

Original Article

The Frequency of Technical and Tactical Offensive Actions of Elite Serbian Handball Teams

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Abstract

The goal of this research is to determine the modal characteristics of technical and tactical actions in handball offense. The subject sample consists of elite Serbian national handball teams. The observed variables are selected based on the unique criteria that characterizes the conclusion of the offensive actions, both in situations when there is an equal and unequal number of players on the field. The results confirm that all analysed actions are not equally represented in play of the observed teams and that there are multiple factors that contribute to the final team standing. The data shows that the defining characteristic and the highest offensive efficiency of the best teams was achieved by using counterattacks, which is to be expected given the fast pace of the modern handball.

1. Introduction

Modern sport is characterized by the variety of technical and tactical actions. Actions utilised in a given sport are primarily dependent on the competition rules, players physical and mental attributes of players, as well as motor abilities (Malacko & Stanković, 2011; Karcher & Buchheit, 2014; Ilić, 2015). Handball is a sport with a wide variety and complexity of technical and tactical actions. These can be offensive or defensive, individual, group or team plays (Tomljanović & Malić, 1982). The analysis of the actions efficiency in modern handball is of vital importance for the team's success (Belčić & Sporiš, 2012). The wide variety of offensive actions in particular has been the subject of many studies. Some had the goal to analyse the efficiency of attacking actions based on the player position when shooting (Costa et al., 2015) and others the efficiency and frequency of

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individual, group or team offensive plays (Srhoj, Rogulj, & Katić, 2001). The goal of this research is to determine the modal characteristics of technical and tactical actions in handball offense.

2. Material and methods

For this research, the subject sample has taken into the account all 12 handball teams that compete in Serbia's top competition - Serbian Super League. The players of the observed teams are male, senior professional registered players who actively compete in the season 2018/2019. No further restrictions were made to the selection of the sample of subjects. In order to determine the frequency of the selected teams technical-tactical actions (TE-TA), the following variables were taken into the account: shots made from the position of pivot, shots made from the position of wings, shots made from the position of backs, shots made from the penalties, and shots made from the individual player actions. These variables are selected based on the unique criteria that characterizes the conclusion of the offensive actions, both in situations when there is an equal and unequal number of players on the field. Data was collected by analysing videos of games played in 2018/2019 season. The observed TE-TA were analysed using graphical and statistical descriptive and frequency methods in order to determine how often they occur in the offensive play for each of the selected teams. Microsoft Excel 2016 was used for all calculations and graphical representations of the data in this research.

3. Results and Discussions

After collecting and analysing the data, the overall results are shown in the table 1. The results confirm the expected positive trend, where the top teams were more efficient and had more successful attempts on goal in comparison to the teams that finished in the lower end of the season 2018/2019 table.

Table 1. Frequency of offensive actions of teams

Standing	Team	PVT	WNG	BCK	PEN	CAN	INA	Total
1.	Dinamo	62	44	40	35	67	31	279
2.	Metaloplastika	78	30	68	22	82	20	300
3.	Novi Pazar	68	44	65	32	36	25	270
4.	Partizan	79	31	34	18	42	23	227
5.	Šamot 65	37	39	58	51	54	38	277
6.	Crvena Zvezda	47	35	60	30	31	36	239
7.	Spartak Vojput	56	30	42	28	47	24	227
8.	Kikinda	65	34	60	28	37	31	255
9.	Mokra Gora	73	23	19	20	64	12	211
10.	Obilić	59	22	17	14	23	5	140
11.	Rudar	39	24	53	11	17	25	169
12.	Sloga	34	40	31	15	22	27	169
	Total	697	396	547	304	522	297	2763

Legend: PIV – pivot, WNG – wings, BCK – backs, PEN – penalty, CAN - Counter-attack, INA - Individual actions.

In order to gain a better understanding of the the data, the graphical analysis of each of the observed offensive team actions frequencies, as well as total action occurrence, was presented in the charts 1-7.

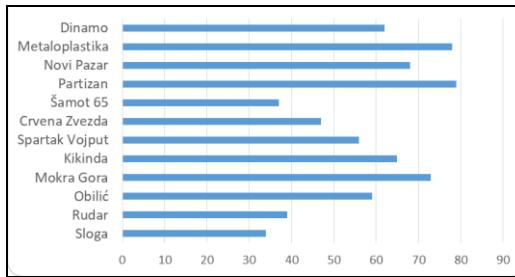


Figure 1. Shots from the pivot position

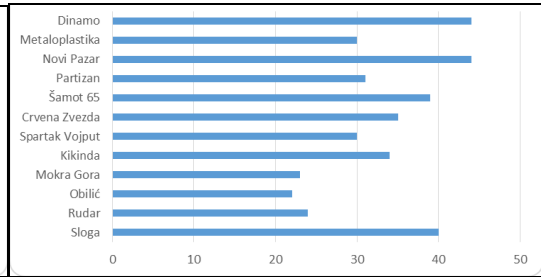


Figure 2. Shots from the wings position

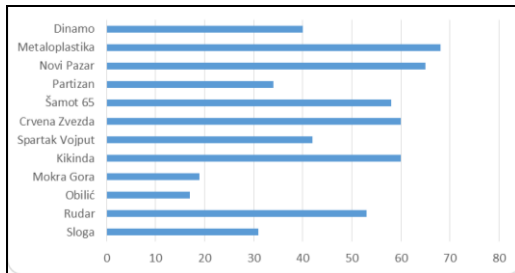


Figure 3. Shots from the backs position

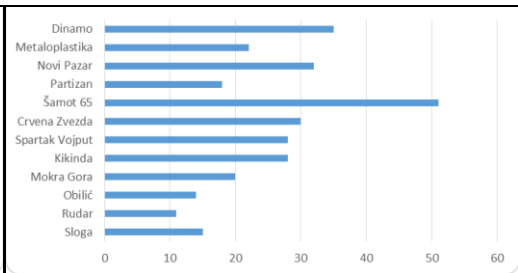


Figure 4. Penalty shots

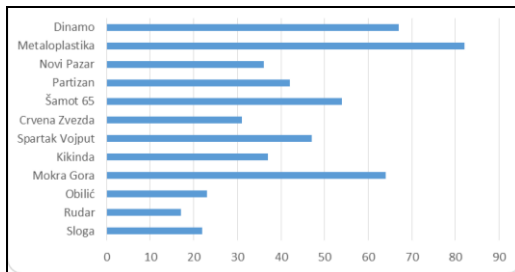


Figure 5. Shots from the counter-attack

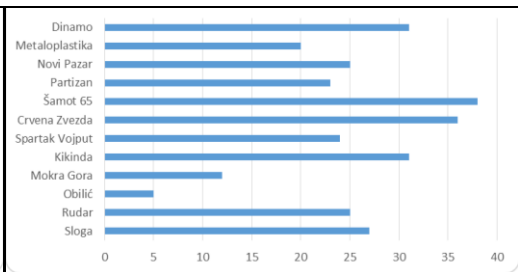


Figure 6. Individual actions shots

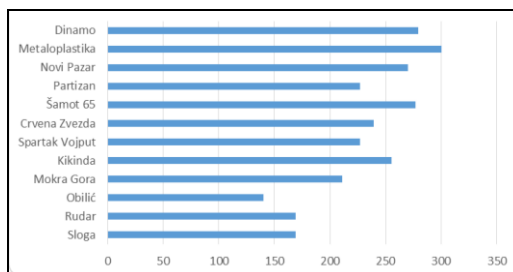


Figure 7. Total

Based on the results gained from descriptive statistical and graphical analysis, we can deduce that the better positioned teams had better overall offensive parameters. Some deductions on tactical play of the observed teams could be extracted from the data. We can observe that the top team, Dinamo, based their play on individual attacking actions of players and shots from the wings (charts 2 and 6). In comparison, second placed Metaloplastika relied more on shots from backs and pivot, meaning they had more quality in those positions (charts 1 and 3). The most significant category is the number of counter-attacks (chart 3). The team that was third in the final standings, Novi Pazar, had top parameters in all offensive actions except in the counter-attack category. In comparison, the top two teams had significantly higher number of counter-attacks. We can conclude that the dynamics of modern handball and high intensity of the game puts fast counterattacks, which facilitate scoring goals much more easier compared to positional attacks, as the most important aspect of the offensive technical-tactical play in handball. Given that in order to have good counterattacking play in handball teams have to have strong defences, this can also indicate that the top two teams in this research probably had better defences as well. These conclusions are similar as those in the research conducted by Rogulj, Srhoj, & Srhoj (2004) on the teams competing in First Croatian Handball League for men. After analysing 90 games, the results showed that top teams were clearly characterized by quick attacks, whereas the slow attacks were the characteristics of the teams from the lower end of the table. These conclusions are further confirmed in the 2011 research by Rogulj, Vuleta, Milanović, Čavala, & Foretić, in which they conclude that although the number of group and collective offensive actions is more frequent, it is less efficient in comparison to individual actions and counterattacks. In the paper by Srhoj et al. (2001) analysed the results of 80 matches from 1999 Men's World Handball Championship in Egypt. It's concluded that the most efficient offensive actions in the tournament, and especially the final match, were individual actions by the break-throughs and from the counterattacks. The research conducted by Vuleta, Sporiš, Purgar, Herceg, & Milanović (2012) of the attacking action efficiency of the teams that participated in the final men's tournament in the Olympic Games in Peking 2008 also emphasises the pivotal importance of counterattacks, as the leading success factor in modern handball. Conclusions in above-mentioned researches is in accordance with the conclusions made in this research.

4. Conclusions

Handball is a sport with plethora of intertwined technical and tactical actions. There has been many conducted studies in order to determine which of these parameters are crucial for success. The results gained from this research indicate that the handball is a complex sport with different styles of play which rely on different technical-tactical abilities, but that the fast pace of modern game puts a high importance on counterattacks. It can be concluded that this is the defining characteristic of the best teams that compete in top competition in Serbia. The goal

of future research is to include the data from defensive actions, as well as to analyse teams from other top leagues in Europe.

References

1. BELČIĆ, I., & SPORIŠ, G. (2012). Differences between parameters of situational efficiency according to level of competition in Croatian handball leagues (case study). *Acta kinesiologica*, 6 (1), 39-44.
2. COSTA, G.D.C.T., PEDROSA, G.F., SOUZA, N.P.D., GEMENTE, F.R.F., FREIRE, A.B., & CASTRO, H.D.O. (2017). Type of game practiced in handball according to the positions of the attackers: analysis of the Women's World Handball Championship 2015. *International Journal of Performance Analysis in Sport*, 17 (3), 360-373.
3. ILIĆ, I. (2015). Structures and differences of the cognitive abilities of top handball, volleyball, basketball and soccer players. *Facta Universitatis, Series: Physical Education and Sport*, 13 (3), 403-410.
4. KARCHER, C., & BUCHHEIT, M. (2014). On-court demands of elite handball, with special reference to playing positions. *Sports medicine*, 44 (6), 797-814.
5. MALACKO, J., & STANKOVIĆ, V. (2011). Interaction of motor and cognitive abilities of elite handball players. *Sport Science*, 4 (2), 65-69.
6. ROGULJ, N., SRHOJ, V., & SRHOJ, L. (2004). The contribution of collective attack tactics in differentiating handball score efficiency. *Collegium antropologicum*, 28 (2), 739-746.
7. ROGULJ, N., VULETA, D., MILANOVIĆ, D., ČAVALA, M., & FORETIĆ, N. (2011). The efficiency of elements of collective attack tactics in handball. *Kinesiologia Slovenica*, 17 (1), 5-14.
8. SRHOJ, V., ROGULJ, N., & KATIĆ, R. (2001). Influence of the attack end conduction on match result in handball. *Collegium antropologicum*, 25 (2), 611-617.
9. TOMLJANOVIĆ, V., & MALIĆ, Z. (1982). *Rukomet - teorija i praksa [Handball - Theory and Practice]*. Zagreb: Sportska tribina.
10. VULETA, D., SPORIŠ, G., PURGAR, B., HERCEG, Z., & MILANOVIĆ, Z. (2012). Influence of attacking efficiency on the outcome of handball matches in the preliminary round of men's Olympic games 2008. *Sport science*, 5 (2), 7-12.



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