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**THE ROLE OF TRANSFER STRATEGIES IN THE FINANCIAL
PERFORMANCE OF SPORTS ORGANIZATIONS: THE CASE
OF UEFA**

Master's Thesis by the 2nd year student
Golubenko Ilia

Research Advisor
Professor Ioannis Christodoulou

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**ЗАЯВЛЕНИЕ О САМОСТОЯТЕЛЬНОМ ХАРАКТЕРЕ ВЫПОЛНЕНИЯ
ВЫПУСКНОЙ КВАЛИФИКАЦИОННОЙ РАБОТЫ**

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(Date)

АННОТАЦИЯ

Автор	Голубенко Илья Романович
Название ВКР	Роль трансферных стратегий в финансовых результатах спортивных организаций: кейс УЕФА
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Научный руководитель	Иоаннис Христодоулоу
Описание цели, задач и основных результатов	Целью данного исследования является исследование качественных и количественных характеристик стратегий Европейских футбольных клубов на трансферном рынке игроков для последующего выявления факторов трансферной политики, которые позволяют клубам достигать наивысших показателей финансовой эффективности. Среди задач данного исследования можно выделить определение основных направлений деятельности европейских клубов на трансферном рынке, выявление ключевых метрик, характеризующих их, а также построение регрессионной модели для определения наличия взаимосвязи между этими показателями и финансовым успехом отдельно взятого футбольного клуба. На основе полученных результатов можно утверждать, что существует значимая взаимосвязь между ключевыми показателями состава (возраст, принадлежность), стоимости (размер сделок) и объема (количество) сделок на трансферном рынке. В работе подчеркивается эффект, который оказывает политика в области набора состава на уровне клуба, лиги и индустрии в целом.
Ключевые слова	футбольный менеджмент, спортивная аналитика, экономика клуба, управление, рыночные механизмы, факторы успеха команды

ABSTRACT

Master Student's Name	Golubenko Iliia
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Main field of study	38.04.02 «Management»
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Description of the goal, tasks and main results	The purpose of this study is to study the qualitative and quantitative characteristics of the strategies of European football clubs in the player transfer market for the subsequent identification of transfer policy factors that allow clubs to achieve the highest financial performance indicators. Among the objectives of this study are the identification of the main areas of activity of European clubs in the transfer market, the identification of key metrics that characterize them, as well as the construction of a regression model to determine the existence of a relationship between these indicators and the financial success of an individual football club. Based on the results obtained, it can be argued that there is a significant

	relationship between the key indicators of composition (age, affiliation), value (size of transactions) and volume (number) of transactions in the transfer market. The paper highlights the effect that recruitment policies have at club, league and industry level.
Keywords	football management, sports analytics, club economics, management, market mechanisms, team success factors

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INTRODUCTION

Football, being the most popular sport in the world, is experiencing an era of rapid commercialization. In recent decades, football has turned not only into a cultural phenomenon, but also into a multi-billion-dollar industry, where success is determined not only and not so much by sporting achievements, but also by financial indicators. As a result, attitudes towards players have changed radically over time. Club management increasingly perceives team members not as the driving force behind sporting results, but as the organization's main financial asset. This thinking has seen the sport go from the adoption of the Bosman Rule, which eased player transfers between clubs, to Neymar's record-breaking €222 million transfer from Barcelona to PSG in 2017 in less than 25 years. This "market inflation" was largely stimulated by the influx of investment in sports and the expansion of sponsorship, advertising and broadcasting royalties. Investors are increasingly seeing football clubs as attractive investment targets, which is leading to an increase in the clubs' financial capabilities and an increase in their market value. Sponsorship contracts are becoming larger and more profitable, and revenues from the sale of rights to television broadcasts of matches are growing rapidly, creating additional sources of funding for clubs. As a result, the European football market has almost doubled over the past 10 years, reaching a valuation of €29.5 billion in the 21/22 season. The restructuring affected both market processes, complicating the system of circulation of players, and the intra-club organization, due to which consortia, financial associations and large corporations are increasingly becoming the owners of clubs. Modern football management involves finding a balance and compromise between the activities demonstrated on the football field and what happens outside it. This is particularly true for strategic decisions made in the transfer market, as the increased focus on success and the focus on financial stability has led to more complex and consistent squad policies as opposed to simply buying the best players available. Modern footballers are viewed as assets whose value can significantly influence the financial performance of a club. This requires a review and adaptation of traditional financial mechanisms aimed at maximizing profits and reducing risks. With increased competition for talented players and rising transfer fees, clubs are being forced to implement more comprehensive and streamlined approaches to managing their resources.

The digitalization of sports opens up new opportunities for clubs in the field of analytics and planning. The use of advanced technologies and data allows us to assess players' potential, predict their impact on team results and, accordingly, make more informed decisions in the field of transfer policy more accurately. This is due to the emergence of "laptop trainers" who base their work on a data-driven approach. These tools help not only improve athletic performance, but also increase the economic efficiency of the club.

However, new approaches to administration and advanced analytical tools have made it possible to significantly simplify the process of researching player characteristics, regulating pricing, financial return on investment in player development, analyzing sports results, while the basis of these processes - transfers - is still largely the result of negotiation management and long-term planning of market policies determined by management.

However, there has been little attempt to understand what determines the overall financial success of football clubs based on management's player acquisition policies.

Thus, the **research objective** of this paper is to identify the features of club transfer strategies that contribute to achieving and/or maintaining the competitive advantages of football clubs at the level of overall financial solvency.

To solve this problem, data on transfers of football clubs from the top 5 UEFA leagues was taken and their approaches to implementing roster rotation were examined and examined. A conscious distinction is also made between individual, market and national strategies of football clubs in order to determine the extent to which environmental factors in determining the activities of organizations are applicable to the European football industry. Therefore, the following **research questions** were posed:

- What characteristics of player transfers determine a football club's transfer strategy?
- What are the features of transfer policy that have a greater impact on the financial success of football clubs than others?
- Do temporary and/or institutional features of the transfer market affect the effectiveness of certain elements of the strategy?

In order to identify the main practices and activities of clubs in the football transfer market, a review of the literature on football strategic management and assessment of transfer processes, as well as a qualitative analysis of the sports industry, was carried out. A suitable methodology was then developed, applied to the collected secondary transition data and statistical analysis was carried out to determine the relationship between the football clubs' strategies and key financial indicators.

The article is structured as follows. First of all, the specificity and uniqueness of financial processes in the modern market and the realities of management in the industry are analyzed. Secondly, scientific works that study the quantitative measurement of the quality of the club's management activities are analyzed. Finally, the concept of determining the quality of a transfer strategy is described.

The next stage demonstrates the methodology of research and data collection. It contains descriptive statistics of the data, sample selection criteria, classification of variables and disclosure of the formulated hypotheses of the work.

After this, the results of the empirical study on the developed regression models are presented. At the end of the work, conclusions are drawn that interpret the results of the work and apply them to the research objectives and key problems. The existing limitations of the chosen approach are also separately discussed and further steps are discussed that will expand the applicability of the methodology and continue the development of research in this direction.

1. FOOTBALL MANAGEMENT

1.1 Football clubs' performance evaluation

The development and implementation of technologies at all stages of sports competitions — from organization and preparation to betting — has gradually turned sports analytics into one of the leading points of support in making both sports and strategic decisions. Assessing the performance of an acquired football player as a unit of human capital is quite a complex task, since in many areas it does not assume the existence of an ideal/optimal result on the basis of which success can be judged. In the context of football, its role has increased even more, since assessing the contribution of an athlete in a team sport is always a big challenge. It is in sports such as football, volleyball, hockey, etc. that the principle “the whole is greater than the sum of the parts” is clearly manifested.

However, determining a person's contribution is not the most difficult operational task in football management. It is more difficult to express this contribution in monetary terms. And with the growing commercialization of football and sports in general, this direction is becoming the main one for the study of sports econometrics.

The next step is to transfer responsibility for pricing to several parties in the market at once. While prices for other assets are set by one of the parties (either the seller or the buyer), in the case of football, the transaction occurs because of the interaction of the interests of 4 parties — the player, his agent and the two clubs. Since the player and his agent do not have sufficient leverage in fulfilling contractual obligations, clubs have the greatest negotiating power in such transactions, determining market trends through the implementation of their transfer strategies (Andras, 2003).

Table 1 Main characteristics of the football players market

PARAMETER	INDICATOR
Product	Transfer of the disposal about playing license
Product main characteristics	Double deal: labor recruiting and acquisition of a value of a property
Values drivers	Pre-determined (physical, mental, social) Current contract (buy-out clause, length of contract) Added characteristics
Market players	Seller: player as an athlete person (if contract expired) or club as releasing football company (if contract is running) Buyer: signing football company Mediator: players' agents, managers, scouts
Behavior influencing factors	Transfer fee

András (2003)

One of the basic concepts of evaluating a player within a command system is "plus or minus". It determines the difference between the performances of the team when a certain player

is in the team and when he is absent. This method is most common in basketball (Sill, 2010). This indicator is difficult to apply in football due to the fundamental difference in the mechanics of the game, as a result of which football is characterized by less players (11 main and 3 optional substitutions per game) and much lower performance. However, attempts have been made to transfer this approach (Kharrat, 2020).

Another significant step towards the systematization of football transfers was the approach of real options (Tunaru, 2005). However, this approach ties the value of a football player to the financial turnover of the club, which is why the value of a player varies from club to club. A more comprehensive indicator of a player's evaluation is the overall rating calculated based on the success of his actions in a single match or a segment of the season. This approach also has its drawbacks. For example, it does not take into account the competitiveness and overall level of a particular tournament, which is why equality of ratings does not always mean equality of actual game performance (Sæbøb, 2005).

The universal availability of sports statistics has led to the fact that not only professional analysts, but also ordinary sports fans began to look for solutions to forecasting problems. And research results suggest that amateurs, combining game data, personal experience and the information field, more accurately not only determine the value of a football player (Herm, 2014), but also predict game results based on them (Peeters, 2018). Moreover, these metrics appear to be more accurate than the official FIFA and ELO ratings, which are based on what happens on the field rather than off it.

Here again the problem arises that the economic value of the information field is very subjective; a small offshoot of this topic was the calculation of the media value of a football player (Barrio, 2016). The price of a football player also includes the prospect of further increase. A new immeasurable variable that significantly influences the cost of acquiring a player is talent (Frank, 2012), which will only become more relevant as competition for young players increases.

Multiple studies suggest that key members of football organizations still see the team's sustained and outstanding sporting performance as the basis for financial success (Kuper and Szymanski, 2011). The proliferation of advanced statistical methods and additional match metrics has pushed the boundaries of understanding the key elements of a "successful" game. The diversity of playing styles has led to the birth of new approaches to defining quality performance, which may lie in the success of the team's attacking (Lago-Ballesteros and Lago-Peñas, 2010) and defensive (Vogelbein et al., 2014) actions, as well as their activity on field (Rampinini et al., 2009) and ownership of initiative in the game (Hoppe, 2014).

Another club response to unsuccessful performances could be the dismissal of the coach. The reason may be a divergence in the vision of the future with the management, poor results of the club or a discrepancy between the existing squad and tactical settings and style of play. However, a study by Paola and Skop (2012) showed that changes on the coaching bridge do not mean a change in team performance. Chelsea Football Club is famous for the frequency of changes in head coaches, demonstrating completely different results from the use of such tactics. On the one hand, the club won the Champions League twice, changing coaches during the season and tournament, and on the other hand, over the last 2 seasons, the club has had 5 head coaches, but the team barely qualified for European competition at the end of the 23/24 season. Overall, it is fair to say, that although the causal ambiguity of football clubs' performance is still a controversial issue for both academics and practitioners, majority of specialists of the industry agree greater on-field results are more likely to determine better overall performance of football clubs as business units. Given that, it is worth paying attention to research papers focused on the investigation of underlying causes of differences between various teams' sporting performance. Usually, academics determine two groups of contributing factors: strictly gaming indicators, such as possession, shots, tackles, injuries, etc., and managerial ones, which may include financial results, staff rotation, supporters' management, etc.

Oberston (2009) specifically focused on accurately predicting the performance of soccer teams during a season. Having identified the main gaming activities, he identified the top 6 statistically significant indicators that take into account the performance of teams in the Premier League sample, which made it possible to determine the effectiveness of specific qualities of a sports organization within a single sports league. Barros and Leach (2006) examined the impact of off-field input variables such as number of players, wages, net assets and stadium equipment costs on the number of points earned in a season to highlight the off-field indicators that influence club success. This once again demonstrated the importance of additional capital and effective management. In their study, Paola and Scoppa (2012) sought to determine the impact of managerial changes on game outcomes using a sample of Italian football teams, reaching a contradictory conclusion. The study found that frequent coaching changes were not a statistically significant success variable. This is well illustrated by an example of comparing the approach to selection for the position of head coach at Manchester United and Chelsea. After many years of domination of Manchester with Sir Alex Fergusson in office, the club began a constant change of coaches, which is why the "Red Devils" have never won the championship since Fergusson left, while their opponents from London, on the contrary, have become one of the most title-winning club in England in recent years, basing its strategy on the constant rotation of the general manager without achieving results. Trecatrinini et al. (2015) conducted a unique study aimed at studying the

influence of network interaction on game performance and overall sports results. It is believed that network research has significant potential as a valuable tool for analyzing football tactics, for and for systematizing transfer flows not only in Europe, but throughout world football.

1.2 Football clubs' financial evaluation

Modern football is largely a business. During soccer scores assets is consistently negotiation phase, where parties are faced with a natural desire to maximize profit, and differences in the methods of evaluation of players (Carmichael, 1993). Truly effective clubs not only select the main talents to acquire, but also acquire them on favorable terms, achieving financial goals in two perspectives at once. In the short term, such activities allow them to convert investments more profitably into the success of the club. In the long term, this allows for additional reinforcements of the squad due to cost savings or more profitable resale of the player.

At this stage, negotiators often skip the step of evaluating the effectiveness and characteristics give the player from monetary value, where the role played by his position, and anthropometry, and the position of the current club (Felipe, 2020). Teams that are able to see the full range of player prospects and develop them through the quality of the coaching staff and the quality of the scouting department gain a competitive advantage. In addition, a football player, as an asset, is also considered as a resource for increasing not only his own value, but also the financial well-being of the club both directly, through the sporting success of the club (Demir, 1999), and indirectly, through the involvement of fans (Brandes, 2008).

In these negotiations, a significant influence is played by the personal attitude of the player to the position of the player in the club, which are used as a lever of pressure on the management to obtain the required conditions by the agent (Carmichael, 1999). A number of European clubs (Borussia, Benfica), despite their success in the international and domestic arena, are known for focusing on the resale of talented young footballers to richer clubs due to lower pressure in the league and a developed selection system. A football player, as a media personality, is also able to attract additional capital through the sale of merchandise, new personal agreements, or directly attracting fans through his public image. Lionel Messi's presentation at Inter Miami was watched by 3.5 billion people, despite the fact that the football player is in the twilight of his career, and the club itself is inferior in popularity to European giants like Barcelona and Manchester United.

As a result, uncertainty at the evaluation stage, as well as the high bargaining power of the seller (represented by the football player, agent and club) lead to an inevitable self-driving the increase in prices for transfers. As a result, the football market acquires signs of a financial bubble (Richau, 2021). This is facilitated by the growth of agent commissions, the desire of teams to acquire more popular and ready-made football players, increased competition among players and

an increase in the financial burden on clubs through borrowing funds and activating additional financial levers (Carmichael et al., 2001). At the same time, the understandable strategy of producing as many high-quality, and therefore more expensive, football players as possible is not an ultimatum. A number of studies show that even despite the bias of high value low value players, a strategy targeting such players for many clubs has led to the creation of a sustainable financial microenvironment (Gammelsaeter, 2010). In this sense, the coronavirus pandemic has had a positive impact, restraining the growth of transfer costs and limiting salary payments (Beiderbeck, 2021).

However, there are exceptions here: Kringstad and Olsen (2015), using the example of northern European football leagues, demonstrate that the approach in which the club's ability to create a large transfer budget does not always correlate with the club's results. As a result, financial and sporting results can be strictly opposite, which indicates the need for quality management (Barros and Santos, 2004). There are many cases of ineffectiveness of this kind of transfer companies, for example, despite the huge investments of the Qatari owners of PSG and record signings, the club failed to win the Champions League, which was the main goal of the manager since the acquisition of the club. Similar cases are present in every championship: Russia (Anzhi), England (Chelsea), Spain (Malaga), Italy (Milan), etc. In contrast, a number of studies highlight that the relationship between finance and spoils may not be based on the level of investment, but rather in terms of effective resource management (Gerrard, 2010). Thus, based on indicators of the ratio of the costs of salary, transfer and budget funds for success on the field, it was revealed that inequality in financial capabilities does not always affect the proportional gap in gaming performance.

Thus, the club's financial performance is not the most reliable criterion for the club's performance. Additional cash injections most often help to bridge the gap between clubs with varying degrees of success on the field, but good asset management and a focus on the playing characteristics of the acquired players play an important role, as evidenced by unexpected results such as Leicester 15/16 and Bayer Leverkusen 23/24. Also, financial well-being may not reflect the situation on the field - many remember the "sale" of Ajax after the sensation in 2019 or the purchase of Tottenham after the record sale of Gareth Bale in 2013, after which the former almost flew out of the championship, and the latter, having bought 7 players with money Since the sale of Bale, they have not won a single domestic trophy. This once again emphasizes the need for a more in-depth study of transfer processes, not only at the level of financial metrics of transfers, but also from the perspective of the overall quality of the club's transactions within the transfer window.

3. FOOTBALL CLUBS' STRATEGY DEFINITION FRAMEWORK

Undoubtedly, the financial or gaming peak of a club can be caused by luck, effective negotiations, the behavior of competitors and the overperformance of individual players. The situation of discrepancy between management expertise and results in the emergence of “one-season” players and “elevator teams” who are unable to maintain their level due to a lack of competencies. This is where club management comes to the fore (Ozawa et al., 2004).

The behavior of clubs in terms of team optimization allows us to consider market players based on the network effects model (Liu, 2016). Despite the correlation between the amount of money invested and the result in the game, there is an opportunity to achieve high results by looking for more efficient resource management.

At the same time, the club's strategy can be shaped by the historical vector of development of its sporting successes (Feye, 2021). As a result, sustained performance dynamics (such as the concept of a 'classic top 6' for the top English teams) greatly influence the path a club takes. Within the league, "classes" of teams are formed according to their financial, sporting and economic status. The club's status, responsibility to shareholders and heightened fan expectations may lead to a club acting in a certain way not because it believes it is efficient, but because it must live up to its image, resulting in ineffective transfers and low flexibility.

The top European leagues, which are also countries with more attractive conditions, actively seek players from less developed countries. Thus, clubs' strategies are closely linked to the focus of their scouting departments and the development of academic systems (Schokkaert, 2016). Their development and regulation is the result of a combination of state policy in the field of sports, accepted norms and traditions in a particular country and the personal interests of the club.

One of the club's more pronounced sporting goals is to qualify for European competitions. For the majority of clubs, it is the prize money from qualification at the tournament that becomes the main resource for a qualitative leap in development. In addition, being known on the world stage allows you to sell your players at higher prices and attract more quality players at the same time. Due to the initial inequality of clubs in terms of financial and game aspects, the inequality between clubs of the same championship and between representatives of different leagues remains. The current Financial Fair Play system aims to address this problem, but only partially alleviates its effects (Dima, 2015).

The club is not only a sports organization, but also a brand. The commercialization of assets outside the football field (for example, for fans) is also an important task for club management. However, the sale of products will only be profitable if: a) the club already has a fairly promoted brand, b) brand development is a long-term strategy and is clearly positioned.

Research shows that many nuances and characteristics of players lie beyond the boundaries of observable metrics. The digitalization of club departments indicates the need to reduce the human factor when assessing a football player and, accordingly, making transfer decisions. For example, the work uses a mathematical model of recommendation decisions on transactions based on the optimal budget allocation for a specific club (Payyappalli and Zhuang, 2019).

However, many studies can only provide a schematic view of transfer mechanisms. Since sports transfers are still the result of the cooperation of a number of actors, the uneven distribution of information plays a large role in transfer processes. As a result, management decisions may be dictated not by rational calculation, but by emotional decisions under external pressure (Fűrész and Rappai, 2022). Transfer activity in conditions of uncertainty becomes the basis for the manipulation of assets in order to adjust the situation in the club.

When defining a club's transfer strategy, it is important to consider not only the end goal, be it financial stability or sporting success, but also how the various methods of achieving this goal are integrated into a single business model. The transfer strategy must be multi-faceted, integrating financial and sporting aspects to ensure the long-term sustainability and competitiveness of the club. This means that transfers are not viewed in isolation, but are part of a wider strategy that includes marketing, human resources, infrastructure development and fan relations.

Thus, the transfer strategy becomes not just a set of individual actions, but a complex system aimed at achieving sustainable success. At the same time, the key elements of this system (sports and finances) are not always directly dependent. (Szabados, 2008).

Table 2 Strategy types of football clubs

		Direct profit aim...	
		exists	doesn't exist
Nature of the target system is...	dual	Success-circle Transfer	Synergy
	dominant	Commercial	“Art for art sake”

Szabados, 2008

Thus, the transfer strategy becomes not just a set of individual actions, but a complex system aimed at achieving sustainable success. At the same time, the key elements of this system (sports and finances) are not always directly dependent. (Szabados, 2008). Let us analyze the key strategic directions highlighted in this coordinate system.

The “Succes-circle” model involves the replacement of the financial and gaming results of the club in shifts, as a result of which the acquisition of quality players on the transfer market leads to outstanding (by the standards of the organization) sporting results, and these in turn provide an additional financial boost and an influx of investments that can be spend on further strengthening the team. However, this chain is also true in the other direction, in which a poor-quality transfer policy leads to a decrease in results, which greatly reduces the club’s ability to further get out of the hole. A good example of this is the situation with the “financial leverage” of Barcelona over the last 3 seasons after the departure of Leo Messi in 2021.

The transfer-centric strategy lies in the dominance of transfer mechanisms in the functioning of the organization. Despite the fact that sporting and financial achievements are equally prioritized for such clubs, certain improvements in club functioning are determined through market activity. Selling players becomes an important financial element, and buying them becomes an investment in the gaming system. This model is largely used in Portuguese clubs. For example, a multiple winner of the national championship and the best team in the Benfica league is one of the best teams in Europe and the world in terms of income from the sale of players in absolute and relative values due to good scouting work with the Latin American market. The sale of key leaders does not prevent the team from consistently performing in European competition.

The commercial strategy aims to achieve stability through a balanced approach to managing transfers and lower performance requirements to avoid extremes and extreme club fluctuations. This approach is guaranteed for mid-level clubs that perform consistently in the major leagues, but are in the middle of the standings. This is typical for a number of English clubs (West Ham, Everton, Aston Villa) due to the large league prizes and the historical status of club organizations in the eyes of fans. Therefore, the activities of these clubs are focused on maintaining their position in the top division and periodically fighting for European Cup places, and transfers are of a strengthening nature or replace leaders who have left for promotion.

The synergy strategy allows you to combine the club’s human and financial capital with other non-sports assets, most often at the expense of the owners. The active work of the club's key individuals creates additional value and provides more opportunities to attract additional fan bases and investments without being tied to the club's success. This is achieved through a strong presidential figure with influence in the industry (Florentino Perez at Real Madrid), a distinguished sports background of the owner (Beckham at Miami), a sports functionary (Maldini at Milan) or coach (Lampard at Chelsea), or an iconic figure of the owner with political (Berlusconi in Milan), financial (Abramovic in Chelsea) or media (Ryan Reynolds in Wrexham) influence.

Clubs with an "Art for Art's Sake" strategy have a special prestige and tradition that determines their activities and influences decisions on and off the field without (or with less attention to) traditional performance indicators. The club's activities are aimed at maintaining or cultivating status. In this case, clubs may be guided by different interests, which may be based on historical (ideological confrontation between Celtic and Rangers), socio-cultural factors (Athletic Bilbao, consisting only of Basques) and media (purchase of La Massia stars from Inter Miami).

At the same time, the process of acquiring players is not a discrete decision and is predetermined by a whole set of factors. Based on Kraljic's model of the stages of purchasing sophistication, an alternative model for analyzing trading activity has been developed, applicable to the football transfer market (Griffis, 2023). In general, this concept is presented in Table 3.

Table 3 Stages of transfer sophistication

II – Transfer Management		IV – Squad-Market Integration	
Transfer Focus Key role players and prospects	Time Horizon Short/Medium-term orientation	Transfer Focus All player types for now and future	Time Horizon Long-term orientation
Performance Important players for specific needs	Player Supply Large: a lot of similar players available	Performance Any players bringing value to the squad	Player Supply Limited to specific roles and traits
Typical Sources Teams in or around league/region	Decision Maker Director, manager, coach Scouting Team Analytical squad	Typical Sources Global: choice limited to resources	Decision Maker Management, analysts, directors Scouting Team Data team
I – Squad Management		III – Market Management	
Transfer Focus General/squad players	Time Horizon Short-term orientation	Transfer Focus General/squad players	Time Horizon Short/Medium-term orientation
Performance Role in the team (formal/informal)	Player Supply Large: a lot of similar players available	Performance Variety of squad needs and roles	Player Supply Extensive: large number of desirable players
Typical Sources Teams in or around league/region	Decision Maker Director, manager, coach Scouting Team Research team	Typical Sources Local teams and same region	Decision Maker Directors, analysts Scouting Team Traditional + analysts

Griffis, 2023

Segmenting the mechanisms for acquiring players according to this outline allows us to determine a list of requirements and measures that will be taken into account during the club's transfer strategy. Firstly, the stage allows you to determine the composition of the actors, which fundamentally influences the assessment methods and decision-making criteria - here there is a space for choice between more statistical-analytical and game-perspective ones. Secondly, the

length of the planning horizon and the time to make a decision play a role. Clubs estimate the response time differently depending on the internal climate and external pressure. This will determine both their speed of decision-making and “patience,” that is, the duration of the response to changing the situation or reassessing risks/assets. Thirdly, the framework highlights the differences between the focus on players, their roles and individual characteristics in the available markets, even though on average there is a very large market available for clubs to find athletes with the right attributes.

The European football hierarchy is also expressed in a kind of “division of labor”, which determines the more global role of clubs in the continental football economy (Andras et al, 2000). On the one hand, the chosen strategy is determined by the capabilities of the clubs, which lie in their financial capabilities, negotiating positions and ambitions. On the other hand, the division presented in Table 4 shows the presence of relatively stable country (or, more accurately in our context, inter-league) differences based on historical patterns, cultural characteristics, established trade relations and organizational nuances of sports regulation.

Table 4 Categorization of countries in the European transfer market

	Negative balance	Positive balance
High volume	<i>Purchasers</i> England, Italy, Spain	<i>Traders</i> France, Portugal, Netherlands
Low volume	<i>Small customers</i> Turkey, Ukraine, Greece	<i>Suppliers</i> Denmark, Norway, Austria

Andras et al, 2000

Transfer strategies serve a dual role for clubs and market researchers. Firstly, they are a key tool for changing results, allowing you to react flexibly to changes in the vector of development and in many ways setting this very vector. A transfer strategy allows you to take into account the management and search structure, the goal-setting system and KPIs, the ratio of desires and opportunities, as well as determine the most optimal response to market changes. For example, clubs can adapt their transfer plans in response to new financial opportunities or changes in the competitive environment, allowing them to remain relevant and competitive. Thus, transfer strategies not only respond to current conditions, but also shape the long-term trajectory of the club.

Secondly, transfer strategies serve as a market indicator of the health of sports organizations. They reflect both internal and external factors affecting the club and can be both managerial and reactionary consequences of internal changes. For example, a club's activity in the transfer market may indicate its financial stability, managerial determination or the need for urgent improvements to its squad. Studying the transfer policies of clubs allows us to understand what

elements of the club hierarchy encourage them to enter the market and how they allow them to maintain the status quo or achieve better results. This provides researchers with valuable insights into the internal processes and strategic priorities of different clubs.

The multi-level nature of transfer strategies allows us to speak about the applicability of conclusions about their effectiveness to various markets and organizations. Analysis of transfer strategies can be useful not only for understanding clubs in a specific league or country, but also for broader analysis of sports markets. This includes examining how clubs with different governance structures and financial capabilities use transfer strategies to achieve their objectives. In addition, analysis of transfer strategies helps identify general trends and best practices that can be applied to different organizations and recruitment processes.

Thus, there are many factors and features of the club structure that are reflected in the financial performance of the club. Regardless of the playing style, results, management approaches and team performance, managers' aspirations to achieve better results are expressed in the club's transfer policy. Changing market strategy becomes a fundamental element of making changes to the roster, which in turn leads to changes in how the club functions and what the team plays around. The transformations that a club's entry into the transfer market brings about often have conflicting and varying impacts on a team's financial performance, which begs the question: what are the most effective club tactics to achieve better monetary results? If the cup can be won by both a team consisting mainly of young players and a team of veteran foreign players, which players would be more appropriate to acquire? If player fair value and roster valuations are the source of debate among analysts, financial experts and agents, how should a club proceed based on its pricing given its behavioral profile? If all clubs have easy access to all major selling, scouting and academy development markets, why are clubs narrowing their focus? If the actions of the players during the match, the coach on the sidelines and the staff during training are not enough, what actions should the manager take to avoid additional costs? If the transfer market is mainly used to make changes to the functioning of a club, why is it effective for both top clubs and less successful teams?

The presence of so many exceptions to squad management practices that are traditionally considered to be more efficient and consistent with clubs that consistently compete for league and European titles, as well as being more attractive to sponsors, suggests that the current academic framework does not allow the broader elements to be appreciated club strategy, missing the link between on-field performance and operational efficiency that new transfers create. This study aims to highlight the importance of strategic targeting approaches in the transfer market as an enabling tool for achieving financial stability.

3. HYPOTHESES STATEMENT

Based on a review of the literature, 4 key areas were identified that determine the features of transfer policy: the composition of the current squad, outgoing transfers, incoming transfers and the volume of transactions. These indicators allow us to qualitatively and quantitatively assess what direction the club is following in its decisions. For the purposes of the study, these groups were decomposed into the following variables:

- composition: share of local players, average age, share of national team players;
- transfers: share of players from the top 5 leagues, share of local players, share of players from the same league, number of transactions, volume of transactions, average age of players;
- operations: balance sheet, share of transfer expenses in the budget, degree of rotation.

During the literature review, 3 levels of relationships in the market were also identified: club level, league level, industrial level. Testing hypotheses at each level will allow us to trace additional effects and nuances of the proposed relationships, which will allow us to judge their presence with a greater degree of significance.

During the literature review, 3 levels of relationships in the market were also identified: club level, league level, industrial level. Testing hypotheses at each level will allow us to trace additional effects and nuances of the proposed relationships, which will allow us to judge their presence with a greater degree of significance.

H1: There is a negative relationship between the number of transfers and the value of the club. A large number of internal changes may be evidence of ineffective management. Frequent rotations also reduce team chemistry, which reduces team play potential.

H2: Buying and selling younger players has a positive effect on the value of the club. The increased demand for young talent is driven by increased competition, the desire to invest in long-term relationships, the need to adapt to the structure of the club from an early age and the inability to develop players internally due to performance requirements, which increases the appreciation of successful clubs built on youth.

H3: Clubs that trade local players are rated lower on average. Operating with home-grown players often indicates the club's low attractiveness, low results and not the most developed scouting system. Teams built along local national lines are, on average, less financially wealthy, since they do not have leverage over pricing.

H4: There are no differences in the impact of transfer costs and club values across leagues. The structure of the European market is almost monolithic due to frequent transactions between

clubs from different leagues, as well as the constant transfer of players and managers between different organizations.

4. METHODOLOGY AND DATA DESCRIPTION

4.1 Sample selection

For research purposes, the article selected transactions on the European transfer market. To improve the quality and representativeness of the sample, all transitions during the study period were passed through a series of criteria to ensure maximum compliance with the focus of the study at two levels: at club level and at player level.

The following criteria have been introduced at club level:

1. Data for the last 3 seasons.

In order to trace the possible evolution and transformation of club strategies, it was decided to take a longer period of activity in the transfer market. Thus, transactions completed during the transfer windows of seasons 23/24, 22/23, 21/22 were considered. Seasons 19/20 and 20/21 were not included in the final sample. Due to Covid, the limited championship in some countries was suspended, clubs experienced financial difficulties, and transfers to certain windows were limited.

2. Top-5 UEFA leagues.

This study examines clubs competing in the leading European championships according to the UEFA rankings. This decision was made for several reasons. Firstly, these clubs are subject to identical requirements and standards in terms of reporting and behavior in the transfer market. Secondly, these clubs account for the majority of transfers in monetary terms, making this the most important market. Thirdly, these clubs are more successful and compete at the highest level of competition, so it is here that the most effective and innovative approaches to club management on and off the field are introduced.

3. Performance in the Premier League (or its equivalent).

The final sample included only those clubs that competed in the highest level championship in their country without promotion/relegation. This allows us to avoid the effect of changes caused by a change of status, and also to focus on the top division, whose clubs are trendsetters, thanks to which the applicability of various strategic decisions will be assessed at the highest level of the local sports hierarchy.

Criteria related to player-level transfers:

1. Official transfer cost

Corporate secrecy, the conditional nature of payments and lack of information do not allow us to estimate the cost of the transfer with all additional commissions, surcharges and deductions. In order to unify the requirements for transfers, this study took the final data on the cost of a player's transfer that is publicly available. The work also does not consider the amounts received upon resale of a football player to a third club and for the success of his performances in it.

2. Only the final transition between clubs

Although loaning players and bringing in free agents are also elements of squad management, the first type of transfers does not provide enough information about the details of the contract, and the second type is not the result of negotiations between clubs. Thus, in this work, transfer is understood as the transfer of a football player from one club to another on a permanent basis. In the case of loans, this format of acquiring a player is considered only when buying out a contract after/during a loan.

3. Without alternative tools to attract players

The study mainly focuses on the strategy tools used in the transfer market. The transfer of players from the academy or youth team to the first team, as well as the practice of "player coach" are outside the scope of transfer regulations and are therefore not considered.

4. Full season

The calculation was based solely on transitions in which a player spent either a calendar year or a full playing season in the team. This assumption allowed us to take into account only those players who were part of the club's strategy during the full game cycle and a more or less long planning horizon.

4.2 Data collection

The final dataset represents the 58 European clubs not relegated from the top league since 2021. From the English Premier League, the sample included 12 clubs: Liverpool, Manchester City, Chelsea, Tottenham Hotspur, Arsenal, Manchester United, Everton, Brighton and Hove Albion, Wolverhampton Wanderers, Newcastle United, Crystal Palace and West Ham United. From French Ligue 1, the sample included 11 clubs: Brest, Lille, Lyon, Marcel, Monaco, Montpellier, Nantes, Nice, Paris Saint-Germain, Rennes, Strasbourg. From the Spanish La Liga, the sample included 12 clubs: Athletic Bilbao, Atletico Madrid, Barcelona, Betis, Celta, Getafe, Osasuna, Real Madrid, Real Sociedad, Seville, Valencia, Villarreal. From the Italian Serie A, the sample included 11 clubs: Atalanta, Bologna, Fiorentina, Inter, Juventus, Lazio, Milan, Napoli, Roma, Sassuolo, Torino, Udinese. The from the German Bundesliga, the sample included 12 clubs: Eintracht Frankfurt, Augsburg, Bayer 04 Leverkusen, Bayern Munich, Borussia Dortmund, Borussia Monchengladbach, Wolfsburg, Freiburg, Hoffenheim, RB Leipzig, Union Berlin.

The final sample contains 174 observations during the 2021/2022, 2022/2023, and 2023/2024 seasons. Several types of different information channels were used to collect variables:

- Official documents: annual reports of UEFA and football clubs;
- Statistical portals: WhoScored, Transfermarkt, FourFourTwo, ESPN;
- Sport magazines: SkySports, The Guardian, Kicker, SportsRu;
- Analytical websites: WyScout, Fbref, MSN, Football Observatory;
- Specialized journals: Journal Of Sport Management, Journal of Of Sport Economics, Sport Management Review;
- Insiders: Matt Law, Fabrizio Romano, Gianluca Di Marzio, David Ornstein.

5. RESEARCH RESULTS AND FINDINGS

5.1 Modeling

To build the models, statistical data analysis tools such as Python and Stata were used. The dependent variable in the regression is the total assessed value of the club. The list of control variables, as well as their label in the regression, are presented in Table 5.

Table 5 Control variables and their labels.

Variables	Label
<i>Club opportunities</i>	stadium
<i>Fan support</i>	attendance
<i>Team quality</i>	squad
<i>Participation in cups</i>	competitions
<i>Titles and cups won</i>	titles
<i>Last season results</i>	tab_perc

The selection of variables characterizing the state of the club from different angles is aimed at identifying a more accurate understanding of the non-transfer factors that determine the status of the club in the present and short-term future. Indicators of fan love, on the one hand, indicate the popularity of the club, which brings it monetary bonuses (sales of paraphernalia, income from tickets), and on the other hand, illustrate the popularity of the franchise as such. Sports achievements in the past season, firstly, determine its position in the new year, secondly, they provide an understanding of the hierarchy in the league, and thirdly, they determine its attractiveness for investors and new players. The current ability to provide a quality stadium and squad speaks volumes about the overall status of the club. This makes it easier to isolate the impact of transfer policies.

Variables characterizing incoming transfers and their labels are listed in Table 6.

Table 6 Incoming transfers variables and their labels.

Variables	Label
<i>Average age of acquired players</i>	av_y_in
<i>Share of players acquired from the same league</i>	same_l_in
<i>Share of purchased homegrown players</i>	same_c_in
<i>Share of players bought from the top-5 leagues</i>	top_in
<i>Total number of purchased players</i>	total_in
<i>Total costs for acquired players</i>	exp_in

Incoming transfers, as the most significant and costly element of a transfer strategy, play a key role in studying the relationship between the club's financial and gaming systems. Attracting new players requires significant financial investment, including transfer fees, salaries and bonuses. This investment must be carefully balanced against expectations of its contribution to the club's sporting achievements. Thus, incoming transfers serve as a kind of test for the club's financial strategy, where each transaction must be justified from both an economic and playing point of view.

Variables characterizing outgoing transfers and their labels are listed in Table 7.

Table 7 Outgoing transfers variables and their labels.

Variables	Label
<i>Average age of sold players</i>	av_y_out
<i>Share of players sold to the same league</i>	same_l_out
<i>Share of sold homegrown players</i>	same_c_out
<i>Share of players sold to top-5 leagues</i>	top_out
<i>Total number of sold players</i>	total_out
<i>Total revenues from sold players</i>	exp_out

Outbound transfers are an integral part of a club's transfer strategy, playing an important role in the management of its financial and playing resources. Selling players allows the club not only to generate significant financial income, which can be used to pay off debts, invest in infrastructure or finance new acquisitions, but also to optimize the salary fund. This is especially

important under strict financial regulations such as Financial Fair Play, which requires a balanced budget.

Variables characterizing the current squad of players and their labels are listed in Table 8.

Table 8 Squad variables and their labels.

Variables	Label
<i>Average age of current squad</i>	av_y_current
<i>Proportion of homegrown players in the squad</i>	locals_share
<i>Proportion of national team players</i>	c_level

Variables characterizing the volume of transfer transactions and their labels are listed in Table 9.

Table 9 Volume variables and their labels.

Variables	Label
<i>Trade balance</i>	balance
<i>Share of transfers from the budget</i>	budget_share
<i>Reshuffles in the team</i>	rotation

The volume of transfer transactions is an important indicator of a club's flexibility in the market and demonstrates how frequently and effectively it uses transfer mechanisms to improve its performance. The frequency and scale of these operations reflect the club's ability to adapt to changing conditions, adjusting its composition depending on current needs and strategic goals. The high volume of transfer transactions demonstrates the club's proactive attitude, commitment to continuous improvement and willingness to pursue various opportunities to increase its competitiveness.

The club's financial involvement, expressed in the size of its transfer budgets, shows its willingness to invest significant funds in strengthening its squad and achieving high results. These investments reflect not only the club's ambitions, but also its ability to attract investors and generate the revenue needed to implement its transfer strategies. "Personnel turnover," which characterizes the frequency of changes in the team's composition, indicates the degree of the club's readiness to adapt and renew itself. High turnover may indicate a desire to constantly search for

the optimal combination of players, while the stability of the roster may indicate faith in the current roster and the strategy for its development.

The study was carried out using Stata and Python software. Linear least squares regression was chosen as an experiment. The model contains different types of variables:

- logarithmic (for example, financial indicators): to reduce heteroscedasticity, stabilize dispersion and normalize distribution;
- binary (for example, club success): due to the impossibility of making a comparative assessment of the prestige of domestic tournaments;
- categorical (for example, time indicators): for systematizing data and analyzing external effects;
- relative (for example, shares of certain types of players in the roster): to reduce the impact of outliers and focus on the internal distribution of data;
- absolute (for example, average age): for the most accurate determination of the effect of a change in the indicator.

In order to test first hypotheses, the following regression model was built, taking the UEFA club coefficient rankings as a dependent variable, and 5 identified resources as independent ones:

$$\ln(V) = b_0 + b_1C + b_2T + b_3S + b_4F + e$$

where ‘*V*’ is a matrix of clubs’ evaluation, ‘*C*’ is a matrix of club status variables (control), ‘*T*’ is a matrix of transfers (outgoing and incoming) variables, ‘*S*’ is a matrix of squad features variables, ‘*F*’ is a matrix of financial (volume) variables, ‘*b*’ is a matrix of coefficients and ‘*e*’ is a matrix of residuals.

Based on this model, 3 submodels were built that explore the issue of transfer strategies depending on the understanding of the framework of this concept. Model A includes all observations for the entire study period and is intended to provide a broad comparison of baseline-level performance. Model B captures the league indicator and is designed to identify institutional differences and characteristics at the league level. Model B records the year indicator and is intended to study patterns in the behavior of clubs within the transfer year and compare differences between seasons.

Each of the presented submodels has its own advantages and disadvantages. Comparative information on the prerequisites for selecting models is presented in Table 10.

Table 10 Comparison of strategy definition models

Model	Advantage	Disadvantage
<i>A: Short-term strategy only</i> (clubs change behavior every transfer window)	Covers more different behavior patterns and provides more observations	Impossible to identify the strategy of an individual club
<i>B: League-wide strategy</i> (the behavior of clubs is dictated by local traditions and rules)	Introduces and reveals country as an implicit factor	Ignores price changes and market swelling
<i>C: Seasonal strategy</i> (European market is uniform within the transfer period)	Connects the activities of clubs with external activity and third-party factors	Ignores cross-country differences and local policies

5.2 Model A

The first model was based on the approach of constant variability of clubs and differences in their strategies from season to season. Despite the presence of correlations for indicators that are opposite in their interpretation (for example, the number of football players bought and sold) exceeds the value of 0.5, it was decided not to change these variables based on differences in their interpretation, as well as a decrease in descriptive power when transforming/excluding them. The correlations of other indicators range from 0.28 to 0.55.

The model passed the model specification test (Ramsey reset test). The null hypothesis of homoscedasticity according to the Breusch-Pagan test is not rejected. According to the results of the Durbin-Watson test, the autocorrelation index of the residuals falls within the boundaries of the critical region (1.518). The control variables are significant at the 5% significance level.

The key results of Model A are presented in Table 11.

Table 11 Model A summary

Model	R Square	Adjusted R Square
A	0.939	0.929

As can be seen from the metrics, Model A can accurately explain the value of a club based on its transfer strategy and perform high overall fit.

Statistically significant coefficients are discussed in Table 12 (hereinafter, significance levels are indicated accordingly: **p<0.1 ***p<0.05 ****p<0.01).

Table 12 Model A significant variables summary

Variable	B
<i>av_y_in</i>	-0.0250**
<i>same_c_in</i>	0.0043*
<i>top_in</i>	0.0102*
<i>total_in</i>	0.0212***
<i>exp_in</i>	0.5682**
<i>av_y_out</i>	-0.0063***
<i>total_out</i>	0.0165***
<i>same_c_out</i>	-0.0051*
<i>top_out</i>	0.0059*
<i>c_level</i>	0.0260
<i>av_y_current</i>	-0.0244*
<i>budget_share</i>	-0.0044*
<i>rotation</i>	0.7269*

This regression shows that the club's wealth, contrary to the hypothesis, is directly dependent on the number of transfers made by the club. A large number of transfers can mean greater financial opportunities and an influx of new assets, which increases the value of the club. This could also indicate that the club is maximizing the quality of incoming players at their peak and then selling them.

You can also observe an inverse relationship between the age of the players participating in the formation of the team and the financial performance of the club. For example, buying football players whose average age is one year less, all other things being equal, increases the club's capitalization by 2.5%. This once again demonstrates the trend towards rising prices for young players. Richer and more established clubs do not always have the opportunity to develop youth and smoothly introduce academy players into the squad in pursuit of results, so teams especially value young players who have already proven themselves at a high level.

5.2 Model B

Model B focuses on finding cross-country differences caused by common practices, external regulation, and the characteristics of market players. The results of Model B for different leagues are presented in Table 13.

Table 13 Model B summary

Model, Country	R Square	Adjusted R Square
B, England	0.94	0.83
B, France	0.89	0.8
B, Spain	0.9	0.87
B, Italy	0.97	0.92
B, Germany	0.92	0.78

Model B also has a high proportion of variance in the dependent variable explained by independent indicators, which indicates a correctly selected model. However, the model's performance varies greatly depending on the individual country. This may be a signal of the presence of features in them that run counter to the general approach.

A sharp decrease in adjusted r -square, which penalizes the number of variables, indicates a decrease in the quality of the model's fit to the data. This may be caused by a relatively small sample (more than 50 observations per league), due to which the model cannot sufficiently compare indicators with a large spread of values.

Based on the analysis of Model B for each of the leagues, key indicators that are significant for the majority of clubs were identified. The results of comparison of coefficients in different countries are presented in Table 14.

Table 14 Model B significant variables summary

Variable	England	France	Spain	Italy	Germany
<i>av_y_in</i>	-0.1950*	-0.0519*	-0.0386*	-0.0603*	-0.0160
<i>same_c_in</i>	0.0154*	-0.0048	-0.0044*	-0.0021*	-0.0047*
<i>top_in</i>	0.0065	0.0089*	0.0206**	0.0090*	0.0172*
<i>total_in</i>	0.0113**	0.0061*	0.0227*	0.0087*	-0.0147*
<i>exp_in</i>	1.7397***	0.3686**	0.7023*	0.3875*	0.3507*
<i>av_y_out</i>	-0.1426*	-0.0033*	0.0169	-0.0724*	-0.0075*
<i>total_out</i>	0.0806*	0.0094*	-0.0013**	0.0199*	0.0046**
<i>exp_out</i>	1.3260***	0.1907**	-0.4033	0.1066	0.3471*
<i>top_out</i>	0.0187	0.0094*	0.0172	0.0038**	0.0006
<i>av_y_current</i>	-0.0052*	0.0007	-0.0182*	0.0716*	-0.1331*
<i>locals_share</i>	-0.0031*	-0.0033*	-0.0220	-0.0023*	0.0113
<i>rotation</i>	-0.4562*	2.1580**	-1.4499*	-0.6478*	-0.9174*

Firstly, England is characterized by an increase in the value of the club with an increase in the share of local players in incoming transfers (up to 1.5% for each increase in the share of purchased local players by 1). The main factor for this may be the strict limit on foreign players in a rich league, because teams are looking to fill their homegrown player quota with the best quality talent possible. Secondly, French clubs show a sharp drop in club value as staff turnover increases. This may be due to both the influence of PSG, whose rotation of expensive players creates a sample bias, and the fact that the French championship is traditionally less attractive to top players, so high rotation may mean selling leaders and buying promising players in their place for further sale. Thirdly, in Spain there is a decrease in the value of the club as transfer income increases. The reason for these dynamics may be the “star” focus of the Spanish giants (Barcelona, Atlético Madrid, Real Madrid), for whom the sale of a star becomes, although financially profitable, but can negatively affect the popularity of the club. Fourthly, the Italian league is the only one on the list whose teams become more expensive as their roster ages. As can be seen from the data, when the average age of the roster increases by 1 year, the value of the club as a whole increases by

more than 7%. This paradox is directly related to the specifics of the Italian championship, which is known for its longevity, especially among defenders and goalkeepers (Totti, Maldini, Buffon). The league's leading clubs still rely on a proven core of performers, introducing youth into the lineup more carefully. Finally, it can be seen that German clubs are less financially successful if they make a lot of incoming transfers. German clubs have historically relied heavily on the academy and are active in developing talent. A massive purchase can mean intensive scouting activity, the aim of which is not to acquire ready-made players, but to acquire cheap and promising prodigies who can provide benefits in the long term, as evidenced by the work in the recruitment market of clubs such as Borussia Dortmund and RB Leipzig.

5.3 Model C

This regression shows that the club's wealth, contrary to the hypothesis, is directly dependent on the number of transfers made by the club. A large number of transfers can mean greater financial opportunities and an influx of new assets, which increases the value of the club. This could also indicate that the club is maximizing the quality of incoming players at their peak and then selling them.

Table 15 Model C summary

Model, Year	R Square	Adjusted R Square
C, 21/22	0.87	0.85
C, 22/23	0.87	0.85
C, 23/24	0.91	0.86

This regression shows that the club's wealth, contrary to the hypothesis, is directly dependent on the number of transfers made by the club. A large number of transfers can mean greater financial opportunities and an influx of new assets, which increases the value of the club. This could also indicate that the club is maximizing the quality of incoming players at their peak and then selling them.

Table 16 Model C significant variables summary

Variable	2021/2022	2022/2023	2023/2024
<i>av_y_in</i>	0.0350*	-0.0563*	-0.0723
<i>same_c_in</i>	0.0037	-0.0040*	-0.0047*
<i>top_in</i>	0.0083*	0.0043*	0.0219***
<i>total_in</i>	0.0248*	0.0096	0.0286*
<i>exp_in</i>	-0.0519	0.8663	1.2882
<i>av_y_out</i>	0.0431*	0.0024*	-0.0201*
<i>total_out</i>	0.0122	0.2748	0.0105
<i>exp_out</i>	-0.1462*	0.4855**	-0.2117*
<i>top_out</i>	0.0122	0.0097*	0.0029
<i>av_y_current</i>	-0.0495*	-0.0097*	-0.0474*
<i>locals_share</i>	-0.0175*	-0.0025*	0.0017*
<i>rotation</i>	-1.0033**	-4.8495*	-1.0824*
<i>budget_share</i>	-0.0047*	0.0071*	0.0093*

From the seasonal regression model C, several trends can be traced that correspond to our hypotheses. Firstly, the hypothesis that the acquired home-grown and young players will help increase the value of the club is partially confirmed. However, this trend is not observed throughout the entire observation period and is typical for the last two seasons. Secondly, there is an interesting feature of the 22/23 season, when the sale of players greatly increased the value of the club. This “peak” can be associated with the active activity of Saudi Arabian clubs, when after the purchase of Cristiano Ronaldo, other teams began to massively attract famous and experienced football players from Europe, often greatly overpaying for them. As a result, many clubs were able to sell contracts with older players more profitably, rejuvenating the squad and getting rid of heavy contracts (for example, the transfer of Neymar J. from PSG and Kalidou Koulibaly from Chelsea).

5.4 Managerial implementation

The first regression model, assessing all transfer strategies used by clubs over the past three seasons, showed that the details of transfer policies have a significant impact on the overall assessment of a club's value. The key metrics of financial success are investments in young players

and a high rate of roster rotation. From a squad management perspective, this further highlights a trend that has been documented in the literature where young players are increasingly valuable to clubs both in terms of long-term financial assets and playing prospects. This paradigm is gradually beginning to come not only to the practices of managers of “springboard clubs”, but also to teams with the prefix “top”. If in the 2010s the basis of the leading clubs on the continent were mature performers, selectively bought for big money (for example, Galacticos in Real Madrid), now the clubs are fighting in fierce competition to form a young core in the team. Ajax's success in the 2019 Champions League showed that young squads are effective both on the pitch and on the transfer negotiating table. The transfer market is turning from a skill market into a talent market. Therefore, clubs should be interested not only in trading young players, but also in providing them with more playing time to increase their value.

The proven effectiveness of rotation is also contrasted with a strategy based on the search for a leader. Practice has already shown that having one star in a club is less effective than a comprehensive renewal of the roster. Firstly, the movement of football towards complex tactical decisions increases the need for qualitative and quantitative reinforcements, since teams built around the player (Eden Hazard in Chelsea, Mbappe in PSG) no longer produce the same results as before (remember Messi's Barcelona and Ronaldo's Real Madrid) and are inferior to systematically built teams (like Brighton of Potter, Arteta's Arsenal, RedBull of Nuggelsmann).

The second model analyzes in detail the macroeconomic structure of the European transfer market. Despite the growth of relationships between clubs, cross-ownership systems, the expansion of purchasing power of clubs due to the influx of investment and the formation of stable relationships that determine transfer flows, there are striking differences between individual football federations in the methods used to plan and implement transitions. Understanding the functioning of local markets allows us to better understand the state of internal interactions, coordinate activities, conduct negotiations and identify the most profitable partners. As we have found, a player's performance can vary from league to league and often does not meet a club's financial expectations, so it is important for clubs to remain flexible in reaching a wider range of players.

Raising additional capital also plays a big role in the team's financial success. New investment mechanisms will expand opportunities for acquiring players. It was discussed above that the economic effect of new acquisitions can be indirect - not through the success of the team, but through attracting sponsors, increasing the interest of the fan base, image bonuses and brand promotion. For example, clubs acquire players with the expectation that this will help them conquer the market in which the player is popular. This especially works effectively with Asian

(Heung-Min Son in Tottenham) and American (Pulisic in Chelsea) players who popularize both their club and the sport in general.

The third model allows us to trace the evolution of trends in the behavior of leading European clubs. For example, the age factor that we have discussed more than once began to manifest itself to a greater extent in the last couple of seasons. On the one hand, this could be a promising trend, encouraging clubs to develop academies and improve the talent scouting system. On the other hand, this could be a response to the crisis of the covid years, which is why clubs turned their attention to young and cheaper players, or a short-term vector of the market against the backdrop of private successes (like Billingham in Borussia and Vinicius Jr. in Real Madrid). In addition, an oversaturation of clubs with young players can lead to a backlash, because all talented graduates of the academy will not have a place in the main team during their professional development and will either leave for other clubs, stop developing, or serve out their contract.

Ultimately, this study aims to provide a multifaceted approach to the formation of club transfer strategies. While the value of individual characteristics of a player being acquired may be controversial, unguaranteed and difficult to calculate, a club's strong position in roster selection can reduce the risks of individual transactions in the long term. Empirical evidence shows that there are specific elements of club policies that are most conducive to achieving financial goals. Firstly, they have a significant impact at the club level. Secondly, they allow you to respond to market realities and follow trends in the development of sports. Thirdly, they reflect country specifics and allow activities to be adjusted depending on the league affiliation of the club with which negotiations are being conducted. The results of the study suggest that clubs that demonstrate high activity in the local talent segment gain a competitive advantage in maintaining financial health.

5.5 Limitations

Despite the fact that the study allowed us to obtain a practice-oriented, statistically significant result, making a significant contribution to eliminating the identified gaps in research, there are a number of limitations of this study that should be taken into account in further work.

This study mainly focused on the performance of clubs in the top 5 UEFA leagues. This was due to the high status of these sports associations, due to which it is here that one can observe key changes in the economics of sports, the introduction of new effective management methods and analytical support for internal decisions that set the trend throughout the industry. However, expanding the representation of clubs from other football federations could provide additional scientific and practical value to the study. Firstly, other countries are actively developing football infrastructure, striving for European standards. For example, in 2016, the so-called “transfer boom” occurred in the transfer market, during which Chinese clubs actively bought European football players to increase the competitiveness of clubs and attract additional investment. Secondly, increased financing of less developed markets leads to the inclusion of new club and financial organizations in the structure of European markets, where they acquire famous footballers, which also becomes a new direction of transfer strategy. For example, in 2022, as part of the Vision 2030 strategy, Saudi Arabian clubs sharply increased the proportion of footballers from European championships in their squads, and the Arab Football Federation began active negotiations with UEFA in order to allow teams from Saudi Arabia to participate in the League champions Thirdly, clubs from championships outside the top 5 also have the potential to introduce unique management practices based on their specificity. For example, the US market, which actively attracts media football players, relies on experience from other, more popular and developed sports in the country (baseball, basketball), as evidenced, for example, by the tournament system and the division of teams into conferences.

The methodology used also does not allow us to take into account the implicit elements of football strategy associated with the characteristics of management in a particular club. Firstly, the multi-club model (Red Bull group, City group) is becoming widespread, which makes it possible to take advantage of the centralized infrastructure of management and knowledge exchange within the group for more effective team management and player development. Secondly, the arrival of large investment players in the industry led to the consolidation of individual football organizations, as a result of which the ultimate owner and/or beneficiary of several clubs could be the same individuals or organizations. These include, for example, Stan Kroenke, who is the owner of both the London Arsenal and the Colorado Rapids. Overall financial interest can greatly influence the negotiations and pricing of such “inside deals.” Finally, there are other, more

informal manifestations of club policy that affect its transfer strategy. One of the most common is the specialization of clubs on football players of a certain nationality. For example, in the 20/21 season, there were 10 Portuguese in the English club Wolverhampton - this is more than in the Portuguese giants Porto. A more detailed analysis of such highly specialized cases of football management can provide access to new strategic decisions.

Another equally significant limitation is the lack of information on the details of transfer transactions. Firstly, discussions between participants and the bargaining power of the parties play a huge role in making a transition. The activity of the agent directly determines whether a particular transaction will take place and the conditions under which the transition will take place. And if the club can still be completely subjective in choosing players to buy, then the terms of the deal do not always correspond to the chosen strategy. The influence of agents on club strategies can be seen in the example of the Wolverhampton club already mentioned above. The vast majority of Portuguese players who came to the club were clients of the famous agent Jorge Mendes, with whose agency the club's owners actively cooperate. Secondly, transfer policy also includes clubs' approaches to concluding contracts, during which the club can express its position on the duration of the agreement, bonus procedures, terms of sale of the player and termination of the contract. This is also important to consider, since the club incurs financial costs even after purchasing a player, and therefore must carefully manage agreements concluded during transfers. As a result, new business models are emerging that make it possible to optimize the club's financial performance by redistributing "post-transfer expenses." A good example is the transfer activity of Chelsea Football Club following its purchase by Clearlake Capital. Despite the club spending over £900 million during the season (almost 3 times more than nearest rival Manchester United over the same period), the cost of the contract was amortized by its long duration (many young players were given contracts up to 8 years, which is considered quite a long period for the football industry). As a result, the team was able to acquire quality players for a long term and comply with financial fair play. However, many of these conditions are trade secrets and are not published in the public domain, which complicates the assessment of a particular transfer.

It is also worth mentioning macroeconomic factors that are difficult to consider when modeling football strategy. These include the peculiarities of regulating the football federation of a particular league, unofficial contracts and agreements of clubs, the economic situation in the country, management culture in individual leagues, ownership structure, policies of sports authorities regarding academies and talent development, etc. A club's strategy is largely a response to external shocks and market conditions, as in any other industry, so a deeper understanding of the context is necessary to explain the strategic decisions of football organizations.

5.6 Further steps

This study could be further improved by one of the strategies of shifting the focus.

The first step is to **deepen** the work through a more detailed approach to characterizing transfers. As noted in the work, the transfer strategy primarily pursues the interests of the team to achieve the best sporting (and, accordingly, financial) results. Thus, a good addition could be to evaluate the performance indicators of football players at the micro-data level. This may be compliance with the game strategy (pressing, possession, scheme), consistency with other club transfers (replacement by position, purchase with proceeds), player behavior on the market (frequency of changing clubs, playing experience), player status in the club (frequency of exits on the field, position play, conflicts), contractual features (duration, buyout amounts/clauses) and other indicators. In this way, it will be possible to study the club's strategy at the level of selecting a specific type of football player.

The second step could be to **expand** the work by clustering and segmenting clubs based on their actions in the market. Firstly, it will help to identify dominant and common strategies with reference to specific clubs. Secondly, this will allow us to more deeply understand the structure of the market and the features of transfer processes at a particular point in time. Thirdly, it will become possible to determine and predict the activities of individual clubs in the transfer market.

The third step in the future will be to **link** indicators of sporting success, financial well-being and the club's transfer strategy. In this interpretation of the study, the main goal will be to search for an inverse relationship that allows us to understand how the team's results on the field (titles, points, performance in the match) and financial opportunities (sponsorship, wages, transfer budget) affect the club's activities in the transfer market. In this way, it will be possible to determine the most effective response of the club to the results of its activities and tools for influencing various key metrics of the club.

CONCLUSION

Football, one of the most popular sports in the world, is currently undergoing significant transformation, driven primarily by commercialization and digitalization. These factors are not only changing the game itself, but also creating new business models in the sports industry. Commercialization increases football's financial flows through marketing deals, television rights sales and merchandising, providing clubs with greater opportunities for economic growth and investment in talent and infrastructure. At the same time, digitalization enhances these opportunities by offering new ways to engage fans, such as virtual match tickets or interactive fan platforms, creating additional revenue streams.

On the other hand, the introduction of advanced technologies and analytics into the management of football clubs allows for more accurate analysis of player performance and team strategies. This leads to the formation of new methods for hedging risks and quantifying management decisions. Using data to assess risks, such as player injuries or financial investments, is becoming a key element of strategic planning. Quantitative analysis also helps in optimizing lineups and tactics, giving teams the best chance of success on and off the field.

The reform of football processes, driven by the need to adapt to modern market and technology requirements, has contributed to the intensification of scientific research in the area where data analysis, sports management and financial management intersect. These studies aim to make the management of football clubs more efficient and predictable. The scientific community pays considerable attention to studying ways to assess the effectiveness of players, analyzing the success of teams and the financial condition of clubs. These aspects are examined through the lens of available statistical data and analytical models to identify patterns and predict outcomes. The unification of clubs under the auspices of UEFA, which creates a platform for common interaction at the sports (continental cups) and financial (market) level, only strengthens the interest of clubs and researchers in finding the optimal formula for calculating key metrics of success in this sport.

However, despite the extensive amount of work in these areas, there is a significant gap in the study of strategies in the transfer market. A club's transfer policy is a critical element in football asset management as it not only reflects the current state and ambitions of the club, but also significantly shapes its future. Transfers affect both the internal processes of the club and its position in the market. In this context, the study of transfer strategies could offer new approaches to optimize management and financial strategies, helping clubs not only respond to changes in the sports industry, but also change the current market environment. Despite this, this area has not yet received adequate attention, remaining less researched and covered in the academic literature, highlighting the need for more in-depth and systematic analysis.

Many aspects of transfer policy in football clubs remain difficult to clearly understand and analyze, mainly due to the difficulties of assessing human capital. For example, investing in young talents does not always guarantee their development to the level of world stars, and large expenditures on acquiring star players do not necessarily lead to the formation of a strong, well-coordinated team. In addition, frequent roster changes do not always correlate with improved team results. This highlights that even experienced sports managers cannot always control and predict all the variables that influence success.

However, developing and implementing a strategically sound transfer policy can bring sustainable and significant benefits to the club. For example, an increase in transfers can increase brand awareness and attract new fans, which in turn strengthens the club's commercial position. Focusing on team rejuvenation makes players more liquid assets: they are easier to sell at a better price, develop more efficiently and optimize contract terms for the long term. In addition, active interaction with other clubs within the league, despite the risks associated with direct competition, can bring additional financial benefits. Ultimately, increasing the share of transfer costs in a club's budget can make it more flexible and adaptable to a changing sporting and economic landscape.

This study creates the basis for the development of a different approach to assessing transfer processes. Unlike previous studies that focused on market transactions from the perspective of assessing the subjects of these relationships, such as players and their parameters, this study makes a significant contribution to the development of the object-based approach. The new approach views the club not as a participant in individual transactions, but as an actor in complex actions that are consistent with the accepted internal policies, principles, philosophy and strategy of the club.

The traditional approach to assessing transfer processes focuses on the individual qualities of players, their market value and potential benefit to the team. However, the proposed object-based approach changes the emphasis on the club as an integral structure, considering its actions and decisions in the context of the overall development strategy. This method allows for a better understanding of how clubs manage their resources and plan for the long term, taking into account not only current needs, but also future goals and ambitions.

Further expansion of this work into other markets and the identification of more specific approaches to transfers could be an important step towards developing a recommendation pool of actions applicable to specific clubs. Studying the variety of approaches and strategies used in different leagues and countries will provide a set of recommendations that can be adapted depending on the specifics of each club. This, in turn, will increase the efficiency of club management and improve their competitive position in the market.

There is also room to deepen the research by segmenting and clustering clubs following a specific strategy. This will make it possible to more accurately shape the landscape of the industry, identifying leading clubs not by the success of their playing staff, but by the productivity of management. This approach will open new horizons for analyzing the performance of clubs, where the key indicators will be strategic and management aspects, and not just sporting achievements. This will allow clubs to more consciously and effectively develop their resources and potential, meeting the internal and external challenges of the industry.

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