# Features of draws of corner kicks in games of teams of high qualification 

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Purpose: to define quantity and efficiency of corner kicks in games of teams-participants of the World Championship of 2014.

Material \& Methods: analysis of scientific and methodical literature, registration of technical and tactical actions, methods of mathematical statistics. The research of the competitive activity was carried out with teams-participants of the World Championship of 2014.

Results: quantitative and quality indicators of draws of corner kicks in games of teams of high qualification are presented.
Conclusions: teams-participants of the World Cup of 2014 carried out 5,2 corner kicks. The efficiency of draw of corner kicks made $44,5 \%$ on average for a game.

Keywords: corner kick, pass, zone of a penalty area, flank, efficiency.

## Introduction

The works of many experts are devoted to questions of studying of the efficiency of implementation of standard provisions by football players of different qualification $[1 ; 4 ; 6 ; 7 ; 8 ; 10]$.

Successful performance of any standard provision at gate of the rival is the prerequisite for a real completion of the attacking actions of a team [9; 12]. To such provisions concern: an initial blow from a midfield, penalty, free, corner, eleven-meter kick and a throw-in of a ball from behind a sideline, a blow from the gate and it is rather rare, a draw of a disputable ball.

Modern tactics and technique of draws of corner kicks creates a set of real opportunities to score a goal. The success at draws of this situation depends mainly on three major factors:

- from the clearness of planning and correctness of the organization of a game, which the ultimate aim of which - is the achievement of maximum efficiency of actions both certain football players and links, and teams in general;
- from the observance of the game discipline which us based on an accurate performance of the duties by each player;
- from the accuracy and timeliness of serving of a ball from an angular sector.

According to V. M. Shamardin [9], "contribution" of goals which are stuffed after a performance of corner kicks to the general productivity makes 5-11\%.

These results are confirmed by data of G. A. Lisenchuk [5] according to which, teams in games of the World Cup of 1990
after a performance of corner kicks scored 9 goals from 115 ( $7,8 \%$ ), and in the World Cup of $1994-7$ goals from 141 (5\%). According to some experts [2], "contribution" of the goals which are scored when performing corner kicks to the general productivity can be increased, in particular, by passes from corner kicks to those areas of a penalty area where conditions for goal optimum, and the choice of a rational trajectory of flight of a ball.

As authors [2] note, the number of the corner kicks which are carried out by a team in a game can fluctuate in very big limits - from zero to ten-fifteen. Both meeting teams are executed on average by ten-twelve corner kicks in competitions of high level for a match.

Slightly more corner kicks are appointed with the right part (from the point of view of the attacking team) that, most likely, it is possible to explain with the existence of lateral advantage at performance by a person of physical actions [3].

Players carry out corner kicks in two ways:

- a ball is sent directly to a penalty area of the defending team by the first contact (approximately in $90 \%$ of cases);
- a ball is drawn, carrying out several actions during a delivery of a ball to a shock position.

The efficiency of these ways of a performance of corner kicks from the point of view of probability of goal approximately identical (about 3\%) is also comparable to the efficiency of the blows in gate which are struck from behind a penalty area from a game.

The objective of the research

To define quantity and efficiency of corner kicks in games of teams-participants of the World Cup of 2014.

## Material and Methods of the research

Research methods: analysis of scientific and methodical literature, registration of technical and tactical actions, methods of mathematical statistics. The research of the competitive activity was carried out with teams-participants of the World Cup of 2014.

## Results of the research and their discussion

Quantitative and quality indicators of corner kicks of teamsparticipants of the WC-2014 in different pieces of playing time are presented in the tab. 1.

Table 1
Quantity and efficiency of corner kicks in different pieces of playing time $(\mathrm{n}=128)$

| Time | Total amountOn average for <br> a game | Efficiency |  |
| :--- | :---: | :---: | :---: |
| $\mathbf{1 - 1 5}$ | 62 | $0,5 \pm 0,1$ | $39,0 \pm 6,6$ |
| $16-30$ | 86 | $0,7 \pm 0,1$ | $44,3 \pm 6,0$ |
| $31-45$ | 132 | $1,0 \pm 0,1$ | $30,2 \pm 4,5$ |
| $46-60$ | 100 | $0,8 \pm 0,1$ | $48,5 \pm 5,4$ |
| $61-75$ | 108 | $0,8 \pm 0,1$ | $44,0 \pm 5,5$ |
| $76-90$ | 153 | $1,2 \pm 0,1$ | $54,4 \pm 4,9$ |
| 91-105 | 13 | $0,8 \pm 0,2$ | $35,2 \pm 14,8$ |
| $106-120$ | 14 | $0,9 \pm 0,3$ | $28,6 \pm 14,9$ |
| I time | 280 | $2,2 \pm 0,1$ | $35,7 \pm 3,5$ |
| II time | 361 | $2,8 \pm 0,2$ | $51,1 \pm 3,3$ |
| Overtime | 27 | $1,7 \pm 0,4$ | $29,9 \pm 11,1$ |
| Total | 668 | $5,2 \pm 0,3$ | $44,5 \pm 2,3$ |

The results of the table demonstrate that the number of corner kicks gradually increased by the end of each of times. At the same time the efficiency of draws of corner kicks in different game pieces was unequal.

It is visible from the tab. 2 that teams executed slightly more corner kicks in the games WC-2014 on the right flank. So, from 668 corner kicks 360 was on the right flank and 308 on left. This circumstance, most likely, can be explained with the existence of lateral preference at performance by a person of physical actions.

Table 2
Quantity and efficiency of corner kicks on different flanks of the football field ( $\mathrm{n}=128$ )

| Flank | Total amountOn average for <br> a game | Efficiency |  |
| :--- | :---: | :---: | :---: |
| Right flank | 360 | $2,8 \pm 0,2$ | $42,4 \pm 3,1$ |
| Left flank | 308 | $2,4 \pm 0,2$ | $46,9 \pm 3,4$ |
| Total | 668 | $5,2 \pm 0,3$ | $44,5 \pm 2,3$ |

At the same time the efficiency of corner kicks on the left flank was higher ( $46,9 \pm 3,4 \%$ ), than on the right flank ( $42,4 \pm 3,1 \%$ ).

As a result of the conducted research it was established (tab. 3) that 113 corner kicks were drawn by means of short and average passes (on average for a game $0,9 \pm 0,1$ ), and by means of a pass in a penalty area of the rival -555 were drawn (on average for a game $4,4 \pm 0,2$ ).

Table 3
Ways of draw of corner kicks ( $\mathrm{n}=128$ )

| Way of draw | Total amountOn average for <br> a game | Efficiency |  |
| :--- | :---: | :---: | :---: |
| Short or average <br> pass of a ball | 113 | $0,9 \pm 0,1$ | $100,0 \pm 0,0$ |
| Delivery of a ball <br> in a penalty area | 555 | $4,4 \pm 0,2$ | $33,5 \pm 2,4$ |
| Total | 668 | $5,2 \pm 0,3$ | $44,5 \pm 2,3$ |

It should be noted that the efficiency of draws of corner kicks by means of short passes in games of the World Cup made $100,0 \pm 0,0 \%$, and on a delivery a ball in a penalty area $33,5 \pm 2,4 \%$.

Besides, it was established (tab. 4) that 533 passes were carried out from 668 corner kicks on high ground $(4,2 \pm 0,2$ on average for a game) and 135 - along the bottom ( $1,1 \pm 0,1$ on average for a game).

Table 4
Trajectory of a flight of a ball at passes from corner kicks

| Trajectory | Total amountOn average for <br> a game | Efficiency |  |
| :--- | :---: | :---: | :---: |
| On high ground | 533 | $4,2 \pm 0,2$ | $33,1 \pm 2,4$ |
| Along the bottom | 135 | $1,1 \pm 0,1$ | $89,7 \pm 3,2$ |
| Total | 668 | $5,2 \pm 0,3$ | $44,5 \pm 2,3$ |

At the same time the efficiency of passes on high ground made $33,1 \pm 2,4 \%$, and along the bottom $-89,7 \pm 3,2 \%$.

The analysis of ways of a delivery of a ball in a penalty area of the rival from corner kicks demonstrates that 285 were carried out from 555 passes in a goal range and 270 from gate.

Table 5
Way of a delivery of a ball in a penalty area from corner
kicks ( $\mathrm{n}=128$ )

| Way | Total amountOn average for <br> a game | Efficiency |  |
| :--- | :---: | :---: | :---: |
| In a goal range | 285 | $2,2 \pm 0,2$ | $30,9 \pm 3,2$ |
| From gate | 270 | $2,1 \pm 0,2$ | $35,5 \pm 3,3$ |
| Total | 555 | $4,4 \pm 0,2$ | $33,5 \pm 2,4$ |

The efficiency of ways of a delivery of a ball in a penalty area of the rival was different. So, the efficiency of passes in a goal range made $30,9 \pm 3,2 \%$, and passes from gate $-35,5 \pm 3,3 \%$.

This situation is confirmed by practical experience and researches in different types of sport which show that it is more convenient to catch and return a ball when it moves to a sportsman, and more difficultly when the ball, moving on an

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arch, as if it leaves him. It is caused by many reasons, mainly features of oculomotor reactions and biomechanical factors. Therefore it is easier for a goalkeeper and field players of the defending team to reflect the balls which were sent from corner kicks when they twist towards gate.
The data of volume and efficiency of the passes which are executed by football players from corner kicks in a goal range in different zones of a penalty area are presented in the table 6.

It is visible from the table that teams-participants of the WC2014 executed 151 passes to the goalkeeper square, 123 passes - in the zone between a goalkeeper area and an elev-en-meter mark, 10 passes - in the zone between an elevenmeter mark and the penalty line of the area and 1 pass out of limits of a penalty area.

At the same time football players in the games WC-2014 drove the ball in a penalty area in blow in a goal range of 78 times on a near bar, 166 times in an average zone and 41 times on a distant bar.

The data of volume and efficiency of the passes which are executed by football players from corner kicks from the gate in different zones of a penalty area are presented in the tab. 7 .

These tables demonstrate that football players in games of the World Cup of 2014 executed in blow from gate 84 passes to the goalkeeper square, 162 passes - in the zone between a goalkeeper area and an eleven-meter mark, 22 passes - in the zone between an eleven-meter mark and the penalty line of the area and 2 passes out of limits of a penalty area. Also team players drove the ball in a penalty area in blow from gate 92 times on a near bar, 149 times in an average zone and 29 times on a distant bar.

As a result of the conducted research it was established (tab. 8) that from 668 corner kicks in the games WC-2014 33 draws (4,9\%), in a penalty area - 460 (68,9\%), blow in gate - 151 (22,6\%), goal - 24 ended with a delivery of a ball with loss of a ball (3,6\%).

## Conclusions

1. Teams-participants of the WC-2014 on average for a game carried out $5,2 \pm 0,3$ corner kicks, with the efficiency of $44,5 \pm 2,3 \%$.
2. From 668 corner kicks 113 was played by means of short passes and 555 - by means of a delivery of a ball in a penalty

The volume and efficiency of the passes executed by football players from corner kicks in a goal range in different zones of a penalty area ( $n=128$ )

| Zone of area | Goalkeeper <br> area | Between the goalkeeper <br> area and an eleven-meter <br> mark | Between an eleven-meter <br> mark and the penalty line of of of limits <br> the area |
| :--- | :---: | :---: | :---: | :---: |
| area |  |  |  |

Note. In brackets - exact passes.

Table 7
The volume and efficiency of the passes executed by football players from corner kicks from gate in different zones of a penalty area ( $n=128$ )

| Zone of area | Goalkeeper area | Between the goalkeeper area and an eleven-meter mark | Between an eleven-meter mark and the penalty line of the area | Out of limits of a penalty area | Total |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Near bar | 49 (8) | 41 (12) | 2 (2) | 0 | 92 (22) |
| Average zone | 33 (6) | 104 (43) | 11 (6) | 1 (1) | 149 (56) |
| Distant bar | 2 (1) | 17 (8) | 9 (7) | 1 (1) | 29 (17) |
| Total | 84 (15) | 162 (63) | 22 (15) | 2 (2) | 270 (95) |

Note. In brackets - exact passes.

Productivity of draws of corner kicks ( $n=128$ )

|  | Result | Quantity |
| :--- | :---: | :---: |
| Loss of a ball | 33 | 4,9 |
| Delivery of a ball to a penalty area | 460 | 68,9 |
| Blow in gate | 151 | 22,6 |
| Goal | 24 | 3,6 |
| Total of corner kicks | 668 | 100,0 |

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area of rivals.
3. 285 from 555 passes were carried out in a goal range and 270 from gate in a penalty area of the rival.
4. The efficiency of passes in a goal range made $30,9 \pm 3,2 \%$, and passes from gate $-35,5 \pm 3,3 \%$.
5. Football players of the attacking and defending team have to identify from what corner and what leg a player carries out a pass. A ball is directed more often to the average zone between the line of a goalkeeper area and an eleven-meter mark, when performing corner kicks with premise a ball from gate, to what the defending team has to be ready. It is neces-
sary to operate on a near corner of a goalkeeper area and a near bar especially attentively during corner kicks when a ball is tightened up to gate. It is desirable to leave in these zones of one or two players which will act on a ball during a defense In the absence of the defending player on a near corner of a goalkeeper area, a player who is carrying out a pass, and the opening players have to be able to identify independently similar situations during a match and to use a free zone for the implementation of blow in gate.

Prospects of further researches. The further researches will be devoted to studying of corner kicks in games of the European championship of 2016.

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## References

1. Golomazov, S., Rusanov, A. \& Chirva, B. 2001, [The analysis of performance penalties and free kicks in the games highly qualified teams] Teoriya i praktika futbola [Theory and practice of football]. Moscow, Vol. 11, No 3, pp. 2-5. (in Russ.)
2. Golomazov, S., Rusanov, A. \& Chirva, B. 2001, [Patterns of "winning" ball players attacking and defending teams when performing corner kicks] Teoriya i praktika futbola [Theory and practice of football]. Moscow, Vol. 9, No 1, pp. 7-11. (in Russ.)
3. Golomazov, S. 2001, [The right-left-sided preference for teaching young players the art of possession of the ball] Teoriya i praktika futbola [Theory and practice of football]. Moscow, Vol. 12, No 4, p. 31. (in Russ.)
4. Golomazov, S., Rusanov, A. \& Chirva, B. 2001, [Typical game situations. The area from which you are passing the ball forward in the direction of the opponents' goal in the long distances from the penalty and free kicks, and the main directions of the field sends the ball when performing data transfers] Teoriya i praktika futbola [Theory and practice of football]. Moscow, Vol. 10, No 2, p. 5. (in Russ.)
5. Lisenchuk, G. A. 2003, Upravleniye podgotovkoy futbolistov [Management training football players]. Kiyev : Olimpiyskaya literatura, 272 p. (in Russ.)
6. Perevoznik, V. I. \& Pertsukhov, A. A. 2010, [Quantitative and qualitative analysis of the standard provisions of the players in the games of the Premier League Championship Ukraine] Slobozhanskii naukovo-sportyvnyi visnyk [Slobozhanskyi science and sport bulletin]. Kharkiv: KSAPC, No 1, pp. 34-39. (in Ukr.)
7. Sychev, B. V. 2009, [The study of competitive activity of highly skilled football players] Slobozhanskii naukovo-sportyvnyi visnyk [Slobozhanskyi science and sport bulletin]. Kharkiv: KSAPC, No 4, pp. 49-53. (in Russ.)
8. Shalenko, V. V. \& Pertsukhov, A. A. 2012, [Features strikes the right performance gaming commands qualifications] Slobozhanskii naukovosportyvnyi visnyk [Slobozhanskyi science and sport bulletin]. Kharkiv: KSAPC, No 1, pp. 76-80. (in Ukr.)
9. Shamardin, V. N. 2002, Modelirovaniye podgotovlennosti kvalifitsirovannykh futbolistov [Simulation training of skilled football players]. Dnepropetrovsk: Porogi, 200 p. (in Russ.)
10. Shamardin, V. N. 2012, Tekhnologiya podgotovki futbolnoy komandy vysshey kvalifikatsii [The technology of preparation of the football team of highly qualified]. Dnepropetrovsk: Innovatsiya, 352 p. (in Russ.)

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