

## ACHIEVEMENTS OF WUSHU SPORTS BRANCH OF NORTH SUMATRA SANDA AT THE NATIONAL SPORTS WEEK FROM 2012-2024

Hotma Dearma Purba<sup>1a\*</sup>, Novita<sup>2b</sup>, Rahma Dewi<sup>3c</sup>

<sup>1,2,3</sup>State University of Medan, Medan, Indonesia

<sup>1</sup> [hotmadp@yahoo.co.id](mailto:hotmadp@yahoo.co.id)

<sup>2</sup> [noviade@unimed.ac.id](mailto:noviade@unimed.ac.id)

<sup>3</sup> [rahmadewi@unimed.ac.id](mailto:rahmadewi@unimed.ac.id)

(\*) Corresponding Author  
[hotmadp@yahoo.co.id](mailto:hotmadp@yahoo.co.id)

### ARTICLE HISTORY

Received : 20-10-2025

Revised : 07-11-2025

Accepted : 30-12-2025

### KEYWORDS

Achievements,  
Wushu Sanda,  
National Sports Week,  
CIPP model.

### ABSTRACT

National Sports Week (PON) is the highest multi-event sports event in Indonesia and is a benchmark for fostering provincial sports achievements. This study analyzes the achievements of Wushu Sanda in North Sumatra Province in the volatile PON 2012–2024 using the CIPP (Context, Input, Process, Product) model. This study uses a qualitative descriptive research method. The subjects of the study are sports branch administrators, coaches, and North Sumatra Sanda Wushu athletes who are involved in the coaching and implementation of PON. Data collection techniques were carried out through interviews, documentation studies, and observations. Data analysis was carried out descriptively by linking research findings to context, input, process, and product components. The results of the study show that from the context aspect, Wushu Sanda North Sumatra has a strategic position as a regional leading sport with a strong tradition of achievement, but faces national competition pressure and psychological factors at major events. From the input aspect, the availability of athletes, coaches, and coaching support in general has been adequate, but the quality of athletes' readiness has not been completely evenly distributed, especially in the mental aspect and experience of competing. From the process aspect, the effectiveness of coaching implementation is a determining factor for the consistency of achievement, where inconsistencies in training programs, limitations in monitoring and evaluation, and lack of integrated mental preparation have an impact on athletes' readiness. From the product aspect, the achievements of Wushu Sanda North Sumatra show the consistency of medal acquisition in the 2012-2024 PON, but have not achieved optimal results in a sustainable manner, with the highest achievement in the 2016 PON. The conclusion of this study shows that the achievements of Wushu Sanda North Sumatra are the result of integration between context, input, and coaching process. Strengthening the integration of the three components is the key to increasing the achievement of Wushu Sanda North Sumatra at future PON events.

*This is an open access article under the CC-BY-SA License.*



### INTRODUCTION

National Sports Week (PON) is the largest sports event in Indonesia which is held every four years by the Government together with the Indonesian National Sports Committee (KONI). Since it was first held in Solo in 1948,

PON has been an important momentum in fostering athletes' achievements throughout the province. Through this event, the quality of athletes is tested, provincial rankings are determined, and various outstanding athletes are born who are able to bring Indonesia's name to the international level. (Winkle & Ozmun, 2003)

One of the sports that is growing rapidly and has a significant contribution to the acquisition of medals is Wushu, especially the Wushu Sanda number. Wushu Sanda is one of the disciplines that combines the technical skills of punches, kicks, and slams, so it requires mature physical, technical, tactical, and psychological preparation. In North Sumatra, Wushu Sanda is a leading branch that has repeatedly donated gold medals in several editions of PON. (Simion & Mangra, 2023)

The history of the North Sumatra Sanda Wushu achievement journey began at the 2008 PON in East Kalimantan, when the women's athlete in the 48 kg class, Hotma Dearma Purba, made history by winning the first gold medal for North Sumatra. As an athlete who was fostered at the Faculty of Sports Sciences, State University of Medan, this achievement shows that simple but directed coaching is able to produce maximum achievements. This success then became an important foundation for the development of Wushu Sanda in North Sumatra. (Noviani & Badri, 2019)

The development of the achievements of Wushu Sanda North Sumatra was increasingly seen at PON XVIII/2012 in Riau, when the North Sumatra contingent won three gold, three silver, and one bronze medals. This achievement cannot be separated from the intensive coaching program carried out by the Indonesian Wushu Provincial Government of North Sumatra, including sending athletes to undergo a training camp in China for six months. The support of Wushu figures such as Master Supandi Kusuma, Iwan Kwok, and Dr. Novita, M.Pd. also strengthened the quality of coaching at that time. (Linas et al., 2022)

The peak of achievement occurred at PON XIX/2016 in West Java, when North Sumatra won five gold, one silver, and two bronze medals. Although the number of athletes sent was relatively less than in subsequent editions, this achievement shows that the quality of athletes and the effectiveness of coaching are important factors in determining achievements.

However, at PON XX/2021 in Papua and PON XXI/2024 Aceh-North Sumatra, the gold medal acquisition of Wushu Sanda North Sumatra decreased again to three gold medals. Even so, this achievement still shows the consistency of North Sumatra as one of the strong provinces in the Wushu Sanda branch. This decline is an indicator that the dynamics of achievement can be influenced by various factors, both internal and external. (Kasale et al., 2018)

In PON XXI/2024, North Sumatra, which has the status of host with Aceh, targets higher achievements. However, the final results showed the acquisition of three gold, four silver, and one bronze medals. Although they did not succeed in winning the overall championship, this result still shows the success of athletes in maintaining competitive performance in the midst of increasingly fierce competition.

From various findings in the field, it is known that the achievements of North Sumatra Sanda Wushu athletes are not only influenced by technical skills, tactics, and physical conditions, but also influenced by psychological factors such as confidence, mental readiness, and the ability to control emotions when competing. In addition, supporting factors such as coaching, quality of coaches, training facilities, and competition frequency also play a role in achieving achievements. (Gill, 2021)

The recapitulation of achievements from PON XVIII/2012 to PON XXI/2024 shows that Wushu Sanda North Sumatra is in the consistent category in donating medals, despite fluctuations in the number of gold medals. The peak of achievement occurred in 2016 with five gold medals, while in 2021 and 2024 the gold medal acquisition was stable at number three. This pattern shows the existence of interesting achievement dynamics to be studied more deeply. (Elumaro, 2016)

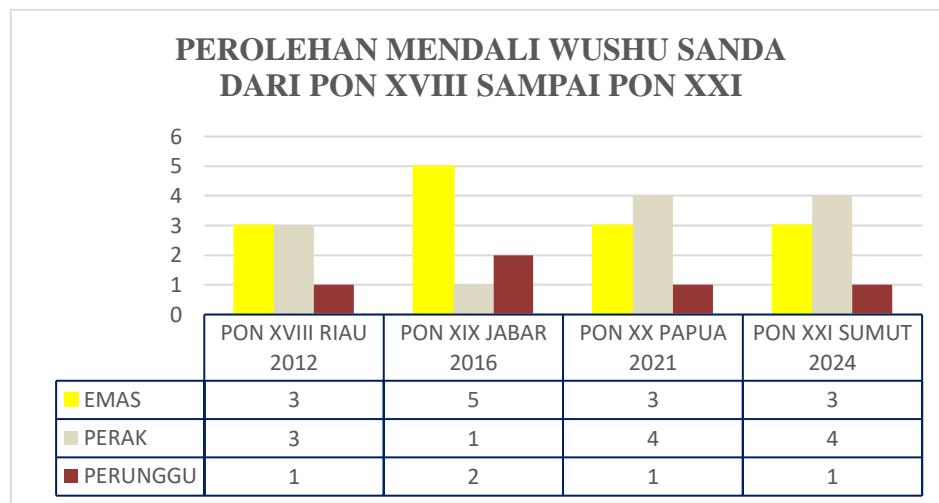
By paying attention to these conditions, research on the achievements of Wushu Sanda North Sumatra in the 2012-2024 PON is important. This study aims to describe how the achievements of Wushu Sanda athletes during the period, what factors affect these achievements, and how the direction of the development of Wushu Sanda North Sumatra achievements in the future.

This study does not focus on the evaluation of coaching programs in detail, but focuses on the analysis of achievement achievements and factors that contribute to these results. Thus, the results of the study are expected to provide a comprehensive picture of the dynamics of the achievements of Wushu Sanda North Sumatra from 2012 to 2024.

**Table 1. Recapitulation of Sanda Wushu Medal Acquisition from PON XVIII/2012 to PON XXI/2024**

NO	EVENT	LOCATION	YEAR	GOLD	SILVER	PERUNGGU
1	PON XXI	NORTH SUMATRA	2024	3	4	1
2	PON XX	PAPUA	2021	3	4	1
3	PONXIX	WEST JAVA	2016	5	1	2
4	MON XVIII	RIAU	2012	3	3	1

From the recapitulation of the table above, the medal acquisition graph can be described as follows:



**Figure 1. Acquisition of Wushu Sanda Medal from PON XVIII/2012 – PON XXI/2024**

The medal achievement graph shows a stable achievement trend, although the gold medals in the 2021 and 2024 PON have not been able to match the achievements of the 2016 PON. The difference in the number of athletes who qualify for the PON is also a factor that affects the dynamics of achievements, where the greater number of participants is not always directly proportional to the medal results.

These various achievements show that athletes' achievements are not only determined by technical, tactical, physical, and strategic abilities, but are also influenced by psychological aspects, coaching quality, organizational management, and the quality of the competitions they follow. This emphasizes the importance of a thorough evaluation of the development of Wushu Sanda in North Sumatra in a sustainable manner.

Based on this phenomenon, this study has a gap research in the form of the need to comprehensively evaluate the achievements of Wushu Sanda North Sumatra in the range of 2012-2024 by paying attention to the context of coaching, supporting inputs, the process of implementing training, and products in the form of achievements. Therefore, this study was conducted to analyze the achievement of the North Sumatra Sanda Wushu Sports Branch in the 2012-2024 PON in the framework of coaching, training process, as well as supporting and inhibiting factors for athlete achievement.

## METHOD

This research uses a qualitative descriptive approach, which is a research approach that aims to describe, analyze, and interpret phenomena in depth based on data as it is in the field. The qualitative approach was chosen because this study does not focus on measuring variables numerically, but wants to understand the process, dynamics, and meaning contained in the achievements of Wushu Sanda North Sumatra at the National Sports Week (PON) in 2012-2024.

The qualitative descriptive approach is also considered the most relevant because the object of the research is in the form of achievement in the form of achievement seen from the coaching process, athlete condition, physical

readiness, psychological factors, and managerial dynamics that occur during this time span. All of these factors are aspects that are not enough to be explained using numbers alone, but require a rich, in-depth, and contextual narrative explanation. (Scott, 2018)

In this study, data was collected through interviews, documentation, and limited observations, then analyzed to form a complete picture of how the achievements of Wushu Sanda North Sumatra have changed over time. The qualitative approach allows researchers to understand the reasons, causes, and relationships between factors that affect the fluctuation in athletes' achievements from PON to PON.

Qualitative descriptive research is also in line with the opinion of Bogdan & Taylor (1975) that qualitative research is carried out to produce data in the form of written or spoken words from people and observed behaviors, so that researchers can comprehensively understand the context of the phenomenon. Thus, this approach provides flexibility for researchers to explore the experiences of coaches, administrators, and athletes in the coaching process towards PON. (Creswell, 2013)

Overall, this type of research was chosen because it was able to provide an in-depth picture of the achievements of Wushu Sanda North Sumatra without ignoring the social context, coaching programs, and internal and external factors that influenced the period from 2012 to 2024.

This research was carried out in North Sumatra Province, with the main focus on the Indonesian Wushu Provincial Management (WI) of North Sumatra as the institution responsible for the process of coaching Wushu Sanda athletes towards various championships, including the National Sports Week (PON). The selection of this location is based on the consideration that WI North Sumatra is an institution that has complete and authoritative data related to the development of achievements, training programs, the number of athletes, coaching structures, and records of medal acquisition in the 2012-2024 PON.

In addition to the North Sumatra WI office, research was also carried out in several Wushu Sanda training places (gyms/dojos) under the auspices of the North Sumatra WI Provincial Government. Observations and interviews were conducted at these training locations to obtain a clear picture of coaching patterns, athletes' readiness, training facilities, training frequency, and athlete breeding process during the research period. The training venue that was used as the location for data collection was selected based on the recommendations of the management, the availability of athletes, and their history of contribution to the delivery of athletes to PON.

The subject and object of research are two important components in qualitative research because they determine the main source of data and the focus of the analysis to be done. In the context of this study, the research subjects were selected purposively (purposive sampling) based on their direct involvement in the process of coaching and achieving the achievements of Wushu Sanda North Sumatra in the 2012-2024 PON. Meanwhile, the object of the research focuses on the phenomenon of achievement that is analyzed in depth.

The object of this study of 20 people was the achievements of Wushu sanda athletes during the National Sports Week 2012 to 2024, such as the number of matches won, and the rankings obtained during the PON. The research objectives include:

- 1) North Sumatra Sanda Wushu medal acquisition in each edition of PON (2012-2024). This data is the main indicator to assess the success of athlete coaching in each period.
- 2) Changes in the number of athletes who qualify for the PON and those who are sent to compete. The number of athletes gives an idea of the selection process, the quality of coaching, and the development of competitiveness.
- 3) The process of coaching athletes from year to year. Including training methods, preparation programs, training centers (TC), and coach support.
- 4) Performance supporting factors. For example: the quality of coaches, training facilities, training programs, match experience, and organizational support.
- 5) Performance inhibiting factors. For example: budget constraints, athlete injuries, stronger competitors, psychological problems, or unpreparedness of strategy.

## RESULTS AND DISCUSSION

### *Context Evaluation (Context of Wushu Coaching and Achievement of Wushu Sanda North Sumatra)*

The *Context Evaluation* in the CIPP model in this study is directed to examine the background, environmental conditions, needs, and strategic situations surrounding the achievements of the Wushu Sanda sports branch of North Sumatra Province at the National Sports Week (PON) in 2012-2024. Context analysis is important because sports achievements do not stand alone, but are influenced by the coaching environment, regional sports policies, and the

dynamics of national competition. (Abdurrahman et al., 2024)

Historically, Wushu Sanda has developed into one of the sports achievements that are taken into account in North Sumatra. The participation of Wushu Sanda North Sumatra in various editions of PON shows the continuity of coaching and regional commitment in developing this sport. From PON XVIII in 2012 to PON XXI in 2024, Wushu Sanda North Sumatra has consistently sent athletes and been able to win medals, which indicates that in context, this sport has a fairly strong coaching foundation. (Ahmad & Summary, 2023)

National Sports Week as the highest sports event in Indonesia is the main benchmark for regional achievements. Therefore, the need for achievement in PON is the main contextual factor that encourages the implementation of Wushu Sanda coaching in a sustainable manner. Each PON period brings different demands, both in terms of medal targets, opponent quality, and public expectations. This puts Wushu Sanda North Sumatra in the context of increasingly competitive national competition.

The competitive environment shows that other provinces continue to experience an improvement in the quality of Wushu Sanda coaching. This condition requires North Sumatra to not only maintain past achievements, but also adjust to the development of techniques, tactics, and match regulations. Thus, the achievements of Wushu Sanda North Sumatra in the 2012-2024 PON must be understood as the result of the interaction between the internal potential of the region and the external pressure of national competition.

The policy and organizational context also influences achievements. Support from the Indonesian National Sports Committee (KONI) North Sumatra, the Indonesian Wushu Provincial Board, as well as the role of clubs and gyms are an important part of the coaching environment. However, policy dynamics, management changes, and limited resources in certain periods also form coaching conditions that are not always uniform in each edition of PON. (Bridge et al., 2014)

The special context of PON XXI Aceh-North Sumatra in 2024 provides an additional dimension in context analysis. North Sumatra's status as a joint host creates higher expectations of achievement than the previous PON. The pressure to perform optimally in front of the public itself has the potential to affect the mental readiness of athletes and team dynamics. This condition is a relevant contextual factor in understanding the achievements of Wushu Sanda North Sumatra in PON 2024, especially when the overall champion target is not fully achieved.

Based on the evaluation of this context, it can be concluded that the achievements of Wushu Sanda North Sumatra in the 2012-2024 PON took place in a relatively supportive coaching environment, but were also faced with the challenges of increasingly fierce national competition, high achievement demands, and policy and organizational dynamics. This context evaluation is an important basis for understanding the achievements obtained before further analysis is carried out on input, process, and product aspects in the CIPP model.

#### ***Input Evaluation (Supporting Resources for Wushu Development Sanda North Sumatra)***

The evaluation of inputs in this study is directed to examine all resources used in supporting the achievements of the North Sumatra Sanda Wushu sports branch at the National Sports Week (PON) in 2012-2024. The inputs analyzed included the quality and quantity of athletes, the competence of coaches, the availability of facilities and infrastructure, as well as organizational support and coaching funding. These four input components are the main foundation that determines the effectiveness of the coaching process and the resulting achievements. (Chelladurai, 2012)

Based on the results of the research, North Sumatra Sanda Wushu athletes who participated in the PON in the 2012-2024 period came from a tiered selection process carried out through regional championships, national championships, and PON qualification rounds. This selection process aims to recruit the best athletes who are considered to have physical, technical, and mental readiness to compete. The number of North Sumatra Sanda Wushu athletes who qualified and competed in each edition of PON showed variations. In PON XVIII in 2012 and PON XIX in 2016, the number of athletes sent was relatively less than PON XX in 2021 and PON XXI in 2024. However, the gold medal achievement was actually higher in PON 2016 than PON 2021 and 2024. These findings show that the increase in the number of athletes is not automatically proportional to the increase in achievement, but is greatly influenced by the quality of athletes' readiness.

From the results of interviews with coaches and administrators, it was found that some athletes have good technical potential, but mental readiness to compete and experience in facing the pressure of competition at the national level is still a challenge. This condition is especially seen in the 2024 PON, where the pressure of hosting also affects the performance of some athletes during the match. (Chen & Siriphan, 2024)

Coaches are strategic inputs that play a role in designing training programs, shaping athletes' technical and tactical skills, and preparing mentally for competitions. The results of the study show that Wushu coach Sanda North

Sumatra generally has a background as a former athlete and has participated in Wushu coaching education or certification. In the 2012 and 2016 PON periods, the role of coaches was considered very optimal because of the intense closeness between coaches and athletes and the consistency of the training program. This contributes to relatively higher achievements, especially in the 2016 PON. However, in the 2021 and 2024 PON periods, the increased coaching burden due to the greater number of athletes and the limited number of coaches caused the intensity of mentoring to be uneven. In addition, the results of the interviews revealed that not all coaches have a strong specialization in the psychological aspects and elite level match strategy. This limitation has an impact on athletes' readiness to face tense match situations, especially in medal matches. ( Pelupessy & Dimyati , 2019)

In addition, facilities and infrastructure are supporting inputs that affect the quality of the training process. Based on research data, Sanda Wushu training facilities in North Sumatra have generally met basic coaching needs, such as training arenas, mats, protective equipment, and physical training equipment. However, the results of observation and documentation show that the quality and availability of facilities are not fully optimal, especially in supporting high-intensity training ahead of PON. Some facilities do not have international standards that are equivalent to other leading provincial training centers. This condition has the potential to affect athletes' adaptation to the atmosphere and demands of matches at the national level. The limitation of these facilities causes the implementation of exercises sometimes to be adjusted to existing conditions, so that not all training programs can be applied optimally.

Organizational support and funding are input components that greatly determine the sustainability of achievement coaching. The results of the study show that the Indonesian Wushu Provincial Board of North Sumatra, together with KONI North Sumatra, has a commitment to support the development of Wushu Sanda as a mainstay sport. This support is manifested in the form of facilitation of training programs, participation in championships, and preparations for PON. However, the results of the interview revealed that the availability of the budget has not always been stable in each PON period. Limited funding has an impact on reducing the frequency of tryouts, long-term training centers, and test opportunities with athletes from other regions.

In PON 2024, even though North Sumatra has the status of host, the management of organizational support and funding still faces challenges in maintaining consistency in the quality of coaching. This is one of the factors that affect the achievements of Wushu Sanda North Sumatra at the event.

Based on the description above, it can be concluded that the input of the North Sumatra Sanda Wushu coaching in the 2012-2024 PON is supported by relatively adequate athletes, coaches, facilities, and coaching organizations. However, there are limitations in the aspects of athlete quality, equitable distribution of coach assistance, standards of infrastructure, and consistency of funding support. This input condition directly affects the coaching process and the achievements achieved in each edition of PON.

#### **Process Evaluation**

The evaluation of the process in this study aims to assess how the implementation of Wushu Sanda North Sumatra coaching and training is carried out in real terms, starting from the planning stage, implementation of training, monitoring, to program control in order to achieve achievements at the National Sports Week (PON) in 2012-2024. Within the framework of the CIPP model, the evaluation of the process is focused on the consistency of the implementation of the program with the set plan, the effectiveness of the coaching mechanism, and the extent to which the process is able to support the achievement of athletes' achievements in a sustainable manner. The results of the process evaluation were obtained through in-depth interviews with athletes, coaches, and administrators, field observations, and analysis of achievement documents and coaching programs. Based on these results, the evaluation process is divided into four subcomponents, including the implementation of the training program, monitoring and evaluation system, coaching support and match tests, and obstacles in the program implementation process. (Fletcher & Sarkar, 2012)

The implementation of the North Sumatra Sanda Wushu training program in the 2012-2024 PON period shows a relatively consistent and tiered coaching pattern, both through regional gyms, clubs, and provincial training centers. The training program is prepared by the coach based on the principles of physical training, techniques, tactics, and strategies that are adjusted to the needs of the match number sanda. (Puja & Setyawati , 2023)

Based on the results of the interviews, athletes assessed that physical fitness was the main focus in the training process, followed by strengthening technique and mental readiness. This is reflected in the high awareness of athletes to do additional exercises outside the coach's official schedule. Questionnaire data showed that 94% of athletes stated that they did independent training outside of the main program, which indicates a strong internal motivation in the coaching process. However, the process evaluation also found that the implementation of training programs was not completely uniform in all districts/cities, especially related to the availability of training facilities and the quality of

coach assistance. This condition causes differences in the physical and technical readiness of athletes when entering the selection stage and provincial training centers. (Bhyantari, 2016)

Then monitoring and evaluation of the training program is carried out by the coach and administrators through direct observation of the physical development, technique, and results of the athlete's match test. More intensive evaluation is carried out ahead of major championships such as the PON Qualifying Round and PON itself. The results of the study show that monitoring has not been fully carried out systematically and well documented. Evaluation of athlete development is more informal, based on the coach's experience and the results of the match, than using structured standard evaluation instruments. Despite this, most athletes show a good understanding of their body condition and performance. The questionnaire data revealed that 90% of athletes have a procedural understanding of their physical condition, and 95% of athletes are aware that physical condition is the main factor supporting achievement. These findings show that although formal monitoring systems are still limited, the internal evaluation process by athletes is quite effective. (Keliat et al., 2024)

One of the main strengths in the process of achieving the achievements of Wushu Sanda North Sumatra is the support of intensive coaching and quality competitions, both at the national and international levels. Training centers abroad, especially to China, are an important factor in improving the quality of athletes' competition techniques and mentality. Sending athletes to international training camps provides a more competitive competitive experience, so athletes are used to facing high-level match pressures. This is evident from the significant increase in achievements in PON 2016, which became the peak of gold medal acquisition during the research period. In addition, organizational support through collaboration between administrators, trainers, and national Wushu figures also strengthens the coaching process. Management synergy that has a vision and commitment to achievement has proven to be able to maintain consistency in results in several editions of PON, despite the dynamics of declining achievements in PON 2021 and 2024. (Jingwen ab et al., 2014)

Although the coaching process went quite well, the process evaluation also found several obstacles that affected the effectiveness of the program's implementation. The main obstacles that arise are the unevenness of training facilities, limited sustainable funds, and the lack of quality local competitions as a place for routine evaluation of athletes. In addition, the psychological factor of athletes is one of the challenges in the process of achieving achievements, especially in crucial matches. The results of the study show that the failure to achieve the overall champion target at PON XXI Aceh-North Sumatra 2024 is not solely caused by technical and physical aspects, but also by the mental readiness of athletes when competing. Another obstacle found is that the documentation system for the coaching program is not optimal, so that the long-term evaluation process becomes less measurable. This has implications for the difficulty in identifying specifically the relationship between a particular exercise program and the results achieved.

#### **Product Evaluation (Achievements of Wushu Sanda North Sumatra in PON 2012-2024)**

Product Evaluation in the CIPP model aims to assess the final outcome of the entire North Sumatra Sanda Wushu coaching process, which is reflected in the achievements of athletes at the National Sports Week (PON) in 2012-2024. At this stage, the focus of the evaluation is directed to the acquisition of medals, the consistency of achievements, and the tendency to increase or decrease the results achieved as a result of the context, inputs, and coaching processes that have been carried out. Achievement is the main indicator of the success of sports coaching. Therefore, the product evaluation in this study not only looks at the number of medals achieved, but also analyzes the meaning of these achievements in the context of the dynamics of national competition and the sustainability of the achievements of Wushu Sanda North Sumatra. (Hardyanti, 2022)

Based on the data from the research results, Wushu Sanda North Sumatra has consistently succeeded in donating medals in four editions of the National Sports Week, namely PON XVIII Riau 2012, PON XIX West Java 2016, PON XX Papua 2021, and PON XXI Aceh-North Sumatra 2024. This consistency shows that Wushu Sanda is one of North Sumatra's leading sports at the national level. At PON XVIII in 2012 in Riau, Wushu Sanda athletes from North Sumatra won 3 gold medals, 3 silver medals, and 1 bronze medal. This achievement reflects the initial phase of coaching which is quite solid and becomes the foundation for improved achievement in the next period. (Sonnenstag & Frese, 2002)

The highest achievement was achieved at PON XIX in 2016 in West Java, where Wushu Sanda North Sumatra won 5 gold medals, 1 silver medal, and 2 bronze medals. This result places Wushu Sanda North Sumatra as one of the main national strengths and shows the effectiveness of the coaching carried out in that period. At PON XX in 2021 in Papua, the number of gold medals decreased to 3 gold medals, but the number of silver medals increased to 4 silver medals, and 1 bronze medal. This decline shows a change in the dynamics of competition and challenges in

maintaining peak achievements, although in general achievement achievements are still relatively good. Furthermore, at PON XXI in 2024 Aceh-North Sumatra, Wushu Sanda North Sumatra again won 3 gold medals, 4 silver medals, and 1 bronze medal. This result shows the stability of achievements compared to the previous PON, but has not been able to surpass the highest achievement in the 2016 PON. This condition is also influenced by the psychological pressure of hosting as well as the increasing quality of opponents from other provinces. (Frye & Hemmer, 2012)

The achievements of Wushu Sanda North Sumatra at the National Sports Week (PON) in 2012-2024 are the final result of a series of complex and interrelated coaching processes. In the framework of the CIPP model, achievements (products) cannot be understood in isolation, but must be analyzed as an accumulation of context factors, supporting resources (inputs), and program implementation (process) that take place dynamically in each PON period. From the context aspect, Wushu Sanda North Sumatra is in a position as a regional leading sport with high achievement demands. The increasingly competitive environment of national competition, characterized by the increasing quality of athletes from other provinces, has become an external context that directly affects achievements. In PON 2016, the context conditions were relatively more supportive, both in terms of preparation and coaching stability, so that North Sumatra was able to achieve the highest achievements. On the other hand, in PON 2021 and PON 2024, the pressure of tighter competition and special conditions as the host of PON 2024 provide additional challenges that have an impact on achievements. (Simion & Mangra, 2023)

Viewed from the input aspect, the quality of athletes, coaches, facilities, and organizational support shows a significant contribution to achievement. In periods with more focused and optimal inputs, such as PON 2016, the quality of athletes who are technically and mentally mature as well as intensive coaching assistance are the determining factors for success. On the other hand, in the 2021 and 2024 PON, even though the number of athletes sent is more, the quality of athletes' readiness is not completely even. These findings confirm that the quantity of inputs is not always directly proportional to the quality of the product, so the effectiveness of input utilization is a key factor in achieving achievement.

The process aspect also contributes greatly to the fluctuation in achievement. The process of implementing the training program, training center, monitoring, and evaluation shows variations in quality in each PON period. In periods with consistent, structured process implementation, and supported by adequate training centers, achievement tends to be more optimal. On the other hand, limitations in the continuity of training centers, monitoring systems that have not been systematically documented, and lack of optimal mental preparation of athletes have an impact on performance during the competition, especially in medal matches.

In the context of PON XXI Aceh-North Sumatra in 2024, product evaluation shows that the relatively stable achievement compared to PON 2021 does not fully reflect the maximum potential of Wushu Sanda North Sumatra. Psychological pressure as the host, high public expectations, and the improvement of the quality of the opponent are factors that affect the final result. This condition shows that the mental aspect and readiness to compete need to receive greater attention in the coaching process, so that the achievement is not only stable but also increases.

Overall, the analysis of the achievements of Wushu Sanda North Sumatra in the 2012-2024 PON based on the CIPP model shows that the results achieved have reflected the effectiveness of coaching in general, but still leave room for improvement. The strong relationship between context, input, and process with the product confirms that efforts to improve performance in the future need to be carried out comprehensively, sustainably, and integrally in all components of coaching.

The following are the results of research on the process of achieving achievements in the Wushu Sanda sports branch of North Sumatra Province at the National Sports Week (PON) in 2012-2024. This writing is compiled based on the results of interviews with resource persons. Physical fitness is considered to be superior to achieve brilliant achievements. But there are also other factors that support the achievement of achievements. Where there are physical, psychological, technical and strategic. This is done by athletes to achieve the desired achievements.

*"Yes, as an athlete having physical fitness must be very superior. You have to do additional exercises to have good fitness. What is certain is that I have to get enough rest. Yes, I think physical condition is decisive, but of course there are many other factors." (Results of interviews with Respondent J athletes, August 2025).*

*"From the test results, I think yes, but I am not quick to be complacent, sometimes outside of training hours I still increase additional training hours. First, take advantage of free time for practice, for example, if I am off in the afternoon. I prefer to jog and other physical exercises until 6 pm. I do cardio endurance training, then intervals and weight training. Not really, but being honest with a good physique also improves the mentality of competing." (Results of interviews with HT Respondent athletes, August 2025).*

*"If you are not an athlete yet, but after a few years of training, the better this physical condition is. If I was a*

sister, in the early days I was catching up with my physical lag, outside the schedule both morning and afternoon and evening I always practiced cardio and weights. I'm more focused on cardio, weight and strength. Definitely, if we are physically qualified, we will automatically be more confident when it is time to compete". (Results of interviews with MYNK Respondent athletes, August 2025).

From the results of the athlete interviews above, it can be concluded that additional training has been proven to help athletes achieve peak performance by increasing strength, agility, endurance, and power, as well as preventing injuries. Specific exercises such as resistance training, plyometric training, and core training can be integrated in the training program to optimize the athlete's abilities.

Furthermore, based on the results of the author's observation that in general, the performance of Wushu (including sanda) in North Sumatra shows an increase and consistency of achievements in the North Sumatra PON, showing an increase in medal acquisition in the 2016 PON compared to 2012. At PON XX Papua (held in 2021), the North Sumatra Wushu team passed many athletes to the sanda final and won several golds such as. 3 gold sanda in the report of the Ministry of Youth and Sports). Another finding is that the North Sumatra Wushu Provincial Board is actively organizing regional championships (kejurda) and competitions to select and hone junior to senior athletes. This is a pipeline for PON athletes. There are efforts to send athletes for training/test matches abroad (e.g. China) before the big PON to improve the quality of matches and sanda techniques. This kind of program is reported ahead of the big PON. Coaching designed for the medium to long term (cadre for months) and the role of experienced coaches are said to contribute to the stability of achievements, especially ahead of the 2024 PON of a team that is mature tactically and physically.

Regional administrators and provincial governments support through financing of national training/regional championships, match facilities, and incentives for outstanding athletes. However, the distribution of facilities is still uneven across districts/cities (a challenge noted). At PON XXI Aceh-North Sumatra 2024, North Sumatra is again one of the provinces that dominates the acquisition of wushu medals (significant gold acquisition in the sanda and tauolu numbers; some reports show that North Sumatra contributed some gold to the contingent and appeared dominant in local events/kejurda). This is also supported by the following questionnaire data:

**Table 4.1 The process of achieving achievements in the North Sumatra Sanda Wushu Sports branch**

No	Statement	Shoes	Percentage	Category
1	I always give extra Workouts to improve my fitness	82	82%	BS
2	Increased fitness will improve physical condition performance as well	74	74%	B
3	I prefer to increase my workouts rather than hang out	82	82%	BS
4	I am committed to always improving my abilities every month	82	82%	BS
5	I was given a procedural understanding to understand the condition of my body	90	90%	BS
6	In my opinion, physical condition is an important thing that must be improved because one of the factors that support achievement	90	90%	BS
7	I feel that my physique is lacking so outside of the training program my coach trains on my own	94	94%	BS
8	My physical tests ahead of the NATIONAL SPORTS WEEK always get a target	84	85%	BS
9	The training given by the coach tends to be heavy so that it has an impact when competing	83	83%	BS
10	Mentality is a determinant in athletes' performance	90	90%	BS

From the results of the questionnaire, the achievement of the achievement of wushu sanda sports in North Sumatra is very good where athletes feel that their physical abilities are lacking so that outside the training program, 94% of athletes train themselves to do this. Then 90% of athletes have procedural understanding to understand their body condition. 95% of athletes believe that physical condition is an important thing that must be improved because it is one of the factors that support achievement. Therefore,

it can be concluded that the process of achieving the achievements of Wushu Sanda North Sumatra in the 2012-2024 PON is the result of a combination of tiered coaching, long-term cadres, competition tests (including overseas training), and organizational support. North Sumatra showed a trend of improvement and consistency of achievements in several PON events, especially ahead of and at the 2016, 2021, and 2024 PON. The challenge remains in the equitable distribution of facilities and documentation of area development programs which, if improved, will help maintain and improve future achievements.

## CONCLUSION

Based on the results of research and discussion on the achievements of the North Sumatra Sanda Wushu sports branch at the National Sports Week (PON) in 2012-2024 using the CIPP (*Context, Input, Process, Product*) model approach, it can be concluded that several things are as follows.

First, from the context aspect, Wushu Sanda North Sumatra has a strategic position as a regional leading sport that is consistently targeted to contribute medals at the PON event. The tradition of achievement, organizational support, and high expectations from sports stakeholders form a relatively supportive coaching context. However, the dynamics of increasingly tight national competition and psychological pressure, especially in PON XXI Aceh-North Sumatra 2024, are contextual factors that affect the stability of achievements.

Second, from the input aspect, the availability of athletes, coaches, facilities and infrastructure, as well as organizational support in general are sufficient to support the development of Wushu Sanda North Sumatra. The increase in the number of athletes who qualified for PON shows the development of coaching inputs. However, the quality of input between athletes is not completely even, especially in terms of mental readiness and competitive experience, so not all inputs are able to contribute optimally to achievements.

Third, from the *process aspect*, the implementation of coaching shows variations in the level of effectiveness between PON periods. In periods with a planned, consistent, and structured training process, achievement tends to be more optimal. On the other hand, inconsistencies in training programs, limited training camp durations, and lack of optimal *monitoring* and evaluation have an impact on athletes' readiness during the competition. In addition, the aspect of mental preparation has not been fully systematically integrated in the coaching process.

Fourth, from the *product aspect*, the achievements of Wushu Sanda North Sumatra in the 2012-2024 PON show consistency in the acquisition of medals, despite fluctuations in the number of gold medals. The highest achievement was achieved in the 2016 PON, while in the 2021 and 2024 PON, the achievements have not been able to match these results. This shows that achievements are the result of the integration of *context*, *inputs*, and *processes* that have not been fully optimized in a sustainable manner.

Overall, this study concludes that the achievement of Wushu Sanda North Sumatra is influenced by the integration of the coaching context, the quality of input, and the effectiveness of the coaching process. Imbalances in one of the components of CIPP have a direct impact on the achievement achieved.

## REFERENCES

Abdurrahman, E., Nasuka, N., Sulaiman, S., & Raharjo, H. P. (2024). Evaluation of North Sumatra Petanque Sports Achievement Development. *Journal of Physical Therapy*, 11(1), 1–13.  
<https://doi.org/10.46244/penjaskesrek.v1i1.2643>

Ahmad, N. Y., & Sumaryanti. (2023). Analysis of the Physical Condition of Long-Term Wushu Sanda Athletes PON Athletes of North Sumatra Province in Facing the North Sumatra / Aceh National Sports Week XXI Year 2024. *International Journal of Multidisciplinary Research and Analysis*, 06(12).  
<https://doi.org/10.47191/ijmra/v6-i12-70>

Bhyantari, R. (2016). The aerobic capacity of wushu players is better than that of non-wushu students at Udayana University. *E-Journal of Udayana Medicine*, 5(1).  
[https://www.academia.edu/101742236/Kapasitas\\_Aerobik\\_Mahasiswa\\_Pemain\\_Wushu\\_Lebih\\_Baik\\_Daripada\\_Mahasiswa\\_Bukan\\_Pemain\\_Wushu\\_DI\\_Universitas\\_Udayana](https://www.academia.edu/101742236/Kapasitas_Aerobik_Mahasiswa_Pemain_Wushu_Lebih_Baik_Daripada_Mahasiswa_Bukan_Pemain_Wushu_DI_Universitas_Udayana)

Bridge, C. A., Ferreira da Silva Santos, J., Chaabène, H., Pieter, W., & Franchini, E. (2014). Physical and Physiological Profiles of Taekwondo Athletes. *Sports Medicine*, 44(6), 713–733.  
<https://doi.org/10.1007/s40279-014-0159-9>

Chelladurai, P. (2012). Leadership and Manifestations of Sport. In *The Oxford Handbook of Sport and Performance Psychology* (pp. 328–342). Oxford University Press.  
<https://doi.org/10.1093/oxfordhb/9780199731763.013.0017>

Chen, F., & Siriphan, C. (2024). The Effective of Specific Training Program to Improve Aerobic and Anaerobic Capacity in Wushu Sanda Athletes. *International Journal of Sociologies and Anthropologies Science*

Reviews, 4(3), 329–340. <https://doi.org/10.60027/ijssr.2024.4230>

Creswell, J. W. (2013). *Research Design: Qualitative, Quantitative, and Mixed Approaches*. Student Library.

Elumaro, A. I. (2016). Personality, Grit and Sporting Achievement. *Journal of Sport Science*, 3(2).

Fletcher, D., & Sarkar, M. (2012). A grounded theory of psychological resilience in Olympic champions.

*Psychology of Sport and Exercise*, 13(5), 669–678. <https://doi.org/10.1016/j.psychsport.2012.04.007>

Frye, A. W., & Hemmer, P. A. (2012). Program evaluation models and related theories: AMEE Guide No. 67. *Medical Teacher*, 34(5), e288–e299. <https://doi.org/10.3109/0142159X.2012.668637>

Gill, A. J. G. (2021). Coaching and Performance. In *Foundations of Sports Coaching* (pp. 15–28). Routledge. <https://doi.org/10.4324/9781003157526-2>

Hardyanti, I. (2022). Analysis of the Physical Condition of Wushu Athletes of Wanoro Seto Academy Surabaya. *Journal of Sports Achievement*, 5(2), 25–31. <https://ejournal.unesa.ac.id/index.php/jurnal-prestasi-olahraga/article/view/44803>

Jingwen ab, L., Zheng, L., & Weixi, S. (2014). Experimental Study on Chinese Athletes' Physical Distribution in Sanda Competition. *Higher Education of Social Science*, 6(1), 15–19. <https://doi.org/10.3968/j.hess.1927024020140601.4016>

Kasale, L. L., Winand, M., & Robinson, L. (2018). Performance management of National Sports Organisations: a holistic theoretical model. *Sport, Business and Management: An International Journal*, 8(5), 469–491. <https://doi.org/10.1108/SBM-10-2017-0056>

Keliat, P., Situmorang, S., Manullang, S. B., Sagala, S. G., Purba, R. H., Gulo, R. K., Zebua, R. A. P., Bangun, R. K., Gulo, S. S., Ginting, S., & Zega, S. P. (2024). Psychological Assistance for North Sumatra Pencak Silat Pelatda Athletes Towards PON XXI in 2024. *Journal of Community Service of the Nation*, 2(4), 1109–1115. <https://doi.org/10.59837/jpmba.v2i4.957>

Linas, I. O., Rasyid, W., Welis, W., Irawan, R., & Zarya, F. (2022). Evaluation of the Wushu achievement sports coaching program in Kerinci district. *Journal of Achievement Sports*, 18(3), 19–28. <https://doi.org/10.21831/jorpres.v18i3.53817>

Noviani, F. T., & Badri, H. (2019). Analysis of the Physical Condition of Wuhsu Athletes in Limapuluh Kota Regency. *Journal of Stamina*, 2(8), 83–93. <https://doi.org/10.24036/jst.v2i8.423>

Pelupessy, M. K. R., & Dimyati, D. (2019). Anxiety as a Predictor of Achievement in Adolescent Badminton Athletes. *Psychology: Journal of Psychological Thought and Research*, 24(1), 93–104. <https://doi.org/10.20885/psikologi.vol24.iss1.art7>

Puja, R., & Setyawati, H. (2023). The Achievement of Wushu Sanda Athletes in Central Java at the 2018 Asian Games. *Indonesian Journal for Physical Education and Sport*, 4(1), 29–32. <https://doi.org/10.15294/inapes.v4i1.47913>

Simion, A., & Mangra, G. (2023). Strategic optimization of the management of sports organizations. *Management & Marketing*, 21(1), 151–161. <https://doi.org/10.52846/MNMK.21.1.09>

Sonnentag, S., & Frese, M. (2002). Performance Concepts and Performance Theory. In *Psychological Management of Individual Performance* (pp. 1–25). Wiley. <https://doi.org/10.1002/0470013419.ch1>

Sugiyono. (2018). *Qualitative Quantitative Research Methods and R&D*. Alphabet.

Winkle, J. M., & Ozmun, J. C. (2003). Martial Arts: An Exciting Addition to the Physical Education Curriculum. *Journal of Physical Education, Recreation & Dance*, 74(4), 29–35. <https://doi.org/10.1080/07303084.2003.10609199>