

METELSKI, Adam. Age of top european football players when they started organized training and their value in the transfer market. Quality in Sport. 2023;11(1):98-104. eISSN 2450-3118. DOI <https://dx.doi.org/10.12775/QS.2023.11.01.008> <https://apcz.umk.pl/QS/article/view/43355>

The journal has had 20 points in Ministry of Education and Science of Poland parametric evaluation. Annex to the announcement of the Minister of Education and Science of December 21, 2021. No. 32582. Has a Journal's Unique Identifier: 201398. Scientific disciplines assigned: Economics and finance (Field of social sciences); Management and Quality Sciences (Field of social sciences). Punkty Ministerialne z 2019 - aktualny rok 20 punktów. Załącznik do komunikatu Ministra Edukacji i Nauki z dnia 21 grudnia 2021 r. Lp. 32582. Posiada Unikatowy Identyfikator Czasopisma: 201398. Przypisane dyscypliny naukowe: Ekonomia i finanse (Dziedzina nauk społecznych); Nauki o zarządzaniu i jakości (Dziedzina nauk społecznych).

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The authors declare that there is no conflict of interests regarding the publication of this paper.

Received: 31.03.2023. Revised: 31.03.2023. Accepted: 08.04.2023. Published: 08.04.2023.

AGE OF TOP EUROPEAN FOOTBALL PLAYERS WHEN THEY STARTED ORGANIZED TRAINING AND THEIR VALUE IN THE TRANSFER MARKET

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Abstract

There are a few schools of thought about when kids should start playing sports. This study set out to find out when the football players performing at EURO 2020 began trainings in an organized way – on average they were just over 8 years old. The second research issue addressed in this article is the financial value of the players. Football experts, with the support of scientists, do their best to determine the appropriate value of players, and it's still not easy. The proper valuation of players is an important issue because it influences the management process of football clubs. The study also set out to see if there is a relation between the age of starting to practice in organized way and the subsequent value of the athlete? A univariate regression analysis was performed, in which the dependent variable was player value, and the independent variable was the age of the athlete when he started to play football in organized way. Based on the regression coefficients, it can be concluded that players who started at younger ages now show a higher level of value. In conclusion, the results show how demanding professional sport is and at what age a person needs to make the right decisions to be able to think about being a professional footballer.

Key words: football, players value, Euro 2020, finances in sport.

Introduction

The budgets of the best football clubs are continually growing, and the values of the best players are also increasing. Due to the increasing amount of money in the sport, it has become an important part of the global economy (Klobučnik et al., 2019). Since 2016, the aggregate enterprise value of the top-32 European football clubs has grown by 51% (KPMG, 2020). Football is also very popular among TV viewers, for example the final of the last European Championship between England and Italy was watched by 31 million people in England only (population 56.27 million), and it was the highest TV audience in that country since the funeral of Diana, Princess of Wales, in 1997 (BBC, 2021). In total, EURO 2020 matches were shown in over 200 territories around the world, with an estimated total live event audience of 4.7 billion (UEFA, 2021).

Obtaining a good economic valuation of football players is crucial because it allows, to some extent, the valuation of the club, budget planning, and remuneration (He et al., 2015). Many scientists have tried to determine which factors have the greatest impact on the value of players (Felipe et al., 2020; Kiefer, 2014; Majewski, 2016; Metelski, 2021; Post, 2018; Tunaru et al., 2005). Some researchers point to the player's age as an important factor of his value (Lovell et al., 2015), others to the player's position (Di Salvo et al., 2007), sports performance (goals scored, passes, assists, etc.) (Deutscher & Büschemann, 2016), and others underline the role of physical characteristics (Bryson et al., 2013). Moreover, some studies point out the importance of variables that are not

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strictly related to sport, such as nationality (Schokkaert, 2014) or the popularity of a player (Lehmann & Schulze, 2008).

It should be stated that it is widely believed that there is a strong positive correlation between transfer fees and productivity (Majewski, 2016; Ruijg & van Ophem, 2015). However, player performance is dependent on many factors, including match importance, score, location, opposition, number of recovery days, and the employed tactical system (Paul et al., 2015). Also, the responsibilities of each position (goalkeeper, defender, midfielder, and forward) are different, which leads to performance indicators also being different by position. Usually, forward players are more visible to the audience than other positions simply because football is goal-oriented. Another important factor that affects players' market value is age, as it represents a proxy for experience and potential (Carmichael & Thomas, 1993). Some players are also so famous that they can be thought of as a brand, which also affects their value in the transfer market (Majewski, 2021). Nonetheless, it should be added that football is a team sport; thus, it is quite hard to judge an individual football player's performance and thus his exact value.

Even though it is relatively difficult to estimate the exact value of players, in recent years it can be noticed that their value is generally increasing, as evidenced by, among others, several spectacular transfers carried out in recent years. In 2019, the amount of money spent by football clubs on transfers exceeded 10 billion EUR for the first time (Poli et al., 2020). This amount has more than tripled in the last decade, in line with the growth of club revenues. When discussing transfers, it is also worth adding that UEFA Financial Fair Play Regulations were implemented, to prevent professional football clubs from spending more than they earn. UEFA's concept of financial fair play has helped to drastically reduce club losses over the last decade (UEFA, 2019).

There are a few schools of thought about when kids should start playing sports. Some authors talk about initiating sports participation during early childhood (even from age 2-3) and others claim that the right time is around 10 years of age (Benitez, 2013). The general conclusion is that young children should even be encouraged from birth to do anything that involves movement in order to prepare for later specific football skills. Through having fun at home, surrounded by the encouragement of family, children should start to develop basic motor and coordination skills. Once a child has developed the skills to kick and control the ball with confidence they should be ready to play football in a more structured environment. By age 6 years, most children have the basic motor skills for simple organized sports (Helathychildren.org, 2019). But it has to be remembered, that some children tend to develop an interest in football at a later stage which is still fine (Gaul, 2022). The number of children taking part in organized competitive sport increases linearly from age 6, with a maximum between 11 and 13 years of age (Maffulli, 2000). Some studies show that differences in performance of adult football players may be due to variations in the amount and types of football practice at the earliest years of participation (Haugaasen et al., 2014). There are also some dangers of intensive training in young athletes because they may suffer musculoskeletal injuries (Maffulli, 2000). Of course, whether a young footballer will be good in the future can be influenced by many different factors, such as perseverance, injuries, finding the right coach/club or just sheer luck. It should be noted, however, that there are not enough studies in the literature showing at what age it is best for young people to start practicing sports in order to increase their chances of becoming a professional athlete in the future.

Football is definitely the most popular sport in the world with 270 million active players of which the majority is younger than 18 years (Rössler et al., 2017). Young elite football players need to develop in multiple areas to be successful, for example physical, technical, tactical, and psychological. To become a professional football player, young people have to invest large numbers of training hours over a long period of time (Jonker et al., 2019). There are a few schools of thought about when kids should start playing sports. Some authors talk about initiating sports participation during early childhood (even from age 2-3) and others claim that the right time is around 10 years of age (Benitez, 2013). The general conclusion is that young children should even be encouraged from birth to do anything that involves movement in order to prepare for later specific football skills. Through having fun at home, surrounded by the encouragement of family, children should start to develop basic motor and coordination skills. Once a child has developed the skills to kick and control the ball with confidence they should be ready to play football in a more structured environment. By age 6 years, most children have the basic motor skills for simple organized sports (Helathychildren.org, 2019). But it has to be remembered, that some children tend to develop an interest in football at a later stage which is still fine (Gaul, 2022). The number of children taking part in organized competitive sport increases linearly from age 6, with a maximum between 11 and 13 years of age (Maffulli, 2000). Some studies show that differences in performance of adult football players may be due to variations in the amount and types of football practice at the earliest years of participation (Haugaasen et al., 2014). There are also some dangers of intensive training in young athletes because they may suffer musculoskeletal injuries (Maffulli, 2000). Of course, whether a young footballer will be good in the future can be influenced by many different factors, such as perseverance, injuries, finding the right coach/club or just sheer luck. It should be noted, however, that there are not enough studies in the literature showing at what age it is best for young people to start practicing sports in order to

increase their chances of becoming a professional athlete in the future. It is also worth adding that a sports career is non-typical because it starts early in life, lasts relatively short, and the greatest successes usually occur when non-athlete peers are just starting to climb the steps of a typical professional career (Lenartowicz, 2009). In this study, it was decided to check at what age the leading footballers in Europe started to play football in an organized way. It was also checked whether there are differences between different countries in this matter and whether the starting age is related to the financial value of the player.

Material & methods

In this article, it was decided to focus on one of the largest football tournaments – EURO 2020. The European Championship, formally the UEFA European Championship, also called the Euro, is a quadrennial tournament held between the member countries of the Union of European Football Associations (UEFA) (Britannica, 2021). Euro 2020 was originally supposed to be played in 2020, but due to the COVID-19 pandemic, it was postponed to 2021. Euro 2020 was held across Europe for the first time in the competition's history and the following cities hosted the games: Amsterdam (Netherlands), Baku (Azerbaijan), Bucharest (Romania), Budapest (Hungary), Copenhagen (Denmark), Glasgow (Scotland), London (England), Munich (Germany), Rome (Italy), Saint Petersburg (Russia) and Seville (Spain). Euro 2020 started on 11 June and ended on 11 July and 24 national teams took part in it (UEFA, 2021).

Data on player values was collected from the website transfermarkt.de. Transfermarkt.de is a German-based website that compiles football information, such as scores, results, statistics, transfer news, and fixtures. Transfermarkt.de is a good open-source platform of information about player values and transfer fees. The study consisted of collecting data on the individual value of the 620 players of all 24 teams that played in Euro 2020.

The age of the players at which they started to practice football (joined the football academy) was determined on the basis of sources available on the Internet, such as local websites of the federations, associations, fan pages, and interviews with the players. As of today, there is no database in which such information could be found. Starting playing football in this article means joining a youth academy/club and starting organized training sessions with a qualified football coach. Of course, some players may have started playing even earlier, for example with parents or siblings, but in this study, the starting date of training is considered to be the start of organized training at a youth football academy/football club. The issue of accreditation of the academy/club was not considered in this study as this is a locally organized issue in many countries. In the case of some players, it was not possible to determine at what club and age they started their football training. Ultimately, it was possible to find out necessary information for 459 of the 620 players at the tournament. Descriptive statistics and statistical tests were used in the study and Microsoft Excel and IBM SPSS Statistics 27 were used to process the quantitative data of research.

Results

In total, 620 players entered the tournament. Their average value was 16.84 million EUR, and total value 10,480.83 million EUR. In Euro 2020, there were national teams with many football stars, as well as teams whose players mostly play in weaker leagues. Table 1 presents the value of the squads of all national teams that played in Euro 2020. It is worth noting that the value of England, the most valuable national team, was 28.5 greater than the value of the least valuable national team – Finland.

Table 1. Average age of EURO 2020 players when they joined football academies and each national team value

National Team	Average age when joining academy	Value of the squad (in mln €)
Germany	5.52 (n=21)	936.50
Austria	6.50 (n=26)	320.60
Finland	6.50 (n=14)	44.50
Belgium	6.72 (n=25)	669.40
Sweden	6.77 (n=13)	215.05
Denmark	6.79 (n=14)	310.70
Netherlands	6.94 (n=18)	607.05
France	7.12 (n=26)	1028.00
England	7.15 (n=20)	1273.00
Czech Republic	7.25 (n=16)	190.00
Switzerland	7.64 (n=22)	283.50
Russia	8.18 (n=22)	190.30
Slovakia	8.20 (n=10)	131.10

Italy	8.36 (n=22)	751.00
Spain	8.76 (n=21)	915.00
Croatia	8.89 (n=19)	375.80
Wales	8.95 (n=19)	176.75
Hungary	9.13 (n=24)	74.73
Portugal	9.15 (n=26)	827.50
Scotland	9.56 (n=16)	269.85
Turkey	9.58(n=24)	321.50
North Macedonia	9.71 (n=7)	61.80
Poland	10.27 (n=15)	254.80
Ukraine	11.32 (n=19)	197.20
	Average age: 8.08 (n=459)	Average value: 434.40

Source: own elaboration.

In addition, Table 1 presents the average age at which members of a given national team started playing football. It turns out that the representatives of Germany started playing the earliest – when they were on average less than 6 years old, and the representatives of Ukraine – at the age of over 11, the latest. The average age of starting practicing football for all the players was just over 8 years old. Univariate regression analysis was performed, in which the explained variable was the players value, and the explaining variable was the age of starting to play (joining the football academy). The proposed regression model turned out to be well suited to the data $F(1, 457) = 16.81$; $p < 0.01$. Based on the regression coefficients, it can be concluded that age when players started to practice in organized way is negatively related to players value ($\beta = -0.19$, $p < 0.01$). This means that players who started at younger ages show a higher level of value. The regression equation can be written as $Y = 31.56 - 1.54X$. The tested model explains as much as 35% of the variability of the dependent variable. The results show that those players who joined football academies earlier than others are now valued higher on average.

Discussion

Football is the most popular sport in the world (Sourav, 2020). One of the things about football that ignites the interest of fans all over the world is the value of players. Obtaining a good economic valuation of football players throughout the year is highly desirable because it allows, to some extent, the valuation of the club, budget planning, and remuneration (He et al., 2015). Contrary to what some people outside the world of football often say, the values of players are not irrational. Based on the literature on the subject, the value of a player is determined, among other things, by his position on the pitch, age, and achievements (Carmichael & Thomas, 1993). This article analysed whether the age of joining and starting formal training at a football academy / club affects later players' values. The study was based on the European Championship in football, which was played in 2021. The results indicate that the values of the national teams at Euro 2020 were very different, in particular the value of England (the top team in this regard) was 28.5 times greater than the value of Finland (the last team in this regard). However, as the results during these championships showed, it is not always the value of the team that determines the results, because in the end it was not the English who won, but the Italians.

When it comes to the age at which players started playing football in an organized way (joined academy), there are also differences between individual countries. Namely, Germans on average, joined football academies almost twice as young as Ukrainians. According to research and the opinions of professionals (Benitez), the age of about 10 years is a good time to start specialized football training, but it is important that the child who does this was physically active earlier. However, as this study shows, the surveyed players joined football academies at the age of 8 on average. It was decided to check whether joining a football academy sooner may affect the later value of a player on the transfer market. The results of this study show that indeed, the younger the age a player joins the academy and start to practice football in organized way, the greater his value. This can be explained by the fact that playing football is so demanding that the earlier a player starts playing it, the better his chances are to develop different skills and become a good player.

This only shows how specific the professional sport is and how young a person should make the right decisions in order to become a professional footballer. In other professions, a person can decide what he or she wants to do at work at high school or university, and in the case of professional sports, appropriate steps must be taken as early as in primary school or even later. These results also show to what extent parents decide about a sports career nowadays, because they have to transport these young boys to training for many years and support this process

Conclusions

Football experts, with the support of scientists, do their best to determine the appropriate value of players. It is believed that a player's value should be related to his productivity, so basically the better the player, the higher his value. It also seems logical that the more a player trains, the better he should be. Therefore, in this study, it was decided to check whether the age at which an athlete starts practicing sport in an organized way affects his later value. It turns out that yes, based on the regression, it can be said that the age of joining the academy explains 35% variability of the player's value. That is, the younger the age a player joins the academy, the higher his value. The study shows at what age professional athletes start to practice sport in an organized way – it is on average little more than 8 years old. Undoubtedly, this shows how demanding professional sport is and at what age you need to make the right decisions to be able to think about being a professional footballer.

However, the presented results are characterized by some limitations. First of all, the analysis also focused only on the European Championship and did not consider other big tournaments (like the Copa America or the Africa Cup of Nations), and other professional players. It should be remembered that each big tournament may have its own characteristics. We also do not know if in other sports, such as basketball or volleyball, athletes also start at such a young age. Therefore, subsequent research in this area should take the above-mentioned into account and verify whether such trends also occur in other formats of competition and also in other sports.

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