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## Analysis of the Romanian National Handball Team Game at the Hungary/Croatia EHF Euro 2014

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### Abstract

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In the last month of 2014, Hungary and Croatia were the hosts for the 11th Women's European Handball Championship. Except for the year 2006, Romania participated in all the other editions organised by the European Handball Federation, with the best performance achieved in 2010, when the national team won the bronze medal. In this last edition, Romania finished 9th out of the 16 participating teams, just one point away from the semi-finals, and the overall impression was that Romania was very close to another notable result. The aim of this research is to show if Romania's ranking at the end of the tournament is the deserved one and if the handball played during the above-mentioned championship lines up with modern handball trends, based on the statistical analysis provided by the European Handball Federation website, but also based on more analyses personally made by us after watching again the played games.

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**Keywords:** Handball; women; analysis; national team.

### 1. Introduction

The 16 teams qualified at the last edition of the Women's European Championship showed a raised handball performance, and the experts were all of the opinion that until present, it was the most disputed edition of the EHF Euro, due to a close level of the teams. This opinion was confirmed by the early elimination of Serbia, the vice-champion of the previous edition, or Russia, a power in women's world handball, teams that had to go home after playing only the first phase of the tournament.

Romania was distributed in Group B, alongside Norway, Denmark and Ukraine, and qualified for the main group, where the team played against Hungary, Spain and Poland. The balance sheet of the 6 games played was 3 wins, 2 lost games and one draw result. A total of 5 points accumulated, only 1



point away from playing the semi-finals. There were two key-moments that could lead to a happy ending for the Romanian team: the end of the game against Denmark, when the Nordic team managed to put a ball into the Romanian goal in the last second, and the score was equal, and the end of the game against Hungary, where, even if Romania had an advantage of two goals only 10 minutes before the end, it lost the game by only one goal. Counting also the victory against Spain which, in the end, went home with the silver medal, then we could easily consider ourselves unlucky.

The aim of this research is to disprove the hypothesis previously presented, the conclusions drawn from the statistical analysis being less optimistic than the overall opinion left by the close scores registered in competition or the close number of points reached by the teams.

In recent years, a considerable number of research studies (Prisăcaru, 2011; Skarbalius, 2011; Pokrajac, 2008; Macovei, 2009) had as main objective to highlight the tendencies in modern handball using cumulative statistical data for both men's and women's important tournaments.

However, we should keep in mind that the analysis or the eye of the spectator or expert cannot have inside information concerning the teams, like the communication between team members, players and coaches before, during and after the game, or the status regarding the health problems of the players during the tournament (Hergeirsson, 2008).

## **2. Materials and methods**

### *2.1. Subjects*

Romania went to this competition with a team consisting of 17 players, but further the 18<sup>th</sup> player joined the team, due to an early injury suffered by team's first right wing, Ada Nechita. Assigned to positions, the Romanian national team had 3 goalkeepers, 3 right wings, 2 left wings, 3 line players, one right back, 3 left backs, 2 playmakers and one player exclusively specialized for playing defence.

The mean age of the team is 27 and the mean height is 177cm. 4 players gathered over 5 hours and 20 minutes on the court, from a maximum of 6 hours. Another 5 players were used by the coach less than 40 minutes, meaning 6 minutes played per game. Analysing these data, we can easily come to the conclusion that Romania used the same 4 players during the entire competition, on the goalkeeper, left back, left wing and playmaker positions. These players were changed only for short moments of rest, or probably small injuries. Along the tournament, the coach chose not to make many changes and the number of players used long enough that their contribution could be felt was 11.

The team did not have a left-handed on the right back position either, and this had an impact on the team's strategy for the 4<sup>th</sup> phase, which we will analyse later in this research.

Cumulative data about each player and the rankings were provided by the European Handball Federation website.

Cumulative data regarding the technical-tactical approach of the team in both offence and defence were collected using video analysis - watching all the games played by Romania during the tournament.

To interpret the data collected, we used common scientific methods of research, as graphical representation (pie chart), and statistical and mathematical calculation: the mean and percentage.

### 3. Results

#### 3.1. Technical and tactical parameters for the offence

**Table 1.** The number of goals scored from each position, shooting efficiency, the ratio between goals from each position and total number of goals

	LW	LB	PM	RB	RW	LP	Total
Goals	14	58	17	15	19	13	136
Shooting efficiency	54%	53%	41%	56%	49%	53%	49%
Ratio	10.3%	<b>42.6%</b>	12.5%	11%	14%	9.6%	

*Legend: LW- left wing; RW- right wing; LB- left back; RB- right back; PM- play maker; LP- line player*

Analysing data from Table 1, we could notice a very low efficiency compared with the requirements imposed by the top teams. The 6-metre players (wings and line players) had 52% of their shots finished with goals, instead of 65-70% considered a very good efficiency. The 9-metre players (backs and playmakers) finished with goal 50% of their shots, with 10% under the superior limit of 60%.

42.6% of the total number of goals was scored from the left back position, which was most of the time occupied by Cristina Neagu. She finished the tournament with 49 goals, being second in the top scorers of the competition.

**Table 2.** Tops made for sections of the offence

	Romania	Position	Team no. 1
Top goals scored	22.7/game	13 <sup>th</sup>	Sweden: 29.8/game
Top scorer efficiency	49%	11 <sup>th</sup>	Sweden: 61%
Top scorer efficiency 7m	75%	12 <sup>th</sup>	Sweden: 100%
Top scorer efficiency field	45%	15 <sup>th</sup>	Sweden: 58%
Top Assists	11.8/game	10 <sup>th</sup>	Denmark: 15.7/game
Top goals scored in fast attack	2.8/game	11 <sup>th</sup>	Netherlands: 5.8/game
Top punishments (steps, attack fault, etc.)	12/game	12 <sup>th</sup>	Serbia: 7.7/game
Top scorer	Cristina Neagu: 49	2	Gulden (Swe): 58

According to Table 2, Romania had a mean of 22.7 goals scored every game, with 7 less than Sweden. Looking at the field actions, Romania was the 15<sup>th</sup> team, the number of missed shots being excessively high for this level. In our opinion, the main cause is the lack of patience in the 4<sup>th</sup> phase actions, meaning choosing solutions with a high risk of shooting, and the low number of fast actions from which the so-called easy goals can be scored. Romania did not use the fast throw off from the middle after a goal scored by the opponents. More than that, the mean number of goals scored every game after a fast break or a 2<sup>nd</sup> phase action was also low, with 3 goals less than Netherlands, which scored 5.7 goals per game.

Romania was also placed in the second part of the ranking, in terms of the number of assists. These data demonstrate that a lot of goals were scored from individual actions based on the player's skills, and less on the teamwork and cooperation.

Cumulative data from personal video analysis gave us the possibility to go deeper into the 4<sup>th</sup> phase of the Romanian offence. According to these, Romania played a mean number of 46 positional offence actions per game. It was interesting to remark how these actions were played, as shown in Figure 1.

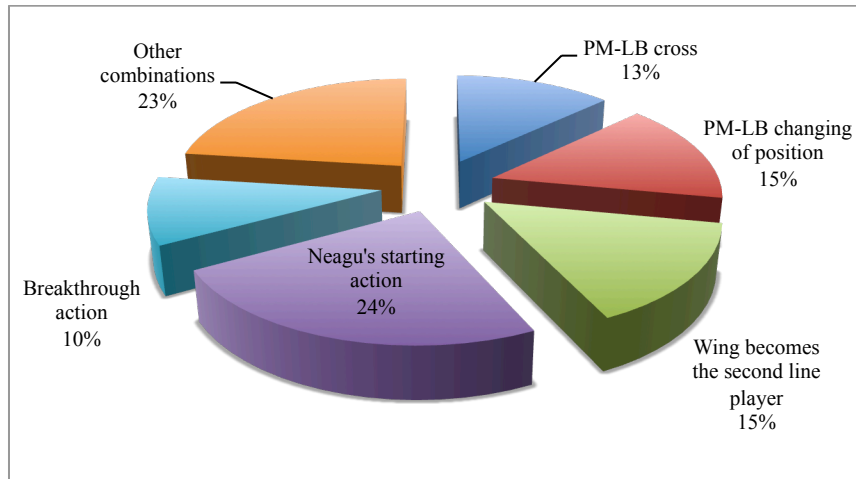


Fig. 1. Mean distribution of the offence actions per game

From the total of 46 actions per game, 11 were always initiated by the same player, the left back Neagu, who, due to an outstanding technique, could create many times numerical superiority on the other side of the court and gave the playmaker, right back or right wing the possibility to shoot from a favourable position. The number of these actions would have been higher if the opponents had not chosen to play in defence with a “man to man” to Neagu. 14% of the Romanian offence actions were played in this kind of special situations.

The tactical combinations mainly used by the national team were the cross between playmaker and left back (6 actions per game), bringing the left back on the centre of the field after changing position with the playmaker, without ball (7 actions per game), the circulation of the wing till the opposite back player and becoming the second line player after passing the ball (7 actions per game). The absence of a left-handed right back mattered enormously. Counting the actions mentioned above, it can be observed the predilection of the team to play a lot from the left to the right side of the field, and also the team’s dependency on the undoubted value of Cristina Neagu. At the end of the tournament, she found her place in the All Star Team of the European Championship.

According to the statistical analysis, how Romania played in special situations of inferiority and superiority highlighted some important things. Romania had a total of 26 eliminations of 2 minutes, from which it managed to score only 9 goals out of 33 actions, and received 25 goals out of 36 actions of the opponents. The team played 19 periods of superiority, from which it scored only 11 goals in 21 actions. The good thing was registered in defence, where Romania managed to stop 14 actions from a total of 17, meaning that our opponents succeeded in only 17% of their actions.

### 3.2. Technical and tactical parameters of the Romanian defence

**Table 3.** Tops made for sections of the defence

	Romania	Position	First team
Top Goals Received per Game	22.8/game	2	France: 21.4/game
Top Blocked Shots	1.2/game	16th	Russia: 6,3/game
Top Steals	4/game	10th	Poland: 6.3/game
Top Goalkeeper Saves	Paula Ungureanu: 40%	2	Solberg (Nor): 41%

According to the table, Romania received a very low number of goals per game, being ranked second in this top, after France. A primordial contribution was brought by the Romanian goalkeeper, Paula Ungureanu, who managed to save 40% of the shots thrown to her goal.

The number of steals succeeded per game was relatively low and was obtained by the middle defenders from around the opposite line player. The fact that these actions are missing from the zone of the lateral defenders may signal some lack of initiative.

Even if the mean height was raised (177cm), the number of blocked shots in this tournament threw Romania on the last place of the top.

### 4. Discussions and conclusions

Dividing the Romanian game into compartments, it can be observed that Romania handled the defence much better than the offence actions. The defenders showed availability for great efforts, and when the defence was beaten, the goalkeeper's interventions saved the team, and this comes to support the opinion according to which the goalkeeper has a huge importance for a handball team.

One of the most alarming things observed in the handball played by Romania was the very low number of goals scored after a fast action (fast breaks and second phase of attack). 10% of this kind of actions is 3 times lower than what is required in the modern handball of our times, and the low scoring efficiency is a direct consequence of this aspect.

The tops made for defence and offence place the Romanian team in the lowest part of the ranking, even lower than the place occupied at the end of the European Championship. However, there are two rankings where Romania is in top 3, and these ones refer to individual accomplishments and targeting Cristina Neagu and Paula Ungureanu.

Following this research, we have come to the conclusion that Romania can consider itself unlucky regarding the long list of unavailable players. The absence of Ada Nechita, Oana Manea, Melinda Geiger or Luciana Marin affected the structure of the game, especially for the offence phase. Under these circumstances, the handball played by the Romanian team, according to the statistical analysis, is fully reflected in the ranking of the team at the end of the European Championship.

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