Influence of the situational variables on the performance of the teams competing in the Chinese Super League

Authors: Sergio L. Jiménez[1], Álvaro Bustamante-Sánchez[2*], Adam L. Kelly[3], Helios Pareja-Galeano[4], Carlos Lago-Penas[5]

Affiliations:

[1] Centre for Sport Studies, Universidad Rey Juan Carlos, Madrid, Spain.

[2] Universidad Europea de Madrid. Faculty of Sport Sciences, Madrid, Spain.

[3] Birmingham City University, Birmingham, United Kingdom.

[4] Department of Physical Education, Sport and Human Movement. Universidad Autónoma de Madrid, Madrid, Spain.

[5] Faculty of Education and Sport Sciences, University of Vigo, Pontevedra, Spain

***Corresponding author:** Álvaro Bustamante-Sánchez. PhD Physical Activity and Sport Sciences. Universidad Europea de Madrid. Faculty of Sport Sciences. Calle Tajo, s/n, 28670 Villaviciosa de Odón, Madrid, Spain. (+34) 902 23 23 50. busta.es@gmail.com. ORCID: 0000-0002-4183-3004.

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ABSTRACT

The aim of this study was to assess the impact of situational variables, match location, quality of the opponent, and final result on the performance of the teams during an entire season (2016) of the Chinese Super League throughout 474 matches. Results showed that playing as an away team reduced the number of positional attacks per game, total ball possession time, possession in the final third of the field, possession in opponent half, passes attempted, passes accurate, crosses, passes forward, picking up free balls, and picking up free balls in opponent half. Final result only affected total attacks made per game and lost ball by the teams that finished the season between the 8th and the 16th position. These teams made an average of 99.29 attacks per game, which was lowered by 1.53 attacks for each goal that the team had in comparison with the opponent at the end of the match. In addition, number of lost balls was also reduced by 1.49 per game for each goal that one team had in comparison with the opponent at the end of the match. Overall, combinations of these variables could be used in order to predict the performance of soccer teams.

Keywords: Situational variables, performance, analysis, football, soccer, Chinese Super League

Introduction

Over the last few years, there has been an increased interest in the performance analysis of team sports (Lago-Peñas, 2009). Such analyses can help both the physical and tactical preparation of teams during the lead-up to competition (Carling, Williams, & Reilly, 2005). As an example, performance analysis is used in order to identify strengths, weaknesses, and aid work to improve them, as well as to identify the vulnerabilities of opponents in order to try to take advantage of them during competition (Hughes & Burlett, 2002). However, physical performance is dependent on various contextual factors (e.g., quality of opposition, match location) that are external to the players' abilities (Carling et al., 2005). These factors have been defined as the different game/situational conditions that may influence performance at a behavioural level (Gómez-Ruano, Lago-Peñas, & Pollard, 2013). Indeed, there is empirical research showing that the situational variables such as game location, match status, and quality of opposition are the most important factors influencing the performance of football teams (Taylor, Mellalieu, James, & Shearer, 2008).

The advantage of playing at home has been seen in leagues across different leagues from around the world (Armatas & Pollard, 2014; Pollard & Gómez, 2009; Thomas, Reeves, & Davies, 2004), although this varies based on the country where the league takes place (Pollard & Gómez, 2009). The reason often cited for this advantage has been attributed to the familiarity of the environment for the players of the home team and the energy transmitted by their crowds (Anderson et al., 2012). Moreover, previous research has shown that the benefits of playing at home could be magnified or diminished by several factors. For example, teams that derive from small towns have shown a greater advantage when playing in their stadiums due to the social roots by the local people with their players. Also, the weather and the distance travelled or mode of transport by the away team are amongst other aspects that could affect home advantage (Pollard & Gómez, 2009). Home advantage is also influenced by how the game progresses, especially on which team scores first (Lago-Peñas et al., 2016). On one hand, if the home team scores first, it could create a positive psychological momentum benefitting them not to lose the game, whereas on the other hand, the first goal scored by the away team could help nullify the home advantage (Lago-Peñas et al., 2016). Indeed, the game status is reflected in changes and adjustments made at both the individual and the team level depending on if they are winning, drawing, or losing at

the given moment (Lago-Peñas & Martin, 2007; Taylor et al., 2008).

The quality of opposition, defined as the difference in the classification at the end of the season between the teams that are competing in a specific match, can also influence team performance (Lago-Peñas, Casais, Domínguez, & Sampaio, 2010). Recent research on performance in the UEFA Champions League has shown that the quality of the team and opposition had the strongest effect on players' performance. Stronger teams have a tendency to maintain ball possession, and as a result control the game, as well as a greater inclination to score goals instead of defending them (Yi et al., 2020). Cluster analysis permits the analysis of teams' performance by classifying them based on valid cut-off values and helping identifying the influence of different contextual parameters (Marcelino et al., 2011; Sampaio, Lago-Peñas, & Drinkwater, 2010).

Traditionally, performance analysts have studied and compared the game-related statistics although more powerful and useful frameworks, like multivariate techniques and adaptive tools, exist nowadays to better understand their application to sports performance (Martin et al., 2021; Moura et al., 2014; Robertson, 2020). For instance, a cluster analysis of performance in the Chinese Super League has yet to be conducted. Thus, the aim of this study was to analyse a range of performance variables of the teams in the Chinese Super League and to observe if they are impacted by situational variables (i.e., game location, quality of the opponent, and final result).

Methods

Sample

The sample consisted of 474 matches played during the 2016 season of the Chinese Super League. This league is comprised of 16 teams who play against each opponent twice (once at home and once away). Consequently, each team played 30 matches per season. A K-Means Cluster Analysis, based on pairwise Euclidean distances between data points, was carried out in order to classify the matches based on the final league standings of the teams in three different groups: (a) cluster 1 consisted of matches played with the 1st and 2nd classified teams, (b) cluster 2 has matches involving teams classified 3rd to 7th (excluding games belonging to the first cluster), and (c) cluster 3 the other games consisting of games played amongst teams classified 8th to 16th. Out of the 474 matches analysed

during this study, n = 60 belonged to cluster 1, n = 148 to cluster 2, and n = 266 to cluster 3.

Procedure

The database with all the matches was obtained through OPTA Sport. The reliability of the analysis system to gather football matches data has been previously validated at an acceptable level (Liu, Hopkins, Gómez-Ruano, & Molinuevo, 2013), and been used in numerous empirical studies (e.g., Lago-Peñas, Gómez-Ruano, Lee, & Sampaio, 2016; Liu, Gómez-Ruano, Lago-Peñas, & Sampaio, 2015; Liu, Yi, Giménez, Gómez-Ruano, & Lago-Peñas, 2015). From the OPTA Sport system, the dependent variables used in this study were determined as offensive and defensive performance indicators and defined in Table 1.

Statistical Analysis

Effect of the situational variables Game Location (GL), Quality of the Opponent (QO), and Final Result of the match (FR) on different Key Performance Indicators (KPI) was assessed through a linear regression analysis. While conducting the estimations, no evidence of heteroscedasticity in the wastes or multicollinearity between the regressors were found. $\beta 1$ was the constant value, $\beta 2$, $\beta 3$, and $\beta 4$ were the independent variables' coefficients. Finally, $\varepsilon 1$ was the random perturbation. The performance model results as follows:

$$KPI = \beta 1 + \beta 2 \,.\, GL + \beta 3 \,.\, QO + \beta 4 \,.\, FR + \varepsilon 1$$

Analysis was conducted using STATA (Version 12.0, Texas, USA). Level of significance for all the statistical analysis was $p<0.05$ y $p<0.01$.

Results

Effects of game location, quality of the opponent, and game status on the performance of the teams competing in the Chinese Super League during the season are shown in Table 2, 3 and 4. It can be observed how playing as local or away team has a greater significant effect on the teams that finished the season between the 3rd and the 7th position. Playing as an away team reduced the number of positional attacks ($p<0.05$), total time on possession ($p<0.01$), possession in the last third of the pitch ($p<0.01$), possession in the opponent half of the pitch ($p<0.01$), passes attempted ($p<0.05$), accurate

passes ($p<0.05$), forward passes ($p<0.05$), crosses ($p<0.01$), and loose balls picked up in the opponent half of the pitch ($p<0.05$).

When first and second classified teams played as the away team, their performance decreased significantly in passes attempted ($p<0.05$), accurate passes ($p<0.05$), and forward passes ($p<0.05$). These teams attempted 492.57 passes per match as an average, but when they played away, this number was reduced by 66.41 passes per match. On an average, the number of accurate passes per match was 410.48, but when they played away, this reduced by 64.82. Lastly, they passed the ball forward an average of 337.91 passes per match, and this reduced by 42.66 when they were not the home team. Teams that finished the season between the 8th and the 16th position also saw several performance indicators reduced when they played as the away team, including the loose balls picked up ($p<0.01$) and loose balls picked up in the opponent half of the pitch ($p<0.05$). These teams picked up, as an average, 64.06 loose balls per match, but when they were not playing at home, this number decreased by 4.18. On average, out of all these free balls, they picked up 22.37 in the opponent half of the pitch, but as away team, this amount was reduced by 1.89. The quality of the opponent had a similar statistically significant effect for all the teams competing in the Chinese Super League. In any case, top teams are the ones affected the least according to this variable. When they played against opponents that occupied a better position in the table, there was a reduction in ball possession ($p<0.05$), ball possession in the opponent half of the pitch ($p<0.05$), passes attempted ($p<0.01$), accurate passes ($p<0.01$), and forward passes ($p<0.05$).

Teams that finished the season between the 3rd and the 7th position saw how, against stronger teams, their positional attacks decreased ($p<0.05$), as did their total ball possession ($p<0.01$), possession in the last third of the pitch ($p<0.05$), possession in the opponent half of the pitch ($p<0.01$), passes attempted ($p<0.01$), accurate passes ($p<0.01$), forward passes ($p<0.01$), loose balls picked ($p<0.05$), and loose balls picked in the opponent half of the pitch ($p<0.05$). The quality of the opponent also affected the bottom teams for total attacks ($p<0.01$), positional attacks ($p<0.01$), ball possession ($p<0.01$), possession in own half ($p<0.01$), possession in opponent half ($p<0.05$), passes attempted ($p<0.01$), accurate passes ($p<0.01$), forward passes ($p<0.01$), loose balls picked up ($p<0.01$), and loose balls picked up in opponent half ($p<0.05$). Lastly, the game status reduced the total attacks ($p<0.01$) and the

147 balls lost ($p<0.05$) by the teams that finished the league between the 8th and the 16th position. These
148 teams, as a mean, made 99.29 attacks per match, number that varied in 1.53 for each goal of difference
149 with the opponent team (i.e., when they get above in the score they attack less, and when they get below
150 they attack more). Moreover, balls lost (106.09 as an average per game) were altered in 1.49 for each
151 goal of difference.

152 Table 5 and 6 show a simulation of the expectable performance, according to the game location,
153 quality of the opponent and final result, of Shijiazhuang Ever Bright FC, the team that finished the
154 season in the 16th position. These simulations prove in a more specific way how performance of the
155 football teams is conditioned by the situational variables. In this case, what is going to be simulated is
156 the expectable attacks performed by this team when: (a) they played as local or away team, (b) they
157 played against the 1st, 5th, 10th, and 15th classifieds, and (c) in the hypothetical scenario where they are
158 1, 2, or 3 goals ahead or behind. Shijiazhuang Ever Bright FC performed, on average, 99.29 attacks
159 when the value of all the situational variables was equal to 0.

160

161 **Discussion**

162 The main aim of this study was to examine the impact of contextual variables, such as game location,
163 game status, and the quality of the opponent, on the performance of the teams competing in the Chinese
164 Super League during an entire season. Results showed that these variables are extremely important for
165 performance outcomes. Specifically, having played as local or away team, having faced a better or
166 worse classified opponent, and/or having won, tied, or lost the match, can modify up to twelve
167 performance related variables of the teams (i.e., attacks, positional attacks, total ball possession, ball
168 possession in the opponent half of the pitch, ball possession in the last third of the pitch, passes
169 attempted, passes accurate, passes forward, crosses, lost balls, free balls picked up, and free balls picked
170 up in the opponent half of the pitch). Thus, these factors must be considered while designing training
171 sessions and analysing opposition teams. (Bradley, Lago-Peñas, Rey, & Gomez Diaz, 2013; Lago-
172 Peñas, 2009; Lago-Peñas & Martín, 2007; Lago-Ballesteros, Lago-Peñas, & Rey, 2012). Moreover, it
173 has not just been analysed the impact of the situational variables separately, but it has also been studied
174 how the combination of them affect the performance of the teams (Lago-Peñas, 2009). This has been

implemented through a performance simulation of the team that finished the season in the 16th position. Number of attacks was the performance indicator assessed according to the game location, quality of the opponent, and the final result of the match.

The results of this study show that the teams who finished the season in 1st and 2nd position saw changes in just five of the performance variables assessed, whereas in the rest of the teams at least nine variables out of twelve were affected. This indicates that teams that finished the season in a higher position maintained a more consistent performance. This can be explained due to the mean performance values of these variables are larger for the top teams (e.g., top teams attempted, as an average, 492.57 passes per match while bottom teams attempted just 442.36), thus the relative variation due to the situational variables is similar for these teams.

The quality of the opponent appeared to be the situational variable that most affects the performances of the teams. The results of this study, in accordance with previous results in other European leagues (e.g., Bradley et al., 2013; Lago-Peñas, 2009; Lago-Peñas et al., 2016; Yi et al., 2020) demonstrate that playing against teams that are higher classified decreases the offensive performance of the teams. The lower ranked teams tend to have a lower ball possession and a lower number of passes. It is also observed that the teams most affected by the quality of the opponent belong to the lowest ranked group of the 8th to the 16th classified teams. However, in terms of how much the situational variables impair each one of the performance indicators, these teams are the ones that are affected the less. This could be, as mentioned above, due to the fact that the bottom teams have slighter mean values than top teams. It could be interesting, for future research, to contextualize these results, for example, by analysing not only the position at the end of the league of the teams playing against each other, but also the position they are occupying in each match-day and how it evolves throughout the season.

Game location also conditioned the behaviour of the different teams competing in the Chinese Super League. Playing as away team particularly affects teams that finished the season between the 3rd and the 7th position, which coincides with the findings from Lago-Peñas and Martín (2007), Pollard (1986), and Thomas et al. (2004). The game status was the variable that least affected the performance of the teams during the season. To be specific, only the bottom teams saw how some of their performance indicators were impaired, which only included total attacks and lost balls. For future

investigations, it could be interesting to follow what it has already been proposed by James, Mellalieu, and Hollely (2002), Lago-Peñas (2009), Lago-Peñas and Martín (2007), and Lago-Ballesteros et al. (2012), and not only focus on the final result, but also in the amount of time each time has been above in the score, below, or drawing. This could contextualize the current study and offer some additional information.

This type of research can be used in order to understand the sport of football in a deeper way, and with the aim of designing more contextualized training sessions and with a better tactical quality according to strengths and weaknesses; both of the team and of the opponent (Lago-Ballesteros & Lago-Peñas, 2010). Results retrieved by the technical staff after the technical and tactical analysis of the matches played by their own team or the opponent, have to serve as a guidance to plan the sessions of the different micro-cycles throughout the season (Ortega, Villarejo, & Palao, 2009). Coaches and their technical staff must use this information in order to set goals, both individually and as a team, not only in training sessions but also during the competition itself (Kelly et al., 2020). These goals could be divided between positives (e.g., actions the coaches want to happen) and negatives (e.g., actions the coaches want their players to prevent from happening), as well as being classified according to their character between offensive and defensive (Lago-Ballesteros & Lago-Peñas, 2010).

Concerning the limitations of the current study, further analysis should control for temporal series (seasons). Moreover, other contextual variables such as the match status of the team quality should be included. In addition, other statistical models should be adopted in order to increase the utility of the prediction model included in this study. It would be useful for researchers and coaches to compare the current data with most recent seasons to identify performance trends in the CSL. This study agrees with previous research that studied 240 games in the CSL 2015 season in which a positive small effect was reported in home-teams for game-related statistics like shots, shots on target, possession and possession in the opponent half, pass, forward pass, and a negative small effect was reported in home-teams for yellow cards. Game-location, together with rank differences, seem to stay the most important situational variables that modulate performance in the CSL. Future research should keep on studying this tendency with greater samples to hone the relationships among game-related performance, game-location and rank difference (Zhou et al., 2019).

Conclusions

This study shows that situational variables have an important influence over the technical and tactical performance of professional football teams. Specifically, top teams had a more consistent performance regardless of where they are playing, against who, and what the final result of the match was. Moreover, quality of the opponent was proved to be the variable most affecting the technical and tactical behaviour of the teams, while final result as found as the one that has less relevance in this study. Combinations of these indicators could be used in order to predict the performance of the football teams and, in accordance with this, design the micro-cycle and subsequent training sessions.

Declaration of interest

The authors certify that they are not involved in any organization or entity with any financial interest, or non-financial interest, in the subject discussed in this manuscript. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

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TABLES

Table 1. Variables classification in offensive and defensive and their definition by OPTA Sport

OFFENSIVE VARIABLES	
Attacks	Phase of the game when a team owns the ball and focus all their efforts towards the opponent goal with the intention of scoring. There are several types: counterattack, positional attack
Positional attacks	This is a type of attack that represents a meticulous game construction consisting on several passes between defenders and midfielders. The team in possession patiently conserves the ball by the time the seek for spaces, so they can use them to find an ideal position with the final objective of scoring a goal
Total ball possession	Time duration when a team owns the ball without interruption, as a proportion of the total game time when the ball has been played
Ball possession in the last third of the pitch	Time duration when a team owns the ball without interruption in the last third of the pitch, where the opponent goal is located
Ball possession in the opponent half of the pitch	Time duration when a team owns the ball without interruption in the half of the pitch where the opponent goal is located
Passes attempted	Ball intentionally passed to a player by a player of the same team
Accurate Passes	Pass that end up being controlled by the player who was the original target
Forward Passes	Ball intentionally passed towards a player that is located within a capture angle of 180°
Crosses	Ball sent from an open position close to the sideline towards the opponent penalty box
Balls lost	Ball that stops being owned by a team and starts belonging to the opponent team due to a mistake of the first one
DEFFENSIVE VARIABLES	
Loose balls picked	A team starts owning a ball that had no clear owner
Loose balls picked in the opponent half of the pitch	Free ball that is picked up in the half of the pitch where the opponent goal is located

352 Table 2. Descriptive statistics.

Variable	Sample (matches)	Mean	Standard deviation	Coefficient of Variation (%)	Min (in minutes)	Max (in minutes)
Attacks	474	96.80	13.78	14.24	60	135
Positional attacks	474	71.70	12.65	17.64	40	107
Ball possession	474	25.44	4.86	19.10	13	39
Ball possession in the last third of the pitch	474	345.57	128.22	37.10	96	898
Ball possession in the opponent half of the pitch	474	843.15	178.28	21.14	286	1626
Passess attempted	474	445.71	98.54	22.11	217	762
Accurate Passes	474	360.63	96.48	26.75	161	672
Forward Passes	474	307.57	57.93	18.83	168	489
Crosses	474	12.19	6.52	53.49	1	38
Balls lost	474	101.57	16.84	16.58	57	164
Loose balls picked up	474	58.25	12.07	20.72	22	101
Loose balls picked up in the opponent half of the pitch	474	20.41	7.43	36.40	5	49
Quality of the opponent	474	0.01	6.75		-15	15
Final result	474	0.47	1.69		-6	5
Game location	474	0.5	0.5		0	1

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Table 3. Effects of the situational variables on the different Key Performance Indicators of the teams competing in the Chinese Super League during the season.

	Attacks			Positional attacks			Ball possession (in minutes)		
	1st and 2nd classified	3rd to 7th classified	8th to 16th classified	1st and 2nd classified	3rd to 7th classified	8th to 16th classified	1st and 2nd classified	3rd to 7th classified	8th to 16th classified
Game location	-6.25 (3.70)	-4.75 (2.12)	-2.33 (1.73)	-4.02 (3.65)	-3.89 (1.82) *	-0.57 (1.62)	-2.63 (1.40)	-2.12 (0.76) **	-0.87 (0.52)
Quality of the opponent	-0.63 (0.37)	-0.54 (0.21)	-0.49 (0.16) **	-0.61 (0.36)	-0.47 (0.18) *	-0.52 (0.15) **	-0.34 (0.14) *	-0.24 (0.08) **	-0.24 (0.05) **
Final result	-1.58 (0.91)	-0.15 (0.68)	-1.53 (0.52) **	-1.33 (0.91)	-0.14 (0.58)	-0.90 (0.49)	-0.50 (0.35)	0.07 (0.24)	0.05 (0.16)
Constant	99.38	98.17	99.29	73.22	73.67	72.69	27.78	26.69	25.40
R^2	0.14	0.07	0.08	0.11	0.07	0.06	0.18	0.11	0.10
Sample	60	148	266	60	148	266	60	148	266
	Ball possession in the last third of the pitch (in seconds)			Ball possession in the opponent half of the pitch (in seconds)			Passes attempted		
	1st and 2nd classified	3rd to 7th classified	8th to 16th classified	1st and 2nd classified	3rd to 7th classified	8th to 16th classified	1st and 2nd classified	3rd to 7th classified	8th to 16th classified
Game location	-32.35 (42.55)	-83.84 (22.47) **	-22.51 (13.69)	-106.46 (67.84)	-128.93 (36.30) **	-18.54 (22.53)	-66.41 (29.13) *	-35.48 (15.93) *	-10.00 (10.09)
Quality of the opponent	-6.91 (4.25)	-5.49 (2.25) *	-0.76 (1.24)	-17.32 (6.77) *	-10.23 (3.63) **	-5.26 (2.04) *	-7.84 (2.91) **	-4.63 (1.59) **	-5.50 (0.92) **
Final result	-0.50 (10.56)	0.83 (7.16)	0.16 (4.15)	-15.88 (16.83)	-2.73 (11.58)	0.71 (6.83)	-13.74 (7.23)	-2.45 (5.08)	1.44 (3.06)
Constant	372.65	387.29	334.47	762.89	751.87	657.15	492.57	471.94	442.36
R^2	0.06	0.12	0.01	0.16	0.13	0.03	0.23	0.08	0.12

Sample	60	148	266	60	148	266	60	148	266

*P<0.05; **P<0.01.

Table 4. Effects of the situational variables on the performance of the teams competing in the Chinese Super League during the season.

	Passes accurate			Passes forward (capture angle of 180°)			Crosses		
	1st and 2nd classified	3rd to 7th classified	8th to 16th classified	1st and 2nd classified	3rd to 7th classified	8th to 16th classified	1st and 2nd classified	3rd to 7th classified	8th to 16th classified
Game location	-64.82 (28.18) *	-37.84 (15.62) *	-6.05 (9.75)	-42.66 (17.09) *	-19.85 (9.33) *	-5.86 (6.08)	0.76 (2.12)	-4.10 (1.05) **	-0.81 (0.79)
Quality of the opponent	-7.62 (2.81) **	-4.09 (1.56) **	-5.14 (0.88) **	-4.30 (1.71) *	-3.09 (0.93) **	-3.17 (0.55) **	-0.40 (0.21)	-0.10 (0.11)	-0.02 (0.07)
Final result	-12.71 (7.00)	-0.88 (4.98)	2.98 (2.96)	-8.46 (4.24)	-3.11 (2.98)	-0.38 (1.84)	0.04 (0.53)	-0.24 (0.34)	-0.22 (0.24)
Constant	410.48	390.92	351.78	337.91	319.42	307.62	10.72	14.46	12.08
R^2	0.23	0.08	0.12	0.23	0.10	0.11	0.07	0.10	0.01
Sample	60	148	266	60	148	266	60	148	266
	Lost balls			Free balls picked up			Free balls picked up in opponent half		
	1st and 2nd classified	3rd to 7th classified	8th to 16th classified	1st and 2nd classified	3rd to 7th classified	8th to 16th classified	1st and 2nd classified	3rd to 7th classified	8th to 16th classified
Game location	-1.66 (4.52)	2.03 (2.72)	-0.55 (2.15)	2.74 (3.69)	0.31 (1.88)	-4.18 (1.47) **	-0.34 (2.43)	-2.27 (1.15) *	-1.89 (0.93) *
Quality of the opponent	-0.18 (0.45)	-0.24 (0.27)	-0.38 (0.20)	-0.12 (0.37)	-0.48 (0.19) *	-0.40 (0.13) **	-0.04 (0.24)	-0.26 (0.11) *	-0.19 (0.08) *
Final result	-1.28 (1.12)	-0.48 (0.87)	-1.49 (0.65) *	-0.11 (0.92)	-0.47 (0.60)	-0.66 (0.45)	-0.04 (0.60)	0.28 (0.37)	-0.45 (0.28)
Constant	96.61	98.15	106.09	51.54	54.91	64.06	20.97	20.05	22.37

R^2	0.03	0.01	0.04	0.01	0.05	0.08	0.001	0.07	0.05
Sample	60	148	266	60	148	266	60	148	266

*P<0.05; **P<0.01.

Table 5. Simulation of the foreseen number of attacks performed by the team Shijiazhuang Ever Bright FC depending on the game location, quality of the opponent and final result of the match.

LOCAL		Quality of the opponent			
		1st	5th	10th	15th
Final result	-3	97	98	101	103
	-2	95	97	99	102
	-1	93	95	98	100
	1	90	92	95	97
	2	89	91	93	96
	3	87	89	92	94

Table 6. Simulation of the foreseen number of attacks performed by the team Shijiazhuang Ever Bright FC depending on the game location, quality of the opponent and final result of the match.

AWAY		Quality of the opponent			
		1st	5th	10th	15th
Final result	-3	94	96	99	101
	-2	93	95	97	100
	-1	91	93	96	98
	1	88	90	92	95
	2	86	89	91	93
	3	85	87	89	92