ANALYSIS OF SELECTED MATCH ACTIONS IN THE 1994 WORLD CUP SOCCER TOURNAMENT

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ABSTRACT

A soccer match is characterised by several technical and tactical actions. Some of these technical actions include throw-ins, headers, crosses (centres), goal attempts, goals, free kicks, goal kicks, corners, offside, injuries, penalties and substitutions. However, the frequency of occurrence of these actions is not well known. This study, therefore, set out to register the frequency of occurrence of these actions during the world cup soccer tournament held in the USA between 17th June to 17th July 1994. A total of 52 matches were transmitted live on television. The matches were watched on television and the data recorded by an experienced observer. The data was analysed and descriptively presented. Among other findings, it was established that the mean for each action was: throw-ins (41.7), headers (73.8), crosses (30.6), free kicks (30), goal attempts (20.2), corners (10.3), goal kicks (19.7), off-sides (5.9), injuries (2.8), goals (2.7), penalties (3), cards (4.4), and substitution (3.5) per match respectively. Such findings are useful to sports scientists and coaches who are facilitated to design training programmes that can allow for adequate emphasis on each of these match actions.

Key words: Headers, Technical-tactical actions, crosses

INTRODUCTION

A soccer match is characterized by several technical and tactical actions. Indeed, the technical and tactical aspects form a major part of the areas that a team should concentrate on during the period of preparation for competitions (Ali, 1991; Asembo and Njororai, 1995; Ebe, 1991; Mal, 1982; Njororai, 1995; Partridge, 1991 and Singh, 1982). However, given the diversity of techniques and tactics that individual players and teams employ to outwit opponents during a competitive match, a systematic observation and recording of a match is essential (Njororai, 1993).

Several studies have been carried out on soccer using the match analysis method. These include studies by Byshovets et. al. (1991) on team work; Gerisch and Reichelt (1991) on situational analysis of player’s performance, analysis of physical activity, technical elements and tactics of teams; Dufour (1991), Lanham (1991), Mosher and Partridge as well as Partridge et al. (1991) on the chance factor in offensive moves; Luhtanen (1991) on efficiency of the actions, while Ali (1991) and Yamanaka et al. (1991) studied the playing patterns of teams in attacking play and continental differences respectively. The above studies only relied on the computer technology to analyse play. However, some soccer playing nations may be handicapped with regard to the use of computer technology. The computer technology relies on the availability of hardware as well as electricity (Njororai, 1993). Most stadia in such countries do not have electricity at all. The economic difficulties that the countries face make it almost impossible for the Governments, Football Associations and clubs to afford the use of computers in soccer. The coach in parts of Africa, Asia, central and south America, and ocean must, therefore, continue relying on manual methods of match analysis to gauge their field performance as well as to establish the trends of typical soccer match actions. This study, therefore, sought to establish the frequency of occurrence of each in the US’94 world cup tournament.

MATERIALS AND METHOD

Fifty out of fifty-two matches played during the US’94 world cup soccer tournament and transmitted “live” were watched on television. The tournament lasted between 17th June 1994 to 17th July 1994. The data was recorded manually by an experienced observer. The information was recorded on protocol sheets. The variables were recorded for the regulation period of 90 minutes. The collection of data pertained to the frequency of occurrence of the following aspects of the matches: throw-ins, headers, crosses, free kicks, goal attempts, corners, goal kicks, off side, injuries, goals, penalties, substitutions, cautions and expulsions. The data collected was descriptively analysed and presented in form of frequencies, means, standard deviations, range and a table.
RESULTS

The total, mean, standard deviation, minimum and maximum values of the match observations are shown in table one.

Table 1: Technical and Tactical actions in the US’ 94

<table>
<thead>
<tr>
<th>VARIABLE</th>
<th>NUMBER</th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
<th>MAXIMUM</th>
<th>MINIMUM</th>
<th>RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headers</td>
<td>3691</td>
<td>73.8</td>
<td>23.9</td>
<td>179</td>
<td>31</td>
<td>148</td>
</tr>
<tr>
<td>Throw-ins</td>
<td>2086</td>
<td>41.7</td>
<td>9.3</td>
<td>64</td>
<td>20</td>
<td>44</td>
</tr>
<tr>
<td>Crosses</td>
<td>1529</td>
<td>30.6</td>
<td>7.2</td>
<td>48</td>
<td>19</td>
<td>29</td>
</tr>
<tr>
<td>Free kicks</td>
<td>1490</td>
<td>29.8</td>
<td>6.2</td>
<td>41</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>Goal attempts</td>
<td>1008</td>
<td>20.2</td>
<td>5.1</td>
<td>32</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>Goal kicks</td>
<td>983</td>
<td>19.7</td>
<td>5.1</td>
<td>39</td>
<td>11</td>
<td>28</td>
</tr>
<tr>
<td>Corners</td>
<td>513</td>
<td>10.3</td>
<td>3.1</td>
<td>18</td>
<td>4</td>
<td>14</td>
</tr>
<tr>
<td>Off sides</td>
<td>297</td>
<td>5.9</td>
<td>2.18</td>
<td>14</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>Cards*</td>
<td>228</td>
<td>4.4</td>
<td>2.14</td>
<td>11</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Substitution</td>
<td>73</td>
<td>3.5</td>
<td>0.8</td>
<td>4</td>
<td>0</td>
<td>0.4</td>
</tr>
<tr>
<td>Injuries</td>
<td>145</td>
<td>2.8</td>
<td>2.1</td>
<td>0.9</td>
<td>0</td>
<td>0.9</td>
</tr>
<tr>
<td>Goals*</td>
<td>138</td>
<td>2.70</td>
<td>1.5</td>
<td>0.7</td>
<td>0</td>
<td>0.7</td>
</tr>
<tr>
<td>Penalties*</td>
<td>15</td>
<td>0.3</td>
<td>-</td>
<td>2</td>
<td>0</td>
<td>0.2</td>
</tr>
</tbody>
</table>

*52 matches used

As shown in table one, the match actions that occurred most frequently included headers, which averaged 73.8 per 90 minutes of a match in the tournament. The other frequently occurring actions included throw-ins (41.7), crosses (30.6), free kicks (29.8), goal attempts (20.2), and goal kicks (19.7).

The other parameters including corners, off sides, cautions and expulsions, injuries, goals, substitutions and penalties do not occur as frequently as the headers, crosses, throw-ins and goal attempts. However, there is a lot of diversity of occurrence of the variables as reflected in the minimum and maximum values. Some of the actions with the widest range included the header (148), throw-ins (44), crosses (29); goal kicks (28) and frees kicks (25).
DISCUSSION

From the match observations, the high frequency of headers, throw-ins, free kicks, corners, goal kicks, injuries and off sides indicate that the ball spends a lot of time either in the air or in "dead" situations. Regarding the headers, it can be observed that it is one of the most used techniques in the game. The high rate of headers in the game could require that a team spends a reasonable portion of the training time perfecting the heading technique (Njororai, 1993). Heading of the ball can also be perfected as a tactical weapon when a team is facing an opponent that is strong on low-balls but weak in high balls. A serious coach should therefore spend time polishing the use of heading, as this technique is both vital in defense and offense. Data of the goals scored in the Italia' 90 world cup soccer tournament indicate that 35 (21.7%) goals were scored by the head (Fifa, 1994) which reflects the emphasis that this technique should receive in training.

A throw-in is used to put the ball in play after it has crossed the sideline. This is one tactic that can be applied in both defensive and offensive situations. Given the frequency of its application, it behooves the coach to take time to polish the accuracy of the throw-ins. The frequency of occurrence of throw-ins in the 1994 world cup which averaged 41.7 per game was higher compared to 28.7 reported for selected matches involving European and East African teams (Njororai, 1993). However, the range between the highest and the lowest reported frequencies were relatively comparable with the 1994 world cup (44). The range in the 1990 world cup was 40 and in the selected European and East African matches was 35. The high number of throw-ins in matches reflects the trend of teams giving away possession of the ball. Thus the team that gains possession should ensure effective utilization of the throw-in.

Crosses play an important offensive role for some teams. In the 1994 world cup, an average of 30.6 crosses was recorded per match for the 50 matches that were observed. This was comparable to those reported from the 1990 world cup where the average per match was 30.8 (Mosher and Partridge, 1991). The 1994 world cup therefore was characterised by a lot of wing play. Indeed, given the defensive tactic of funneling and concentrating in the penalty box (Docherty, 1978; Winterbottom, 1964; Wade, 1970) the use of flanks and the crosses are potent weapons in offensive play that should be perfected in training.

Free kicks are as a result of the infringement of the rules of the game. They form a vital part of the set piece situations that account for a reasonable proportion of goals scored in a tournament. For example, set pieces (free kicks, throw ins, corners) led to 32.2%, 33.3% and 21.8% of the goals scored in Italia' 90, US' 94 and Barcelona Olympic soccer tournaments respectively. Thus practicing and perfecting the execution of the free kicks should receive adequate emphasis during training, as their contribution to goal scoring is vital in matches (Byshovets et. al., 1991; Njororai, 1995)

The object of the game of soccer is to score as many goals as possible and to minimize conceding them. In the 1994 world cup, the 50 matches observed yielded on average 20.2 goal attempts per game. This was higher than 9 reported for European and East African football. The fact that there was a minimum of 11 goal attempts in the matches with fewest attempts is impressive. It reflects on the success of the 1994 world cup that was characterised by offensive play in the majority of the matches. It was because of the offensive nature of play that goals recorded in the 1994 world cup also averaged 2.7 per match compared to 2.2 in the 1990 world cup. The improved goal attempts as well as the scoring could be attributed to the rule changes made just before the 1994 world cup that involved tackles from behind, awarding three points for a win in the preliminary stage, off side, pass back to the goal keeper, emphasis on the advantage rule, and strict enforcement of rules on unfair and time wasting (Nepfer, 1995). The fact that some of these rules had been tried out at junior level before effecting them at senior level emphasizes the need to pilot any rule changes before actual implementation.
Effective utilisation of set pieces such as corners, goal kicks and penalties play an important role in the outcome of matches. The average occurrence of corners per game (10.3), goal kicks (19.7) and penalties (0.3) gives a team an advantage of not only possessing the ball but also a chance to either launch an attack or even score directly especially with regard to the penalties. In 1994 tournament, there were 15 penalties awarded and all were converted. The goals from the penalty spot accounted for 10.6 percent of all goals scored, while 7 (5%) were as a result of the corners. This reflects the importance of these tactical situations and the need for them to receive adequate emphasis in training.

The cautions totalled 228 with 15 expulsions. This showed an increment in the disciplinary measures administered over the 1990 record of 163 and 16 expulsions respectively (FIFA, 1994). The increased number of cautions could be attributed to the strict enforcement of the rules of the game.

The other feature of a game such as injuries and substitutions are also revealing. Regarding the injuries, on average of 2.7 per game were recorded, which is comparable to 2.4 noted in European and East African football matches (Njororai, 1993). However, soccer is a relatively safe sport compared to Rugby Football Union where an average of 8 to 9 injuries per game have been recorded (Reilly and Hardiker, 1981; Wekesa et al., 1994) and Field Hockey where 7.93 have been reported (Asembo, 1994).

CONCLUSION

Given the findings above, it was concluded that match observation and a record of technical and tactical parameter is important in facilitating a better conceptualization of international soccer. The appreciation and understanding of trends in competitive matches is useful to a coach in devising ways of improving a team’s performance in areas where it is deficient in. The coach, given such information is better placed to plan a training programme that is used on the reality of competitive football as opposed to theoretical assumptions and guesswork.

REFERENCES


