EFA). This methodology was well-suited for revealing the latent structures that contribute to the success of soccer clubs, effectively simplifying complex datasets into manageable dimensions.

The analysis began with the Kaiser-Meyer-Olkin (KMO) measure, yielding a score of .819, categorizing it as "meritorious" according to Nkansah (2011). KMO values range from 0 to 1, with higher scores indicating greater suitability for factor analysis, signifying significant correlations among variables due to underlying factors (Field, 2019). The score of .819 indicates an adequate sample size and sufficient common variance, supporting the validity of the factor analysis (Thao, et al., 2022). Furthermore, Hutcheson and Sofroniou (1999) classify a KMO score between .80 and .89 as "very good," reinforcing the appropriateness of the dataset for factorial exploration. And Bartlett's Test of Sphericity produced a significant Chi-Square value of 11,404.977 with 630 degrees of freedom and a p-value of .000. This result indicates that the correlation matrix significantly differs from an identity matrix, suggesting a correlation among the variables (El-Masri, et al 2021). The significant p-value (p < .001) allows for the rejection of the null hypothesis, confirming the dataset's suitability for factor analysis (Pallant, 2020). Together, the KMO measure and Bartlett's test results affirm the dataset's readiness for cumulative factorial analysis.

The factor loadings derived from the Principal Component Analysis (PCA) reveal the strength of the relationship between each variable and the identified factors. Variables associated with fan influence (F1), crowd support (F2), lack of fan support (F4), and media presence (F5) exhibit high loadings, highlighting the crucial role of fan engagement and media influence in driving club performance. Conversely, some studies suggest that while fan support is significant, it is not the sole determinant of success; other factors, such as team strategy and management, may hold equal or greater importance (Zou, 2023; Chen, et al 2022).

Additionally, the findings indicate that a club's history (F3) and culture (F6) are significant, emphasizing that a robust historical context and cultural identity foster loyalty and sustained

success. This result is consistent with research Taylor, Mellalieu, James, & Barter, (2010) and (Parganas, Liasko, & Anagnostopoulos, 2017) which highlights the important of multiple views and factors associated with success. Financial management variables such as unbalanced budgets (F9), payment schemes (F8), and untimely payments (F12) underscore the necessity of effective financial practices for operational success. These results are consistent with research by Sakınç, Açıkalın, & Soygüden, (2017) which highlights the importance of financial stability in achieving competitive success in sports organizations.

Leadership and management variables also play an essential role, as indicated by high loadings for leadership influence (F15), conflict management (F16), and player motivation (F17). These findings align with literature suggesting that effective leadership is vital for maintaining organizational stability and fostering a positive team environment (Zülch et al., 2020; Zülch et tal., 2021; Ruta et al., 2020; Malagila et al., 2021). However, some researchers argue that leadership alone cannot account for all performance outcomes, as team dynamics and external pressures also significantly affect success (Costa et al.,2022; Marino, 2021).

The analysis also identified components related to human capital and team depth, indicating that clubs characterized by depth, diversity, and experience among players and staff are likely to achieve superior performance. Factors such as injury frequency (F33), preparation time (F34), and international exposure (F36) highlight the significant impact of external conditions on club success. While these findings are supported by previous studies emphasizing the role of player health and preparation in performance (Post, 2023; Wanat & Leksowski, 2022; Zulch et al., 2020), the interdependence of these factors suggests a more complex relationship that warrants further investigation.

In summary, the findings indicate that success in EPL clubs is multifaceted, depending on a combination of strong fan support, effective financial management, proficient leadership, skilled human capital, and competitive readiness. While the eight extracted components account for a significant portion of the variance (77.41%), approximately 23.26% remains unexplained, suggesting the influence of additional factors. Future research is needed to explore the interplay among these variables and their implications for governance and performance in soccer teams, particularly within the Ethiopian Premier League.

In conclusion, this study enhances the understanding of success factors in EPL clubs, underscoring the need for ongoing research into both on-field and off-field dynamics. Addressing the complexities of financial management, fan engagement, and leadership can yield valuable insights for enhancing the competitiveness of Ethiopian soccer clubs. Future research should also investigate external influences, such as economic stability and managerial decisions, to further elucidate the intricate web of factors dictating success in football.

CONCLUSION

The study on success factors in Ethiopian Premier League (EPL) soccer clubs for the 2023/24 season offers a detailed understanding of the critical elements driving club performance. Through Explanatory Factor Analysis (EFA), the research identifies the key relationships between various variables influencing success. By applying Varimax rotation, the study refines these findings, emphasizing core areas such as fan engagement, financial management, human resources, leadership, and competition readiness as essential factors.

The results highlight that strong fan support, sound financial management, and solid leadership are crucial for maintaining long-term success. Clubs with a deep-rooted history and rich cultural heritage are more likely to build loyalty and sustain their performance. Human capital, particularly the experience of players and coaching staff, also plays a fundamental role in achieving both short-term victories and ensuring long-term growth. Furthermore, external

factors, including media presence and international competition exposure, significantly impact club success, indicating that success is shaped by a blend of internal and external dynamics.

To sum up, the research elucidates the imperative for an integrative strategy in the administration of soccer clubs, wherein fiscal sustainability, proficient governance, stakeholder engagement, and media prominence are essential components for attaining success. Supported by strong statistical validation through KMO and Bartlett's tests, the analysis provides a solid framework for understanding the factors that drive success in Ethiopian soccer.

Conflicts of Interest

The authors declare no conflicts of interest.

Acknowledgements

The authors would like to thank all the soccer players who participated in this study, EPL higher officials, clubs, and coaching staff who participated in this study.

Authors' Contributions

All authors contributed significantly to this study: which took the lead in designing the study, collecting and analyzing data, interpreting results, drafting the manuscript, and revising it critically. All authors have reviewed and approved the final version of the manuscript.

REFERENCES

Alemayehu, A., Mengistu, S., & Beker, G. (2016). Coaches' leadership style and motivational climate of players in South East Ethiopian National League football clubs. *Journal of Tourism, Hospitality and Sports, 16,* 1–6.

Arraya, M. (2022). Kick and rush or valuing strategic factors in the recovery of success and financial wealth of professional football clubs. *Revista Intercontinental de Gestão Desportiva-RIGD (Intercontinental Journal of Sport Management), 12*(1), 1–33.

Campa Planas, F., & Kalemba, N. (2017). Managing sporting success and economic efficiency in professional football: Identification of determinant factors through the academic literature. *European Accounting and Management Review, 3*(2), 45–64.

Channabasappa, N., & Kumar, C. K. (2021). Sports facilities and sport performance in soccer: A comparative study between male and female college players. *Research Journey, 144.*

Chekle, B. (2017). Statistical performance of the Ethiopian football national team and its success prediction capacity: The 4th African championship (CHAN): Rwanda 2016. *International Journal of Physical Education, Sports and Health.* P-ISSN: 2394-1685.

Chen, J., Zhai, S., Xi, Z., Li, P., & Zhang, S. (2022). Impact of absent crowds on technical and physical performances in the Chinese Soccer Super League. *Frontiers in Psychology, 13,* Article 959213.

Costa, A., Simões, C., & Perin, M. (2022). The influence of club leadership on the behavior and attitudes of soccer club supporters: An abstract. Paper presented at the Academy of Marketing Science Annual Conference.

El-Masri, M. M., Mowbray, F. I., Fox-Wasylyshyn, S. M., & Kanters, D. (2021). Multivariate outliers: A conceptual and practical overview for the nurse and health researcher. *Canadian Journal of Nursing Research, 53*(3), 316-321.

Erdoğan, N. K., Altınırmak, S., Şahin, C., & Karamaşa, Ç. (2020). Analyzing the financial performance of football clubs listed in BIST using entropy-based COPRAS methodology. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi, 63,* 39–53.

Fang, L., Wei, Q., & Xu, C. J. (2021). Technical and tactical command decision algorithm of football matches based on big data and neural network. *Scientific Programming, 2021,* Article 5544071.

Field, A. (2009). *Discovering statistics using SPSS* (2nd ed.). Artmed.

García-Sánchez, I. M. (2007). Efficiency and effectiveness of Spanish football teams: A three-stage DEA approach. *Central European Journal of Operations Research, 15,* 21–45.

Getnet, D., Melkamu, Z., & Mengistu, S. (2024). Why do fans attend football games? Motivational factors in the Ethiopian Premier League, 2023-24. *Retos, 60,* 83–89.

Hutcheson, G. D., & Sofroniou, N. (1999). *The multivariate social scientist: Introductory statistics using generalized linear models.* Sage Publications.

Jiménez, M. A., Fernández, J. G., Moreno, F. C., & Torrente, M. V. (2023). La percepción de marca en los centros de fitness: Una comparativa según el modelo premium y low-cost. *Retos: Nuevas tendencias en educación física, deporte y recreación, 50,* 746–760.

Lozano Segura, S., & Villa Caro, G. (2022). Multiobjective centralized DEA approach to Tokyo 2020 Olympic Games. *Annals of Operations Research.*

Malagila, J. K., Zalata, A. M., Ntim, C. G., & Elamer, A. A. (2021). Corporate governance and performance in sports organizations: The case of UK premier leagues. *International Journal of Finance & Economics, 26*(2), 2517–2537.

Marino, D. (2010). Governance and sporting success of top 20 football clubs after economic crisis. In *Optimal strategies in sports economics and management* (pp. 87–95). Springer.

Miles, A. J. (2018). Developing, delivering, and assessing the 'Performance and Personal Excellence Programme': A multiphase, mixed-methods research project. University of Otago.

Miragaia, D., Ferreira, J., Carvalho, A., & Ratten, V. (2019). Interactions between financial efficiency and sports performance: Data for a sustainable entrepreneurial approach of European professional football clubs. *Journal of Entrepreneurship and Public Policy, 8*(1), 84–102.

Nkansah, B. K. (2011). On the Kaiser-Meyer-Olkin's measure of sampling adequacy. *Mathematical Theory and Modeling, 8*(1), 52-76.

Oliva Lozano, J. M. (2024). Peak locomotor demands: Another approach for training load monitoring. In *Training load in professional soccer: Guide to monitoring performance* (pp. 31–35). Springer.

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (6th ed.). Routledge.

Pérez-González, A., de Carlos, P., & Alén, E. (2022). An analysis of the efficiency of football clubs in the Spanish First Division through a two-stage relational network DEA model: A simulation study. *Operational Research, 22*(3), 3089–3112.

Post, C. (2023). Approaching predictors of success for sports clubs by applying the organizational capacity framework. *German Journal of Exercise and Sport Research, 53*(3), 315–324.

Rija, T. H., Mohammed, T. K., & Kadhlm, R. A. (2023). The role of organizational development in improving the reality of the work of the administrative bodies to manage active sports clubs in Baghdad. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte, 18*(3), 298–304.

Ruta, D., Lorenzon, L., & Sironi, E. (2020). The relationship between governance structure and football club performance in Italy and England. *Sport, Business and Management: An International Journal, 10*(1), 17–37.

Sakınç, İ., Açıkalın, S., & Soygüden, A. (2017). Evaluation of the relationship between financial performance and sport success in European football.

Taylor, B. J., Mellalieu, D. S., James, N., & Barter, P. (2010). Situation variable effects and tactical performance in professional association football. *International Journal of Performance Analysis in Sport, 10*(3), 255–269.

Thao, N. T. P., Van Tan, N., & Tuyet, M. T. A. (2022). KMO and Bartlett's test for components of workers' working motivation and loyalty at enterprises in Dong Nai province of Vietnam. *International Transaction Journal of Engineering, Management, & Applied Sciences & Technologies, 13*(10), 1-13.

Tomlinson, A. (2014). *FIFA (Fédération internationale de football association): The men, the myths and the money.* Routledge.

Wanat, T., & Leksowski, Ł. (2022). Short- and long-term effects of transfers on football clubs' sport performance. *Journal of Education, Health and Sport, 12*(5), 252–260.

Zou, K. (2023). A study of home audiences affects the team's performance. *Highlights in Science, Engineering and Technology, 47,* 131–135.

Zülch, H., Palme, M., & Jost, S. P. (2020). Management quality of professional football clubs: the Football Management (FoMa) Q-Score 2018. *Sport, business and management: an international journal, 10*(5), 567-598.

Zülch, H., Palme, M., Jost, S., & Kirsch, B. (2021). *Management quality of professional football clubs.* HHL Leipzig Graduate School of Management.