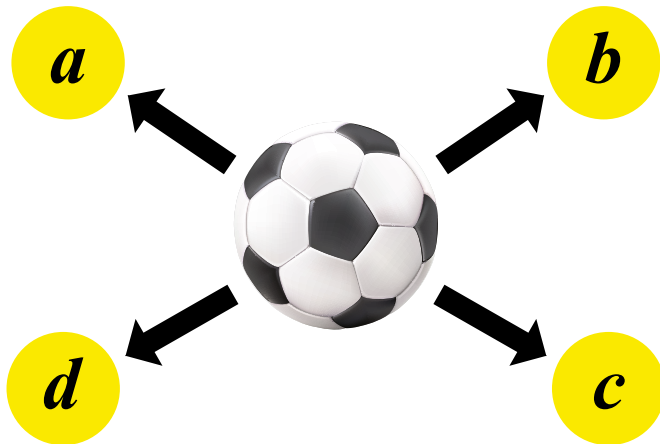


V. M. Kostiukevych

# MODELS OF FOOTBALL TACTICS



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The monograph presents the methods of control and analysis of competitive activity in football. Four tactical models of game by football teams are specified.

The key parameters of technical and tactical activity by players of various playing roles are characterized.

For coaches, players, teachers, graduates, postgraduates, research scientists.

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# PREFACE

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The issue of effective management of competitive activity of a football team is the most important in the overall system of the players training. Competitive activity is a kind of an exam on the results of which the athletes' level of training is estimated.

To some extent the material presented in this monograph will provide an opportunity, on the one hand, to improve football experts', especially coaches' knowledge of the trends in football development, and, on the other, to analyze competitive activity of the football team more specifically, taking into account the quantitative and qualitative indicators, which display the essence of the football game.

The monograph depicts the results of a long-term study of competitive activity of highly qualified players. It consists of five chapters, each of which presents the material characterizing the main objectives of the study dedicated to the problem of tactics of football teams play.

The first chapter highlights the evolution of football tactics. The general aspects of the game are stated, and the retrospective analysis of four stages of football development, namely naive, romantic, rational and total, is made.

The second chapter presents the authorial methodology of control over the competitive activity in football both of players of different roles, and of the team on the whole.

The third chapter is devoted to the analysis of the results of the study of highly qualified players' competitive activity. Model values of integral estimation of technical and tactical activity of players and teams are defined therein.

The fourth chapter focuses on the tactical models of competitive activity in football. Among these are the four tactical models of play in football: TM A, TM B, TM C, TM D.

In this chapter the main components of tactical models of competitive activity of highly qualified football teams are defined.

The fifth chapter provides the analyses of the competitive activities of the national football teams at the 2018 World Cup. The national teams play is characterized, depending on tactical models.

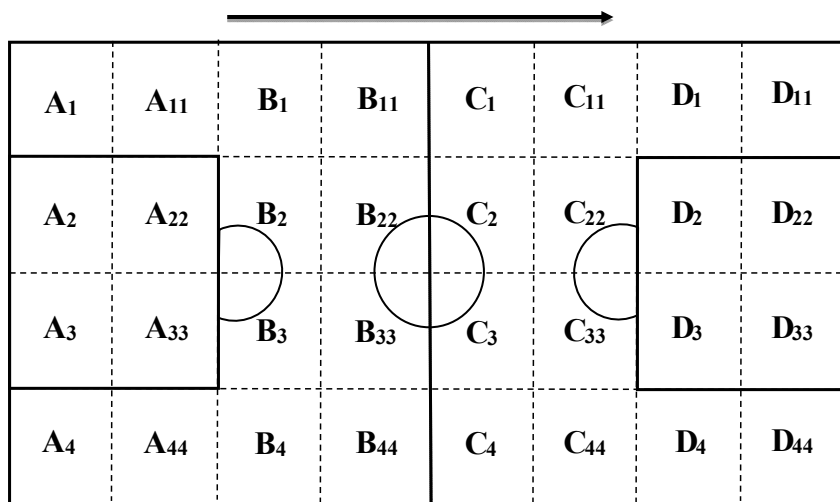
The author will respectfully and gratefully accept all comments and suggestions on the problem under study.

*Author*

## List of abbreviations

- IE — integral estimation;
- CA — competitive activity;
- TTA — technical and tactical action;
- CCM — coordination complexity mode;
- HP — holding passes;
- DP — developing passes;
- AP — aggravating passes;
- TTS — technical and tactical skill.

## Designation of playing field zones



# CHAPTER 1

## Evolution of the game tactics

---

### 1.1. General aspects of football tactics

Management of competitive activity in football is based on such concepts as strategy, tactics, tactical training, system, style, rhythm, pace, combination, etc. G. D. Kachalin (1986), a well-known Soviet coach, describes a strategy as an integral part of sports, which subordinates its other parts — sports leadership, tactics, etc. It defines the main direction in the players' training, provides for the development of a plan for the distribution of forces on the long path of competitions and solution of a number of organizational tasks.

**Strategy** is the most capacious concept in the system of training and competitive activity of football players. Preparing for team competitions strategy includes the following managerial actions of a coaching staff: team building, physical and functional training, game formation, determination of the lineup, determination of the starting eleven, the choice of tactics for each match, operative management of the game in the match. An effective solution to all these tasks enables us to talk about a strategically correct approach to the management of a football team.

If a strategy is considered only in the competitive aspect, then first of all it is necessary to strategically correctly plan the competitive activity in the competition on the whole — in a short-term or a longer one, as an example, the national championship. This raises the challenge of purposeful team preparation on the basis of the chosen strategy for every single game. For this the game tactics is needed.



**Tactics** is a part of a strategy, its subordinate and attendant. If a strategy presupposes achieving the ultimate goal, the tactics solves the problem of a single match (G. Kachalin, 1986).

Football experts characterize tactics as the organization of the players' individual and collective actions aimed at achieving victory over the opponent (M. Polishkis, 1999) or as a set of forms, methods and means of combating the opponent, expressed in appropriate actions of players (team) aimed at achieving the objective of a single match (G. Kachalin, 1986).

Arpad Csanadi places the following demands on a playing system.

1. A playing system must be simple, understandable and easily implementable on the field.
2. A playing system should contribute to that extent to both attacking and defensive play.
3. A playing system should be flexible, i.e. applicable against any opponent.
4. A playing system ought to ensure a correct (proportional) formation of the players on the football field, i.e. a reasonable distribution of forces: provide the ability to concentrate them in that part of the field where it is most necessary in this game situation.
5. A playing system should embody the principle of collective responsibility, based on individual responsibility of players for actions on the field which works for the team and is premised on a fair "distribution of labor".
6. A playing system should provide the possibility of a constant transition from defense to attack and vice versa (A. Csanadi, 1981).

It should be clarified that tactics can be considered from the point of view of the opponent's expected reaction to tactical moves of the team. Thus, tactics can be algorithmic (based on prematurely planned actions), probabilistic (a certain beginning of actions with further options of continuation are planned, depending

on the specific reactions of the opponents and teammates), heuristic (built on the players' response, dependent on the specific reactions of their opponent) (V. Platonov, 2015).

**Tactical training of a football player** is a complex process that includes acquirement of all the necessary knowledge about the means and methods of conducting a contest and a system of technical and tactical training tasks, as well as test and official matches in which football players improve and bring their tactical skills to the optimal level.

The direction of tactical training is mainly derived from the definition of the concept "football tactics" by various specialists.

B.A. Arkadyev (1962) considers football tactics as an appropriate organization of players' interaction on the football field, aimed at obtaining in-game advantages over the opponent.

Arpad Csanadi (1981) explains football tactics as a planned and reasonable game, the goal of which is to achieve the best results.

V.V. Solomonko, G.A. Lysenchuk, A.V. Solomonko (1997) interpret football tactics as a deliberate method of combating the opponent within existing rules of the game, that is based on the skills and interaction of the players to achieve success in the game as quickly as possible and preserve it.

Football tactics can be considered as systematically rational interactions of players in the course of the match, which are aimed at achieving the target goal (V. M. Kostiukevych, 1997).

Based on the definitions of the football tactics notion, given above, it is possible to come to conclusion that under football tactics experts understand, first of all, a system of forms, methods and means of combating with the opponent and, secondly, a rationally structured team play, based on the appropriate interactions of players. The logical chain of tactical training is as follows: learn – master – apply. From this perspective, three directions in tactical training of players can be distinguished:

- 7) the study of the theory of football, its development trends, forms and methods of conducting a contest, the evolution

of tactical playing systems, the relationship of tactics and strategy, the relationship of general and applied tactics, etc.;

- 8) mastering the main elements of applied tactics in the process of practical training exercises, interaction of groups of players and team actions in the phase of ball dispossession and in the phase of ball possession. In the process of practical training not only the tactical interactions of players, which are generally accepted in football practice, are studied and improved, but also new tactical innovations, developed during theoretical classes;
- 9) the use of tactical knowledge and skills during the game. This is the most difficult stage of tactical training of players, because in each match there is a certain risk due to inadequate choice of tactical plan for the game. This is especially true of fundamental tactics, which should, firstly, come from what the team players know and can in tactical terms, and, secondly, depending on the tactical potential of the players of the opposing team.

When it comes to tactical training, it is necessary to differentiate between individual tactics, that is the implementation of techniques, determining the game situation, group tactics, that is the interaction of two or more players to solve a local problem during the game, and team tactics, that is the organization, playing and management of the game on the whole.

Team tactics is built according to modern trends in the development of football, as well as the principal approaches of the coach to the management of the game. It is thanks to the prominent coaches that football has become as that which we see it today. Therefore, the choice of a tactical system, methods and ways of organizing the game are characteristics of the principal tactics. In this case, the tactics depends on the specific coach and their understanding of football. As a rule, each coach develops their own principles of football tactics.

Individual tactical training should solve the following tasks:

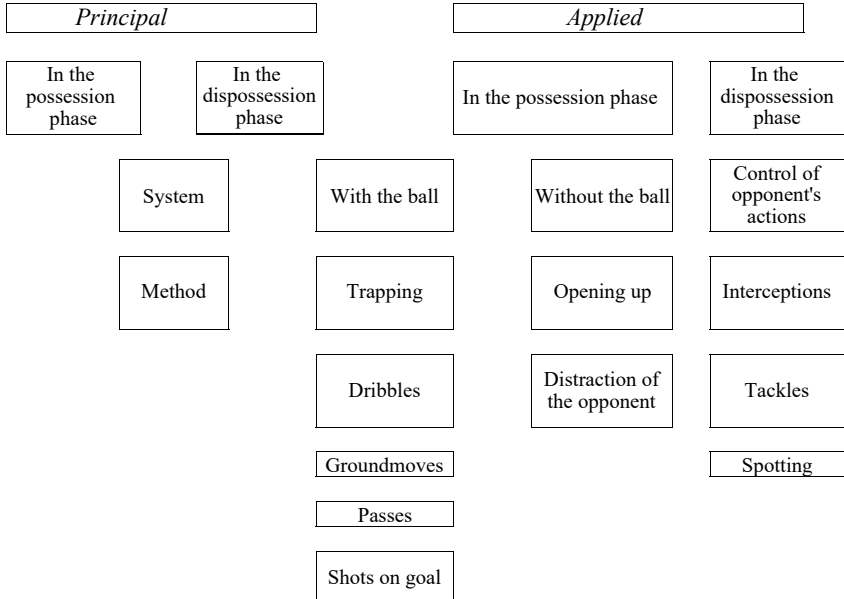
- 1) to teach players the appropriate execution of techniques according to the game situation;
  - 2) to develop tactical (operational) thinking, orientation, inventiveness, creative initiative, the ability to foresee a likely change in the game situation;
  - 3) to train interaction with partners within the framework of certain tactical systems in the phases of ball dispossession and ball possession (group tactics);
  - 4) to form in players the ability to quickly and rationally switch from one tactical line-up to other, depending on change of the game circumstances and playing of the opposing team.
- All the above-mentioned tasks are solved by applied tactics. Mastering of applied tactics includes two stages: Stage 1 provides the acquiring of skills in the phases of ball dispossession and ball possession; Stage 2 — the use of these skills directly in the game, taking into account the functional responsibilities (playing roles).

Based on the concepts of principal and applied tactics, the classification of football tactics can be schematized as follows (fig. 1.1.).

Tactics in the match is determined by the playing system and method. Arpad Csanadi, one of outstanding theorists of football, characterizes a playing system as positioning of players, their behavior and activity on the field, so that to implement predetermined (in general) tasks (A. Csanadi, 1981). According to Karl-Heinz Heddergott, a "system" means a certain formation, something integral, a structural embodiment of logically interrelated elements. A playing system is conceived by the author as the positioning of players, which is able to provide the maneuverability in attack and defense, necessary for success (K.-H. Heddergott, 1976).

**A playing system** is based on the disposition of players on the field. All field players are generally divided into three groups: players of the back line, midfielders, players of the front line (Ch. Hughes, 1979).

## FOOTBALL TACTICS



*Fig. 1.1. Classification of football tactics with regard to the principle and applied tactics*

Before each match, the coach determines not only the formation, but also the method of play. The method of play can be active, presupposing that the team uses playmaking tactics (R. Michels, 2006), passive — the team predominantly organizes defensive actions in the first zone of the field, and combined — all three types of pressing (high, medium, low) are used (V. Kostiukevych, 2006).

The system and method determine the style of the team. Style is a set of features that characterize individual or team play. Style is characterized by such features as a team spirit in play, combinability, dynamism, tactical thinking, moral and volitional mindset (G. Kachalin, 1986).

One of the characteristics of a football team play is such a notion as **rhythm** — an appropriate correlation of the actions of

the players and the team in time. Eliteteams can often gain a tactical advantage during the match by changing the rhythm of the game. The football game itself is characterized by arrhythmia, which is primarily conditioned upon the rules of the game. It is very important for an elite team to regulate the rhythm of the game during the match. These teams tactically skillfully regulate the rhythm of the game, optimally combining the positional and quick attacks, on the one hand, and the use of different types of pressing, on the other.

Rhythm is interconnected with the **pace of play** — the speed of performing game actions by players. According to N. M. Lyukshinov (2003), a team that plays at a fast pace and with a minimum percentage of a defect within 90 minutes of the game, is an elite team.

A playing style of a team is largely determined by **combinations**. Football game consists of two phases: the ball possession phase and the ball dispossession phase.

In the ball possession phase, various combinations are used, which should be understood as coordinated actions of players in a particular game situation.

From the perspective of the literature analysis, it can be concluded that there is no one frame of mind regarding the types of combinations in football.

G. D. Kachalin (1986) distinguishes the following combinations: opening up, "the wall", "the wall for the third", double "wall", "crossing", false maneuver, "the ball omission".

M. S. Polishkis, V. A. Vyzhgin (1999) recommend to classify playing combinations at a set piece (a throw-in, a corner, a free kick, an indirect free kick, a goal kick), which make it possible to locate players in the most favorable for the implementation of the combinations areas of the field beforehand, as well as the combinations in playing episodes. They are divided into combinations in pairs — "a wall", "crossing", "one-touch pass" and combinations in threes — "interchangeability", "the ball omission" and "one-touch pass."

Long-term observation and analysis of competitive activity in football allowed to come to the conclusion that playing combinations in this sport can be classified depending on operational tactical tasks that arise in the game. However, such combinations are performed in phases of holding on to the ball, attack development and attack aggravation (V. Kostiukevych, 2010). During the game, the team controls the ball by playing combinations (table 1.1.).

*Table 1.1.*

**Possible tactical combinations in football to solve operational tactical tasks in the game**

Sl. No.	Operational tactical tasks	Number of players for coalition	Possible tactical combinations
Phase of holding on to the ball (stabilization)			
1	Ball control in a certain area of the field	2	"Interpassing in pairs"
2	Switch play	3–4	"Screed" (a pass through the closest player)
3	Passing a ball: from the 2nd to the 1st; from the 3rd to the 2nd or the 1st zone	2–3	"Lateral backward"
The phase of attack development			
1	Switch play or passing from a wing to the centre	3–4	"Screed" (a pass through the closest player)
2	Control of the ball in a certain area of the field with the aim of moving the ball in the direction of the opponent's goal	3	"Pass through the third»"
3	Passing a ball: from the 1st to the 2nd or the 3rd zone; from the 2nd to the 3rd zone	2–3	"Lateral forward"

Sl. No.	Operational tactical tasks	Number of players for coalition	Possible tactical combinations
The phase of attack aggravation			
1	Passing the ball over the opponent's full-back line	2-3	"Lateral aggravation"
2	Passing the ball from wings into the penalty area of the opponent	2-3	"Wing aggravation"
3	Interaction of players in the central part of the 3rd zone of the field in front of the penalty area of the opponent	2-6	"Pass through the third"

In football, an attack should be understood as the actions of team players in the possession phase, which are directly aimed at the "goal scoring" of the opposing team.

Typically, attack consists of four phases (stages): the ball possession, i.e. taking the ball under control (stabilization); development — moving the ball towards the opponent's goal; aggravation — a tactical move that provides the opportunity of a scoring chance to shoot at goal; finality — realization of a scoring chance.

The attacks, creating a playing situation of transition from the development phase to the aggravation phase, are called penetrative. A penetrative attack that ends with a free kick (an indirect free kick), a corner kick or a shot on goal will be successful.

As demonstrated in the table 1.1, in the course of the game, depending on the solution of operational tactical tasks, various tactical combinations can be performed, which are included in the structure of tactical models of the game.



## 1.2. Evolution of the football tactics

The formation of football as a sport game with certain rules and conditions of the competitions began on October 26, 1863. Exactly this day the decision to separate football from rugby was made, the rules that regulated the team composition (11 people), as well as the shape and the size of the football field were established.

The evolution of football tactics from 1863 to the present time can be conditionally divided into four stages:

- the naive football stage — from 1863 till the end of the 80s of the XIX century;
- the romantic football stage — from the beginning of the 90s of the XIX century till the end of the 50s of the XX century;
- the rational football stage — the 60s of the XX century;
- the total (universal) football stage — from the beginning of the 70s of the XX century and up to now.

### 1.2.1. The naive football stage

At the stage of naive football, after the first rules of the game were formulated, the first tactical playing system started to be created in England. Functional responsibilities of the players were defined: one player protected the goal, one player performed the functions of the defender, nine players played attacking football (fig. 1.2.).

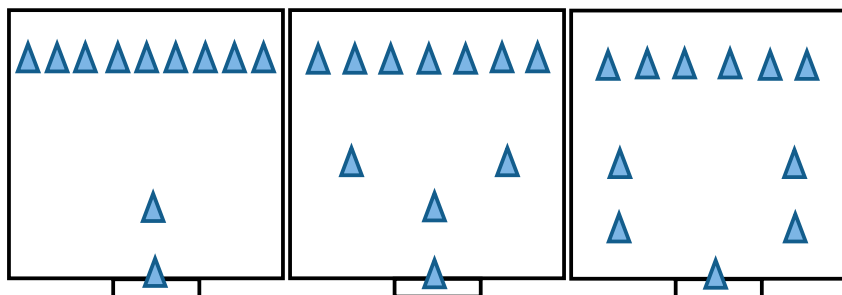
It is clear that such positioning of players can be called a tactical system only conditionally. The players were not guided by the collective forms of playing, each played individually. Dribbling and shots on goal were the main techniques of the game.

Over time, the skills of the players improved, the signs of collective playing began to appear. This led to the preponderance of the attack over the defense. The offside rule (1863), which was borrowed from rugby and developed in public schools, where mainly football

was played, contributed to the development of a more complex playing tactics. Offside was considered as a playing situation where a pass was given to the player who was closer to the opponent's goal line than the ball. There was a need to strengthen the line of defense, which changed the tactical system. Two players (so-called halfbacks) were removed from the line of attack and placed in front of the back (fig. 1.3.).

At the early stages of the football development, the influence of the Scottish football was quite noticeable in the British Isles. The Scots were the first to vary the playing methods and use a pass along with dribbling. This was a great merit of the leading Scottish club "Queen's Park", whose players began to pass the ball not only along, but also across the field. This led to a change in the tactical system 1–2–2–6 (fig. 1.4.). This tactical system was used by the Scotland team, which had an advantage over the England team in the first official international match (1872). Approximately 4,000 spectators watched the game at the Glasgow stadium. Its result was a draw (0:0). In the England team, the distribution of players between defence and attack was less even: the goalkeeper — a defender, a defender — a forward, and eight "pure" forwards.

Poor performance in the games of that time and in the Scotland-England match in particular, according to Eric Batty (E. Batty, 1974), is explained by the fact that by dribbling, both lines of



*Fig. 1.2*

*Fig. 1.3*

*Fig. 1.4*

attackers usually formed a cluster of players around the ball, what led to a greater struggle for the ball than the targeted attacking actions of the teams. It should be clarified that during the first years of the independent existence of football dribbling dominated in the game, head-play and a shoot for goal from long distance were not used (K. Rednedzh, 2001). Scotland integrated passing into football, and this led to a new positioning of players. The need to cooperate with a large group of players around the ball has already become irrelevant.

Playing tactics was affected by the second change of the off-side rule: a player was not considered to be in an off-side position, if there were not less than three opponents at the time of hitting the ball by the player's partner in front of him/her in the opponent's half of the field. In the first edition, if a player shoots for goal, none of their partners should be closer to the goal line than he/she is at that moment (K. Gifford, 2003).

After changing the offside rule, it became possible to pass the ball forward, what led to greater results. Over time, "an artificial offside" began to be applied in the game. The "Newcastle" team succeeded in this most of all. Bill McCracken, its back, organized the defense of his team through coordinated movement of the backs forward, leaving the opponent players behind.

The two decades since 1863 can be marked as the decades of football formation. Gradually, football began to be played not according to the principle of "kick and run", but with the appropriate tactical organization of interaction of players in attack and defense. Of course, these interactions were not signified by high efficiency, due to the lack of technical and tactical competence of players, mainly because the first steps of collective playing were far enough from systematic, rational actions of players, based on passing of the ball.

## 1.2.2. The romantic football stage

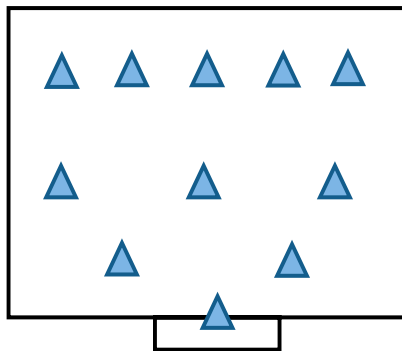
The beginning of the romantic football stage can conditionally coincide with the formation of the pyramidal system of playing (fig.1.5.).

The pyramidal system was first used in 1983 by the Cambridge University team. This system has been developed in the Preston North club by their coach Meyer William Sandel

The most rational pyramidal system was used by the England team, namely Nottingham Forest. In defense one of the backs remained a little behind so that to spot for the partner. The second back was located in the midfield line area. This made it possible to restrain the attacking opponent as far from the goal as possible. A key role was given to the central midfielder, who performed linkage of the forwards with the backs. He was responsible for organization of playing by the whole team. The outside midfielders took care of the outside forwards. The forwards played in a line, assigning the main striking role to the central forward.

The pyramidal system can be characterized as sufficiently balanced in defense and attack. The classical pyramidal system was used in almost all countries, where football was cultivated, in the late XIX and early XX centuries. But in some of them it was subject to specific modernization. This is especially true for Italy, Austria, Switzerland.

The Italian pyramidal system, which was inspired by Vittorio Pozzo, was characterized not so much by the positioning of players as by the concentration of the game. It was based on the principle of reliability, which was ensured by the construction of



*Fig. 1.5*

defense in such a way that the opponent forward had to overcome a "Triple wall" (withdrawn midfielders, halfbacks and backs) (A. Csanadi, 1981).

The Austrian pyramidal system provided for the use of a central halfback, as well as one of the outside midfielders, in addition to five forwards in attack.

This enabled the Austrians to keep the opponent's defence under constant pressure.

During the opponent's attack, three midfielders pulled back. The outside midfielders took their place between the outside and inside forwards, and the central midfielder played against the central forward of their opponents. In this system, a major player in the Austria team, directed by Hugo Meisel, was the attacking central midfielder.

The Swiss created their own tactical conception of the pyramidal system, known as "Le Verrou", that is a lock (fig. 1.6.). It used an attacking central midfielder, the backs covering the central area, and the outside midfielders defending the wings. One of the insiders (half-middle forward) pulled back and played on the same line with the central midfielder, but the backs were located one after the other.

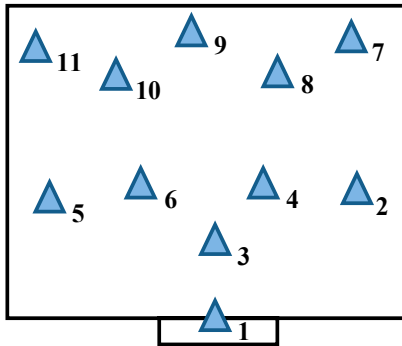


Fig. 1.6

Thus, the rear defender played the role of "a help defender" As the centre-forwards were treated with great caution, the aim of the system was to use two players against the central forward. As many systems using a "help defender", if executed properly, the Swiss system provided the team with great freedom in attack (K. Rednedis, 2001; p. 203).

The peculiarity of the South American version of "Le Verrou" is that it presupposed the use of a combined zone defense instead of a free one. Due to it, some defenders control zones, and the others play individually.

According to Arpad Csanadi (1981), the advantages of the South American system with the use of the "lock" are driven by the fact that the opponent's attack oppose against a dense, disposed in depth, and a relatively deep defensive wall, and that four strikers are ready to start attacking simultaneously when the team proceeds to attack. It means that the comparative risk of the central defender and the inside forwards provides them with a relatively quick transition from defence to attack. At the romantic football stage, an important event was the acceptance of the offer of the International Council in 1925 to change the offside rule: a player was considered "offside", if at the moment of hitting the ball by his partner there were two, but not three players, between him and the goal.

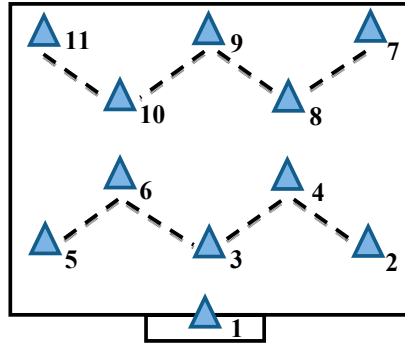
The change of the offside rule enabled to significantly increase the effectiveness in matches. For example, instead of 4700 goals in the previous season, next season 6373 goals were scored. In the 1926/27 season, George Kenzell set a goalscoring record in the English League - 59 goals, which was broken by Dixie Dean, who scored 60 goals the next season.

It happened so in football that the attackers had a significant advantage over the defenders. It was necessary to balance the actions of defenders and attackers.

Five years after the introduction of the new offside rule, as a result of many experiments, the coach of the English Arsenal club, Herbert Chapman, with the help of his most expensive player Charlie Buchan, managed to develop a new tactical system, which was called WM or double-ve. (fig. 1.7.). Due to it, the central midfielder, who was located on the same line with the other two halfbacks, was withdrawn to the line between the two defenders. H. Chapman withdraw two forwards onto the midfield line.

So, the 1-3-2-5 or the WM system was formed (A. Csana-di, 1981; K. Rednedzh, 2001).

In the double-ve system responsibilities for players of different roles are more clearly defined. There are three backs on the line of defense: the right one takes care of the opponent left-winger, the central back ("stopper") plays against the center-forward, and the left one — against the right winger.



*Fig. 1.7*

Two players are placed on the midfield line, whose task is to neutralize the opponent inside forwards. They must support the attack, but their main function is to protect their own goal.

In contrast to the pyramidal system, in which the attackers were placed in one line, the attack in the double-ve system consists of two lines: the back line — two inside forwards (task — preparation of the attack and the organization of the first stage of defense) and the front line — two wingers and the centre forward, moved to the fore (their game is mainly focused on attacking the goal).

The double-ve system let balance the forces of defense and attack. The advantages of the new system became so obvious that almost in a short time it was implemented in all countries at the level of club and national teams. The double-ve system has existed for almost 30 years, marking an impulsive romantic attacking football.

Such coaches as Herbert Chapman, Vittorio Pozzo, Sepp Herberger, etc. made the greatest contribution to the formation and development of the double-ve tactical system.

The Arsenal, the London's team, have won five League titles and two FA Cups. The Italian national team led by Vittorio Pozzo became World champion twice in a row, in 1934 and 1938. Sepp

Herberger led the Germany national team to the championship title in 1954.

It should be noted that already in the early 1950s, the 1-3-2-2-3 tactical system gradually began to modernize into the system 1-4-2-4.

The best progress in it was made by a miracle team of Hungary, who convincingly dismissed the England national team (6:3) in 1953, playing according to this system. The new thing for the British was that the wingers of the Hungary national team started attacking actions from the depth of the field, i.e. they were located behind the inside forwards.

Tactical system 1-4-2-4 underwent the most complete experimental verification at the World Cup 1958 in Sweden, in the performance of the national team of Brazil and its coach Vicente Feola.

Tactical system 1-4-2-4 (fig. 1.8.) was named Brazilian.

The Brazilian system is fairly well balanced: two outside backs take control over the opponent outside forwards, two central defenders watch the strikers, who came forward to to the middle zone of the field. The functions of midfielders are performed by two players in the middle of the field. Depending on a playing situation, they actively cooperate with the strikers and defenders.

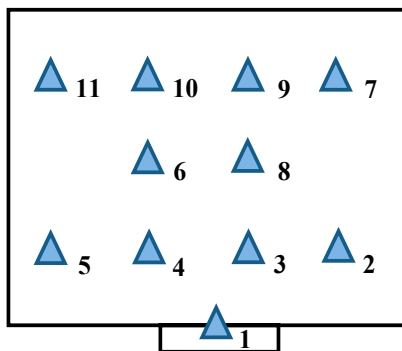


Fig. 1.8

On the front line there are four players. The wingers move near touch lines, and two central players are located between them.

Tactical system 1-4-2-4 provided not only optimal distribution of forces between defence and attack, but also in a sense signified transition from a personal protection system to a zonal one. Despite the fact that the majority of both club and national teams began to



use the Brazilian system, it had lasted a little more than 4 years and accomplished the stage of romantic football.

### 1.2.3. The rational football stage

Tactical system 1-4-2-4 stimulated further intensification of football. However, in course of intensification of the forwards' playing, the defensive lines began to experience some complications, primarily due to the fact that it was problematic for two central defenders to spot for outside backs, and to neutralize the actions of the opponent central forwards simultaneously. At the same time, it was quite difficult for two midfielders to maintain high intensity of the game during the match.

Therefore, there was a need to strengthen the midfield line first of all. For realization of this goal, one player was withdrawn from the line of attack.

New tactical system 1-4-3-3 (fig. 1.9.) was implemented at the World Cup 1962 in Chile. A very important role in it was played by the holding midfielder, who in the defensive phase acted the part of the third central defender and took care of the opponents' somewhat drawn back central striker. This made it possible to release one of the central defenders from personal custody: he was placed

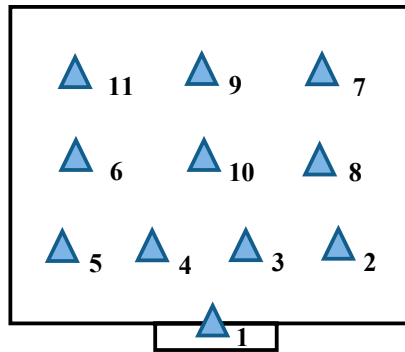
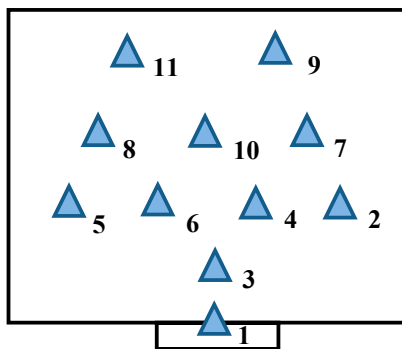


Fig. 1.9

behind the partners and backed them up. That is, there appeared a key role of football "Libero" - a free central defender. The most successful in playing according to a new tactical system were Brazilians again. Aymore Moreira, a coach of the national team

of Brazil, pulled the left-wing forward Mario Zagallo into the middle line and modified the functional duties of the central midfielder and two central defenders.

Tactical system 1-4-3-3 optimized playing of halfbacks. Their functions became more defined in terms of solving defensive and attacking tasks by the team. This is the first system in which the number of attackers was less than the number of defenders.



*Fig. 1.10*

The numerical advantage of the defenders stimulated the attackers to new tactical moves. Their actions became more improvised, and the criteria for the level of the attackers' technical and tactical skill had increased.

Tactical system 1-4-3-3 most fully characterize rational (functional) football. Each player performs only the functional responsibilities, stipulated in his playing role, on the field.

Rational football was going to be replaced by total football, but this required a universal level of sportsmanship of all players.

The era of total football came after the World Cup 1974. The World Cups in 1966 in England and in 1970 in Mexico were transitional from rational to total football.

It should be clarified that in the early 1960s Italian coaches Alfredo Foni, Nereo Rocco and, most notably, Helenio Herrera developed tactical system 1-1-4-3-2 (fig. 1.10.).

The system was named *catenaccio*. In this system, the help defender is located behind three or four defenders and almost does not participate in attacks.

In the early 60s, Alf Ramsey, the coach of the English Ipswich, developed a new tactical system 1-4-4-2 (see fig. 1.11.).

This system was based on the intentional actions of players in the middle of the field. Ipswich won the championship of England, and Alf Ramsay became the coach of the England national team, which under his leadership won the World Cup in 1996. In the 1-4-4-2 system, the outside forwards were withdrawn to the middle of the field, what diversified their functions and expanded the range of actions, depending on whether the team possesses the ball or dispossesses it.

It should be noted that this system was also used by the coach of Dynamo (Kyiv) Victor Maslov. The team under his leadership became the champion of the USSR three times in a row (1966, 1967, 1968).

In this system the functions of one of the central midfielders have been changed. He started to be called the holding midfielder and the number of his defensive actions has increased.

Functional responsibilities of the second central halfback were primarily focused on the interaction with two forwards.

The 1-4-4-2 system is characterized not only by individual, but also by team improvisation, what enables to make numerical superiority in different areas of the field in certain playing moments. This is primarily due to the possibility of the outside defenders to join the attack (in case of a counterattack, one of the midfielders must make the zone, left by the defender, safe).

The system has set new requirements for attackers. Now they had to constantly move around the entire front of the attack. The striker must equally skillfully act both on the flank and in the center of the attack.

The 1-4-4-2 system most fully characterizes rational football with clearly defined functional responsibilities of

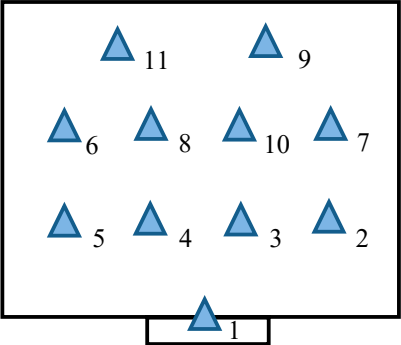


Fig. 1.11

players. It is balanced and equally successful in solving the problems of attack and defense. The consistency of this system is proved by the fact that it has been used in various competitions by many club and national teams for more than 50 years.

Tactical system 1-4-4-2 arose at the stage of rational football, but on its basis, as well as on the basis of the 1-4-3-3 system, the principles of total football were developed and introduced into the practice of competitive activity of teams.

#### 1.2.4. The total (universal) football stage

The prototype of total (universal) football was produced by the Brazilian national team at the World Cup in 1970 in Mexico. The coach of the team, Mario Zagallo, on the basis of the 1-4-3-3 tactical system, varied the functions of all field players. When losing the ball, the Brazilians used the tactics of covering the space and participating in the defense of each player. The players of the line of attack, Pele, Tostão, Jairzinho, retreated into their own half of the field after the ball dispossession. Already at this championship, Pele has showed the performance a versatile player, playing both in the centre and on the flanks of the second and third zones. In the attacking phase, the Brazilians created a numerical advantage by joining the attacking actions of the defenders. This is brightly exemplified by the fourth goal of the Brazil team against Italy in the final match. It was scored by the team captain, the wingback Carlos Alberto from the penalty area after Pele's pass. Many football experts consider the Brazil national team in 1970 to be the strongest team to ever win the World Cup.

Apparently, the game of the Brazilian national team at the World Cup in 1970 was very carefully analyzed by the Dutch. It is Holland where the principles of total (universal) football were most fully developed.

The word "total" is interpreted as all-encompassing.

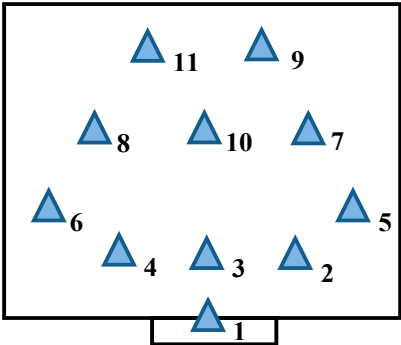
In the early 70s, a Romanian specialist Stefan Kovacs fundamentally changed the tactical approaches to constructing the game in Ajax Amsterdam, almost without changing the system 1-4-4-2. What is meant here is the versatility of the functions of players, who must be equally successful in different phases of the game.

**The tactics of total football** is a constant movement of players changing positions, a variety of passes, teamwork, interaction and a backup, a significant amount of technical and tactical actions (TTA) and high functional training. The basic principle of total (universal) football is "all in attack, all in defense". This approach to the tactical construction of the game enabled Ajax Amsterdam to win the European Champions Cup three times in a row.

The Dutch national team, led by coach Rinus Michels, reached the final, respecting the principles of total football at the World Cup in 1974, and lost to the Germany national team (1:2), which was coached by Helmut Schön .

At this championship, the Dutch team demonstrated a new so-called "Dutch style of play", the main symbol of which on the field was Johan Cruyff. At the World Cup 1974, the Dutch national team kept mainly to the 1-3-2-3-2 tactical formation of players (fig. 1.12). A key feature of this tactical system is the presence of three central defenders, one of which can personally take care of the opponent striker, as well as of two free players — the wingbacks. The outside backs must control all the wings entirely, encompassing the roles of halfbacks, forwards and defenders (K. Gifford, 2003).

Rinus Michels, as one of the architects of total football, recommends the principles of building the team's game.



*Fig. 1.12*

### *The ball dispossession phase*

1. In attack failure, the whole team must be tactically ready to defend. It is preferable to keep the opponent in their half of the field. This requires good positional play and tactical cohesion.
2. It is necessary that the line of defense moves forward towards the midfielders. Basically, the defense plays far from their own goal.
3. There are three or four players in the line of defense. The fourth defender will play as a free defender, heading to the middle of the field. For defense, this means that there is an additional player who puts pressure on the opponent.
4. Three players in the line of defense must be alert during defense.
5. The goalkeeper acts as a libero help defender at neutralization of passing the ball by the opponent behind the defenders (pass into space).
6. The midfield line must have controlling players who must stay behind the ball line during the opponent's attack.
7. Prevent the opponent from passing the ball into the zone of his players. This is especially true for forwards who are keen to get the ball in your half of the field.
8. The players who can successfully return the ball to the team by tackling or interception are needed.

### *In the ball possession phase*

1. A team must be able to control the ball, so that to manage to determine the right moment to start the attack.
2. The loss of the ball during preparation to attack near the central line is a kind of "suicide" in such an adventurous style.
3. Moreover, it is necessary to be able to pass the ball in one touch in this strategy. This requires from players to have an additional tactical recognition of the game so that they can quickly recognize the situation. Each player must be able to anticipate the situation.

4. To play the game means that one moment you play at a fast pace, and the next you choose the tactics of holding to slow down the game.
5. The team using a playmaking-tactics (playing at the first number), should take full advantage of the space.
6. The transition from defense to a decisive attack (build-up) should happen very quickly.
7. Tactical players in the centre of the field (centre-backs, midfielders and a striker) are very important. In preparation for a decisive attack, the tactical cohesion between them is a very precise work.
8. A good ability to hold on to the ball makes high demands on the qualities of a positional play, control over the pace and speed of play (R. Michels, 2006; pp. 69–72).

After the 1974 World Cup, a global strategic review of tactical principles of the game by many club and national teams began.

Thanks to the rebuilding of the training process, the intensification and versatility of the game, Valery Lobanovsky and Oleg Basilevich, the trainers of Dynamo Kyiv, managed to lead the team to the greatest success among club teams of the Soviet Union in 1975. The team has won the Cup Winners' Cup and the Super Cup.

Play of the best teams of the first half of the 70s, namely Ajax Amsterdam, Bayern Munich, Dynamo Kyiv, the Holland national team, the Poland national team, and the Germany national team, the World champions of 1974, was spectacular, efficient, with a strong interchangeability, high professionalism and tactical thinking of the players.

With the advent of the era of total (universal) football, the formation of players is not as important as it used to be in the previous stages of the development of the football tactics. It is clear that each line should have the required number of players. During the game, depending on whether the team is attacking or defending, a certain number of players perform a specific task.

There is a constant struggle for the creation of numerical superiority in strategically important areas of the field. This requires constant movement of almost all field players. After an attack failure, it is not the defender or the midfielder who returns first, but the player who is closer to the ball or the area where the ball can be passed.

Of course, the functions of defenders, midfielders and attackers remain. First of all, players must possess special skills and abilities of their specific role (functional duties of an athlete in the game, based on the tactical disposition of the players to solve the problems of the game). But this is not enough for total football. Modern trends in the development of football require a high level of special and unique skills from players.

The 1970s, at the beginning of which total football began to spread, ended with the 1988 World Cup in Argentina, which was won by the hosts.

Their coach, Cesar Luis Menotti, used tactical system 1-4-3-3. In the final, the Argentines played with the Dutch, and this testified the fact that, playing, according to the principles of total football, teams can win the largest international tournaments.

The tendencies of attacking total football persisted at the next two World Cups in 1982 and 1986. At the same time, some teams evangelized a more attacking style of play, others — a counterattacking one. The first ones to implement it was the Brazil national team with Zico and Socrates and the France national team with Michel Platini. A striking representative of the counterattacking style was the Italian national team, which won the 1982 World Cup under the leadership of their coach Enzo Bearzot. In this championship, there was practically no dominant tactical system on the basis of which the teams could play. The following tactical systems were mainly used: 1-4-3-3, 1-4-4-2, 1-3-5-2, 1-4-5-1, 1-5-4-1.

The 1-3-5-2 tactical system was first used by the Brazilian national team at the 1982 World Cup (Fig. 1.13.). Two years later, at the European championship in France, this system was used by



more than a half of the teams of the final tournament. First of all, it concerned the European champion, namely the French team.

Tactical system 1-3-5-2 puts special requirements to the defenders, especially to a central one. It should be a high-class player who is able to fully control the events on the field, clearly organize the defensive and attacking actions of the team.

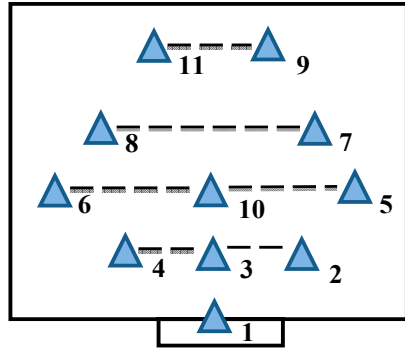


Fig. 1.13

Great demands are also placed onto midfielders, especially the outside ones. During the game they need to move along the entire field and, depending on the playing situation, effectively perform the functions of at least three roles of players: a wing back, a midfielder and a striker.

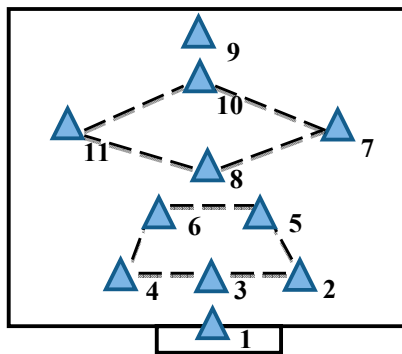
Thanks to three central midfielders, the team can take over control the center of the field and fight for the initiative. As for the attackers, they play in the same style, that is presupposed by the system 1-4-4-2.

The advantage of the 1-3-5-2 system, from the point of view of Rinus Michels (2006), is that five or six players are involved in the preparation of the attack. The presence of two pairs of players on the left and on the right of the field are a must. One of them is more focused on defense and covers the entire flank.

The other plays closer to the center and has more attacking features. Between these four midfielders, a more defensive-oriented playmaker-halfback plays.

In case the team does not have a sufficient number of high-class attacking players, the tactical system 1-5-4-1 is used to build the game from defense (fig. 1.14.). That's the playing system, offered to the Argentina national team by their coach Carlos

Bilardo at the 1990 World Cup in Italy. Having a conventional team at large, with the exception of the first-rank star, Diego Maradona, the Argentines organized their game, according to the principle of massive defense and managed to reach the final, in which they lost to the Germany national team, led by Franz Beckenbauer. Tactical system 1–5–4–1 provides for the use of a so-called "defensive midfielder" in defense, who is placed in front of four defenders, hardening their actions, and occasionally joining the attack.



*Fig. 1.14*

As for the 1–4–5–1 tactical system, it is primarily used against an opponent with a very strong midline. Especially when it is necessary to neutralize a key player, that is a playmaker. The fifth player in the half-back line is "exchanged" with the leader of the opponent. At the same time, the functional actions of the other four midfielders are not changed.

It is clear that the system 1–4–5–1 can be used in the solution of other tactical problems. It all depends on many factors, such as the presence of performers of different roles (there may be not two or three high-class forwards in a certain moment in a team), playing on the opponent's field (the need to keep attacking pressure of the opponents), the desire to preserve the score, the weather conditions, the field state, etc.

It should be clarified, that if at the World Cups from 1930 to 1970 mainly one or two tactical systems were used, at each subsequent championships since the 1974 World Cup different tactical systems have been used.

For example, at the 1994 World Cup the following systems were used: 1–4–4–2; 1–4–3–3; 1–5–4–2; 1–5–4–1; 1–5–3–2; 1–3–5–2.

Approximately these tactical systems were used at the next World Cups in 1998, 2002, 2006, as well (table 1.2.).

*Table 1.2.*

**Tactical systems used at the FIFA World Cups**

<b>Year</b>	<b>Country</b>	<b>Predominant tactical systems</b>	<b>Winning team</b>	<b>Coach</b>	<b>Tactical system</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
1930	Uruguay	1-2-3-5	Uruguay	Alberto Suppigi	1-2-3-5
1934	Italy	Double-ve (1-3-2-5)	Italy	Vittorio Pozzo	1-3-2-5
1938	France	Double-ve (1-3-2-5)	Italy	Vittorio Pozzo	1-3-2-5
1950	Brazil	Double-ve (1-3-2-5)	Uruguay	Juan Lopez	1-3-2-5
1954	Switzerland	Double-ve (1-3-2-5)	FRG	Sepp Herberger	1-3-2-5
1958	Sweden	Double-ve	Brazil	Vicente Feola	1-4-2-4
1962	Chile	1-4-2-4; 1-4-3-3	Brazil	Aymore Moreira	1-4-3-3
1966	England	1-4-3-3; 1-4-4-2	England	Sir Alf Ramsey	1-4-4-2
1970	Mexico	1-4-4-2; 1-4-3-3	Brazil	Mario Zagallo	1-4-3-3
1974	FRG	1-4-3-3; 1-3-2-3	FRG	Helmut Schön	1-4-4-2
1978	Argentina	1-4-4-2; 1-3-4-3	Argentina	Luiz Menotti	1-4-3-3
1982	Spain	1-3-5-2; 1-4-4-2	Italy	Enzo Bearzot	1-4-4-2
1986	Mexico	1-4-2-3-1; 1-5-4-1	Argentina	Carlos Bilardo	1-4-2-3-1
1990	Italy	1-5-3-2; 1-4-3-3	FRG	Franz Beckenbauer	1-3-5-2

<i>Continuation of table 1.2.</i>					
1	2	3	4	5	6
1994	USA	1-4-4-2; 1-4-3-3	Brazil	Alberto Pereira	1-4-3-3
1998	France	1-4-3-3; 1-4-4-2	France	Aimé Jacquet	1-4-4-2
2002	Republic Korea / Japan	1-4-3-3; 1-4-4-2	Brazil	Luiz Scolari	1-4-4-2
2006	Germany	1-4-5-1; 1-4-3-2-1	Italy	Marcello Lippi	1-4-2-3-1
2010	RSA	1-4-1-3-1; 1-4-5-1	Spain	Vicente del Bosque	1-4-1-3-1
2014	Brazil	1-4-3-3; 1-4-4-2	FRG	Joachim Löw	1-4-2-3-1
2018	Russia	1-4-5-1; 1-4-2-3-1	France	Didier Deschamps	1-4-5-1

At the same time, these championships were a transition from personal and joint defensive systems to a zonal one.

**Zone defense in football** is a tactical way of playing in defense, in which each of the players in the ball dispossession phase controls a certain area of the field and takes to fighting for the ball with any opponent who appears within it.

Within total (universal) football, such concept as "tiki-taka" appeared in the playing tactics in early 2010.

The main features of the game, according to the tiki-taka principles:

- quick passing game;
- active movement of players, providing a few options of passing for the player, possessing the ball;
- the application of all types of pressing immediately after loosing the ball;
- high degree of control over the pace and rhythm of the ball;

- the technique is based on the unity of the team and a complete understanding of the geometry of space and field.

The FC Barcelona coaches, namely Johan Cruyff, Luis van Gaal, Frank Reinhard and Josep Guardiola, taking into account the mentality of Spanish football, have developed a tactical strategy of the team, the main feature of which is the predominant possession of the ball in the game with each opponent.

Theses of Johan Cruyff:

- "Don't you want to concede a goal? Just don't give the ball to the opponents";
- "What's the purpose of making a pass at 50 m, if you can safely give the ball to a closer to you player and he will do the same?"

J. Cruyff laid down the tactical principles of the game, on the basis of which the tiki-taka was formed.

Josep Guardiola, who is Barcelona's most successful coach in the club's history, has used the tiki-taka tactical method of playing most efficiently.

Tactical playing system of Barcelona 1–4–3–3 is shown in fig. 1.15. As is clear from the figure, a key element in J. Guardiola's system is a triangle in the center of the field with the apex pointed to their own goal. An important role in the game is played by the outside defenders Alves and Abidal, who provide the width of the attack in the ball possession phase. At the same time, the central backs, Puyol and Pique, with the ball control in the first zone become displaced onto the flanks and the holding midfielder Busquets can move to the central areas.

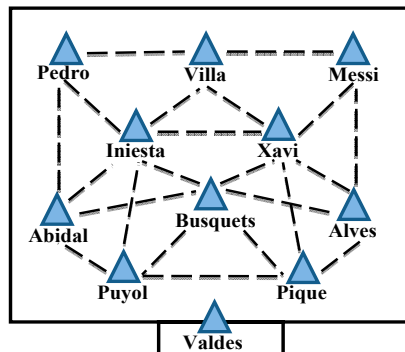


Fig. 1.15

As already noted, the main feature of the tiki-taki system

is the control over the ball by means of short and medium passes, which are performed in a system of triangles (see fig. 1.15.). The pace and rhythm of the game is controlled by two central midfielders (insiders) - Iniesta and Xavi. Three forwards Pedro, Villa and Messi act laterally throughout the third zone.

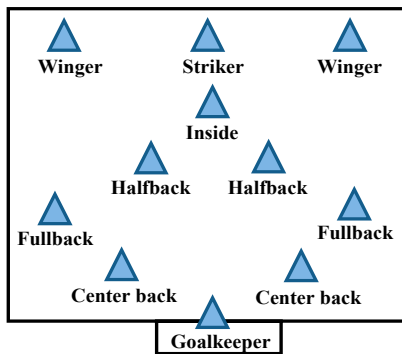


Fig. 1.16

An important feature of the tiki-taka playing method is the active tackling immediately upon the ball loss. As a rule, a team tries to regain control over the ball in a few seconds, and then adjusts the pace of the game by controlling the ball, while restoring the forces that were spent on its tackling.

Using the tiki-taka method of play, the Spain national team won the European Championships in 2008 and 2012 and the World Cup in 2010.

In modern football, a playing tactics is based on the standard formation system (fig. 1.16.): 1-4-2-1-3; 1-4-1-2-3. These formations are used in the ball possession phase. In the ball dispossession phase, in the zone defense system the players reform into three lines. On the first line played one of the insides and the striker, on the second one — the insider, two holding midfielders and one winger, and on the third one — two fullbacks and two central defenders.

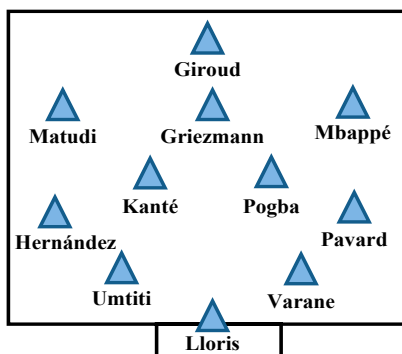


Fig. 1.17

At the last two World Cups, the 1–3–4–3 system, in addition to previously mentioned ones, was used by some teams. In particular, at the 2018 World Cup, this system was played by the Belgian national team, which became the bronze medalist of the championship. The winner of the championship became the France national team, who used the 1–4–5–1 system (fig. 1.17.). At this championship, the 1–4–5–1 system was also used by the Germany, Argentina, Croatia, and England national teams. The national teams of Iceland, Sweden and Panama built their game, according to the 1–4–4–2 system.

In recent years, the leading European club teams have been using mainly three tactical systems: 1–4–4–2 — Real (Madrid); 1–4–2–3–1 — Real (Madrid), Bayern (Munich), Manchester City (Manchester); 1–3–4–3 — Chelsea (London); 1–4–1–2–3 — Liverpool (Liverpool); 1–4–3–3 — Barcelona (Barcelona).

The evolution of tactical systems in football is presented in table 1.3.

In modern football, the following principles of the game organization become of key importance in any tactical system (O. Bazilevich, 2011):

- quick transition from defense to attack and from attack to defense;
- creating a numerical advantage, increasing the number of players in active zones (pressing in defense, participation of 6–7 players in the final phase of the attack);
- the density of gaming ties a "package" arrangement of the players;
- playing activity of the footballers (sufficient number of TTA);
- high speed of the team movement;
- reliability of the tactical and technical approaches being used;
- interchangeability and expansion of the players' areas of action;
- consistency in the implementation of the team tactical actions.

*Table 1.3.*

<b>Tactical systems</b>	<b>Year</b>	<b>Coaches-developers of the tactical systems</b>	<b>Team</b>
1-2-2-6	1872	–	Queen's Park (Scotland)
1-2-3-5	1883-1934	Major William Cadell	Preston North End
1-3-2-2-3	1930	Herbert Chapman	Arsenal (London)
1-4-2-4	1958	Vicente Feola	the Brazil national team
1-4-3-3	1962	Elmore Moreira	the Brazil national team
1-1-4-3-2 Catenaccio	1960-1963	Helenio Herrera	Inter (Milan)
1-4-4-2	1966	Sir Alf Ramsey	the England national team,
1-3-2-2-3	1971-1974	Stefan Kovacs	Ajax (Amsterdam)
1-4-1-3-2	1975	Valery Lobanovsky	Dynamo (Kyiv)
1-3-4-3	1978	Jan Zwartkruis	the Netherlands national team
1-3-5-2	1982	Tele Santana	the Brazil national team
1-5-4-1	1990	Carlos Bilardo	the Argentina national team
1-4-3-3	1988-1996	Johan Cruyff	Barcelona

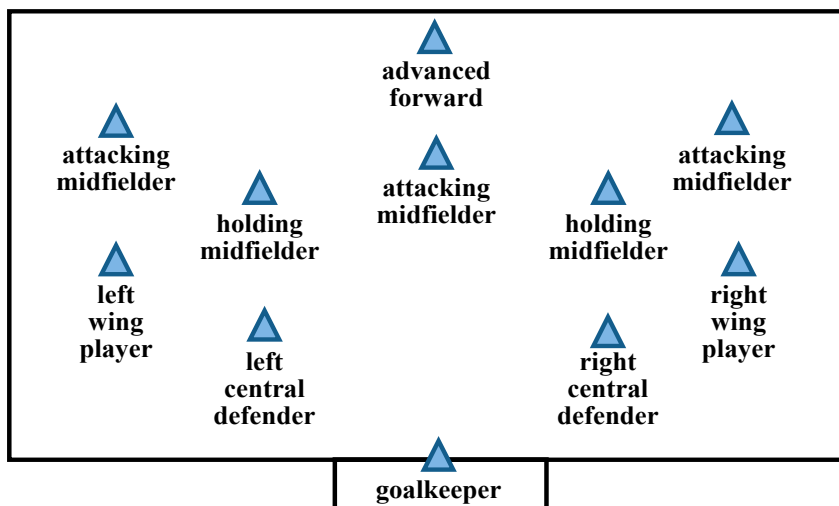
According to Oleg Petrovich Bazilevich, a prominent native football theorist and expert, on the basis of these principles an optimal tactics of competitive activity of the football team is chosen.



In his book "Game organisation and preparation of the highly qualified football players", O.P. Bazilevich recommends the following functional responsibilities of players, according to their playing roles in the 1-4-5-1 tactical system (Fig. 1.18.) (O. Basi-levich, 2011):

### *Goalkeeper*

- Participate in the game by prompting the partners.
- Actively play throughout the penalty area.
- Take the position from which the ball is constantly visible.
- Not to get engaged in a fight for the ball, which involves their own defenders.
- Play the role of "libero" when pressed on the opponent half of the field. Give the first-time pass over a distance to the advanced forward in a free flank zones.
- Bring the ball into play with minimum risk of its loss.



*Fig. 1.18*

### *Central defender*

- Giving a spot across a whole width of the field. Take control over the off-side position.
- Suggest positional and personal solutions to the partners.
- Master the technique of execution of the first-time pass over a distance to the advanced forward.
- Change the direction of attack.
- Interchange with partners.
- Participate in attacks with a logical ending (long-range strikes, standard positions).
- Take personal care of the opponent attackers at the final stage of their attack.

### *Winger and attacking midfielder*

- Positionally block the direction of the opponent's flank attack from the touch line.
- Take personal care of the opponent attackers at the final stage of their attack.
- Spot for the central defenders at attack of the opponent on the opposite flank.
- To master the technique of execution of the first-time pass over a distance to the advanced forward.
- Change the direction of attack by transferring the ball to the other flank.
- Take the broadest initial flanking position to attack.
- Accelerate the attack by joining it along the flank at the maximum speed, overlap.
- Master groundmoves of the opponent ("one against one").
- Execute targeted passes to the penalty area.
- Interchange with partners.
- Play with forecasts at the final stage of the attack, make long-range and mean-range shots.

### *Holding midfielder*

- Positionally control the central zone at the end of the opponent's attack.
- Create a numerical advantage in the ball dispossession on the flanks.
- Take personal care of the opponent's players, moved to the central zone at the final stage of their attack.
- Master the technique of execution of the first-time pass over a distance to the advanced forward.
- Change the direction of attack by transferring the ball to the other flank.
- Create a numerical advantage in our attack.
- Execute targeted passes to the penalty area.
- Play with forecasts at the final stage of the attack, make long-range and mean-range shots.
- Lead combinative play in the attack.
- Interchange with partners.

### *Forward*

- Exercise keen suggestions to receive the ball.
- Prepare a position for receiving the ball on the first-time pass with the use of a false maneuver in case there is space for the development of the attack.
- Exercise false maneuvers and keen suggestions, when there is no space to develop the attack.
- Take possession of the ball in free zones (on the flank) and keep it to continue the attack with the participation of the joined partners.
- Find an optimal continuation for the development of the attack and delivery of the ball in its final phase.
- Carry out individual dribbling of the opponent.
- Play with forecasts at the final stage of the attack, make long-range and mean-range shots.

- Create a numerical advantage on the flank with our attack (overlaps).
- Interchange with partners.
- Lead combinative play in the attack.
- Execute targeted passes to the penalty area.
- Take the initial position for tackling
- Participate in the group tackling, create a numerical advantage in the ball dispossession on the flanks and in the center.
- Must remain behind the line of the ball in its dispossession, chase the opponent to complete tackling, participate in the collective group tackling.
- Cover a central zone in the attack of the opponent.

Of course, the functional responsibilities of the players will have a slightly different focus, when using a different tactical system, such as 1–3–4–3, for instance. At the same time, the functions of the players should be united by four principles of total (universal) football — play fast, play collectively, play widely, play aggressively.

## Summary

In this chapter the basic concepts of the football tactics are characterized, and a retrospective analysis of the evolution of the football tactics during the four stages of its development, namely naive, romantic, rational and total (universal), is made. Methodical principles of construction of modern tactical systems are described.

At the naive football stage competitive activities were organized on the basis of such tactical systems as 1–1–1–8; 1–2–2–6; 1–2–3–5. The main tactical system of romantic football was the 1–3–2–2–5 formation, or the double-ve system. This stage ended with tactical system 1–4–2–4.

The stage of rational football was characterized by tactical systems 1-4-3-3 and 1-4-4-2, which have been preserved at the stage of total (universal) football. At this stage tactical systems 1-3-4-3, 1-4-5-1, 1-3-5-2 are also applied.

An important milestone of the modern stage of football is the predominant use of the zone defense system and the construction of attacking actions on the basis of the tiki-taka method of play.

# CHAPTER 2

## Control of competitive activity in football

---

Control of competitive activity is based on comparison of the sporting achievements with pre-planned or already made earlier ones, and is aimed at identifying the strengths and weaknesses of the performance level for its further improvement (V. Platonov, 2005).

Control is the key element of management of athletes' activity, which acts as the object of management impact.

**Control** — collection of information about the state of the subject to management and comparison of its actual state with the proper one. In other words, control can be identified as a purposeful collection of information for the correction of management impact.

In sports, control is divided into pedagogical, medical-biological, biochemical, biomechanical and psychological (V. Zaporozhanov, 1995).

In practice of the athletes' readiness management, control, first of all, is carried out by the coach. Such control is called pedagogical.

As a rule, pedagogical control is considered from the standpoint of five main components: the volume and specificity of training loads; functional state, techniques of performed exercises; peculiarities of the competitive actions execution; sporting achievements (M. Godik, 1988; A. Zelentsov, V. Lobanovsky, 1998).

The subject of the study, the results of which are presented in this monograph, is the control of competitive activity of highly qualified players.

## 2.1. Control and analysis of technical and tactical actions of players and a team

Control and analysis of technical and tactical actions of players and a team in football is one of the main methods of research, which is used in the process of pedagogical observation.

In the process of controlling the competitive activities of players, certain tasks are always set: for what purpose and what parameters of competitive activity is it necessary to study? In order to obtain operational information, a highly objective and simple method of pedagogical observation over the competitive activity is quite often used during tournaments, that is recording TTA on a dictaphone, with subsequent transfer of the sonic characters onto special forms (see table 2.1.).

Traps, dribbling, groundmoves, passes, tackles, interceptions, shots on goal (from open play and after playing off a set piece) are registered. The total number of performed TTA and their efficiency (the ratio of exact executions of TTA to their total number), as well as the percentage ratio of all technical and tactical techniques are determined.





## 2.1.1. The integral estimation of players' TTA

The analysis of technical and tactical activity of football players only by quantitative and qualitative indicators is not always objective and sufficiently informative for management impact. This is caused by several reasons. First of all, by different tactical functions of the players in the game and by different conditions of execution of technical and tactical actions. It goes without saying that the striker is practically constantly under the tight control of the defenders of the opposite team in the course of the game and it is quite difficult for him to perform the same number of actions with appropriate efficiency, as, for example, a defender. Secondly, it is necessary to consider the level of the opposing team in the analysis of competitive activity. Games can be against weaker, equal or stronger opponents. Thirdly, taking into account only quantitative indicators does not always reflect the true contribution of the player to the team result. It is always easier to make three holding passes back than one long-range, sharpening forward.

Thus, the integral estimation should be based on a complex regard of the technical and tactical activity of football players.

The main statements that were taken into account in the development of the integral estimation:

1. Registration of technical and tactical actions should be made taking into account the coordination complexity and game intensity of their performance.
2. The analysis of technical and tactical activity procedure should consider the direction and importance of technical and tactical moves (passes, dribbling, groundmoves, etc.).
3. Quantitative indicators of technical and tactical activity should be analyzed together with their qualitative characteristics.
4. A differentiated approach to determining the integral estimation of technical and tactical activities for football players of different roles is needed.

5. The integral estimation should objectively reflect the athlete's skills manifested in play, and be the basis for composing models of competitive activity.

Based on the statements above, the following methodological approaches regarding the control and analysis of players' technical and tactical activities have been made:

1. Performance of technical and tactical actions was fixed in 3 modes of coordination complexity and game tension:
  - *The first coordination complexity mode (1st CCM)* — TTA is performed on-the-spot or at a convenient speed of movement (traps, passes, performance of a set piece, etc.);
  - *2nd CCM* — TTA is executed in the process of movement being restricted in space and time (traps, dribbling, passes, interceptions, shots on goal);
  - *3rd CCM* — TTA is performed in terms of active interference of the opponent (traps, groundmoves, passes, interceptions, shots on goal).
2. Passing the ball is registered with keeping in mind the purpose for which the player performs the handoff. As a technical and tactical move, it can be done for: holding on to the ball, the development of the attack, aggravation of a playing situation. On this basis, passes are classified into holding, developing and aggravating ones.
3. Integral estimation must reflect quantitative and qualitative indicators of the players' technical and tactical activity. For this purpose, six specific indicators have been developed: quantitative — the intensity coefficient, the mobility coefficient, the aggressiveness coefficient; qualitative — the efficiency coefficient, the face-off efficiency coefficient, the creativity coefficient.

1. *The intensity coefficient (IC)*

$$IC = \frac{\sum_{i=1}^n TTA}{t}, \quad (2.1)$$

where  $t$  is the time played by the player in the match

2. *The mobility coefficient (MC)*

$$MC = \frac{\sum_{i=1}^n TTA (2\text{-rd CCM} + 3\text{-rd CCM})}{t} \times 2, \quad (2.2)$$

where 2 is an indicator of coordination complexity

3. *The aggressiveness coefficient (AC)*

$$AC = \frac{\sum_{i=1}^n TTA (3\text{-rd CCM})}{t} \times 3, \quad (2.3)$$

where 3 is an indicator of coordination complexity

4. *The efficiency coefficient (EC)*

$$EC = \frac{\sum_{i=1}^n TTA}{t} \quad (2.4)$$

5. *The face-off efficiency coefficient (FEC)*

$$FEC = \frac{\sum_{i=1}^n \text{exact TTA (traps, interceptions, tackles, groundmoves, passes - 3-rd CCM)}}{\sum_{i=1}^n \text{total TTA (traps, interceptions, tackles, groundmoves, passes - 3-rd CCM)}} \quad (2.5)$$

6. *The creativity coefficient (CC)*

$$CC = \frac{\sum_{i=1}^n \text{exact TTA (DP} \times 1 + AP \times 2 + AP \times 5 + SG \times 5 + G \times 10)}{t}, \quad (2.6)$$

where  $DP$  — developing passes;

$AP$  — aggravating passes;

$AP$  — assist passes;  
 $SG$  — shots on goal;  
 $G$  — goals.

*Integral estimation (IE)* of a field player is calculated by the formula:

$$IE = IC + MI + AC + EC + FEC + CC \quad (2.7)$$

A special protocol is used for the integral estimation of technical and tactical activity of football players (table 2.2.).

## 2.2. Movement control of football players

Control of football players' movements during the game is important both for the analysis of competitive activity and for determining the magnitude and direction of competitive loads. The registration procedure of the players' movements is developed on the basis of visual methods of pedagogical observations: registration of motor movements of the players on special forms of graph paper (each box is 1m displacement); timekeeping motor movements (the time of the main ways of movement is registered) of players. During the game, a football player stands, walks, controls the ball being at a stop, by walking and running, runs at a low (moderate) speed, accelerates and performs jerks. All these types of movements are not subject to any algorithm and are performed in the sequence driven by the logic of playing situations. At the same time, motor activity of football players of different roles is characterized by a certain specificity.

Consequently, the main ways of movement should be recorded: standing still, walking, running with moderate intensity, jerks. Moreover, the object of pedagogical observations should be players of different roles. Indicators for timekeeping of the players' motor movements are recorded in a special protocol (tab. 2.3.).



Table 2.3.

**The registration protocol of football players' movements:  
without the ball (numerator) and with the ball (denominator)**

Player's role	Ways of movement					Total, m
	Standings	Walking, m	Running with moderate intensity, m	Acceleration, m	Jerks, m	
Goalkeeper						
Outside defender						
Central defender						
Outside halfback						
Holding halfback						
Insider						
Forward						
% Ratio						

To analyze different ways of the players' movement in meters the same protocol as in table 2.3. is used, but with the exception of the "standing" column.

The players' movements during the match is the second component of the indicators of their competitive activity. Therefore, for an objective analysis of the competitive activity of football players, it is desirable to conduct a parallel registration of performed technical and tactical actions with the ball and motor movements.

## 2.3. Control and analysis of football team attacks

There are three types of attack, carried out by the team during the match, which are subject to control during the game: penetrative, successful penetrative and successful assist.

*An attack* in football should be considered as the actions of team players in the ball possession phase that are directly targeted at the "goal scoring" of the opposing team.

The attack that creates a game situation for an aggravating tactical move or a shot for goal is considered to be *penetrative*.

*A successful attack* is a penetrative attack that ends with a shot for goal or a penalty or corner kick.

*Assist attack* is a penetrative attack that ends with a goal. Long-term observations and analysis of competitive activity in football make it possible to come to the following conclusions:

1. As a rule, each attack in football consists of four phases (stages). The first stage is taking possession of the ball by a team and the implementation of stable control over the ball. This phase can be called the stabilization phase. The stabilization phase begins after tackling or interception of the ball, and after the team wins the right for playing off a set piece. When tackling or intercepting the ball, the team must create a coalition of players to control the ball in a certain area of the field. Otherwise, it can very quickly get controlled by the opponent.

*A coalition of players is a group of team players who interact with each other in a certain playing zone (zones) in order to solve a game problem that has arisen.*

*As a rule, such coalitions consist of a small number of players — from 2–3 to 4–6. In some cases, these coalitions may consist of 7–8 players. For example, for such combinations as inter-passing in pairs, the wall, overlapping, passing through the third*

*a coalition of 2–3 players is required. Such combinations as switch play through the closest player and the square are carried out on the basis of coalitions, which consist of 4-6 players.*

*The main requirements for the formation of coalitions of players:*

- the number of players in the coalition should be optimal with respect to the content and complexity of the game problem;*
- a coalition of players must be formed quickly enough, especially the coalition around the ball;*
- a coalition breaks up after it has completed its task, and the players who were in this coalition, seek to enter a new coalition;*
- in each attack, the number of coalitions depends on the state of its organization and realization: at the first stage (beginning) of the attack, as a rule, one coalition is formed; at the second stage (attack development) — several coalitions are created (depending on the type of attack), at the third (attack aggravation) and fourth (the end of attack) stages 1 or 2 coalitions are formed.*

The basic rule for creating a coalition at the first stage is the formation of a triangle around the player who possesses the ball.

The second stage is the attack development with the positional control over the ball (positional attacks) and the rapid movement of the ball in the direction of the opponent's goal (fast attacks).

The third stage is the aggravation of the playing situation. This stage occurs when there is a condition for an aggravating tactical move. In other words, a penetrating attack is performed.

The fourth stage is the end of the attack.

2. The third stage of the attack, that is, the aggravation phase, can progress mainly on such options: from the right flank; from the left flank; with playing a through ball between the outside and central defenders. This tactical move can be, conventionally, defined as passing the ball to the "right pocket" and "left pocket";



Table 2.4.

### The registration protocol of attacks in football

Date \_\_\_\_\_

\_\_\_\_\_ team

\_\_\_\_\_ team

Tackles		1	2	3	Σ	1	2	3	Σ
Positional attacks									
Fast attacks									
Penetrative attacks	right flank								
	left flank								
	right "pocket"								
	left "pocket"								
center	behind								
	combinations								
	individual playing								
Successful penetrative attacks	right flank	c							
		p							
		→							
	left flank	c							
		p							
		→							
	right "pocket"	c							
		p							
		→							
	left "pocket"	c							
		p							
		→							
center	behind	c							
		p							
		→							
	combinations	c							
		p							
		→							
individual playing	c								
	p								
Set piece	corner kicks	near post							
		remote post							
		playing off							
	free kicks	direct kick							
		playing off							

Notes: *c* — a corner kick; *p* — a penalty kick; → — shot on goal;  
 1, 2, 3 — field zones

an aggravating tactical move in the central part of the third zone of the field. In this case, a successful penetrative attack can be carried out by: passing the ball behind the opponent players; interaction of players through playing combinations; individual aggravation of a playing situation. Long-range shots are referred to the individual playing.

Aggravation of playing situations is separately recorded after a set piece (table 2.4.).

Evaluation scale of aggravating attacks is presented in table 2.5.

In football, the result of a match does not always reflect the correlation of forces on the field. At the same time, the team that tends to organize and carry out more attacking actions and effectively combat attacking actions of the opponents, has the real possibility to achieve a general positive result. Therefore, the control and analysis of the attacks of their own and the opposing teams enables to some extent to assess the effectiveness of the team playing.

Using the evaluation scale (see table 2.5.), it is possible to determine two informative indicators of the effectiveness of the team attacks — the performance coefficient (PC, conditional units) and the effectiveness of the team attacks (ETA, points)

$$PC = \frac{\sum_{i=1}^n GA}{\sum_{i=1}^n SA}, \quad (2.8)$$

where  $\sum_{i=1}^n GA$  — number of goal attacks;

$\sum_{i=1}^n SA$  — the number of successful attacks.

$$ETA = \sum_{i=1}^n points(PA + SA + GA), \quad (2.9)$$

where  $\sum_{i=1}^n points$  :  $PA$  — the number of penetrative attacks;  
 $SA$  — the number of successful attacks;  
 $GA$  — the number of goal attacks.

Table 2.5.

**Evaluation scale of the organization  
and realization of attacks by a team in football**

Type of attacks and their completion	Number of points for 1 attack	One's own team		Opposing Team	
		number of attacks	point total	number of attacks	point total
Penetrative — the loss of the ball.	1				
Penetrative — the loss of the ball, the scoring chance occurrence.	4				
Successful — a penalty or a corner kick	2				
Successful — a penalty or a corner kick, the scoring chance occurrence.	5				
Successful — not exact shot on goal.	2				
Successful — not exact shot on goal, the scoring chance occurrence.	5				
Successful — not exact shot on goal.	5				
Successful — not exact shot on goal, the scoring chance occurrence.	8				
Successful — a penalty kick	8				
Successful — a goal.	10				
Set piece — a penalty or a corner kick (a pass, a direct kick, playing off)	2				
Set piece — a penalty or a corner kick (a pass, a direct kick, playing off) The scoring chance occurs.	5				

It should be emphasized that the foregoing method of determining the effectiveness of the team attacks in football is comparatively easy to learn, but quite informative, especially for the coach when analyzing the team's playing.

## 2.4. Expert evaluation of competitive activities of players and teams in football

The integral estimation of the players' TTA is based on quantitative and qualitative indicators, but does not take into account tactical aspects of the game, the level of players' tactical thinking, as well as the expediency of movements around the field. That is why for a more objective determination of the footballers' level of playing, the expert evaluation is implemented.

*Expert evaluation of competitive activity* of footballers is based on the ten criteria describing tactical aspects of the game.

### *In the ball possession phase:*

1. Switching from defense to attack (switching time and tactical expediency).
2. Expedient and rational movements on the field in order to get the ball by oneself or to create favorable conditions for attacking actions of teammates. In other words - the player's ability to open up.
3. Interaction with teammates by passing the ball (accuracy, timeliness, purposefulness of passes).
4. The level of individual skills (efficiency of technical techniques such as traps, passes, dribbles, groundmoves, shots on goal).
5. Participation in the aggravation and finishing of the attacking actions (aggravation of playing situations by groundmoves or passing the ball, aggressiveness and rationality when finishing the attack).

### *In the ball dispossession phase:*

1. Switching from attack to defense (switching time and tactical expediency).

2. Control over the opponent's players (quick switch to the coverage of the player, the ability to keep him under control until the end of the playing episode).
3. Participation in the tackling of the ball (activity and aggressiveness when tackling the ball, the ability to gain possession of the ball without breaking the rules, effective pressure on the player possessing the ball).
4. Participation in interceptions of the ball (the ability to play with forecasts, tactical expediency of participation in the interceptions of the ball, the ability to intercept the ball without breaking the rules).
5. Interaction with teammates (giving a spot, switching to the coverage of another player, blocking the playing space).

Each of the above-listed criteria is evaluated in the range from 1 to 10 points. Expert evaluation is carried out by one or more experts. If there are 2 or more experts, the average indicator for each criterion is determined. The level of competitive activity of players is determined according to table 2.6.

*Table 2.6.*

**Expert evaluation of footballers' competitive activity  
(averaged data for 10 criteria)**

Sl.No.	Level of competitive activity	Points
1.	Low	<3,5
2.	Pre-intermediate	3,5–4,9
3.	Intermediate	5,0–6,4
4.	Upper-intermediate	6,5–7,9
5.	High	8,0 and more

Expert evaluation is defined by each criterion, and playing in phases of the ball possession and dispossession, as well. The expert evaluation is recorded in the protocol (table 2.7.).

Table 2.7.

**Example of expert evaluation of team players of \_\_\_\_\_  
in the tournament with the team \_\_\_\_\_**

№ of player	Surname, role	The ball possession phase							The ball possession phase							Total in the game	
		Criteria							Criteria							Σ	$\bar{x}$
		1	2	3	4	5	Σ	$\bar{x}$	1	2	3	4	5	Σ	$\bar{x}$		
15	Nosenko, a holding midfielder	7	6	4	8	7	32	6,4	8	7	8	8	7	38	7,6	70	7,0

Judging by the indicators, provided in table 2.7., it is possible to draw a conclusion that the holding midfielder Nosenko has shown the intermediate level in the possession phase, and his sporting skills have been at the upper-intermediate level in the dispossession phase. In general, the competitive activity of this player during the match is assessed by experts as upper-intermediate.

*Expert evaluation of the goalkeeper* is determined by five criteria:

1. Playing in goal (the number of saves, their complexity).
2. Playing in dashes (timeliness of the dashes out of goal, the ability to reduce the angle of the shot for goal, the face-to-face playing).
3. The technique of playing (the level of the technical techniques performance).
4. Interaction with teammates in the ball dispossession phase (defense management, timely tips).
5. Interaction with teammates in the ball possession phase (ability to start attacking actions, management of attacking actions)

For example, the experts have rated the goalkeeper's performance in a certain game as follows: 1st criterion — 9 points, 2nd — 7 points, 3rd — 7 points, 4th — 9 points and 5th — 7 points. Total 44 points. The average expert evaluation is 8.8 points, and according to table 2.6., it corresponds to a high level of competitive activity.

**Analysis of team tactical actions.** Team tactical actions are evaluated by to ten criteria.

*In the ball possession phase:*

1. Switching from defense to attack (how quickly the team will organize attacking actions after gaining possession of the ball).
2. Organization of positional attack.
3. Organization of fast attacks and counterattacks.
4. Effectiveness and aggressiveness of attacking actions.
5. Playing off a set piece (penalty, corner kicks).

*In the ball dispossession phase:*

1. Switching from attack to defense (how quickly the team switches to defensive actions, withdrawal of players behind the ball line, withdrawal of players to their own goal).
2. Pressing (ability of players to effectively interact under all types of pressing).
3. Effectiveness of the defense system (zone, personal or combined).
4. Activity and effectiveness of face-offs (tackles, interceptions of the ball, pressure on the opponents).
5. Efficiency of defensive actions at a set piece.

The level of the team competitive activity is determined according to table 2.6.

Thus, the analysis of competitive activity of each player and a team as a whole is carried out on the basis of specific indicators of integral estimation and criteria of expert evaluation.

## Summary

Control of competitive activity is a key element in the overall system of training athletes.

In football, pedagogical control can be carried out on the basis of integral estimation of technical and tactical activity of players, which consists of six specific coefficients, namely of intensity, mobility, aggressiveness, efficiency, face-off efficiency and creativity.

Control of the players' motor activity during the match is of great importance, and it should be considered in conjunction with the integral estimation.

Together with control of quantitative indicators of the TTA performance and parameters of motor activity, the expert analysis which, as a rule, is carried out by coaching staff, shall be applied.

The methodology of control over the competitive activity of football players, set out in this chapter, makes it possible to improve the overall effectiveness of the management of a football team.



# CHAPTER 3

## Outcome analysis of the study of competitive activity of highly qualified players

---

Based on the authorial methodology of control over the competitive activity, this chapter presents the results of the study, relating to determination of the values of integral estimation, indicators of technical and tactical activities of highly qualified players, tactical aspects of playing by footballers of high proficiency and analysis of the goalkeeper's competitive activity in football.

### 3.1. Model values of integral estimation of technical and tactical activity of highly qualified players performing different playing roles

Long-term observation and analysis of the players' competitive activity has driven the conclusion that the objective assessment of technical and tactical activity of each football player in the game should be based on the following statements:

- it is necessary to take into account the performance of all major TTA by a player: passes, traps, dribbles, ground-moves, interceptions, tackles and shots on goal;
- the performance of each playing technique should be considered in different modes of coordination complexity;

- the ball passing should be analyzed as a technical-tactical move in order to hold the ball, develop the attack or aggravate it;
- not only quantitative, but also qualitative indicators of technical and tactical activity should be taken into account.

On the basis of the above-mentioned statements, integral estimation of technical and tactical activities of players has been developed.

Integral estimation displays quantitative and qualitative indicators of technical and tactical activity of the players. With this purpose, six specific indicators of competitive activity have been developed — quantitative (the intensity coefficient, the mobility coefficient, the aggressiveness coefficient) and qualitative (the efficiency coefficient, the face-off efficiency coefficient, the creativity coefficient).

Specific indicators of integral estimation of technical-tactical activities of players of different playing roles are presented in table 3.1. Each of the indicators of IE of TTA characterizes individual components of competitive activity. The intensity coefficient determines the overall activity in the game. The highest recorded IC belongs to the holding midfielder ( $x \pm S$ ;  $1,15 \pm 0,20$ ), the lowest — to the attacker ( $0,75 \pm 0,16$ ). The IC of other players ranges from  $1,11 \pm 0,18$  (a wing back) to  $1,05 \pm 0,17$  (a centre-back). The mobility coefficient characterizes the overall mobility of the player during the match, his desire to perform TTA in motion in different parts of the field. The MC indices are approximately the same for the players of these three roles: the holding midfielder —  $1,39 \pm 0,12$ , the outside midfielder —  $1,36 \pm 0,25$  and the insider —  $1,36 \pm 0,24$ . A little lower indicators are observed in the extreme ( $1,29 \pm 0,19$ ) and central ( $1,22 \pm 0,18$ ) defenders. The value, characterizing the forward, is  $1,03 \pm 0,25$  points.

A very important indicator in the structure of the players' technical and tactical activity is the aggressiveness coefficient of the player in the match, his participation in face-offs, activity in groundmoves, interceptions and tackles of the ball, shots on goal. As expected, the highest values of the AC are observed in the forward —  $1,09 \pm 0,24$ , that is 22.0% more than the outside midfielder's

Table 3.1.

**Model values of integral estimation of technical and tactical activity of players performing different playing roles**

Playing roles	Specific indicators of integral estimation of technical and tactical activity, points						
	IC	MC	AC	EC	FEC	CC	IE
Wing back ( <i>n</i> =20)	1,11	1,29	0,69	0,84	0,54	0,79	5,26
	0,18	0,19	0,15	0,06	0,12	0,14	0,77
	0,46	1,68	0,99	0,94	0,83	1,06	6,57
	0,20	0,97	0,43	0,71	0,40	0,52	3,69
	15,9	14,7	21,7	7,3	21,3	18,3	14,6
Central defender ( <i>n</i> =20)	1,05	1,22	0,65	0,86	0,61	0,72	5,11
	0,17	0,18	0,19	0,90	0,14	0,12	0,54
	1,33	1,55	1,26	0,96	0,88	0,92	6,39
	0,69	0,88	0,53	0,61	0,37	0,48	4,38
	16,3	14,7	30,1	10,9	22,4	16,4	10,5
Holding midfielder ( <i>n</i> =18)	1,15	1,39	0,76	0,86	0,59	0,86	5,61
	0,20	0,12	0,16	0,05	0,13	0,11	0,86
	1,64	1,46	1,20	0,91	0,89	1,06	7,61
	0,88	1,02	0,60	0,73	0,40	0,66	4,39
	17,7	8,4	21,2	5,6	22,2	12,5	15,4
Outside midfielder ( <i>n</i> =18)	1,06	1,36	0,85	0,83	0,67	0,82	5,59
	0,18	0,25	0,34	0,07	0,11	0,29	0,91
	1,42	1,91	1,73	0,93	0,86	1,72	7,78
	0,78	0,97	0,46	0,68	0,47	0,66	4,47
	16,5	18,9	41,0	8,4	15,9	35,5	16,2
Insider ( <i>n</i> =18)	1,06	1,36	0,76	0,88	0,74	0,89	5,71
	0,21	0,24	0,24	0,06	0,12	0,26	0,77
	1,60	1,82	1,33	0,95	0,91	1,60	7,30
	0,84	0,93	0,46	0,73	0,45	0,62	4,49
	19,8	17,9	31,4	6,8	17,1	30,2	13,5
Forward ( <i>n</i> =18)	0,75	1,03	1,09	0,72	0,61	0,70	4,90
	0,16	0,25	0,24	0,08	0,14	0,23	0,84
	0,98	1,51	1,67	0,81	0,82	1,24	6,21
	0,38	0,58	0,79	0,50	0,29	0,40	3,08
	21,9	24,8	22,2	11,8	23,8	32,9	17,2

Notes: 1) *IC* — the intensity coefficient; *MC* — the mobility coefficient; *AC* — the aggressiveness coefficient; *EC* — the efficiency coefficient; *FEC* — the face-off coefficient; *CC* — the creativity coefficient; *IE* — integral estimation;

2) first row —  $\bar{x}$ ; second row — *S*; third row —  $x_{\max}$ ; fourth row —  $x_{\min}$ ; fifth row — *V*.

ones ( $0,85\pm0,34$ ). Other playing roles have even lower AC: the outside and the central defenders —  $0.69\pm0.15$  and  $0.65\pm0,19$ ; the holding midfielder and the insider —  $0.76\pm0,16$  and  $0,76\pm0,24$ .

Based on the analysis of the three quantitative indicators of the TTA IE, it can be concluded that the most difficult conditions for performing TTA in playing are observed in the outside halfback (winger) and the forward. It should be assumed that, on the one hand, the footballers of these playing roles perform the greatest amount of high-speed work during the match, and on the other hand, they spend the greatest amount of energy.

As regards the qualitative indicators the footballers' TTA IE, the efficiency of the TTA performance ranges from  $0,83\pm0,07$  (outside midfielder) to  $0,88\pm0,06$  (insider) for almost all roles, except the forward. The forward's EC makes up  $0.72\pm0.08$  points, which is 13.2% less than the outside midfielder's one.

What generates interest is the highest rates of the TTA IE among highly qualified players, who can be referred to the elite of world football (table 3.2).

To some extent, these indicators of the TTD IE can be considered as model for players of different roles. It should be noted that in the structure of the TTA IE of such a player like Messi (insider), the highest ratio falls on the MC — 24,0% and the CC — 22.1%. The outside midfielder Robin has got approximately the same indicators, namely the MC -23,2% and the CC — 19.5%. As could be expected, the forward Villa's highest ratios of the TTD IE are expressed through the AC — 24.6% and the CC — 17,3%. The highest TTA IE of the holding midfielder of the Germany national team Schweinsteiger is identified in terms of the IC — 1.27 (19,3%) and the MC — 1,58 (24,0%). A similar a trend in the ratio of specific indicators of the TTA IE is considered in the outside defender Maicon: IC — 1.22 (20.2%); MC — 1.51 (25.0%) and the central defender Pique: IC — 1.19 (20,7%); MC — 1,46 (25.3%).

If we compare the model indicators of the TTA IE of players performing different roles in leading club teams of Ukraine with

Table 3.2.

**The highest rates of integral estimation of footballers' competitive activity  
at the World Cup 2010**

Surname	Role	Match, score	Specific indicators of integral estimation of competitive activity						
			Intensity coefficient	Mobility coefficient	Aggressiveness coefficient	Efficiency coefficient	Face-off efficiency coefficient	The creativity coefficient (reliability)	Integral estimation
Neuer	Goalkeeper	Germany – Argentina (quarter-final): 3:0	0,48 (8,9)	0,57 (10,6)	0,39 (7,3)	0,86 (15,9)	1,0 (18,6)	2,08 (38,7)	5,38
Maicon	Wing back	Brazil – Holland (quarter-final): 0:2	422 (20,2)	1,51 (25,0)	0,54 (8,9)	0,89 (14,7)	0,72 (11,9)	1,16 (19,3)	6,04
Pique	Central defender	Spain – Paraguay (quarter-final): 1:0	1,19 (20,7)	1,46 (25,3)	0,69 (11,9)	0,85 (14,7)	0,68 (11,8)	0,89 (15,6)	5,76
Schweinsteiger	Holding midfielder	Germany – Argentina (quarter-final): 3:0	1,27 (19,3)	1,58 (24,0)	0,96 (14,6)	0,89 (13,5)	0,72 (10,9)	1,16 (17,7)	6,57
Messi	Central midfielder (insider)	Argentina – Germany (quarter-final): 0:3	1,62 (19,6)	1,98 (24,0)	1,17 (14,2)	0,90 (10,9)	0,76 (9,2)	1,82 (22,1)	8,25
Robben	Outside midfielder	Holland – Uruguay (semi-final): 2:1	1,38 (18,8)	1,71 (23,2)	1,39 (18,9)	0,81 (11,0)	0,63 (8,6)	1,44 (19,5)	7,36
Villa	Forward	Spain – Paraguay (quarter-final): 1:0	0,96 (15,4)	1,24 (19,9)	1,53 (24,6)	0,80 (12,9)	0,62 (9,9)	1,06 (17,3)	6,21

Note: in parentheses — the percentage ratio.

the indicators of elite players, we can establish that the model indicators of the TTA IE of highly skilled players of leading Ukrainian clubs are characterized by lower values in comparison to the fixed indicators of the TTA IE of elite players. In particular, the TTA IE of the right defender of the Brazil national team is 12.9% higher than the model values of the TTA IE of a wing back of leading Ukrainian club teams.

Consequently, the indicators of the elite footballers' TTA IE of other roles are higher than the values of highly skilled players of Ukrainian club teams: the central back — by 11.2%; the holding midfielder — by 14.6%; the wing back — by 24.0%; the insider — by 30.7%; the forward— by 21.1%. This difference to some extent can demonstrate the reserves for increase of the players' competitive activity indicators in Ukrainian club teams.

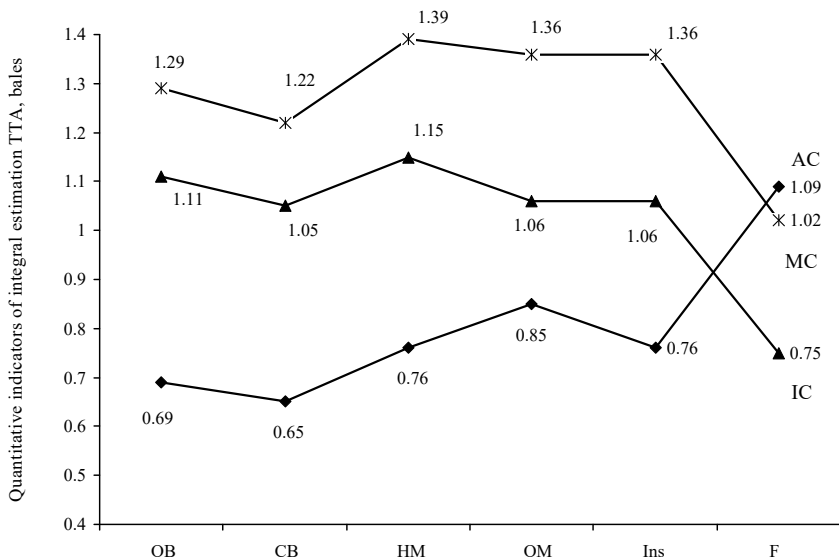
In general, considering model values of specific indicators of TTA performed by highly-skilled players of different roles, it should be concluded that the highest value for all roles in the general structure of the TTA IE is expressed by the quantitative specific indicators. The ratio of quantitative and qualitative specific indicators of the TTA IE of players performing different roles is as follows: for the wing back— 3.09 points (58.7 %) and 2.17 points (41,3%); for the central back - 2.92 points (57.1%) and 2.21 points (42.9%); for the holding midfielder — 3.30 points (58.8%) and 2.31 points (41,2%); for the outside midfielder — 3.27 points (58,5%) and 2.32 points (41.5 %); for the insider — 3.18 points (55,7%) and 2.53 points (44.3%); for the attacker — 2.87 points (58.6%) and 2.2 points (41.4%).

Quantitative values of the TTA IE, on the one hand, characterize the motor activity of the players, and, on the other hand, the coordination complexity of the TTA performance in the process of playing (fig. 3.1.).

The holding midfielder, the outside midfielder and the insider are the roles which are characterized by the most dynamic playing. For the forward, it is important to perform TTA in conditions of active

interference by the opponent. Therefore, out of all roles it is the forward who has the highest value of the AC — 1.09 (see fig. 3.1.).

Quite important information can be obtained in the analysis of qualitative indicators of footballers' TTA IE (Fig. 3.2.). The more complex are the conditions for performing the TTA by the player in the game, the lower is the value of such qualitative indicators of the TTA IE as the EC and the FEC. The most important qualitative



*Fig. 3.1. Quantitative indicators of integral estimation of technical and tactical activity of highly qualified players performing different playing roles:*

- OB — the outside back;*
- CB — the centre-back;*
- HM — the holding midfielder;*
- OM — the outside midfielder;*
- Ins — the insider;*
- F — forward;*
- IC — the intensity coefficient;*
- MC — the mobility coefficient;*
- AC — the aggressiveness coefficient.*

indicator of the players' TTA IE is the CC, which to the utmost characterizes the creativity of the player, his ability to effectively participate in the playing combinations of developing and aggravating character. The CC greatest value of the TTA IE is inherent in such playing roles as the holding midfielder and the insider (see fig. 3.2.).

Thus, the analysis of competitive activity in football on the basis of the TTA IE contributes to more purposeful management of the players' training.

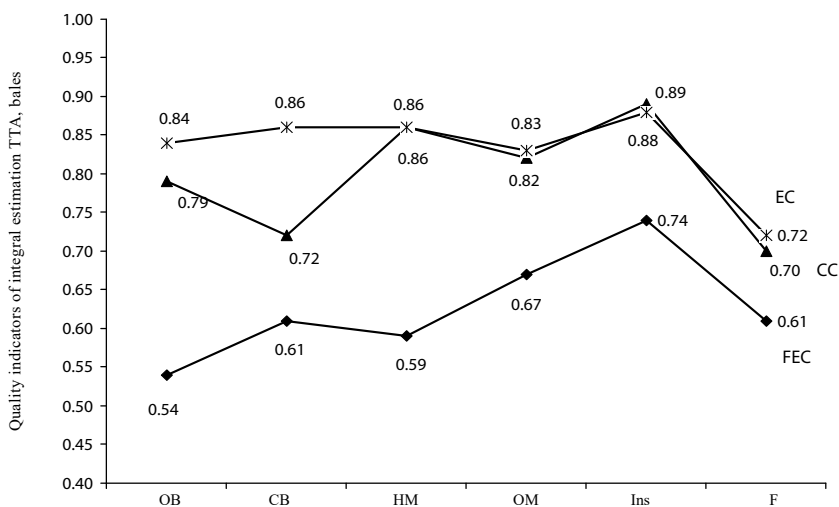


Fig. 3.2. Quantitative indicators of integral estimation of technical and tactical activity of highly qualified players performing different playing roles:

- OB — the outside back;
- CB — the centre-back;
- HM — the holding midfielder;
- OM — the outside midfielder;
- Ins — the insider;
- F — forward;
- EC — the efficiency coefficient;
- FEC — the face-off efficiency coefficient;
- CC — the creativity coefficient.



## 3.2. Indicators of technical and tactical activity of highly qualified players at the European Championship 2016

The competitive activity of national teams at the European Championship 2016 in France has been analyzed. The subject of this study is the analysis of technical and tactical activity of the players of the Ukraine national team in the matches of the group tournament against the teams of Germany, Northern Ireland and Poland. Meanwhile, the following specific objectives have been focused on:

- to specify the structure of technical and tactical activity of the Ukraine national team;
- to define the indicators of integral estimation of technical and tactical activities of both the team and the players.

For determining the structure of technical and tactical activity, the following TTA have been subject to analysis: traps, dribbles, groundmoves, passes, interceptions, tackles, shots on goal (from play and a set piece). Implementation of each TTA was considered in three modes of coordination complexity. The first mode of coordination complexity (1st CCM) included the TTA, performed on-the-spot or at a convenient speed of movement (traps, passes, execution of a set piece). The implementation of TTA in motion with limitation in space and time was regarded as the TTA performed in the 2nd CCM (traps, dribbles, passes, interceptions, shots on goal). If TTA had been carried out in conditions of active interference by the opponent, such TTA was referred to the 3rd CCM (traps, groundmoves, tackles, interceptions, passes, shots on goal). This methodical approach to the control and analysis of technical and tactical activity of players enables not only to define general quantitative indicators, but also to identify the level of coordination complexity in the TTA performance by each player during the match.

The analysis of passing the ball relied upon the fact that passing was regarded as a tactical move to build the playing structure of a football team, and every tactical move in the match can be performed with the goal of holding the ball, development of attack and aggravating playing situations. That's why the ball passes were considered to be holding, developing and aggravating in our study (table 3.3.).

Indicators and structure of TTA of the Ukraine national team at the European Championship 2016 are presented in table 3.3. On average, the players of the Ukraine national team performed  $857.7 \pm 298.8$  TTA per game with the efficiency coefficient  $0.85 \pm 0.02$ .  $195,3 \pm 50,9$  (22,7%) out of all TTA were face-offs. The efficiency coefficient of participation of the Ukraine national team players in face-offs is  $0,65 \pm 0,01$ , i.e. the reject rate in face-offs makes up 35%.

As can be seen in table 3.3, the largest number of TTA in the general structure of technical and tactical activity of the team is made up by passing the ball — 44,4% (380,9), 18,7% (71,3) of which have been performed with the goal of keeping the ball, 70.7% (269,3) — have a developing character of tactical moves and 10.6% (40,3) have been used for aggravating playing situations. In addition to passes, quite a large amount in the structure of technical and tactical activity falls on trapping 28.2% (214,5), 80,5% (194,6) of which were performed in the 2nd CCM and 35.6 (14.9%) — in playing moments, when the players stopped the ball in conditions of active interference by the opponent, i.e. in the 3rd CCM.

In three matches of the European Championship, 732,7 TTA (85,4%) were performed in the possession phase (passes, traps, dribbles, groundmoves and shots for goal) by the Ukraine national team and 125,0 TTD (14,6%) were performed in the ball dispossession phase (interceptions and tackles).

Concerning the TTA, performed in the ball dispossession phase, the players of the Ukraine national team carried out a few

more interceptions — 68.7 times per game (8.0 %) than tackles — 46.7 times (5.4%).

At the same time, the ratio of TTA in the phase of possession and dispossession varies, depending on the opponent. Thus, in the first game against Germany, the Ukraine national team executed only 562 TTA, 79.2% of which were performed in the possession phase, and 20.8% — in the ball dispossession phase.

In the second game against the national team of Northern Ireland, the players of the Ukraine national team fulfilled 1104 TTA, 952 (86.2%) of which — in the ball possession phase and 152 (13.8%) — in the ball dispossession phase. Therefore, a certain consistency is discernible: the stronger the opponent is, the less TTA in the possession phase, and the more TTA in the ball dispossession phase are performed by the team.

One of the objectives of this study is to specify the integral estimation of Ukraine at the European Championship in 2016.

Integral estimation of technical and tactical activities of the players of the Ukraine national team at the European Championships 2016 is presented in table 3.4.

The analysis of the table allows to draw several conclusions:

- 1) depending on the level of the opposing team, almost all players have IE ranging from 2.35 to 5.36 (the Germany team); from 3.54 to 8.04 (the Northern Ireland team) and from 3.36 to 7.69 (the Poland team);
- 2) the highest rates of IE are demonstrated by the outside midfielders (from 5.36 to 8.04), and the lowest ones — in the forwards (from 2.35 to 4.11);
- 3) judging by specific indicators of technical and tactical activity, the defenders have performed the most amount of TTA, that is the IC (between 0.57 to 1.65), the midfielders — the MC (from 0.47 to 2.0), the forwards — the AC (from 0.48 to 1.04).

Integral estimation of technical and tactical activities of the national team players in the team aspect is presented in table 3.5.



Continuation of table 3.3.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>
<b>Groundmoves</b>	49,7	13,0	62	40	26,1	0,83	0,02	0,84	0,80	2,8	5,8
<b>Tackles</b>	46,7	14,8	57	32	31,6	0,40	0,12	0,49	0,28	8,1	5,4
<b>Interceptions</b>	<b>1</b>	0,66	-	-	-	1,0	-	-	-	-	0,9
	<b>2</b>	40,0	21,3	60	14	53,3	0,75	0,86	0,88	6,6	58,2
	<b>3</b>	28,0	7,7	36	33	27,4	0,58	0,14	0,78	0,55	40,9
<b>Shots on goal</b>	<b>From play</b>	12,0	8,3	18	4	69,0	0,33	0,28	0,75	0,27	88,2
	<b>SP</b>	1,6	0,59	2	1	36,9	0,50	0,29	1,0	0,50	11,8
<b>The number of TTA</b>	857,7	298,8	1060	555	34,8	0,85	0,02	0,86	0,83	2,1	-
<b>Face-off</b>	195,3	50,9	232	146	26,1	0,65	0,01	0,66	0,64	1,8	22,7
<b>EC</b>						0,85	0,02	0,86	0,83	2,1	
<b>Specific indicators</b>	<b>IC</b>	0,95	0,26	1,12	0,67	28,0	-	-	-	-	18,4
	<b>MC</b>	1,25	0,36	1,46	0,84	29,3	-	-	-	-	24,2
	<b>AC</b>	0,69	0,16	0,80	0,53	23,2	-	-	-	-	13,3
	<b>EC</b>	-	-	-	-	-	0,85	0,02	0,86	0,83	2,4
	<b>FEC</b>	-	-	-	-	-	0,65	0,01	0,66	0,64	1,8
	<b>CC</b>	-	-	-	-	-	0,78	0,25	0,97	0,54	32,6
<b>IE</b>	5,7	1,15	5,89	3,94	22,3	-	-	-	-	-	-

Table 3.4.

**Integral estimation of competitive activity  
of the Ukraine national team players  
at the European championship 2016**

Player's surname	Role	Team						
		Germany						
		IC	MC	AC	EC	FEC	CC	IE
1	2	3	4	5	6	7	8	9
Piatow	g	0,53	0,68	0,50	0,87	0,81	1,93	5,32
Fedetskyi	h/b	0,57	0,96	0,42	0,75	0,57	0,54	3,80
Khacheridi	r/cb	0,73	1,04	0,44	0,88	0,76	0,54	4,39
Rakitskiy	l/m	0,65	0,92	0,22	0,82	0,42	0,66	3,63
Shevchuk	l/b	0,77	0,92	0,44	0,82	0,69	0,57	4,19
Yarmolenko	r/m	0,83	1,11	0,99	0,87	0,82	0,76	5,37
Stepanenko	h/m	0,52	0,63	0,17	0,84	0,42	0,38	2,96
Sydorchuk	h/m	0,49	0,76	0,49	0,80	0,50	0,38	3,35
Kovalenko	ins	0,59	0,78	0,77	0,72	0,45	0,41	3,71
Zinchenko	ins	0,47	0,47	0,35	0,62	0,50	0,24	2,65
Konoplyanka	l/m	0,82	1,11	0,59	0,91	0,83	1,11	5,36
Zozulya	m	0,31	0,60	0,64	0,54	0,42	0,31	2,82
Seleznev	f	0,40	0,48	0,48	0,50	0,25	0,24	2,35
Garmash	ins	–	–	–	–	–	–	–
Kucher	l/cb	–	–	–	–	–	–	–
Butko	l/b	–	–	–	–	–	–	–
Rotan	h/m	–	–	–	–	–	–	–
Tymoshchuk	h/m	–	–	–	–	–	–	–

*Note.*     *IC*   – the intensity coefficient;  
              *MC*   – the mobility coefficient;  
              *AC*   – the aggressiveness coefficient;  
              *EC*   – the efficiency coefficient;  
              *FEC* – the face-off efficiency coefficient;  
              *CC*   – the creativity coefficient;  
              *IE*   – integral estimation.

Continuation of table 3.4.

1	2	Northern Ireland						
		IC	MC	AC	EC	FEC	CC	IE
		10	11	12	13	14	15	16
Piatow	g	0,61	0,82	0,16	0,93	0,66	1,44	4,62
Fedetskiy	h/b	1,05	1,32	0,73	0,79	0,67	0,89	5,44
Khacheridi	r/cb	1,65	2,43	1,13	0,86	0,47	1,01	7,66
Rakitskiy	l/m	1,59	1,71	0,36	0,88	0,55	1,10	6,18
Shevchuk	l/b	1,28	1,41	0,58	0,80	0,55	1,01	5,62
Yarmolenko	r/m	1,13	1,37	1,12	0,83	0,64	1,06	6,13
Stepanenکو	h/m	1,47	1,49	0,31	0,91	0,42	1,30	5,87
Sydorchuk	h/m	1,12	1,59	0,96	0,81	0,62	1,12	5,89
Kovalenko	ins	0,82	0,82	0,48	0,88	0,74	0,50	4,23
Zinchenko	ins	–	–	–	–	–	–	–
Konoplyanka	l/m	1,46	2,00	1,15	0,82	0,66	1,69	8,04
Zozulya	m	0,45	0,90	0,45	0,88	0,66	0,20	3,54
Seleznev	f	0,56	0,80	1,04	0,68	0,58	0,46	4,11
Garmash	ins	1,05	1,86	0,19	0,95	1,00	1,11	6,15
Kucher	l/cb	–	–	–	–	–	–	–
Butko	l/b	–	–	–	–	–	–	–
Rotan	h/m	–	–	–	–	–	–	–
Tymoshchuk	h/m	–	–	–	–	–	–	–

The end of table 3.4.

1	2	Poland						
		IC	MC	AC	EC	FEC	CC	IE
		17	18	19	20	21	22	23
Piatow	g	0,40	0,75	0,13	0,83	0,83	1,46	4,88
Fedetskiy	h/b	0,78	0,96	0,49	0,91	0,79	0,55	4,47
Khacheridi	r/cb	0,94	1,22	0,73	0,86	0,44	0,47	4,63
Rakitskiy	l/m	–	–	–	–	–	–	–
Shevchuk	l/b	–	–	–	–	–	–	–
Yarmolenko	r/m	0,98	1,28	0,83	0,90	0,86	1,05	5,89
Stepanenکو	h/m	1,25	1,59	0,69	0,82	0,31	0,78	5,38
Sydorchuk	h/m	–	–	–	–	–	–	–
Kovalenko	ins	0,55	0,66	0,49	0,70	0,66	0,54	3,06
Zinchenko	ins	1,05	1,49	0,93	0,77	0,70	0,90	5,84
Konoplyanka	l/m	1,51	1,72	1,39	0,86	0,67	1,25	7,69
Zozulya	m	0,52	0,81	0,89	0,61	0,54	0,36	3,36
Seleznev	f	–	–	–	–	–	–	–
Garmash	ins	–	–	–	–	–	–	–
Kucher	l/cb	1,26	1,45	0,39	0,95	0,73	1,00	5,77
Butko	l/b	1,35	1,28	0,35	0,93	0,79	1,17	5,86
Rotan	h/m	1,54	2,01	0,82	0,86	0,42	1,36	6,99
Tymoshchuk	h/m	–	–	–	–	–	–	–

Table 3.5.

**Indicators of integral estimation of technical  
and tactical activities of players of the Ukraine national team  
and opposing teams at the European Championship 2016**

No	Teams		Specific indicators of TTA						IE
			IC	MC	AC	EC	FEC	CC	
1	Ukraine — Germany (0:2)	1 t	0,65	0,91	0,58	0,85	0,71	0,58	4,28
			1,14	1,76	0,58	0,84	0,55	0,84	5,71
		2 t	0,98	0,77	0,48	0,81	0,56	0,50	3,60
			1,16	1,84	0,61	0,85	0,70	0,96	6,12
		game ( $\bar{x}$ )	0,66	0,84	0,53	0,83	0,64	0,54	3,94
1,15	1,80		0,59	0,85	0,33	0,90	5,92		
2	Ukraine — Northern Ireland (0:2)	1 t	1,22	1,38	0,97	0,84	0,62	0,92	5,95
			0,82	1,27	0,92	0,73	0,59	0,54	4,87
		2 t	1,12	1,54	0,63	0,87	0,65	1,02	5,83
			0,58	1,18	0,86	0,70	0,53	0,62	4,47
		game ( $\bar{x}$ )	1,17	1,46	0,80	0,86	0,64	0,97	5,89
0,70	1,23		0,89	0,72	0,56	0,58	4,67		
3	Ukraine — Poland (0:1)	1 t	1,06	1,53	0,77	0,86	0,70	0,84	5,76
			0,93	1,31	0,93	0,76	0,56	0,72	5,21
		2 t	1,08	1,32	0,74	0,85	0,62	0,96	5,57
			0,97	1,33	0,92	0,83	0,61	0,78	5,44
		game ( $\bar{x}$ )	1,07	1,43	0,76	0,86	0,66	0,90	5,67
0,95	1,32		0,93	0,79	0,59	0,75	5,33		

*Note:* In the numerator — the indicators of the Ukraine national team; in the denominator — the indicators of the opposing team.

As it was supposed, the lowest IE of the Ukraine national team was defined in the match with the world champion team of Germany — 3,94 against the opponent's 5,92. The almost opposite IE indicators were shown by the Ukraine national team



in the match against Northern Ireland (5,89 against the opponent's 4.67). The national teams of Ukraine and Poland have equal enough IE indicators (5.67 and 5.33 respectively).

As far as some specific indicators of the TTA IE are considered, the players of the Ukraine national team lost to the Germany national team players practically by all specific indicators. However, in the matches against the national teams of Northern Ireland and Poland, these rates were higher than the opponents' ones, with the exception of the AC 0,76 against 0,93 of the Poland national team.

Low realization of competitive advantage is the main problem of the Ukraine national team at the European Championship 2016 on the background of optimal indicators of TTA (at least in the matches with teams from Northern Ireland and Poland).

Control and analysis of technical and tactical activities in football are due to the existence of an actual problem in the general system of training athletes in this sport. One of the most effective methodological approaches to measuring the indices of the players' competitive activities is integral estimation of technical and tactical activity, the structure of which consists of three quantitative (IC, MC, AC) and three qualitative (EC, FEC, CC) specific indicators. Each of these specific indicators characterizes a separate component of competitive activity of a football player: IC — an overall activity in the game; MC — the mobility of the player during the match, his desire to perform TTA in motion on different parts of the field; AC — the manifestation of the player's aggressiveness in the match, who is actively involved in face-offs, often executes groundmoves, intercepts and tackles the ball, attacks the opponent's goal; EC — the quality of the TTA performance (the higher the EC is, the smaller the defect rate is shown by the player in the game); FEC — the number of TTA performed in conditions of active interference by the opponent; CC — characterizes the creative element of technical and tactical activities of the player, his ability to aggravate the playing situation.

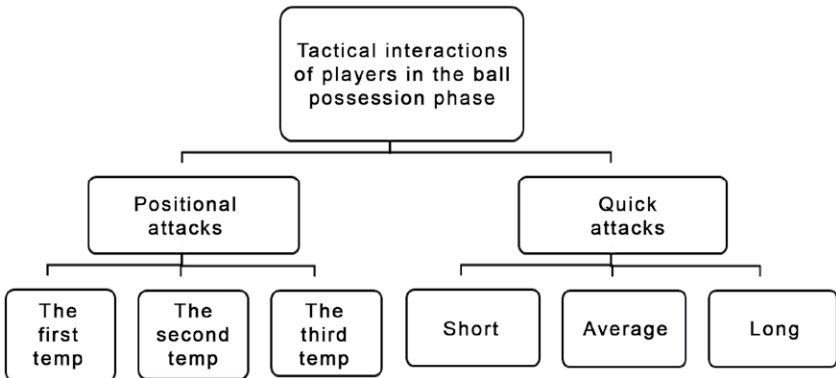
Comparative analysis of indicators of the TTA IE of various teams helps to adjust the training process through development and introduction of special programs of technical and tactical training of football players.

### 3.3. Tactical aspects of highly qualified footballers' play

The study was conducted during the final of the European football Championship 2016 in France. The subject of this study is the investigation of tactical aspects of football teams play in the ball possession phase (BPP). In BPP, tactical interactions with other players are carried out through the performance of positional and fast attacks (fig. 3.3).

Positional attacks are divided into attacks of the 1st, 2nd and 3rd pace.

**Positional attack of the first pace** is characterized by a gradual, but fast enough moving of the ball to the goal of the opposing



*Fig. 3.3. Classification of tactical interactions of football team players in the possession phase*

team with an obligatory attempt to aggravate the playing situation. That is, during such attacks, the players of the attacking team, as a rule, move along the path of the ball, interacting in such a way that the opponent does not have time to rebuild for adequate defensive actions.

Basic requirements for the organization and realization of the positional attack of the 1st pace:

- quick passing of the ball to one of the opened up teammates. It makes sense to perform such passing to one of the flank zones;
- active maneuvering of players in the vertical and horizontal directions in order to provide tactical moves of developing character;
- quick movement of players in the direction of the opponent's goal;
- conduction of aggravating and final tactical moves of the team.

**The positional attack of the second pace** is due to the fact that it is carried out at two stages. At the first stage, the ball gradually, but fairly quickly is moved from the defensive zone into the attacking one, like in positional attack of the 1st pace. At the second stage, the midfielders join the attack and the players concentrate in the third zone of the field.

The main features of the second pace positional attack:

- a quite fast exit from the defensive zone or passing the ball to the free flank zone;
- rational movement of players in order to clear the playing space for developing tactical moves (passing or dribbling), on the one hand, and move the players of the attacking group so that to get the ball in the third zone of the field, on the other hand;
- joining the midfielders' attack. Positional attacks of the 2nd pace are usually performed by players of the forward and half-back lines;

- the attack aggravating stage of the second pace, which includes completing tactical moves (an aggravating pass and a shot on goal).

**The positional attack of the third pace** is the most complex in its structure, as each such attack consists of almost all playing combinations. These attacks are a reciprocal action on the agreed rearrangements of the opposing team's players, which do not allow both the 1st and 2nd pace attacks to be carried out. The next feature of positional attacks of the 3rd pace is that players of all three lines take part in them. In this regard, the principle of vertical and horizontal construction of attacking actions of the team comes first, especially the movement of players from line to line, the distance between the lines, etc.

Therefore, we can interpret the positional attack of the third pace as a long-term control over the ball with the organization and realization of a penetrative attack on the goal of the opposing team.

Basic requirements for positional attacks of the 3rd pace:

- rational movement of players in order to effectively control the ball in certain areas of the field;
- active maneuvering of players without the ball in the vertical and horizontal directions;
- changing the direction of attacking actions from one flank to another;
- participation of players of all lines, namely defense, half-back and forward ones, in attacking actions. The players of the front line are under the greatest opponent's control and the players of the back line — under the least one. Therefore, positional attack should be carried out mainly through the free players;
- a thorough preparation for an aggravating move. At this stage, the ball is moved, as a rule, to the flank areas with simultaneous concentration of players in the penalty area of the opponent.

It should be emphasized that the positional attacks are performed mostly by the teams trying to play under the first number. This is called a playmaking-tactics.

A quick attack in football should be understood as the interaction of players in the ball possession phase in order to carry out an attack on the opponent's goal in the minimum necessary time.

The main condition for a quick attack is the free space in the path of the location of the ball to the opponent's goal and the creation of a numerical advantage of the attacking players over the defenders.

While playing the team organizes fast attacks of two types: in fact, a fast attack is carried out when bringing the ball into play from goal after playing off penalty and free kicks or bringing the ball into play from the touch line. A fast attack is carried out in those episodes when the opposing team has missed to rebuild for tackling.

The counterattack begins immediately after tackling and interception of the ball.

Fast attacks can be figuratively divided into three types: long-range, mean-range and short-range. The long-range fast attack is started in the first zone of the field, the mean-range one - in the second zone and the short-range — in the third one.

The main factor for starting a fast attack is the wrong formation of the opponents in a particular game episode. The second condition for such attacks is the implementation of high-speed actions, such as passes or dribbling, and finally, the third condition is that each fast attack must end with the aggravation of the playing situation. Otherwise, the fast attack can turn into a positional one.

To effectively execute fast attacks, the team must adhere to the following rules:

- a very quick changeover of players from the ball disposition phase to the ball possession phase;
- quick moving of the ball in the direction of the opponent's goal. This does not mean that only lengthwise passes must

be performed. The first pass onto the flank or a spurt of the player with the ball are very often more efficient;

- aggravation of attacking actions.

Analysis of the tactics of the national teams at the European Championship 2016 allowed to determine the correlation of both positional and fast attacks of the national teams of Europe and the Ukraine national team (table 3.6.; 3.7.).

On average, in one half the players of the national teams of Europe perform  $9.9 \pm 3.3$  positional attacks of the first pace,  $12.1 \pm 3.5$  — of the second pace and  $8.7 \pm 1.8$  — of the third pace (table 3.6.). On the whole, positional attacks make up 62.4%, fast attacks — 37.6%. Analysis of table 3.6. suggests that the higher the level of the teams is, the more positional attacks are performed. For example, the Germany national team, which holds the title of the last world champion, performed from 62.5% to 91.6% of positional attacks in one half. At the same time, fast attacks prevailed among the teams that were not favourites of the tournament.

The ratio of positional and fast attacks of the Ukraine national team is 57.6% and 42.4%, respectively (table 3.7.).

The indicators of positional and fast attacks of the national teams of European countries and the national team of Ukraine are shown in fig. 3.5. If the performance of the national teams of European countries is considered as a model, the training process of the Ukraine national team can be adjusted in the direction of positional control over the ball. At the same time, it should be noted that the players of the Ukraine national team have performed almost the same number of positional attacks of the 1st, 2nd and 3rd pace as the players of the national teams of Europe. Approximately the same ratio is observed in performance of short-range, mean-range and long-range fast attacks (fig. 3.6.).

On the whole, if we consider the playing structure of the national teams of Europe in the possession phase, we can conclude that such teams as Germany, Spain, England, Italy, Belgium mainly use positional attacks in the course of the game, which

constitute on average 69.5%, what consequently presupposes the use of an active playing method by these teams. Such teams as Portugal, Northern Ireland, Poland, Czech Republic, Russia, Wales and Ukraine controlled the ball by positional (48.6%) and fast (51.4%) attacks in the game. Taking into account that the Portugal national team became the champion of Europe in 2016, a clear conclusion can be speculative in relation to a rational football tactics of the team.

In the tactical playing structure of the national teams of Europe, the positional attack of the 1st pace make up 32,0–32,5%, of the 2nd pace — 39,2%, of the 3rd pace — 28.3-28.8%.

Among fast attacks the greatest quantity is made up by long-range attacks, that is 35.7-37.4%, mean-range attacks make up 30.0–34.2% and the short-range — 28.4–34.3%.

## Summary

The analysis of competitive activity in football is an actual problem. It allows not only to increase management impact in the process of direct competitions, but also to adjust the training process depending on the development trend of modern football.

The methodical approach in the analysis of tactical interactions of players in the ball possession phase can be driven by the classification of positional and fast attacks. Positional attacks are divided into attacks of the 1st, 2nd and 3rd pace, fast attacks — into short-range, mean-range and long-range.

Indicators of positional and fast attacks (in one half) of the national teams at the European football Championship 2016 (France)

Half	Score	Match	Total	Positional attacks			Fast attacks				
				1st pace	2nd pace	3rd pace	Total	Short-range	Mean-range	Long-range	Total
1	0	Belgium	61	6(17.6)	16(47.1)	12(35.5)	34(55.7)	6(22.2)	12(44.4)	9(33.4)	27(44.3)
1	Italy	53	15(41.6)	13(36.1)	8(22.3)	36(67.1)	6(35.3)	7(41.1)	4(23.6)	17(32.1)	
2	0	Belgium	60	17(34.0)	22(44.0)	11(22.0)	50(83.3)	4(40.0)	2(20.0)	4(40.0)	10(16.7)
0	Italy	47	14(38.8)	20(55.5)	2(5.7)	36(76.5)	4(36.3)	3(27.4)	4(36.3)	11(23.5)	
2	0	Spain	61	10(25.6)	14(35.8)	15(38.6)	39(63.9)	8(36.3)	10(45.5)	4(18.2)	22(36.1)
0	Italy	55	15(60.0)	7(28.0)	3(12.0)	25(45.5)	7(23.3)	14(46.6)	9(30.0)	30(54.4)	
1	0	England	58	9(26.4)	16(47.1)	9(26.5)	34(58.6)	8(33.3)	11(45.8)	5(20.9)	24(41.4)
0	Russia	40	6(31.5)	7(36.8)	6(31.7)	19(47.5)	5(23.8)	7(33.3)	9(42.9)	21(52.5)	
2	1	England	52	18(47.4)	10(26.3)	10(26.3)	38(73.1)	5(35.7)	3(21.4)	6(42.9)	14(26.9)
1	Russia	48	12(30.7)	15(38.5)	12(30.8)	39(81.2)	2(22.2)	5(55.6)	2(22.2)	9(18.8)	
2	1	Germany	48	10(33.3)	6(20.0)	14(46.7)	30(62.5)	3(25.0)	6(50.0)	3(25.0)	18(37.5)
1	Italy	39	7(33.3)	7(33.3)	5	19(48.7)	5(25.0)	8(40.0)	7(35.0)	20(51.3)	
1	0	Croatia	55	9(25.0)	14(38.8)	13(36.2)	36(65.4)	8(42.1)	9(47.8)	2(10.5)	19(34.6)
0	Portugal	53	11(44.0)	7(28.0)	7(28.0)	25(47.1)	10(35.7)	8(28.6)	10(35.7)	2(12.5)	28(52.9)
1	0	Poland	42	9(26.4)	14(41.1)	11(32.5)	34(80.9)	3(37.5)	3(37.5)	2(22.2)	8(19.1)
0	N. Ireland	33	5(33.3)	8(53.3)	3(13.4)	15(45.4)	2(11.1)	4(22.2)	1(6.7)	18(54.6)	
1	1	Poland	58	10(29.4)	14(41.2)	10(29.4)	34(58.6)	8(33.3)	6(25.0)	10(41.7)	24(41.4)
0	N. Ireland	46	5(10.8)	12(50.0)	7(29.2)	24(52.1)	4(18.1)	6(27.2)	12(54.7)	22(47.9)	
2	0	Poland	44	7(35.0)	10(50.0)	3(15.0)	20(45.5)	6(25.0)	8(33.3)	10(41.7)	24(54.5)
0	Germany	60	12(30.0)	12(30.0)	16(40.0)	40(66.6)	9(45.0)	7(35.0)	4(20.0)	20(33.4)	
1	0	England	54	12(27.9)	17(39.5)	14(32.6)	43(79.6)	4(36.3)	5(45.5)	2(18.2)	11(20.4)
0	Wales	36	9(33.3)	10(37.0)	8(29.7)	27(75.0)	3(33.3)	1(11.1)	5(55.6)	9(25.0)	
1	1	Croatia	40	3(14.3)	10(47.6)	8(36.1)	21(52.5)	3(15.8)	6(31.5)	10(52.7)	19(47.5)
0	Czech Republic	45	7(28.0)	10(40.0)	8(32.0)	25(55.5)	6(30.0)	6(30.0)	8(40.0)	20(44.5)	
$n$			24	24	24	24	24	24	24	24	24
$\bar{x}$			49.5	9.9(32.0)	12.1(39.2)	8.7(28.8)	30.9(62.4)	5.4(28.4)	6.5(34.2)	7.1(37.4)	19.0(37.6)
$S$			7.2	3.3	3.5	1.8	6.4	1.5	2.5	2.1	5.1
$T$			14.5	33.6	29.6	20.6	20.7	28.4	39.4	28.8	26.9

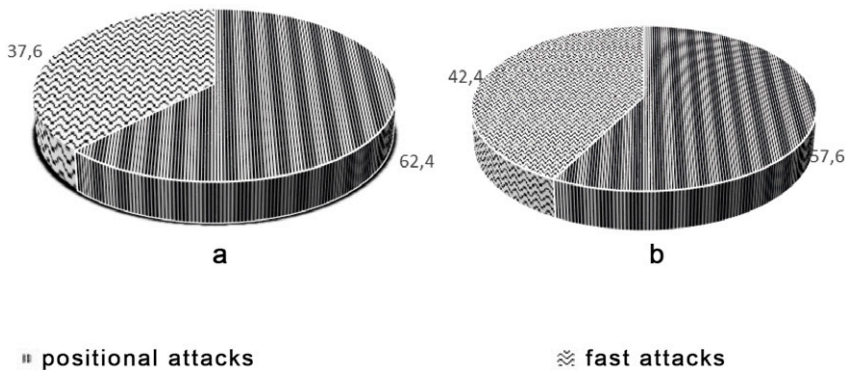


Table 3.7.

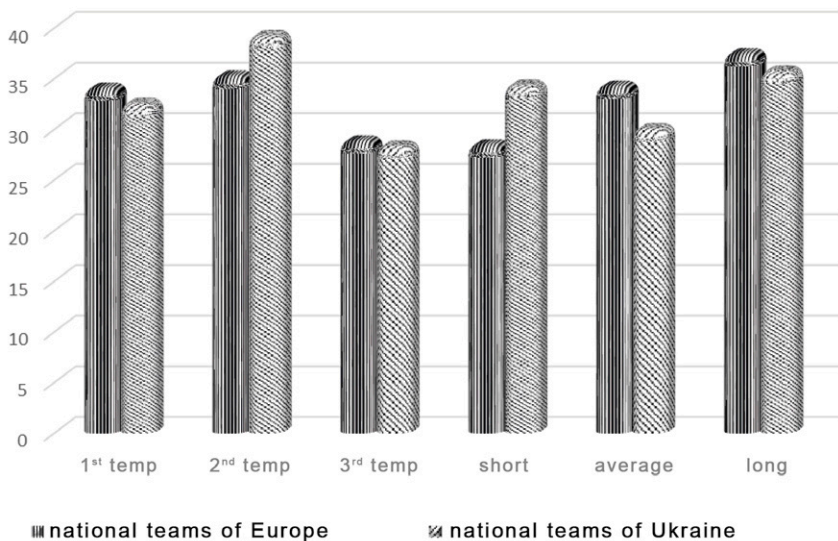
**Indicators of positional and fast attacks (in one half) of the Ukraine national team at the European football Championship 2016 (France)**

Half	Score	Match	Attacks in total	Positional attacks			Fast attacks				
				1st pace (%)	2nd pace (%)	3rd pace (%)	Total (%)	Short-range (%)	Mean-range (%)	Long-range (%)	Total (%)
1	0	Ukraine	44	6(31,5)	8(42,1)	5(26,4)	19(43,2)	9(36,0)	5(20,0)	11(44,0)	25(56,8)
	1	Germany	48	18(40,0)	11(75,0)	15(34,1)	44(91,6)	2(50,0)	1(25,0)	1(25,0)	4(8,2)
2	0	Ukraine	49	5(25,0)	12(37,5)	9(28,2)	32(65,3)	6(38,3)	6(35,0)	5(29,4)	17(34,7)
	1	Germany	41	8(20,0)	4(30,8)	1(7,7)	13(31,7)	9(32,1)	9(32,1)	10(35,8)	28(68,3)
1	0	Ukraine	41	11(34,3)	10(50,0)	5(25,0)	20(48,7)	8(38,1)	4(19,0)	9(42,9)	21(51,3)
	0	N. Ireland	52	8(61,5)	14(35,0)	18(45,0)	40(76,9)	2(16,6)	5(41,8)	5(41,7)	12(23,1)
2	0	Ukraine	47	10(37,0)	12(44,4)	5(28,6)	27(57,4)	6(30,0)	6(30,0)	8(40,0)	20(44,6)
	2	N. Ireland	38	7(70,0)	2(20,0)	1(10,0)	10(26,3)	5(17,8)	7(25,0)	16(57,2)	28(73,7)
1	0	Ukraine	56	12(36,4)	11(33,3)	10(30,3)	3(58,9)	8(34,7)	10(43,5)	5(21,8)	23(41,1)
	0	Poland	43	6(37,5)	8(50,0)	2(14,5)	16(37,2)	10(37,0)	8(29,6)	9(33,4)	27(62,8)
2	0	Ukraine	61	12(29,3)	14(34,1)	15(36,6)	41(67,2)	6(30,0)	7(35,0)	7(35,0)	20(32,8)
	1	Poland	45	7(31,8)	10(45,4)	5(22,9)	22(48,8)	5(21,7)	4(17,3)	14(61,0)	23(51,2)
Statistical indicators of the Ukraine national team											
<i>n</i>			6	6	6	6	6	6	6	6	
$\bar{x}$			49	9,3(32,5)	11,2(39,2)	8,2(18,3)	28,6(57,6)	7,2(34,3)	6,3(30,0)	7,5(35,7)	21,0(42,4)
<i>S</i>			4,7	2,4	2,4	1,9	5,5	1,2	1,9	2,3	3,2
<i>V</i>			9,5	25,5	21,2	24,1	19,3	16,6	31,4	31,6	15,1

Note: in brackets —%



*Fig. 3.5. The ratio of positional and fast attacks of the national teams (a) and the national team of Ukraine (b) at the European Championship 2016, %*



*Fig. 3.6. The ratio of different types of positional and fast attacks at the 2016 European football Championship*

### 3.4. Control and analysis of the goalkeeper's competitive activity in football

The goalkeeper's competitive activity in football is quite specific. In the process of the game, a modern football goalkeeper performs both technical and tactical actions (TTA), which are inherent with a field player, and specific TTA of the goalkeeper.

On this basis integral estimation of the goalkeeper's play has two components — the indicators, characterizing the game of a field player: intensity coefficient, mobility coefficient, aggressiveness coefficient, efficiency coefficient, face-off efficiency coefficient and the indicator, directly reflecting the goalkeeper's play in terms of the rules and structure of the game. This indicator is the reliability coefficient.

The first five coefficients are estimated by the following formulas:

*The intensity coefficient (IC) (points):*

$$IC = \frac{TTA_o}{t}, \quad (3.1)$$

where:  $TTA_o$  — the total amount of TTA, performed by the player:

$$TTA_o = TTA_{1stCCM} + TTA_{2ndCCM} + TTA_{3rdCCM};$$

$t$  — time of football player's participation in the game.

*The mobility coefficient (MC):*

$$MC = \frac{TTA_o - (TTA_{tr1stCCM+2ndCCM} + TTA_{hp1stCCM+2ndCCM} + TTA_{dp1stCCM})}{t} \times 2, \quad (3.2)$$

where  $TTA_o$  — the total number of TTA;

$TTA_{tr}$  — ball trapping made in the 1st and 2nd CCM;

$TTA_{hp}$  — holding passes made in the 1st and 2nd CCM;

$TTA_{dp}$  — developing passes made in the 1st CCM;

2 — a corresponding coefficient.

The aggressiveness coefficient (AC):

$$AC = \frac{TTA_{3rdCCM}}{t} \times 3, \quad (3.3)$$

where 3 is the corresponding coefficient.

The efficiency coefficient (EC):

$$EC = \frac{TTA_p}{TTA_o}, \quad (3.4)$$

where  $TTA_p$  — the sum of performed technical and tactical actions.

The face-off efficiency coefficient (FEC):

$$FEC = \frac{TTA_{p\ 3rd\ CCM}}{TTA_{o\ 3rd\ CCM}}, \quad (3.5)$$

where  $TTA_{p\ 3rd\ CCM}$  — technical and tactical actions performed in the 3rd CCM;

$TTA_{o\ 3rd\ CCM}$  — the sum of technical and tactical actions in the 3rd CCM.

The goalkeeper's reliability coefficient is estimated by the formula:

$$RC_{gp} = \frac{\sum_{i=1}^n (+)points - \sum_{i=1}^n (-)points}{\sum_{i=1}^n of\ all\ TTA} \cdot GTC, \quad (3.6)$$

where  $\sum_{i=1}^n (+)points$  is the sum of points scored by the goalkeeper in effective performance of TTA;

$\sum_{i=1}^n (-)points$  is the sum of points scored by the goalkeeper in ineffective performance of TTA;

$GTC$  is the game tension coefficient, which is determined in two stages.

First, by the following formula:

$$GTC = \frac{\sum_{i=1}^n TTA \text{ (3rd, 4th and 5th groups)}}{\sum_{i=1}^n \text{of all TTA}} \quad (3.7)$$

Then, according to the scale:

The index of the <i>GTC</i> formula	0,1	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,9	1,0
Index for <i>RCgp</i> determination	1,2	1,4	1,6	1,8	2,0	2,2	2,4	2,6	2,8	3,0

The reliability coefficient of the goalkeeper's play is determined in the following way.

All TTA are divided into 5 groups (modes) according to the coordination complexity and game tension. The first group includes TTA, the implementation of which does not require a particular manifestation of specific skills: passes on-the-spot, trapping of lightly flying or rolling balls. The second group consists of TTA, the implementation of which is based on the mastered playing technique, but does not present any specific difficulties in their execution: passing the ball in motion, catching the balls, the trajectory of which is visible to the goalkeeper, and the flight speed is low, etc. The third group encompasses those TTA, the implementation of which is based on high technical preparedness of the goalkeeper and an effective applied tactics. In other words, it is the TTA which the goalkeeper is obliged to execute, according to his qualification: catching (clearing) strong, but with a visible trajectory of the flight, balls, the right play when catching (catching) high balls, playing with forecasts, etc. The fourth group includes such TTA, the implementation of which allows to show not only a high level of technical skills, but also the ability of the goalkeeper to express such qualities as determination, aggressiveness and game

thinking: catching (clearing) strongly-flying balls into the corners of the goal, playing head-to-head with the striker, clearing the short-range shots on goal, etc. The fifth group comprises the so-called "dead balls". Performance of such TTA is based on the highest technique in combination with a sense of intuition (anticipation). These are the game moments when you get the impression that the ball should be in the goal, but at the last moment the goalkeeper reflects such a ball. Clearing difficult penalty kicks also refers to such moments.

Registration and calculation of points are carried out according to the following scale (table 3.8.).

Indicators of technical and tactical activity of highly qualified goalkeepers in football are presented in table 3.9.

*Table 3.8.*

**Estimation scale of the goalkeeper for determination of the reliability coefficient of his competitive activity (points)**

TTA	Performance of technical and tactical actions	
	effective	ineffective
Group 1	+1 point	- 10 points
Group 2	+2 points	-7 points
Group 3	+4 points	-4 points
Group 4	+7 points	-2 points
Group 5	+10 points	-1 points

Table 3.9

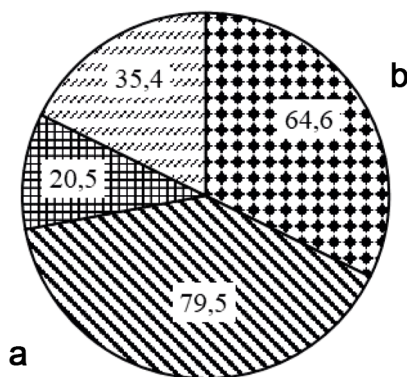
**Indicators of technical and tactical activity of highly qualified  
goalkeepers in football (in one half)**

Sl.No.	Indicators of technical and tactical activity	Statistical indicators			
		<i>n</i>	$\bar{x}$	<i>S</i>	<i>V</i>
1	Technical and tactical actions of the fielder:				
	1.1. Ball trapping:				
	1st CCM	26	0,7 (1,0)	0,05	7,1
	2nd CCM	26	2,3 (1,0)	0,36	15,6
	3rd CCM	26	–	–	–
	1.2. Passing the ball:				
	1st CCM	26	5,8 (0,81)	0,68	11,7
	2nd CCM	26	5,8 (0,71)	0,71	12,2
	3rd CCM	26	–	–	–
	1.3. Dribbles	26	–	–	–
	1.4. Groundmoves	26	–	–	–
	TOTAL			14,6 (0,84)	1,9
2	The goalkeeper's technical and tactical actions:				
	2.1. The ball catching (clearing(tackling):				
	Group 1	26	–	–	–
	Group 2	26	–	–	–
	Group 3	26	1,2 (0,93)	0,08	6,6
	Group 4	26	0,6 (0,81)	0,05	8,3
	Group 5	26	0,4 (0,60)	0,08	22,5
	2.2. Interception of the ball:				
	Group 1	26	0,7 (1,0)	0,04	5,7
	Group 2	26	2,1 (0,98)	0,11	5,2
	Group 3	26	0,7 (0,89)	0,08	11,4
	Group 4	26	0,5 (0,70)	0,09	18,0
	Group 5	26	–	–	–
	TOTAL			6,2 (0,91)	0,91

*Note.* In brackets – the efficiency coefficient.

Within one half, the goalkeeper performs 14.6 (70,2%) TTA from a technical and tactical arsenal of a field player, and 6.2 (29.8%) TTA are playing techniques that characterize a special technical performance level of the goalkeeper. It should be clarified that all TTA from the arsenal of the fielder were fixed in three modes of coordination complexity. In the first mode of coordination complexity (1st CCM) the actions with the ball were executed on-the-spot or at a convenient speed of movement. The 2nd CCM included TTA, performed under limitation in space and time. In the 3rd CCM TTA were performed in conditions of active interference by the opponent (face-offs). As can be seen from the table 3.9, TTA in the 3rd CCM practically were not performed by the goalkeeper.

The structure of technical and tactical activity of the highly qualified goalkeeper in football is shown in fig 3.7.



*Fig. 3.7. Indicators of technical and tactical activity of the highly qualified goalkeeper in football (in one half), %*

*a — technical and tactical actions of the fielder;*

*b — technical and tactical actions of the goalkeeper;*

■ — *ball trapping;*

▣ — *passing the ball;*

▢ — *ball catching (clearing, tackling);*

▣ — *interception of the ball*



In the first group (TTA of a fielder), the ball trapping makes up 20.5% of TTA and passing the ball - 79.5%.

The second group of technical and tactical activities of the goalkeeper in the game includes interceptions (64.6%) and tackling (35.4%) of the ball. The efficiency of the TTA performance by the goalkeeper varies from 0,60 (the 5th group, catching or clearing the balls) to 0.98 (2nd group, interceptions of the ball).

Unlike the fielder's competitive activity, the goalkeeper's one is characterized by certain specific features. Primarily, this is due to the fact that at the present stage of the football team playing tactics, it is not enough for the goalkeeper to perform purely goalkeeping playing techniques, that is catching and clearing the ball. He also needs to master the playing techniques of the fielder, first of all — trapping and passing the ball.

At the same time, the main component of the goalkeeper's effectiveness is reliability. The methodology of determining the goalkeeper's reliability has been described above.

Thus, the integral estimation of the goalkeeper's competitive activities in football consists of five coefficients that determine the indicators of competitive activity of the fielders (the intensity coefficient, the mobility coefficient, the aggressiveness coefficient, the efficiency coefficient, the face-off efficiency coefficient) and the reliability coefficient, directly characterizing the goalkeeper's play (table 3.10.).

*Table 3.10.*

**Indicators of technical and tactical activity of highly qualified goalkeepers in football (in one half)**

Sl. No.	Indicators of competitive activity	Statistical indicators			
		<i>n</i>	$\bar{x}$	<i>S</i>	<i>V</i>
1	2	3	4	5	6
1	Total TTA	26	20,8	2,31	11,9
2	Intensity coefficient	26	0,46	0,05	10,9
3	Mobility coefficient	26	0,61	0,08	13,1

*Continuation of table 3.10.*

1	2	3	4	5	6
4	Aggressiveness coefficient	26	0,22	0,03	13,6
5	Efficiency coefficient	26	0,86	0,09	9,3
6	Face-off efficiency coefficient	26	0,82	0,12	14,6
7	Reliability coefficient	26	2,91	0,32	10,9
8	Integral estimation	26	5,88	0,63	11,9

On the basis of the conducted research five levels of technical and tactical activity of highly qualified goalkeepers in football have been singled out (table 3.11.).

The presented methodology of determining the integral estimation of goalkeeper's competitive activity in football, as well as the presented results allow, on the one hand, to carry out the training process of football players more purposefully, and on the other hand, to increase the management efficiency of competitive activity of a football team.

*Table 3.11.*

**Indicators of the level of technical and tactical activity  
of the highly qualified goalkeeper in football**

<b>Levels of technical and tactical activity</b>	<b>Indicators of integral estimation</b>
Low	< 5,25
Pre-intermediate	5,25 – 5,55
Intermediate	5,56 – 6,20
Upper-intermediate	6,21 – 6,51
High	> 6,51

## Summary

Control of competitive activity in football is an integral part of the entire training system in this sport.

At the present stage, the competitive activity of a highly qualified goalkeeper is characterized by a large volume of technical and tactical actions, encompassing the playing technique of the field player and special techniques of the goalkeeper.

Integral estimation of the goalkeeper's competitive activity in football consists of six coefficients: intensity, mobility, aggressiveness, efficiency, face-off efficiency and reliability. Based on these coefficients, the level of the goalkeeper's performance is determined in each match.

# CHAPTER 4

## Tactical models of competitive activity in football

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The analysis of competitive activity of club and national football teams of high qualification enables to draw a conclusion that the tactics of a football team at the present stage is driven by the following features of the football players training:

- increased intensification of the game, due to the high motor activity of the players during the whole match. During the game the players overcome in average  $10996 \pm 539,7$  m in different modes of motor activities (41,6% — at a low speed; 50.8% — at an average speed; 7.6% — at a high running speed) (Van Gool D., 1988);
- adaptation of players to competitive loads because of a large number of games. The top players of Spain and England conduct from 56 to 62 official games during a sports season (V. Platonov, 2013);
- mastering the conceptual foundation of total football in accordance with the increase of the level of technical and tactical skills, physical and functional performance level of players. Modern football requires participation of almost all players in the ball possession and dispossession phases;
- improving the efficiency of a high-speed technique, which should be based on advanced training methods (the use of exercises in conditions of shortage of time and space, as well as active interference from the opponent's side). In other words, an increase in the proportion of exercises that are

characterized by increased coordination complexity and game tension;

- improvement of collective interactions on the basis of optimal construction of a defensive (mastering the collective tackling method) and attacking actions (one- or two-touch play, an attack through the flanks with a large number of players joining the attacking actions, etc.);
- enhancement the universalization and in-depth specialization of players, which allows them to successfully play in different field zones and perform various playing tasks while achieving a high level of skills in their role on the basis of maximum mobilization of individual capabilities;
- the optimal combination of improvisation and playing stereotypical combinations in accordance with the tactical conception of the team's playing;
- gain in performance of playing off a set piece based on the use of a variable approach with the participation of as many team players as possible;
- improvement of the control over the ball by the team in different zones of the field, especially in conditions of pressing from the opponent's side (the ball control in the first zone and its passing to the second and third zones, etc.);
- leading players to the highest level of readiness for the main competitions taking into account the features of the tournament in which they are to participate (qualification of opponents, their style of play, conditions of the competition, time of year, etc.) and biological regularities of acquiring and retaining a good shape;
- scientifically proven use of a complex of methods and means of training (including non traditional) aimed at leading the players to a new, higher level of functioning (methods of concentrated loads, the integrated effects, integrated trainings and so on; pharmacological and other non-specific tools for the sports capacity recovery, etc.).

Based on the foregoing, a comprehensive study and analysis of the competitive activities of leading club and national football teams has been planned. The working hypothesis of the study was based on the assumption that defining the basic regularities of competitive activity of highly qualified footballers will allow, on the one hand, to develop focused tactical training programs, and on the other, to make certain adjustments in the structure and content of the general training system of football players both at the stages of a long-term training, and within an annual macrocycle.

Competitive activity of highly qualified footballers was studied and analyzed at the largest international competitions of the last decade: The World Cups in 2010 and 2014; the European Championships in 2012 and 2016; club European competitions (the Champions League, the Europa League). The chapter presents the materials based on the analysis of competitive activities of the national football teams of: England, Argentina, Brazil, Germany, Spain, Holland, Italy, France, Poland, Uruguay, Nigeria, Ghana, Croatia, Portugal, Turkey, the Czech Republic, Ukraine, etc. , as well as the Ukraine club teams, which took part in the European football tournaments: Dynamo (Kyiv), Shakhtar (Donetsk), Dnipro (Dnipropetrovsk). In total, more than 80 matches have been analyzed. On the basis of 45 of them the tactical models of the football teams playing have been identified. Therewith, the indicators of only national football teams have been taken into account.

Tactical models of the highly qualified football teams playing were elaborated on the basis of a methodical approach, which involved the development of:

- methodology of control and analysis of competitive activity in football;
- integral estimation of competitive activity of players and teams;
- classification of tactical interactions between the footballers in the phases of the ball possession and dispossession.

The peculiarity of the methodological approach to the control and analysis of competitive activity is the fixation of technical and tactical actions (TTA), taking into account the coordination complexity of their execution. The first mode of coordination complexity (1 CCM) included the TTA performed on-the-spot or at a convenient speed of movement. In such a case, there was no interference by the opponent. The 2nd CCM included the TTA, performed in motion under limitation in space and time. The TTA, performed under the conditions of active interference by the opponent, belonged to the 3rd CCM.

Execution of passes was considered not according to their range (short-range, mean-range, long-range), but with the condition for what purpose the player has performed the pass. As a tactical move it can be: the ball holding, attack development, aggravation of the playing situation. On this basis, passes are classified into holding, developing and aggravating ones. The groundmoves of the opponent were classified into the groundmoves aimed at keeping the ball under control and the groundmoves, which cause a certain playing situation at the opponent's goal, that is, aggravating groundmoves.

Integral estimation displays quantitative and qualitative indicators of technical and tactical activity of the players. With this purpose six specific indicators of competitive activity have been developed — quantitative (the intensity coefficient, the mobility coefficient, the aggressiveness coefficient) and qualitative (the efficiency coefficient, the face-off efficiency coefficient, the creativity coefficient) (see chapter 2).

The integral estimation of the goalkeeper in football was estimated by the same coefficients as the field players, plus the reliability coefficient. In modern football, the goalkeeper performs almost all the technical and tactical actions that field players do, including groundmoves, tackles and interceptions of the ball. For example, in the 2010 World Cup quarter-final match between the Germany and Spain national teams, the German goalkeeper Neuer performed

34 TTA during the first half. Compared to him, the central defender Fischer performed 35 TTA in this half, the right winger Podolski — 42 TTA, the forward Klose — 18 TTA. The integral estimation of Neuer's TTA in this half made up 5.38 points, 4.12 of which were the specific indicators of a fielder (IC — 0,75; MC — 0,62; AC — 0,66; EC — 0,88; FEC — 0,90; CC — 0.31) and 1.26 points — the reliability coefficient.

## 4.1. The main aspects of the team's tactical training for the competition

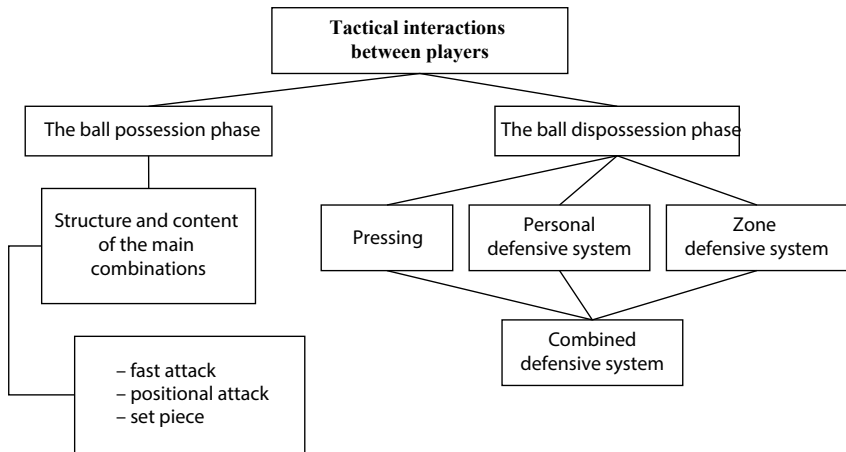
Team management in competitions is based on the criteria of control and analysis of tactical aspects of the game. Each game moment in the match is characterized by a certain content, depending on the constantly emerging problems that must be solved by the players, whether individually, or by the interaction of a group of players. With all the variety of game moments, they can be combined into two large groups depending on whether the team possesses the ball or dispossesses it. In other words, the actions of players on the field are characterized by a special content of tactical interactions in the ball possession and dispossession phases (fig. 4.1.).

In the ball possession phase basic tactical interaction between players are aimed at counteracting to the opponent's active pressure with the ball control in the first zone, performing fast and positional attacks, as well as playing off a set piece.

In the ball dispossession phase tactical interaction of players are carried out in the construction of a personal or zone defensive system, the use of pressing, as well as the use of a combined defensive system.

In BPP tactical interaction between players are conducted through the positional and fast attacks (see fig. 3.3.).





*Fig. 4.1. The main tactical interactions of players in the process of competitive activity in football*

Football tactics is based on two components — the ball possession and dispossession phases. In the possession phase, the team carries out positional and fast attacks, in the dispossession phase it uses pressing.

**Pressing** can be of several types depending on the zones of the football field in which it is used, as well as on the direction of the ball.

Depending on the zones of the football field the following types of pressure should be distinguished:

- high (far) pressing — when the opponent team performs total pressing in the first zone of the opponent;
- middle pressing — when losing the ball, the team players withdraw to the second zone and start putting pressure on the opponent in this area;
- low (deep) pressing — active tackling of the ball is carried out only in their own half of the field, and in the rest of the field areas it is the playing space and the direction of the ball that are mainly controlled.

Depending on the direction of the ball, we can distinguish:

- defensive pressing, implying that the players are constantly moving behind the ball line if the ball is moved from zone to zone in the direction of their own goal;
- offensive pressing, taking place when the active actions of the players of the team, tackling the ball, force the opponent to pass the ball in their goal direction. At this time, the players of the defending team synchronously move in the direction of the ball;
- static pressing is used in the first and penalty zones of the opponents when they play off a set piece (bringing the ball into play from goal, or from the touch line, playing off free kicks);
- dynamic pressing is pressing in conditions where the ball is in play.

When pressing, the following rules must be observed:

- the entire playing field cannot be subject to pressing, only its certain zones in which the opponent possesses the ball can;
- the players involved in pressing, must work together, each of them needs to be quite active and carry out their definite function (tackling, pressure on the player, controlling the space, and so on);
- pressing (especially high) cannot be carried out throughout the whole game (exceptions can be), so it should be planned and performed depending on the goal and objectives that are set in this game;
- when pressing, players need to constantly rebuild into three lines. When doing that, they must withdraw behind the ball line. This is especially true of mid-level pressing;
- it should be kept in mind that the main purpose of pressing is to limit both time and space, which is available for the attacking player to perform a particular action. If this goal cannot be achieved in a given game situation, another

way of tackling the ball is needed (withdrawal in the direction of their own goal, overlap of the playing space, etc.).

### **High (far) pressing**

The main aim of high pressing is to limit the playing space of the opponent and to prevent the ball from being played off in the defensive zone (first zone) of the opposing team. As a rule, this type of pressing is applied after stopping the game (the opponent brings the ball into play from the out or from goal, that is standard pressing). If the ball is in dynamics, and the tackling team players have not managed to rebuild for pressing in time, it will be more correct to withdraw the players of the front line to the second zone and proceed to performance of middle pressing. Otherwise, a group of players can be "cut off" and the opponent will get a numerical advantage when attacking.

The second feature of this pressing is that the players rebuild into three lines with the condition that the distance between the lines is the smallest. The gap between the lines is the main mistake when performing a high press. If, for example, the first-line players press the opponent's defenders in their first zone, and the second-line players do not have time to "block" the midfielders, then when the ball is being moved to the second zone, the opponent can organize a sufficiently dangerous attack.

Thus, high pressing is applied mainly in the first zone of the opposing team. The first-line players put an active pressure on players possessing the ball. The second-line players overlap the space for passing the ball and tightly control the midfielders, and the players of the third line overlap the playing space so that to intercept mean- and long-range passes. The number of players in each line should be optimal to solve the arisen game situation. As a rule, there should be at least three players in the first and second lines. However, if, for example, the player moves from the second line to the first one, then his place should be taken by the player of the third line, etc.

## **Middle pressing**

Long-term observation and study of the competitive activity of teams of different qualifications allows us to conclude that middle pressing is used most often and it is a fairly balanced form of playing. First of all, this is due to the fact that the team under middle pressing is less risky to let the opponent have numerical superiority in conducting offensive actions than under a high press. Another positive side of middle pressing is that it is much easier for players to maintain the required distance between the three lines. And, finally, middle pressing allows the players to save physical strength and energy, which is an important factor in tournament competitions.

The middle pressing efficiency is driven by the following:

- a quick withdrawal of players to the second zone when they lose the ball;
- a quick rebuild of players in three lines;
- interchangeability of players between the lines;
- dynamics of the players' lateral movement in the lines;
- optimal combination of control over the opponent's players and space;
- the desire of players to withdraw behind the ball line — defensive pressing.

In general, middle pressing is used in the game with the opponent, equal in class, which provides for a balanced game with respect to defensive and attacking actions.

## **Low (deep) pressing**

If high and middle pressing are used by the teams, trying to play at the first number (playmaking), low pressing is mostly used by the teams that play at the second number and construct a playing tactics based on a predominant use of fast attacks. The main characteristic of low pressing is the deprivation of the opponent's playing space in his own half of the field, on the one hand, and obtaining open space in the opponent's half of the field, on the other. The main requirement for low pressing is the optimal combination

of zone and personal defensive systems. At low pressing, the first-line players synchronously move along the front of the field, preventing at most the players with the ball from advancement, the second-line players combine the overlapping of space and control of the opposing players; the third-line players control the opposing players by combination of zone and personal playing systems.

The form of construction of defensive actions at low pressing is almost identical with a combined defensive system. At the same time, under such pressing, the players of the tackling team behave more actively and aggressively to some extent, and this requires more energy input from the players, as well as more coordinated interactions between them. At low pressing, offensive pressure is often used, that is pushing the players with the ball from their own to the opponent's half of the field.

Summarizing the foregoing, it can be concluded that a cool team should be able to use all types of pressing and combine them in such a way so that to impose their style of play on the opponent.

## 4.2. Characteristics of tactical models of highly qualified football teams

Purposeful observation of competitive activity of highly qualified club and national teams allows us to state that in modern football this or that team uses mainly a certain tactics of game. Each football tactics is aimed at achieving the goal in the match depending on the level of their team and the opposing team. In this regard, the coach solves, as a rule, three problems before the game: starting lineup for the game; system of play and method of play. In modern football, the following playing systems are mainly used: 1-4-4-2; 1-4-5-1; 1-3-4-3; 1-3-5-2 (1st figure — the goalkeeper; 2nd — the full-back line players; 3rd — the half-back line players; 4th — the forward line players).

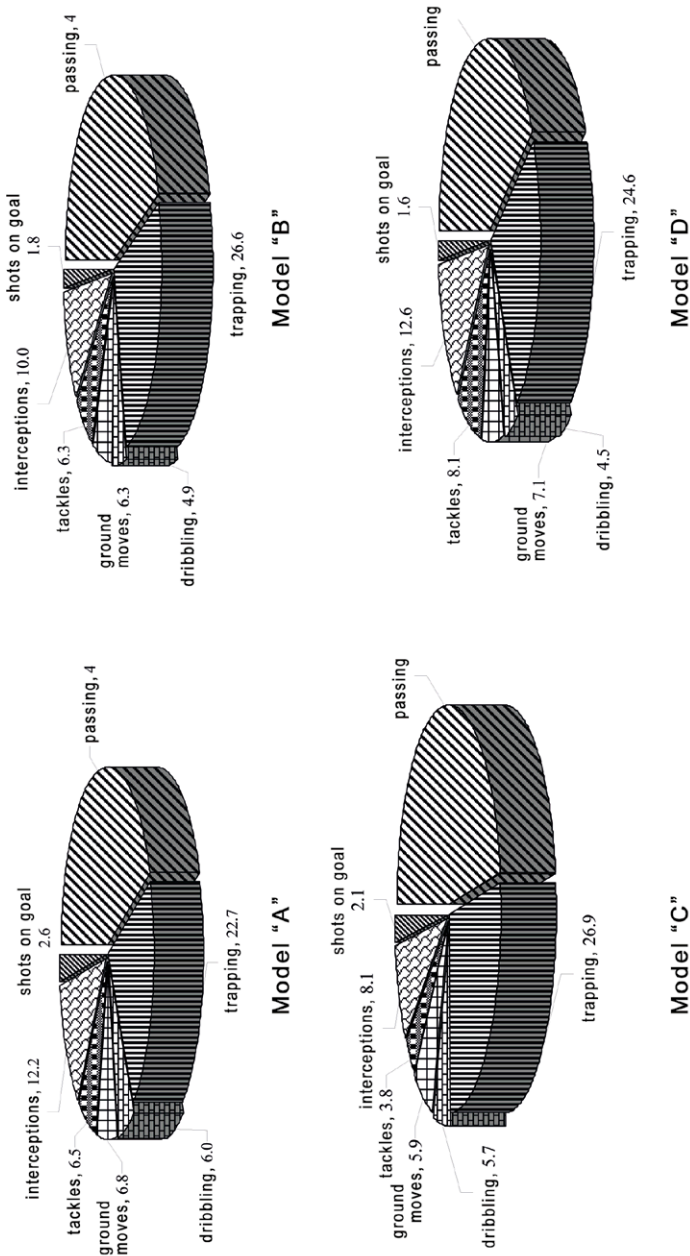
As for the method of play, it can be active, passive and combined. The active method provides for playing "at first number", when the team starts tackling the ball immediately upon its loss in each zone of the playing field. The passive method, on the contrary, is characterized by the fact that when losing the ball, the team concedes the initiative to the opponent, all the players withdraw behind the ball line and organize a concentric defense in the first zone of the field. The game with the use of the combined method is primarily due to the fact that when tackling the ball, the first-line team players are located in the second zone of the field, which allows them to rationally move from attacking to defensive actions or vice versa depending on whether the team possesses the ball or disposes it. As a rule, this method is used in playing of equal teams.

Each game tactics is based on such components as:

- a playing system;
- the method of play;
- ratio of positional attacks;
- ratio of fast attacks;
- ratio of holding, developing and aggravating passes;
- ratio of high, middle and low pressing;
- ratio of TTA performed in different modes of coordination complexity.

On the basis of these components, it is possible to single out the four main tactical models of highly qualified football teams play: model A, model B, model C, model D. Models A and C refer to the active method of play, that is, to the playmaking method. Model D implies playing by a passive method and model B is used when the conditions for a combined method of play are preserved.

Indicators and structure of technical and tactical activity of highly qualified football teams, mainly applying one of the four tactical models, are presented in tables 4.1–4.4. Such tables are the basis for analysis of the football team play, they encompass 40 indicators of TTA, including the TTA coordination complexity modes and specific indicators of integral estimation.



*Fig. 4.2. Structure of technical and tactical activities of highly qualified football teams with different tactical models of the game, %*

Indicators and structure of the national football teams' TTA: model A (n=12)

TTA		Model indexes												%
		Quantitative						Qualitative						
		$\bar{x}$	S	max	min	$\bar{V}$	$\bar{x}$	S	max	min	$\bar{V}$			
1	Trapping	2	3	4	5	6	7	8	9	10	11	12		
		33,1	5,5	44	26	16,6	1,00	-	-	-	-	-	16,1	
		119,6	13,5	14	96	11,3	0,96	0,02	0,98	0,91	2,2	2,2	58,1	22,7 (205,7)
1	Holdings	3	53,0	11,6	74	36	21,9	0,72	0,10	0,83	0,50	14,1	25,8	
		1	13,5	2,4	22	14	18,1	1,0	-	-	-	-	15,2	43,2 (391,5)
		51,3	9,2	68	38	17,9	0,98	0,01	1,00	0,97	0,9	0,9	57,9	
1	Passes	3	23,8	3,7	26	14	15,5	0,88	0,06	1,00	0,80	6,9	26,9	
		1	65,0	13,4	84	40	20,7	0,87	0,06	0,95	0,74	7,4	27,3	60,8 (238,1)
		140,3	23,9	182	104	17,1	0,82	0,04	0,90	0,74	5,9	58,9		
1	Developing	3	32,8	6,7	46	24	20,5	0,56	0,12	0,77	0,38	21,3	13,8	
		1	15,9	4,9	30	14	30,8	0,52	0,11	0,66	0,29	21,8	24,5	16,6 (64,8)
		34,3	4,9	46	30	14,3	0,46	0,11	0,66	0,27	24,4	52,9		
1	Aggregating	3	14,6	4,9	26	10	33,6	0,45	0,13	0,69	0,25	29,9	22,4	
		2	54,6	14,4	88	41	26,3	0,99	-	-	-	-	6,0	
		61,3	9,2	72	42	15,0	0,72	0,11	0,84	0,48	15,3	6,8		
3	59,3	15,9	84	32	26,8	0,44	0,08	0,56	0,31	17,4	6,5			



Continuation of table 4.1.

1		2	3	4	5	6	7	8	9	10	11	12
Interceptions	1	5,1	2,4	10	2	48,1	1,0	-	-	-	-	12,2 (111,7)
	2	57,5	11,6	80	42	20,2	0,76	0,07	0,83	0,57	10,4	51,5
	3	49,1	11,0	72	36	22,4	0,53	0,06	0,69	0,47	12,7	44,0
Shots on goal	From play	14,6	3,06	20	10	21,0	0,50	0,08	0,63	0,38	15,3	66,4
	SP	7,4	2,45	14	6	33,0	0,45	0,14	0,66	0,20	51,3	33,6
The number of TTA		906,1	85,3	1096	818	9,4	0,78	0,05	0,88	0,73	5,8	-
Face-off		294,1	38,9	378	251	13,2	0,62	0,04	0,70	0,54	7,9	32,4
EC							0,78	0,05	0,88	0,73	5,8	-
Specific indicators	IC	1,01	0,09	1,22	0,91	9,4						17,7
	MC	1,36	0,17	1,71	1,13	13,1						23,9
	AC	0,99	0,15	1,27	0,78	15,2						17,4
	EC						0,78	0,05	0,88	0,73	5,8	13,7
	FEC						0,62	0,04	0,70	0,54	7,9	10,9
	CC						0,92	0,03	1,12	0,73	3,3	16,4
IE		5,68	0,38	6,66	5,42	6,6						

Note: SP — a set piece; 1, 2, 3 — modes of coordination complexity; TTA — technical and tactical actions; ICI — the intensity coefficient; MC — the mobility coefficient; AC — the aggressiveness coefficient; FEC — the face-off efficiency coefficient; KS — coefficient of construction; IE — integral estimation. In brackets — the number of technical and tactical actions

Indicators and structure of the national football teams' TTA: model B (n=12)

TTA		Model indexes											%	
		Quantitative						Qualitative						
		$\bar{x}$	S	max	min	$\bar{V}$	6	7	8	9	10	11		12
1	Trapping	1	40,0	14,1	65	19	35,2	1,0	-	-	-	-	16,4	26,6 (243,3)
		2	151,9	26,6	202	115	13,2	0,96	0,02	1,00	0,94	19,1	62,4	
		3	51,4	10,1	69	36	19,6	0,74	0,09	0,88	0,57	12,8	21,2	
Passes	Holding	1	20,3	7,1	35	12	23,2	1,0	-	-	-	-	19,0	26,5 (106,8)
		2	72,3	17,1	86	30	23,7	0,98	0,01	1,00	0,96	1,2	67,8	
		3	14,2	3,07	21	11	21,6	0,89	0,07	1,00	0,76	8,3	13,4	
Aggra- vating	Developing	1	49,2	11,9	76	37	24,3	0,89	0,06	0,96	0,76	6,8	19,1	63,9 (257,0)
		2	182,8	31,5	217	114	17,2	0,81	0,05	0,85	0,68	6,4	71,1	
		3	25,0	7,1	37	14	28,2	0,59	0,12	0,80	0,40	20,7	9,8	
Dribbles	Aggra- vating	1	6,7	2,7	13	4	41,2	0,64	0,13	0,75	0,31	21,0	17,5	9,6 (38,2)
		2	24,2	3,7	30	18	15,2	0,53	0,06	0,66	0,45	12,2	63,4	
		3	7,3	5,2	21	4	71,4	0,48	0,09	0,58	0,26	20,4	19,1	
2	45,2	14,4	81	34	31,8	1,0	-	-	-	-	-	4,9		

Continuation of table 4.2.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	
<b>Ground-moves</b>	<b>3</b>	57,9	12,9	97	22,5	0,73	0,50	0,84	0,69	6,3	6,3	
		<b>3</b>	57,9	13,4	87	23,3	0,37	0,12	0,61	0,23		31,5
		<b>1</b>	2,2	0,92	4	41,8	1,0	-	-	-		-
<b>Interceptions</b>	<b>2</b>	44,6	12,8	79	28,8	0,84	0,07	0,87	0,64	8,4	48,8	
	<b>3</b>	44,5	13,1	75	29,6	0,56	0,08	0,72	0,44	44,2	48,7	
	<b>From play</b>	12,1	4,3	22	35,4	0,52	0,11	0,75	0,38	21,8	81,1	
<b>Shots on goal</b>	<b>SP</b>	2,8	1,5	6	54,7	0,57	0,15	0,75	0,25	26,9	18,8	
	<b>The number of TTA</b>	912,5	99,1	1160	837	10,8	0,82	0,03	0,87	0,76	4,1	
<b>Face-off</b>	243,5	67,1	354	135	27,5	0,63	0,04	0,69	0,53	7,8	26,7	
<b>EC</b>						0,82	0,03	0,87	0,76	4,1	-	
<b>Specific indicators</b>	<b>IC</b>	1,02	0,11	1,18	0,79	11,7					18,5	
	<b>MC</b>	1,29	0,08	1,46	1,19	6,4					23,4	
	<b>AC</b>	0,91	0,17	1,23	0,68	18,5					16,5	
	<b>EC</b>						0,82	0,03	0,87	0,76	4,1	14,9
	<b>FEC</b>						0,63	0,04	0,69	0,53	7,8	11,4
	<b>CC</b>						0,82	0,09	1,01	0,69	11,9	15,3
	<b>IE</b>	5,49	0,38	6,02	4,78	6,9						

Indicators and structure of the national football teams' TTA: model C (n=11)

TTA	Model indexes											%			
	Quantitative						Qualitative								
	$\bar{x}$	S	max	min	$\bar{V}$	6	7	S	max	min	$\bar{V}$				
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>				
Trapping	1	63,0	21,5	96	28	34,0	1,00	-	-	-	-	24,0	26,9 (262,5)		
	2	156,4	24,6	246	169	15,7	0,98	0,04	1,00	0,96	4,1	595			
	3	43,1	12,9	76	35	30,0	0,81	0,10	1,00	0,66	12,3	16,5			
Passes	Holding	1	31,6	13,1	59	18	41,5	1,00	-	-	-	-	20,7	32,8 (152,3)	47,5 (464,0)
		2	101,8	16,9	138	54	26,4	0,99	0,01	1,00	0,98	0,7	66,3		
		3	18,9	4,9	28	13	25,4	0,95	0,04	1,00	0,88	4,0	13,0		
Aggra- vating	Developing	1	73,4	13,5	96	54	18,3	0,92	0,04	0,97	0,84	4,5	26,7	59,1 (274,1)	
		2	175,8	28,5	266	172	16,2	0,88	0,03	0,93	0,83	3,6	64,1		
		3	24,9	8,0	41	16	32,2	0,63	0,11	0,83	0,50	16,7	9,2		
Dribbles	Aggra- vating	1	11,1	3,5	16	5	31,7	0,66	0,16	0,76	0,25	24,7	20,3	8,1 (59,8)	
		2	31,9	8,3	47	21	26,1	0,74	0,15	0,76	0,29	27,8	58,2		
		3	11,8	3,5	21	10	29,8	0,56	0,11	0,73	0,39	19,4	21,5		
	2	55,6	13,1	77	36	23,6	1,00	-	-	-	-	-	5,7		

Continuation of table 4.3.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>		
<b>Ground-moves</b>	<b>3</b>	57,8	9,2	72	42	16,1	0,71	0,05	0,84	0,68	7,2	5,9	
	<b>3</b>	37,1	10,3	53	21	27,7	0,45	0,03	0,45	0,35	7,1	3,8	
	<b>1</b>	2,6	-	-	-	1,00	-	-	-	-	-	3,2	8,1 (79,1)
<b>Interceptions</b>	<b>2</b>	43,7	10,2	51	19	23,4	0,83	0,08	0,94	0,68	10,0	55,2	
	<b>3</b>	32,8	12,2	57	19	37,1	0,61	0,11	0,70	0,33	19,4	41,6	
<b>Shots on goal</b>	<b>From play</b>	17,1	54	29	12	31,5	0,46	0,11	0,66	0,31	24,3	87,2	2,1 (19,6)
	<b>SP</b>	2,5	1,2	6	2	51,2	0,45	0,17	0,75	0,20	39,1	12,8	
<b>The number of TTA</b>		975,7	81,1	1139	886	8,3	0,85	0,03	0,87	0,78	3,4	-	
<b>Face-off</b>		229,3	19,5	280	219	8,5	0,65	0,04	0,71	0,59	5,9	23,5	
<b>EC</b>							0,85	0,03	0,87	0,78	3,3	-	
<b>Specific indicators</b>	<b>IC</b>	1,08	0,09	1,28	0,98	8,9						19,2	
	<b>MC</b>	1,27	0,18	1,59	1,02	14,3						22,6	
	<b>AC</b>	0,84	0,07	0,91	0,69	8,3						14,9	
	<b>EC</b>						0,85	0,03	0,87	0,78	3,4	15,1	
	<b>FEC</b>						0,65	0,04	0,71	0,59	5,9	11,5	
	<b>CC</b>						0,93	0,09	1,09	0,80	9,9	16,7	
	<b>IE</b>	5,62	0,25	6,30	5,52	4,4							

Indicators and structure of the national football teams' TTA: model D (n=6)

TTA		Model indexes														%
		Quantitative							Qualitative							
		$\bar{x}$	S	max	min	$\bar{V}$	6	7	S	max	min	$\bar{V}$	8	9	10	
1	Trapping	2	3	4	5	6	7	8	9	10	11	12				
		17,7	9,4	40	11	53,1	1,00	-	-	-	-	-	9,9	29,4 (178,9)		
		116,0	23,3	154	82	20,2	0,96	0,01	0,98	0,95	1,0	17,2	69,8			
3	45,2	10,7	59	26	23,7	0,66	0,11	0,76	0,41	17,2	25,3					
Passes	Holding	1	10,1	1,9	11	5	19,2	1,00	-	-	-	-	14,8	41,5 (300,9)		
		2	47,7	20,1	97	35	42,2	0,98	0,01	1,00	0,96	1,0	64,4			
		10,7	3,6	18	7	33,3	0,83	0,13	1,00	0,58	16,4	20,8				
Aggra- vating	Developing	1	35,5	13,9	75	32	39,3	0,85	0,06	0,94	0,75	7,3	17,2	68,5 (206,0)		
		2	149,3	34,7	212	105	23,2	0,77	0,04	0,81	0,70	4,6	72,4			
		21,2	4,9	28	13	22,9	0,53	0,44	0,77	0,32	27,5	10,4				
Dribbles	Aggra- vating	1	8,1	3,2	14	4	40,0	0,74	0,12	0,88	0,50	16,6	30,0	9,0 (27,0)		
		2	14,9	4,5	22	8	30,2	0,62	0,07	0,76	0,54	11,5	55,2			
		4,0	1,6	8	3	40,5	0,59	0,13	0,75	0,33	23,1	14,8				
2	32,7	7,5	45	22	22,8	1,00	-	-	-	-	-	4,5				

Continuation of table 4.4.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	
<b>Ground-moves</b>	<b>3</b>	51,7	14,2	84	4,0	27,6	0,73	0,81	0,63	8,0	7,1	
	<b>3</b>	58,7	5,52	65	48	9,4	0,40	0,57	0,33	19,4	8,1	
	<b>1</b>	1,4	-	-	-	1,00	-	-	-	-	1,5	12,6 (91,8)
<b>Interceptions</b>	<b>2</b>	53,6	12,3	69	31	23,0	0,89	0,95	0,69	9,4	58,3	
	<b>3</b>	36,8	10,3	57	25	28,2	0,65	0,83	0,57	12,9	40,2	
<b>Shots on goal</b>	<b>From play</b>	7,6	3,8	16	4	51,2	0,54	0,11	0,66	0,33	19,8	1,6 (10,9)
	<b>SP</b>	3,3	0,9	5	2	29,5	0,57	0,16	0,75	0,25	28,5	30,3
<b>The number of TTA</b>		725,6	72,7	848	624	10,0	0,79	0,05	0,87	0,71	6,6	-
<b>Face-off</b>		228,3	45,5	286	146	19,9	0,61	0,03	0,64	0,56	4,3	31,5
<b>EC</b>						0,79	0,16	0,75	0,25	28,5		-
<b>Specific indicators</b>	<b>IC</b>	0,81	0,09	0,95	0,67	11,2						16,8
	<b>MC</b>	1,14	0,16	1,45	0,95	14,2						23,8
	<b>AC</b>	0,81	0,06	0,93	0,73	8,0						16,8
	<b>EC</b>						0,79	0,05	0,87	0,71	6,6	16,5
	<b>FEC</b>						0,61	0,03	0,64	0,56	4,3	12,8
	<b>CC</b>						0,64	0,06	0,75	0,54	10,6	13,3
<b>IE</b>	4,80	0,29	5,36	4,44	6,2							

Table 4.5.

**The integral estimation indicators of technical and tactical activities  
of highly qualified football teams with different tactical models of play**

Tactical models	Specific indicators of integral estimation							Integral estimation
	IC	MC	AC	EC	FEC	CC		
Model A (n=12)	1,01±0,09 (17,7)	1,36±0,17 (23,9)	0,99±0,15 (17,4)	0,78±0,05 (13,7)	0,62±0,04 (10,9)	0,92±0,03 (16,4)	5,68±0,58	
Model B (n=12)	1,02±0,11 (18,5)	1,29±0,08 (23,4)	0,91±0,17 (16,5)	0,82±0,03 (14,9)	0,63±0,04 (11,4)	0,82±0,09 (15,3)	5,49±0,38	
Model C (n=11)	1,08±0,09 (19,2)	1,27±0,18 (22,6)	0,84±0,07 (14,9)	0,85±0,03 (15,1)	0,65±0,04 (11,5)	0,83±0,09 (16,7)	5,62±0,25	
Model D (n=10)	0,81±0,09 (16,8)	1,14±0,16 (23,8)	0,81±0,06 (16,8)	0,79±0,05 (16,5)	0,61±0,03 (12,8)	0,64±0,06 (13,3)	4,8±0,29	

Note: in brackets — percentage ratio.



Analysis of tables 4.1-4.4 enables us to draw a conclusion that each tactical model is characterized by a certain structure of TTA (fig. 4.2.).

The most characteristic feature of TM (tactical model) A is the predominant, compared to other TM, performance of the ball interceptions (12.2%), dribbling (6.0%) and shots on goal (2.6%). The hierarchical structure of TM B is almost the same as of the model A: passing the ball (44,1%), trapping (26,6%), interceptions (10,0%), tackles (6,3%), dribbling (4.9%), shots on goal (1,8%). Playing according to TM C is carried out through pre-emptive control over the ball, as evidenced by the ratio of passing (47,5%) and trapping (26,9%) of the ball. TM D involves the use of a counter-attacking style of play, so the teams that use this model more than other TM perform tackles (8.1%) and interceptions (12.6%) of the ball. At the same time, when using this model, fewer dribbles (4.5%) and shots on goal (1.6%) are performed.

One of the objectives of the study was to determine the indicators of integral estimation of teams using a particular tactical model in play (table 4.5).

Table 4.5. confirms the assumption that the highest rates are observed in the TTA IE of the teams, which use mainly TM A ( $5,68 \pm 0,38$ ) and C (of  $5.62 \pm 0,25$ ) in play. First of all, this is explained by the fact that playing according to these TMs is based on the active method (playmaking tactics). This method presupposes the prevailing control over the ball and the use of active types of pressing. The teams used TMs A and C immediately after the loss of the ball switch to pressing the ball and space, thereby reducing the time of the team's staying in the ball dispossession phase. The main difference between TMs A and C is that the team play with the help of model A involves more targeted attacking actions than the use of model C, on the basis of which, as a rule, a long-term control of the ball is carried out. In modern football, club teams (Barcelona, Bayern, Manchester City, Shakhtar, etc.) and national teams (of Spain, Germany, Argentina, Brazil) are vivid representatives of TM C. At most TM An is used by English teams Liverpool and Tottenham, Italian Juventus,

Spanish Sevilla and Athletic. This model, to a greater extent, is applied by the national teams of England, France, Holland and Turkey. It should be clarified that TM A is the most energy-consuming. From a functional point of view, to keep applying a high press all 90 minutes of the game is very difficult. Therefore, this model is used in combination with other models in the game, and its immediate application is determined by either a pre-selected tactics (algorithmic, probabilistic, heuristic) or the result of the game during the match.

The fact that TM A is the most energy-consuming, is approved by the index of the aggressiveness coefficient, which is characterized by the TTA performance in the 3rd CCM, that is, in face-offs. It is demonstrated in table 4.5 that the highest AC when using TM A is  $0,99\pm 0,15$ . Compared to model A, the AC for TM B is by 8,0% ( $0,91\pm 0,17$ ) less, AC for TM C is by 15.2% ( $0,84\pm 0,17$ ) less and AC for TM D is by 18.2% ( $0,81\pm 0,06$ ) less. Tactical model A is also the most dynamic. The dynamism of the game is at most characterized by the mobility coefficient (MC) —  $1.36\pm 0.17$ .

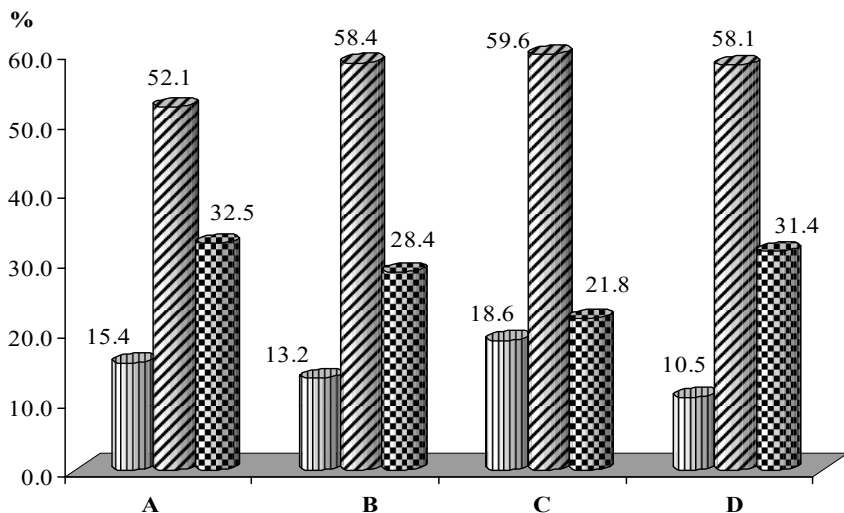
The largest amount of TTA in play falls onto TM C ( $IC=1.08\pm 0.09$ ).

Qualitative indicators in the game are characterized by the face-off coefficients, the effectiveness of face-offs and creativity. All these indicators are the highest in the teams, which primarily use TM C: EC —  $0,85\pm 0,03$ ; FEC —  $0.65\pm 0.04$  and CC —  $0,93 \pm 0,09$ .

Despite the fact that model D is characterized by the lowest specific indicators of the TTA IE, many teams applying this counterattacking model, achieve success in various competitions. An example is the English team Leicester, which became the champion of England in 2015, Zorya Luhansk, which applies the tactics of the D model in the championship of Ukraine, Atletico Madrid, a double finalist of the Champions League of the last three years, the national team of Portugal, the European champion in 2016.

It should be noted, that in the process of control and analysis of competitive activities of highly qualified football teams all technical and tactical actions are fixed with consideration of coordination

complexity and game tension (fig. 4.3.). Analysis of fig. 4.3. allows us to come to the conclusion about the unequal performance of TTA in each of the three CCM, depending on the tactical model of play. Face-offs are most often observed when the teams play by TMs A and D. This is because both these TMs are aimed at achieving sporting achievements on the basis of two mutually opposite methods — active and passive. Both the first and second methods provide for a greater number of face-offs, but for TM A — in the third zone, and for TM D — in the first zone of the field. The opponents of the teams playing by TM C, as a rule, do not apply active pressing, which enables the players of the TM C to perform the greatest number of TTA in the 1st CCM. As for TM B,



*Fig. 4.3. The ratio of performance of technical and tactical actions in different modes of coordination complexity by highly qualified football teams depending on the tactical models of play:*

- ▤ — *The 1st coordination complexity mode;*
- ▥ — *The 2nd coordination complexity mode;*
- ▧ — *The 3rd coordination complexity mode.*

the coordination complexity indicators of the TTA performance have intermediate values between TMs A and C. Therefore, we can conclude that the teams with the highest level of skills apply TMs A and C in the process of competition, and less qualified teams build their competitive activities on the basis of TM B and D.

Thus, an important condition for a more targeted management of competitive activity in football is the control and analysis of TTA, taking into account the tactical models of play. According to Lobanovskiy V. V. (1998) and Bazilevich O. P. (2011), a football team should use several tactics during the game. The main criterion of the optimal playing tactics with a particular opponent is the optimal balance between defense and attack. At the same time, the development of TM of play is carried out in the training process, and implemented in the competition. The strategic goal of team training is to master various TMs of play along with the increasing the level of technical and physical preparedness of the players. On the basis of the conducted long-term research, it is necessary to single out four models which have been characterized in this chapter. Generalized main components of TMs of highly qualified football teams play are presented in table 4.6.

*Table 4.6.*

**Main components of tactical models of highly qualified football teams**

Components	Tactical models			
	Model A	Model B	Model C	Model D
1	2	3	4	5
Positional attacks,%:				
• 1st pace	34,3	29,2	20,2	25,1
• 2nd pace	37,5	34,1	35,4	56,3
• 3rd pace	28,2	36,7	44,4	18,6
Fast attacks,%:				
• short-range	35,2	45,1	44,1	38,2
• mean	35,4	24,1	26,8	17,8
• long-range	29,4	30,8	22,1	44,0

Continuation of table 4.6.

1	2	3	4	5
Pressing, %:				
• high	58,4	22,6	36,4	12,1
• middle	30,2	63,1	55,0	47,1
• low	11,4	14,3	8,6	40,8
Passes, %:				
• holding	22,6	26,5	32,1	22,5
• developing	60,8	63,9	59,1	68,5
• aggravating	16,6	9,6	8,1	9,0
The coordination complexity modes, %:				
• 1st CCM	15,4	13,2	18,6	10,5
• 2nd CCM	52,1	58,4	59,6	58,1
• 3rd CCM	32,5	28,4	21,8	31,4
Technical and tactical actions, %:				
• passes	43,2	44,1	47,5	41,5
• trapping	22,7	26,6	26,9	24,6
• dribbles	6,0	4,9	5,7	4,5
• groundmoves	6,8	6,3	5,9	7,1
• tackles	6,5	6,3	3,8	8,1
• interceptions	12,2	10,0	8,1	12,6
• shots on goal	2,6	1,8	2,1	1,6
Specific indicators of integral estimation, points				
• the intensity coefficient	1,01±0,09 (17,7)	1,02±0,11 (18,5)	1,08±0,09 (19,2)	0,81±0,09 (16,8)
• the mobility coefficient	1,36±0,17 (23,9)	1,29±0,08 (23,4)	1,27±0,18 (22,6)	1,14±0,16 (23,8)
• the aggressiveness coefficient	0,99±0,15 (17,4)	0,91±0,17 (16,5)	0,84±0,07 (14,9)	0,81±0,06 (16,8)
• the face-off efficiency coefficient	0,62±0,04 (10,9)	0,63±0,04 (11,4)	0,65±0,04 (11,5)	0,61±0,03 (12,8)
• the creativity coefficient	0,92±0,03 (16,4)	0,82±0,09 (15,3)	0,83±0,09 (16,7)	0,64±0,06 (13,3)
Integral estimation	5,68±0,58	5,49±0,38	5,62±0,25	4,8±0,29

# SUMMARY

Modern football is characterized by a diverse structure and content of competitive activity. During the competition teams use different tactical models, which are based on the method (active, passive, combined) and system (1-4-4-2; 1-4-5-1; 1-3-4-3; 1-3-5-2) of play.

The complex analysis of competitive activity has made it possible to define four tactical models of highly qualified football teams play: A, B, C and D.

The main components of tactical models of competitive activity of high-quality football teams are the following:

- the ratio of positional and fast attacks;
- ratio of high, middle and low pressing;
- ratio of holding, developing and aggravating passes;
- performance of technical and tactical actions in different modes of coordination complexity;
- structure of technical and tactical activity;
- specific indicators of integral estimation of technical and tactical activity.

# CHAPTER 5

## Tactical models of teams' competitive activities at the 2018 World Cup

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One of the objectives of the study of competitive activity of national football teams at the 2018 World Cup was to determine the features of the play according to different tactical models. It was assumed that the analysis of competitive activity of highly qualified footballers would verify the previously obtained results of games, based on tactical models A, B, C, and D.

It is also important to specify the indicators of penetrative attacks of football teams, especially at their aggravating stage.

In the course of the last World Cup the competitive activity of the national teams' leaders of different playing roles was studied.

The results will improve the knowledge of football professionals regarding the features of cooperative activities of teams and players in the aspect of different tactical models, which in its turn will improve the management efficiency of the football teams' competitive activity of.

### 5.1. Qualitative indicators of penetrative attacks by national football teams

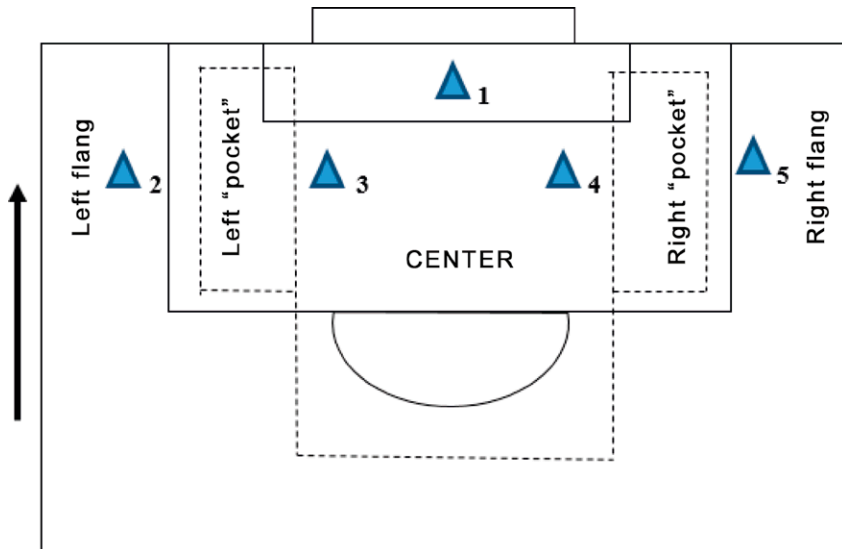
Long-term observation of competitive activity of highly qualified footballers allows us to state that the aggravating stage of penetrative attacks primarily takes place in five variants (fig. 5.1.): through the left flank; through the right flank; through the left

"pocket"(part of the field in the third zone which is between the outside and central defenders); through the right "pocket"; through the center. Passing behind the opposing players, group combinations and individual play are the most frequently used at the aggravating stage of penetrative attacks through the center.

Evaluation scale of penetrative attacks of the football team is described in chapter 2 of the monograph (see table 2.5).

Indicators of penetrative attacks by national football teams are presented in table 5.1. As can be seen in the table, all tactical models are at most characterized by performing the aggravating stages of penetrative attacks through the flanks. These indicators equal to 20.0 points in one half (28.8%) for TM A, 11.8 points (23.9%) — for TM B, 10.8 points (23.7%) — for TM C and 11.0 points (31.4%) — for TM D.

Most of the aggravating stages of penetrative attacks through the right and left "pockets" are observed in the play by TM A: 3.5 points - 5.0% and 2.5 — 3.6%, respectively. TM C in addition to



*Fig. 5.1. Options for the final stages of penetrative attacks in football*



attacks through the flanks is characterized by the use of aggravating tactical moves behind the defenders — 7.0 points (15.3%). Such trend of executing penetrative attacks is also typical for TM D — 7.9 points (15.8%), which is primarily due to the advantages of governmental use of the first pace positional attacks and fast attacks.

Out of the five options for performance of penetrative attacks, the most quality indicators were registered at the realization of attacking moves through the centre. So, successful penetrative attacks through the center made up: 25.8 points (37.1%) — for TM A, 17.4 points (35.1%) — for TM B, 14.8 points (32.4%) — for TM C, 10.6 points (30.3%) — for TM D.

During one half the highest quality indicators of aggravating attacks occur in the teams that use a playmaking-tactics of model A — 69, 4 points, 17.6% of which is referred to playing off a set piece. Indicators of other tactical models are characterized by significantly lower quality values. In particular, the average value of qualitative indicators for TM B is 49.5 points, which is 19.9 (28.6%) less than for TM A. The average value of quality indicators of penetrative attacks for TM C is 23.7 points (34.1%) less than for TM A.

As expected, the lowest quality indicators of penetrative attacks were observed in national teams that used a counter-attacking style of play. These teams built their game on TM D. On the average, quality indicators of aggravating attacks for TM D during one half make up 35.0 points, that is 34.4 points (49.6%) less than for TM A, 14.5 points (29,3%) less than TM B and 10.7 points (23.4%) less than TM C.

In the study of competitive activities of football national teams at the World Cup 2018, the indicators of positional and fast attacks have been analyzed (table 5.2). Most of the attacks were carried out by the teams using TM A —  $52.3 \pm 2.56$  attacks in one half.

The teams that built the game on the basis of TM B and C have a slightly lower such index —  $47.8 \pm 1.36$  and  $48.0 \pm 3.73$  attacks, respectively.

Table 5.1.

**Indices of penetrative attacks by national football teams in one half at the 2018 World Cup (mean values, points)**

Types of attack		Tactical models					
		A	B	C	D	Mean value ( $\bar{x}$ )	
		n=20	n=32	n=34	n=22	27 halves	
Penetrative attacks	Right flank	4,0 (5,8%)	2,4 (4,8%)	2,4 (5,3%)	1,6 (4,6%)	2,5 (5,0%)	
	Left flank	3,0 (4,3%)	2,6 (5,3%)	2,5 (5,5%)	2,2 (6,3%)	2,5 (5,2%)	
	Right "pocket"	1,6 (2,3%)	1,0 (2,0%)	0,7 (1,5%)	0,3 (0,9%)	0,9 (1,8%)	
	Left "pocket"	1,5 (2,9%)	0,8 (1,0%)	0,6 (1,3%)	0,4 (1,1%)	0,8 (1,6%)	
	Center	Behind	3,5 (5,0%)	2,6 (5,3%)	3,3 (7,2%)	2,0 (5,7%)	2,9 (5,8%)
		Combinations	1,1 (1,6%)	0,8 (1,6%)	0,7 (1,5%)	0,2 (0,6%)	0,7 (1,4%)
		Individual play	0,9 (1,3%)	0,7 (1,4%)	0,6 (1,3%)	0,5 (1,4%)	0,7 (1,4%)
	Successful penetrative attacks	Right flank	5,8 (8,4%)	3,5 (2,1%)	3,2 (2,0%)	4,0 (11,4%)	4,1 (8,2%)
		Left flank	7,2 (10,3%)	3,3 (6,7%)	2,7 (5,9%)	3,2 (9,1%)	4,1 (8,2%)
Right "pocket"		1,9 (2,2%)	1,8 (3,6%)	2,7 (5,9%)	1,4 (4,0%)	1,9 (3,8%)	
Left "pocket"		1,0 (1,4%)	1,2 (2,4%)	1,6 (3,5%)	1,4 (4,0%)	1,3 (2,6%)	
Центр		Behind	5,7 (8,2%)	5,3 (10,7%)	3,7 (8,1%)	5,1 (14,6%)	5,0 (10,0%)
		Combinations	16,4 (23,6%)	7,4 (14,9%)	8,7 (19,0%)	3,5 (10,0%)	9,0 (18,0%)
		Individual play	3,7 (5,3%)	4,7 (9,5%)	2,4 (5,3%)	2,0 (5,7%)	3,2 (6,4%)
Set piece		12,1 (17,6%)	11,2 (23,7%)	9,9 (21,7%)	7,2 (20,6%)	10,2 (20,6%)	
Total		69,4	49,5	45,7	35,0	49,9	

Tactical models A, B and C are characterized by predominant execution of positional attacks compared to fast attacks (fig. 5.2).

National teams that played by TM D have made more fast (58.1%) than positional (41.8%) attacks.

The most significant difference between positional and fast attacks was observed in the teams playing by TM C — 35,4% and TM A — 23.6%.

Indicators of division of positional attacks into attacks of the first, second and third pace and fast attacks into short-range, mean-range and long-range (see table 5.2) describes the team's style of play to a certain extent. So, TM A is at most characterized by predominant implementation of positional attacks of the first (47.3%) and second (36.2%) of pace and fast short-range (38.5%) and mean-range (34.5%) attacks. For TM C, the differentiation of the first, second and third pace positional attacks is almost the same — 36.9, 31.6 and 31.5%, respectively. The same for this TM is the fast attacks distribution: short-range — 36,7%, mean-range — 31.6%,

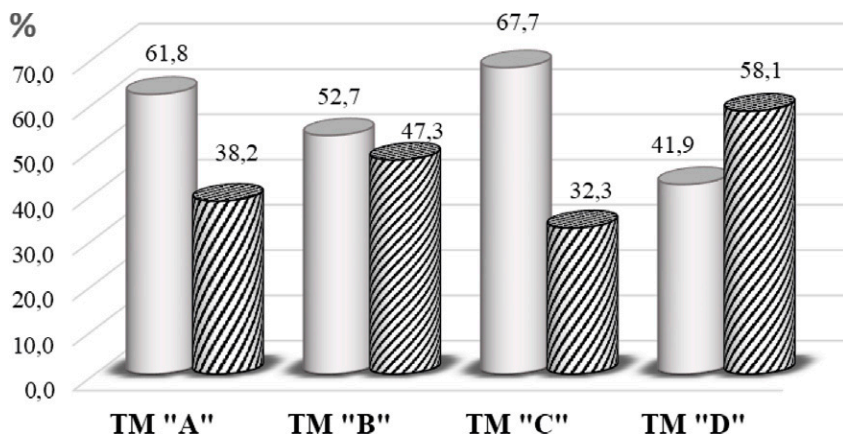


Fig. 5.2 Distribution of positional and fast attacks depending on the different tactical models of the national teams at the 2018 World Cup

■ — positional attacks;  
 ▨ — fast attacks.

Table 5.2.

### Indices of positional and fast attacks of national football teams in one half at the 2018 World Cup

Attacks	Tactical model															
	A				B				C				D			
	<i>n</i>	$\bar{x}$	<i>S</i>	%	<i>n</i>	$\bar{x}$	<i>S</i>	%	<i>n</i>	$\bar{x}$	<i>S</i>	%	<i>n</i>	$\bar{x}$	<i>S</i>	%
<i>Positional attacks</i>																
1st pace	24	15,3	4,62	47,3	33	11,6	2,88	46,0	35	12,0	2,79	36,9	22	10,0	3,14	52,0
2nd pace	24	11,7	2,56	36,2	33	8,9	2,16	35,3	35	10,3	1,86	31,6	22	6,9	2,35	35,9
3rd pace	24	5,3	2,56	16,5	33	4,7	1,44	18,7	35	10,2	2,56	31,5	22	2,3	1,04	12,1
TOTAL	24	32,3	4,35	61,8	33	25,2	4,32	52,7	35	32,5	3,49	67,7	22	19,2	2,87	41,9
<i>Fast attacks</i>																
short-range	24	7,7	2,05	38,5	33	7,8	1,68	34,5	35	5,7	1,86	36,7	22	7,1	1,57	26,6
mean-range	24	6,9	2,05	34,5	33	6,3	1,92	27,8	35	4,9	1,18	31,6	22	6,5	1,57	24,4
long-range	24	5,4	1,79	27,0	33	8,5	2,40	37,7	35	4,9	1,63	31,7	22	13,0	2,09	49,0
TOTAL	24	20,0	1,78	38,2	33	22,6	4,32	47,3	35	15,5	3,96	32,3	22	26,6	2,87	58,1

long-range — 31,7%. TM C, to a certain extent, can be distinguished as the most balanced tactical model of play. This is confirmed by the construction of the game of the world's leading national teams of: Spain, Germany, Argentina, Brazil, which play mostly on the basis of TM C.

As can be seen in the table 5.2., indicators of positional and fast attacks of TM b are intermediate between those of TM A and TM C. As a rule, TM B is implemented by equal teams.

Unlike the first three tactical models of play, which are characterized by the use of the playmaking tactics, TM

D is counterattacking. This TM is marked by predominant performance of positional attacks of the first (52,0%) and second (35.9%) pace and fast long-range (49,0%) attacks.

Thus, the indicators of the positional attacks performance depending on various options of aggravating stages of these attacks contribute to more purposeful management of the competitive activity of highly qualified footballers.

## 5.2. Features of gaining the ball possession in different zones of the football field

Football game consists of two phases: the ball possession phase (BPP) and the ball dispossession phase (BDP). The working hypothesis of the given research presupposed the identification of quantitative and qualitative indicators of gaining possession of the ball by the teams using various tactical models of play in three zones of a football field. The results of the study are presented in table 5.3. The teams that used TM A in the game gained possession of the ball mostly through tackles and moves in the second zone —  $21.8 \pm 3.66$  times in one half. This tactical model is characterized by the greatest number of the ball possession gains in the third zone —  $11.7 \pm 2.87$  times. The teams playing by other TMs in this zone performed significantly less tackles and interceptions of the

ball. In particular, these values for TM B are  $6.5 \pm 1,68$  times, for TM C —  $8.8 \pm 1.97$  times, and for TM D —  $5,1 \pm 1,04$  times. Accordingly, as expected, the teams using the playing style of TM D have gained the largest number of ball possessions within one half in the first zone, that is  $25,7 \pm 4,40$  times. In this zone the minimum number of tackles and interceptions was observed in the teams playing by TM A —  $19,5 \pm 3,93$  times.

The team which used an active method of play, that is a play-making tactics, have gained the most ball possessions in the second (middle) zone of the field.

Table 5.3.

**Gain of ball possession in the three zones of the football field depending on the different tactical models of the national teams play at the 2018 World Cup (one half)**

Tactical models	Zones of the football field									
	first			second			third			Total
	$\bar{x}$	S	EC	$\bar{x}$	S	EC	$\bar{x}$	S	EC	
<b>A (n=22)</b>	19 (31,2)	3,93	0,75	21,8 (41,1)	3,66	0,76	11,7 (26,8)	2,87	0,72	53,0
<b>B (n=33)</b>	21,4 (45,3)	5,52	0,76	19,3 (40,9)	5,04	0,74	6,5 (13,8)	1,68	0,66	47,2
<b>C (n=29)</b>	18,7 (39,4)	3,94	0,77	19,9 (41,9)	4,67	0,78	8,8 (18,7)	1,97	0,63	47,4
<b>D (n=23)</b>	25,7 (54,4)	4,40	0,76	16,4 (34,7)	3,36	0,75	5,1 (10,9)	1,04	0,60	47,2
<b>Mean value</b>	21,3 (43,7)	4,29	0,76	19,4 (39,8)	4,21	0,75	8,0 (16,5)	1,78	0,65	48,7

Note: In parentheses — percentage ratio.

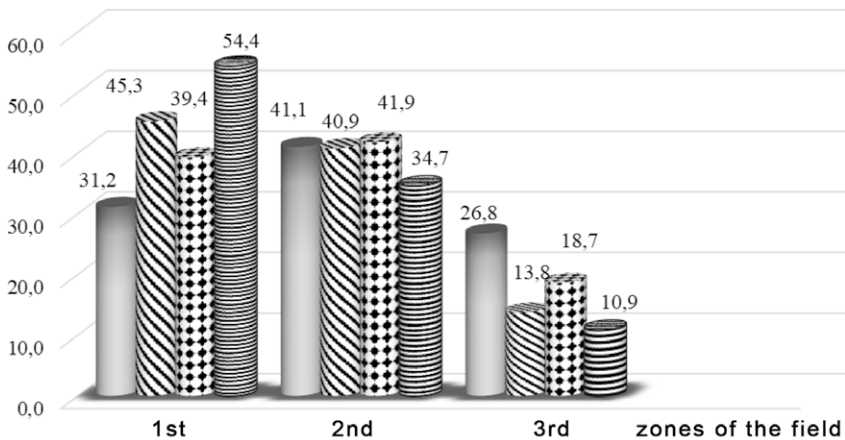
So, national teams playing at TM B have performed  $19,3 \pm 5.04$  tackles and interceptions of the ball in the second zone in one half, and the teams playing by TM C —  $19.9 \pm 4.67$  times.

Judging by the average among all teams, competitive activity of which was subject to the study, we can conclude that national teams have gained ball possession 48.7 times in a half (tackles

and interceptions of the ball),  $21,3 \pm 4,29$  (43,7%) of which were performed in the first zone,  $19,4 \pm 4,21$  (39,8%) — in the second one and  $8,0 \pm 1,78$  (16,5%) — in the third zone of a football field.

To some extent, these indicators can be considered as model.

Comparison data of the four tactical models regarding the ball possession in the three zones of the football field is important for the analysis of the game of highly qualified teams (fig. 5.3). The figure shows that in the first zone the greatest number of tackles and interceptions of the ball are carried out by the teams playing on TM D, and the smallest — on TM A. Conversely, in the third zone, the teams that practice an attacking style of play on the basis of TM A try to gain possession of the ball the most. First of all, this is due to the use of high pressing in the system of a playmaking tactics.



*Fig. 5.3. Distribution of the ball possession in the three zones of the playing field, depending on the tactical systems of the national football teams at the World Cup 2018., %*

- — TM A;
- ▨ — TM B;
- ▣ — TM C;
- ▤ — TM D.

It should be clarified that during one match a team can either predominantly use one tactical model of play or implement two or three tactical models. The tactical model of the team's play is very often changed depending on the score or other factors. Therefore, the teams' competitive activity in one half, as a rule, and not in the whole game have been analyzed in this monograph.

### 5.3. Characteristics of goals at the 2018 World Cup

The information on goals scored at the World Cup is generated by both general quantitative indicators and the peculiarities of the goal attacks, depending on the options of aggravating stages of game combinations.

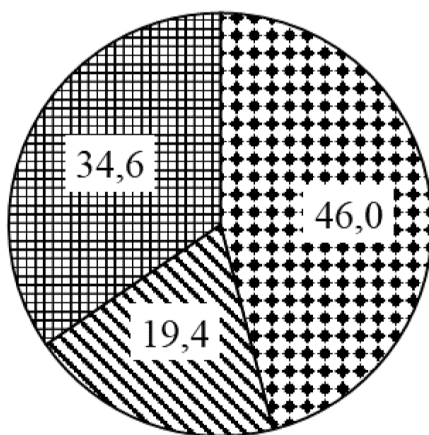





Fig. 5.4. Distribution of goals depending on the types of attacks at the 2018 World Cup, %

-  — positional attacks;
-  — fast attacks;
-  — set piece.



169 goals were scored at the last World Cup, 46,0% of which were scored as a result of positional attacks, 19.4% — after the implementation of fast attacks and 34.6% — after playing off a set piece, including the goals scored from the penalty spot (fig. 5.4).

Table 5.4 presents the information on goals scored at the 2018 World Cup, depending on the options for successful penetrative attacks and playing off a set piece.

*Table 5.4.*

**All the goals at the 2018 World Cup depending on the options for successful penetrative attacks**

Options for successful penetrative attacks		Qualitative indices (points)	%	Goals	%	Total		
						Goals	%	
Penetrative attacks	Right flank	4,1	5,2	13	7,6	25	14,7	
	Left flank	4,1	8,2	12	7,1			
	Right "pocket"	1,9	3,8	8	4,7	20	11,8	
	Left "pocket"	1,8	2,6	12	7,1			
	Center	Behind	5,0	10,0	25	14,7	66	38,9
		Combinations	9,0	18,0	2	13,0		
		Individual play	3,2	6,4	19	11,2		
Set piece	Corner	Near post	–	–	10	5,9	20	11,9
		Remote post	–	–	6	3,6		
		Playing off	–	–	4	2,4		
	Free kicks	Direct kick	–	–	7	4,1	15	8,8
		Playing off	–	–	8	4,7		
	Penalty kicks				23	13,9	23	13,9
<b>Total</b>				<b>169</b>	<b>100,0</b>	<b>169</b>	<b>100,0</b>	

According to the table, the most goals (66; 38.9%) were scored in the performance of successful attacks through the centre, including by passing the ball behind the opposing players (25; 13,0%) and individual play (19; 11,2%). Individual play encompasses not only goals after executing the groundmoves and tackles, but also after long-range shots on goal. The combinations, carried out on flanks, have been always appreciated in football. 25 (14.7%) goals were scored through side attacks at the World Cup 2018, 13 (7.6%) of which — after aggravating tactical moves from the right wing and 12 (7,1%) — from the left one.

Slightly fewer than as the result of side attacks goals (20; 11.8%) were scored during the aggravating stages of combinations through the so-called right and left "pocket". These combinations provide for aggravating tactical moves to the playing area of the field, which is between the outside and central defenders.

A total of 111 (65.6%) goals were scored at the World Cup game.

Quite typical for the 2018 World Cup is a fairly large number of goals that were scored after playing off a set piece. A set piece includes corner kicks, free kicks, penalty kicks.

After corners, 20 (11.9%) goals were scored, including 10 (5.9%) goals scored when passing the ball to the near post, 6 (3.6%) — to the far post, 4 (2.4%) — after playing off. The realization of free kicks allowed the teams to score 18 (8,8%) goals: 7 (4.1%) after direct kicks and 8 (4.7%) after playing off.

Penalty kicks were scored 23 times (13.9%) at the 2018 World Cup.

One of the particular objectives of this study was to quantify the goals scored at the 2018 World Cup. Depending on the types of attacks (table 5.5.).

As already noted, 111 (65.6%) goals were scored during the game, 78 (46.1%) of which were scored in positional attacks and 33 (19.4%) of goal attacks were accomplished resulting from fast attacks.

Table 5.5.

**Goals scored at the 2018 World Cup depending on  
the types of football teams' attacks**

Type of attack	Scored goals	%
<b>Positional attacks:</b>		
<b>1st pace</b>	41	24,2
<b>2nd pace</b>	24	14,1
<b>3rd pace</b>	13	7,7
<b>Total</b>	78	46,0
<b>Fast attacks:</b>		
<b>short-range</b>	9	5,3
<b>mean-range</b>	17	10,0
<b>long-range</b>	7	4,1
<b>Total</b>	33	19,4
<b>Set piece:</b>		
<b>corner kicks</b>	20	11,9
<b>free kicks</b>	15	8,8
<b>penalty kick</b>	23	13,9
<b>Total</b>	58	34,6
<b>Total at the World Cup</b>	169	100,0

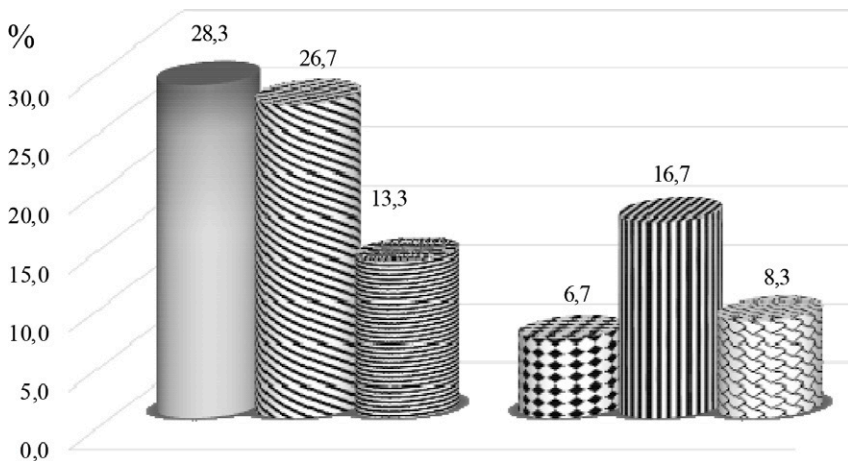
It becomes clear from table 5.5 that out of all positional attacks the most scored goals, that is 41 (24.2%), were the result of positional attacks of the first pace. Positional attacks of the second pace fulfilled themselves in 24 (14,1%) cases. In long kick-offs i.e. carrying out the positional attacks of the third pace were scored only 13 (7.7%) goals. These data confirm the assumption that the more quickly positional attacks are organized, the more difficult the actions of the opposing team in the ball dispossession phase are.

Mean-range fast attacks were the most effective among the fast attacks. They resulted in 17 (10.0%) goals. In the process of short-range fast attacks 9 (5,3%) goals were scored, and in long-range fast attacks — 7 (4.1%) goals.







Analysis of table 5.5 allows us to determine the following hierarchy of goals scored during the game at the World Cup 2018 (fig. 5.5):

- 1st pace positional attacks;
- 2nd pace positional attacks;
- fast mean-range attacks;
- 3rd pace positional attacks;
- fast short-range attacks;
- fast long-range attacks.

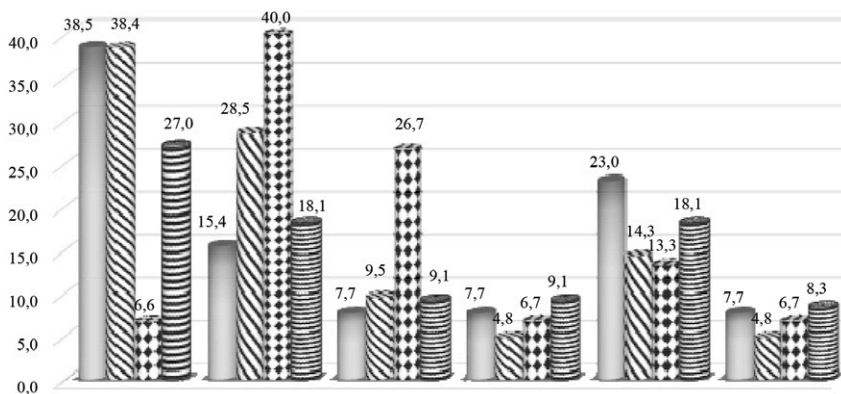
In the process of research, it was very important to specify the features of effective actions of national teams, depending on the tactical models of play (fig. 5.6).







*Fig. 5.5. The ratio of goals scored depending on the types of attacks at the 2018 World Cup, %*

-  — 1st pace positional attacks;
-  — 2nd pace positional attacks;
-  — 3rd pace positional attacks;
-  — fast short-range attacks;
-  — fast mean-range attacks;
-  — fast long-range attacks.

As can be seen from the figure, the teams playing predominantly by TM A scored most goals in positional attacks of the first pace — 38.5%, fast mean-range attacks — 23,0% and positional attacks of the second pace — 15.4%. TM B is differentiated by a productive game through positional attacks of the first (38,1%) and second (28,5) pace, as well as through fast mean-range attacks — 14,3%. As expected, the teams that mainly used TM C scored most goals during the second and third pace positional attacks — 40.0 and 26.7%, respectively. At the same time, this TM is characterized by a rather



*Fig. 5.6. The ratio of goals scored depending on the tactical models of play and types of attacks at the World Cup 2018, %*

- PA:1P — positional attacks of the first pace;*
- PA:2P — positional attacks of the second pace;*
- PA:3P — positional attacks of the third pace;*
- FSA — fast short-range attacks;*
- FMA — fast mean-range attacks;*
- FLA — fast long-range attacks;*
-  — tactical model A;
-  — tactical model B;
-  — tactical model C;
-  — tactical model D.

low performance of the first pace positional attacks — only 6.6% of the goals were scored resulting from these attacks.

TM D, when used in the game, provides a short-term control of the ball during attacks. The teams playing by this TM at the World Cup 2018 scored the most goals as the result of the first pace positional attacks, making up 27.2%, and the second pace positional attacks, that is 18.1%, and fast mean-range attacks, that is 18.1%.

Analysis of fig. 5.5. allows us to identify certain regulations of the national team's performance depending on the types of positional and fast attacks. When carrying out positional attacks of the first pace, the most goals are scored by the teams playing according to TM A and B. In cases of positional attacks of the second pace, the largest number of goals is scored by the teams using TM C in the game. The same teams score the most goals during the positional attacks of the third pace.

When carrying out fast attacks, the most goals were scored by the teams whose play was based on TM D.

*Table 5.6.*

**Quality indicators of penetrative attacks mean value (points) in one half**

Types of attack	Tactical models				
	A	B	C	D	Mean value ( $\bar{x}$ )
	<i>n=20</i>	<i>n=32</i>	<i>n=34</i>	<i>n=22</i>	27 halves
<b>1st pace</b>	17,6	14,0	9,9	6,3	11,9
<b>2nd pace</b>	15,4	8,3	10,1	5,5	9,8
<b>3rd pace</b>	4,5	5,9	7,6	2,9	5,2
<b>Fast short-range</b>	8,0	5,8	4,2	5,8	6,0
<b>Fast mean-range</b>	9,8	2,9	3,6	5,6	5,5
<b>Fast long-range</b>	2,0	0,9	0,4	1,7	1,3
<b>Set piece</b>	12,1	11,7	9,9	7,2	10,2
<b>Total</b>	<i>69,4</i>	<i>49,5</i>	<i>45,7</i>	<i>35,0</i>	<i>49,9</i>

The provided performance indicators of football teams depending on the tactical models of play and types of attacks, contributes to

a more focused adjustment of the training process, on the one hand, and to producing an effective management impacts in the process of competitive activities, on the other. The qualitative indicators of penetrative attacks are presented in table 5.6.

## 5.4. Individual indicators of technical and tactical activity of highly qualified players

Individual indicators of technical and tactical activity (TTA) are of interest to football experts from both theoretical and practical points of view. Theoretical aspects of this problem are caused, first of all, by methodological approaches in the construction of model characteristics of competitive activity. The practical value of the new knowledge will allow coaches to more purposefully manage the competitive activity of players of different playing roles.

Table 5.7 provides the TTA indicators of players of different roles, who are leaders of their national teams. To some extent, these indicators can serve as benchmarks in the analysis of competitive activity of players of club and national football teams. The table clarifies that optimally high indices of the total number of TTA in the match are the following: for the outside defender — 181 TTA (defect — 9,0%); the central defender — 191 TTA (defect — 6,0%), for the holding midfielder (insider) — 121 TTA (defect — 12,0%); for the central midfielder (unside) — 146 TTA (defect — 14,0%); for the outside midfielder (winger) — 104 TTA (defect — 9,0%); for the forward — 64 TTA (defect — 16,0%).

In addition to the overall performance of TTA by leading players of different roles, it is also important to pay attention to the performance of individual game techniques. For example, the outside defender of the Brazil national team, Marcelo, in the match Brazil — Belgium (1/4 final) completed 18 aggravating passes (defect rate — 23,0%). The holding midfielder De Bruyne made 54 passes

in the match Belgium — Japan (1/8 final), 17 of which were developing and 18 — aggravating.

The outside halfback (winger) Neymar executed 21 groundmoves (defect — 29,0%) in the match Brazil — Mexico. Competitive performance of the midfielder (insider) Messi in the Argentina — France match is characterized by a certain balance. Messi has performed 43 traps, 36 passes, 8 dribbles, 28 groundmoves, 3 tackles, 3 interceptions and 3 shots on goal, making up 87 TTA (defect 13.0%).

Modern football is characterized by a high level of versatility of all team player, including goalkeepers. Unlike the previous three stages of football development, at the stage of total football, players perform technical and tactical actions in different areas of the field (fig 5.7).

As can be seen in the figure, only the outside defender Marcelo and the central defender Ramos performed TTA mainly in the areas of their playing roles. Other playing roles feature the performance of TTA in almost all areas of the field.

In a sense, it can be concluded that the most universal functions in modern football are those of the holding midfielder. This is proven by the "playing map" of the holding midfielders De Bruyne and Modric (see fig. 5.7).

It is also necessary to pay attention to the large number of playing areas in the match by elite players of modern football, namely Neymar and Ronaldo, whose playing roles are the forwards (wingers). In the 2nd half of the match Portugal — Uruguay, Ronaldo performed TTA not only across the width of the third zone of the field, but also in the second zone. In the match Brazil — Mexico, several field zones were involved into play by Neymar, constantly shifting across the front of the team's attacking actions.

As already noted, the central midfielder (insider) of the Argentina national team Messi fairly evenly performed TTA in all zones on the opponent's half of the field in the match Argentina — France.



With regard to the implementation of TTA by the forward of the national team of England Kane, 34 TTA were executed in the second half of the match England — Colombia, 30 of which — on the half of the opponent.

Of interest is the individual indicators analysis of technical and tactical activities of retired famous players (table 5.8). In particular, Terry, the centre-back, completed 54 TTA (defect — 6.0%) in the 2012 World Cup match England — Germany in one half.

In the final match of ECWC Dynamo (K) — Atletico (M) (1986), the outside midfielder Yaremchuk performed 55 TTA (defect — 22.0%) in one half.

The holding midfielder Lampard completed 52 TTA (defect — 10.0%) in the second half of the 2010 World Cup match England — Germany.

The central midfielders Charlton B., Maradona and Zavarov in one half of certain matches completed 44, 62 and 52 TTA, respectively.

The forwards Pele, Blokhin, Belanov and Shevchenko in certain matches completed 53, 51, 27 and 48 TTA.

These indicators allow us to conclude that the modern stage of football development is characterized by more intense competitive activity.

This is confirmed by the comparative indicators of technical and tactical activities of elite players, presented in tables 5.7, 5.8. At the same time, comparison of the integral estimation of elite players' technical and tactical activities (in points), on the basis of tables 5.9, 5.10, enables us to define the following hierarchy\* Maradona — 9,16; Zavarov — 8,52; Messi — 8,07; Pele — 7.64; Yaremchuk — 7.05; De Bruyne — 6.96; Marcelo — 6,95; Neymar — 6,90; Lampard — 6,81; Shevchenko — 6, 48; Blokhin — 5,60; Charlton B. — 5,58; Terry — 5,58; Ronaldo — 5.38; Modric — 5,08; Kane — 4,90; Belanov — 4,89. Among all elite players of the world football, Pele, Maradona, Messi and Ronaldo feature the highest

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\* Only one match values are shown

rating. The structure of technical and tactical activities of these players is demonstrated in fig. 5.8.

The picture shows that the most balanced game was played by Messi: 33.3% — traps, and 28.6% — passes, 6.2% — dribbles, 21.7% — groundmoves, 2.3% — tackles; 6.9% — interceptions, and 1.0% — shots on goal.

Pele made 92.9% of TTA in the ball possession phase.

Approximately the same ratio of TTA performance in BPP and BDP characterizes Maradona's play. It should be noted that Maradona, Messi and Ronaldo feature quite a high proportion of groundmoves — 23.4; 21.7; 22.2%, respectively. Somewhat paradoxically as for a forward, but Pele performed the most ball passes, making up 41,0% of all TTA.

In general, the ratio of TTA performance by outstanding footballers can be considered as individual model characteristics.

## Summary

For purposeful management of a football team competitive activity it is important to focus on individual indicators of technical and tactical activity of elite players of different playing roles.

Individual quantitative indicators of TTA performance in a match by players of different roles can serve as guidelines in the analysis of competitive activity of club and national teams' players. Indicatively high total number of individual TTA performance in the match by the footballers of different playing roles is the following: the outside defender — 164 TTA; the central defender — 191 TTA; the holding midfielder — 121 TTA; the outside midfielder (winger) — 104 TTA; the central midfielder (insider) — 129 TTA; the forward (striker) — 64 TTA.

In modern football, during the game, players of almost all roles perform TTA not only in the area of their roles, but also in other field zones, what indicates a high level of players' versatility skills.

Table 5.7

Individual performance indicators of technical and tactical actions of players of different playing roles at the World Cup 2018

Sl. No.	Footballer	Playing roles	Match	Half	Technical and tactical actions										Total
					traps	passes		dribbles	ground-moves	tackles	inter-ceptions	shots on goal			
					H	D	A								
1	Marcelo	O. D.	Brazil –	1	50/0	8/0	25/0	10/5	6/0	6/1	4/3	5/1	1/1	114/11 (0.91)	
			Belgium	2	24/0	1/0	11/0	4/4	2/0	4/0	3/1	1/0	1/0	50/6 (0.89)	
2	Ramos	C. D.	Spain –	Game	74/0	9/0	36/0	14/1	8/0	10/1	7/4	6/1	12/1	164/17 (0.91)	
			Russia	1	40/0	6/0	44/1	–	5/0	–	1/0	2/2	1/0	99/3 (0.97)	
3	Modric	H. M.	Croatia –	2	39/0	7/0	37/3	–	3/0	–	1/1	0/2	0/1	82/7 (0.92)	
			Denmark	Game	74/0	13/0	81/4	–	8/0	–	2/1	2/4	1/1	181/10 (0.94)	
4	Messi	C. M. (f)	Argentina –	1	13/3	4/0	6/0	–	2/0	7/3	0/1	3/1	–	35/8 (0.81)	
			France	2	23/4	6/0	13/1	5/0	6/0	14/4	0/2	4/1	2/1	75/11 (0.87)	
5	De Bruyne	H. M.	Belgium –	Game	36/7	10/0	21/1	5/0	8/0	21/7	0/3	7/2	2/1	110/19 (0.86)	
			Japan	1	16/1	7/0	13/0	9/2	2/0	4/0	1/3	3/0	0/1	55/7 (0.89)	
6	Neymar	F. (w)	Brazil –	2	16/2	11/1	4/0	6/1	6/0	6/0	2/2	–	0/1	52/7 (0.88)	
			Mexico	Game	32/3	18/1	17/0	15/3	8/0	10/0	3/5	3/0	0/2	107/14 (0.88)	
7	Ronaldo	F. (w)	Portugal –	1	1/1	–	4/1	5/1	4/0	6/3	–	1/0	1/2	32/8 (0.80)	
			Uruguay	2	22/3	1/0	4/1	7/2	7/0	9/3	1/1	–	1/2	52/12 (0.81)	
8	Kane	F.	England –	Game	33/4	1/0	8/2	12/3	11/0	15/6	1/1	1/0	2/4	84/20 (0.81)	
			Colombia	1	12/0	2/0	8/0	1/0	4/0	8/2	–	1/0	1/2	37/4 (0.90)	
			Uruguay	2	13/0	2/0	6/1	2/1	4/0	4/4	–	–	0/3	31/7 (0.82)	
			England –	Game	25/0	4/0	14/1	3/1	8/0	12/6	–	1/0	1/5	68/13 (0.84)	
			Colombia	1	8/1	3/0	6/0	0/1	2/0	1/1	0/1	1/0	0/2	24/6 (0.75)	
				2	9/1	1/0	2/1	3/1	5/0	3/1	1/0	1/2	30/4 (0.88)		
				Game	17/2	4/0	8/1	3/2	7/0	6/1	4/2	2/0	1/4	54/10 (0.84)	

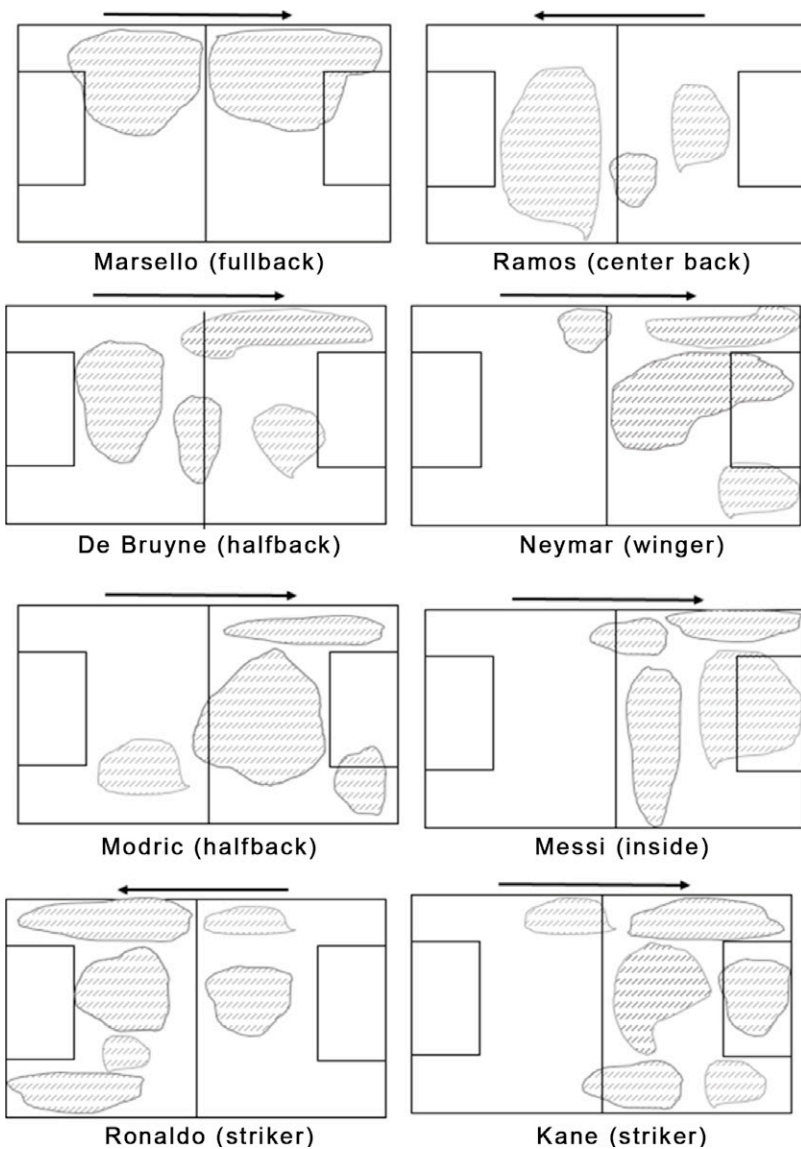
Note: O. D. — the outside defender; C. D. — the central defender; C. M. (f) — the central midfielder (insider); H. M. — the holding midfielder; F. (w) — the forward (winger); F. — the forward; H — holding passes; D — developing passes; A — aggravating passes; the numerator depicts exactly performed TTA; the denominator — not exactly performed TTA; in parentheses — the efficiency coefficient.

Table 5.8.

**Individual performance indicators of technical and tactical actions  
of famous players of different playing roles (in one half)**

Sl. No.	Footballer	Playing roles	Match	Technical and tactical actions										Total
				traps	passes			dribbles	ground-moves	tackles	interceptions	shots on goal		
					H	D	A							
1	Lampard	H. M.	England – Germany World Cup 2010	6/0	9/2	11/3	2/1	2/0	3/0	0/2	2/1	3/0	47/5 (0,90)	
2	Terry	C. D.	England – Germany World Cup 2010	17/0	6/0	19/0	–	2/0	–	0/1	7/2	–	51/3 (0,94)	
3	Charlton B.	C. M.	England – Brazil World Cup 1970	12/1	4/0	11/0	4/3	2/0	3/0	–	–	1/3	37/7 (0,84)	
4	Maradona	C. M.	Argentina – England World Cup 1986	12/3	4/0	6/2	2/1	9/0	13/2	0/5	–	3/2	49/15 (0,75)	
5	Pele	F.	Brazil – England World Cup 1970	16/2	6/2	7/3	3/2	2/0	7/0	0/4	–	–	41/15 (0,75)	
6	Blukhin	F.	USSR – Brazil World Cup 1982	21/2	5/1	4/1	2/4	4/0	6/2	0/2	0/1	–	41/10 (0,80)	
7	Belanov	F.	USSR – France World Cup 1986	5/2	2/0	–	3/0	2/0	5/1	4/4	–	–	21/6 (0,77)	
8	Zavarov	C. M.	USSR – France World Cup 1986	12/1	1/0	1/1	2/0	4/0	14/5	2/3	–	2/1	39/13 (0,75)	
9	Yaremchuk	O. M.	Dynamo (K) – Atletico (M) ECWC 1982	9/2	2/0	6/2	5/2	4/1	9/2	1/3	5/0	1/0	43/12 (0,71)	
10	Shevchenko	F.	Dynamo (K) – Juventus European Champions Cup 1990	14/5	1/0	4/5	0/2	2/0	7/4	1/0	–	1/2	30/18 (0,63)	

Note: *H. M.* — the holding midfielder; *C. D.* — the central defender; *C. M.* — the central midfielder; *F.* — forward; *O. M.* — the outside midfielder; *H* — holding passes; *D* — developing passes; *A* — aggravating passes; the numerator depicts exactly performed TTA; the denominator — not exactly performed TTA; in parentheses — the efficiency coefficient.



*Fig. 5.7 Performance of technical and tactical actions by elite players of the world football (2018 World Cup, in one half)*

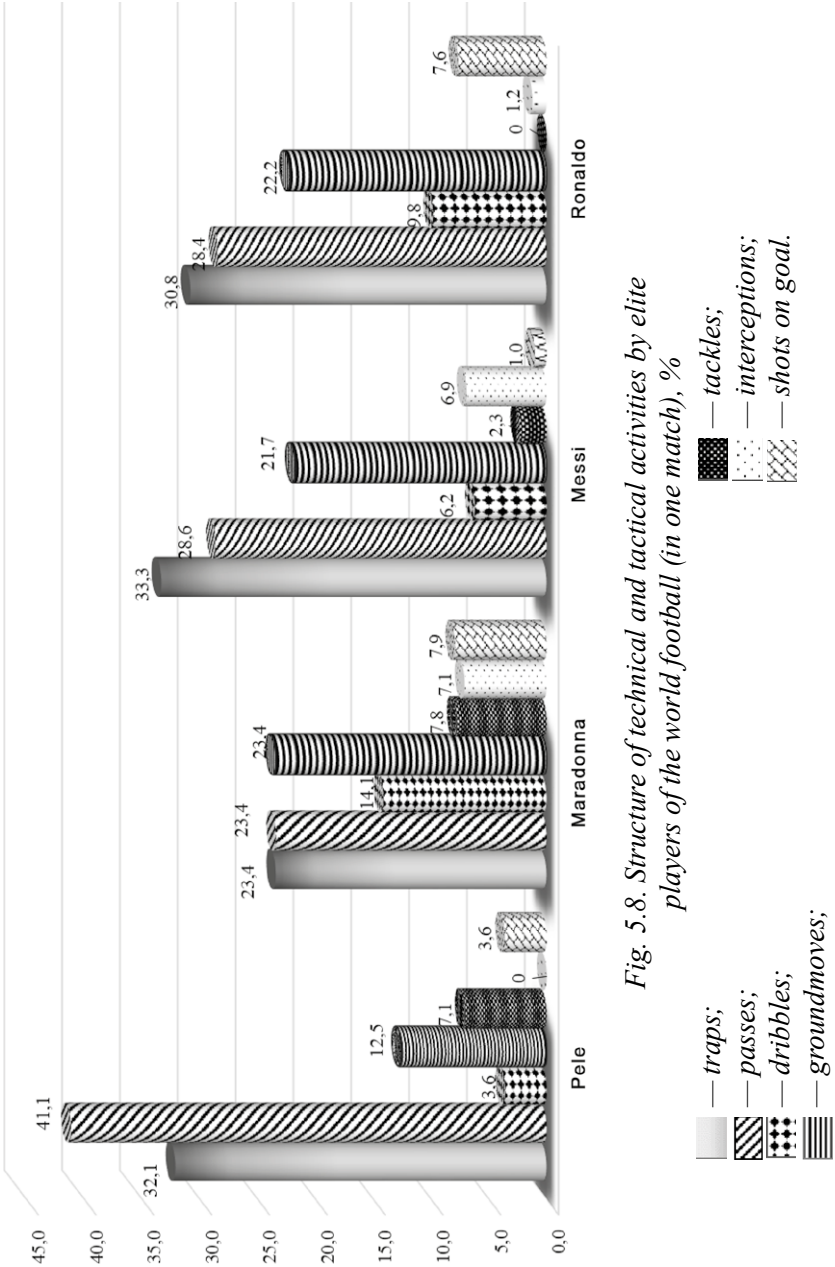


Fig. 5.8. Structure of technical and tactical activities by elite players of the world football (in one match), %

Table 5.9.

**Individual performance indicators of technical and tactical actions  
of players of different playing roles at the World Cup 2018**

Sl. No.	Footballer	Playing roles	Match	Half	Specific indices						
					IC	MC	AC	EC	FEC	CC	IE
1	Marcelo	O. D.	Brazil – Belgium	1	1,53	2,57	0,66	0,92	0,70	0,71	7,09
				2	1,24	2,31	0,86	0,89	0,76	0,76	6,81
				<i>Game</i>	<i>1,38</i>	<i>2,44</i>	<i>0,76</i>	<i>0,91</i>	<i>0,73</i>	<i>0,74</i>	<i>6,95</i>
2	Ramos	C. D.	Spain – Russia	1	2,24	2,48	0,19	0,97	0,33	1,20	7,41
				2	1,97	1,86	0,40	0,92	0,16	0,88	6,19
				<i>Game</i>	<i>2,11</i>	<i>2,17</i>	<i>0,29</i>	<i>0,95</i>	<i>0,25</i>	<i>1,84</i>	<i>6,80</i>
3	Modric	H. M.	Croatia – Denmark	1	0,97	1,82	0,33	0,85	0,60	0,51	5,08
4	Messi	C. M. (i)	Argentina – France	1	0,91	1,81	1,39	0,81	0,66	0,26	5,84
				2	0,97	1,78	0,60	0,93	0,78	0,62	5,68
				<i>Game</i>	<i>0,94</i>	<i>1,79</i>	<i>0,99</i>	<i>0,87</i>	<i>0,72</i>	<i>0,44</i>	<i>5,76</i>
5	De Bruyne	H. M.	Belgium – Japan	1	1,37	2,22	0,93	0,89	0,71	0,80	6,92
				2	1,31	2,35	1,26	0,88	0,68	0,53	7,01
				<i>Game</i>	<i>1,34</i>	<i>2,28</i>	<i>1,09</i>	<i>0,89</i>	<i>0,69</i>	<i>0,67</i>	<i>6,96</i>
6	Neymar	F. (w)	Brazil – Mexico	1	0,88	1,64	1,00	0,80	0,66	0,60	5,58
				2	1,42	2,66	1,66	0,81	0,76	0,91	8,22
				<i>Game</i>	<i>1,15</i>	<i>2,15</i>	<i>1,33</i>	<i>0,81</i>	<i>0,71</i>	<i>2,91</i>	<i>6,90</i>
7	Ronaldo	F. (w)	Portugal – Uruguay	1	0,91	1,78	0,79	0,90	0,83	0,56	5,76
				2	0,84	1,68	0,73	0,82	0,64	0,28	4,99
				<i>Game</i>	<i>0,88</i>	<i>1,73</i>	<i>0,76</i>	<i>0,86</i>	<i>0,74</i>	<i>0,42</i>	<i>5,38</i>
8	Kane	F.	England – Colombia	1	0,66	1,33	0,79	0,80	0,75	0,22	4,55
				2	0,71	1,92	1,09	0,84	0,81	0,38	5,25
				<i>Game</i>	<i>0,69</i>	<i>1,63</i>	<i>0,94</i>	<i>0,82</i>	<i>0,78</i>	<i>0,30</i>	<i>4,90</i>

*Note:* O. D. — the outside defender; C. D. — the central defender; C. M. (i) — the central midfielder (insider); H. M. — the holding midfielder; F. (w) — forward (winger); F — forward; IC — the intensity coefficient; MC — the mobility coefficient; AC — the aggressiveness coefficient; EC — the efficiency coefficient; FEC — the face-off efficiency coefficient; CC — the creativity coefficient; IE — integral estimation.

Table 5.10.

**Individual performance indicators of technical and tactical actions  
of famous players of different playing roles (in one half)**

Sl. No.	Footballer	Playing roles	Match	Specific indices						
				IC	MC	AC	EC	FEC	CC	IE
1	Lampard	H. M.	England – Germany World Cup 2010	1,15	1,42	0,93	0,90	0,73	1,68	6,81
2	Terry	C. D.	England – Germany World Cup 2010	1,37	1,55	0,53	0,94	0,75	0,84	5,58
3	Charlton B.	C. M.	England – Brazil World Cup 1970	0,97	1,16	0,66	0,84	0,67	1,28	5,58
4	Maradona	C. M.	Argentina – England World Cup 1986	1,37	2,08	2,26	0,75	0,66	2,04	9,16
5	Pele	F.	Brazil – England World Cup 1970	1,17	1,82	2,19	0,75	0,65	1,06	7,64
6	Blokhin	F.	USSR – Brazil World Cup 1982	1,13	1,33	1,13	0,80	0,68	0,53	5,60
7	Belanov	F.	USSR – France World Cup 1986	0,60	1,06	1,33	0,77	0,65	0,44	4,89
8	Zavarov	C. M.	USSR – France World Cup 1986	1,15	2,08	2,46	0,75	0,76	1,32	8,52
9	Messi	C. M.	Argentina – Mexico World Cup 2010	1,31	1,95	1,99	0,86	0,75	1,21	8,07
10	Yaremchuk	O.M.	Dynamo (K) – Atletico (M) ECWC 1989	1,22	2,00	1,46	0,71	0,61	0,98	7,05
11	Shevchenko	F.	Dynamo (K) – Juventus European Champions Cup 1998	1,06	2,08	1,66	0,63	0,61	0,44	6,48

*Note:* H. M. — the holding midfielder; C. D. — the central defender; C. M. — the central midfielder; F. — forward; O. M. — the outside midfielder; IC — the intensity coefficient; MC — the mobility coefficient; AC — the aggressiveness coefficient; EC — the efficiency coefficient; FEC — the face-off efficiency coefficient; CC — the creativity coefficient; IE — integral estimation.



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