

COMPARATIVE STUDY OF POSITIONING AND TECHNICAL-TACTICAL INDICATORS BETWEEN TEAMS OF DIFFERENT PERFORMANCE LEVELS IN THE QATAR 2022 FIFA WORLD CUP

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Abstract:

The aim of the study was to identify the technical-tactical indicators and differentiate collective positioning between the qualified teams and teams non-qualified for the final phase of the FIFA World Cup Qatar 2022, considering effective playing time. The aim was also to understand the interaction of variables that significantly increased the likelihood of being qualified in the analysed championship. We conducted a comparative analysis that covered all matches played (N=64), evaluating 93 technical-tactical indicators, 24 collective positional indicators and six hybrid indicators. The absolute technical-tactical indicators were normalised based on the effective playing time of each team in each match. We used t-tests and binary logistic regression (R² Nagelkerke = .738 – AUC = .955) to analyse differences and determine their statistical significance (p<.05). Our analysis revealed significant differences in 33 indicators, suggesting that certain technical-tactical aspects played a crucial role in teams' performance. Furthermore, through multivariate analysis, we were able to identify that offensive efficiency in set pieces, the height of the defensive line during the offensive phase, and the ability to reduce the available playing space for the opposing team during the defensive phase emerged as the main indicators that allowed us to classify the teams' performance. These findings enable coaches to use the identified key indicators as performance predictors to devise match strategies aimed at enhancing the effectiveness of their teams.

Keywords: *FIFA World Cup, key performance indicators, multivariate analysis, match analysis*

Introduction

Examining and analysing the tactical behavior of teams, as well as conducting comparative analyses between groups of different performance levels, enables us to identify the main tactical differences between these groups. Consequently, we can determine the key performance indicators (KPIs) in football (Hughes & Bartlett, 2002), establishing them as variables that contribute to success (Hughes & Bartlett, 2008). The interpretation of these data enables coaches to understand the patterns of behavior and organization of teams with the highest success rates, providing them with information to design match strategies, game systems, and training tasks (Casal, et al., 2021a).

Recognizing the significance of this information, several previous studies compared the technical-tactical behavior of successful and unsuccessful teams, leading to the identification of some KPIs. For instance, the total number of shots and shots on target emerged as fundamental discriminative variables between winning, losing, and drawing teams in various studies (Carling, Le Gall, McCall, Nédélec, & Dupont, 2015; Casal, Losada, Barreira, & Maneiro, 2021b; Castellano, Casamichana, & Lago, 2012; García-Rubio, Gómez, Lago-Peñas, & Ibáñez, 2015; Liu, Gómez, Lago-Peñas, & Sampaio, 2015; Moura, Martins, & Cunha, 2014). Additionally, total passes, accurate passes, and total passes in the opposition half were identified as robust indi-

cators to differentiate teams' performance (Carling, et al., 2015; Casal, et al., 2021b; Collet, 2013; Gómez, Mitrotasios, Armatas, & Lago-Peñas, 2018; Harrop & Nevill, 2014; Paixão, Sampaio, Almeida, & Duarte, 2015; Praça, Brandão, de Oliveira Abreu, Oliveira, & de Andrade, 2023), observing typically higher values for these variables in teams with better performance.

In direct relation to the number of passes, ball possession has been identified as a distinctive tactical indicator among teams in various studies (Bradley, Lago-Peñas, Rey, & Sampaio, 2014; Carling, et al., 2015; Casal, Maneiro, Ardá, Mari, & Losada, 2017; Casal, et al., 2021b; Collet, 2013; Liu, Hopkins, & Gómez, 2016; Moura, et al., 2014). All studies agree that longer ball possession characterized higher-ranked teams. However, when considering ball possession in the context of the match status, conclusive results were not obtained. Some studies suggested that teams tended to have more possession when they were winning (Fernandez-Navarro, Fradua, Zubillaga, & McRobert, 2019), while others indicated the opposite (Paixão, et al., 2015). What some studies (Casal, et al., 2021b; Fernandez-Navarro, et al., 2019; Lago-Ballesteros, Lago-Peñas, & Rey, 2012; Winter & Pfeiffer, 2016) confirmed is that teams exhibited different playing styles based on the match status, with some teams modifying their style accordingly, while others maintained it unchanged.

The way goals were scored, and the quality of opponent teams was also identified as differentiating indicators among teams (Lago-Peñas, Gómez-Ruano, Megías-Navarro, & Pollard, 2016). In general, teams that scored first were more likely to win, and facing lower-level opponents increased winning rates. On the other hand, some studies have focused on the analysis of specific defensive indicators. In particular, the type and location of ball recovery were examined as differentiators of team performance (Almeida, Ferreira, & Volossovitch, 2014; Gómez, et al., 2018; Winter & Pfeiffer, 2016). Their findings indicate that higher-ranked teams were more effective than lower-ranked ones in applying defensive pressure in advanced field positions.

Despite the work done so far, in the case of some performance indicators, such as ball possession, making definitive statements is challenging due to the diversity and, on some occasions, contradictions in study results. This circumstance can be explained, in part, by methodological differences among various studies and possible conceptual errors. For instance, most previous works categorized team performance based on match outcomes, when it might be more appropriate to perform them according to the final ranking in a competition (Casal, et al., 2021b). This approach aligns with the

methodology employed by Almeida et al. (2014), Bradley et al. (2014), Casal et al. (2021b), Castellano et al. (2012), Collet (2013), Liu et al. (2016) and, additionally, the importance of studies following a nomothetic and longitudinal approach, as indicated by Casal et al. (2021b), has been recognized to identify KPIs and patterns of team playing strategies. This approach involves analysing multiple teams participating in a competition over several matches, allowing for more effective identification and understanding of these teams' behavioral patterns.

Furthermore, Phatak et al. (2022) emphasize the importance of normalizing data to accurately identify KPIs. This process is crucial as data in its absolute form can lead to inadequate conclusions. Normalization involves considering the real action time during a football match, accounting for interruptions like corner kicks, player substitutions, injuries, or deliberate time-wasting. By dividing statistics by effective playing time, this approach provides a more accurate and fair perspective of teams' or players' performance, regardless of possession time or active involvement in the game. The aim is to calculate the rate or frequency of events per minute of effective playing time, facilitating a fair comparison and evaluation between teams and players and highlighting performance patterns in relation to real playing time.

Furthermore, it must be considered that football is a sport that represents a completely dynamic system in constant transformation and evolution. Therefore, it is crucial to keep such studies updated to reflect current trends in teams' play and evaluate whether there have been any changes compared to the past.

Based on all the above, the aim of this study was to identify the technical-tactical indicators as well as the differences in collective positioning between the teams qualified and the teams not qualified for the final phase of the FIFA World Cup 2022 considering the effective playing time. Additionally, we aimed to understand the interaction of variables that increased the likelihood of qualifying for the said phase in the analysed championship. In an effort to address some of the shortcomings in previous studies, data normalization based on effective playing time was applied.

Materials and methods

Sample

In this study, all the teams (N=32) and all the matches played (N=64) in the FIFA World Cup Qatar 2022 were analysed and in each one, both teams were observed. Data were extracted from InstatScout (not available now), currently WyScout (<https://platform.wyscout.com/app/?>) and FIFA (<http://fifa.com>). These providers have demon-

strated their validity and reliability in previous studies (Bradley, 2023; Casal, et al., 2021b; Gómez, et al., 2018; Silva & Marcelino, 2023).

Procedure

All the KPIs analysed are presented in Table 1. The operational definitions of the variables extracted from the Instat Scout can be found in Appendix 1. The graphical definitions of the variables obtained from post-match reports can be consulted in FIFA (2023). Following the procedure of contextualization and normalization of the data proposed by Phatak et al. (2022), the technical-tactical indicators were normalised based on the effective playing time (obtained from Instat) of each match. In this way, the absolute KPIs were transformed into KPIs per minute of effective playing time.

The positional variables related to the area (m²) were synthetically created by multiplying the average width and length for each of the analysed positions, resulting in the area (in square meters) occupied by the external players of the team, excluding the goalkeeper. The analysed teams were categorized according to the final classification in a dichotomous variable (1 = qualified for the round of 16, 0 = non-qualified) as previous studies did (Almeida, et al., 2014; Bradley, et al., 2014, Casal, et al., 2021b, Castellano, et al., 2012, Collet, 2013; Liu, et al., 2016).

Data analysis

First, a t-test for independent samples was performed to compare the qualified and non-qualified teams in terms of each variable evaluated.

$$KPI (norm) = \frac{Absolute\ Value\ KPI}{Effective\ Playing\ Time} \rightarrow Passes\ per\ minute = \frac{Total\ Passes}{Effective\ Playing\ Time}$$

Table 1. The technical-tactical indicators analysed

Main statistics	- Goals - Chances - Chances successful - Fouls - Yellow cards - Red cards - Offsides - Corners - Corners with shots - % efficiency for corner attacks* - Total actions - Successful actions - Shots - Shots on target - Shots off target - Shots blocked - xG – Opponent’s xG.
Passes	- Passes - Accurate Passes - Accurate passes %* - Key passes - Accurate Key passes - Crosses - Accurate crosses.
Challenges	- Challenges - Challenges won - Challenges won %* - Defensive challenges - Defensive challenges won - Defensive challenges won %* - Attacking challenges - Attacking challenges won - Attacking challenges won %* - Air challenges - Air challenges won %* - Dribbles - Dribbles successful - Dribbles successful %* - Tackles - Tackles successful - Tackles successful %*.
Ball losses and recoveries	- Ball interceptions - Free ball pickups - Lost balls - Lost balls in the own half - Ball recoveries - Ball recoveries in the opponent’s half.
Offensive efficiency	- Entrances to the opposition half - Entrances to the final third - Entrances to the penalty box - Ball possessions (quantity) - Average possession time*.
Defensive efficiency*	- Team pressing - Team pressing successful - Pressing efficiency (%) - Building-ups - Building-ups without pressing - High pressing - High pressing successful - High pressing (%) - Low pressing - Low pressing successful - Low pressing successful (%).
Attacks typology	- Positional attacks - Positional attacks with shots - Positional attacks efficiency (%)* - Counterattacks - Counterattacks with shots - Counterattacks efficiency (%)* - Set pieces attacks - Set pieces attacks with shots - Set pieces attacks efficiency (%)* - Attacks through the left flank - Attacks through the left flank with shots - Efficiency of attacks through the left flank (%)* - Attacks through the center flank - Attacks through the center flank with shots - Efficiency in attacks through the center flank (%)* - Attacks through the right flank - Attacks through the right flank with shots - Efficiency in attacks through the right flank (%)* - Throw in attacks - Throw in attacks with shots - % efficiency for throw in attacks* - Free kick shots - Goals free-kick attack - % scored free kick shots* - Penalties - Penalties scored - Penalties scored %*.
In possession positional (meters)*	- Building up defensive line height (IP-BU-DLH) - Building up in width (IP-BU-WIDTH) - Building up in length (IP-BU-LENGTH) - Building up area (m2) (IP-BU-CV) - Progression phase defensive line height (IP-PP-DLH) - Progression phase width (IP-PP-WIDTH) - Progression phase length (IP-PP-LENGTH) - Progression phase area (m2) (IP-PP-CV) - Final third phase defensive line height (IP-FTP-DLH) - Final third phase width (IP-FTP-WIDTH) - Final third phase length (IP-FTP-LENGTH) - Final third phase area (m2) (IP-FTP-CV).
Out of possession positional (meters)*	- Low block defensive line height (OP-LB-DLH) - Low block width (OP-LB-WIDTH) - Low block length (OP-LB-LENGTH) - Low block area (m2) (OP-LB-CV) - Middle block defensive line height (OP-MD-DLH) - Middle block width (OP-MD-WIDTH) - Middle block length (OP-MD-LENGTH) - Middle block area (m2) (OP-MB-CV) - High block defensive line height (OP-HB-DLH) - High block width (OP-HB-WIDTH) - High block length (OP-HB-LENGTH) - High block area (m2) (OP-HB-CV).

Note: *Indicators in absolute value.

This statistical procedure was chosen based on the central limit theorem due to the sample size for both groups (greater than 30 cases). To measure the magnitude of the difference between the two groups, Cohen's *d* statistics was used. Batterman and Hopkins (2006) defined this effect size as trivial (<0.20), small (0.20-0.60), moderate (0.60-1.20), large (1.20-2.0), very large (2.0-4.0), or extremely large (>4.0).

Once the variables that presented significant differences between the qualified and non-qualified teams were known, a binary logistic regres-

sion model was created. In this model, the classification variable was introduced as an explained variable and as explanatory variables, all those that presented significant differences from the Student's *t*-test for independent samples ($p < .05$). The possible collinearity problems were analysed and discarded from the matrix of correlations between the predictor variables. To create the final model, two previous preliminary models were carried out using the step-forward and step-backward methods in which variables were included and eliminated progressively from the Wald statistic with a level of

Table 2. Descriptive results of the variables that have presented significant results

	TOTAL N=128	QUALIFIED n=79	NON-QUALIFIED n=49	p [ES]
OP-HB-CV	1489.78±111.34	1455.86±96.99	1544.48±112.08	<.001 [0.80]
Norm free ball pick ups	1.94±.54	1.80±.51	2.17±.52	<.001 [0.69]
Norm yellow cards	0.06±0.067	0.051±0.056	0.0967±0.075	<.001 [0.67]
Accurate passes. %	84.39±4.77	85.60±4.43	82.44±4.71	<.001 [0.66]
OP-HB-WIDTH	40.60±2.08	40.10±2.04	41.40±1.92	<.001 [0.62]
OP-MB-Area	1079.85±119.54	1052.49±99.67	1123.98±135.82	<.005 [0.60]
Average possession time	17.96±4.87	19.03±5.32	16.24±3.44	<.001 [0.57]
Norm lost balls	2.42±.75	2.27±.73	2.68±.72	<.005 [0.56]
Effective playing time (min)	28.95±7.95	30.57±8.54	26.37±6.16	<.005 [0.53]
OP-HB-LENGTH	36.68±1.91	36.30±1.57	37.30±2.26	<.005 [0.52]
Norm ball possessions. quantity	3.59±.93	3.41±.94	3.89±.83	<.001 [0.51]
Norm free kick attacks	0.10±0.07	0.09±0.06	0.12±0.078	<.005 [.50]
Norm defensive challenges won	1.53±.56	1.43±.55	1.69±.54	<.05 [.46]
Norm challenges	5.73±1.78	5.43±1.75	6.23±1.73	<.05 [.44]
Norm challenges won	2.85±.88	2.70±.890	3.09±.831	<.05 [.44]
OP-MB-LENGTH	26.91±2.62	26.47±2.22	27.63±3.07	<.05 [.44]
Norm opponent's xG	0.05±0.04	0.05±0.04	0.069±0.06	<.05 [.43]
Norm attacks left flank	0.93±0.24	0.8930±0.24	0.997±0.23107	<.05 [.43]
Norm attacks – center flank	0.72±0.23	0.69±0.20	0.79±0.25	<.05 [.43]
Norm counterattacks	0.44±0.22	0.40±0.21	0.50±0.24	<.05 [.43]
Norm defensive challenges	2.90±1.08	2.73±1.04	3.19±1.11	<.05 [.42]
Norm attacking challenges	2.82±.81	2.69±.80	3.03±.78	<.05 [.42]
Norm entrances to the opposition half	2.00±.39	1.93±.36	2.10±.43	<.05 [.42]
OP-MB-WIDTH	40.18±2.17	39.78±2.05	40.69±2.26	<.05 [.42]
Norm total actions	29.63±3.26	29.12±3.32	30.46±3.03	<.05 [.41]
Norm penalties	0.01±0.03	0.02±0.046	0.005±0.015	<.05 [.41]
Norm lost balls in own half	0.55±0.31	0.51±0.31	0.63±0.31	<.05 [.40]
Norm set pieces	0.29±0.12	0.27±0.11	0.32±0.13	<.05 [.39]
% efficiency for free kick attacks	31.98±34.64	37.13±36.27	23.67±30.38	<.05 [.39]
Norm penalties scored	0.01±0.02	0.0149±0.034	0.003±0.013	<.05 [.39]
IP-FTP-Area	1593.89±112.09	1576.95±104.11	1621.22±119.98	<.05 [.39]
IP-FTP-LENGTH	36.19±2.24	35.89±2.41	36.67±1.89	<.05 [.34]
% of efficiency for set piece attacks	23.33±21.64	33.15±20.77	24.46±15.04	<.05 [.20]

Note. Norm: normalised; OP-HB-AREA: out of possession, high block, area m²; OP-HB-WIDTH: out of possession, high block, width; OP-MB-Area: out of possession, middle block, area; OP-HB-LENGTH: out of possession, high block, length; OP-MB-LENGTH: out of possession, middle block, length; OP-MB-WIDTH: out of possession, middle block, width; IP-FTP-AREA: in possession, final third phase, area; IP-FTP-LENGTH: in possession, final third phase, length.

significance $p < .05$. Finally, the step-forward method was selected for having greater predictive power.

All analyses were performed with SPSS 26.0 statistical software (IBM. Corp. Released 2017. IBM SPSS Statistics for Windows, Version 26, IBM Corp., Armonk, NY, USA).

Results

Descriptive and bivariate analysis

Table 2 presents descriptive and comparative results between the teams qualified for the round of 16 and those eliminated in the group phase, sorted by effect size. Statistically significant differences were observed for 33 out of the 123 indicators

analysed. The results for all the variables analysed are presented in Appendix 1.

Binary logistic regression analysis

Table 3 presents the results obtained from the binary logistic regression technique. The regression model introduced 12 explanatory variables that influenced the probability of a team to be or not qualified for the round of 16 or later phase. It was possible to observe how norm air challenges won (OR = 51.574), % of efficiency for set piece attacks (OR= 1.145), norm free kick attacks with shot (OR= 4.132E+11), and % penalty scored (OR= 1.026), significantly increased the likelihood that the analysed team was one of the qualifiers for the

Table 3. Multivariate results based on the explained variable qualified/non-qualified

	Indicators in the equation					
	B	S.E.	Wald	df	Sig.	Exp(B) [95% CI]
Norm yellow cards	-23.731	7.383	10.332	1	.001	0.001 [0.000-0.001]
Norm Air Challenges Won	3.943	1.650	5.710	1	.017	51.574 [2.032-1309.06]
Norm free ball pick ups	-4.832	1.357	12.673	1	.000	0.008 [0.001 – 0.114]
Norm opponent's xG per shot	-834.745	278.601	8.977	1	.003	0.001 [0.001-0.001]
Low pressing. %	-0.069	0.025	7.753	1	.005	0.933 [0.888-0.980]
Norm set piece attacks with shot	-23.764	9.401	6.390	1	.011	0.001 [0.000 – 0.005]
% of efficiency for set piece attacks	0.135	0.039	11.861	1	.001	1.145 [1.060-1.237]
Norm free kick attacks with shot	26.747	12.599	4.507	1	.034	4.132E+11 [7.794-2.190E+22]
% penaltis scored	0.026	0.013	4.179	1	.041	1.026 [1.001 – 1.052]
IP-FTP-DLH	0.488	0.222	4.827	1	.028	0.614 [0.397 – 0.949]
OP-MB-LENGTH	-0.587	0.208	8.011	1	.005	0.556 [0.370 – 0.835]
OP-HB-Area	-0.025	0.006	17.014	1	.000	0.975 [0.964 – 0.987]
Constant	92.437	25.479	13.162	1	.000	1.396E+40

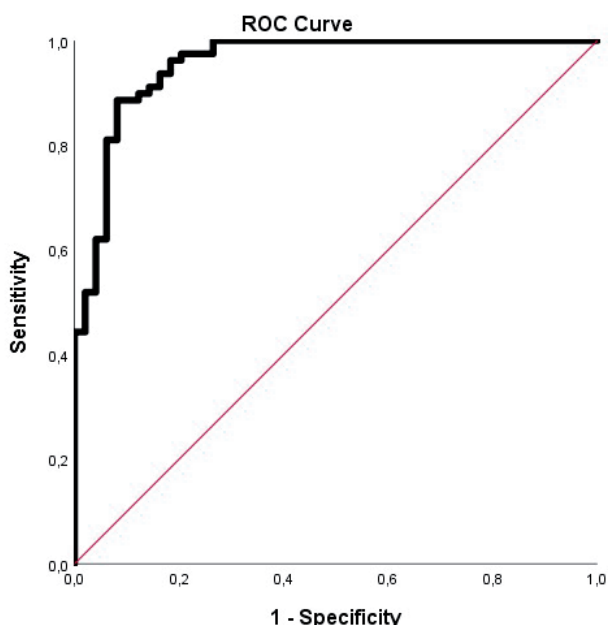


Figure 1. ROC curve for binary logistic regression model.

round of 16. In relation to positional variables, it was discovered that when the team held possession in the final third, particularly with a higher defensive line (IP-FTP-DLH) (OR= .614), the team had an increased likelihood of advancing to the round of 16. Similarly, in the defensive phase, a higher length (OP-MB-LENGTH) of the mid-block team and a higher effective high-block playing space (OP-HB-CV) were variables that increased the odds (OR= 0,556 and 0,975 respectively) that the observed teams would be eliminated in the group phase.

The fit of the model was evaluated and accepted from the Shapiro-Wilk normality contrast ($p < .05$) for the adjusted residuals. Likewise, the classification percentage of the model was 88.3% (89.9% sensitivity; 85.7% specificity; 84.0% negative predictive value; 91.02% positive predictive value; R^2 Nagelkerge = .738). For its part, the receiver operating characteristic (ROC) curve is presented in Figure 1. The area under the curve (AUC) was .955 [95% C.I. = .919 - .991].

Discussion and conclusions

The aim of this study was to identify the technical-tactical indicators and collective positioning that differentiated between the teams qualified and the teams not qualified for the final phase of the FIFA World Cup Qatar 2022, considering effective playing time. Similarly, efforts have been made to understand the interaction of variables that significantly increased the likelihood of reaching the mentioned phase in the analysed championship, using a binary logistic regression model. To achieve this aim, we normalised the KPIs related to the technical-tactical actions carried out during the matches using the procedure proposed by Phatak et al. (2022). This allowed us to adjust the absolute values of each of the evaluated KPIs based on the minutes of effective playing time. The main findings of our study revealed significant differences between the qualified and non-qualified teams, specifically in relation to aerial challenges won, effectiveness in set-piece plays, and the offensive and defensive dispositions of the teams.

At the bivariate level, statistically significant differences were found between the qualified and non-qualified teams in many positional variables. Positional variables without ball possession OP-HB-Area (out of possession, high block, area m²), OP-HB-Width (OP, high block, width), OP-MB-Area (OP, middle block, area m²), OP-MB-LENGTH (OP, middle block, length), OP-MB-Width (OP, middle block, width) were significantly lower in the qualified teams. That is, the qualified teams pressured the possession of the rival team by further reducing the offensive effective playing space for them, compared to the non-qualified teams. These results corroborate those found in the works by Bauer and Anzer (2021), Casal, et al. (2016), Casal et al. (2021a), and Vogelbein et al. (2014) in which it is also indicated that the best teams perform pressure after the loss of ball possession more effectively, reducing the effective playing space of the rival team after losing possession of the ball. In the same way, it was found that the most effective recoveries were those of shorter duration, which would mean that performing pressure after loss is necessary.

In their work, Castellano et al. (2022) analysed the total distance covered and the speed of players during effective playing time and in relation to ball possession. The study concluded that the teams with the most ball possession time were those that travelled more meters above 21 km/h in the defensive phase (normalised distance >21 km/h high possession teams out of possession = 139.3±28.9; normalised distance >21 km/h low teams out of possession = 102.8 vs 23.7). This fact may indicate that the best teams perform defensive transitions at a higher speed than the bottom teams, quickly reducing effective playing space to rival teams.

On the other hand, moderate differences were found in positional variables of ball possession. Specifically, the qualified teams developed their ball possessions in the last rival third in smaller spaces (IP-FTP-DLH, IP-FTP-LENGTH) compared to the non-qualified teams. These results are in line with the work of Casal et al. (2017) in which it is also indicated that the best teams are characterized by longer ball possessions in areas close to the opponent's goal.

Regarding ball possession, significant differences have been found in the accurate passes %, average possession time and effective playing time in favor of the qualified teams and, on the contrary, the non-qualified teams have shown superior results in the variable norm free ball pick-ups, norm lost balls, norm ball possession quantity, and norm ball lost in the own half. This means that the qualified teams have been characterized by having a lower number of possessions because these are of longer duration, and with a greater number of passes. On the other hand, the non-qualified teams have had more losses in ball possession. These data match those provided by previous studies (Bradley, et al., 2014; Carling, et al., 2015; Casal, et al., 2017, 2021b; Collet, 2013; Liu, et al., 2016; Moura, et al., 2014) and can confirm a higher technical quality of the qualified teams compared to those non-qualified ones.

The non-qualified teams showed significant differences in favor of some defensive indicators, such as norm defensive challenges won, norm challenges, norm challenges won, and norm defensive challenges. These results indicate that the lower-ranking teams are characterized by performing a greater number of defensive actions rather than offensive ones, coinciding with the results of Casal et al. (2021b) and Delgado-Bordonau, Domenech-Monforte, Guzmán, and Mendez-Villanueva (2013), who indicate that these results can be explained by these teams remaining longer in the defensive phase than in the offensive one.

We have also been able to see how the non-qualified teams presented higher values in all types of attacks. We believe that this can be explained by the fact of presenting a greater number of actions and attacks. As for the set pieces, the qualified teams showed greater effectiveness in the set pieces and free kicks attacks, something that corroborates the findings found by Gouveia et al. (2022). These authors found that successful teams in Portugal were twice as likely to score corners compared to unsuccessful teams. Similarly, in the English Premier League it was found that the six bottom teams finished with a goal shot 7.1% of the corners executed compared to 7.8% efficiency of the top six teams (Strafford, Smith, North, & Stone, 2019). Regarding regulatory aspects, the results of this study demonstrated the existence of significant

differences in the number of yellow cards normalised based on the effective playing time, in favor of the non-qualified teams ($p < .001$; $ES = .67$).

The multivariate analysis has made it possible to identify the indicators and positions that allow predicting the passage or not to the final phase of groups and, therefore, what were the key performance factors in this competition. Specifically, the air challenges won made it possible to increase the chances of qualifying for the next phase. De Jong, Gastin, Angelova, Bruce, and Dwyer (2020) already showed that the number of individual encounters won was a clear determinant of the success of football teams, which can indicate that collective performance can often be subject to individual performance in specific actions.

The indicators related to the effectiveness of set pieces (% efficiency for set piece attacks, free kick attacks with shot and % penalty scored) significantly increased the odds ratio in favor of the qualified teams, appearing as performance predictors. These findings are consistent with previous research that suggests that, although corner kicks (Casal, Maneiro, Ardá, Losada, & Rial, 2015; Casal, et al., 2016) and indirect free kicks (Casal, Maneiro, Ardá, Rial, & Losada, 2014; López, et al., 2018) have a relatively low success rate, they often play a crucial role in the outcomes of matches.

Furthermore, in relation to these indicators, it can be thought that the performance of a team in an international championship can be determined to a large extent by the degree of success in this type of static action, being the effectiveness in set pieces one of the main factors that can determine and differentiate performance among elite football teams. Therefore, currently what can determine the performance in high-level football is not only the collective tactical behavior, which is presupposed very high and similar in all teams, but the individual or partially collective success of a team in the execution or defence of the set pieces.

The OP-MB-LENGTH and OP-HB-CV defensive positioning and the IP-FTP-DLH offensive positioning have also made it possible to predict the passing or not to the next competitive phase. Teams that adopted a more compact defensive formation, limiting the effective playing space available to the opponent, were more likely to qualify for the next phase. The defensive positions OP-MB-LENGTH and OP-HB-CV, as well as the offensive position IP-FTP-DLH, also enabled the prediction of whether the team would progress to the next competitive phase. Teams that maintained a more compact defensive formation, thereby reducing the effective playing space to the opponent, were more likely to qualify for the next phase. On the other hand, a higher defensive line height of the teams when in possession in the final third increased the likelihood of the teams progressing to the next phase.

This is significant, as it may indicate a higher technical-tactical quality of the players in the qualified teams, allowing for the development of ball possessions in smaller spaces in depth, keeping the lines very close together, thereby facilitating pressure after losing possession in the discussed defensive transitions. In this sense, the evidence has previously shown that the best teams have a higher technical performance compared to the bottom teams (Castellano, et al., 2012; Harrop & Nevill, 2014; Winter & Pfeiffer, 2016), in the same way that can be contrasted in the results of our study. Concretely, pass accuracy was higher for the qualified teams (85.6 vs. 82.4) as was average possession time (19.03 vs. 16.24). In contrast, the number of lost balls per minute of effective playing time was lower across the field (2.27 vs. 2.68) and in the rival field (0.51 vs. 0.6363), and the total number of possessions was lower (3.41 vs 3.89), indicating a higher quality in maintaining these possessions. Our results also corroborate those of previous studies indicating that the best teams are characterized by a higher percentage of possession time (Casal, et al., 2017; Hughes & Franks, 2005; Lago-Peñas & Dellal, 2010). Furthermore, by keeping the lines very close together and close to the rival goal, it allows greater effectiveness when making defensive transitions, being in numerical equality and drastically reducing the effective playing space to the rival team.

Finally, the number of yellow cards significantly influenced the proposed regression model, with a multivariate effect that decreased the odds ratio in favor of the qualified teams as the number of yellow cards increased. These findings are consistent with those of Fernández-Cortés, Gomez-Ruano, Mancha-Triguero, Ibáñez, and García-Rubio (2023) and Casal et al. (2021b) who observed that the number of cards received per match was higher in the bottom teams or in those who lost or tied their matches compared to the best teams or who were winners. Therefore, this seems to indicate that the best teams incur fewer anti-regulatory sanctions susceptible to reprimand, although it is true that the effective playing time in possession of the ball was greater for the qualified teams (30.57 ± 8.54 minutes vs. 26.37 ± 6.16) thus making them less predisposed to commit this type of actions.

This research study had some limitations that should be mentioned. First of all, while the FIFA World Cup is considered to be the most important competition at the national team level, the fact that the results obtained refer to a single edition means a reduction in the extrapolation of these results. In addition, during the development of a championship such as the one analysed, there may be various circumstances that allow different teams to advance through the eliminations due to random effects or specific actions. This fact can be a bias in the data analysed, being influenced to a large extent by the

play models of those national teams that played more matches. Regarding the practical applications of this study, we have been able to identify tactical behaviors and positioning patterns that have made the difference between high-performing and low-performing teams, taking into account the effective playing time. This information can be highly valuable for coaches as it provides them with useful insights for designing training tasks aimed at replicating these behaviors. Additionally, it can have a strategic impact when selecting playing styles for teams.

In conclusion, we have been able to verify how we have obtained significant differences in 33 indi-

cators out of the 137 analysed and of these, 12 indicators allowed us to differentiate, at a multivariate level, the performance between the qualified and non-qualified teams. This data shows the enormous equality that currently exists in high-level football where the effectiveness of set pieces can make the difference between the teams. The qualified teams were characterized by making longer possessions in the areas near the rival's goal, in very small playing spaces, keeping the lines very close together and with the defensive line very far ahead. These teams also made rapid defensive transitions, pushing and quickly reducing the playing space of rival teams as soon as they lost possession of the ball.

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Appendix 1. Operational definitions of the variables analysed.

VARIABLE	OPERATIONAL DEFINITION
Goals	A shot on target that leads to a ball fully crossing the goal line.
Chances	A goal-scoring opportunity, when the attacking team gets a clear-cut chance to score a goal.
Chances successful	A goal-scoring opportunity that was converted into a goal; may not be equal to the number of goals, as some goals are own goals or rebounds happened during ball possession transition.
Chances successful %	Percentage share of chances successful in the total number of chances. This parameter is generated automatically.
Fouls	Action that impedes the progress and success of the opposing team and obtaining an advantage by breaking the rules of the game.
Yellow cards	A cautionary directive illustrated by a yellow card from the referee for a moderate to serious foul or penalty.
Red cards	An expulsion from the field for the most serious of fouls such as violent contact. blatant breaking of rules to avoid an opponent goal or a second yellow card.
Offsides	A player is in an offside position if: any part of the head, body or feet is in the opponents' half (excluding the halfway line) and any part of the head, body or feet is nearer to the opponents' goal line than both the ball or the second-last opponent.
Corners	Awarded after a ball being sent across the sideline of the own half of the field by a defending team player.
Corner attacks with shots	A corner finished with a shot.
Efficiency corner. %	Percentage of corners finished with a shot.
Total actions	Total number of all types of passes (including crosses and set pieces passes), challenges, interceptions, picking up free balls, dribbling, bad ball controls and all kinds of shots (including goals), shots saved and goals conceded. Fouls are not included in total actions.
Successful actions	Successfully completed actions out of total actions.
Successful actions %	Percentage share of successfully completed actions in total actions.
Shots	Total number of all shots made during the course of a game; includes shots on target, shots wide, blocked shots and shots on post / bar.
Shots on target	Shots going inside the goal, might end in a goal or be deflected by the goalkeeper or by a field player from the GK zone.
Shots on target. %	Percentage share of shots on target in the total number of shots.
Passes	An attempt to transfer a ball from one teammate to another with the purpose of attack build-up or keeping the possession.
Accurate passes perc	Percentage share of accurate passes in the total number of passes.
Key passes	A pass to a partner who is in a goal scoring position (one-on-one situation, empty net etc.) or a pass to a partner that "cuts off" the whole defensive line of the opponent's team (3 and more players) in the attacking phase.
Key passes accurate	Successful attempt of a key pass, when a teammate touches a ball; if a challenge was registered after a key pass, this pass is still considered as a "key pass accurate".
Crosses	A pass into the box from the flanks in the opponent's half of the field; strong and directed pass. It can be performed both in the air and on the ground, and it cannot be an action performed from a set piece.
Accurate crosses %	Percentage share of successful crosses in the total number of crosses.
Challenges	The summary type of a parameter, includes duels for the neutral balls, air duels for the neutral balls, dribbles, tackles and losing the ball during opponent tackling attempts; the total amount of attacking and defensive challenges.
Challenges won	Successful challenge is registered for a player of a team that keeps possession of a ball after such challenge; lost challenge is simultaneously registered for a player's opponent.
Challenges won. %	Percentage share of challenges won in the total number of challenges.
Defensive challenges	Challenges involving a player of the team that does not currently possess the ball; the number of defensive challenges of the team is always equal to the number of attacking challenges of their opponents.
Defensive challenges won	Successful attempts of defensive challenges that lead to a touch made by own team player.
Challenges in defence won. %	Percentage share of defensive challenges won in the total number of challenges.
Attacking challenges	Challenges involving a player of the team that currently possesses the ball.

Attacking challenges won	Successful attempts of attacking challenges that lead to the ball remaining in possession of own team.
Attacking challenges won. %	Percentage share of attacking challenges won in the total number of challenges.
Air challenges	Two players of the opposing teams challenging for the ball in the air, at least above shoulder height, the rivals play or try to play with their heads.
Air challenges won	Successful attempt of air challenge that leads to a touch made by own team player.
Air challenges won. %	Percentage share of air challenges won in the total number of air challenges.
Dribbles	Is an active action performed by a player in order to get through an opponent; can be performed as a trick or fake movement, as a ball poked at speed, no-touch ball etc
Dribbles successful	Successful attempt of a dribble. as a result a player committing a dribble always keeps the ball and improves his position, leaving the opponent behind.
Successful dribbles. %	Percentage share of successful dribbles in the total number of dribbles.
Tackles	This parameter is registered automatically for own team player in case an opponent is making a dribbling attempt; successful or unsuccessful tackle depends on the success of a dribble.
Tackles successful	Successful attempt of a tackle, as a result an opponent's player loses the ball while performing a dribble.
Tackles successful. %	Percentage share of successful tackles in the total number of tackles.
Ball interceptions	Player's active, targeted and successful action to either prevent a potentially accurate pass or to change the ball trajectory.
Free ball pickups	Recovering a neutral ball after an opponent lost it.
Lost balls	It is registered when a player loses the ball by a poor trapping of the ball, errant pass, unsuccessful attempt to shoot or an unsuccessful dribble.
Lost balls own half	Lost balls occurred in team's own half of the pitch.
Ball recoveries	First player's action in a team's ball possession after the team started possessing the ball, except for the cases when Ball Possession starts from a set piece (including a throw-in).
Ball recoveries opponents half	Ball recoveries occurred in team's opponent's half of the pitch.
Total duration of ball possession	Sum of all time periods between the start of possession to the moment of transition, from the moment of transition to the moment of the next transition, from the moment of transition to the end of possession, as well as from the start to the end of possession in those cases when there was no moment of transition, e.g., if a ball went out.
Ball possessions (quantity)	Total number of periods of play from the start to the end of possession, even if the moment of transition was not registered.
Avg. duration ball possessions	Average period of time in which a team possessed a ball during the course of a match. It is calculated as the total duration of ball possession divided by the quantity of ball possessions.
Entrances opponents half	Number of team possessions during which at least one entrance into the opponent's half was made. Entrance is counted in as a result of one of the following actions: pass, challenge, tackle, dribble, ball recovery, ball loss, foul, YC, RC, all kinds of shots, interception, free ball pick up, GK interception, cross.
Entrances final third	Number of team possessions during which at least one entrance into the opponent's final third was made.
Entrances opponents box	Number of team possessions during which at least one entrance into the opponent's penalty box was made.
Positional attacks	All attacks from the open play that do not fit into counter attacks.
Positional attacks with shots	Positional attacks included at least one shot of any type from the attacking side.
Efficiency positional attacks	Percentage share of positional attacks with a shot in the total number of positional attacks.
Counterattacks	Attack from the open play that starts with winning the ball from a defensive position and then quickly transitioning to offense while the prior attacking team is caught in an offensive formation; the length of possession during the attack cannot exceed 8 seconds before the possession transition or end; alternatively the length of possession can last between 8 and 30 sec., but the speed of attack cannot be less than 2.6 m/s. A counterattack cannot begin with a pass from a goalkeeper if he controlled the ball for more than 4 seconds before the action.
Counterattacks with shot	Counter-attacks that included at least one shot of any type from the attacking side.
Efficiency counter attacks	Percentage share of counter-attacks with a shot in the total number of counter-attacks.
Set pieces attacks	Total number of free-kick attacks, corner attacks. throw-in attacks and penalties.
Set piece with shot	Set-piece attacks that included at least one shot of any type from the attacking side.

Efficiency set piece attack	Percentage share of set-piece attacks with a shot in the total number of counter-attacks.
Attacks left flank	Attacks occurred on the width of 20 meters from the left sideline, whole length of the sideline is considered; the attack is determined by the last action of an attack which isn't a shot or a goal and which didn't occur inside the penalty area.
Attacks shots left flank	Left-side attacks that included at least one shot of any type from the attacking side.
Efficiency attacks left flank	Percentage share of left-side attacks with shots in the total number of left-side attacks.
Attacks center	Attacks occurred between the space of left-side and right-side attacks, or central zone; the attack is determined by the last action of an attack which isn't a shot or a goal and which didn't occur inside the penalty area; determined for positional attacks and counter-attacks only.
Attacks with shots center	Central zone attacks included at least one shot of any type from the attacking side.
Efficiency attacks central zone	Percentage share of central zone attacks with shots in the total number of central zone attacks.
Attacks right flank	Attacks occurred on the width of 20 meters from the right sideline, whole length of the sideline is considered; the attack is determined by the last action of an attack which isn't a shot or a goal and which didn't occur inside the penalty area; determined for positional attacks and counter-attacks only.
Attacks with shots right flank	Right-side attacks included at least one shot of any type from the attacking side.
Efficiency attacks right flank	Percentage share of right-side attacks with shots in the total number of right-side attacks.

Appendix 2. Results of the analysed variables.

	TOTAL n=128	QUALIFIED n=79	NON-QUALIFIED n=49	p [ES]
OP-HB-CV	1489.78±111.34	1455.86±96.99	1544.48±112.08	<.001 [.80]
Norm free ball pick ups	1.94±.54	1.80±.51	2.17±.52	<.001 [.69]
Norm yellow cards	0.06±.067	0.051±.056	0.0967±.075	<.001 [.67]
Accurate passes. %	84.39±4.77	85.60±4.43	82.44±4.71	<.001 [.66]
OP-HB-WIDTH	40.60±2.08	40.10±2.04	41.40±1.92	<.001 [.62]
OP-MB-CV	1079.85±119.54	1052.49±99.67	1123.98±135.82	<.005 [.60]
Average possession time	17.96±4.87	19.03±5.32	16.24±3.44	<.001 [.57]
Norm lost balls	2.42±.75	2.27±.73	2.68±.72	<.005 [.56]
Effective playing time (min.)	28.95±7.95	30.57±8.54	26.37±6.16	<.005 [.53]
OP-HB-LENGTH	36.68±1.91	36.30±1.57	37.30±2.26	<.005 [.52]
Norm ball possessions. quantity	3.59±.93	3.41±.94	3.89±.83	<.001 [.51]
Norm free kick attacks	0.10±.07	0.09±.06	0.12±.078	<.005 [.50]
Norm defensive challenges won	1.53±.56	1.43±.55	1.69±.54	<.05 [.46]
Norm challenges	5.73±1.78	5.43±1.75	6.23±1.73	<.05 [.44]
Norm challenges won	2.85±.88	2.70±.890	3.09±.831	<.05 [.44]
OP-MB-LENGTH	26.91±2.62	26.47±2.22	27.63±3.07	<.05 [.44]
Norm opponent's xG	0.05±.04	0.05±.04	0.069±.06	<.05 [.43]
Norm attacks left flank	0.93±.24	0.8930±.24	0.997±.23107	<.05 [.43]
Norm attacks – center flank	0.72±.23	0.69±.20	0.79±.25	<.05 [.43]
Norm counterattacks	0.44±.22	0.40±.21	0.50±.24	<.05 [.43]
Norm defensive challenges	2.90±1.08	2.73±1.04	3.19±1.11	<.05 [.42]
Norm attacking challenges	2.82±.81	2.69±.80	3.03±.78	<.05 [.42]
Norm entrances to the opposition half	2.00±.39	1.93±.36	2.10±.43	<.05 [.42]
OP-MB-WIDTH	40.18±2.17	39.78±2.05	40.69±2.26	<.05 [.42]
Norm total actions	29.63±3.26	29.12±3.32	30.46±3.03	<.05 [.41]
Norm penalties	0.01±0.03	0.02±0.046	0.005±0.015	<.05 [.41]
Norm lost balls in the own half	0.55±.31	0.51±.31	0.63±.31	<.05 [.40]
Norm set pieces	0.29±.12	0.27±.11	0.32±.13	<.05 [.39]
% efficiency for free kick attacks	31.98±34.64	37.13±36.27	23.67±30.38	<.05 [.39]
Norm penalties scored	0.01±.02	0.0149±.034	0.003±.013	<.05 [.39]
IP-FTP-CV	1593.89±112.09	1576.95±104.11	1621.22±119.98	<.05 [.39]
IP-FTP-LENGTH	36.19±2.24	35.89±2.41	36.67±1.89	<.05 [.34]
% of efficiency for set piece attacks	23.33±21.64	33.15±20.77	24.46±15.04	<.05 [.20]
Norm goals	0.047±.044	0.0397±.045	0.056±.050	>.05
Norm chances	0.201±.081	0.190±.113	0.212±.108	>.05
Norm chances successful	23.262±1.664	23.132±1.859	23.392±1.469	>.05
Norm fouls	0.369±.168	0.376±.145	0.361±.193	>.05
Norm red cards	0.002±.005	0.001±.008	0.002±.008	>.05
Norm offsides	0.074±.073	0.065±.064	0.083±.083	>.05
Norm corners	0.152±.091	0.154±.088	0.149±.094	>.05
Norm successful action	29.794±2.679	30.463±3.036	29.124±3.321	>.05
Norm shots	.369±.168	.376±.145	.361±.193	>.05
Norm shots on target	0.143±0.091	0.154±0.092	0.132±0.089	>.05
Norm shots off target	0.130±0.080	0.126±0.072	0.134±0.088	>.05
Norm shots blocked	0.086±0.078	0.089±0.063	0.083±0.093	>.05
Norm passes	18.357±.128	18.418±1.123	18.2961.134	>.05

Norm key passes	0.246±0.152	0.251±0.147	0.241±0.154	>.05
Norm accurate key passes	0.121±0.095	0.124±0.094	0.118±0.096	>.05
Norm crosses	0.409±0.167	0.385±0.160	0.434±0.176	>.05
Norm accurate crosses	0.118±0.077	0.120±0.079	0.116±0.074	>.05
Norm challenges won %*	49.992±4.682	50.025±4.804	49.959±4.560	>.05
Norm defensive challenges	2.964±1.088	2.734±1.044	3.193±1.112	>.05
Norm defensive challenges won	1.561±.549	1.430±.555	1.692±.543	>.05
Norm defensive challenges won %*	53.230±6.807	52.848±6.974	53.612±6.689	>.05
Norm attacking challenges won	1.339±.409	1.404±.420	1.275±.431	>.05
Norm air challenges	1.465±.544	1.364±.617	1.566±.471	>.05
Norm air challenges won	0.730±0.294	0.689±0.338	0.770±0.250	>.05
Norm dribbles	0.963±0.338	0.917±0.325	10.009±0.329	>.05
Norm dribbles successful	0.575±0.220	0.551±0.209	0.599±0.232	>.05
Norm dribbles successful %*	59.660±10.02	59.911±10.115	59.408±10.94	>.05
Norm tackles	1.292±.599	1.204±.575	1.380±.623	>.05
Norm tackles successful	0.662±0.293	0.618±0.295	0.706±0.292	>.05
Tackles successful %*	52.722±10.93	52.506±10.36	52.939±11.50	>.05
Norm ball interceptions	1.915±.844	1.789±.940	2.041±.708	>.05
Norm xG	0.049±0.03	0.052±0.031	0.047±0.032	>.05
Norm opponent's xG	0.059±0.048	0.049±0.041	0.069±0.056	>.05
Norm Net xG	0.041±0.041	0.034±0.034	0.048±0.048	>.05
Norm xPoints	0.042±0.031	0.047±0.031	0.038±0.030	>.05
Norm xGConversion	0.046±0.076	0.046±0.064	0.045±0.088	>.05
Norm xGperShot	0.005±0.003	0.005±0.003	0.005±0.003	>.05
Norm xGperGoal	0.022±0.023	0.024±0.022	0.020±0.025	>.05
Norm Entrances to final third	1.278±.325	1.255±.280	1.301±.369	>.05
Norm Entrances to penalty box	0.468±0.175	0.469±0.152	0.466±0.198	>.05
Norm Team pressing	0.725±0.368	0.672±0.302	0.777±0.425	>.05
Norm Team pressing successful	0.294±0.147	0.269±0.118	0.319±0.176	>.05
Pressing efficiency (%)	42.227±15.41	42.215±15.68	42.24±14.94	>.05
Norm Building-ups	1.324±.287	1.288±.256	1.361±.273	>.05
Norm Building-ups without pressing	0.625±0.172	0.625±0.168	.625±.176	>.05
Norm High pressing	0.335±0.195	0.307±0.167	.363±.223	>.05
Norm High pressing successful	0.157±0.108	0.146±0.091	.167±.124	>.05
High pressing (%)	46.716±19.05	48.392±18.18	45.041±21.93	>.05
Norm Low pressing	0.390±0.210	0.365±0.174	0.414±0.247	>.05
Norm Low pressing successful	0.138±0.079	0.124±0.075	0.152±0.083	>.05
Low pressing successful (%)	37.802±18.65	36.114±21.03	39.490±18.21	>.05
Norm Positional attacks	2.169±.344	2.109±.386	2.229±.383	>.05
Norm Positional Attacks with shots	0.186±0.095	0.197±0.088	0.175±0.103	>.05
Positional attacks efficiency (%)	8.817±4.662	9.633±4.374	8.000±4.950	>.05
Norm Counterattacks with shots	0.071±0.072	0.063±0.059	0.078±0.085	>.05
Counterattacks efficiency (%)	14.825±11.32	15.570±14.70	13.347±10.69	>.05
Norm Set pieces attacks with shots	0.084±0.061	0.088±0.058	0.080±0.065	>.05
Norm Attacks through left flank with shots	0.946±0.237	0.893±0.243	0.998±0.231	>.05
Norm Efficiency of Attacks through left flank (%)	9.175±6.608	10.127±6.955	8.224±6.440	>.05
Norm Attacks through center flank with shots	0.090±0.063	0.086±0.053	0.093±0.073	>.05

Efficiency in attacks through center flank (%)	12.262±8.30	12.810±7.76	11.714±8.83	>.05
Norm Attacks through right flank	0.939±0.287	0.932±0.281	0.945±0.292	>.05
Norm Attacks through right flank with shots	0.077±0.062	0.081±0.062	0.073±0.062	>.05
Efficiency in attacks through right flank (%)	8.452±6.410	9.025±6.316	7.878±6.350	>.05
Norm Throw in attacks	0.033±0.054	0.024±0.050	0.042±0.057	>.05
Norm Throw in attacks with shots	0.004±0.012	0.003±0.010	0.005±0.015	>.05
% efficiency for throw in attacks*	5.483±19.458	5.190±20.11	5.776±18.79	>.05
Norm Free kick shots	0.014±0.024	0.014±0.022	0.013±0.026	>.05
Norm Goals Free-kick attack	0.001±0.004	0.000±0.003	0.001±0.005	>.05
Building up defensive line height (IP-BU-DLH)	19.595±1.877	19.48±2.36	19.71±2.01	>.05
Building up width (IP-BU-WIDTH)	54.085±3.163	53.93±2.98	54.24±3.38	>.05
Building up length (IP-BU-LENGTH)	39.228±1.690	39.316±1.75	39.14±1.82	>.05
Building up area (m2) (IP-BU-CV)	2122.955±168.50	2122.12±166.96	2123.79±172.0	>.05
Progression Phase defensive line height (IP-PP-DLH)	40.305±2.872	40.35±3.215	40.26±2.53	>.05
Progression Phase width (IP-PP-WIDTH)	55.270±2.625	55.44±2.314	55.1±2.93	>.05
Progression Phase length (IP-PP-LENGTH)	32.000±2.198	32.92±2.129	33.08±1.73	>.05
Progression Phase area (m2) (IP-PP-CV)	1823.885±134.52	1823.65±118.034	1824.12±150.02	>.05
Final third phase defensive line height (IP-FTP-DLH)	53.185±2.404	53.48±2.630	52.89±2.18	>.05
Final third phase width (IP-FTP-WIDTH)	44.110±2.520	44.00±2.418	44.22±2.62	>.05
Low block Defensive Line Height (OP-LB-DLH)	17.740±2.476	17.81±2.282	17.67±2.67	>.05
Low block width (OP-LB-WIDTH)	35.755±2.107	35.60±2.103	35.91±2.11	>.05
Low block length (OP-LB-LENGTH)	27.970±3.802	27.50±24.869	26.44±3.736	>.05
Low block area (m2) (OP-LB-CV)	963.805±724.978	978.81±896.524	948.79±137.42	>.05
Middle block defensive line height (OP-MD-DLH)	37.573±1.710	37.456±1.38	37.69±1.98	>.05
High block defensive line height (OP-HB-DLH)	47.723±1.748	48.025±2.08	47.42±1.56	>.05