Affects of Defense Unit on Score (Goals) in Soccer

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Abstract

Aim: The aim of the study was to research correlation among goals and positive defensive unit rate on 1st and 2nd zone.

Methods: This research was conducted in correlational scan model. The universe of the research constituted the matches played by Turkish National Soccer Team. 10 matches were selected with the same characteristics in terms of the same lineup of the team played in 2012-2013 during World Cup 2014 Elimination Group as the sample of the Turkish National Soccer Team. Defending was examined as positive and negative for all positions by watching matches' videos and taking notes and after that positive defence rate on the 1st zone and positive defence rate on 2nd zone was obtained. SPSS 18.0 for Windows statistical software program was used for statistical analysis of the research's data and the level of significance was set at $p<0.05$. Pearson correlation analysis was used to reveal the correlation among goals, positive defence rate on the 1st and 2nd zone.

Results: As a result of the research, a statistically significant correlation on positive direction was found between goals and positive defence rate on the 2nd zone of Turkish National Soccer Team.

Conclusion: Defence is a workable parameter in soccer and is not affected by the individual skills of players. In this regard, if coaches don't neglect the principles of defence in their training, it will greatly help the outcome of the matches.

INTRODUCTION

Match performance analysis is widely used as a method for studying technical, tactical and physical aspects of player and team performance in a soccer match (Tenga, Kanstas, Ronglan & Bahr, 2009). And also, in football, match performance can be defined as the interaction of different technical, tactical, mental and physiological factors. In order to design training programs that meet team performance goals Suzuki and Nishhijima, (2006), to better understand the constraints that promote sporting success, match analysis has assumed a very important role in sports games (Sarmento, Marcelino, Anguera, Jorge, Matos &Leitao, 2014). Soccer is a game played as a result of the symmetric interplay of offense and defense. Dancers must learn individual dance steps but must also learn to dance in rhythm with other dancers and must never miss a beat. Team defence is a dance. The individual defenders must not only learn individual defending, including marking, covering and tracking, but also learn to move in concert with the rest of the team, at the moment moves, not later for success (Brownlee, 2006).

In soccer, defence is of great importance for both the defending and attacking team. For the defending team, a well-structured defence will prevent the attacking team in scoring, thus enhancing the chances for the defending team to win. On the other hand, the attacking team will try to find weaknesses in the defence of the opposing team utilizing these to try to score. In either case, the defence is ought to cover space for the attacking team in an attempt to capture the ball. Furthermore, the organization and thereby the tactic of the defence is of great importance in regards to a team's success (Knudsen & Andersen, 2015).

The defense unit principle is the positioning of off-ball defenders so to decrease the effective playspace of the opponents (Costa, et all., 2010). To accomplish this principle, a deeper knowledge and understanding of the game is indispensable, as is knowledge of the strategic orientations of one's own team. A defense unit conception depends on the ability to position oneself in the right place according to one's teammates, the ball's position, opponents' position and the status of one's own team. This unit should be ensured throughout the game and in any field zone. By reducing the dispersion of teammates within the ball possession zone, it will make it more difficult for opponents to penetrate between defensive lines. Theoretically, the dispersion level of the team is smaller during an offensive phase and

triangulations, and within the area between team defenders (Clemente, Martins, Mendes & Figueiredo, 2014). Pressure (delay), support (cover, depth) and balance are some of the defencive unit principles of soccer.

Principle of Defending

Pressuring/Delaying: Delay the attacker once you have moved to meet them and apply pressure, slow them down and be an object between the ball and the attacking player's destination at all times. The player will have to change their pace to move past you, be alert to changes of pace and try to make the ball from them if the chance presents itself. Don't take a chance and jump into a challenge. This role of delaying the attack is giving your team mates chance to get numbers back behind the ball, to regroup as a unit and set about the ball back (Amplified Soccer Athlete, 2016).

Support (Cover, Depth): A second defender should be close by, providing the delaying defender with some depth. If the attacker manages to beat the first defender can now move in to take the ball. If the chance to take the ball doesn't present itself then the second defender becomes the first defender and delays, giving the first defender a chance to recover and provide more depth. This will slow down the attack even more and maintain good team balance (Amplified Soccer Athlete, 2016).

Balance: The third defender must remain alert to off the ball runs. They must be careful to keep the defensive shape and balance the defense so they don't leave themselves exposed while not being directly involved in winning the ball back. If the ball is passed to an attacker near them, they must be ready to close down space and block any shots on goal. The third defenders can play a vital role in stifling opponent's attacks by shutting down passing channels and passing lines. Forcing the player on the ball to find a different option or try to force a pass. Forcing players to try passes increases the chances of cutting out the pass (Amplified Soccer Athlete, 2016).

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Previous studies have examined the relationship between styles of play, goals scored, goal conceded and performance in soccer. Someone believes in the famous, mythical saying: "The best defense is a good offense." This frame of mind lends itself to the belief that the game should be played with an emphasis on the offensive aspect, thus supporting and encouraging creativity and flexibility. On the other hand, someone is known for emphasizing the defensive aspect of the game, signifying an organized, structured, and impenetrable defense (Filho, Basevitch, Yang & Tenenbaum, 2013).

The aim of the study was to research correlation among and goals and positive defense unit rate on 1st and 2nd zone.

METHOD

Statistical analysis

This research was based on relational screening model. The universe of the research constituted the matches which were played by Turkish National Soccer Team. Had the same characteristics in terms of the same lineup of the team, the same defensive and offensive tactics and the same systems, all matches (10 matches) were selected that were played in 2012-2013 during World Cup 2014 Elimination Group as the sample of the Turkish National Soccer Team. Defending was examined as positive and negative for all positions by watching matches' videos and taking notes and after that positive defence rate on 1st zone and positive defence rate on 2nd zone was obtained.
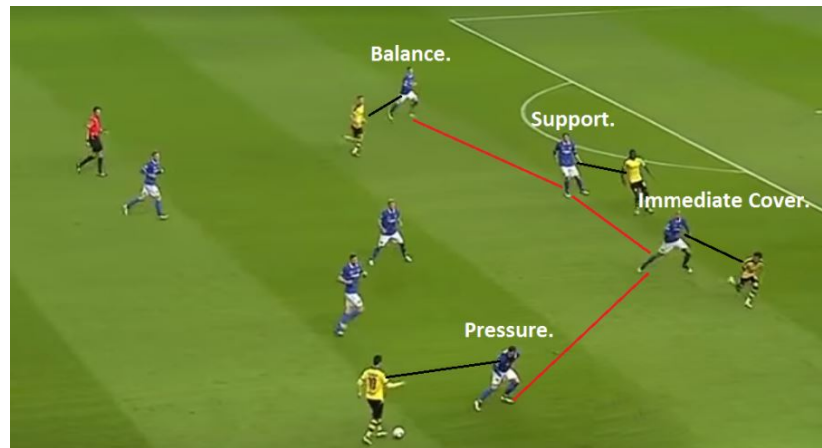
Figure 1. Example of Positive Defence Unit (Source: https://theoverlapblog.wordpress.com/2017/01/17/back-four-defending-part-1/)

For defending analysts analyzed defending unit (the order of pressure, support (cover) and balance). If players apply all defence principles in order as in the picture, analysts assessmented position positively (Figure 1) but if they didn't apply, analysts assessmented position negatively.

In order to ensure the reliability of the data, all matches were also analyzed by an analyst expert except researcher. Analyst expert is a match analysist of soccer and also, he is a soccer trainer. Kappa statistics was performed to determine interobserver reliability (Table 1).

Kappa analysis is a statistical tool for measuring the comparative reliability of the numbness between the two or more independent observers. For Kappa 1 and 0 values are reviewed and 1 is perfect agreement, 0 is exactly what would be expected by chance. 0.81-1.00 shows perfectly numbness (Viera & Garrett, 2005). SPSS 18.0 for Windows statistical software program were used for statistical analysis of the research's data and and the level of significance was set at $p<0.05$. The shapiro wilk test was used for normality and it was observed that the data are normally distributed. Because of the normal distribution of data, pearson correlation analysis was used to reveal the correlation among goals, positive defence rate on 1st and 2nd zone.

RESULTS

Made to determine interobserver reliability kappa statistics results were given Table 1.

Table 1. Kappa Results

Parameters	Kappa Statistics Values	Approx. Sig.
Positive Defence Rate on 1st Zone	0.955	<0.001
Positive Defence Rate on 2nd Zone	0.912	<0.001

When Table 1 examined, it was observed that kappa values were 0.955 and 0.912. In that context, it was said that analysts' numbness was great and measurements were reliable.

Table 2. Positive Defence Rate on 1st and 2nd Zone (%) and Goals Data

Teams	Score	Positive Defence Rate on 1st Zone (%)	Positive Defence Rate on 2nd Zone (%)	Goals
Netherlands-Turkey	2-0	30.55	35.29	0
Turkey-Estonia	3-0	54.54	66.66	3
Turkey-Romania	0-1	51.61	47.69	0
Hungary-Turkey	3-1	38.09	41.17	1
Andorra-Turkey	0-2	68.75	52.94	2
Turkey-Hungary	1-1	66.66	37.50	1
Turkey-Andorra	5-0	66.66	63.63	5
Romania-Turkey	0-2	79.06	57.69	2
Estonia-Turkey	0-2	60.00	44.78	2
Turkey-Netherlands	0-2	45.71	51.21	0

Positive defence rate on 1st zone and 2nd zone (%) and goals data for 10 matches were given Table 2.

Table 3. Pearson Correlation Test Results among Goals, Positive Defence Rate on 1st and 2nd Zone Correlations

		Positive Defence Rate on 1st Zone	Positive Defence Rate on 2nd Zone
Goals	Pearson Correlation	0.556	**0.729**
	Sig. (2-tailed)	0.095	**0.017***
	N	10	10

*p<0.05

When Table 3 examined, it was observed that pearson correlation coefficient value was 0.556 and Sig. (2-tailed) value (*P*) was 0.095 for positive defence rate on 1st zone and pearson correlation coefficient value was 0.729 and Sig. (2-tailed) value (*P*) was 0.017 for positive defence rate on 2nd zone. So at the 0.05 significant level a statistically significant correlation at the middle-high level on positive direction was found between goals and positive defence rate on 2nd zone of Turkish National Soccer Team (Table 3). Applying or applying on time these principles will created some free zone on defence in favor of opponent team, so teams which make a good defence will have more goals.

DISCUSSION and CONCLUSION

Soccer is a constantly developing sport. Tactical systems in soccer, insights, game structures, training systems, the characteristics of the players have to change over time. The success of the tactical mentality that begins with imagination is possible through the combination of a business association in which players perform defense and offensive missions, and the ability to perceive the situation in the game and perform with the ability to move. The defense requires co-operation to move into the team. The aim of the study was to research correlation among goals, positive defense unit rate on 1st zone and 2nd zone. We found that at the 0.05 significant level a statistically significant correlation at the middle-high level on positive direction was between goals and positive defence rate on 2nd zone of Turkish National Soccer Team. Based on these results, it can be said that balanced defense teams can take more advantage by taking advantage of their opponent's mistakes and get more effective attacking goals. The results of our study are in line with previous studies. In similar studies; Tenga, Holme, Ronglan and Bahr (2010a) in their study investigated the effect of tactics on scored goals in 163 matches of Norwegian professional football league and concluded that for the main variable "team possession type", counter-attacks were more effective than elaborate attacks when playing against an imbalanced defence. For the three defensive zone variables combined (''overall defensive score''), only 2.5% of the goals were scored against a balanced defence, compared with 31% of the control attacks. In contrast, 94% of the goals were scored against an imbalanced defence, compared with 41% of controls (Tenga, Holme, Ronglan and Bahr, 2010b). Differences were observed in the odds ratio for goal scoring between the offensive tactics when subgroup analyses were undertaken. There were differences when playing against an imbalanced defence. According to Grehaigne (1991), the overall attacking configuration with adequate space and time and opponent's defence with its centre of gravity out of position had a positive effect on the scoring of 10 of 33 goals. In the other study Olsen and Larsen (1997), showed more scoring opportunities and goals from breakdown attacks (counterattacks) started when the opponent defence was imbalanced rather than balanced. Burwitz (1997), impressed that in his study it was important to realize that goal scoring was often a result of exploitation of imbalances in the opponent's defence. As (Suzuki & Nishijima, 2004; Filho et all., 2013) a balanced and strong defense is essential for successful performance in the World Cup as suggested. Suzuki and Nishijima in their research they developed a measurement scale of defending skills from positional data of players and confirmed the causal structure among defending skills and the multidimensionality of the scale. It was made clear that defending skills in soccer consist of delaying attack skills in the delaying attack phase, forcing play in one direction skills in the forcing play in one direction phase and squeezing workspace of attackers skills in the squeezing workspace of attackers phase, and they constitute a causal relationship according to the defending phase.In addition, it was confirmed that the 9 performance items used in their research was a multidimensional scale that measures all aspects of defending skills, which was sub-skills of the sub-skills according to the defending phase and the sub-skills of the defending object. In the same research it was impressed that in regard to causal relationships among defending skills, a forcing play in one direction skill from a delaying attack skill showed a high value (Suzuki and Nishijima).

During the attack, offensive players show their improvization skills and individual skills of players are important. Defense begins when the opponent's communication network on the offense is intercepted by the ball of the opponent. There is a communication between players in the defensive position, just like on the offensive. The primary objective in defense is to channel the movement communication that starts in the opposing team (to get the ball from the opponent) and to establish a new communication network for the attack. Establishing a network of advocacy is more difficult than on the offensive. Because it requires much more effort to learn and develop this communication skill in practice. It is almost impossible to apply these learning to every opponent. For that reason, the network of advocacy needs to be set up differently for each competitor and managed differently in the game. Also, in the case of defense, the communication network is much riskier than on the offensive side, which may result in a scorer's goal. There is not much room in the usual improvisation defense on the offense. Defence is a workable parameter in soccer and is not affected by the individual skills of players. Both teams start the match with one point. First, they must maintain this situation. In this regard, if coaches don't neglect the principles of defence in their training, it will greatly help the outcome of the matches.

PRACTICAL APPLICATION

When the literature review is done, many match analysis studies are found in Turkey and in the world. In general, many studies focus on goal analysis. This research will set an example for the analysis work to be done on the soccer defense. We suggest that in order to increase the success in soccer competitions, the analysis of the defense principles should be evaluated as a contribution. In this sense, such research needs to gain importance.

ACKNOWLEDGMENTS

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APPENDEX-1
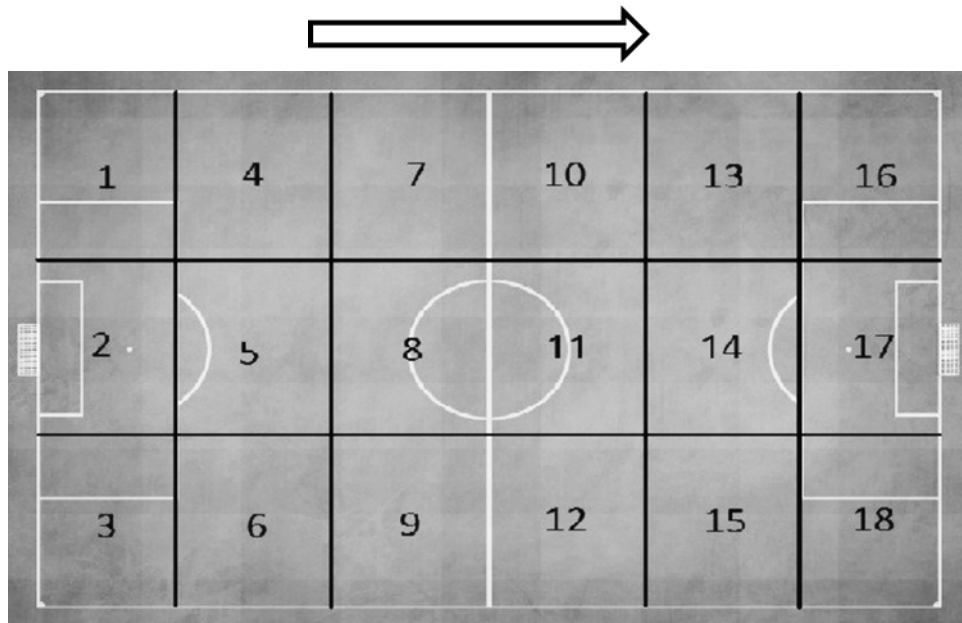
1,2,3,4,5,6= First zone   7,8,9,10,11,12= Second zone   13,14,15,16,17,18= Third zone

In these matches Turkish National Soccer Team's players didn't apply defence on third zone a lot. So analysts didn't analyze defence on thrid zone.

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