THE IMPACT OF RULE CHANGES ON THE GOALS SCORED IN THE US'94 SOCCER TOURNAMENT

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ABSTRACT

The object of the game of soccer is to score and to avoid conceding goals. Goals are a key feature of the sport. However, the low scoring rate at the 1990 edition of the world cup led to the amendments of the rules prior to the 1994 edition. This study aimed at establishing the trend of scoring at the US'94 soccer tournament bearing in mind the rule amendments. This study was retrospective in nature as it involved analysing the data that was derived from the "world cup USA statistics 1994". The results were presented using percentages, frequencies, means and tables. Among other findings, it was established that: the scoring rate went up (2.71) compared to Italia'90 (2.21) per match; the run-of-play yielded most goals (67.4%) compared to the standard situations (32.6%); more goals were scored in the second half compared to the first and extra time; more goals were scored by the feet (82.3%) compared to headers (17.7%); most goals were scored from the penalty box (80.9%) compared to those from outside (19.1%); strikers accounted for most goals scored (66.7%), compared to 24.8% and 7.8% for the midfield and defending players respectively. Additionally, the peak time for scoring was between the 76th and 90th minutes, which accounted for 19.9% of all the goals scored. The improved scoring rate by the strikers, the fruitful solo efforts, and the productive free kicks were attributed to the amended rules pertaining to the tackles from behind, positioning of the defensive wall, and over-all strict enforcement of the rules by the referees. The amended rules contributed to the offensive play that characterised this tournament. It was concluded that experimentation of rules before implementation was a fruitful exercise. It is also vital that players are prepared technically, tactically, physically and mentally to be able to cope with the demands of a tournament such as the world cup.

INTRODUCTION

Soccer tournaments that are characterised by high goal scoring are always deemed to be successful (Gagg, 1993). The high goals scored tend to confirm a positive attitude towards the game. According to Creek (1970) and Docherty (1978), scoring goals is what soccer is all about. However, the low scoring average recorded in the 1990 world cup soccer tournament in Italy caused consternation around the world (Nepfer, 1991; Maradas, 1994). The world wide concern over the defensive nature of the matches at Italia'90 led to proposed rule amendments that were experimented upon at youth championships in preparation for the US'94 world cup soccer tournament (Nepfer, 1991).

The idea behind rule experimentation at junior level was to identify and effect only those rule amendments that would have a positive impact on the game in general and offensive play in particular. Some of the proposed rule changes that were experimented upon included the "no back-passing and no off-side between the penalty areas" in the 1991 edition of the U-17 world championship for the FIFA/JVC Cup held in Italy. It was hoped that there would be less time-wasting and more effective playing time (Nepfer, 1991). In the 1993 edition of the same tournament held in Japan, further experiments included "the kick-in" in place of the throw-in and "sudden death or golden goal" to decide the winners during extra-time. The team scoring first wins as opposed to waiting for the mandatory period of 30 minutes of extra time to expire (Gagg, 1993). The observations at the experimental stages finally led FIFA to amend the laws of the game. The amended laws pertained to the awarding of three points for a win in the preliminary stages of the competition, offside, and tackle from behind. Other changes included the pass back to the goal keeper, advantage rule, dissent, time wasting, positioning of the defensive wall and strict enforcement of rules on unfair play (Nepfer, 1991; 1992; 1995).
The rule changes were meant to inject some fluency in the game and encourage attacking play to counter the defensive play which culminated in low scores in the 1990 world cup tournament (Chariton, 1993; Nepfer, 1995; Painton, 1990). The average goals scored per match in the 1990 soccer world cup tournament were 2.21 compared to 2.54 and 2.80 in the 1986 and 1982 tournaments respectively (FIFA, 1994). However, the advent of defensive play has been part of the evolution of the systems of play. Since 1872 A.D when England and Scotland utilized 1.1.8 and 2.2.6 systems of play respectively in their first international friendly match, the trend to reduce the forwards and to bolster the defence was set in motion. In the middle of the twentieth century, the concept of catenaccio which emphasizes a solid defence with an extra covering player ( libero) came into prominence (Batty, 1969). It is because of the continued perfection of the defending at the expense of offensive play that efforts have top be made to revitalize the attack. The significance of goals to the coach, team players and spectators cannot be overemphasized. Scoring of goals creates interest and hence more spectators for the game of soccer (Mayes, 1975). The ultimate competition that best symbolizes the development and trends in the game is the world cup tournament. The tournament brings together the best teams from all the continents around the world. It is, therefore, fitting to analyse performance of teams at such a tournament for purposes of establishing current trends as well as deriving lessons to guide further development in the game. This study aimed at establishing how, when and who scored goals in the US’94 world cup soccer tournament, and to derive some useful tactical perspectives that coaches can apply in team preparation. The impact of rule amendments on the ability to score was also evaluated.

MATERIALS AND METHODS

This study involved analysing the goals scored in the US’94 world cup soccer tournament held in the USA between 17th June 1994 to 17th July 1994. Twenty-four teams played a total of 52 matches scoring 141 goals. The study was a retrospective one as it involved analysing data that was derived from FIFA world cup USA 1994 statistics book (FIFA, 1994). The key features of offensive play that were considered included how the goals were scored, mode of scoring, distance at which they were scored, who scored the goals, half in which goals were scored, and timing of goals. Data was descriptively presented in form of frequencies, mean, percentage and tables.

RESULTS

A total of 141 goals was scored in the 15th edition of the world cup soccer tournament by the 24 teams taking part. A total of 52 matches were played. The average score match was 2.71 goals. Out of 52 matches played, forty (76.9%) were decided by the end of 90 minutes regulation time, eight (15.4%) were drawn, one (1.9%) was decided during extra time and three (5.8%) were decided on post match penalty shoot-outs. There were 36 preliminary matches that produced 93 goals averaging 2.58 per game while the 16 second round, quarter final, semi-final and classification matches yielded 48 goals averaging 3 per game. Table one shows how goals were scored in the tournament.

Table 1: How goals were scored in US’94 soccer tournament

<table>
<thead>
<tr>
<th>NATURE OF PLAY</th>
<th>FREQUENCY/NUMBER</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run of play</td>
<td>95</td>
<td>67.4</td>
</tr>
<tr>
<td>Wing attack</td>
<td>42</td>
<td>44.2</td>
</tr>
<tr>
<td>Solo attack</td>
<td>15</td>
<td>15.8</td>
</tr>
<tr>
<td>Centre attack</td>
<td>38</td>
<td>40</td>
</tr>
<tr>
<td>Sub-total</td>
<td>95</td>
<td>100</td>
</tr>
</tbody>
</table>
Figure 1 shows the mode of scoring in world cup’94 soccer tournament.

Figure 1: Mode of scoring in world cup’ 941 tournament

![Graph showing mode of scoring]  

Figure one shows that most goals were scored via shots (70%).

Table two shows the area of the field from where goals were scored.

Table 2: Area of the Field from where goals were scored

<table>
<thead>
<tr>
<th>Area</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inside goal area</td>
<td>20</td>
<td>14.3</td>
</tr>
<tr>
<td>Between goal area and penalty spot</td>
<td>67</td>
<td>47.5</td>
</tr>
<tr>
<td>Between penalty spot and edge of penalty area</td>
<td>27</td>
<td>19.1</td>
</tr>
<tr>
<td>Outside penalty area</td>
<td>27</td>
<td>19.1</td>
</tr>
<tr>
<td>Total</td>
<td>141</td>
<td>100</td>
</tr>
</tbody>
</table>
Table two shows that most goals were scored from the penalty area.

**Figure 2: Scorers' positions**

Regarding the half in which goals were scored, 66 (46.8%), 72 (51.1%) and 3 (2.1%) were in the first, second half and extra time respectively. Out of the 72 second half goals, 6 (8.3%) were scored during injury time. Figure 3 shows the time in minutes, when goals were scored during matches throughout the tournament.

**Figure 3: Timing of Goals**

The highest numbers of goals were scored between 76th and 90th minute's (28).

**DISCUSSION**

The scoring rate in the 15th edition of the soccer world cup tournament in the USA averaged 2.71 goals per match. This average is higher than that registered in the 1990 world cup in Italy. In the latter tournament, the average score was 2.21 per match (FIFA, 1994; Jinshan et. al., 1991; Luhtanen, 1996a). The increased scoring rate could be attributed to the rule changes effected just before the 1994 tournament. These rule changes included the award of three points for a win in the preliminary stage, the clamp down on the tackle from behind, and discouragement of the time wasting tricks by players. Additionally, there was strict application or enforcement of the rules of fair play and the rules of the game by the referees (Nepfer, 1995).
The run of play led to most goals (67.4%) compared to standard situations (32.6%). The run of play through the middle led to a similar number of goals (38) registered in the 1990 world cup soccer tournament. However, wing play and also solo attacks in the 1994 tournament were more productive as they collectively produced 51 goals as compared to 4 goals in Italia'90 (Njororai, 1996). The standard situations were also relatively fruitful as they produced 32.6% of the total goals scored. In the Barcelona Olympic games soccer tournament, standard situations led to 21.8% of the goals compared to 78.2% of the run of play. In the Italia '90 tournament 32.2% of the goals were as a result of set play. Thus, USA '94 world cup had slightly more productive standard situations. The major aspect that seem to have made the difference between Italia'90 and US'94 in the standard situations is the success registered in the direct free kicks. The direct free kicks alone produced 15 goals compared to 4 (four) in the 1990 world cup tournament. Practicing and perfecting standard situations should receive adequate emphasis during training, as their contribution to goal scoring is vital in match situations (Docherty, 1978; Njororai, 1995b; 1996a,b). Other strategic areas that require emphasis during team preparation include the ability of players to take on and beat the defenders around the penalty box, the utilization of crosses from both flanks as well as the ability to create scoring opportunities around the goalmouth. It is apparent that the clamp down on tackles from behind and strict application of rules of the game offered protection to attacking players as defenders could not risk being sent off. The attackers were, therefore, bold to take on the defense. Technically, teams were also well prepared in terms of free play and execution of set pieces.

The findings that majority of goals (82.3%) were scored by the foot as compared to the head (17.7%) may not be surprising. The number of goals from the headers in the US'94 world cup was fewer than those registered in the Italia'90 tournament. Given that there was a higher scoring rate in the 1994 compared to the Italia'90 tournament, there seems to have been a less emphasis on heading. Previous findings have shown that more goals are scored by the foot (Nepfer, 1991) although the proportion of goals from headers seem to have gone down in the 1994 world cup. Given that opportunities of using the head are many including corners, centres, and free kicks and floated balls, the heading technique should be perfected. For purposes of ensuring variety in attack, the polishing of headers in practice is vital (Docherty, 1978; Njororai, 1995b). Regarding penalties, it is a tribute to the teams’ technical personnel as well as the players that all the 15 penalties awarded were converted. The 100% success ratio reflects the technical and mental preparedness of the players who executed the penalties.

Most goals (80.9%) were scored from inside and on the edge of the penalty box. This was less compared to 87.8% registered in the Italia'90 world cup (FIFA, 1994) and 81.5% at the U-17 world championships (Nepfer, 1991) respectively. Although the 1990 world cup had a higher proportion of goals scored from the goal area compared to the US' 94 tournament, the latter had more goals away from it (goal area). The 1994 edition had a higher proportion of goals scored via long-range shots especially outside the penalty box. It appears that the players in the 1994 tournament were keener at attempting at goal from a distance. The success of long-range shots in the US'94 emphasizes the need to capitalize on chances as they come. Although penalty area attempts at goal have been recommended, given their success ratio compared to attempts from outside (Cohen, 1975; Docherty, 1978), a team with all round ability in terms of shooting from different angles, distances and even situations would seem to stand a better chance than one that would specialize in specific situations or distances.

The strikers accounted for most of the goals (66.7%) scored. Midfielders (24.8%) and defenders (7.8%) followed them. The strikers, who carry the major burden of scoring goals, did quite well compared to those of the 1990 tournament. However, the mid field players and the defenders in the Italia'90 had a higher proportion of goals compared to those of US'94 tournament. The protection offered to attacking players and the amendment of the off side rule could have contributed positively to the strikers performance.
Slightly more goals were scored in the second half compared to the first half. However, Italia'90 seems to have had more notable differences between the first and second half goals with the latter accounting for 66.9% of the goals scored (Jinshan, et. al., 1991). The key aspect of the US'94 tournament was the high number of goals in the first half (66) compared to those in the Italia'90 tournament (44). There seems to have been a strong desire to score early in the US' 94 world cup. But the offensive nature of play seems to have led to general fatigue leading to the teams conceding more goals in the second half. This trend of scoring tallies with previous findings (Cohen, 1995; Reilly, 1994). The few goals scored in extra time of the matches may be an indication of the need to legalize the "golden rule" where the first team to score wins without waiting for the time to expire.

The scoring of goals peaked between the 76th - 90th, 31st - 45th, 46th - 60th and 0 - 15th minutes of the matches respectively. Reilly (1994) attributes the increased scoring rate towards the end of the second half to pronounced physiological deterioration of defenders as compared to forwards. In Italia'90, it was observed that many teams paid attention on defence in the first half leading to fewer goals being conceded (Jinshan, et. al., 1991) compared to the later stages of the second half. In the Barcelona Olympic soccer tournament, the goals towards the end of the second half were attributed to good or poor physical condition, lack of concentration in defence (mental tiredness) and all or nothing efforts (Nepfer, 1992). It appears reasonable to argue that physical and mental fatigue interferes with concentration leading to goals towards the end of the respective halves. However, it is worth pointing out that the tempo of the game fluctuates, hence, the need to have a team physically, mentally, tactically and technically well prepared to withstand the pressure exerted in a demanding match.

CONCLUSION

From the findings of this study, the goal scoring in the US'94 showed an improvement over that registered in the Italia'90 tournament. This could be attributed to the improved scoring by the strikers, the higher success of the long range shots, the successful direct free kicks, and the accuracy from the penalty spot. Others include effective wing play, productive solo efforts, the high number of goals in the first half as well as the high number of goals towards the end of two respective halves of the matches. Most of these aspects may have resulted, albeit indirectly, from the conducive playing atmosphere created by rule amendments and strict application by referees. The rule amendments that may have played a big role in the successful offensive play in the US'94 included the award of three points for a win in the preliminary stage of the tournament, and the discouragement of time wasting antics by players. Other rule amendments involved strict enforcement of the rules by referees, a clamp down on tackles from behind, the pass back rule, and the distance of the defensive wall (Nepfer, 1995). The referees, therefore, played a big role in allowing free flowing and offensive play, which led to effective strikes at goal. It is recommended that before any rule amendments are effected, FIFA should first test them at junior and youth tournaments.

REFERENCES