INFLUENCE OF CERTAIN TACTICAL ATTACKING PATTERNS ON THE RESULT ACHIEVED BY THE TEAMS PARTICIPANTS OF THE 2010 FIFA WORLD CUP IN SOUTH AFRICA

Abstract
The aim of this study is to compare tactical manifestations of soccer teams, different competitive success, defined on the basis of the achieved results in one match at the 2010 FIFA World Cup in South Africa. The teams were divided into 3 groups based on the match results, the tactical analysis included a total of 60 matches of 2010 FIFA World Cup in South Africa. The first sub-sample of the subjects (winning) was consisted of the teams that won in the final result, the second sub-sample (draw) were the teams that ended in tied score (no winner), while the third subsample (defeat) consisted of the teams which were defeated in the course of regular 90-minute game. Based on the previously processed data, which were taken from the official website of the International Federation of Association Soccer (www.fifa.com), the observed parameters refer to the game efficiency, tactical attacking resource - passing the ball and the ball passing structure. Based on the analysis of the successful attacks frequency, it was revealed that there is a statistically significant difference in the number of successful attacks between the teams that had achieved different results \((p = 0.003)\), in favor of the winning teams. Additionally, the successfullness of attacks, observed through their accuracy, indicates the differences in their distribution \((p = 0.000)\) between the aforesaid groups. The results also indicate that the total run distance, on the level of one team is not associated with the final result. However, ball possession \((P = 0.001)\), overall number of passes \((p = 0.015)\) and overall number of correct passes \((P = 0.013)\) were figured as important factors in achieving better results, while the analysis of the efficacy percentage and the structure of the game that applied passing, i.e., pass length is little or not associated with the final result. The results of this study can help identify those tactical attacking resources in soccer, which contribute to achieving better results.

Key words: SOCCER / GAME ANALYSIS / TACTICS / RESULT / PASSING

INTRODUCTION
Tactics in soccer is an important factor in preparing the team or individual for the competition. The lack of tactical preparation and strategy development is one of the main reasons for poor performances and results of one team (Ali, 1998). Tactics of attack is a part of an overall strategy and plays an important role in soccer game. Numerous studies have focused on the analysis of offensive action in the game, because scoring a goal is the main objective of the game. Goals and shots on goal are the key elements that de-
termine the success or failure of the soccer team. It is necessary to shoot and score in order to win in soccer match (Hook and Hughes, 2001).

Statistical analysis of the game, given the individual, group and team technical and tactical elements, is one of the ways that can be used for describing and monitoring the tactical manifestations and results in the competition. However, more detailed analyses of matches are more objective ways of viewing tactical activities during the match (Carling et al., 2005).

An efficient way to identify basic elements of successful result achieving is to identify the quality and quantity of technical and tactical actions by the players of both the winning and the defeated teams in direct competition (Szwarc, 2004). Performance indicators are defined as the selection and connection of the monitored parameters that define particular performance aspects, based on which better results can be achieved. Despite the limitations that may arise, when making conclusions, derived pursuant to this kind of study, this type of data is useful for the purpose of monitoring and forecasting of soccer game development in the field of tactics.

In previous studies related to the analysis of soccer matches, most researchers have focused on the analysis of the scored goals and activities that have led to shots (successful attacks) in the major competitions – world and continental championships (Jankovic et al., 2009; Szwarc, 2008; Jankovic and Leontijević, 2007, Acar et al., 2007; Luhtanen et al., 2001), and then in the best club-level competitions (Buraczewski and Cicirko, 2007; Szwarc, 2007; Bergier and Buraczewski, 2007). A number of studies tried to find a causal link between individual statistical indicators and the achieved results (Lago et al., 2010, Rampinini et al., 2009, Armatas et al., 2009), while some authors tried to identify differences between successful and unsuccessful teams in different representative, club-level and national competitions when organizing successful attacks, as well as in the structure and efficiency of passes (Hughes and Franks, 2005, Jones et al., 2004; Szwarc, 2004; Hook and Hughes, 2001, Grant et al., 1999, Hughes et al., 1988). A number of papers have analyzed the structure and efficiency of technical manifestation of soccer players in the top soccer competitions (Jankovic and Leontijević, 2009, 2008; Rampinini et al., 2009).

The results of these studies indicate the differences in the playing characteristics of the teams that achieve different results. The playing differences are primarily reflected in greater efficiency of shots on goal, as well as in application of passes of the teams which score better results. However, few analyses included both the aforementioned parameters, while it was noticed that a negligible number of papers explored in detail the performance and structure of passes as direct indicators of achievement of either positive or negative results. World Cup in South Africa (SP JAR), as representative of modern top soccer, can offer a more accurate answer to, yet unknown relationship between tactics and soccer results.

Therefore, due to a small number of studies related to tactical demonstration of soccer teams, with different levels of performance, defined based on the final result, a need arose for this kind of research. It is necessary to determine whether and to what extent there are differences in application of certain tactical resources between the teams that have achieved different results at the end of soccer matches, i.e., that can be said to be successful or unsuccessful. Also, few studies, dealing with these problems, managed to identify technical and tactical aspects of the game and subsequently to find their relationship with the result.

The subject of this research was to reveal and track tactical validity to achieve better result in soccer game. The subject included spatial tactical manifestation of soccer teams, through the analysis of structure of those attacks that resulted in shoots on opponent’s goal, as well as the passing structure. Tactical manifestation, primarily implies technical and tactical activities that an individual, group of players or the whole team undertakes in order to, depending on the part of the field, perform by tactical patterns, rational and efficient actions to score a goal.

The aim of this paper was to compare tactical manifestations of soccer teams of different levels of performance defined on the basis of the achieved results in a regular 90-minute game without overtime, at the 2010 FIFA World Cup in South Africa. Specifically, it is necessary to determine whether and to what extent there are differences in application of
some tactical resources in organization of successful attacks as well as to determine whether it is statistically allowed to classify the teams at the World Cup into winning, those who ended in tied score and defeated.

**METHODS**

**Sample of subjects**

60 matches of the 2010 FIFA World Cup in South Africa were analyzed in this research i.e., the games that lasted 90 minutes without overtime. The teams were classified in three groups of subsamples based on the achieved result at the end of the match. The first group of subsamples (victory) consisted of the teams that won in the final result, the second subsample of the subjects (draw) included the teams which ended the match in a tied score (no winner), while the third subsample (defeat) comprised the teams which were defeated in the regular 90-minute game.

**Procedure**

In the analysis of the previously elaborated, overall of 60 matches of the 2010 World Cup in South Africa, the observed parameters were taken from the official FIFA site (www.fifa.com), related to the game efficiency, game with application of passes as well as the passing structure. For the purposes of this paper, we analyzed the data, which directly affected the final result of a soccer match, attacking activities of the participating teams, i.e., shots on goal and passes of the teams participating in the 19th World Cup.

**Variables**

The variables that were monitored, were selected as the primary for the subject analysis and as such resulted from basic theoretical, practical principles, pertaining to soccer game and its evolution. This paper’s researching attention is directed at observation of successfully organized attacks which resulted in tactical resource of shot on goal, as well as characteristics of the game with application of passes, ball possession and structure (length) alone of passes.

The overall number of successful attacks at one match presents the first variable explaining the correlation of the results and technical-tactical performance of the teams. The second variable, is defined as efficacy of successful attacks and it is analyzed through accuracy shots on opponent’s goal, differentiating accurate attacks (shots in the goal frame), inaccurate attacks (shots outside the goal frame) and efficient attacks (goals). While the third variable is passing, i.e., volume and efficiency of the game with application of passes in the course of match (ball possession, overall number of passes, number of correct passes, percentage of correct passes, as well as features of the game alone with application of passes – short, medium and other passes).

**Statistical data processing**

Standard descriptive statistical analysis (overall and medium value, as well as standard deviation) was calculated for every variable. From the space of comparative statistics, a non parametric variance analysis was used, as well as Kruskal-Wallis test, which determined the differences between medium values of frequencies in certain variables, as well as Mann-Whitney test which explained more accurately possible differences. Chi-square test was used to detect correlation between the team results and distribution of the variables within the observed parameters. The level of statistical significance was on \( p<0.05 \). All statistical tests were processed by using SPSS 17.0 program (SPSS INC, Chicago, IL).

**RESULTS AND DISCUSSION**

The aim of this study was to identify the relationship between tactical manifestation and achieved results of the teams that competed in the 2010 World Cup in South Africa. Considering the fact that soccer result is determined by a large number of factors, one group of authors believe that this approach in the analysis of game efficiency, must be taken with a grain of salt (Lago, 2009, Taylor et al., 2008). However, such an observation may indicate to certain principles that can be used in the analysis of the soccer game structure, and what is very important, the results obtained in this study have direct practical implications, both in training technology, and in direct preparation for competition.
At the 19th World Cup in South Africa, 32 teams participated, divided into eight groups in the first phase. 48 matches were played in the group phase, 34 of which were finished with victory of one national team, while 14 games ended tied. 16 matches were played in the elimination phase and overtime was played at 4 of them, so they were not included in the analysis, because of the the validity of the obtained results. With this paper we have obtained the data that suggest an association of the results and tactical manifestations of the teams whose playing characteristics were analyzed.

Table 1  Comparative analysis of the average number of successful attacks of the teams per match in 2010 World Cup depending on the achieved results.

<table>
<thead>
<tr>
<th>Successful attack</th>
<th>winner</th>
<th>draw</th>
<th>lose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>16.02</td>
<td>12.07</td>
<td>12.72</td>
</tr>
<tr>
<td>Stdev</td>
<td>5.46</td>
<td>5.36</td>
<td>4.68</td>
</tr>
<tr>
<td>Asymp. Sig.</td>
<td>0.003*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean Rang</td>
<td>74.25</td>
<td>49.82</td>
<td>53.25</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>11.872</td>
<td></td>
<td></td>
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</tbody>
</table>

Based on the number of successful attacks during the match (those attacks that resulted in a shot on the opponent’s goal) and when comparing their frequencies, a significantly larger number of such attacks can be observed in the teams that have made better results, and were much better ranked (p = 0.003) (Table 1). These data, though quite expected, indicate that teams which achieve better results take the initiative and win by having better attack organization than their opponents. Greater number of shots on goal are more likely to finish in scoring, but it also implies a certain relation in the field between the two opponents. When analyzing 2002 World Cup Szwarc (2004) obtained similar results and according to them the finalists had on average 18 shots on goal, which is more than the teams that had not come to the finals (average of 14.08 shots). Grant et al. (1999) obtained the data, when analyzing the 1998 World Cup that successful teams achieved an average 18.1 shots on goal, while the unsuccessful teams achieved about half the shots 9.5. Additionally, Hughes and Franks (2005) compared the effectiveness of tactical activities between successful and unsuccessful teams at the 1990 World Cup and also obtained the results according to which more successful teams realize greater number of shots on goal than the unsuccessful ones. Roxburg (2008), presented the facts that at the 2008 European Championship, the semi-finalists performed an average of 15 successful attacks per game, while the last four ranked teams in the group achieved an average of 13.2 a successful attacks. In the 2009/10 season in the Champions League the teams that qualified for quarterfinals had on average 13:13 successful attacks, and the last eight ranked teams in the group only 8.76 attacks, while in the League of Europe, the second-best European club-level competition, teams in quarterfinals had an average of 11.99 successful attacks, and eight of the last ranked teams in the group phase of the competition an average of 9:38 attacks. (www. uefa.com). Based on the analysis of the Spanish professional league (current world champion), results of the winning teams, an average of 14.4 shots on goal have been recorded, the teams that tied 13.6, while the defeated team an average of 12 shots on goal, as indicated by the data provided by Lago et al. (2010). Similar results were obtained by the analysis of the Greek soccer championship (Armatas et al., 2009), as well as the Italian „Serie A” (Rampini et al., 2009). Janković et al. (2009) analyzed the number of successful attacks of the four best teams in three previous World Cups (1998, 2002, 2006) and came to the conclusion that the average number of successful attacks at 16th World Cup was 17.68, at the 17th World Cup 11:46, while it was only 10.96 attacks at the 18th World cup. The above stated results clearly indicate that much more attention is required for the game analysis and within that analysis to attack tactics, i.e., methodology of the efficient attack organization.

As a continuation of attack tactics analysis, besides the frequency of successful attacks, accuracy of the final shots on goal is essential. All shots directed at the opponent’s goal, according to generally accepted classification, are divided into precise and imprecise, and the scored goals are defined as the effective shots. In relation to this approved indicator, the results of the study show that there were significant differences (p = 0.000) in distribution of different accuracy shots in teams which achieved different results (Graph 1). Janković et al. (2009) analyzing the accuracy of successful attacks of the four best teams in three World Cups (1998, 2002, 2006),
came to the data that the average number of imprecise attacks at the 16th World Cup was 10.61, at the 17th World Cup 6, while at the 18th World Cup it was 5:36 attacks, while there were 5.21 precise attacks at the 16th World Cup, 3.68 at the 17th World Cup and 4.14, at the 18th World Cup, while the number of effective attacks was 1.86 at the 16th World Cup, 1.79 at the 17th and 1.5 at the 18th World Cup. These data clearly indicate that the total number of successful attacks decreases.

Graph 1  Analysis of the accuracy of successful attacks and their distribution depending on the acquired result at the 2010 World Cup expressed as mean values for one game.

Based on the results of the analysis it can be concluded that the winning teams achieved a higher percentage of effective attacks compared to less successful teams. Additionally, it can be noted that all three subsample groups have an equal number of accurate shots, while the defeated and the teams that tied have far higher percentage of imprecise shots (Graph 1). These differences in distribution of shots of different precision can be explained by quality individuals who realize attacks in the winning teams, but also with the distance from which the final shots are directed.

Lago et al. (2010) concluded that the winning team shot more on goal than the defeated and the team who tied in the Spanish professional league. Also, winning teams had higher efficiency than the teams that were defeated and those which finished their matches tied (46.17%, 37.545, and 35.57%, respectively). Within the group of winning teams relationship of goals and shots was 1:7.5 (each seven shots result in one goal) in the group of tied games it was 1:17, while in the group of the defeated teams the ratio was 1:27.65, from this we can see that successful teams have a higher percentage of effectiveness (realization) from other teams. Roxburg (2008) by analyzing the 2008 European Championship, obtained data that the teams semi-finalists, had a ratio of 1:9, while the last four ranked teams in the group had 1:28, while Hook and Hughes (2001), stated that at the 2000 European Championship, the ratio of suc-
successful teams was 1:7, and 1:17 of the unsuccessful. Szwarc (2007) when analyzing the final Champions League came to the ratio of 1:8 of the teams that won the Champions League and 1:24 of the defeated teams. These data indicate that more successful teams better realize given opportunities to score and have a higher percentage of realization, which is also one of the prerequisites for good results. Analyzing the teams of the Italian „Serie A“ significant differences were observed between the first five teams on one hand, and the last five teams on the other hand, in terms of accurate shots, in favor of the more successful teams (Rampinini et al., 2009). Also, Armatas et al.(2009) concluded that in more successful teams, relationship of goals and shots on goal was 1:7.8, while in the two bottom ranked teams the ratio was 1:14.2.

From this and from previous researches it can be concluded that the difference between winning and defeated teams is mostly evident in shots on goal and in the efficiency of those shots on goal (Grant et al. 1999). Observed through individual examples, it often happens that the team which shoots less on goal than its opponent achieves victory, but special value of this research reflects in a large number of analyzed matches, 94% of all games played at the world cup, so the obtained results provide reliable indicators of the tactical efficiency of the teams participants. The results of this study certainly indicate that the teams that achieved victory more effectively organize their attacks, which provides them more probable situations to score a goal but also to dispose with more quality attackers when compared to the defeated and the teams that ended their games in a draw. However, the Italian national team, the winner of 2008 World Cup, compared to seven teams with whom they played, did not differ in total number of shots on goal, or in distribution of shots of different precision (Acar et al., 2007).

Physical fitness in today’s soccer is one of the most important parameters that can influence the outcome of soccer matches. Based on results of this analysis, it can be seen that there is no significant difference between the three WC team groups in relation to the total distance covered by the whole teams (Table 2), where all the teams ran on average about 105 km per match, or about 10.500 meters per player. These data show that it is not enough to be physically more prepared than your opponent, but it is necessary to change, by adequate tactical plan, the rhythm and dynamics of the game in order to surprise the opponent by surprise. The lack of the data may be that we do not know in what intensity zones these movements were realized and the distance covered by players playing in different positions. As well as, which is extremely important for understanding the tactics of soccer game, how the ratio of covered kilometers varied depending on the result, and even on the immediate possession of the ball and certain situations in the game.

Table 2  Comparative analysis of the structure and successfulness of the game with passings game, and covered distance (of the whole team) at the 2010 World Cup between the teams that realized different results, expressed as average values per match

<table>
<thead>
<tr>
<th></th>
<th>WIN</th>
<th>DRA</th>
<th>LOSE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average</td>
<td>stdev</td>
<td>Average</td>
<td>stdev</td>
</tr>
<tr>
<td>DC</td>
<td>105.2</td>
<td>6.3</td>
<td>105.8</td>
<td>5.1</td>
</tr>
<tr>
<td>%PT</td>
<td>52.3*</td>
<td>6.0</td>
<td>50</td>
<td>5.3</td>
</tr>
<tr>
<td>SP</td>
<td>533.5**</td>
<td>114.7</td>
<td>480.8</td>
<td>95.8</td>
</tr>
<tr>
<td>PC</td>
<td>391.6*</td>
<td>115.3</td>
<td>342.1</td>
<td>99.1</td>
</tr>
<tr>
<td>%PCR</td>
<td>72.3</td>
<td>7.1</td>
<td>69.9</td>
<td>7.5</td>
</tr>
</tbody>
</table>

DC – overall covered kilometers per team; PT% – percentage value with regard to ball possession; PC – overall number of sufficient passes per game; PCR (%) – percentage of successfulness of passes; * significantly more than the defeated team; ** significantly more even than the defeated and teams who played tied; for p < 0.05 (Kruskal-Wallis test)
Positive ball possession in soccer is a desirable option, but without real technical quality this approach increases the risk of counterattack, and sometimes leads to recombining and lack of a finish (Roxburg, 2008). Analyzing the data, referring to the ball possession, in table 2, it can be noted that the winning teams realized significantly higher ball possession than the defeated teams (p=0.001). Such data mean that the teams which manage to control the game, by significantly higher ball possession than their opponents, also score better results. Comparing the successfulness of tactical activities between successful and unsuccessful teams at the 1990 World Cup Hughes and Franks (2005) found the differences between these two groups of teams, where more successful teams had better indexes compared to ball position. Additionally, Hook and Hughes (2001) established that successful teams have better possession than the unsuccessful teams at the 2000 World Cup. The authors proposed that keeping the ball in possession is indicative for success. Analyzing tactical activities of the French national team, world and European championship at that moment, Japheth and Hughes (2001) stated that France was capable to produce much more shots, and also had ability to keep the ball in possession for a longer time, compared to their opponents. Jones et al., (2004), analyzing the English Premier league, reached the data that successful teams have greater ball possession than the unsuccessful ones. All the aforesaid results undoubtedly indicate that it is necessary to keep the ball in possession for longer time than for better scoring it is necessary to keep a ball in possession for longer time and thus impose its own playing style, however Lago (2007), when analyzing Spanish professional league Primera, found the data, according to which the defeated teams had significantly greater ball possession than the teams who tied or won. These results are certainly supported by current events and results but at club and national team levels, which indicate the domination of teams which cherish attacking game, i.e., have longer ball possession than their opponents. The real representative of such game pattern is certainly FC Barcelona as well as the Spanish national team, current Europe and world. Per their dominance on tactical plan and technical activities with ball, certain number of national teams, particularly Spain, the Netherlands and Germany imposed at the World Cup their game to their opponents and with distinct performance used the advantages of ball possession.

Taking into account the fact that acceptance-release of the ball is the basic unit of cooperation between two teammates and that on its efficiency, the efficacy of attacking tactic of one team depends, the relation of overall number of passes and overall number of correct passes represents an essential index of playing efficiency in the field of one team. Modern soccer, requires soccer players with high percentage of correct passes, especially in the maneuvering space and under pressure of the opponent’s players. Taking into consideration play in narrow marking in every part of the field, primarily technical training of the players, is manifested, as well as the ability to control the ball in the most complex game situations (Janković et al. 2009). Observing the overall number of passes of the teams participating in the 2010 World Cup, it can be seen that there are significant differences (p=0.015) in the average number of passes during the match, and from the analysis it can be observed that the winning teams have significantly more passes than the defeated teams, and than the teams that tied (Table 2). Such a result is added to the existence of differences in the time of ball possession, but significantly more passes of the winning teams with regard to the remaining two groups indicates that the winning teams play also in simpler way, faster with shorter keeping of the ball in possession by the players. Analyzing the season 2009/10 of the Champions League in the elimination phase of the competition the average of overall passes was 459.2 (www.uefa.com), while the finalists of this competition realized on average 478 passes and their opponents during the competition, 305.5 (Szwarc, 2007). The ratio of number of passes in the final match, of the mentioned competition, was 716 – FC Barselona as the winner and 307 for FC Arsenal as the defeated in this match (Zubillaga et al. 2007). Szwarc (2004) presented the analysis of the number of passes of the finalist teams of the 17th World Cup 2002 and their opponents in their duels, where the finalists realized on average 355.16 tries of passes, and their opponents on average 387.58 passes.

When it comes to the number of correct passes, it can be noted also, a greater number of more successful passes in those teams which achieve better results (Table 2). Additionally, there is a significant difference between the winning teams and those who lost at the end of the match (p=0.013). In the season 2009/10 of the Champion league in the elimination
phase of the competition, the average of number of successful passes was 328.1 (www.uefa.com). At the European Championship 2008 successful teams, i.e., those who moved to the second phase of competition had on average 359.9 successful passes, while the teams who did not move to the elimination phase of the competition had on average 217.4 successful passes (www.uefa.com). The teams winners of the Champion League had on average 362.14 passes while their opponents realized 234.43 passes (Szwarc, 2007). Grant et al. (1999) presented the data, according to which, the successful teams realized an average of 362.7 correct passes, and the unsuccessful ones only 308.9 at the 1998 World Cup. The teams finalists of the 17th World Cup 2002 had an average of 292.75 passes while their opponents realized 314.67 passes (Szwarc 2004). Comparing the results of this analysis with the data of the previous researches it can be concluded that the greatest number of correct passes was recorded at the last World Cup by the winning teams, on average 391.6 (Table 2).

When it comes to the percentage of correct passes, i.e., game efficiency with application of passes, it can be seen that there is no statistically significant difference among the teams with regard to the final result (p=0.108) (Table 3.). Pursuant to these results, the conclusion is that the teams pretending to high ranking, must primarily have quality individuals, i.e., dedicate more attention, in training process, to technical-tactical training of their players, because their game efficiency directly affects the result realized by the team. In the season 2009/10 of the Champion league, in the elimination phase of the competition, the percentage of successfulness of passes was 70% (www.uefa.com). At the 2008 European Championship, the successful teams, i.e., those who moved into the second phase of the competition had a successfulness percentage of 75.6%, while the teams who did not move in the elimination phase of the competition had 72.4%. (www.uefa.com). However, Zubillaga et al., (2007), when analyzing the finals of the Champions league reached the result that the team of FC Arsenal, which had one goal of advantage in the first term, had the percentage of successfulness 78%, and Barselona 85%, while in the second term, when Barselona changed the the result and celebrated in that match in the second 45 minutes its percentage of successfulness was 89%, while Arsenal had only 62%.

Analyzing the game structure with application of passes, depending on the length of passes, and its influence on the realized result, it can be seen that there is no statistically significant difference in successfulness of passes, of different length, among the teams which achieved different results (Graph 2). Observing, percentage-wise, the teams apply most the medium-length passes (63%), followed by short passes (24%) while the longest passes are least applied (13%). With regard to application of these types of passes there is no difference in their distribution with these three groups of teams, therefore, the teams, independently of the realized result use equally short, medium and long passes. Scoulding et al. (2004) when analyzing the passes at 2002 World Cup, also found out that there were no significant differences in the length of passes between successful and unsuccessful teams. However, Rampinini et al. (2009) when analyzing successfulness in the Italian professional league Serie A, found out that successful teams differ significantly in the overall number of short passes and by successful short passes with regard to unsuccessful teams.
When it comes to the efficiency of passes of different length, Graph 2 displays that teams have approximately equal successfulness when realizing short and medium passes, with the efficiency of medium passes ranging between 74% - 78%, and short passes efficiency from 71% - 75%, with an unexpected conclusion that national teams were more precise in medium passes compared to short distance passes. However, from Graph 2 it can be seen that the winning teams, when realizing long passes had significantly higher percentage of successful, long passes compared to the defeated teams. From these results we cannot claim with certainty that the teams have won thanks to more precise long passes, but it can be an important element of soccer play tactics, where with carrying balls, the center of the game is easily changed and slower moving of opponents in defense is used in the game. Precise long passes have special value even in shots from center form winger positions as well as in situations of game breaks, through which, according to the latest research, over 50% of all goals are scored.

Although such researches investigate success indicators in soccer, some restrictions or methodological problems in the examining these studies can be observed. Many of these studies did not succeed to show reliability for data collection of the used system (Hook and Hughes, 2001). Additionally, the results should be taken with care, because the results were obtained through the analysis on a limited number of teams, representative level and as such cannot be valid for other competitions. It is necessary, in next papers, to compare game efficiency of the national and club-level teams, of course with regard to the achieved result. The continuity of follow-up of influence of certain tactical solutions shall provide identification of rational and efficient tactical variants.

**CONCLUSION**

Technical-tactical activities are exceptionally important segment of soccer game structure, and having in consideration that in modern, top soccer, the only measure of value is the result, therefore quantifying of all the activities of individuals, group of players or even of the entire team, which contrib-
uted to achievement of top sports result is essential in programming and management of the training process of any team.

The differences between winning and defeated teams are mostly evident in frequency and efficiency of shots on goal as well as in success of passes (Grant et al., 1999). The results of this analysis, confirm to the great extent the outcome of previous studies, but also indicate to distribution of the variables in certain, observed parameters, and reveal their relationships based on the achieved result.

By analyzing correlation of tactical manifestation and the achieved result, based on monitoring of matches at 2010 World Cup in South Africa, the following conclusions can be made:

• Based on the number of successful attacks (shots on goal), it was confirmed that there is a statistically significant difference in the average number of successful attacks between the teams which achieved different results, and that difference is in favor of the winning teams.

• The results of the successful attacks analysis and their classification into accurate, inaccurate and efficient attacks, confirm the results of previous researches that the final outcome in a big competition, such as 2010 World Cup in South Africa, depends on the number of performed attacks.

• The overall run distance per subsamples is not connected to the final results, since there is no statistically significant difference in achieving the final result.

• Based on the possession of ball it was confirmed that there is no statistically significant difference in the percentage of possession between the teams which achieved different results, and that difference is in favor of the winning teams.

• The teams that won significantly differ also when compared to other two groups, with regard to an overall number of passes, as well as to number of successful passes realized in the 2010 World Cup in South Africa.

• However, by analyzing the percentage of accurate passes, it can be observed that there is no statistically significant difference between the teams based on the achieved result.

• By analyzing the structure of passing i.e., coach’s tactical commitment, it can be seen that there is no statistically significant difference in application of passing of different length between the three analyzed groups, but when it comes to efficiency of different length passing, the winning teams were substantially more successful in long passes, while the success of short and medium passes is approximately equal.

The paper presented the values that can be used as normative data for projecting and assessment of competitive activity of soccer teams, top performances in a collective way. However, the results reached by this analysis are specific and they reflect events at the current moment, with all specificities of the competition, importance of the games, representative teams, and as such cannot be generalized so no conclusions should be made based on them related to soccer game tactics on the global level.

Some further analysis, which shall use this study as theoretical framework, should find relations in the game tactics, attack or defense, between the most successful teams on representative continental competitions, i.e., international club-level or national championships, which directly or indirectly affect the result in soccer.

**Practical application**

The value of the data related to the game analysis, regardless of their significance, can serve as feedback information for coaches when planning and programming training activities, but not as the only source of information of competitive performance of individuals or the team. Application of the results, generated by such analyses, is primarily reflected in theoretical sense, where based on these results, one can perceive more accurately, certain tendencies in soccer tactics development, but also forecast the direction of further development of certain tactical aspects both in soccer offense and defense. Additionally, from the aspect of practice and technological process, the information provided in such studies are multiply useful in identification of efficient resources of soccer tactics, as well as of implementation of certain elements of technique which contribute to achievement of top soccer results.
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Received: 10.11.2010.
Accepted: 19.4.2011.