COMPETITOR:
JURNAL PENDIDIKAN KEPELATIHAN OLAHRAGA
e-ISSN: 2657-0734 & p-ISSN: 2085-5389 ‖ Volume 18, Number 1, 2026 ‖ P.0765-0776

Stroke In The All-Indonesian Men's Singles Final At The 2025 Sea Games

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ABSTRACT

This study aimed to analyze stroke distribution, effectiveness, and match dynamics in the All-Indonesian Men's Singles Final at the 2025 SEA Games using a quantitative descriptive approach grounded in performance analysis methodology. Rather than testing causal relationships, the study focused on profiling actual playing patterns under elite competitive conditions. Data were collected through systematic video-based observation of official match replays, applying structured notational analysis to record stroke frequency, success rate, failure rate, and technique classification, including smash, netting, lob, drive, drop shot, and smash defense. The findings revealed that netting and smash were the most dominant strokes for both players, reflecting the importance of front-court control and offensive execution in modern men's singles badminton. While Muhammad Zaki Ubaidillah demonstrated greater stroke consistency and tempo control in the first set, Alwi Farhan exhibited superior efficiency and reduced error rates in the decisive third set. Variations in stroke success, particularly in high-risk techniques such as dropshot and smash defense, were closely associated with shifts in match momentum. These results confirm that competitive success is not solely determined by stroke frequency but by technical consistency, situational decision-making, and adaptive tactical execution. The study underscores the value of video-based performance analysis as an evidence-based tool for optimizing training design and strategic preparation in elite badminton.

ARTICLE HISTORY
Received: 2026/01/29
Accepted: 2026/02/05
Published: 2026/02/15

KEYWORDS
Performance Analysis;
Stroke Effectiveness;
Men's Singles Badminton;
Notational Analysis;
Tactical Consistency.

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 : Manav, M.I.; Hakim, A.A.; Wismanadi, H.; Bimantoro, A.P. (2026). Stroke In The All-Indonesian Men's Singles Final At The 2025 Sea Games. **Competitor: Jurnal Pendidikan Kepelatihan Olahraga**. 18 (1), p.0765-0776

INTRODUCTION

Sport is an integral part of the modern lifestyle, contributing to improved physical fitness, mental health, and overall quality of life (Rohmah & Purnomo, 2022). In the context of competitive sports, achieving optimal performance is determined not only by active participation but also by a structured and measurable science-based training system. One sport with complex characteristics and high performance demands is badminton.

Badminton is a racket sport that is very popular globally and has a strong history and track record in Indonesia. Participation in international events such as the Thomas

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Cup, Uber Cup, SEA Games, and the Olympics demonstrates that badminton is not just a recreational sport but also a high-intensity competitive arena. Physiologically, badminton is characterized by explosive movements, rapid changes of direction, vertical jumps, and short and long rallies with short recovery intervals, thus requiring an optimal combination of aerobic and anaerobic capacity (Phomsoupha & Laffaye, 2015; Abian-Vicen et al., 2018).

The current rally point system further increases competitive pressure because every rally is worth a point, so even small errors have a direct impact on the score (Alif, 2018). This situation demands that players possess precise technique, consistent strokes, efficient footwork, and stable psychological preparedness throughout the match (Sitorus & Siahaan, 2021).

However, various studies show that at the coaching and educational levels, mastery of basic techniques is often suboptimal. Mistakes in grip, wrist coordination, and footwork patterns are dominant factors hindering performance development (Lees, 2016; Kuntze et al., 2018). Inaccurate basic techniques result in low shot accuracy, an increased risk of overuse injuries, and energy inefficiency during matches. Therefore, strengthening basic techniques is a key foundation in a performance-based badminton coaching system.

Scientific studies over the past decade have shown that badminton performance is determined by a multidimensional interaction between technical, physical, tactical, and psychological factors (Cabello-Manrique & González-Badillo, 2016; Fernandez-Fernandez et al., 2019). Biomechanically, shot effectiveness is heavily influenced by proper grip patterns, forearm muscle activation, and synchronized shoulder and wrist rotation (Tsai et al., 2017). Mastering a proper grip has been shown to increase shuttlecock speed and control of shot direction (Goh et al., 2020).

Footwork is also a key component of the modern game. Motion analysis studies show that elite players exhibit higher movement efficiency with structured stride patterns and quick response times to shuttlecock direction (Liddle et al., 2018). Footwork training based on agility drills and change of direction training significantly improves defensive and offensive transition skills (Sanchez-Alcaraz et al., 2020).

From a physiological perspective, badminton is classified as an intermittent high-intensity sport, requiring high anaerobic capacity with aerobic support for recovery (Phomsoupha & Laffaye, 2015). Recent research shows that elite players have a relatively high VO_2max and good repeated sprint ability (RSA) (Abian-Vicen et al., 2018).

In addition to physical and technical factors, psychological aspects such as concentration, self-regulation, and resilience play a significant role in maintaining performance during long rallies (González-Hernández et al., 2019). The integration of a sports science approach—encompassing biomechanics, physiology, and sports psychology—has become a new paradigm in modern badminton development.

Although various studies have examined the biomechanical, physiological, and psychological aspects of badminton, there is a significant gap in the implementation of basic techniques in coaching and educational contexts. Most research focuses on elite

athletes or high-level competitive performance analysis (Fernandez-Fernandez et al., 2019), while studies specifically evaluating the effectiveness of mastery of basic techniques (grip, wrist action, footwork, and motor coordination) at the development level are limited.

Furthermore, training approaches often separate technical and physical conditioning aspects without systematic integration based on evidence-based coaching. However, recent research emphasizes the importance of an integrative approach that combines basic techniques with neuromuscular strengthening and motor learning principles (Davids et al., 2017).

In Indonesia, research on basic badminton techniques still tends to be descriptive and has not fully linked technical analysis to quantitative performance indicators such as shot accuracy, shuttlecock speed, or movement efficiency. This limitation highlights the need for comprehensive studies that integrate technical, physiological, and tactical aspects within a systematic conceptual framework.

Thus, there is an urgent need to develop a sports science-based analytical framework for badminton basic techniques that is relevant to the modern coaching context, thus bridging the gap between theory and practice.

Based on these issues and gaps, this study aims to comprehensively analyze the role of basic techniques—including grip, wrist movement, footwork, and motor coordination—in improving badminton performance in a coaching context. The analysis is conducted using a multidimensional approach that integrates biomechanics, physiology, and motor learning to generate a more systematic understanding of the contribution of basic techniques to game effectiveness.

The novelty of this research lies in: (1) The development of an integrative, sports science-based conceptual framework for analyzing basic badminton techniques, (2) An empirical approach that links mastery of basic techniques to quantitative performance indicators and movement efficiency, and (3) Contribution to a more adaptive and evidence-based badminton coaching model, particularly in the context of developing athletes of coaching age.

Theoretically, this study strengthens the literature on the importance of basic techniques as a foundation for performance in intermittent, high-intensity sports like badminton. Practically, the research findings are expected to provide strategic recommendations for coaches, academics, and sports development institutions in designing more systematic, measurable, and science-based training programs.

Thus, this research not only fills an academic gap but also directly contributes to improving the quality of national badminton coaching, oriented toward sustainable performance and global competitiveness.

METHODS

This study uses a descriptive quantitative approach to analyze the distribution and frequency of stroke techniques in the All-Indonesian men's singles final at the 2025 SEA Games. This approach was chosen because match performance analysis based on

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notational analysis and performance profiling has proven effective in objectively and measurably identifying tactical patterns, technical tendencies, and playing characteristics of elite athletes (Hughes & Bartlett, 2017; O'Donoghue, 2019). In high-intensity racket sports like badminton, quantitative analysis of stroke frequency is a crucial indicator for understanding game strategy, rally dominance, and attack-defense effectiveness (Phomsoupha & Laffaye, 2015; Abián et al., 2018).

The object of this study was the men's singles final match between Alwi Farhan and Muhammad Zaki Ubaidillah at the 2025 SEA Games. The unit of analysis included all rallies occurring during the match. Data collection was conducted through observational performance analysis based on official video recordings obtained from the Okezone YouTube channel. Video-based analysis has been recommended in sports performance studies because it allows for repeated observations, accurate motion classification, and reliable data recording (Gómez et al., 2020; Torres-Ronda et al., 2021).

The research instrument was a modified tabular observation sheet based on standard shot technique categories in modern badminton literature, including: serve (short and long), clear, drop shot, smash, drive, net shot, lift, push, and block (Cabello-Manrique & González-Badillo, 2016; Lees, 2016). Technique classification is based on the biomechanical characteristics and tactical functions of the strokes, as outlined in recent badminton motion analysis research (Tsai et al., 2017; Liddle et al., 2018).

The data collection process involved systematic video playback using slow-motion and frame-by-frame techniques to ensure accurate shot identification. Every shot executed by both players was recorded and classified into a predetermined category. To enhance content validity, technical categories were consulted with nationally certified referees and badminton practitioners. Observation reliability was maintained through repeated observations and cross-checking (intra-observer agreement), as recommended in notational analysis studies in racket sports (Sánchez-Alcaraz et al., 2020; García-Rubio et al., 2021).

The collected data were organized into absolute and relative frequencies. Analysis was conducted using percentage calculations to identify the distribution of each player's dominant stroke techniques. This descriptive statistical approach aligns with elite match analysis research, which aims to map tactical profiles without making causal inferences (Fernandez-Fernandez et al., 2019; Gómez et al., 2020).

Furthermore, the technique distribution results are compared with previous empirical findings on the characteristics of international-level men's singles play, which indicate that the clear-drop-smash combination and net control are the dominant patterns in competitive rallies (Abián et al., 2018; Phomsoupha & Laffaye, 2015). Thus, this method allows for the identification of tactical tendencies, attack intensity, and court control strategies in the context of the SEA Games finals.

Through this systematic observation-based performance analysis design, the study provides an objective overview of stroke technique usage patterns in final matches, while also providing an empirical basis for the development of training models based on actual match data.

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RESULTS AND DISCUSSION

Result

The results of this study were derived from an observational analysis conducted to examine the success rate, failure rate, and total number of strokes performed during the match. The analysis specifically focused on the men's singles final match at the 2025 SEA Games. Each stroke executed by the players was categorized as either successful or unsuccessful and counted to determine the overall stroke frequency. A stroke was classified as unsuccessful when the shuttlecock hit the net or landed outside the singles court boundaries.

This study emphasizes the evaluation of stroke performance by identifying patterns of successful and unsuccessful shots during match play. The results provide a clear description of how each player executed various stroke techniques under competitive conditions.

The findings presented in this section describe the distribution of successful strokes, unsuccessful strokes, and the total number of strokes performed during the first set of the men's singles match at the 2025 SEA Games. These results serve as a basis for understanding the technical performance of each player in the opening set and provide initial insights into playing strategies and match dynamics.

Table 1.
The results of stroke success, failure, and total strokes performed by Zaki Ubaidillah in the first set are presented in this section.

Zaki Ubed	Blow	%	Success	%	Failure	%
Service	21	11,23%	21	11,80%	0	0,00%
Netting	37	19,79%	37	20,79%	0	0,00%
Lob	13	6,95%	12	6,74%	1	11,11%
Underlob	27	14,44%	26	14,61%	1	11,11%
Smash	18	9,63%	18	10,11%	0	0,00%
Dropshot	20	10,70%	16	8,99%	4	44,44%
Drive	40	21,39%	40	22,47%	0	0,00%
DefenseSmash	11	5,88%	8	4,49%	3	33,33%
Total	**187**	**100%**	**178**	**100%**	**9**	**100%**

Based on Table 1, during the first set, Zaki Ubaidillah demonstrated a high playing intensity, executing a total of 187 strokes. The most dominant stroke types were the drive (21.39%) and netting (19.79%), indicating a fast-paced playing style and an emphasis on rally exchanges. This pattern suggests that Zaki Ubaidillah relied heavily on speed, control, and continuous pressure to dominate rallies during the opening set.

The overall success rate of strokes was relatively high, with 178 successful strokes out of 187 total attempts. Several stroke types, including service, netting, smash, and drive, recorded a perfect success rate with no unsuccessful attempts, reflecting strong technical execution and consistency in these areas. Lob and underlob strokes showed minimal failure rates, indicating effective shot placement and control during defensive and transitional play.

However, certain stroke techniques exhibited notable failure percentages. Dropshots accounted for the highest proportion of unsuccessful strokes (44.44%), followed by smash defense (33.33%). These findings suggest that while Zaki Ubaidillah was effective in maintaining rally tempo, higher risks emerged when attempting delicate

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net variations and when responding to opponent attacks. Overall, the data illustrate a balanced but aggressive playing approach, with minor weaknesses evident in defensive situations and fine touch shots during the first set.

Table 2.
The results of stroke success, failure, and total strokes performed by Alwi Farhan in the first set are presented in this section

Alwi Farhan	Blow	%	Succes	%	Failure	%
Service	13	6,91%	13	7,56%	0	0,00%
Netting	42	22,43%	38	22,09%	4	25,00%
Lob	16	8,51%	14	8,14%	2	12,50%
Underlob	36	19,15%	35	20,35%	1	6,25%
Smash	21	11,17%	19	11,05%	2	12,50%
Dropshot	21	11,17%	20	11,63%	1	6,25%
Drive	24	12,77%	22	12,79%	2	12,50%
DefenseSmash	15	7,98%	11	6,40%	4	25,00%
Total	**188**	**100%**	**172**	**100%**	**16**	**100%**

Based on the stroke distribution data, Alwi Farhan executed a total of 188 strokes during the first set, with netting (22.43%) and underlob shots (19.15%) as the most frequently used techniques. This pattern reflects a playing style that emphasizes control, patience, and the ability to sustain long rallies rather than relying solely on aggressive attacking shots. The frequent use of netting indicates an effort to dominate the front court and create opportunities to disrupt the opponent's positioning, while the high proportion of underlob strokes suggests a strategic approach to resetting rallies and managing defensive situations.

The overall stroke success rate was relatively stable across most techniques, demonstrating solid technical proficiency and consistency throughout the set. However, a noticeable number of unsuccessful strokes were observed in netting and smash defense. These failures indicate potential vulnerabilities in front-court exchanges and in responding to high-pressure attacking shots from the opponent. Despite these limitations, Alwi Farhan was able to maintain rally continuity and tactical balance, suggesting effective match control during the first set.

The following section presents the results of stroke success, failure, and total stroke frequency observed during the second set of the match, providing further insight into changes in performance and playing patterns as the match progressed.

Table 3.
The results of stroke success, failure, and total strokes performed by Zaki Ubaidillah in the second set are presented in this section

Zaki Ubed	Blow	%	Succes	%	Failure	%
Service	8	5,76%	8	6,50%	0	0,00%
Netting	26	18,71%	23	18,70%	3	18,75%
Lob	10	7,19%	9	7,32%	1	6,25%
Underlob	28	20,14%	25	20,33%	3	18,75%
Smash	20	14,39%	18	14,63%	2	12,50%
Dropshot	12	8,63%	11	8,94%	1	6,25%
Drive	23	16,55%	20	16,26%	3	18,75%
DefenseSmash	12	8,63%	9	7,32%	3	18,75%
Total	**139**	**100%**	**123**	**100%**	**16**	**100%**

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During the second set, the total number of strokes decreased to 139, indicating a more efficient and shorter pattern of play compared to the first set. Underlob shots (20.14%) and netting (18.71%) emerged as the dominant techniques, suggesting a continued emphasis on control and front-court exchanges, while also reflecting adjustments in rally management.

The distribution of unsuccessful strokes became more varied across several stroke types, including netting, drive, and smash defense. This pattern indicates that the pressure applied by the opponent increased during the second set, forcing Zaki Ubaidillah to take greater risks and resulting in a higher likelihood of errors in specific situations. Overall, these findings illustrate changes in playing dynamics and performance consistency as the match progressed.

Table 4.
The results of stroke success, failure, and total strokes performed by Alwi Farhan in the second set are presented in this section.

Alwi Farhan	Blow	%	Succes	%	Failure	%
Service	21	15,00%	21	15,44%	0	0,00%
Netting	27	19,29%	26	19,12%	1	25,00%
Lob	14	10,00%	14	10,29%	0	0,00%
Underlob	24	17,14%	24	17,65%	0	0,00%
Smash	14	10,00%	14	10,29%	0	0,00%
Dropshot	17	12,14%	15	11,03%	2	50,00%
Drive	8	5,71%	8	5,88%	0	0,00%
DefenseSmash	15	10,71%	14	10,29%	1	25,00%
Total	**140**	**100%**	**136**	**100%**	**4**	**100%**

During the second set, Alwi Farhan demonstrated a more efficient playing pattern, executing a total of 140 strokes. Netting became a key component of his game, highlighting his ability to control the front court and manage rally tempo effectively. Notably, most stroke types recorded very low failure rates, indicating high technical consistency and effective decision-making during play.

An exception was observed in the dropshot technique, which showed a relatively higher failure rate despite its lower frequency of use, suggesting a higher level of risk when attempting fine-touch shots. In contrast, Alwi Farhan's defensive performance was particularly strong, as reflected by the smash defense strokes, which resulted in only one unsuccessful attempt. This finding emphasizes his solid defensive capability and effective response to opponent attacks during the second set.

The following section presents the results of stroke success, failure, and total stroke frequency observed during the third set of the match.

Table 5.
The results of stroke success, failure, and total strokes performed by Zaki Ubaidillah in the third set are presented in this section.

Zaki Ubed	Blow	%	Succes	%	Failure	%
Service	12	8,00%	12	9,16%	0	0,00%
Netting	30	20,00%	25	19,08%	5	26,32%
Lob	14	9,33%	13	9,92%	1	5,26%
Underlob	25	16,67%	23	17,56%	2	10,53%
Smash	17	11,33%	16	12,21%	1	5,26%
Dropshot	13	8,67%	12	9,16%	1	5,26%
Drive	25	16,67%	22	16,79%	3	15,79%
DefenseSmash	14	9,33%	8	6,11%	6	31,58%
Total	**150**	**100%**	**131**	**100%**	**19**	**100%**

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Based on Table 5, during the third set, Zaki Ubaidillah increased the variation of strokes, executing a total of 150 strokes. Netting emerged as the most frequently used technique (20.00%), followed by drive and underlob strokes, indicating an effort to maintain rally intensity and vary shot selection in response to match pressure. This distribution suggests an adaptive playing approach aimed at sustaining control while countering the opponent's tactics in the decisive set.

The overall number of unsuccessful strokes increased compared to previous sets, with 19 failures recorded. Notably, smash defense showed the highest failure rate (31.58%), reflecting difficulties in anticipating and responding to aggressive attacks from the opponent during the later stages of the match. Errors were also observed in netting and drive strokes, indicating increased risk-taking and reduced consistency under high-pressure conditions. These findings illustrate the challenges faced by Zaki Ubaidillah in maintaining defensive stability and stroke effectiveness during the final set.

Table 6.
The results of stroke success, failure, and total strokes performed by Alwi Farhan in the third set are presented in this section.

Alwi Farhan	Blow	%	Succes	%	Failure	%
Service	21	14,09%	21	15,22%	0	0,00%
Netting	34	22,82%	32	23,19%	2	18,18%
Lob	14	9,40%	13	9,42%	1	9,09%
Underlob	17	11,41%	17	12,32%	0	0,00%
Smash	18	12,08%	16	11,29%	2	18,18%
Dropshot	14	9,40%	13	9,42%	1	9,09%
Drive	14	9,40%	13	9,42%	1	9,09%
DefenseSmash	17	11,41%	13	9,42%	4	36,36%
Total	**149**	**100%**	**138**	**100%**	**11**	**100%**

During the third set, Alwi Farhan continued to emphasize netting as his primary stroke, accounting for 22.82% of the total strokes, supported by effective use of service and smash defense. Netting dominance reflects his ability to control the front court and manage rally tempo in the decisive phase of the match.

Although smash defense recorded the highest failure percentage (36.36%), indicating substantial pressure from the opponent's attacking play, Alwi Farhan demonstrated strong resilience under pressure. Notably, his smash strokes showed a high success rate, allowing him to capitalize on offensive opportunities at critical moments. This combination of effective attacking execution and overall stroke consistency contributed to Alwi Farhan's success in winning the third set and ultimately securing the gold medal at the 2025 SEA Games.

Discussion

The results of this study indicate that the frequency distribution, success rate, and failure rate of shots in the men's singles final at the 2025 SEA Games reflect the dynamics of technical and tactical performance typical of elite competition. Notational performance-based analysis has proven effective in identifying playing patterns, rally intensity, and strategic tendencies of players (O'Donoghue, 2019; Gómez et al., 2020). In intermittent, high-intensity sports like badminton, variation in shot technique and

consistency of execution are key indicators of performance quality (Phomsoupha & Laffaye, 2015; Abián et al., 2018).

High Intensity and Early Pressure

In the first set, Zaki Ubaidillah demonstrated high-intensity play, dominated by drives and netting. The dominance of drives (21.39%) indicated a strategy of fast rallies and flat exchange play, common at the elite level to maintain pressure (Cabello-Manrique & González-Badillo, 2016). Drives play a role in accelerating the tempo and limiting the opponent's reaction time, in line with Liddle et al.'s (2018) findings regarding the importance of tempo control in competitive rallies.

High netting (19.79%) indicates an attempt to dominate the front court. Recent studies confirm that frontcourt control correlates with the opportunity to create attacking situations through forced lifts (Sánchez-Alcaraz et al., 2020). Near-perfect success rates on serves, drives, smashes, and netting indicate technical efficiency and biomechanical stability, particularly wrist coordination and shoulder-arm segmental sequencing (Tsai et al., 2017).

However, high failure rates on dropshots (44.44%) and smash defenses (33.33%) indicate risks to fine motor control and defensive responses to opponent pressure. Dropshots require precise racket angle and high touch control; even small errors in timing and contact point can cause the shuttle to hit the net (Lees, 2016). A less stable smash defense indicates limited anticipatory skill and reaction time, crucial aspects in elite matches (García-Rubio et al., 2021).

Meanwhile, Alwi Farhan demonstrated a more patient playing style in the first set, dominating netting (22.43%) and underlobs (19.15%). This strategy aligns with the concept of rally construction based on control and resetting the rally (Fernandez-Fernandez et al., 2019). The consistent use of underlobs indicates a defensive-transitional approach to regain position and force long rallies, a strategy often employed by players with stable aerobic capacity and high tactical patience (Abián et al., 2018).

Efficiency and Strategy Adjustments

In the second set, the total number of shots dropped significantly (139–140 shots), reflecting shorter rallies and more efficient play. A decrease in shot volume is often associated with increased accuracy and more selective decision-making (Gómez et al., 2020).

Zaki showed a more even distribution of misses, particularly in netting, drives, and smash defense. This indicates increased pressure from the opponent, forcing greater risks in shot selection. A study by Torres-Ronda et al. (2021) suggests that in the mid-match phase, accumulated neuromuscular fatigue can impact shot accuracy and defensive stability.

In contrast, Alwi Farhan demonstrated increased consistency with a low miss rate across most techniques. Netting remained his primary weapon, confirming the dominance of frontcourt control. Research by Sánchez-Alcaraz et al. (2020) showed that effective net control significantly increases the probability of winning a rally in men's singles. Alwi's superior smash defense with only one miss indicates excellent anticipatory perception and positioning skills, as described in a study analyzing elite players' reactions (García-Rubio et al., 2021).

Psychological Pressure and Tactical Adaptation

The third set saw Zaki increase his shot variety (150 shots), with netting remaining dominant (20%). Increased variation is generally a form of tactical adaptation to disrupt the opponent's rhythm (O'Donoghue, 2019). However, the increase in failed smash defenses (31.58%) indicates difficulty maintaining defensive stability under the pressure of decisional fatigue and psychological stress (González-Hernández et al., 2019).

Drive and netting errors in the final phase of the match indicate a decline in consistency due to a combination of physiological fatigue and situational pressure. In elite matches, the deciding phase is often marked by an increased error rate due to high cognitive load (Fernandez-Fernandez et al., 2019).

In contrast, Alwi Farhan maintained his netting dominance (22.82%) with effective smash combinations at crucial moments. A high smash success rate indicates efficient transfer of kinetic energy from trunk rotation to the wrist (Tsai et al., 2017). Although his smash defense failed relatively often (36.36%), overall, he was able to maintain game stability and maximize offensive opportunities.

Alwi's success in the deciding set demonstrated the integration of tactical control, technical consistency, and psychological resilience. Recent studies have shown that the combination of decision-making accuracy and stroke consistency is a strong predictor of victory in international men's singles (Abián et al., 2018; Gómez et al., 2020).

Synthesis of Findings

Overall, the results of this study confirm that: (1) Netting was the dominant technique in all three sets, highlighting the importance of frontcourt control in elite matches, (2) Drives and underlobs played a role in setting the tempo and transitioning between defense and attack, (3) Smash defense was the technique most prone to failure, especially during high-pressure phases, and (4) Technical consistency and defensive stability in the final phase were the key factors in victory.

These findings are in line with modern badminton performance literature that emphasizes the importance of integrating technique, tactics, and psychological stability in determining match outcomes (Phomsoupha & Laffaye, 2015; Fernandez-Fernandez et al., 2019; Sánchez-Alcaraz et al., 2020).

CONCLUSION

Based on the analysis of shot performance in the men's singles final at the 2025 SEA Games, it can be concluded that the dynamics of victory are not solely determined by the frequency of use of a particular technique, but rather by efficiency, consistency, and quality of decision-making in high-intensity match situations. Analysis of the distribution of shot types, success rates, and failure rates indicates that netting and smashing are central components in constructing rallies and creating point opportunities, in line with the characteristics of elite-level men's singles play, which emphasizes frontcourt control and explosive attack execution.

In the first set, Muhammad Zaki Ubaidillah demonstrated tempo control through dominant drives and netting with a high success rate. However, in the second and third

sets, Alwi Farhan demonstrated more effective tactical adaptation, marked by increased accuracy, defensive stability, and the ability to minimize errors in crucial phases. Technical consistency, particularly in high-pressure situations and with risky shots such as drop shots and smash defense, was the deciding factor in the final match outcome.

Therefore, success in elite men's singles badminton is the result of an integration of technical variety, tactical control, psychological resilience, and stable execution. These findings provide practical implications for coaches in designing training programs based on actual match analysis that emphasize technical consistency and situational decision-making.

Acknowledgements

The author expresses praise and gratitude to Allah SWT for the grace, blessings, and strength bestowed upon him, enabling the successful completion of this research and writing of this article. This article was prepared as part of the academic requirements for the Undergraduate Program in Sports Science, Surabaya State University, and as a scientific contribution to the development of sports performance analysis studies based on match data.

The author expresses his deepest appreciation and gratitude to his supervisor for his guidance, methodological guidance, and constructive academic input throughout the research process and the preparation of this manuscript. He also expresses his gratitude to the Head of the Undergraduate Program in Sports Science and all lecturers who have provided invaluable scientific foundations, insights, and academic experience throughout his studies.

He expresses his sincere appreciation to his parents for their prayers, moral support, and material support, which have been a major source of motivation in completing this research. He also thanks his colleagues for their cooperation, scientific discussions, and support, which contributed to the smooth and successful completion of this article. Hopefully this work will be beneficial for the development of sports science and evidence-based coaching practices.

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