

Offensive Strategy of Daejeon Jungkwanjang Red Sparks: A Tactical Study in the 2023–2024 V-League Season

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ABSTRACT

This study aims to analyze the attacking strategy employed by the Daejeon JungKwanJang Red Sparks professional volleyball team in the 2023/2024 South Korean V-League competition. The analysis focused on nine key indicators of attack. This study used a quantitative approach with an analytic descriptive design. The instrument used for the match analysis is Kinovea 0.9.5. The results showed that the Red Sparks team's attacking strategy relied heavily on the contributions of the two leading players. Giovanna dominated in the open attack aspect with 194 attacks and jump serve 99 times, while Megawati excelled in back attack 122 times and 3-meter attack 93 times. Meanwhile, other players such as Park Hye-min, So Young Lee, and Se-in Kim played a role in supporting the variety of attacks through float serves and attack blocks. The findings confirm that Red Sparks' success in reaching third place in the league is not only due to the players' physical and technical abilities, but also to the implementation of innovative, flexible, and contextual attacking strategies. This research is expected to serve as a reference for coaches, players, and academics in understanding the dynamics of attacking strategies at the professional level, as well as in developing more effective tactical approaches in modern volleyball games.

ARTICLE HISTORY

Received: 2025/10/14

Accepted: 2025/10/19

Published: 2025/10/25

KEYWORDS

Match analysis;
Attack Strategy;
Volleyball;
V-League;
Red Sparks.

AUTHORS' CONTRIBUTION

A. Conception and design of the study;
B. Acquisition of data;
C. Analysis and interpretation of data;
D. Manuscript preparation;
E. Obtaining funding

Cites this Article : Wardhana, Agil Kusuma; Irawan, Fajar Awang. (2025). Offensive Strategy of Daejeon Jungkwanjang Red Sparks: A Tactical Study in the 2023-2024 V-League Season. **Competitor: Jurnal Pendidikan Kepeleatihan Olahraga**. 17(3), p.2741-2749

INTRODUCTION

Sport is a structured and planned physical activity that not only aims to improve health but also develops character, fosters discipline, and serves as a means to achieve success (Rian Andriansyah et al., 2025; Amri et al., 2024). Sports activities have become an increasingly important part of people's lives, in both rural and urban areas, affecting individuals from children to adults. Through exercise, a person can enhance their physical fitness, allowing them to perform daily activities without experiencing excessive fatigue (Oktiani, 2017). In the context of human life, movement is a fundamental aspect of existence; enhancing the quality of movement means enhancing the quality of life. Therefore, sports play an important role in maintaining, training, and

developing human movement abilities to achieve an optimal physical condition (Prasastono & M. H. Holili, 2023).

In Indonesia, public participation in sports activities has shown a significant increase, one of which is the sport of Volleyball (Handhin et al, 2019). This is influenced by awareness of the importance of maintaining physical fitness and government support for sports development. Volleyball is a game played by two teams, each consisting of six players (Bumburo et al., 2023). The purpose of volleyball is to drop the ball into the opponent's area by passing the ball over the net and bouncing it, which is valid or in accordance with the rules (Kuncoro, 2021). In the game of volleyball, there are basic techniques, including serving, passing, blocking, and spiking (Yusup Jamil et al., 2022). A good mastery of the serve will certainly help thwart an attack that the opponent has designed as part of their strategy to win a match (Abdillah & Awang, 2023). Volleyball players are not just entertainment and leisure time fillers, but are also sought after for their achievements. This is evidenced by the many championships that are engaged in the realm of volleyball, such as the Regional Student Sports Week, Regional Championships, National Championships, Livoli, and Proliga. Success in a volleyball game is not only determined by individual skills, but also by the team's understanding of the game strategy.

In volleyball games, strategy plays an important role as the key to success. Strategy includes a tactical approach that is compiled based on an analysis of game conditions, opponent's abilities, and the potential of each player. Strategy in sports involves the application of game patterns, making quick decisions, and effectively managing team resources to achieve maximum results (Ichsanudin & Gumantan, 2020). In general, volleyball strategies are categorized into two main areas: attacking strategies and defensive strategies. The attacking strategy focuses on active efforts to generate points through effective serve and smash techniques. In contrast, the defensive strategy focuses on anticipating the opponent's attack through effective receiving and blocking. Both require solid team coordination and a deep understanding of the game situation. The right strategy, when applied effectively, allows the team to control the flow of the match, maximize the potential of its players, and exploit the opponent's weaknesses as opportunities to score points (Ngatifah & Irawan, 2024).

Volleyball is a very popular sport internationally, including in South Korea, where a professional league called the V-League features men's and women's volleyball teams with a high level of competition. One of the prominent teams in the league is the Daejeon JungKwanJang Red Sparks, a professional club established in 1988. The club officially became a professional team in 2005 and has changed its name several times, finally adopting the name Daejeon JungKwanJang Red Sparks as of the 2023/2024 season. The team gained more recognition after recruiting Megawati Hangestri Pertiwi, a volleyball player from Indonesia, who had previously played for various national and international clubs. Thanks to her impressive performance, Red Sparks managed to rank third and qualify for the play-off semifinals of the Korean Volleyball League for the 2023/2024 season, making it one of the most accomplished and influential teams in the competition.

However, upon observing the replay of the match on the *SportNewsID* channel and the official website *halu.serv00.net*, various technical errors were still evident, including serve and receive errors, off-target spikes, and blocks that failed to withstand the opponent's attacks.

From observations in the V-League Match in the 2023/2024 Season conducted by researchers in 2025 on YouTube rebroadcast media on the *SportNewsID* channel and the official website of the Korean league volleyball match *halu.serv00.net*, it was identified that there were many Red Sparks team errors in attack and defense positions, starting from serving errors, receiving errors, spikes that did not enter, and blocks that could not stem attacks from opponents. This indicates a weakness in the application of strategies that requires further study to provide a comprehensive overview of strategy analysis, identify the causes, and find improvement solutions.

Previous research, conducted by Priambodo et al (2020), focused primarily on comparing tactics between countries in student tournaments, whereas research by Alfais et al (2024) was still limited to validating strategy constructs without conducting field trials. Few studies have specifically analyzed the implementation of attacking strategies in real matches of professional leagues. Therefore, this research has novelty in the context of strategic analysis based on actual match observations involving professional teams and international players.

Based on the background and gap analysis, this study aims to analyze the attacking strategy employed by the Daejeon JungKwanJang Red Sparks volleyball team during the 2023/2024 V-League season. This research is expected to make a scientific contribution to the development of sports science, particularly in the field of volleyball game tactics and strategies, and to provide practical recommendations for coaches and players to enhance the effectiveness of the game at both national and international levels.

METHODS

This study used a quantitative approach with an analytical descriptive design. The data used were sourced from video replays of Daejeon Jungkwanjang Red Sparks Volleyball Team matches in the 2023-2024 season V-League competition. The population in this study consisted of all players on the team, comprising 6 core players and 14 reserve players. Samples were taken using purposive sampling techniques, focusing on recording important matches. The variables studied were attacking strategies (Jump serve, Float serve, Topspin serve, Quick attack, Open attack, Back attack, Soft attack, 3 Meter attack, Attack block). The primary data collection instrument was a match analysis combined with observation, where the data were analyzed in detail using Kinovea software version 0.9.5 to achieve high accuracy. The video analysis application Kinovea is one of the video analysis tools that is commonly used to analyze a valid movement (Rahesti & Irawan, 2024).

The research procedure begins with the observation stage, where the game is observed, followed by the documentation stage, which involves collecting secondary

statistical data. The collected data were then analyzed using descriptive statistical analysis techniques. This technique is used to describe systematically and present team performance data, providing a comprehensive picture of the effectiveness of various attacking strategies employed by the team. Thus, this research aims to provide a comprehensive understanding of the research object, supported by empirical data and structured analysis.

RESULTS AND DISCUSSION

Result

This research aims to analyze the attacking strategies applied by the Daejeon JungKwanJang Red Sparks Volleyball Team in the 2023/2024 V-League Season competition. A total of 8 match videos were analyzed, involving 20 players, including core and reserve players. In this study, 9 attacking indicators were used, namely jump serve, float serve, topspin serve, quick attack, open attack, back attack, soft attack, 3-meter attack, and attack block. Based on the analysis results, the Red Sparks team's attacking strategy exhibits a complex and adaptive approach, tailored to the opponent's playing pattern. The attack analysis is presented in the Table.1

Table 1.
Red Spark Attack Analysis

Attacking Aspect	Results							
	Hyundai	AI Paper	GS Caltex	HI- Pass	IBK Altos	Pink Spider Leg 1	Pink Spider Leg 2	Pink Spider Leg 3
Jump serve	30	24	21	29	13	21	30	15
Float serve	46	63	51	53	30	49	56	23
Topspin serve	0	0	0	0	0	1	0	0
Quick attack	11	23	24	24	18	18	11	3
Open attack	33	42	45	44	27	48	41	41
Back attack	12	14	11	11	12	25	26	20
Soft attack	7	14	8	14	7	10	14	11
3 Meter attack	4	4	12	18	29	46	25	16
Attack block	25	32	29	28	29	17	18	3

Based on the data of the attacking aspects of the Daejeon JungKwanJang Red Sparks team in the eight matches against Hyundai, AI Pepper, GS Caltex, Hi-Pass, IBK Altos, and Pink Spider, it can be seen that the team's attacking patterns tend to rely on float serves as the primary strategy with the highest frequency reaching 63 times against AI Pepper and remaining consistently high in other matches. Open attacks were also a mainstay, with a high average in every match, showing the important role they play in building points from forward attacks. In contrast, topspin serves were hardly used at all, signalling the team's focus on accuracy rather than serving power. The quick attack and back attack patterns were used moderately to add variety in the middle and back attacks. In contrast, the 3-meter attack showed significant improvement, especially against IBK Altos and Pink Spider Leg 1, signalling the effectiveness of the attack from the back line.

On the active defense aspect, attack block also featured quite prominently, with a high of 32 against Al Pepper. Overall, Red Sparks showed a varied attacking tendency but still prioritized float serve and open attack as the main strengths in every match.

Table 2.
 Analysis Results of Red Sparks Attackers in 8 Matches

Attacking Aspect	Results				
	Giovanna Milana	Megawati Hangestri Pertiwi	Park Hye-min	So Young Lee	Se-in Kim
Jump serve	99	80	0	0	0
Float serve	0	0	68	28	3
Topspin serve	0	2	1	0	0
Quick attack	0	0	0	0	0
Open attack	194	36	38	31	10
Back attack	5	122	2	0	0
Soft attack	23	43	2	4	0
3 Meter attack	62	93	0	1	0
Attack block	64	56	11	31	0

Statistical analysis shows different offensive roles among the five players. Giovanna Milana was dominant in open attack (194) and jump serve (99), while Megawati Hangestri Pertiwi excelled in back attack (122) and 3-meter attack (93). On the other hand, Park Hye-min displays a different profile by relying on a float serve (68) as her main weapon and is also quite consistent in open attacks. So Young Lee and Se-in Kim recorded more limited numbers, with Lee still contributing via float serve and attack block, while Kim's contribution was not recorded in this data. This data clearly shows how Milana and Megawati are the offensive backbone of the team with complementary styles.

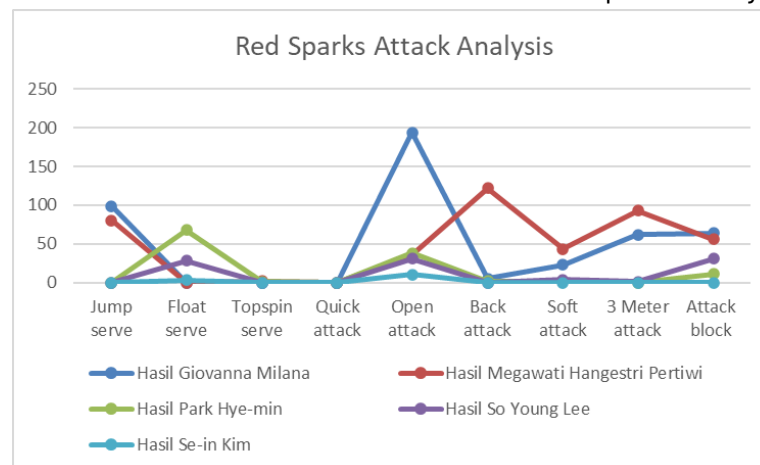


Figure 1.
 Red Sparks Team Attacking Player Statistics

Based on the data of the attacking aspect, we can see different attack distribution patterns among the players. Giovanna Milana excels in open attacks (194) and utilizes the jump serve frequently (99). In contrast, Megawati Hangestri Pertiwi relied more on back attacks (122) and 3-meter attacks (93). Park Hye-min and So Young Lee share a similar profile, with their main attacks being float serve (68 and 28, respectively) and open attack, while Se-in Kim makes the most limited contribution to the attack.

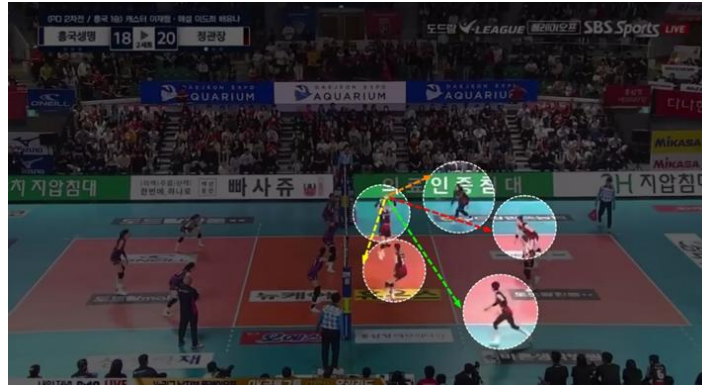


Figure 2.
 Attacking Strategy Analysis of Red Sparks Vs Pink Spider

The figure illustrates the attacking strategy of the Red Sparks Team, utilizing a back attack by Megawati. 4 players form an attack pattern by utilizing the speed of the pass from the setter. Movement without the ball or deception is also carried out by the middle block, Eun-Jin Park, to deceive the opponent's block, so that Megawati can back attack with confidence. Meanwhile, Se-In Kim, who is in position 4, is also preparing to receive the ball from the setter. Giovanna's role is also vital because her position prepares her to receive the 3-meter ball from the setter.

Discussion

The results of this study indicate that the Daejeon JungKwanJang Red Sparks team employs a highly varied and adaptive attacking strategy against its opponents, reflecting the level of professionalism and tactical maturity characteristic of modern volleyball games. Based on the attacking aspect data in tables 1 and 2 above, it can be seen that the team's attacking strategy relies heavily on the two leading players, Giovanna Milana and Megawati Hangestri Pertiwi. Both of them are the primary attack motors that dominate various types of shots, such as open attacks, back attacks, and 3-meter attacks. Giovanna Milana recorded the highest number of attacks in the open attack aspect, with 194 attacks, and was also active in jump serves (99 times) and attack blocks (64 times). This indicates that Giovanna is primarily responsible for attacking hard from the left side of the field and is the primary focus in dismantling the opponent's defense. Meanwhile, Megawati Hangestri was dominant in back attacks (122 times) and 3-meter attacks (93 times), a type of attack from the back line that has high explosive capabilities. This attack allows players to spike from the area behind the three-meter line, giving them the advantage of a wider angle of attack and making it difficult to predict (de Conti Teixeira Costa et al., 2017; Feng & Bangthamai, 2023).

In the aspect of serving, the pattern of play shows that Giovanna is the player who most frequently jumps serves, which is an aggressive type of serve with high speed. On the other hand, players such as Park Hye-min and So Young Lee employed more float serves to provide variations in ball direction and disrupt the opponent's reception system (Saifudin et al., 2023). Meanwhile, the use of a topspin serve is still relatively rare among other players, indicating a serving strategy that prioritizes the consistency and safety of

the first serve (Rudianto et al., 2025). In terms of attack variation, the absence of quick attack records across all players suggests that this team does not make much use of quick attacks from the middle, so attacks are more predictable as they are focused on the flanks.

In addition, the soft attack aspect also demonstrates that Giovanna and Megawati have good adaptability in dealing with less-than-ideal ball situations. Both were still able to produce points through soft attacks that targeted empty areas on the opponent's court. Meanwhile, on the attack block aspect, all three of Giovanna, Megawati, and So Young Lee showed a fairly balanced contribution, meaning they are not only focused on attacking but also active in the defense transition. The roles of the other three players, Park Hye-min, So Young Lee, and Se-in Kim, were more prominent in supporting the stability of the game through serving and blocking, rather than being the leading finishers in attack.

Overall, the team's attacking patterns show a tendency to be based on individual strengths, with a heavy reliance on the two leading players at the front and back. This strategy is effective when Giovanna and Megawati are in top form, but it has its downsides if the opposition manages to read and block the direction of their attack. The lack of variety in quick attacks is a loophole that opponents can exploit to strengthen the defense on the wings. Nevertheless, the combination of attacks from the front line by Giovanna and from the back line by Megawati remains a major strength that is difficult to anticipate, as it forces the opponent to widen its block formation.

Thus, the team's attacking strategy relies on a dual-core attack system between Giovanna Milana at the outside hitter position and Megawati Hangestri Pertiwi at the opposite hitter position. The dominant attack pattern, characterized by open and counterattacks, is the primary characteristic of the team. At the same time, other players play an important role in supporting the stability of defense and service. In the future, the team can improve the effectiveness of the game by increasing the variety of quick attacks so that the game pattern is not easily read and has higher tactical flexibility in facing opposing teams that are strong in blocking and receiving.

CONCLUSION

Based on the results of the analysis of the attacking aspects, it can be concluded that the attacking strategy of the Daejeon JungKwanJang Red Sparks team in the 2023/2024 V-League season competition relies heavily on two leading players, namely Giovanna Milana with open attacks and Megawati Hangestri Pertiwi using back attacks, as the central axis of the team's attack. Giovanna dominates through open attacks and jump serves, while Megawati excels in back attacks and 3-meter attacks, showing a compelling blend of attack from the front and back lines. However, the lack of quick attack variations indicates that the team is still underutilizing the potential of fast attacks from the middle. Future research is expected to expand the study by analyzing defensive strategies in volleyball games in more depth.

ACKNOWLEDGMENT

The authors would like to thank Daejeon Jungkwanjang Red Sparks for the inspiring game dynamics. Thanks also go to the Sport Biomechanics Laboratory of FIK Universitas Negeri Semarang, which always supports and provides a forum for researchers to conduct in-depth analysis. So that all contributions have enriched the quality of this article.

REFERENCES

- Abdillah, & Awang, F. (2023). Tes Keberhasilan Servis Atas pada Atlet Sepak Takraw. *Journal of Sport Coaching and Physical Education*, 8(1), 1–7. <https://journal.unnes.ac.id/sju/index.php/jscpehttps://journal.unnes.ac.id/sju/index.php/jscpe>
- Alfais, M. A., Yudhistira, D., & Alfais, M. A. (2024). MULTILATERAL : Jurnal Pendidikan Jasmani dan Olahraga Pengembangan strategi menyerang dan bertahan cabang olahraga bola voli : konstruk validity. *Development of attacking and defending strategies for the sport of volleyball : construct validity Universitas*. 23(3), 186–196.
- Amri, Rambe, R. M., & Fadhillah, S. A. (2024). Upaya Meningkatkan Pemahaman Siswa Tentang Olahraga Prestasi. *Jurnal Penelitian Tindakan Kelas Dan Pengabdian Masyarakat*, 4(2), 117–130.
- Bumburo, B., Ita, S., Wanena, T., Wandik, Y., & Putra, M. F. P. (2023). Permainan bola voli: sebuah tinjauan konseptual. *Multilateral : Jurnal Pendidikan Jasmani Dan Olahraga*, 22(4), 38. <https://doi.org/10.20527/multilateral.v22i4.16467>
- de Conti Teixeira Costa, G., de Britto Evangelista, B. F., Maia, M. P., Ceccato, J. S., Freire, A. B., Milistetd, M., Moraes, J. C., & Ugrinowitsch, H. (2017). Voleibol: Análise do ataque realizado a partir do fundo da quadra na Superliga Masculina Brasileira. *Revista Brasileira de Cineantropometria e Desempenho Humano*, 19(2), 233–241. <https://doi.org/10.5007/1980-0037.2017v19n2p233>
- Feng, Y., & Bangthamai, W. (2023). Notational Analysis in the Achievement of Back-line and Front-line Attacking in the Fourth World Women's Volleyball League 2022. *International Journal of Sociologies and Anthropologies Science Reviews*, 3(3), 131–142. <https://doi.org/https://doi.org/10.14456/jsasr.2023.41>
- Handhin, M. L., Nasuka, N., & Hadi, H. (2019). Pengaruh Back Squat Dan Front Squat Training Terhadap Vertical Jump Dan Lower Body Power Index. *Journal of Sport Coaching and Physical Education*, 3(1), 62–69. <https://doi.org/10.15294/jscpe.v3i1.31976>
- Ichsanudin, I., & Gumantan, A. (2020). Tingkat Motivasi Latihan Ukm Panahan Teknokrat Selama Pandemi Covid. *Journal Of Physical Education*, 1(2), 10–13. <https://doi.org/10.33365/joupe.v1i2.587>
- Kuncoro, A. D. (2021). Hubungan Kekuatan Otot Lengan Dan Panjang Lengan Dengan Hasil Servis Atas Bola Voli. *Jurnal Porkes*, 4(2), 118–125. <https://doi.org/10.29408/porkes.v4i2.4661>

- Ngatifah, H., & Irawan., F. A. (2024). Analisis Strategi Pertahanan Tim Nasional Indonesia U-23 Dalam Pertandingan Piala Asia 2024.
- Oktiani, I. (2017). Kreativitas Guru dalam Meningkatkan Motivasi Belajar Peserta Didik. *Jurnal Kependidikan*, 5(2), 216–232. <https://doi.org/10.24090/jk.v5i2.1939>
- Prasastono, & M. H. Holili. (2023). Media Pembelajaran Gerak Lurus Beraturan Dan Gerak Lurus Berubah Beraturan Dengan Adobe Flash. *Jurnal Manuhara : Pusat Penelitian Ilmu Manajemen Dan Bisnis*, 1(2), 01–16. <https://doi.org/10.61132/manuhara.v1i2.212>
- Priambodo, R. A., Wahyudi, A., Mulyono, A., & Pujiyanto, A. (2020). Perbedaan Taktik Strategi Menyerang Atlet Bolavoli Pelajar Indonesia dan Malaysia pada Asean School Games. *Indonesian Journal for Physical Education and Sport*, 1(1), 111–119. <https://journal.unnes.ac.id/sju/index.php/inapes>
- Rahesti, N., & Irawan, F. A. (2024). Analisis Gerak Permainan Ketapel : Pegangan dan Akurasi Tembakan. *Journal of Physical Education, Health And Sport Sciences*, 3(1), 1–10.
- Rian Andriansyah, M. Naufal Dzaky Immamughni Alwasi, Fauzan Amrullah Ramadhan, Elsa Zahra, & Dwi Muhammad Riski. (2025). Strategi Dan Peran Pendidikan Jasmani Dan Olahraga Dalam Membentuk Karakter Anak Bangsa. *Jurnal Ilmiah Multidisiplin Ilmu*, 2(2), 01–06. <https://doi.org/10.69714/fbwfkm98>
- Rudianto, A., Herpandika, R. P., & Pratama, B. A. (2025). Identifikasi Kemampuan Servis Peserta Ekstrakurikuler Bolavoli SMPI Nashirul Ummah Tuban. *SPRINTER: Jurnal Ilmu Olahraga*, 6(2), 332–339. <https://doi.org/10.46838/spr.v6i2.799>
- Saifudin, H., Aliriad, H., Da, M., Alif Yusuf Herminda, M., Suntoro, & Nila, S. (2023). Pengaruh Latihan Imagery Terhadap Akurasi Service Floating Bolavoli Pada Extrakurikuler Bolavoli MA Sunan Bonang Parenga. *Jumper: Jurnal Mahasiswa Pendidikan Olahraga*, 4(1), 107–1.
- Yusup Jamil, Nugraheni, W., & Bachtiar. (2022). Keterampilan Teknik Dasar Bermain Bola Voli Pada Siswa Peserta Ekstrakurikuler Bola Voli. *Jurnal of Education*, 8(4), 1309–1317. <https://doi.org/10.31949/educatio.v8i4.3494>