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ANALYSIS OF GOALS SCORED IN EUROPEAN FOOTBALL CHAMPIONSHIP WITH OFFENSIVE PARAMETERS OF SEMI FINAL TEAMS 2020/2021 [1]

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Abstract: The study aims to analyze the characteristics of the goals scored in a sample of 51 games and offensive parameters of teams that reached the semi-finals in a tournament held in 2020/ 2021. The analysis of the data used descriptive statistics i.e., the chi-square test and cross tabulation. The results showed statistically significant difference i.e., data that more goals were scored in the second half (83) than in the first (52), x^2=7.119, p<0.01. The highest frequency of goals was in the period of 46–60 minutes (30), then 61-75 and 76-90 minutes (24). As for the types of attacks exercised, the highest frequency of goals was found after organized attacks (44.4%), and set plays i.e., corners, free kicks, penalties, and throws–in (when the ball was out of the line of play) (20.7%), x^2=11.636, p<0.01, as well as counter-attacks (34.8%), x^2=4.813, p<0.05, while the kicks with inside part of the foot ridge (29.6%) were the most frequent. The influence of the first goal scored in the match in relation to the final winning result is expressed by the value (68.8%). Considering the observed positions in the pitch where the goals were scored, the values presented are (48.9%) for areas of 5-11 and 11 meters, (31.1%) for areas of 11-16 and > 16 meters, and (20.0%) for the area of 0-5 meters, with the addition that the forwards scored 73 goals. The semi-finalists showed a percentage of accurate passes per match, in the range value of (82.5-89.3%). The observed parameters and their significance have pragmatic importance in the population of football experts, researchers, and coaches when determining the success and failure of teams in professional competitions.

Keywords: *goals, performance indicators in football, tournament competition, video analysis*

INTRODUCTION

Football has an integrative role not only within one country but also at the international level. It is a kind of interwined multidisciplinary field and as such becomes part of the culture of living of a vast number of people.

Perhaps the most important types of intelligence in human essence, such as body–kinesthetic and spatial, then interpersonal and intrapersonal, are crucial aspects of game performance manifestations in today's modern and fast football matches.

Tactics in football represent a vital segment of the game defining the match outcome or the final result. In team sports, tactical skills refer to the individual ability of a player to perform the right action at the right time and, at the same time, quickly adapt to new game configurations and ball circulation (Gréhaigne & Godbout, 1995).

It is known that feedback information helps footballers to improve their performance since players know whether the action was good or bad by being given internal feedback.

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The nature of the information transmitted to both the coach and the players such as its simplicity and faster sharing of information provides the players with feedback upon their performance with the purpose of accelerating their development and success (Musa et al., 2017). That is why specific and systematic video monitoring in football match analysis plays a more than significant role in following individual player performance (various types of movement on the pitch, technique control) and following group performance of players and teams (applicability of football systems and their numerous transformations during the game, successful attack types, etc.) (Carling et al., 2008; Rampinini et al., 2009; Yiannakos & Armatas, 2006).

The fact is that there are studies (not too many) that have examined the characteristics of goals scored at different levels of competition (from national championships to European and World Cups) (Kubayi, 2020; Leite, 2013; Michailidis et al., 2013; Tenga et al., 2010).

That is the reason why the need for constant recording and evaluation of numerous football characteristics still prevails, especially of goals scored at the professional level of competition, given that the above repercussions reflect the continuous development and changes in game modules to other levels and different ranks of competition.

This research aimed to make a more comprehensive analysis to identify statistically significant patterns of goals scored at the last European Championship, as well as the descriptive aspects of the national teams that reached the semi-finals and the final match in terms of the most important football parameters.

METHOD

Sample

This study examined a top-level tournament competition where 51 matches were played. A total of 135 goals were scored in the championship, or 2.65 goals per match on average counting only the regular and additional time 90+ minute.

Procedures

All football matches were live broadcast, with the possibility of watching and analyzing matches again with the help of TV recordings. The study was based on the personal observation of the researcher, who recorded the most important characteristics of the goals scored, i.e., the situation that preceded the goal.

The study was developed through the analysis and observation of the following football elements:

- The frequency of goals scored in 45 minutes (first, second half), and their statistically significant difference;
- The frequency of goals scored every 15 minutes in 8 time periods (1-15, 16-30, 31-45, 45+, 46-60, 61-75, 76-90 minutes, and 90+), and their statistically significant difference;
- The frequency of the types of attacks when scoring a goal (organized attack, counter–attack, and set plays), and their dependence on ball kick types (header, inside of the foot, inside part of the foot ridge, middle ridge of the foot, outside of the foot, outside part of the foot ridge, and special shot);
- The frequency of the influence of the first goal scored on the final match result (win, draw and defeat), and their statistically significant difference;
- The frequency of player distance from the ball when scoring a goal (0-5 meters; 5-11 meters, and 11 meters; and 11-16 meters, and > 16 meters), and their dependence on the position of the players in the team (forward, midfielder, defender, as well as own goal);
- Offense variables of the semi-finalists during the 90 minutes, and 90-120 minute (ball possession, total no. of attempts, target attack, passes completed, passes attempted, passing accuracy, assists, short passes completed, medium passes completed, long passes completed, distance covered, dribbles, attacks, corners taken, and offsides).

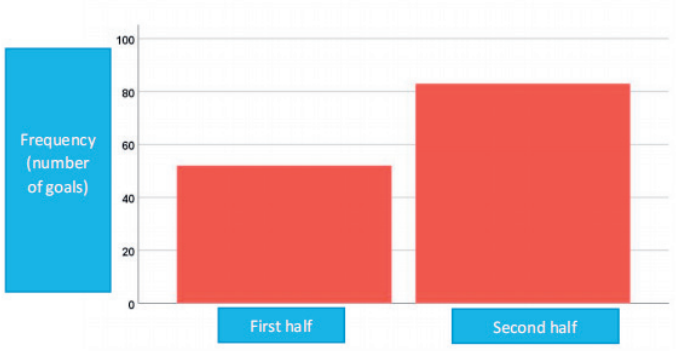
Statistical analysis

All data were analyzed using the statistical package for PC SPSS version (first 20.0, later 26.0). For the presentation of the results we used descriptive statistics, consisting of frequency distribution. Data were reproduced with relative and absolute frequency. Non-parametric techniques, i.e., the Chi-square analysis was used to determine statistically significant differences, while cross-tabulation analysis was used to analyze the properties of selected variables or possible dependent features. The value ($p<0.05$) was taken as the criterion of statistical significance.

RESULTS

The presented frequency of the goals scored, i.e., the fact that the goals are examined in the temporal base of the half-time or 45-minute game range, is presented in (Figure 1). So, in the second half, the national teams scored more goals than in the first half (83 or 61.5% goals vs. 52 or 38.5% goals). Furthermore, statistical analysis showed a statistically significant difference in percentage between the goals scored in the two halves ($x^2=7.119$, $p<0.01$).

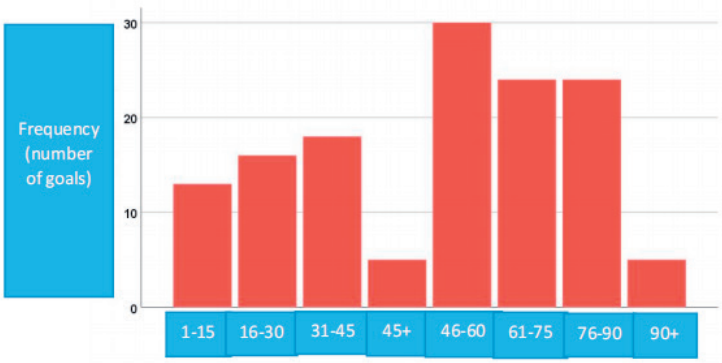
Figure 1. *Frequency of goals scored / 45 minutes*



Source: UEFA Euro 2020, *Wikipedia*

The number and percentage of the values of the goals scored were (13, 9.6%), in the 1-15 minute period of the match (16, 11.9%) for the 16-30 minute period (18, 13.3%) for the 31-45 minute period (5, 3.7%) for the 45+ addition-time period (30, 22.2%) for the 45-60 minute period (24, 17.8%) for the 61-75 minute period (24, 17.8%) for the 76-90 minute period, and (5, 3.7%) for the 90+ additional time period (Figure 2). The analysis of the goals scored shows the exception in the 46-60-, 61-75-, and 76–90-minute periods. There was a statistically significant difference between periods 46-60 and 1-15 minutes ($x^2=6.721$, $p<0.05$), between 46-60 and 16-30 minutes ($x^2=4.261$, $p<0.05$), and between 46-60 and 45+ time, i.e., 90+ time ($x^2=17.857$, $p<0.001$), as well as between periods 61-75, 76-90 and 45+ time, i.e., 90+ time ($x^2=12.448$, $p<0.001$).

Figure 2. *Frequency of goals scored / 15 minutes*

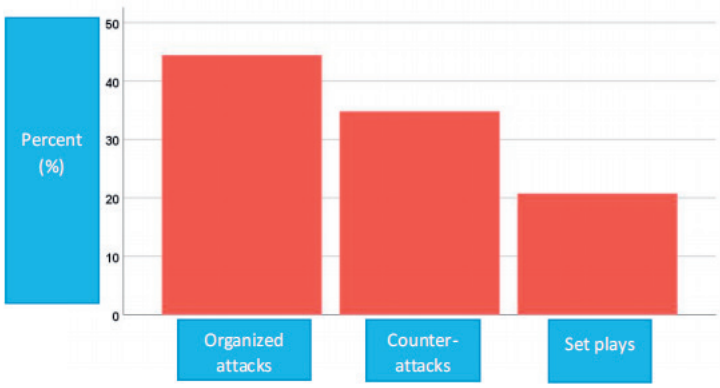


Source: UEFA Euro 2020, *Wikipedia*

The frequency of the applicability of the types of attacks when scoring goals is presented in (Figure 3). The observed results indicate that at the 2020 / 2021 European Championship, (60, 44.4%) goals were scored after organized offensive movements or organized attacks, (47, 34.8%) goals after counter–attacks and remaining (28, 20.7%) goals after set plays, i.e., corners, free kicks, penalties, and throws–in (when the ball was out of the line of play).

Furthermore, the statistical data analysis found a statistically significant difference between goals scored after organized attacks and set plays (x^2=11.636, p<0.01), as well as between counterattacks and set plays (x^2=4.813, p<0.05), while no statistically significant difference was found between organized attacks and counterattacks (x^2=1.579, p>0.05).

Figure 3. *Presentation of types of application of offensive styles or types of attacks when scoring goals*



Source: UEFA Euro 2020! *YouTube*

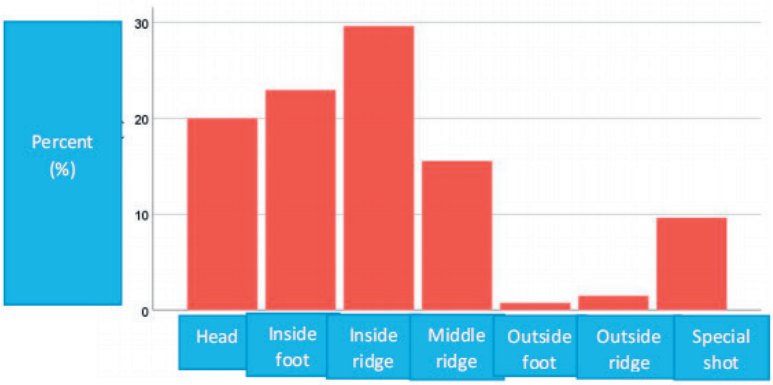
The statistical data analysis also showed that the features in the categorized table of already marked types of attacks (organized, counter-attacks, and set plays) and ways of kicking the ball when scoring goals (header, inside of the foot, inside part of the foot ridge, middle of the foot ridge, outside of the foot, outside part of the foot ridge, and special shots), are dependent, i.e., statistically significant difference was found between these observed variables (x^2=25.266, p<0.05).

Further data analysis also observed the parameters of individual ways of kicking the ball when scoring goals (no own goals were taken into account, but the ways of kicking the ball were evaluated before scoring own goals), so the results indicate that (27, 20.0%) goals were scored with a header kick (including header kick by bounce with both legs, bounce with one leg, header kicks from standing position and in movement, as well as kicks with the lateral part of the head - diving header), and that (31, 23.0%) goals were scored with the inside of the foot, (40, 29.6%) with the inside part of the foot ridge, (21, 15.6%) with the middle of the foot ridge, (1, 0.7%) the outside of the foot, (2, 1.5%) with the outside part of the foot ridge, and (13, 9.6%) with special kicks (including volley kicks, “drop kicks”, point kicks, and heel kicks).

Statistically significant differences were showed between the first four parameters and the other three, with the only exception being between goals scored with the middle of the foot ridge versus special kicks, in which no significant difference was found (x^2=1.882, p>0.05). In contrast, with the first four mentioned parameters, the only statistically significant difference was observed between the goals scored with the inside part of the foot ridge versus the goals scored with the middle of the foot ridge (x^2=5.918, p<0.05) (Figure 4).

Also, a statistically significant difference was found between the inside part of the foot ridge and the outside of the foot kicks (x^2=37.098, p<0.001), the outside part of the foot ridge kicks (x^2=34.381, p<0.001) as well as special kicks (x^2=13.755, p<0.001), then between header kickcs and the outside of the foot kicks (x^2=24.143, p<0.001), the outside part of the foot ridge (x^2=21.552, p<0.001) as well as special kicks (x^2=4.900, p<0.05), i.e., between the inside of the foot kicks and the outside of the foot kicks (x^2=28.125, p<0.001), the outside part of the foot ridge (x^2=25.485, p<0.001) as well as special kicks (x^2=7.364, p<0.01), and finally between the middle of the foot ridge kicks and the outside of the foot kicks (x^2=18.182, p<0.001) as well as the outside part of the foot ridge kicks (x^2=15.696, p<0.001).

Figure 4. *Presentation of different ball kicks when scoring goals*

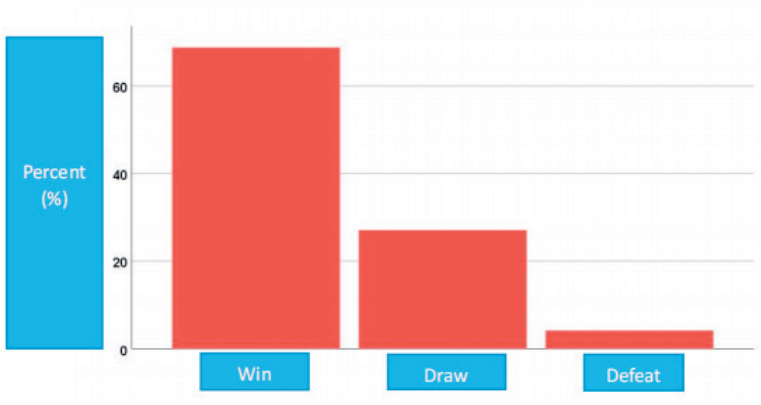


Source: UEFA Euro 2020! *YouTube*

Observing the statistical analysis of the impact of the first goal on the outcome of these 48 matches (3 matches in the 2021 championship ended without goals: England - Scotland and Spain - Sweden in the group stage of the competition, and Italy - Austria in the round of 16, so these matches were not taken into further consideration), the parameter was obtained that those teams that scored the first goal in the match won as many as 33 times (68.8%), played a draw in 13 (27.1%), i.e., those teams that scored the first goal lost only 2 matches (4.2%) (Figure 5).

Statistical analysis of the data revealed statistically significant differences between match wins and draws (x^2=8.696, p<0.01), then between match wins and defeats (x^2=27.457, p<0.001), as well as between draws and defeats (x^2=8.067, p<0.01).

Figure 5. *Influence of first goal scored on match outcome*

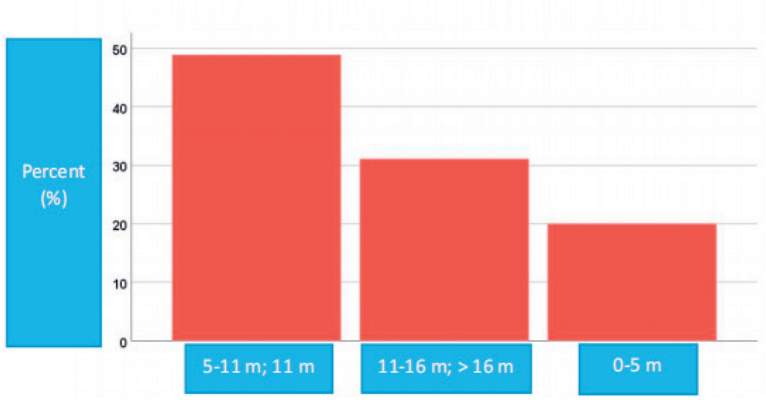


Source: UEFA Euro 2020, *Wikipedia*

Statistical analysis of the data observed the areas of the football pitch in which offensive actions materialized (Figure 6). The results indicate that (65 or 48.1%) goals were scored in the 5-11-meter and 11-meter areas, then (43 or 31.9%) goals were scored in the 11-16-meter area and each space outside 16 meters, and finally (27 or 20.0%) goals were scored in the 0-5-meter area.

Thus, the analysis of the data presented found a statistically significant difference between the goals scored in the 5-11 meter area and 11-meter area respectively, and the goals scored in the 0-5-meter area (x^2=16.355, p<0.001), then between goals scored in the 5-11-meter area and the 11-meter area respectively, and goals scored in the 11-16-meter area and each space outside 16 meters (x^2=5.333, p<0.05), while no statistically significant difference was found between goals scored in the 0-5-meter area and goals scored in the 11-16-meter area, i.e., each space outside 16 meters (x^2=3.261, p>0.05).

Figure 6. *Area where final attempts materialized, i.e., presentation football pitch area where goals were scored*



Source: UEFA Euro 2020! *YouTube*

In addition, statistical data analysis showed that the features in the categorized table 3 x 4 of already marked areas of the football pitch (5-11 meters and 11 meters, 11-16 meters and > 16 meters, and 0-5 meters) and playing positions in the team with the addition of own goals (forward, midfielder, defender, and own goal), are not dependent, i.e., no statistically significant difference was found between these observed variables (x^2=12,351, p>0,05).

Further data analysis also observed the parameters of individual positioning of players in the team when scoring goals, so the results indicate that (73 or 54.1%) goals were scored by the forwards, (33 or 24.4%) goals by midfielders, (18 or 13.4%) by defenders, while (11 or 8.1%) were own goals. Statistically significant differences were found between forwards and midfielders (x^2=15.094, p<0.001), between forwards and defenders (x^2=33.242, p<0.001), and between forwards and accidentally scored own goals (x^2=45.762, p<0.001).

Also, there are significant differences between midfielders who scored goals and defenders (x^2=4.412, p<0.05), as well as between midfielders and scored own goals (x^2=11.000, p<0.01), while there were no significant differences between defenders and own goals (x^2=1.690, p>0.05) (Figure 7).

Figure 7. *Significance between positioning of players in a team*

Source: www.uefa.com

The observed data (Table 1) show that the Spanish team had by far the best indicators of the set variables compared to the other three selections: (66.9%) possession of the ball, (18.5) total attempts per game, (7.2) attacks at goal, (781.3) passes completed, (873.2) passes attempted, (89.3%) passing accuracy, (2.2) assists, (178.0) short passes completed, (542.2) medium passes completed, (61.2) long passes completed, (127.5 km) distance covered, and finally (72.0) attacks, as well as (7.8) corner kicks.

Also, it is quite obvious that the Italian team was quite dominant and offensive in their matches, taking into account: ball possession (54.1%), total attempts (18.3), passes completed (535.9), passes attempted (611.7), passing accuracy (87.2), assists (1.6), short passes completed (148.3), medium passes completed (350.6), distance covered (123.1 km), dribbles (17.3), attacks (54.7), and finally the best indicators of offsides (4.0).

Table 1. *Offensive parameters of the semi-finalists' teams (regular + extra time (90-120 min.))*

Team	Event	BP % Mean	TA ∑	TA Mean	AAG ∑	AAG Mean	PC ∑	PC Mean	PA ∑	PA Mean	PCC % Mean	AS ∑	AS Mean
Italy	7	54.1	128	18.3	36	5.1	3751	535.9	4282	611.7	87.2	11	1.6
Spain	6	66.9	111	18.5	43	7.2	4688	781.3	5239	873.2	89.3	13	2.2
England	7	52.6	64	9.1	26	3.7	3324	474.9	3825	546.4	86.3	10	1.4
Denmark	6	52.2	96	16.0	40	6.7	2535	422.5	3056	509.3	82.5	8	1.3

SPC ∑	SPC Mean	MPC ∑	MPC Mean	LPC ∑	LPC Mean	DC km	DB ∑	DB Mean	AT ∑	AT Mean	CK ∑	CK Mean	OF ∑	OF Mean
1038	148.3	2454	350.6	260	37.1	123.1	121	17.3	383	54.7	31	4.4	28	4.0
1068	178.0	3253	542.2	367	61.2	127.5	81	13.5	432	72.0	47	7.8	9	1.5
699	99.9	2333	333.3	292	41.7	113.8	121	17.3	296	42.3	29	4.1	14	2.0
681	113.5	1624	270.7	231	38.5	110.5	103	17.2	280	46.7	39	6.5	4	0.7

Key: BP % - Ball possession; TA - Total attempts; AAG – Attack at goal; PC - Passes completed; PA - Passes attempted; PCC % - Passing accuracy; AS - Assists; SPC - Short passes completed; MPC - Medium passes completed; LPC - Long passes completed; DC km - Distance covered; DB - Dribbles; AT - Attacks; CK – Corner kicks; OF – Offsides

Source: www.uefa.com

DISCUSSION

The general analysis of sports performance, as well as the individual-group analysis of matches, can be carried out using two different complex approaches: static and dynamic (Sampaio et al., 2013).

The static approach implies systematic recording (manual-automatic) of basic individual player and team actions during "critical" events in the game, dealing primarily with the final match statistics (structural-oriented model), without any context reference to the match itself i.e., its details.

On the other hand, the dynamic approach involves the analysis of numerous movement actions and individual-team actions in the match during "critical events" in terms of linked evaluation of the competitive process, each chronological and sequential segment of the game (process-oriented model) (Pfeiffer & Perl, 2006).

That is why the applicability and consistency of research studies and the complete identification of new scientifically significant facts, i.e., available patterns in scoring goals and successful attacking strategies, are suitable for analyzing football matches at top-level competitions.

The obtained statistical significance (Figure 1) in terms of numerical and percentage indicators of goals scored in favor of the second half compared to the first half can be explained by the lack of sufficient adaptation of one national team to the other, considering that in the first half, there is mostly a "power struggle" between the players of the two teams in the match. In principle, firstly, when the players on the pitch, and then the professional staff and the head coach himself, notice their opponent's key weaknesses and shortcomings in the game, especially in terms of goalkeeping, players finalize the processed information in the continuation of the match or revalue this information with the help of the head coach after the half-time rest. Therefore, the timely concretization and compactness of the acquired information fully reflect on the presented result.

An almost identical explanation could be given for the parameters shown in (Figure 2) since the 15-minute segment brought an advantage in the second halftime distributions. The percentage differences are not alarmingly large, except for the two periods after 45+ and 90+ minutes, as this is the minimum available time. The relatively smaller number of goals in the first 15-minute segments is again explained by the transformations of team tactical systems during the game (from e.g. 4:4:2 to 4:3:3 or 3:5:2, 3:4:3, depending on the players' profiles). The novelty is that no previous paper dealt with statistically significant differences of goals scored in 15-minute segments at an elite football tournament. This means that only after a complete "situational analysis" of the opponent, the number of goals begins to be valorized in the continuation of the match, thereby giving statistical significance in relation to the first divisions of variables.

This result (Figure 1) is similar to the research of the authors (Michailidis et al., 2013; Yiannakos & Armatas, 2006), in terms of the percentage of goals scored in the first and second half, but there is a difference in statistical significance between these variables. Regarding the parameter of 15-minute goal-scoring periods, (Figure 2) the results of the current study mostly align with the found percentages, with minor discrepancies of the studies (Kubayi, 2020; Leite, 2013), which analyzed the 2018 World Cup and the 2012 European Championship.

Also, the types of attacks where the tempo of the final attack when scoring a goal was taken into account were also analyzed (Figure 3). It is well known that continuous organized attacks are carried out against the formation of the front and back lines of defense, so the percentage of goals scored in the championship can be seen as satisfactory. When analyzing the applied counterattacks, given that these are top technically-tactically trained teams (the players in the teams), the application of extremely fast, efficient, and modern plays ensued, although players' fatigue was obvious, due to the fact that all of them came to the European Championships from their own very demanding and hard national championships. Also, the percentage of goals scored after set plays, as well as the statistical significance in relation to the other two types of attacks, could be acceptable because, in terms of this variable, there is a contradiction when scoring goals, from easier ways (penalties and direct free kicks) to much more difficult situations, when there is usually a strict marking of the player within the 16-meter perimeter when taking corner kicks or throwing-in. Therefore, organized attacks and counter attacks have their own definition and duration, unlike the unforeseen situations of set plays.

The stated percentage results from continuous organized attacks of the current study (Figure 3) are in line with the study of (Yiannakos & Armatas, 2006), which examined the 2004 European Championship. However, drastic differences are noticed when observing counterattacks and set plays.

Given that the dependence between the types of attacks and different ways of kicking the ball during the final realizations has been established, it is necessary to determine in future research which types of kicks prevail in different attacks (e.g. perhaps the inside of the foot in counterattacks or header kicks in set plays, etc.).

The observed percentage applicability (Figure 4) of the inside part of the foot ridge when scoring goals is expected, as well as statistical significance, considering the precision of the kick in the uncovered parts of the goal during the final executions. An equal percentage of applicability was expected from the inside of the foot when scoring goals, as well as statistical significance in relation to other variables, given the available ratio of the foot impact surface during the goal scores. It is considered that the asymmetry of applying different ball kick methods is slightly pronounced among top players, so it was not even observed by statistical analysis, which does not mean that it should not be done in some future studies. The statistical significance of header kicks indicates a frequent use of long passes in open play as well as "stop balls" when scoring goals in relation to other variables, unlike the strongest possible kick with the middle of the foot ridge which had no significance in relation to special shots.

The difference in the number of variables in terms of ball kicks when goals are scored in this current study cannot be observed compared to other studies considering that not the same or similar divisions were researched, but only some of the variables were examined, such as sublimated foot kicks (80.6%) or head kicks (19.4%), in the study by (Simiyu, 2013), which dealt with the 2010 World Cup. Most football players and coaches agree that players are capable of learning to use both feet with equal frequency and efficiency - that is, to become "two-footed". The authors (Carey et al., 2001) quantified the pattern of foot use in a sample of 236 players from 16 teams in the 1998 World Cup (France '98). Findings indicate that the World Cup players are as right-footed as the general population (~79%). The remaining players were largely left-footed and as biased towards the use of their preferred foot as their right-footed counterparts. Very few players used each foot with equal frequency. Players were most asymmetrical for set plays; nevertheless, first touches, passes, dribbles and tackles were rarely performed with the non-preferred foot as well.

The presented indicator of the situation (Figure 5), that when the selections first score a goal in the game, they win in the outcome is respectable, which is explained by exceptional professionalism, tactical training of all team lines, as well as all available team and individual repercussions of the game on the result. All this is supported by the statistical significance of wins compared to the draws and defeats. The significance between draws and defeats can be explained by the fact that professional players and the selections in which they perform if they score a goal first, they will rarely allow to lose the game considering the importance of the competition.

These results are in line with the research by (Michailidis et al., 2013) in terms of both percentage values and statistical significance between the variables.

A significant data in the current paper (Figure 6), which can be used in science, is the execution area of 5-11 meters, although it would be expected that the highest percentage belongs to the area of 11-16 meters and outside 16 meters (mainly penalty area), given that players in these situations have a complete perception of the goal in front of them. The best execution abilities in the area of 5-11 meters can be explained by the fact that in such a "narrow space" the players are forced to react reflexively or instinctively, because they know that if the pass is not executed from the first contact with the ball, a defensive block will follow, unlike in further spaces where there can be "disposal of the ball".

Therefore, unlike the above areas on the football pitch (5-11, 11, 11-16, and > 16 meters), goalkeepers mostly intervene in the five-meter area. In case of the so-called "goalkeeper's balls" in the area of 0-5 meters, the perception of the forward's goal is significantly narrowed, because now the goalkeepers mostly enter the block, so the forwards do not have time to kick towards the further angle of the goal.

An understandable advantage in the percentage of forwards' realizations was obtained (Figure 7), as well as the statistical significance of the goals scored compared to the other players in the team, given that their positioning is the closest to the set target, i.e., goal. It is noticeable that in almost all cases, they tried to receive the ball with their face and not the back facing the goal so that they could react at the greatest speed. The significance of midfielders compared to defenders can perhaps be explained by more refined technical performance, although this remains to be debated.

It is noticeable that there are considerable percentage discrepancies between this current study and the study of the 2012 European Championship (Michailidis et al., 2013), in the variable of the goals scored inside the penalty area, as well as outside the penalty area, and thus at the level of statistical significance between the inside of the penalty area and outside of the penalty area, as well as between the inside of the goal area and outside of the penalty area. Also, comparing this current study with the research of the 2010 football World Cup (Simiyu, 2013), similar percentages of goals scored by forwards and defender players were found, unlike midfielder players and own goals, which were quite fewer in 2010.

Table 1 can be discussed primarily by the parameter of short passes of the Italian team (which mainly sought to "break" the last line of defense with short passes around and within the area of 16 meters, connecting their forwards with the opponent's goal) and the Spanish team (which presented, in the true sense of the words, its traditional, fast foot play with as little touch as possible). Also, how offensive and aggressive the Italian national team was at the last European Championship is indicated by the offside parameter, which mainly included the most advanced players of the Italian national team, who, after a courageous game, brought the final victory at the tournament.

Some of the presented indicators of the current study and the resulting mean values agree with the findings of the paper from a scientific conference (Gao, 2016), and some differ when compared to the semi-final teams from the 2020 / 2021 and 2012 European Championships. Namely, similarities were found in the parameters of passing and total shots at the opponent's goal, then smaller parameters of shots at goal, corner kicks taken and offsides in the last championship, as well as slightly higher parameters of ball possession compared to the opponent.

CONCLUSION

The presented study results can definitely help the national team head coaches design their training sessions (at the time of selection of the national team members), i.e., they can help their national teams in terms of better efficiency in competitive matches. Given that this study deals with the attacking abilities of top-level teams, the specificity is such that players may need to be more focused on the target, i.e., the goal during the first half, for scored goals between the two halves to be approximately equal in percentage.

Also, in situational training, more attention should be paid to offensive interruptions or set plays (synchronized switch of position between several players in the 16-meter area or crossing as well as running into empty area), so that the potential percentage of different ways of shots at goal was more uniform given the surprising endings. Then, attention should be paid to the somewhat better positioning of players in the five-meter area (especially central attackers) to use every chance to shoot at goal after unsuccessful goalkeeping interventions and bounces of the ball.

And finally, more attention should be paid to practicing the game from the so-called "second line" so that defensive players (primarily outside players or wing backs on both sides of the pitch) have a better percentage effect of goal scoring during national team matches.

REFERENCES

1. Carey, D. P., Smith, G., Smith, D. T., Shepherd, J. W., Skriver, J., Ord, L., & Rutland, A. (2001). Footedness in world soccer: an analysis of France '98. *J Sports Sci, 19*(11), 855-864.
2. Carling, C., Bloomfield, J., Nelsen, L., & Reilly, T. (2008). The role of motion analysis in elite soccer. *Sports Med, 38*(10), 839-862.
3. Gao, K. (2016). *The comparative analysis of attack and defense ability for semi-finals of EURO 2012*, 5th International Conference on Social Science, Education and Humanities Research, Tianjin, China, pp. 1103-1108.
4. Gréhaigne, J. F., & Godbout, P. (1995). Tactical knowledge in team sports from a constructivist and cognitivist perspective. *Quest, 47*(4), 490–505.
5. Kubayi, A. (2020). Analysis of goal scoring patterns in the 2018 FIFA World Cup. *J. Hum. Kinetics, 71*(1), 205-210.
6. Leite, W. S. S. (2013). Euro 2012: Analysis and evaluation of goals scored. *Int. J. Sports Sci, 3*(4), 102-106.
7. Michailidis, Y., Michailidis, C., & Primpa, E. (2013). Analysis of goals scored in European Championship 2012. *J. Hum. Sport Exerc, 8*(2), 367-375.
8. Musa, R. M., Abdullah, M. R., Maliki, A. B. H. M., Kosni, N. A., Mat-Rashid, S. M., Adnan, A., Alias, N., & Eswaramoorthi, V. (2017). The effectiveness of tablet-based application as a medium of feedback in performance analysis during a competitive match in elite soccer. *Movement, Health & Exercise, 6*(2), 57-65.
9. Pfeiffer, M., & Perl, J. (2006). Analysis of tactical structures in team handball by means of artificial neural networks. *Int. J. Comput. Sci, 5*(1), 4-14.
10. Rampinini, E., Impellizzeri, F. M., Castagna, C., Coutts, A. J., & Wisløff, U. (2009). Technical performance during soccer matches of the Italian Serie A league: Effect of fatigue and competitive level. *J Sci Med Sport, 12*(1), 227-233.
11. Sampaio, J., Ibáñez, S., Lorenzo, A., McGarry, T., & O'Donoghue, P. (2013). *Routledge handbook of sports performance analysis*, Abingdon: Routledge.
12. Simiyu, W. W. Nj. (2013). Analysis of goals scored in the 2010 world cup soccer tournament held in South Africa. *J. Phys. Educ. Sport, 13*(1), 6-13.
13. Tenga, A., Holme, I., Lars Tore Ronglan, L. T., & Bahr, R. (2010). Effect of playing tactics on goal scoring in Norwegian professional soccer. *J Sports Sci, 28*(3), 237-244.
14. UEFA. www.uefa.com Retrieved during 2021/22
15. UEFA. (2021, July 17). Watch all 142 goals scored at UEFA EURO 2020! *YouTube*. https://www.youtube.com/watch?v=JJydBns9ZvM
16. UEFA Euro 2020. *Wikipedia*. https://en.wikipedia.org/wiki/UEFA_Euro_2020
17. Yiannakos, A., & Armatas, V. (2006). Evaluation of the goal scoring patterns in European Championship in Portugal 2004. *Int. J. Perform. Anal. Sport, 6*(1), 178-188.