

# Youth players management and financial performance in football industry

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## Abstract

This research aims to contribute to the scientific debate on financial performance in football organizations by evaluating the enabling role of talent management practices. Grounded in Resource-Based Theory (RBT) and Transaction-Cost Economics (TCE), the analysis highlights the financial impact of strategic decisions made by sports directors. Using a two-step machine learning approach, the study reveals that investing in academies can yield higher financial returns. The findings confirm that teams adopting this strategy are better positioned to meet the financial objectives set by international and national regulators, such as UEFA and FIFA. By addressing the knowledge gap on the role of youth sector development in financial performance, this research offers valuable insights for both academia and sports management.

**Keywords:** Football, Machine Learning, Transfermarkt, Sport Finance, Resource-Based View

## 1. Introduction

The last decades have been characterized by an intense debate about the recent financial dynamics that have interested the football industry (Andon and Free 2019; Macedo et al. 2022). In particular, many scholars underlined the existence of several implications related to the direct investments made by tycoons, sovereign wealth funds and hedge funds, which have indirectly contributed to the improvement of the sporting performances of football teams that had historically never achieved significant successes at national and international level (Roslender 2023). Furthermore, investors contributed also to the transition of some leagues from the amateur or semi-professional level to the professional one

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(Bianco and Sons 2023; Liu et al. 2017).

However, despite the apparently positive result generated by the entrance of new investors, the current scenario is characterized by the existence of many financial distressed football teams. In fact, the development of new investments at the international level generated a scenario of inflation due to the teams' greater spending capacity. In particular, the main expense item affected by this change is represented by the costs relating to the acquisition of footballers (CIES 2023). According to the latest report released by the FIFA, in 2023 the international transfer fees hit a new record at USD 9.63 billion, up 48.1% from 2022's USD 6.50 billion, surpassing the 2019 record by over USD 2 billion (FIFA 2023).

One of the main strategic drivers identified by the UEFA to encourage football teams to adopt more virtuous behaviours is represented by the youth sector. In this regard, the political orientation is confirmed by the choice to exclude from the stability criteria the expenditures directly attributable to youth development activities (UEFA 2023). The reason behind the choice made by the UEFA to exclude these expenses from the financial caps are multiples. On a hand, investing in the youth sector represents a virtuous path for European companies interested in enhancing their competitive balance of the year (Prinz and Weimar 2018). On the other hand, youth sector's investments can also mitigate the gap between football teams with different availability of financial resources (Clarke et al. 2018). Therefore, it represents an effective business strategy to combine financial and sport goals (Supino and Marano 2024; Vermeire et al. 2022).

Although the benefits identified by the UEFA, investing in the youth sector represents a critical issue for football managers because of the existence of intrinsic complexities related to the need to identifying, managing, and developing youth players (Di Minin et al. 2014; Vermeire et al. 2022). In fact, the organization of a youth sector requires the direct investment in facilities and infrastructures for players' development (UEFA 2020). Therefore, many football teams prefer to mitigate the potential risks related to failure to develop talents through the purchase of young players from other teams (Maqueira et al. 2019). In this regard, the strategic approach adopted by each team in managing youth players could be traced back to a "make" or "buy" choice. However, despite the two different logics, the current landscape is characterized by a wide number of football teams that have adopted the two logics obtaining different results in terms of value creation.

According to this evidence, the research aims to contribute to the current debate about financial dynamics in football organizations (Philippou 2022) through novel insights about the interlinkages between human capital development and financial performance. In particular, the research will shed the lights on the ena-

bling role covered by talent management practices adopted by football organizations involved in the European Top 5 Leagues (England, France, Germany, Italy, Spain). Considering the Resource Based Theory (RBT) as theoretical framework, a panel data analysis has been developed to explore the main effects related to the strategies adopted by the football teams included in our sample.

The article is structured as follows: Section 2 provides a literature review on talent management in football organizations, focusing on its financial and economic implications. Section 3 highlights the novelty of our methodological approach, with a particular emphasis on data mining processes. Section 4 presents our results from a statistical perspective, while Section 5 offers a theoretical analysis of our findings. Finally, Section 6 summarizes the main results and their implications for the research.

## **2. Literature review**

### **2.1 Talent management as a key tool for creating value in football organizations**

The football industry represents one of the main research fields in sport management research. The high degree of attention paid by management scholars to the football sector on other sports is justified by its financial and social relevance (Hyndman and Liguori 2024). In particular, the social relevance represents a critical issue for management scholars because of the social role recognized to football organizations by academics, policy makers and non-governmental organizations (NGOs)(Lapsley 2024). In this regard, the research field is characterized by the coexistence of studies inspired by alternative theoretical perspectives, such as human resource management (HRM), corporate social responsibility and financial performance.

Evaluating football organizations' financial performance represents a critical issue for management scholars because of the existence of an intense political debate about the need to promote the adoption of more responsible behaviours by football managers. In fact, the recent investigations made by the UEFA revealed that many European teams are characterized by a high degree of financial distress caused by a poor capacity to adequately remunerate the fixed and recurring costs incurred during the year. Furthermore, there also criticisms related to the pivotal role covered by market transactions on financial and economic dynamics (Rohde and Breuer 2017), which have been recently been accentuated by a substantial inflation of market deals' value (Depken and Globan 2021).

In this regard, federations and policy makers are working to identify potential

new paths to favour the financial sustainability of the football sector. Ensuring the pursuit of an adequate degree of financial sustainability represents a key issue for leagues because of the need to avoid potential bankruptcies by leading teams. In fact, the recent past has been characterized by the financial collapse of a wide number of historical football organizations that have competed at the international level, such as the Parma FC, the Rangers Football Club and the Fotbal Club Steaua București (Florea et al. 2018). Furthermore, despite the absence of a formal bankruptcy declaration, other teams were affected by financial distress (Atghia and Nazarian 2024).

Within this scenario, promoting the development of football academies represents one of the main strategies adopted by policymakers. In fact, considering the significant role covered by financial transfers on football organizations' accounts, several initiatives have been launched to sustain the direct investments in training facilities and football academies (Bullough and Jordan 2017; Laskowski 2019). Furthermore, the FIFA exclude costs related to youth players development from the financial cap (Caglio et al. 2023). In this regard, many football teams have started to allocate part of their budget to the development of the youth team.

However, despite the existence of incentives related to the investment in youth development activities, the current scenario is characterized by the scarce adoption of these practices by football organizations. In fact, the development of a successful academy requires the allocation of resources to infrastructure, organizational structures and staff to be dedicated exclusively to the youth sector (Balliau et al. 2022). This task is characterized by a high degree of complexity because of the absence of a sportif or financial return in the short-term (Bullough and Jordan 2017). In addition, there are also potential risks related to the intrinsic risks associated with the development of a youth player over the time because of the existence of a non-controllable risks related to talent development (Maqueira et al. 2019). Furthermore, there are also hidden costs associated with the need to guarantee additional benefits, including educational activities, accommodation, and travel costs (Catturi 1984; Elliott and Harris 2014; Galatti et al. 2016).

An effective comprehension of the “make or buy” dynamic related to youth player development could benefit from the adoption of a theoretical lens inspired by the Resource-Based Theory (RBT). According to the RBT (Barney and Clark 2007), competitive advantage arises if an organization can use its internal resources (physical, organizational and human capital resources) for implementing a value-creating strategy that is not being implemented simultaneously by competitors. The theoretical approach proposed by the authors can be transposed to the specific field of sport organizations, which are typically characterized by the presence of scarce and rare resources (Lacchini and Trequattrini 2011; Omondi-

Ochieng 2019; Onesti and Romano 2004; Risaliti and Verona 2013). In fact, football organizations must face criticisms related to the allocation of training facilities, staff and players, which are respectively physical, organizational and human resources (Maroun et al. 2022).

However, the RBT is not the only theoretical framework for evaluating make-or-buy dynamics. Previous studies have highlighted the relevance of transaction cost theory (TCT), a widely adopted foundation for assessing the effects of third-party involvement in transactions (Williamson 1989). Regarding the specific research field of sport management, the role third parties is multiple (Jones et al. 2017). On one hand, a third party can reduce hidden costs in the decision-making process, such as inefficiencies arising from inaccurate staff evaluations (Leifheit and Follert 2023). On the other hand, their involvement increases costs due to the budget allocation required for this phase. This is particularly relevant in football organizations, where explicit costs are associated with negotiations involving agents and teams (Rockerbie 2024).

## 2.2 Hypotheses development

Based on this evidence, evaluating make-or-buy strategies in football organizations is a critical task for European teams. Until now, the discussion has considered TCE and RBV as independent approaches to outsourcing decisions. However, a growing body of literature suggests that TCE and RBV are complementary, recognizing that neither theoretical perspective alone can fully explain the outsourcing decision (McIvor 2009, p. 48). In this regard, we adopted an exploratory approach based on the integration of the two theoretical frameworks to gain new insights into the key implications of development strategies employed by football teams.

Regarding the first strategy, “Make” a youth player could contribute to the achievement of long-term benefits related to the internal development of new intangible assets for football teams (Maqueira et al. 2019). This task requires the implementation of a comprehensive scouting activity by teams to enhance the processes related to attracting and capturing talents (Reeves et al. 2018; Webb et al. 2020). The two phases are characterized by a strong connection between team's ability to attract talent and the reputation of the brand (Chanavat and Desbordes 2017). Furthermore, football teams should also take into consideration the need to support youth players over their careers through training and educational activities (Newport et al. 2021). In addition, there are also potential risks related to talent retention, which represents a critical task because of the existence of divergent interests between teams and players (Carlsson-Wall et al. 2024).

However, despite the need to manage these complex tasks, investing in youth

development is often associated with positive impacts on financial performance. In this regard, a qualitative research made by Cruz et al. (2022) highlighted that the financial returns related to the development of a youth academy are less risky than other revenue sources. This evidence has been also supported by Di Minin *et al.* (2014), which underlined the existence of a win-win relationship between financial sustainability and sportif success for football teams that have adopted a “make” strategies. Furthermore, Balliauw et al. (2022) also found that the quality of an academy is positively related to future cash flows related to player transfers.

Hp1: The “make” strategy is positively associated with football teams’ financial performance.

From a managerial point of view, “Buy” a youth player could contribute to the achievement of short-term benefits. Building on a comparative approach, Maqueira-Marín et al. (2022) found that hiring youth players generate more benefits in the short term than the adoption of an internal development model. The empirical insights collected by the authors could be explained by the absence of criticisms related to talent identification and development. In fact, youth players’ transfers usually regard players with previous experience in other teams first squads (Garcia-del-Barrio and Pujol 2020; Gyimesi and Kehl 2023). Furthermore, other studies identified the existence of football teams that have adopted a business models characterized by the predominance of revenue streams from youth players’ transfers, such as Metz FC and Nordsjælland (Poli et al. 2021; Schokkaert 2016).

Regarding the financial impacts, previous studies also identified significant implications related to the adoption of a “buy” strategy. The first implication is summarized by the need to allocate financial resources to hire youth players (Maqueira-Marín et al. 2022). In fact, contrarily to the “make” strategy, the cost structure differs because of the need to considered the capital expenses related to the market transaction and the operative costs related to wages and salaries (Maglio and Rey 2017). However, despite a more expensive cost structure, the potential reselling of youth players can generate future capital gains (Supino and Marano 2024). Therefore, the identification of youth talents developed by other teams could also represent an effective strategy to enhance financial performance (CIES 2024a).

Hp2: The “buy” strategy is positively associated with football teams’ financial performance.

The two market logics can be also integrated into an intermediate approach based on the identification of a balanced strategy by football teams. This intermediate approach is particularly common for elite teams interested in maximizing their financial and sportif performance, such as the Futbol Club Barcelona, the

Chelsea FC and the Paris Saint Germain (CIES 2024a). Furthermore, this approach has been also adopted by football teams that have increasingly enhanced their sportif performance over the last years such as the Atalanta Bergamasca Calcio and the RasenBallsport Leipzig(Villa and Lozano 2024). From a managerial perspective, the mixed approach integrates the main strengths and weaknesses of the “make” or “buy” logics. In this regard, the intermediate approach could alternatively lead to positive or negative financial performance because of the potential distortions related to the absence of a clear strategy(Leifheit and Follert 2023).

Hp3: The “mixed” strategy is positively associated with football teams’ financial performance.

### **3. Research method**

Evaluating financial performance in sport organizations represents a complex task for scholars because of the existence of a direct interlinkages between financial and sport performance (Galariotis et al. 2018; Miragaia et al. 2019). This criticism is particularly relevant in football organizations, as evidenced by the recent insights collected by Deloitte (2023) about the significant investments made by international investors and by the increasing number of resources invested by the most relevant teams for players’ transactions. Another criticism is directly related to the specific initiatives launched by national and internation sport organizations to reward football teams, which are often related to sport rankings(Statista 2024). Therefore, previous studies underlined the need to develop reliable sampling strategies to avoid potential bias related to the integration of companies that have been affected by these issues within the observed period (Acero et al. 2017; Garcia-del-Barrio and Agnese 2023).

According to this evidence, a stratified sampling based multidimensional criteria related to country of origin and sport performance was developed. In particular, the analysis was built considering only football teams that have uninterrupted played in the respective major leagues between the seasons 2018/2019 and 2021/2022. Furthermore, to avoid potential interpretative bias related to exogenous factors, the analysis was built considering only the Top 5 League, which are considered the most relevant European leagues by practitioners and policy makers (UEFA 2024). At the same time, the Top 5 leagues are also relevant because of the increasing attention paid by the teams to young players development(CIES 2024b). In this regard, our final sample consists of 56 European football teams (Table 1). Interestingly, the sample description reveals a high degree of homogeneity between countries, confirming as evidenced in previous research about the

substantial stability of the main European leagues.

*Table 1 – Sample description*

Country	Ligue	N. Obs.	% . Obs
Germany	Bundesliga	11	19,64%
Spain	La Liga	11	19,64%
France	Ligue 1	11	19,64%
England	Premier League	12	21,43%
Italy	Serie A	11	19,64%
	Total	56	100,00%

*Source:* authors own elaboration

To answer to our research questions, an economic analysis was developed. Following the methodological path adopted in previous studies about financial performance in football organizations (Dimitropoulos 2011; Holzmayer and Schmidt 2020), the hypothesis have been tested through the adoption of a panel data analysis, which represents a methodological approach widely adopted by accounting scholars interested in exploring complex links between variables (de Jager 2008). The choice to adopt a panel data analysis instead of traditional OLS methods has been driven by the need to avoid potential bias related to endogeneity. In fact, panel data models can better address issues of endogeneity through the inclusion of entity and time fixed effects, instrumental variables, or by modelling dynamic relationships with lagged dependent variables (Baltagi 2005). Therefore, the functional form of our empirical model is:

$$DV_{i,t} = IV_{i,t} + CV_{i,t} + \varepsilon$$

DV=Dependent variable

IV=Independent variables

CV=Control variables

The analysis was built considering the Return on Equity (ROE) as main proxy of financial performance. The choice to adopt the ROE instead of other metrics is consistent with previous studies about financial performance in football organizations (Di Simone and Zanardi 2020; Malagila et al. 2021; Manzari et al. 2024). In particular, the ROE represents an accounting proxies particularly relevant for scholars interested in evaluating the decision-making processes adopted by shareholders because of their interest in enhancing the profitability of their investment.

Furthermore, despite the existence of many indicators able to capture financial performance in football organizations (Rey and Santelli 2017), we selected the ROE because of the existence of potential differences within the sample. In particular, it is important to note that accounting policies are influenced by national dynamics and by the attendance to international competitions such as the UEFA Champions League (Oxera 2024; PwC 2024). Therefore, the adoption of a widely recognized indicators such as the ROE positively contribute to mitigate the potential bias related to the adoption of different accounting practices (Easton and Monahan 2016).

Regarding the independent variables considered in our model, we collected data about the “make or buy” decisions made by the professional teams considered in our sample using the R-Package “WorldfootballR”. The package allows us to extract all data about young players’ debuts from Transfermarkt.com, which one of the main international sources considered by academics interested in exploring football management. For our purposes, we considered only football transfers that regard Under 21 football players’ transfers. Our methodological choice is explained by the need to enhance the reliability of our analysis.

In alignment with the classification schema delineated by the digital platform, our analytical approach entailed the bifurcation of our dataset into two distinct clusters. This methodological stratification distinguishes between athletes making their career's initial debut (“Make”) and those inaugurating their presence within the specific league under observation (“Buy”). In this regard, the statistical package supported the collection of standardized data about the number of debuts over the years, with an explicit mention of the youth player types.

Furthermore, we created a variable entitled “Mixed” to evaluate the interaction between the two variables. From an econometric point of view, the proxy variables adoption represent a statistical technique able to capture complex dynamics such as “*the strategic interaction of various economic agents as well as the reporting firm’s and auditor’s restriction of accounting recognition choices*” (Schroeder 2010, p. 17).

Finally, we integrated our empirical model with a set of control variables. In particular, we considered total assets, earning before interests and taxes, net profits and debt-to-equity to evaluate the moderation effects related to teams’ financial structure. Furthermore, we also included a quantitative variable about UEFA coefficients to examine the impacts related to sport performance.

*Table 2 Variables' description.*

<b>Variable</b>	<b>Description</b>	<b>Type</b>	<b>Source</b>
ROE	Return on equity	Continuous	Orbis
BUY	Number of debutants hired from other teams	Count/Discrete	Transfermarket.com
MAKE	Number of debutants not hired from other teams	Count/Discrete	Transfermarket.com
MIXED	Interaction variable based on the relationship between Buy and Make stats	Interaction	Our elaboration
TA	Natural logarithm of the Total Assets	Continuous	Orbis
EBIT	Earning before interests and taxes	Continuous	Orbis
NP	Net Profit	Continuous	Orbis
DE	Debt-to-equity ratio	Continuous	Orbis
UEFA	Team's UEFA coefficients at the time t	Continuous	UEFA.com

The summary statistics of the variables considered in the empirical models are summarized in Table 3.

*Table 3 Variables' summary statistics.*

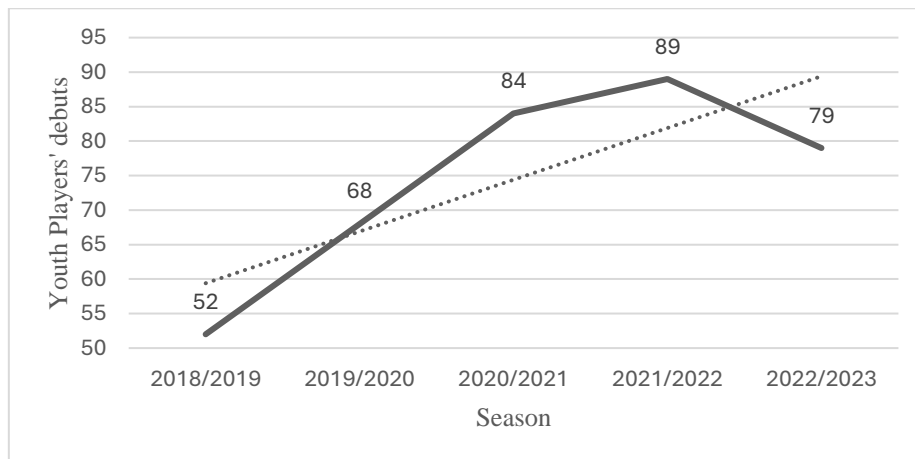
<b>Variable</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<i>Dependent variable</i>				
ROE	-53.759	140.897	-730.690	342.910
<i>Independent variables</i>				
BUY	1.125	1.159	0.000	6.000
MAKE	0.204	0.477	0.000	3.000
MIXED	0.225	0.917	0.000	10.000
<i>Control variables</i>				
TA	438.733	393.452	0.206	2269.223
EBIT	-27.876	89.880	-504.999	736.768
NP	-27.546	69.098	-481.318	97.577
DE	22.034	34.061	-93.710	98.920
UEFA	9.311	10.404	0.000	36.000

## 4. Results

### 4.1 Descriptive analysis

The data extracted from Transfermarkt.com revealed that during the period 2018-2022, the overall number of youth players' debuts in the Top 5 leagues have been equal to 372, with a peak of 89 debuts in 2021. The data underlined the increasing attention paid by European football companies to the development of youth players, as evidenced by the positive trends observed within the analysis. This positive trend could be probably explained by the increasing awareness about the need to align financial performance to the strict requirements identified by the UEFA. In fact, the expenses related to the investments in youth development are excluded from the financial indicators considered to obtain the UEFA licenses (Ahtiainen and Jarva 2020). Therefore, many football teams have started to integrate youth players in their senior teams to mitigate the negative effects related to the unavailability of financial resources to invest in players' transfers (Martín-Magdalena et al. 2023). In this regard, Morrow (2021) underlined the need to consider the ethical implications related to the potential abuse of these accountability tools by football teams interested in avoiding the financial barriers identified by the UEFA.

*Figure 1 Young players' debuts in European Top 5 Leagues. Source: Our elaboration on data collected from Transfermarkt.com*



Regarding the specific leagues' dynamics, the context characterized by the highest number of debuts is La Liga, followed by Ligue 1 and Bundesliga, with respectively 94, 77 and 75 debuts. Interestingly, on the a hand, the data about specific debut's types revealed that the results achieved by La Liga is influenced by the wide adoption of transfers. In this regard, despite the significative role covered by the Spanish context within the analysis, the overall results are significantly influenced by youth players' financial transfers, which is a controversial practice punished by the FIFA (2016). On the other hand, the data about Ligue 1 underlined that young players' debuts are usually preceded by brief experience in the second team. In this regard, young players' development is favoured by the participation to professional leagues characterized by a higher degree of professionalization than traditional tournaments. This evidence is consistent with the rules introduced by the UEFA (2023) about the opportunities to consider young players' development as a long-term investment.

#### **4.2 Correlation analysis**

A correlation analysis was made to check for the existence of multicollinearity issues (Table 4). The analysis revealed the absence of statistically significant relationships between variables, confirming the goodness of our empirical model (Kalnins 2018). At the same time, the analysis also revealed the existence of interesting insights related to the relationship between financial performance and sport dynamics. We found that the UEFA Coefficient is positively related to the ROE, confirming that financial performance is directly related to sport dynamics and vice versa. This evidence is consistent with previous studies about Financial Fair Play, which revealed the lack of effects related to the provision of strict rules about financial management and accounting practices. In fact, the positive relationship is also confirmed for the variable LEV. In summary, there is a positive relationship between the willingness to invest and sport performance, even in the presence of choices related to the use of financing from third parties, including banks and investment funds. Therefore, the use of the financial leverage instead of self-financing remain a common strategy for top-tier European football teams.

Table 4 Correlation analysis.

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) ROE	1.000								
(2) BUY	-0.052	1.000							
(3) MAKE	0.038	0.109	1.000						
(4) MIXED	-0.057	0.331*	0.641*	1.000					
(5) TA	0.038	0.193*	-0.045	0.077	1.000				
(6) EBIT	0.335*	-0.031	-0.072	-	-0.165	1.000			
(7) NP	0.465*	-0.156	-0.112	0.199*	-	0.733	1.000		
(8) LEV	0.398*	0.049	-0.025	-0.018	0.240*	0.204	0.276	1.00	
(9) UEFA	0.206*	0.197*	0.051	0.118	0.663*	-	-	0.08	1.00
						0.017	0.153	3	0

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

### 4.3 Panel data analysis

To collect relevant insights about the complex relationship between youth development strategies and financial performance, we conducted four alternative evaluations considering an incremental approach based on a common baseline regression (Table 5).

The Eq.1 revealed that the ROE is positively influenced by the EBIT ( $\beta=1.172$ ;  $p < 0.01$ ) and by the LEV ( $\beta=4.05$ ;  $p < 0.01$ ), confirming the pivotal role covered by financial leverage within the dynamics related to financing football companies. In fact, the comparison between the coefficients associated with the LEV and the EBIT highlighted the predominance of the first variable on the latter. This evidence is particularly critical because of it confirmed the abuse of external funds to finance ordinary operations such as the payments of expenses related to salaries, training facilities and external services.

The evidence collected in the Eq.1 are also confirmed by the data collected within the Eq.2. As described in the methodological section, we integrated in the Eq.2 the sport performance using the UEFA Coefficients published on yearly basis. Interestingly, the analysis revealed that an increase in the overall score could lead football organizations to more high financial performance. In this regard, the positive coefficient ( $\beta=2.892$ ;  $p < 0.05$ ) related to the variable UEFA could be considered as a potential moderator factor within the dynamics associated to the variables EBIT ( $\beta=1.18$ ;  $p < 0.01$ ) and LEV ( $\beta=4.029$ ;  $p < 0.01$ ).

In Eq.3 we considered the effects related to the strategic approach adopted by

football organizations regarding young players. Interestingly, the analysis revealed the absence of statistically significant relationship related to the acquisitions of young football players (BUY) while the data about internal developed young players (MAKE) revealed a statistically significant relationship ( $\beta=70.692$ ;  $p<0.05$ ). The reason behind the difference between the two logics are explained by the risks related to young player investments, which could be alternatively led to successful or unsuccessful cases. In this regard, investing in internal developed players represents a less risky strategies because of the opportunity to mitigate the explicit and the hidden costs related to hiring players for the youth teams. Interestingly, the adoption of a mixed logic (MIXED) is associated with a negative impact on the ROE ( $\beta=-47.773$ ;  $p<0.05$ ). This evidence is consistent with what just said about the risks related to invest in youth players. In fact, the costs related to hiring youth players are usually greater than the potential benefits related to youth teams' future transfer values. In fact, the transition from the youth sectors to the first squads is often characterized by many obstacles and barriers. In this regard, from a statistical point of view, the balance between the revenues related to the capital gains generated by youth players' transfers and the costs associated with "failure" cases is negative, confirming as evidenced by the UEFA (2020) regarding the intrinsic difficult related to the development of an academy by football teams.

Finally, we embedded in the Eq.4 all the variables considering in our analysis. The final analysis confirmed the positive relationship associated with the EBIT ( $\beta=1.223$ ;  $p<0.01$ ), the LEV ( $\beta=4.247$ ;  $p<0.01$ ), the UEFA ( $\beta=3.085$ ;  $p<0.05$ ), and the MAKE ( $\beta=71.67$ ;  $p<0.05$ ) logic while the relationship with the BUY and MIXED are respectively neutral and negative ( $\beta=-51.959$ ;  $p<0.01$ ), from a statistical point of view. Furthermore, we didn't find statistically significant relationship with the variables TA and NP, probably because of the sector characteristics, which is often characterized by undercapitalization or by a significant cost structure.

Table 5 Panel data analysis.

	(1) ROE	(2) ROE	(3) ROE	(4) ROE
TA	.157 (.135)	.148 (.133)	.159 (.132)	.153 (.13)
EBIT	1.172*** (.426)	1.18*** (.42)	1.194*** (.422)	1.223*** (.415)
NP	-.242 (.443)	-.251 (.437)	-.309 (.436)	-.332 (.429)
LEV	4.05*** (.882)	4.029*** (.87)	4.281*** (.868)	4.247*** (.854)
UEFA		2.892** (1.434)		3.085** (1.413)
BUY			-5.24 (8.618)	-3.043 (8.532)
MAKE			70.692** (31.849)	71.67** (31.316)
MIXED			-47.773** (19.192)	-51.959*** (18.966)
_cons	-236.116*** (63.223)	-260.288*** (63.515)	-240.69*** (64.046)	-269.666*** (64.352)
Observations	155	155	155	155
R-squared	.391	.413	.435	.459

*Standard errors are in parentheses*

\*\*\*  $p < .01$ , \*\*  $p < .05$ , \*  $p < .1$

## 5. Discussion

In an international scenario characterized by financial crisis, combining financial and sportif goals represents one of the main goals for football organizations. Nowadays, owners are less oriented than the past to finance their football teams through the allocation of their personal resources (Plumley et al. 2021). At the same time, football policy makers have started to raise financial requirements to mitigate the potential externalities related to the polarization between teams characterized by different availability of financial resources (Dimitropoulos and Scafarto 2019). In this regard, a significant contribution has been made by the FIFA, which have started to monitor financial operations between and within teams, agents and leagues (Laskowski 2019).

Building on a theoretical perspective inspired by the RBT and TCE (Barney and Clark 2007; Williamson 1989), our research aimed to contribute to the com-

prehension of the main interlinkages between youth players developments strategies and financial performance through the adoption of a “make or buy” lens. The analysis revealed that the most profitable strategy is the “make” (Hp1). Although the intrinsic risks related to talent identification and management (Maquieira et al. 2019), investing in internal development is statistically associated with greater financial returns. This evidence could be explained by the existence of a direct relationship between the strategic choice made by the managers and the financial stability of a company. In fact, the absence of returns in the short term and the potential risks associated with the lack of sporting valorisation of the footballer does not represent a deterrent for the clubs. Thus, from an economic point of view, investing in youth player development represents a task less costly than the adoption of market-based strategies.

This evidence is consistent with the TCE, which considered outsourcing as a risky tasks for corporations. Investing in football academies offers a strategic advantage over acquiring youth players externally, aligning with TCE paradigm (Williamson, 1989). According to TCE, internalizing transactions reduces market uncertainties and minimizes the costs associated with negotiations, opportunism, and contractual complexities. By developing talent in-house, clubs avoid volatile transfer fees, agent commissions, and bidding wars, creating a more predictable and cost-efficient pipeline for player development.

Furthermore, from an accounting point of view, there are more chance to generate a capital gain with the transfer of an internal developed player (Supino and Marano 2024). Therefore, despite the absence of sportif and financial returns in the short term, the long-term benefits are relevant for football teams interested in achieving more high financial performance.

Regarding the “buy” strategies (Hp2), the analysis confirmed that the potential capital gains related to the purchase of young players represents a false myth for football teams. Although the existence of potential financial returns related to future deals, it is important to note that only few transactions are associated to an effective sportif success and indirectly to a future financial gain. At the same time, contrarily to “make” strategies, football managers should take in consideration the residual value of the youth players in negotiations to avoid potential capital loss related to the lack of sporting valorisation (CIES Football Observatory 2019). Outsourcing youth player development may seem like a way to externalize risks, but as RBT highlights, it comes at a significant cost. Youth players hired from other teams can be seen as a final product ready for the market, commanding a price that reflects their perceived value. In contrast, internally developed players require a more cautious, long-term approach, as clubs must invest in training, infrastructure, and career planning before realizing a return. This reinforces the stra-

ategic importance of internal talent pipelines, which, despite requiring upfront investment and risk management, provide long-term control and differentiation that outsourced development cannot match.

Finally, we found a negative relationship associated with the adoption of hybrid approaches based on mixed strategies (Hp3). The negative relationship is probably explained by the intrinsic risks related to the adoption of a talent development strategies characterized by the combination between internal developed players and youth players hired from other teams. In fact, combining the two logics can generate potential distortions related to the different costs associated with the two strategies. Despite the existence of significant costs related to talent management, developing youth players through a “make” strategies is usually less costly than “buy” strategies (Maqueira et al. 2019). Therefore, managers could be incentivized to encourage the growth of players purchased to recoup investments made, even in the presence of unsatisfactory sporting performances (Follert and Gleißner 2024).

From a theoretical point of view, the mixed approach ineffectiveness could be explained by TCE and RBT theories. In fact, the “mixed” model may not fully leverage the advantages of either strategy. While internal development provides a long-term, sustainable pipeline of talent (Williamson 1989), external sourcing often prioritizes immediate needs, reducing the focus on the club’s long-term vision (Barney and Clark 2007). This lack of alignment can create organizational friction and undermine strategic coherence. Therefore, the uncertainty negatively impacts on football teams ability to catch the typical benefits associated with the two approaches.

## **6. Concluding remarks**

In the research we tried to empirically analyses a complex topic using an empirical approach. From a statistical point of view, we empirically demonstrated that investing in youth player development could lead to more high financial performance. This evidence is particularly relevant because of it is consistent with the recent development made by the UEFA to encourage the financial sustainability of the football sector. In this regard, the analysis confirmed that the choice made by virtuous teams to invest in their academy could represents an effective way to achieve the financial goals identified by international and national regulators.

At the same time, the analysis contributed to the development of novel insights about the existence of a resource allocation dilemma in football organizations. As evidenced in previous research about sport management (Adamo 2023;

Hammerschmidt et al. 2023), identifying the corporate purpose in sport organizations represents a critical task because of the existence of independent and complementary goals. For football organizations, achieving a higher financial performance does not represent the main purpose because of the need to consider the sport performance. In this regard, many organizations prefer to invest a large portion of their budgets in market transfers to achieve sport results in the short term (Fúrész and Rappai 2020). However, as evidenced by the recent financial scandals, this approach could lead also to an eroding financial resource. Therefore, it is necessary to align the two goals to reach two objectives in parallel which, although not necessarily related, are both fundamental for achieving the objectives identified by the football clubs. According to this evidence, the implications of our research are theoretical, practical, and political.

From a theoretical point of view, the analysis extended the scientific knowledge about financial performance in football sector through novel insights about the enabling role covered by youth player development (Bullough and Jordan 2017; Clarke et al. 2018). Building on a mixed approach inspired by the RBT and TCE, we have tried to shed the lights on a complex phenomenon using a theoretical lens. In fact, despite the relevance of the topic, the phenomenon has been explored by academics using a methodological approach characterized by a substantial disconnection with traditional theoretical frameworks. Therefore, the present research aims to contribute to the systematization of a research field characterized by a high degree of fragmentation (Hammerschmidt et al. 2023).

Regarding the practical implications, we contributed to the debate about the dilemma between youth players management. In fact, despite the existence of incentives related to the investment in youth players development, a wide number of football organizations prefer to invest in player trades to achieve short-term goals (CIES 2024b). Although the need to achieve sport objectives, the analysis underlined the opportunity for football teams to rethink their organizational strategies. In fact, despite the existence of different goals related to football team characteristics and specificities, investing in youth players could represent an effective strategy both for high-ranking teams and both for football teams interested in enhancing their sport results (Maqueira et al. 2019).

Finally, the study revealed also policy implications. The last decade has been interested by a wide range of initiatives launched by international and national organizations to encourage football teams to enhance their financial sustainability. In particular, many of these initiatives regarded investment in academies and training facilities. However, despite these attempts, the current scenario remains characterized by the scarce adoption of these practices by football teams. In this regard, decision makers should start to invest in educational and sensibilization strategies to foster the development of infrastructures, facilities, and initiatives

able to support the development of youth players.

Like any empirical research in management studies, our analysis also suffers from limitations. In fact, the statistical approach does not consider organizations' specificities. At the same time, we choose to consider only the Top 5 Leagues at the European level, which are characterized by different characteristics and rules in respect of another institutional context. Furthermore, academics could evaluate the opportunity to replicate our analysis using alternative accounting metrics, such as the ROA and the ROI. Therefore, our limitations could be considered as potential starting point for management scholars interested in exploring financial performance and player development in football organizations.

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