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## Statistical Analysis Of The Men's Indoor Hockey Final Between Indonesia And Malaysia At The 2025 Sea Games In Thailand

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**Abstrac:** This study aims to analyze the match statistics of the men's indoor hockey final between Indonesia and Malaysia at the 2025 SEA Games in Thailand. The research employed a quantitative descriptive method using a match analysis approach. The population consisted of all matches in the tournament, while the sample was the final match between Indonesia and Malaysia, selected using total sampling. Data were collected through documentation and indirect observation by analyzing match videos and official statistical reports, using a match analysis instrument covering offensive, defensive, possession, and basic technical indicators. The results showed that Malaysia was more dominant in ball possession (52%), total shots (52), shots on target (22), and successful passes (228). However, Indonesia demonstrated higher effectiveness by scoring 6 goals from 48 shots and showing stronger defensive performance. In conclusion, match outcomes are determined not only by possession and attacking dominance but also by efficiency in finishing, defensive discipline, and the ability to capitalize on crucial opportunities.

**Keyword:** Statistical Analysis, Indoor Hockey, SEA Games, Match Analysis

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## INTRODUCTION

Competitive sports serve as a strategic means to enhance the nation's prestige and dignity on the international stage, where, in the context of modern sports, success is determined not only by athletes' physical and technical abilities but also by the application of sports science and technology, such as statistical analysis of matches (Wahyudi, 2025). Generally, sports are competitive activities that involve physical and mental abilities and are conducted according to specific rules (Masrun et al., 2024). Based on Law No. 11 of 2022, sports encompass various forms of games, competitions, and activities aimed at recreation or achievement, and involves the mind, body, and spirit in an integrated and systematic manner to develop physical, spiritual, social, and cultural potential, thereby playing a vital role in fostering abilities as well as shaping the character and personality of a dignified nation, in line with Indonesia's efforts as a developing country to enhance achievements in various fields, particularly sports (RI, 2022).

Physical education is part of the educational process carried out through both formal and non-formal channels by educational institutions at every level, with physical education teachers supported by sports experts playing a role in guiding sports activities at school. Sports themselves are an important activity for maintaining physical fitness (Winartin et al., 2023). In a broader context, competitive sports serve as an indicator of a nation's success in sports development, where achievements in international multi-sport events such as the SEA Games are determined not only by athletes' technical and physical abilities but also by game strategies supported by data-driven scientific analysis. One of the sports experiencing rapid growth in Southeast Asia is indoor hockey (Qorni & Faruk, 2022), which, according to McGuinness et al., (2017), is a development of field hockey and is played indoors with an emphasis on speed, coordination, agility, and teamwork, making it relevant to the demands of modern sports. In high-intensity matches, such as finals, statistical analysis serves as a crucial tool for objectively evaluating both team and individual performance (Chang et al., 2024).

The men's indoor hockey final at the 2025 SEA Games in Thailand between the Indonesian national team and the Malaysian national team is a highly competitive match, given that both teams are known for their aggressive playing style, tactical discipline, and strong technical skills. This match is worth analyzing as it reflects the pinnacle of team performance and strategy in the Southeast Asian region, where statistical analysis such as ball possession, number of shots, passing accuracy, fouls, penalty corners, and scoring efficiency can provide a comprehensive picture of playing patterns and serve as a foundation for future strategy evaluation and development. Historically, hockey first developed in England in the 19th century and was formalized through the establishment of The Hockey Association in 1876, before eventually spreading globally and becoming an international sport contested in the Olympics since 1908 (Muhammad, 2018). Its development has extended to Asia, including India, Pakistan, Malaysia, and Indonesia, with some countries, such as India and Pakistan, having once dominated the sport at the world level (Ali, 2024).

In Indonesia, the sport of hockey was first introduced during the Dutch colonial period, although it had not yet become widely established. After independence, the sport began to be organized with the establishment of the Indonesian Hockey Federation (FHI) in 1953, now known as the All-Indonesia Hockey Association (PHSI), which plays a vital role in athlete development, organizing national competitions, and participating in international events. In its early stages, hockey was primarily played by the Dutch and European communities, with only a small number of indigenous people able to participate (Barata, 2021). The first national competition was held during the Student Sports Week (POM) in Yogyakarta in the field hockey category, and later expanded to the Second National Sports Week (PON) in Jakarta in 1951, with North Sumatra as the first champion, followed by East Java and Jakarta. At the international level, Indonesia first participated in the 1962 Asian Games, though it finished in last place (Barata, 2021). Over time, hockey has continued to develop with improved performance, including a historic achievement at the 2023 SEA Games in Phnom Penh, Cambodia, where the Indonesian men's indoor hockey national team successfully won a gold medal for the first time after defeating Malaysia in the final a testament to the improvement in the quality of play and a momentum for the resurgence of Indonesian hockey at the regional level.

8 Hockey is divided into three main types: outdoor hockey, indoor hockey, and ice hockey, each of which differs in terms of playing venue, number of players, equipment, and gameplay characteristics (Aftoni, 2025). Outdoor hockey is played on an open field by two teams of 11 players, emphasizing teamwork, technique, and strategy, while indoor hockey is a variation played indoors with six players, a smaller field, a faster pace, and requiring high ball control and skill with limited physical contact (Lindira & Faruk, 2023; Britannica, 2026). Meanwhile, ice hockey is played on an ice surface using skates and a puck. Indoor hockey is designed to adapt to specific conditions, focusing on speed, technique, and ball control, and requires the integration of physical, technical, and tactical abilities (Hermanu, 2018). In Indonesia, indoor hockey has developed as an alternative for competitive training due to the limited availability of outdoor fields and is supported by the Indonesian Hockey Federation's programs, eventually becoming one of the flagship events contested at regional and international levels.

The development of indoor hockey in Indonesia has been marked by increased participation in various championships, such as the SEA Games and Asian championships, which have played a role in enhancing athletes' competitive experience as well as their technical, tactical, and physical abilities. Competitive sports serve as an indicator of a country's progress in sports development, where success is determined not only by physical and technical ability but also by strategies based on statistical analysis (Mukti et al., 2026). In this context, the men's indoor hockey final at the 2025 SEA Games in Thailand between Indonesia and Malaysia is particularly worth analyzing, as it reflects intense competition characterized by aggressive play and tactical discipline. Statistical analyses such as ball possession, shots, passing success, fouls, penalty corners, and goal effectiveness provide a comprehensive picture of both teams' playing patterns. Additionally, hockey plays a role in improving fitness, strength, agility, and coordination, as well as fostering discipline, concentration, and tactical thinking skills (Harsono, 2018).

12 In hockey matches, physical conditioning is a critical factor due to the high intensity of the game; thus, a team's success depends not only on technique but also on peak physical condition. The four main training aspects to focus on include physical conditioning, technique, tactics, and mental preparation (Tangkudung & Mylsidayu, 2017), with mastery of basic techniques such as passing, shooting, stopping, dribbling, and others being key to victory. Based on the statistical analysis of the 2025 SEA Games finals, Indonesia demonstrated dominance in ball possession, passing success, and a higher number of attacks, while Malaysia was more effective at capitalizing on opportunities through counterattacks. Set-piece situations, such as penalty corners, also played a decisive role in the match outcome. Overall, victory is determined by the effectiveness of finishing opportunities, defensive discipline, and decision-making at crucial moments. Therefore, this study is important to conduct an in-depth analysis of match statistics as material for evaluation and the development of national indoor hockey performance.

## 2 METHOD

13 This study employs a quantitative descriptive method using a match analysis approach. The quantitative descriptive method aims to systematically, factually, and accurately describe the data obtained in numerical form, thereby providing an objective picture of the team's performance during the match (Irawan, 2018). This approach is used to analyze and compare the match statistics from the men's indoor hockey final between the Indonesian and Malaysian national teams at the 2025 SEA Games in Thailand. The population in this study consists of all data related to the men's indoor hockey matches at the 2025 SEA Games in Thailand, while the sample consists of the final match between the Indonesian and Malaysian national teams. The sampling technique used is total sampling, meaning that all statistical data from the final match were used as the study sample. Thus, this study focuses on a single match as the subject of in-depth analysis.

Data collection techniques were carried out through documentation and indirect observation. Documentation involved collecting official match statistics obtained from match reports and related official sources. Meanwhile, indirect observation was conducted by analyzing video recordings of matches to identify various performance indicators such as ball possession, number of shots, passing success, fouls, and scoring effectiveness. The research instrument used

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was a match analysis sheet containing technical, tactical, and team performance indicators. The data analysis technique used is quantitative descriptive analysis, which involves calculating frequencies, percentages, and team performance indicators. Frequency analysis is used to determine the number of occurrences for each variable, while percentages are used to compare variables. In addition, team performance analysis is conducted to assess offensive effectiveness, shooting accuracy, and overall efficiency. The results of the analysis are then presented in the form of tables and descriptions to provide a clear picture of the differences in performance between the two teams in the final match.

## RESULT

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### Results of Descriptive Statistical Analysis

**Table 1.** Match Statistics Results

No	Variable	Indonesia	Malaysia	Indonesia Scale
1.	Total Shots	48	52	4
2.	Shots on Goal	15	22	3
3.	Total Goals	6	4	5
4.	Successful Passes	189	228	4
5.	Ball Possession	48%	52%	4
6.	Interceptions	90	97	4
7.	Blocks	8	7	5
8.	Goals Conceded	4	6	5
9.	Goalkeeper Saves	12	10	5
10.	Fouls	33	27	4

According to the comparison table, the match between Indonesia and Malaysia was fairly even, though the two teams displayed different playing styles. Malaysia led in several possession-related metrics, such as total shots (52 to 48), shots on target (22 to 15), successful passes (228 to 189), ball possession (52% to 48%), and interceptions (97 to 90), indicating their dominance in controlling the game and building attacks. Conversely, Indonesia excelled in game effectiveness and defensive strength. Overall, this match reflected two distinct playing styles: Malaysia's control of the game and Indonesia's efficiency in the final outcome.

**Table 2.** Game Mastery Tools

No	Indicator	Scale
1.	Control of the game's pace	3
2.	Dominance of the playing area	3
3.	Consistent ball possession	3

The assessment scale uses a Likert scale ranging from 1 (very low) to 5 (very good). Based on game control indicators, Malaysia demonstrated superior performance in tempo control, territorial control, and ball possession consistency, thereby being better able to control the flow of the match. Meanwhile, Indonesia also fell into the "fairly good" category, but still lagged behind Malaysia on all three indicators. Nevertheless, Indonesia managed to secure a victory through a penalty shootout after the match ended in a draw in regulation time.

**Table 3.** Survival Aspects Instrument

No	Indicator	Indonesia	Malaysia	Unit/Scale
1.	Intercept	90	97	Frekuensi ( 90 )
2.	Successful tackle	12	7	Frekuensi (12)
3.	Blocked shot	8	7	Frekuensi (8)
4.	Foul	33	27	Frekuensi (33)

Defensive metrics track the number of defensive plays during a match, such as interceptions, successful tackles, blocked shots, and fouls. This data is used to assess a team's level

of activity and effectiveness on defense. A higher frequency of interceptions, tackles, and blocks by the Indonesian national team indicates a more aggressive and responsive defense, while a lower number of errors reflects better discipline on the field.

**Table 4.** Offensive Aspects

No	Indicator	Indonesia	Malaysia	Unit/Scale
1.	Attack build-up	48%	52%	Indonesia 48%
2.	Chances created	253	300	Frequency
3.	Finishing effectiveness	1,19%	1,33%	Percentage (%)

Based on attacking metrics, Malaysia had the edge in build-up play and the number of chances created, indicating their dominance in constructing attacks. However, Indonesia was superior in finishing efficiency, making them more effective at converting chances into goals. This reflects a difference in playing styles: Malaysia dominated in creating chances, while Indonesia was more effective in finishing.

**Table 5.** Basic Technical Skills of the Indonesian National Team

No	Indicator	Success	Failure	Effectiveness Scale	Results
1.	Passing	228	64	4	78.1%
2.	Dribbling	29	19	3	60.42%
3.	Ball control	179	90	4	66.42%
4.	Shooting	15	7	4	68.18%

Based on the calculation of the success rates for basic techniques, the passing percentage was 78.1%, dribbling 60.42%, ball control 66.42%, and shooting 68.18%. These results indicate that the team's passing, ball control, and shooting skills fall into the "good" category, while dribbling remains in the "moderate" category. Overall, the team's fundamental techniques are fairly stable, particularly in ball possession and finishing, but there is still room for improvement in dribbling skills to perform more effectively in game situations.

## DISCUSSION

Based on the results of match data collection, various statistical indicators provide a comprehensive picture of both teams' performance in terms of attack, defense, game control, and basic techniques. Malaysia appeared to have the upper hand in terms of game control, as evidenced by the number of shots, shots on target, successful passes, ball possession, and chances created, demonstrating their ability to control the tempo and build attacks systematically. These findings align with research by Gómez et al. (2017) and Yi et al. (2019), which states that teams with high ball possession tend to be able to control the rhythm of the game and create more opportunities. However, other studies by Anggara et al. (2024) and Wang et al. (2022) show that dominance in ball possession does not always correlate directly with victory, as effectiveness in capitalizing on opportunities is a more decisive factor. This is evident in Indonesia, which, despite having lower possession, demonstrated high effectiveness in finishing.

From a defensive perspective, Indonesia demonstrated a more solid performance, excelling in indicators such as successful tackles and blocked shots, which reflect good defensive organization and responsiveness in anticipating opponents' attacks. This is supported by research by Sarmiento et al. (2018), which states that a team's success is greatly influenced by the effectiveness of its defensive system in reducing opponents' scoring opportunities. However, a national study by Putra and Nugroho (2019) offers a different perspective, emphasizing that an overly dominant defensive approach can reduce the intensity of attacks and diminish scoring opportunities, making it necessary to strike a balance between offensive and defensive strategies. In this context, Indonesia has managed to maintain that balance by remaining effective on offense despite being stronger on defense.

In terms of basic techniques, the research findings indicate that passing, ball control, and shooting fall into the "good" category, while dribbling remains in the "moderate" category. This

suggests that the team's collective ability to maintain ball movement and finish plays is already quite stable, but individual skills in one-on-one situations still need improvement. National studies by Saputra and Irawan (2020) and Wibowo (2018) support the notion that passing and ball control are crucial elements in maintaining a team's game stability. Meanwhile, research by Prasetyo and Hidayat (2021) indicates that dribbling ability plays a key role in creating individual advantages in confined situations, although in modern football, teamwork remains the primary factor. Overall, the analysis results indicate that Malaysia excels in game control, whereas Indonesia is more effective and efficient in capitalizing on opportunities, which serves as the decisive factor in the final match outcome.

## CONCLUSION

Based on the research findings, it can be concluded that Malaysia demonstrated superiority in aspects of game control, such as tempo control, territorial dominance, number of passes, and chances created, reflecting their ability to dictate the flow of the match. Conversely, Indonesia excelled in game effectiveness, particularly in finishing and defensive aspects such as successful tackles and blocked shots. Although Indonesia had fewer opportunities, they were able to utilize them more efficiently. In terms of basic technical skills, passing ability, ball control, and shooting are in the "good" category, while dribbling remains in the "moderate" category. Overall, the players' basic technical skills are already quite good, but certain aspects still require improvement to support more optimal performance.

Based on these findings, it is recommended that players improve their dribbling skills to handle one-on-one situations more effectively, as well as strengthen defensive coordination to maintain consistency in anticipating opponents' attacks. Additionally, future research is expected to expand the study by incorporating more complex variables and covering a larger number of matches, thereby making the analysis results more comprehensive and in-depth to support the development of national indoor hockey performance.

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