THE ANALYSIS OF THE EFFICIENCY OF USING FASTBREAKS IN FEMALE HANDBALL DURING THE WORLD CHAMPIONSHIP IN CHINA, 2009

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Abstract
Fastbreak has become, for all good teams, one of the main concerns, and also an efficient way of scoring goals. From the statistical data we can notice the fact that the finalist teams in the Olympic Games, World Championships and European Championships scored about 20-30% goals by this kind of actions.

The hypothesis of the research: We have assumed the fact that studying the fastbreak efficiency on the teams from the first four places at the World Championship in China, 2009, will have a substantial contribution in modelling the performance capacity of the female national handball teams.

The object of the research consists of the performance capacity of the handball female players of the national teams participating in the World Championship in China, 2009.

The objectives of the research: to study and generalize the data from the handball studies, as regarding the model of the game in the female handball teams; to appreciate the importance of using the fastbreaks by the female handball teams in accordance with the latest results in the world; to determine the parts of the prospective game model for fastbreaks for the female handball teams.

The research methods we have used are: analysing speciality studies, pedagogical observation, statistical method of processing and analysing of the research data. In order to centralize the data we have used the official statistics of the International Handball Federation for this tournament, statistics that are published on the internet at the following address: http://www.ihf.info/front_content.php?idart=2200.

The subjects of the research are the female national handball teams which have taken part in the final tournament of the Handball World Championship in China, 2009. We have included in the research those teams situated in the first four places at the end of the tournament.

Conclusions:
The place of the fastbreak in the modern female handball is extremely precise, because when this is being used during the match, the players score 23% (1351) from the whole number of goals at this championship. Among all the finalizing situations, the fastbreak is the most efficient, about 69%, because by the means of this attacking form, players remove a lot of fighting with the opponent. The team from Spain have scored 14,60% of the goals using the fastbreaks. Norway have scored 33,33% of the whole number of goals by counterattack. France have succeeded to score 29,84% of the total number by the means of fastbreaks, and the world champion, Russia, have scored 26,98 % of the whole number of goals by using the first two phases of the attack.

Key words: fastbreak, handball, women national teams, World Championship, efficiency.

Introduction
Handball game knows a continuous development. Because of the harsh competitions, the specialists are looking for methods and means by which to perfect the way of playing, as well as the training process. Beginning with the analysis of the game played by the teams taking part in the biggest European and World Championships, we can synthesize the main aspects of the modern game.

Most specialists believe that the increasing speed in the court, combined with numerous technical methods is a dominant trend in all the players’ individual actions and this fact determines a permanent increase of the rhythm of the game. (I Bota, 1984, 1998, F.Biro, C., Roman, 2003). Fastbreak represents the phase in which the ball, re-entered in the possession of the defending team on the shortest way, goalkeeper – player or goalkeeper – intermediary - player is finalized and the oponent players don’t have time to place themselves in the organized defence system. (Gh Zamfir,., and colab., 2001). Due to its efficiency, the fastbreak should be used by every team aiming to obtain superior performances.

Studying the statistical data we can notice the fact that the finalist teams in the Olympic Games, European and World Championships have scored 20-30% of the goals by this kind of actions. The success of this phase depends a lot of the way it is exercised during the trainings.

The limitative factors in using the fastbreak, as they are considered by the handball specialists ( I. K., Ghermanescu,1978) are:
- the players don’t have skills to manipulate the ball in speed;
- the team isn’t successful in gaining the ball in order to initiate the fastbreak;
- the players don’t possess a good tactic way of thinking to be able to see all the situations appearing during the game, depending on the opponents and the co-players;
- the team doesn’t have players with good speed qualities, doubled by a special training.

The hypothesis of the research: We have assumed the fact that studying the fastbreak efficiency on the teams from the first four places at the World Championship in China, 2009, will have a substantial contribution in modelling the performance capacity of the female national handball teams.

The object of the research consists of the performance capacity of the handball female players of the national teams participating in the World Championship in China, 2009.

The subject of the research is the efficiency of the fastbreaks played by the female handball national teams at the World Championship in China, 2009, the last important tournament of the year.

The objectives of the research:

- to study and generalize the data from the handball studies, as regarding the model of the game in the female handball teams;
- to appreciate the importance of using the fastbreaks by the female handball teams in accordance with the latest results in the world;
- to determine the parts of the prospective game model for fastbreaks for the female handball teams.

The research methods we have used are: analysing speciality studies, pedagogical observation, statistical method of processing and analysing of the research data. In order to centralize the data we have used the official statistics of the International Handball Federation for this tournament, statistics that are published on the internet at the following address: http://www.ihf.info/front_content.php?idart=2200.

The subjects of the research are the female national handball teams which have taken part in the final tournament of the Handball World Championship in China, 5 - 20th December 2009. There were 24 teams, each of these having 16 players. The average age of the female handball players at the final tournament was 25.06 years old, and the average of the international matches played there was 46.05.

Data from the research:
The Female Handball World Championship is a competition extremely overloaded as regarding the number of the matches, but very challenging from the point of view of the physical effort of the players. The final tournament requires the organizing of 110 handball matches. The teams on the first 5-24 places play 9 matches each, and every national team from places 1-4 play 10 matches during those 16 days of the competition.

The opponents have different values, so as after 5 matches played in the preliminary group, there are 3 matches to be played in the main group, with opponents of greater value. The way that such a final tournament is organized means the fact that 10 matches are played by a team in 16 days. It is presented below:

- Days 1, 2, 3, 5, 6 = matches in the preliminary group;
- Day 4 = break;
- Day 7 = break + the team moves to another town;
- Day 8, 9, 11 = match in the main group;
- Day 10 = break;
- Day 12, 13 = break + moving to another town;
- Day 14 = match in the semifinals;
- Day 15 = break;
- Day 16 = match in the final.

The Russian national team have won the third consecutive world title and the 7th in the history of the Female Handball World Championships. On the second and third places there were the national teams of France and Norway. After a very enthusiastic beginning, the Romanian national team was on the 8th place and most of the specialists considered it to be a weak participation as compared with the value and the tradition of the female handball in Romania.

<table>
<thead>
<tr>
<th>Shots by breakthroughs/ outrunning</th>
<th>Goals</th>
<th>Throwings</th>
<th>Efficiency %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>5968</td>
<td>11344</td>
<td>53</td>
</tr>
<tr>
<td>6 m shots</td>
<td>1377</td>
<td>2415</td>
<td>57</td>
</tr>
<tr>
<td>Wing shots</td>
<td>775</td>
<td>1553</td>
<td>50</td>
</tr>
<tr>
<td>9 m shots</td>
<td>1116</td>
<td>3465</td>
<td>32</td>
</tr>
<tr>
<td>7 m shots</td>
<td>661</td>
<td>911</td>
<td>73</td>
</tr>
<tr>
<td>Fastbreak</td>
<td>1351</td>
<td>1956</td>
<td>69</td>
</tr>
</tbody>
</table>

Table nr. 1 Total number of goals scored at the WC, China, 2009
Diagram nr. 1 Distribution of the finalizing actions

During the 110 matches played at the final tournament, for the female teams there were 5968 goals scored from a total of 11344 shots. The average number of goals scored in a match is 54.25 goals, and the average number of shots in a match is 103.13. So, every team succeeded in scoring an average of 27.12 goals in a match, and the average of shots for every participating team is 51.56 shots/match. Analizing the total number of goals we can notice the fact that in order to score, there were necessary about two attempts to finalize during the 60 minutes of playing. The rhythm of the game was very intense, so that there was an average of a goal scored every 67 seconds.

After we had centralized the total number of shots, we noticed that most goals were scored by using fastbreaks, and this is because it is an easy way to score, the fight with the organized defence being almost eliminated. From the total number of throws, there are 1956 attempts of the players to score by fastbreaks. The average of throwings by fastbreaks is 17.78 a match, for both teams. The number of goals scored by the female teams by fastbreak is 1351, and this fact offers this attacking phase an efficiency of 69%. We can notice the fact that from the point of view of the efficiency, scoring a goal by fastbreak is inferior only to penalty shots from 7m, where we register a very big rate of efficiency, 73%.

From the total number of shots, the fastbreak shots to the goal represent a rate of 22.6%. During the organized attack by throwing to the goal from the distance, the players succeeding in scoring a number of 1116 goals from a total of 3465 shots, and this represents the second variant as the number of attempts, and also as successes. The throwings to the goal by breakthroughs and outrunning have an increasing efficiency, so that by this way of finalizing there were 688 goals scored, from 1044 shots, and the efficiency is 66%.

The data regarding the way fastbreak is used by the female national teams placed on the first four places at the World Championship in China, 2009, are presented in the table below:

<table>
<thead>
<tr>
<th>Team</th>
<th>Spain</th>
<th>Norway</th>
<th>France</th>
<th>Russia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G</td>
<td>S</td>
<td>E %</td>
<td>G</td>
</tr>
<tr>
<td>Fastbreak</td>
<td>39</td>
<td>55</td>
<td>71</td>
<td>101</td>
</tr>
<tr>
<td>6 m shots</td>
<td>92</td>
<td>135</td>
<td>68</td>
<td>93</td>
</tr>
<tr>
<td>Wing shots</td>
<td>22</td>
<td>46</td>
<td>48</td>
<td>32</td>
</tr>
<tr>
<td>9 m shots</td>
<td>28</td>
<td>85</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>Shots by breakthroughs/</td>
<td>44</td>
<td>74</td>
<td>59</td>
<td>21</td>
</tr>
<tr>
<td>outrunning</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 m shots</td>
<td>42</td>
<td>58</td>
<td>72</td>
<td>23</td>
</tr>
<tr>
<td>Total number of shots</td>
<td>267</td>
<td>453</td>
<td>59</td>
<td>303</td>
</tr>
</tbody>
</table>

Legend: G=goals scored; S=shots; E=efficiency
The National team of Norway has the
biggest number of goals scored by fastbreak. This
team scored during the tournament a total number
of 101 goals from 133 shots, with an efficiency of
76 %. Russia succeeded in scoring 85 goals from
127 shots, with an efficiency of 67 %. The national
team of France scored 77 goals from 113 shots,
with an efficiency of 68 %. The least number of
goals scored by fastbreak is that of the team of
Spain, which scored only 39 goals from a total
number of 55 shots, with an efficiency of 71 %.

The technical elements of the fastbreak
with the teams from the first four teams are very
well learnt by all the players, and so we can explain
the excellent rate of efficiency of this phase. We
can mention that the efficiency of the fastbreak
phase presents values between 67-76%. This is
considered to be very good by all specialists in
handball.

For the teams from the first four places at
this tournament, fastbreak is the main way of
scoring a goal, as compared with the other
finalizing situations, that is shots from 6m, shots
from 9m, shots by breakthroughs/ outrunning or
shots from 7m.

Table nr. 3 Number of goals scored by the teams included in this study, by fastbreak, at different times

<table>
<thead>
<tr>
<th>Time</th>
<th>Spain</th>
<th></th>
<th>Norway</th>
<th></th>
<th>France</th>
<th></th>
<th>Russia</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>G</td>
<td>S</td>
<td>E (%)</td>
<td>G</td>
<td>S</td>
<td>E (%)</td>
<td>G</td>
<td>S</td>
</tr>
<tr>
<td>0'-10'</td>
<td>6</td>
<td>7</td>
<td>85</td>
<td>21</td>
<td>26</td>
<td>81</td>
<td>13</td>
<td>20</td>
</tr>
<tr>
<td>10'-20'</td>
<td>4</td>
<td>8</td>
<td>50</td>
<td>14</td>
<td>17</td>
<td>82</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>20'-30'</td>
<td>6</td>
<td>9</td>
<td>67</td>
<td>16</td>
<td>20</td>
<td>80</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
<td>24</td>
<td>67</td>
<td>51</td>
<td>63</td>
<td>81</td>
<td>43</td>
<td>61</td>
</tr>
<tr>
<td>First half</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30'-40'</td>
<td>9</td>
<td>10</td>
<td>90</td>
<td>22</td>
<td>31</td>
<td>71</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>40'-50'</td>
<td>7</td>
<td>9</td>
<td>78</td>
<td>17</td>
<td>23</td>
<td>74</td>
<td>11</td>
<td>17</td>
</tr>
<tr>
<td>50'-60'</td>
<td>7</td>
<td>12</td>
<td>58</td>
<td>11</td>
<td>16</td>
<td>69</td>
<td>15</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>31</td>
<td>74</td>
<td>50</td>
<td>70</td>
<td>71</td>
<td>34</td>
<td>52</td>
</tr>
<tr>
<td>Second half</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>39</td>
<td>55</td>
<td>71</td>
<td>101</td>
<td>133</td>
<td>76</td>
<td>77</td>
<td>113</td>
</tr>
</tbody>
</table>

Legend: G=goals scored; S=shots; E=efficiency
We can notice two main trends of using the fastbreak by the four teams in this study. The first trend implies scoring a big number of goals in the first half of the match, so, a game played in „running” in the first 30 minutes of the match. The second trend means scoring many goals by fastbreak in the second half of the game. The first half is the one in which the teams of Norway and France scored by using the fastbreak. Teams of Russia and Spain are the ones that succeeded in scoring more in the second half. During the whole tournament, the national team of Norway established a fast rhythm of the game, in speed, so that they succeeded in scoring 101 goals from 133 shots, with an efficiency of 77%. It is followed, of course, by the national team of Russia (the world champion), that scored 85 goals by fastbreak, from 127 shots, with an efficiency of 67%. The French team scored 77 goals from 113 attempts, with an efficiency of 68%. and the national team of Spain is the last in this classification, with 39 goals from 55 shots. The difference between Norway (the maximum value) and Spain (the minimum value), so, between the team in the first place and the one on the fourth place in this classification is of 61 goals, and the difference between the number of shots on fastbreak, between the two teams is of 78 shots. The average number of goals scored during a match is 10.1 for Norway, followed by 8.5 for Russia and 7.7 goals scored during a match by the national team of France.

On the basis of centralising these data we can foreshadow A MODEL OF THE GAME for fastbreak in the female handball for a final tournament of 10 matches, a model we describe below:

- Norway score 21 goals during the first half of the match (1‘-10’);
- The second half belongs to Russia, because they scored 17 goals (a double value as compared with the first half);
- The end of the first half belongs to the team of France, which score 19 goals, and this proves the fact that they emphasize the difference of the score at the end of the first half;
- The time between minute 30 and minute 40 belongs to Norway again. They score 22 goals by fastbreak. This shows the fact that this team begins with great force every half of the match;
- The middle of the second half is prevalent of the national team of Norway, with a high raised rhythm of the game, based on very fast attacks, scoring 17 goals during this time;
- The end of the match belongs to the world champion Russia, which, in the last 10 minutes of the game scored 16 goals by fastbreak, proving a very good physical preparation, superior to all the opponents by the intense rhythm of the game and by the great number of goals scored: 16.

Discussions:
Fastbreak as a form of attacking, must be used more frequently during the games of the first national teams. The team must be prepared to score about 20-30 % of the goals by fastbreak, as shown by Vick, W., Busch, H., Fisher, G., Kock, R., (1995). Fastbreak will be used during the match in an average of 12-14 actions from the total number of ball possessions, that is 15-17 %. It is not impossible to do this, if the players will have their attention on each situation of possessing the ball, using the best exercises. In the same time, we have to develop the habit and the skills of going on fastbreaks, following very well established rules and principles.

The model of the game will have: the fastbreak model, the technic and tactic actions model, the physical qualities of the players, as it is said by Baștiurea E., (2006).

a) The model of the fastbreak with a pass directly to the first attacking player:
- The length of fastbreak progressing with an attacking player with the girls: 4,0”-4,1”;
- The efficiency of shots to the goal from the semicircle from 6 m: 95%;
- The efficiency of throwing to the goal from the semicircle of 8-10 m: 80%;

b) The model of the technic and tactic actions:
- fast grabbing of the ball;
- the rapid start and speed running;
- rapid throwing of the ball;
- catching the ball coming from behind;
- simple or multiple dribbling;
- throwing to the goal;

c) Physical qualities of the players:
- speed running on 30 m: Girls = 4,0”-4,1”;
- reacting speed;
- the ability in running and in fighting with the opponent;

Conclusions
1. The place of the fastbreak in the modern female handball is extremely precise, because when this is being used during the match, the players score 23% (1351) from the whole number of goals at this championship. Among all the finalizing situations, the fastbreak is the most efficient, about 69%, because by the means of this attacking form, players remove a lot of fighting with the opponent. The team from Spain have scored 14,60% of the goals using the fastbreaks. Norway have scored 33,33% of the whole number of goals by counterattack. France have succeeded to score 29,84% of the total number by the means of fastbreaks, and the world champion, Russia, have
scored 26.98% of the whole number of goals by using the first two phases of the attack.

2. Norway is the team whose game is based mostly on finalizing by rapid attack. They scored 101 goals from 133 shots, with an efficiency of 76%. This team is the leader as regarding the general rates, it is considered to be an experienced team, on the third place at the end of the tournament.

3. The coaches use a different strategy, so the team of Spain is cautious in playing in speed. They prefer more attacking in a system the teams (Russia, Norway) that don’t lose any opportunities of using the fastbreak in order to score as rapid as possible a goal with a discouraging effect on the opponent team. These teams are very well taught to play in defence, to gain the ball, and from that moment, two or three players are ready to win the ball by the other players in her team. The next is the pass to the first attacking player, running to the opponents’ semicircle. They often succeed in doing it, and the efficiency is over 67% with three of the teams in this study.

4. The effects of the goals scored by fastbreak have a negative effect on the opponents and a positive one on the team that scores a goal. In the future we can see an increasing efficiency of the technic and tactic elements to gain the ball, for the teams in defence, and an increasing speed in running on the fastbreak to the opponents’ goal. As finalizing proceedings we can foresee scoring of some spectacular goals that attract the audience to a handball show, of ways of finalizing by the means of which the player who has scored to be able to go back in defence, not to be taken by surprise by a rapid attack after scoring for a game.

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