

Factors Affecting Sustainable Wrestling Development in Ardabil Province: A Phenomenological Study

Abstract

Purpose: This study aimed to identify key factors influencing the sustainable development of wrestling in Ardabil Province and provide practical solutions to address existing challenges. Wrestling, as a traditional and historical sport in Iran, holds a special position in the province. However, it faces issues such as strategic planning inconsistencies, financial shortages, talent management weaknesses, and declining youth participation.

Methods: The research employed a qualitative approach with a phenomenological method. The statistical population included coaches and head coaches of wrestling committees in Ardabil, selected through purposive sampling until theoretical saturation (17 participants) was achieved. Data were collected through 17 semi-structured interviews and analyzed using MAXQDA24 software.

Results: Five main factors influencing wrestling development were identified: Individual factors (motivation, self-confidence, athletes' physical and mental health). Organizational factors (human and financial resource management, coordination between committees and federations, attracting private investment). Environmental factors (economic sanctions, cultural perceptions, weak media coverage). Infrastructure factors (lack of standard halls, accommodation facilities, and modern equipment). Technical factors (insufficient coach training, lack of modern technologies in practice).

Conclusion: The findings revealed that sustainable wrestling development in Ardabil requires an integrated approach. Priorities include improving infrastructure through private investments, talent identification in schools, strengthening media coverage, and overcoming economic barriers. Successful international experiences, such as the U.S. Wrestling Federation, emphasize that coordination among organizations and coach training are key elements for sustainable progress.

Keywords: wrestling development, Ardabil province, talent management, sports infrastructure, talent scouting.

Introduction

The development of sports, as a cornerstone of progress and well-being in any society, has evolved beyond mere physical activities into a multifaceted phenomenon encompassing economic, social, cultural, and even political dimensions (Mohayya et al., 2021). Sports play an irreplaceable role in promoting public health, enhancing social vitality, creating employment opportunities, strengthening national solidarity, and introducing a country's culture on the international stage. Strategic planning for sustainable sports development necessitates a deep understanding of capacities and challenges, appropriate investment in infrastructure (Jararnehadgero et al., 2023), the discovery and nurturing of talent, and effective coordination among relevant institutions. In today's world, success in sports arenas is not limited to individual abilities but is rather the result of a supportive ecosystem that includes expert coaches, advanced facilities, financial backing, and long-term planning (Salimi & Moslehi, 2023).

With a rich cultural and historical background, Iran has always held a special place for sports and boasts brilliant talents and countless global achievements in many disciplines, especially wrestling. However, despite its vast potential, sports development in Iran faces structural and

managerial challenges. Issues such as budget shortages (Karimi et al., 2025), insufficient coordination among responsible organizations (Rezasoltani et al., 2024), weaknesses in talent management, the lack of comprehensive strategic planning, and the emigration of sports elites (Sadri et al., 2024) are among the key obstacles to sustainable sports growth in the country. Addressing these challenges requires a systemic and holistic approach that, by leveraging successful international experiences and focusing on indigenous capabilities, paves the way for elevating Iran's position in global sports arenas (Mondalizadeh et al., 2021).

Wrestling is one of the oldest and most popular sports in Iran, with a unique position in the country's culture and national identity due to its historical background and international achievements (Kruszewski et al., 2020). Despite Iran's remarkable successes in the global arena, the sustainable development of wrestling faces various challenges that require special attention and precise planning. Studies indicate that one of the major obstacles to the development of wrestling is the lack of sufficient coordination among responsible institutions and financial constraints, which hinder the growth of this sport at provincial and national levels (Ebrahimi & Moslemi, 2011). Additionally, structural issues such as weak talent management and the lack of strategic planning at various management levels have created obstacles to the development of wrestling in certain provinces, especially in Ardabil (Heyrani et al., 2019). Ardabil province, as one of the historical centers of Greco-Roman wrestling in Iran, needs an accurate analysis of its current situation and identification of key factors influencing the development of this sport (Eskandari et al., 2024). Despite Ardabil's brilliant history in Greco-Roman wrestling and numerous international medals, there is a decline in youth participation and talent migration to other regions. This issue highlights the necessity of formulating new strategies and focusing on the unique capabilities of this province (Mostafavi et al., 2020). Many studies emphasize the importance of alignment between the objectives of the Wrestling Federation, provincial boards, and other responsible institutions. They argue that success in this field requires precise planning, resource management, and the utilization of international experiences (Rezapour & Moharramzadeh, 2024). The need for innovation is evident in this research as well. In particular, Ardabil province, with its long-standing history in Greco-Roman wrestling, requires studies to identify and prioritize factors that can elevate the level of this sport nationally and internationally. Additionally, examining the challenges and existing problems in this province, especially in the areas of resource management and talent identification, can pave the way for the development of wrestling in other provinces (Bani-Tamim et al., 2019). For example, learning from the successful experiences of countries like the United States, which have secured their position in global wrestling through long-term planning and infrastructure development, can serve as a model for Iran (Smolianov et al., 2021). The innovation of this research lies in focusing on Ardabil province as the hub of Greco-Roman wrestling in Iran and examining various aspects of wrestling development in this region. By analyzing individual, organizational, environmental, infrastructural, and technical barriers, this study seeks to provide solutions that can enhance this sport and maintain its position on international platforms. Therefore, the aim of this research is to identify factors that can improve the status of wrestling in Ardabil province and propose programs to address existing challenges and problems.

Environmental Factors: These refer to factors that play a pivotal role in the development of sports through the popularization of recreational activities and the cultivation of athletic talents. These factors generally encompass the following key components: **Social Environment:** This pertains to society's attitudes toward sports, heroic culture, and public participation. These elements, based on social values and beliefs, directly affect the development and engagement in sports activities (Rashidlamir et al., 2017). **Economic Environment:** Factors such as per capita income, inflation, and the attraction of private investments influence the financial capacity of athletes, sports institutions, and infrastructures. These factors impact access to

sports facilities and participation rates (Hosseini Asgar Abadi & Zohrabi, 2023). Supportive Policies: Regulations established by governments to encourage sports participation, support athletes, and develop sports infrastructures. These policies can be effective through financial incentives, supportive programs, or sports-related facilities (Abdulaxativ et al., 2021; Kaynar, 2019).

Individual Factors: Acceptance of sports behaviors by individuals depends on two main components: Belief in the Benefits of Sports: This includes physical health improvement, increased self-confidence, and enhanced social skills, which motivate individuals to participate in sports (Gould et al., 2017). Motivation: This can be divided into: Intrinsic Motivation: Personal enjoyment and satisfaction derived from engaging in sports, indirectly leading to greater participation. Extrinsic Motivation: Tangible or intangible rewards received from society or organizations, such as prizes or public recognition (Eryucel, 2019). Additionally, factors like education level, income, and family support can affect access to sports facilities and continuous participation (Cieśliński et al., 2021). Participation in both traditional and modern sports is influenced by individual and environmental factors. For instance, family commitments and social support can significantly impact sports selection and continued involvement (Sinulingga & Sinulingga, 2020). Studies show that participation in traditional sports like heroic wrestling and modern sports is influenced by factors such as social support and family commitments (Latyshev et al., 2020). For example, in Ardabil province, athletes' low incomes and weak media support have been identified as major obstacles to the development of wrestling (Rashidlamir et al., 2017).

International Models: On an international level, leading countries such as the United States and Canada have institutionalized wrestling as a sustainable sport through long-term strategic planning and the involvement of educational and media organizations. For instance, the U.S. Wrestling Federation (Wrestling, 2021) has presented a successful model by focusing on talent identification from schools, infrastructure development, and sponsor attraction. These experiences indicate that coordination between sports organizations, the government, and the private sector plays a key role in developing this discipline (Gould et al., 2017). In Iran, few studies have conducted comparative analyses of these models and assessed their applicability. The existing research gap highlights the need for a deeper examination of the factors influencing wrestling development. While studies like (Shahmansouri & Foroghiour, 2021), have emphasized the necessity of talent identification and supporting local champions, research by (Santos & Brandão, 2022), has demonstrated that incorporating wrestling knowledge into school curricula can contribute to its development.

In the strategic plan (Wrestling, 2021), elements such as environmental analysis, mission, vision, core values, key areas, and strategic priorities have been addressed. (Tari et al., 2020), conducted a study titled "Environmental Analysis and Strategic Development of Wrestling" and revealed that the absence of long-term planning, lack of standard facilities, and weak marketing are weaknesses, while the presence of talented young populations represents a key opportunity, necessitating conservative strategies like attracting sponsors and infrastructure development. (Naghizadeh-Baghi et al., 2022), in their study titled "Identification and Analysis of Wrestling Development Barriers in Ardabil Province" identified the lack of sports halls, low athletes' incomes, and weak media support as major obstacles, emphasizing the need to improve infrastructure and promote cultural awareness. In a study titled "The Role of Media in Wrestling Development: A Comparative Study of Iran and the U.S.", (Shahmansouri & Foroghiour, 2021) demonstrated that Iran's weak media coverage compared to the use of digital platforms in the U.S. underscores the necessity of creating engaging content and interacting with social networks to attract audiences. (Santos & Brandão, 2022), in their research titled "The Impact of Talent Identification Programs on Wrestling Development: The Experience of Successful Countries" showed that early education, the use of specialized

coaches, and psychological support in leading countries are factors for success, requiring the development of a national talent identification program in Iran. (Fahim Davin & Asadollahi, 2023), in their study "The Impact of Dominant Culture in Traditional Sports on Social Capital Development" demonstrated that traditional sports such as heroic wrestling can strengthen social cohesion. Finally, (KHademi et al., 2019), in their research titled "Strategic Marketing Program Design for the Wrestling Federation" emphasized the necessity of using SWOT and QSPM matrices to develop strategies.

Therefore, this study aims to fill the existing research gap by identifying and analyzing key factors affecting the development of Greco-Roman wrestling in Ardabil province, providing evidence-based strategies inspired by both domestic challenges and international best practices.

Research Method

This study is qualitative with a phenomenological approach and is applied in terms of its objective. The primary aim is to explore the subjective experiences of participants and offer practical strategies for developing wrestling in Ardabil Province. The statistical population and sample included active coaches and head coaches in the wrestling committees of Ardabil Province and its affiliated counties, all with at least five years of experience in this field. A purposive sampling method was used with the following criteria: holding a coaching or refereeing certificate from the Wrestling Federation, participation in provincial talent development programs in the past three years, and willingness to openly share their experiences.

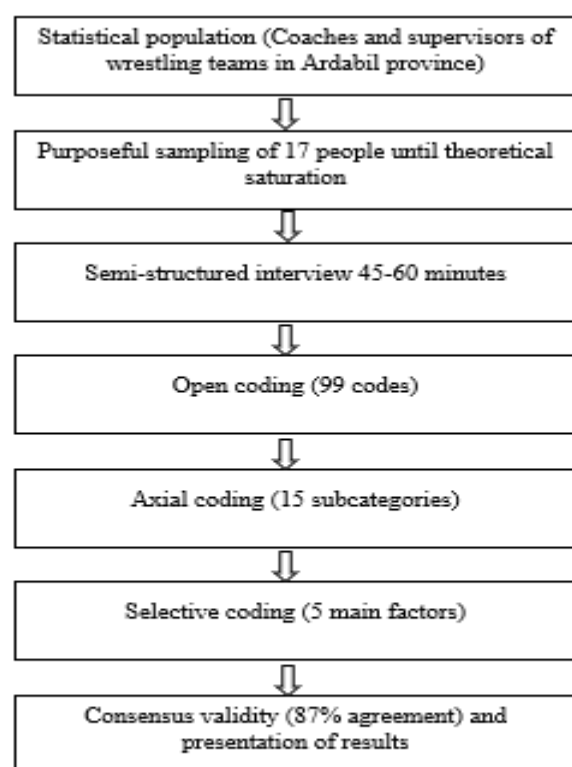
The sampling process continued until theoretical saturation was reached. Theoretical saturation was achieved when no new codes or themes emerged in three consecutive interviews (interviews 14, 15, and 16), and data repeatedly emphasized previously identified concepts. For example, concepts such as "shortage of standard facilities" and "poor coordination between committees" were frequently raised in early interviews. After the 14th interview, additional interviews merely reinforced existing themes without yielding new ideas. To ensure the validity of saturation, the data were reviewed by two independent researchers who agreed that no further interviews were necessary. Ultimately, theoretical saturation was achieved after 16 interviews.

Semi-structured interviews were used to collect data, with questions designed around four main axes: (1) individual challenges of athletes (motivation, mental health), (2) organizational barriers (resource management, inter-agency coordination), (3) environmental factors (sanctions, cultural attitudes), and (4) infrastructural and technical needs. Interviews were conducted ethically, ensuring informed consent and data confidentiality. Audio recordings were made, and each interview lasted between 45 to 60 minutes in a calm environment. A total of 99 initial codes were extracted from the interview texts using MAXQDA2024 software. Based on the Strauss and Corbin (2003) model, the coding process involved three stages (Naghizadeh-Baghi et al., 2022): Open Coding: Initial codes (e.g., financial limitations, investor attraction) were identified. Axial Coding: Conceptually similar codes were grouped into 15 subcategories (e.g., financial factors, psychological factors). Selective Coding: Subcategories were integrated into five main factors (individual, organizational, environmental, infrastructural, technical). For instance, codes such as individual motivation, self-belief, and courage were placed under the subcategory psychological factors and subsequently grouped into the main category individual factors. Triangulation was used for validation. Three independent reviewers with at least 10 years of experience in sports management validated the coding process. In addition, agreement between coders was ensured by having four experts independently recode the data using the Silverman method, resulting in an agreement coefficient of 87%. To ensure reliability and validity, a standardized interview guide was used to minimize researcher bias, and all analysis steps were precisely documented.

in MAXQDA to enable review. Member checking was conducted by presenting the findings to participants for final confirmation. Additionally, findings were compared with previous studies e.g.,(Mollania Jelodar, 2020) to ensure alignment.

Ethical Considerations: Informed Consent: All participants provided informed consent prior to the interviews. Confidentiality: Participants' identities were anonymized using codes (e.g., Participant 1). Conflict of Interest: Reviewers and experts had no financial or organizational ties to the research.

Figure 1: Research process



Research process diagram

Figure 1 illustrates the step-by-step process of data collection and analysis in the research. In this process: Purposive sampling was initially conducted, involving 15 participants. Subsequently, semi-structured interviews were held, lasting between 45 to 70 minutes each. Following the interviews, the data was analyzed using the open coding method. Axial coding was then applied to extract sub-categories, and selective coding was used to identify the main factors. Finally, the validity of the research findings was assessed using agreement validity (85%), and the final results were presented.

Results

The findings of the research were analyzed in both descriptive and inferential sections. In the descriptive section, the following information was extracted from the interviewees' data (coaches and head coaches of the wrestling teams of the provincial wrestling federations of Ardabil). The demographic characteristics of the participants are presented in Table 1.

Table 1. Demographic Characteristics of the Participants

Occupation	Education	Athletic Experience	Coaching Experience	Coaching or Refereeing Certification	Activity Status	Age	Participants
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Physical Education Teacher	Bachelor's Degree	28	31	Has - Has	Active	54	1
Physical Education Teacher	Master's Degree	11	18	Has - Has	Active	47	2
Wrestling Coach	Ph.D	15	14	Has - Has	Active	40	3
Student	Ph.D	13	8	***- Has	Active	32	4
Physical Education Teacher	Ph.D	12	13	***- Has	Active	41	5
Wrestling Coach	Ph.D	11	16	***- Has	Active	45	6
Wrestling Coach	Bachelor's Degree	18	12	Has - Has	Active	39	7
Wrestling Coach	Master's Degree	12	9	Has - Has	Active	30	8
Wrestling Coach	Bachelor's Degree	9	15	***- Has	Active	32	9
Wrestling Coach	Ph.D	11	4	***- Has	Active	40	10
Official Teacher	Master's Degree	7	14	Has - Has	Active	38	11
Official Teacher	High School Diploma	11	8	Has - Has	Active	45	12
Physical Education Teacher	Ph.D	15	11	Has - Has	Active	36	13
Wrestling Coach	Bachelor's Degree	20	16	***- Has	Active	49	14
Physical Education Teacher	Bachelor's Degree	16	22	***- Has	Active	48	15
Wrestling Coach	Bachelor's Degree	22	17	***- Has	Active	43	16

In the second section, the findings of the research were based on the analysis of the interviews conducted with the participants. In the first stage, 99 open codes were obtained through analysis, and the codes that were similar to each other were combined to form 15 initial codes. Then, by following the path of the initial codes that had very close similarities, categories were formed, leading to five main factors: individual factors, organizational factors, environmental factors, infrastructural factors, and finally, technical factors as the key factors influencing the development of wrestling. Initially, examples of the codes extracted from the interview texts are presented, followed by the categories and axial coding.

Table 2. Several Examples of Extracted Codes and Their Semantic Units

Self-Belief	As a veteran of this sport, I advise young athletes in this field to dedicate themselves fully to the mindset of "I can" in order to achieve championship titles.
Financial Limitations	In my opinion, the economic factor plays a major role in the progress or lack of progress in this sport, as everything—such as proper nutrition, adequate strength training, and more—depends on this factor.
Attracting Investors	I mentioned how we can utilize China's potential, particularly in the construction of standard facilities. Additionally, we can leverage this potential in the hotel industry to further enhance our infrastructure.
Revenue Generation	Standard accommodations can be ideal for attracting athletes and tourists for a comfortable stay. Currently, Sarein offers one of our best resources, with its excellent hot springs, making it the perfect destination for summer stays.
Legal Support for Athletes and Medalists	We should not leave athletes with potential who achieve rankings at provincial or national levels to their own devices. They need support in terms of finances, nutrition, and training programs. If they receive the necessary support, we can achieve the desired results in wrestling.
Health and Hygiene of Halls and Mats	We must take the hygiene standards of wrestling halls seriously, as many people refrain from enrolling their children in this sport due to concerns about the cleanliness of wrestling mats.

Talent Identification	Wrestling is a sport that needs to be planned from the grassroots level. Talent identification at elementary, middle, and high school levels is ideal because these kids, after several years of training, will eventually progress to the youth and adult categories, where they will continue training for several years to reach their peak.
Hosting Competitions	We can be a great host for training camps of national teams from different countries, including neighboring ones. This could also contribute to the preparation of our own teams for upcoming competitions.

In Table 2, the extracted codes from the interviews were categorized based on the frequency and importance of the themes. For example, investment attraction: refers to the necessity of private sector participation in infrastructural research (such as the construction of sports halls) and the organization of national competitions. One of the participants stated: "Using the capacity of foreign investors to build multipurpose sports complexes not only improves facilities but also boosts sports tourism." Revenue generation: includes operational strategies such as hosting international competitions, selling broadcasting rights, and developing the sports tourism ecosystem related to wrestling. After the initial coding phase conducted by the coding team based on documented events and tagged data, the preliminary framework of codes was formed. In the next step, three subject-matter experts carefully reviewed the generated codes and made necessary adjustments by aligning them with the research documents and evidence. This process, employing the triangulation method (simultaneous use of multiple evaluation sources), ensured the credibility and accuracy of the initial codes. According to the analytical model by Strauss and Corbin (2003) (Naghizadeh-Baghi et al., 2022), a critical phase of the research is establishing meaningful connections between the initial codes (open coding phase) and grand concepts known as axial categories. These structured relationships and the inferences derived from them are comprehensively presented in Table 3.

Table 3. Categorization and Coding

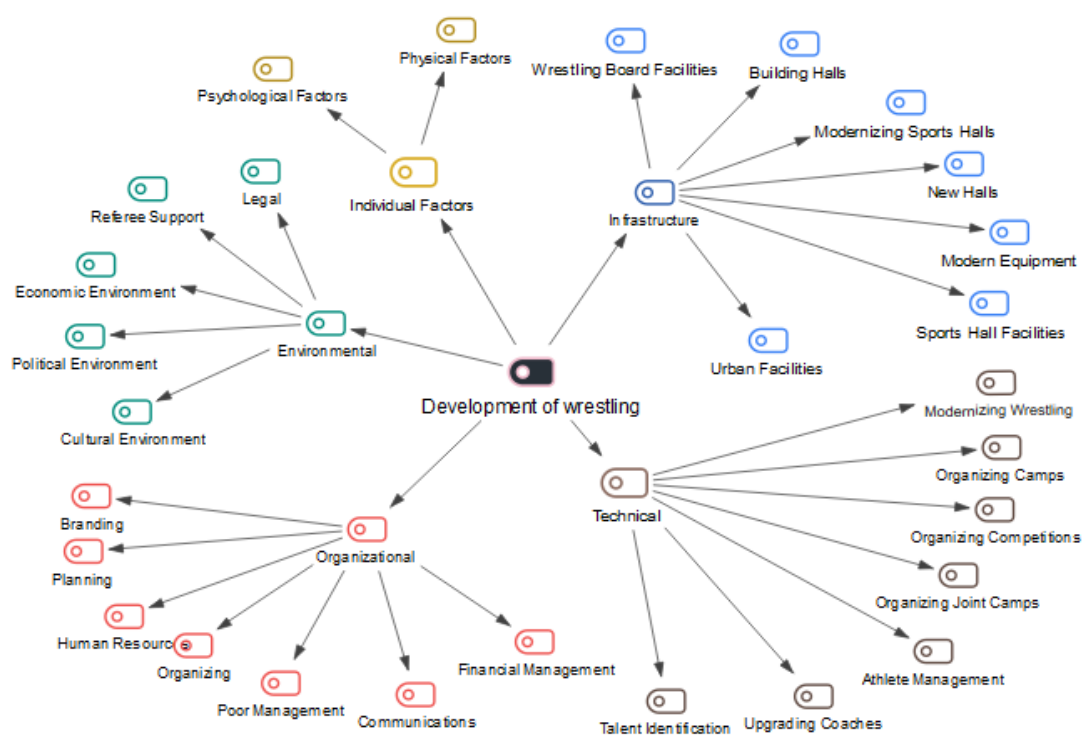
Main Category	Subcategory	Open Codes
Individual Factors	Physical Factors	Malnutrition, Respiratory Performance of Athletes, Illness, Physical Injuries
	Psychological Factors	Individual Motivation, Self-Confidence, Self-Belief, Courage
Organizational Factors	Human	Experienced Coaches, Use of Volunteers in Organizing Competitions, Good Referees, Athletes, Managers
	Communications	Inter-Organizational Interaction, Interaction Between Provincial Federations, Interaction Between Provincial Federations and the National Federation
	Financial	Federation Budget, Revenue Generation, Financial Resources, Operational Costs, Sponsorship, Attracting Investors
	Planning	Operational Programs of the Federation, Sports Calendar, Planning for Competition Readiness, Planning for Hosting Competitions, Talent Identification Programs, Federation Development Programs, Advanced Training Programs for Coaches, Referees, and Managers, Nutrition and Strength Training Education Programs for Wrestlers, Promotional Programs
	Management and Leadership	Managers' Expertise, Managers' Knowledge, Conflict Management Skills, Negotiation Skills, Change Management Skills, Decision-Making Skills, Time Management Skills, Leadership and Influence Skills
	Organizational Structure	Focus, Delegation of Authority, Number of Individuals, Task Diversity
Environmental	Economic Environment	Economic Sanctions, Inflation, Unemployment, High Prices of Goods and Equipment, Financial Limitations, Lack of Government Support

	Political Environment	Patronage in Appointments, Inappropriate Appointments, Granting Responsibilities with Political Titles, Dismissal of Coaches Without Regard to Abilities and Qualifications
	Cultural Environment	Honoring Wrestling Veterans, Appreciation of Veteran and Successful Athletes, Ethics and Spirit of Chivalry in Wrestling, Avoidance of Misconduct, Respect for Coaches and Wrestlers, Public Perception, Media Coverage of Competitions, Champion Cultivation, Role Modeling, Awards or Incentives, Wrestling Heritage in the Region, Community Support for Wrestling Competitions
	Legal	Legal Support for Athletes and Medalists, Support Programs by the General Directorate, Legal Permits for Building Sports Facilities by the Private Sector, Government Ownership of Facilities, Support for Referees
Infrastructure Factors	Infrastructure	Updating Wrestling Facilities and Equipment, Facility Maintenance, Wrestling Houses, Wrestling Schools, Sports Halls, Wrestling Federation Facilities, Urban Amenities, Sports Accommodation Complexes, Modern Equipment, Championship Base, Standardization of Equipment, Standardization of Facilities
Technical Factors	Basic	Regular Programs Under the Supervision of Strength Coaches, Attention to, Evaluation, and Control of Athletes' Nutrition, Employing Psychologists to Assess Athletes' Psychological Issues, Use of Specialized Masseurs, Physiotherapy, and Follow-up Treatment for Athletes
	Specialized	Implementation of Specialized Training Programs for Freestyle and Greco-Roman Wrestling, Focus on Safety, Ensuring Athletes' Security, Technical Training for Coaches, Coaches' Continuous Update, Promoting Youthful Coaches, Training Wrestlers, Identifying Championship Talents, Identifying Capable Coaches, Athlete Management, Supervision of Coaches, Hygiene of Halls and Mats

Table number 3 is a crucial component in the analysis of the qualitative research data. This table is the result of the open, axial, and selective coding stages based on the Strauss and Corbin model, effectively showcasing the three-level analysis structure. In the first column of the table, open codes derived from semi-structured interviews with wrestling coaches are listed. These include issues like athletes being undernourished, self-confidence, financial limitations, attracting investors, operational planning, and effective leadership. These codes represent real and experienced issues in the field of wrestling in Ardabil province. Subsequently, these initial codes are grouped into conceptual subcategories in the second column, such as physical factors, psychological factors, planning, organizational structure, economic environment, and legal support, to form the intermediate levels of analysis. In the third column, these subcategories are categorized into five main themes: individual factors, organizational factors, environmental factors, infrastructural factors, and technical factors. This final classification indicates that the development of wrestling in Ardabil province is influenced by various dimensions, including the psychological and physical characteristics of athletes, management structure and human resources, economic and cultural environment, status of sports facilities, and the technical knowledge level of coaches. The table, by creating cohesion between raw data and theoretical concepts, has provided a strong scientific basis for analyzing the findings. Beyond its analytical role, this table has also served as the foundation for designing practical solutions in the conclusion section of the article. In other words, for each of the five main extracted categories, appropriate strategies have been proposed at the levels of policymaking, executive planning, private investment, and social participation. This demonstrates that Table 3 is not merely an analytical tool but functions as a conceptual map, charting the path for sustainable wrestling development in Ardabil province based on field experiences.

Figure 2 shows the conceptual structure of factors influencing wrestling development. At the center of the diagram is the main concept – wrestling development – which is divided into five main categories: technical, infrastructural, environmental, individual and organizational factors. Each of these categories includes sub-components that describe key elements in their respective areas. Technical factors include aspects such as athlete management, coach development, talent acquisition, organization of training camps, competitions, joint camps and modernization of wrestling styles. Infrastructural factors deal with physical resources such as wrestling halls, modern equipment, sports facilities, urban facilities and the infrastructure of wrestling federations. Environmental factors include economic, political, cultural, refereeing and legal dimensions. Individual factors relate to the physical and psychological characteristics of athletes. Finally, organizational factors include planning, human resource management, branding, poor management practices, financial management and communications. This diagram provides a comprehensive overview of the multifaceted dimensions of ship development and serves as a basis for analysis and strategic planning. The diagram was produced qualitatively using MAXQDA24 software and based on content analysis of interviews.

Figure 3. Tree diagram



The word cloud presented in Figure 3 provides a visual representation of the most frequently used and key terms in the qualitative data, based on the content analysis of the interviews. In this cloud, the words that have the highest frequency and importance in the statements of the coaches are displayed in a larger size. For example, concepts such as psychological factors, organizing competitions, and attracting investors are highlighted in larger fonts due to their high frequency and pivotal role in the development of wrestling. For example, terms such as talent acquisition and sports infrastructure are displayed in a medium size, indicating their

important but less frequent role in the interviews. This diagram qualitatively shows the prioritization of concepts and provides a quicker understanding of the concerns and needs of wrestling coaches in Ardabil province. This diagram was qualitatively produced using MAXQDA24 software and based on the content analysis of the interviews.

Figure 2. Word Cloud Diagram



Discussion

Wrestling, as Iran's sporting symbol, has always held a special place in the hearts of its people, with its popularity growing daily. Today, athletes in this renowned discipline not only bring national pride but are also recognized as top sports role models globally. However, despite this historic prominence, wrestling in Ardabil province faces emerging challenges that threaten its sustainability. These shortcomings are not accidental but stem from a combination of structural weaknesses, insufficient strategic planning, and evolving socio economic conditions in the region. For instance, limited financial support and inadequate institutional coordination have gradually eroded the sport's grassroots foundations, causing concern among stakeholders. Understanding these root causes is essential because simply acknowledging the problems does not suffice to foster effective development. Therefore, formulating forward-looking programs for the advancement of wrestling in Ardabil requires a deep examination of these interrelated factors to design targeted and sustainable interventions.

The findings of this research indicate that the development of wrestling in Ardabil province is influenced by five main factors: individual, organizational, environmental, infrastructural, and technical. Each of these factors, interacting with one another, creates both challenges and opportunities for the advancement of this sport. Below, each factor is analyzed in detail, and its connection to previous studies and local conditions is examined.

Individual factors encompass the psychological and physical characteristics of athletes, such as motivation, self-confidence, physical health, and technical skills. In Ardabil province,

despite its rich wrestling heritage, the absence of structured support for top-performing athletes has led to a talent drain toward other provinces with better conditions. This trend reveals a deeper issue: young athletes often perceive a lack of long-term prospects and recognition within the local system. Psychological insecurity and uncertainty about their athletic future contribute to a decline in motivation and performance. This situation aligns with research by Santos & Brandão (2022), which emphasizes that motivational frameworks and mental resilience programs are critical for retaining talent. Moreover, limited access to proper nutrition and specialized health services (like physiotherapy and sports psychology) has amplified physical stress and injury risk among athletes. These gaps in support systems are not merely logistical challenges they reflect an undervaluation of athlete well-being in policy and practice. As confirmed by Naghizadeh Baghi et al. (2022), neglecting these needs undermines both performance and athlete retention. Therefore, addressing individual factors is not just a matter of training quality but also of cultivating an environment where athletes feel valued, supported, and mentally prepared for elite competition.

Organizational factors refer to the quality of human resource management, financial planning, and strategic coordination between institutions. In Ardabil province, a persistent lack of alignment between district wrestling committees and the national federation has resulted in fragmented planning, inefficiency in talent development, and underutilization of local capacities. This misalignment suggests not just an administrative weakness, but a deeper structural issue namely, the absence of a unified vision for wrestling development across different levels of governance. Additionally, the inability to attract private investment is not merely due to economic constraints but often stems from the lack of transparent mechanisms and incentives for sponsors. Unlike successful models, such as USA Wrestling's engagement with corporate partners and schools (USA Wrestling, 2021), Ardabil's system offers few touchpoints where businesses can meaningfully participate. This reflects a broader cultural gap: sport is not yet positioned as an investable sector within local economic planning. These issues are consistent with findings from Lorestan province (Tari et al., 2020) and the study by Eskandari et al (2024), which emphasize that sustainable sports development depends on institutional trust, clear strategic roadmaps, and public-private cooperation. In Ardabil's case, without establishing mechanisms for joint planning and accountability, even well-intentioned programs risk remaining on paper. Addressing organizational factors, therefore, requires not only technical reform but also cultural and managerial transformation to build long-term trust among stakeholders.

Environmental factors encompass economic, political, and sociocultural conditions that shape the overall landscape of sports development. In Ardabil, rising inflation and international sanctions have inflated the costs of equipment and competition organization, discouraging youth participation. However, beyond these macroeconomic pressures lies a more nuanced local challenge: the weakening of cultural capital that once sustained wrestling as a popular tradition. Despite Ardabil's historic reputation as a wrestling hub, the region lacks consistent media representation and visible role models. This media vacuum has contributed to declining community engagement, especially among youth who increasingly turn to global sports icons promoted through digital platforms. Unlike provinces where wrestling enjoys regular television and social media coverage, Ardabil has not effectively adapted its traditional strengths to the modern media ecosystem. This highlights not just a technical gap, but a strategic oversight failing to position local athletes as cultural assets capable of inspiring the next generation. These observations align with Fahim Davin & Asadollahi (2023), who emphasized that ritual sports can foster social cohesion, but only when adequately promoted. Furthermore, Heyrani et al. (2019) showed that financial constraints often go hand in hand with declining media visibility, forming a feedback loop that reduces public interest and investment. In Ardabil's context, the severity of media neglect is particularly striking given the province's rich heritage.

The absence of narratives around local champions not only limits motivation but also weakens the symbolic status of wrestling in the cultural identity of the region. Revitalizing media engagement thus becomes an essential environmental strategy. Creating storytelling campaigns, broadcasting local competitions, and integrating traditional wrestling into digital platforms could help re-establish the sport's relevance. Without such efforts, even strong grassroots enthusiasm may dissipate over time.

Infrastructural challenges in Ardabil's wrestling ecosystem extend beyond a mere shortage of physical spaces. While the absence of standard wrestling halls, dedicated training facilities, and accommodation infrastructure has been well-documented, the root of these issues lies in deeper structural neglect and fragmented policy planning. This infrastructural void has not only impeded talent development but has also curtailed the province's potential to host high-level competitions that could generate both revenue and visibility. Ardabil's situation is emblematic of a broader trend in Iranian sports development, where peripheral provinces receive less investment compared to central regions. Although the region has tourism advantages (such as Sarein's hot springs) that could attract private investment in sports infrastructure, such opportunities remain largely untapped. This reflects a failure to integrate sports development with regional development planning. The contrast with successful models such as Canada's multi-functional sports bases underscores this gap. These countries leverage sports infrastructure as economic drivers through sports tourism and community engagement, something Ardabil has yet to operationalize. This finding echoes the conclusions of Tari et al. (2020), who linked infrastructural underdevelopment to a lack of long-term strategic vision. In Ardabil, short-term project-based approaches dominate, resulting in unfinished or poorly maintained facilities. Without a 10-year roadmap that aligns infrastructure investment with athlete development, Ardabil's wrestling potential remains underutilized. Furthermore, the absence of facilities equipped with modern technology (like recovery centers, sports science labs, or performance monitoring systems) means that athletes must travel to other provinces for advanced support another reason behind talent migration. This creates a vicious cycle in which infrastructural deficits fuel the outflow of talent, which in turn weakens the justification for investment. To break this cycle, it is imperative that Ardabil not only build new facilities but also frame them as part of a broader economic and cultural revival strategy. Integrating sports halls with education centers, tourist hubs, and digital platforms could create sustainable usage and long-term returns on investment.

Technical limitations in Ardabil's wrestling ecosystem stem not only from outdated coaching methods but also from an overall inertia toward innovation and continuous professional development. The findings suggest that the lack of structured training programs for coaches and referees, as well as insufficient integration of modern technology, are among the key barriers to technical advancement. Despite Ardabil's rich wrestling heritage, there is a noticeable gap in the implementation of evidence-based coaching practices. Many coaches continue to rely on traditional methods passed down informally, which, while culturally valuable, often fall short in addressing the evolving demands of elite sports. This stagnation is exacerbated by limited access to international certifications, exposure to modern training methodologies, and absence of peer learning environments. Khademi et al. (2019) emphasized the importance of structured analysis tools, such as SWOT, to tailor coaching strategies. Yet, such tools remain underutilized in Ardabil. Moreover, the minimal presence of interdisciplinary support staff including sports psychologists, physiotherapists, and nutritionists points to a systemic undervaluing of holistic athlete development. This undermines performance optimization, especially at competitive levels. International best practices, such as those used by USA Wrestling (2021), demonstrate how integrating technology (e.g., motion analysis, biofeedback systems) into training can lead to significant gains in athlete performance. In contrast, most wrestling facilities in Ardabil lack even basic monitoring tools like heart rate

sensors or video replay systems for technique correction. The resistance to adopting technological tools is partly cultural, rooted in a perception that success is solely determined by physical toughness and tradition. While these values hold symbolic importance, failing to modernize coaching frameworks and training environments risks isolating Ardabil from national and international advancements. To overcome these barriers, it is essential to initiate a province-wide strategy for technical empowerment. This includes collaboration with international federations for coach education, government-supported grants for technology integration in training centers, and incentivizing the employment of interdisciplinary experts. Additionally, creating a digital knowledge sharing platform for local coaches can foster a culture of learning and innovation. Ultimately, technical reform in Ardabil's wrestling scene is not just a matter of training methods it is a paradigm shift that requires embracing a scientific, data-driven, and athlete-centered approach.

Conclusion

The development of wrestling in Ardabil province requires a comprehensive approach that encompasses individual, organizational, environmental, infrastructural, and technical factors. First, improving infrastructure through the attraction of private investors and the construction of standard halls is essential. Second, the development of long-term programs involving both governmental and private institutions could create the necessary coordination. Third, talent identification at the grassroots level and psychological support for athletes, especially using specialized coaches, should be prioritized. Fourth, strengthening media coverage and utilizing social networks to increase public engagement is recommended. Lastly, addressing economic barriers with financial incentives for sponsors and supporting low-income athletes can help sustain the sport.

Practical Applications of the Findings: The findings of this study, by identifying five key factors (infrastructural, organizational, environmental, technical, and individual), and prioritizing them, offer an operational framework for the sustainable development of wrestling in Ardabil province. The application of these results at various levels is as follows:

Policy and Macro Management: Infrastructural Priorities (First Priority): Building standard sports halls with healthcare and accommodation facilities, especially in deprived districts, will allow hosting national and international competitions. This will not only prevent talent migration but will also create sustainable revenue through sports tourism. The successful experience of the US Wrestling Federation (2021) in improving infrastructure shows that physical facilities are the foundation of sports progress. **Coordination Between Institutions:** Creating transparent mechanisms for cooperation between local federations and the central federation and Ministry of Sports, through the development of "operational agreements," will ensure the equitable distribution of resources and the implementation of talent identification programs. **Strategic Planning: Developing a long-term roadmap:** Designing a 10-year program focused on talent identification from schools, coach education, and using modern technologies (such as performance data analysis) will bridge the gap between current and future champions. According to Santos & Brandão (2022), integrating wrestling into school curricula increases youth participation. **Private Investment Attraction:** Offering tax incentives to companies in the sports field (such as tax exemptions for sponsors) and participating in tourism projects (like building sports hotels in Sarein) will create sustainable financial resources. **Cultural Development and Public Participation:** Reviving the culture of heroism: Holding local competitions with a traditional approach (such as wrestling with a rope) and introducing local champions as moral role models will strengthen the community's attachment to the sport. According to Fahim Davin & Asadollahi (2023), traditional sports like wrestling enhance social cohesion and cultural capital. **Targeted Media Coverage:** Producing engaging content on social

media (such as short documentaries about athletes' lives) and broadcasting live regional competitions will attract young audiences and increase participation motivation.

Improving Training Quality and Technical Support: Holding international training courses in collaboration with advanced federations like the US Wrestling Federation (2021) and hiring sports psychologists will enhance training quality and athletes' mental preparedness. **Using Technology:** Installing health monitoring systems (such as heart rate monitors and movement analysis) in sports halls will prevent injuries and optimize athlete performance. **Support for Athletes:** Establishing a "Champion Support Fund" with the participation of both the government and the private sector will cover nutrition, medical expenses, and training camps. **Career Path Creation:** Hiring retired athletes in wrestling federations or the Ministry of Sports will increase motivation for long-term involvement in the sport. The application of these findings is not only limited to Ardabil but can also be used as a national model for other regions in Iran. The combination of strong infrastructure, participatory planning, and culture-building based on local values will ensure sustainable development of wrestling and maintain Iran's international position in this sport.

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