Performance Assesment of The Volleyball Match Againts The Kudus Sukun Badak Team in The 2023 Proliga Volleyball Competition

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Abstract

This research aims to identify the strategies that led to the loss of the Sukun Badak Team in the 2023 Proliga volleyball competition. The type of research used is non-experimental with quantitative descriptive methods. The sample of the study consists of four top-ranked boy volleyball teams, namely Jakarta Lavani Allo Bank (JLAB), Jakarta Bhayangkara Presisi (JBP), Jakarta STIN BIN (JSB), and Surabaya Bin Samator (SBS), and one lowest ranked volley team namely Sukun Badak Club (KSB) at the 2023 Proliga competition. The instrument used is an adapted and modified observation guideline from the FIVB 2005 VIS that measures six playing skills: service, receive, set, spike, block, and dig. The analysis of the research data uses descriptive analysis. Statistic results show the lowest score on serving, setter, and attack techniques when Sukun Badak clubs face JLAB clubs. The number of deadly balls when attacking (kill) is also the least when facing JLab clubs. The conclusion is that three dominant strategies end in the defeat of the Sukun Badak club: service, setting, and attacking.

Keywords: volleyball; proliga; performance indicator

1. Introduction

Until now, Indonesia has always held volleyball championships organized by the All-Indonesian Volleyball Association (PBVSI), called the Proliga. Proliga is the name of the official and very prestigious national volleyball championship in Indonesia; this championship is held every year. The Proliga was first held in 2002, from 1 February to 7 April 2002 and was born in five cities, namely Jakarta, Bogor, Bandung, Yogyakarta, and Gresik, with the final match being held in Jakarta, precisely at Istora Gelora Bung Karno.

Good sports training is training that conditions the actual situation when competing (Salas et al., 2012). Coaches play an essential role in this matter to develop the skills of their athletes. However, many coaches still need to understand what indicators a coach should improve on their athletes (Balaji et al., 2021). Sports game analysis has become increasingly crucial for players over the past few years (Bai & Bai, 2021). However, there needs to be more information available about gaming demands for different age groups. This information is necessary to provide appropriate and specific training at various stages of athlete development and to avoid exercise that centers on physical aspects (Zemková et al., 2017).

Each sport has its own rules and characteristics that make it necessary to have specific reference values to guide athletes' training in the different stages of their development (Alcaraz et al., 2017). Two teams of two players each play beach volleyball on a sand court. The volleyball game is divided into two phases: side-out and counter-attack. The sequence of actions in volleyball is serves, receive, set, attack, block, and dig (Pérez-Turpin et al., 2019). The side-out phase includes serve reception, setting, and attack. These counterattacks have blocks, digs, sets, and attacks (Costa et al., 2012).

The characteristics of the game have been studied previously (Pérez-Turpin et al., 2019), However, the sport is constantly evolving and needs to be analyzed permanently. One of the main characteristics of volleyball is the close relationship between skill and final performance. Other than serve, each skill builds on the one before it and affects the first skill in turn. The sport of volleyball requires teamwork (Afanasieiva et al., 2019). In volleyball, the number of points a team scores is primarily based on the successful execution of game skills (Drikos, Ntzoufras, et al., 2019). Therefore, it is necessary to observe and evaluate the game. In volleyball, attack efficiency is the most crucial thing in a team's success; attacks can be carried out in various ways. One of the best techniques of attacking a volleyball is a spike or the same as a smash in a badminton (Challoumas & Artemiou, 2018)(Wismanadi et al., 2021). In other words, there is a comparative evaluation of professional teams, and attack is the main factor in victory (Monteiro et al., 2009).

To improve the performance of a volleyball team, collaboration between humans (hardware) and the development of scientific methods (software) is essential. Using technology such as video recording, analysis of recorded data, and application of theory, team performance can be improved (Lin, 2014). Also, match analysis is highly urgent for team professionals to provide detailed analysis of individuals and teams in each match (Asterios et al., 2009). Game analysis and abilities can be used as a tool to understand tactical techniques in volleyball (Afonso et al., 2010). Information obtained through regular monitoring and statistical analysis can be an invaluable way to identify a team's strengths and weaknesses. With this information, coaches can provide appropriate feedback to their athletes and plan their strategies or processes more effectively (Drikos et al., 2022). Collecting data in the form of observing and evaluating sports skills to carry out match analysis, make decisions in matches, and analyze the home and opposing teams is essential (Drikos, Sotiropoulos, et al., 2019). This match analysis can help coaches determine the game strategy that will be used to beat the opposing team (Akarçeşme, 2017).

This research aims to measure the playing skills of the Kudus Sukun Badak team as participants in the 2023 Pro League volleyball championship and explain the statistical results of the Sukun Badak volleyball team's matches in the Proliga in 2023 as a newcomer team.

2. Method

The type of research used is non-experimental, with quantitative descriptive methods (Yudiana et al., 2021). The sample for this study consisted of 4 men's volleyball teams ranked in the top 4, namely Jakarta Lavani Allo Bank (JLAB), Jakarta Bhayangkara Presisi (JBP), Jakarta STIN BIN (JSB), and Surabaya Bin Samator (SBS), and 1 volleyball team ranked highest. Below, namely, Kudus Sukun Badak (KSB) in the 2023 Proliga competition. The reason for using Kudus Sukun Badak as a sample is because the team is the debut team in the 2023 Proliga competition. Data collection was obtained from observations of the Kudus Sukun Badak team's match when facing the Jakarta Lavani Allo Bank, Jakarta Bhayangkara Presisi, Jakarta STIN BIN, and Surabaya Bin Samator teams as the 4 top-ranked teams in the 2023 Proliga competition. The instruments used were adapted from observation guidelines and modified from VIS FIVB 2005, which measures six playing skills: service, receive, set, spike, block, and dig (Kane et al., 2016). Measurements are based on six essential volleyball technical criteria: service, receive, set, spike, block, and dig. This data analysis uses descriptive analysis to explain

the statistical results of the Kudus Sukun Badak volleyball match against four opposing teams with the fourth-best ranking in the 2023 Proliga. The Kruskal-Wallis test is also used to determine the statistical differences in the Kudus Sukun Badak team's matches based on the opponent's ranking.

3. Result

The results of the 2023 Proliga volleyball competition showed that the Jakarta Lavani Allo Bank (JLAB) team was ranked 1st, the Jakarta Bhayangkara Presisi (JBP) team was ranked 2nd, the Jakarta STIN BIN (JSB) team was ranked 3rd, and the Surabaya Bin Samator (SBS) coalition managed to rank fourth. The Kudus Sukun Badak (KSB) team was ranked lowest, namely eighth (Proliga.co.id, 2023). The statistical results of a team against the 4th-ranked team, namely Surabaya Bin Samator, are presented in Table 1 below.

Table 1. Technical statistics for the KSB team against the top 4 teams

Club	Serve			Receive		Setter		Attack						Block			Dig			Score
	Total	Ace	Error	Total	Error	Assist	Error	Total	In Play	Error	Bloked	Kill	Error	Kontrol	Solo	Assist	Error	Succes	
SBS	78	1	3	44	2	40	2	104	42	13	6	43	3	14	2	7	5	32	1-3
JSB	83	2	3	62	7	38	1	88	37	6	8	37	1	20	2	4	4	34	1-3
JBP	76	2	8	58	2	48	1	92	34	9	6	43	15	31	3	0	12	41	1-3
JLAB	56	3	6	49	3	29	2	65	25	7	5	28	9	14	1	2	7	23	3-0
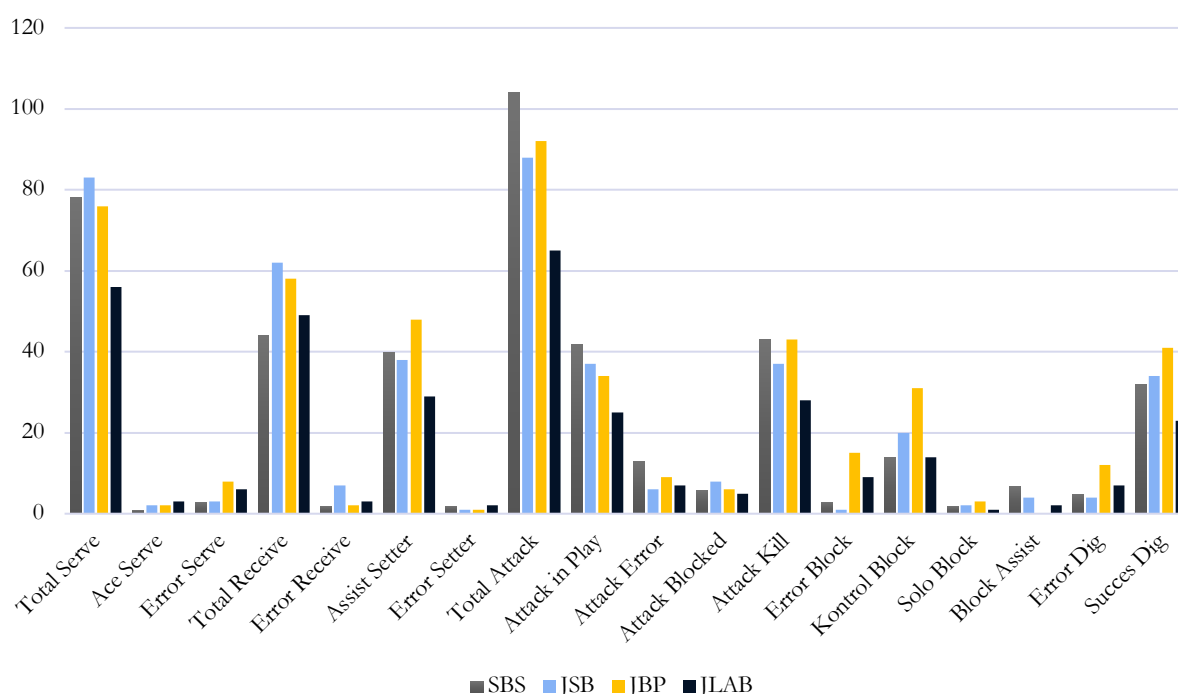
Figure 1. Statistical Differences in Matches When The KSB Team Plays Against The Top 4 Teams

The KSB team experienced defeat when facing the top four teams. The score obtained against SBS was 1-3 (19-25, 25-18, 16-25, 22-25). Against JSB, the score was 1-3 (22-25, 19-25, 25-21, 20-25). Against JBP, the team got a score of 1-3 (18-25, 23-25, 25-22, 19-25), and against JLAB, they got a score of 3-0 (25-18, 25-17, 25-15) (Danartikanya, 2023). Statistical analysis in Table 1 shows that the most serve indicators were performed against the JSB club, totaling 83 serves. However, the deadly serve gets the most points (Ace) when facing the JLAB club and the most serve errors when facing the JBP club. The receive indicator, which means the player can return the opponent's serve, was the most frequently used when dealing with the JSB club, and at the same time, there were the most errors.

The setter indicator is mainly used when dealing with the JBP club. The highest total was made for the attack indicator when facing the SBS club while producing the most points from attacks. The blocking technique is often used when facing the JBP club but produces no assists. The dig technique, which is the return of the spike, is most often used against JBP with the most success.

From the results of Table 1, it is known that the most extended defeat for the Sukun Badak club was when they faced JLAB with a score of 3-0. The statistical results show the lowest scores for serve, setter, and attack techniques when the Sukun Badak club met the JLAB club. The number of deadly balls when making an attack (kill) is also the smallest when facing the JLAB club. Additionally, setter statistics show that when the Sukun Badak club faced the JLAB club, setters made the majority of ball errors.

4. Discussion

This study aims to find the tactics that caused the Badak Sukun team to lose in the 2023 Proliga volleyball championship. The results revealed three dominant strategies that led to the defeat: serving, setting, and attacking.

The serve is a favourable performance measure for the winning team (Medeiros et al., 2017). Results of the match The Kudus Sukun Badak team exhibited the lowest service score when competing against the JLAB team, which was also the lowest score achieved compared to their matches against other opponents. Koch & Tilp, (2009) found that several types of serves, such as the jump serve, float serve, and jump float serve, have equivalent effectiveness in terms of reception by the opposing team for female elite players. The predominant method female players employ is the floating serve, as highlighted by Pérez-Turpin et al., (2019). In males, efficacy diminishes when the serving player engages in movement and exerts greater power. Male players tend to like the jump serve float because of it. Research by Pérez-Turpin et al., (2019) also shows that the jump serve has the highest errors and the fewest aces. However, Koch & Tilp (2009) demonstrate that jump serves yield the highest number of aces, albeit with a significant margin of error. Additional volleyball competitions inside the Greek League yielded fewer service faults and hindered opponents from launching attacks under ideal circumstances (Palao & Ortega, 2015; Šimac et al., 2017). These statistics are consistent with our results since they identify disparities in player age. The preceding experiences are crucial in effectively handling intricate environments, such as weariness, stress, and loss (Hariyanto et al., 2021).

Setting is a tactic that distinguishes volleyball players who are successful in winning matches (Šimac et al., 2017). This study demonstrates that the Sukun Badak Team encountered the JLB Team, achieving the lowest score while exhibiting the fewest setter statistics and the highest number of errors. The setter is the player primarily responsible for making crucial offensive decisions in volleyball, specifically organising the attack (Denardi et al., 2017; Zahálka et al., 2017). The volleyball game follows a consistent pattern where a player takes the initial serve and transfers the ball to a setter, who then sets it for another attacker to perform a spike (Denardi et al., 2017). Setters positioned near the net at the start likely indicate that they commenced the activity in an optimal location. Receiving fast passes may have made it challenging to accurately position the ball, making it easier to touch the ball lightly. Another argument suggests that these passes have resulted in fewer opportunities for the defending team to position themselves, assuming that the tip occurred. This is because plays with a delayed attack time promote anticipation, decision-making, and defensive movements (García-De-alcaraz et al., 2016).

The forearm pass is the most commonly executed sort of setting. Other research has discovered similar patterns (Medeiros et al., 2014). Pérez-Turpin et al. (2019) demonstrate that senior male players predominantly employ overhand passes, whereas senior women seem to favour forearm passes. The

distinction comes in the chosen setting, which is distinct from effectiveness. Overhand passes prove more efficacious for young players and players of both genders (Ferrari et al., 2019).

In volleyball, the effectiveness of attacks is the most influential factor in determining the outcome. Therefore, it is crucial to comprehend the game patterns that lead to increased assault effectiveness (Afonso et al., 2012). The attack is the game's primary and most effective strategy for scoring points. It is also the most frequently employed tactic throughout matches. Hence, if it is feasible to enhance the efficacy of a point by launching a counterattack or an attack after getting the service, the likelihood of winning is correspondingly heightened (Szabo et al., 2019).

The winning team demonstrates superior efficacy in their offensive manoeuvres than the defeated team (Afonso et al., 2012). The efficacy of the ensuing assault relies on the athlete's age, as demonstrated by Medeiros et al. (2017) in their comparison of U-19, U-21, and senior players. Their findings indicate that the team that suffers defeat is the one that launches the fewest attacks. Furthermore, mistakes in the offensive play result in a more significant disparity in the number of sets won (George & Panagiotis, 2008). According to Pérez-Turpin et al. (2019), volleyball teams in a league can increase their point tally by reducing errors, improving their attacking efficiency, and effectively countering opponents' attacks. The critical factor distinguishing winning teams from losing teams was the higher frequency of errors in the latter. However, this varied depending on the style of attack employed. Various factors can contribute to this disparity, including years of experience and the individual's playing style (Pérez-Turpin et al., 2019).

5. Conclusion and Recommendation

In the 2023 Proliga volleyball competition, the Kudus Sukun Badak team was defeated due to three key strategies: attacking, setting, and serving. The research findings suggest that the Sukun Badak club could enhance their offensive, setting, and serving skills to overcome their defeats and increase their chances of winning the match.

Acknowledgement

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