

RESEARCH ON THE DEVELOPMENT STRATEGY OF COMBAT ARCHERY IN CHINA

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ABSTRACT

This article collects and reviews online materials, employing methods such as logical analysis and inductive reasoning to examine the development status and existing issues of combat archery in China, while proposing corresponding strategies. The study reveals that combat archery faces challenges in its development, including insufficient market awareness, a lack of management mechanisms, and a disorganized competition system. Accordingly, recommendations are put forward: at the cultural level, emphasis should be placed on deep integration with traditional archery culture; at the management level, an association should be established to standardize the development of the sport; at the promotion level, a multi-tiered competition system should be constructed, and innovative cooperation models should be adopted to introduce social capital.

Key words: combat archery; modern archery; traditional sports

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INTRODUCTION

Combat archery is a team sport that combines elements of archery, dodgeball, and paintball, using specially designed safety bows and arrows. It features simple rules and possesses both recreational and competitive attributes. Originating in the United States, it has now become one of the most popular outdoor sports worldwide. In China, combat archery has primarily gained traction in corporate team building settings and remains in its early stages, facing several challenges. Therefore, this paper aims to outline the development trajectory of combat archery and propose specific recommendations for establishing a practical development path suited to the current sports environment, thereby providing insights for promoting its sustainable and high quality growth.

Overview of the Development of combat archery in China

Development History and Early Dissemination

Combat archery was introduced to the Chinese market as an emerging sport in 2016. In its early stages, it quickly gained traction on social media platforms due to its “high entertainment value, strong social appeal, and highly photogenic settings.” It particularly resonated with young demographics in first tier cities and gradually became a popular choice for corporate team building activities.

With the growing number of participants, the first China (Shandong) National Combat archery League in Auto Camping was held in Linyi on May 21, 2017 [1]. This two days event, jointly organized by the Camping Branch of the Federation of Automobile and Motor Sports of China and the Shandong Federation of Automobile and Motorcycle Sports, pioneered the league model of combat archery in camping. Under the tripartite collaboration of “association + enterprise + media,” this event played a significant role in promoting the sport of combat archery.

In addition, this sport has also gained rapid traction in the higher education sector. The Capital University Outdoor Challenge Invitational, held on December 6, 2020, attracted over 100 students from 18 universities in Beijing, forming 18 teams to compete [2]. “Combat archery” was listed as one of the three core competition categories, directly promoting the establishment of university clubs and the regular development of campus events.

To this day, the “National Combat archery Open Invitational Tournament” has expanded to multiple cities, including Shanghai, Taiyuan, Chengdu, Chongqing, Xi’an, and more, creating a cross regional synergy effect. The industry as a whole now demonstrates a multi tiered development landscape, encompassing professional competitive events, city leagues, and club experiential activities.

Policy Support

China has always attached great importance to the development of national health initiatives. The Central Committee of the Chinese Communist Party and the State

Council have introduced multiple policies to advance this cause. In July 2021, the State Council issued the National Fitness Plan (2021–2025), explicitly calling for the improvement of public health through the promotion of mass sports activities.

However, numerous studies indicate that the overall physical fitness of college students remains a concern [3,4,5], while rates of overweight and obesity among adolescents are on the rise [6,7]. In response to these challenges, the National Health Commission and other departments released the Implementation Plan for the “Weight Management Year” Initiative in June 2024, designating student weight management as a key priority.

Furthermore, in January 2025, the Central Committee of the Communist Party of China and the State Council jointly issued the Outline of the Plan to Build a Leading Education Nation (2024–2035), which innovatively introduces the education concept of “Health First” and emphasizes the implementation of a student physical fitness enhancement program.

In this context, Combat archery, which combines physical intensity and team collaboration, demonstrates unique advantages. This sport requires participants to engage in matches within a designated area while wearing professional protective gear and using safe bow and arrow equipment. Through high intensity movements such as running, jumping, and rolling, they execute offensive and defensive transitions. The sustained aerobic exercise effectively enhances cardiorespiratory function, improves limb coordination, and promotes fat burning [8,9,10]. Furthermore, participants need to dynamically adjust their positioning and tactics based on real time battle conditions, achieving timely team coordination through efficient verbal communication and well coordinated tactical gestures.

Development Potential

In recent years, some primary and secondary school students in China have been introduced to and experienced combat archery, an emerging sports activity, through various platforms such as sports competitions and social practice courses [11]. This activity not only enriches students’ extracurricular life but also, through scenario based teaching methods, immerses them in the collaborative charm and competitive excitement of team sports while developing tactical coordination and physical fitness. combat archery combines safety, competitiveness, and entertainment, with its emphasis on both confrontation and collaboration making it particularly suitable for students. Participants can effectively enhance their emergency response speed, tactical decision making skills, and team synergy in the rapidly changing dynamics of the game.

As a happiness industry, sports hold value not only in their core function of enhancing physical health but also in their significant economic benefits, which are increasingly gaining strategic attention at the policy level. In October 2016, the General Office of the State Council issued the Guidance on Accelerating the Development of the Fitness and Leisure Industry, explicitly advocating for the development of outdoor and specialty sports. In July 2017, multiple departments, including the General Administration of

Sport of China and the National Development and Reform Commission, jointly released the Development Plan for Automotive Self Driving Campsites, calling for the active development of sports activities at campsites. By drawing on advanced domestic and international experiences, the plan highlighted combat archery as a recreational and leisure oriented sport, underscoring its entertaining and outdoor characteristics.

Integrating the development of the combat archery event system with immersive camping tourism not only enhances the experiential level of sports tourism products but also contributes to the sustainable development of the outdoor sports ecosystem. A prime example of this is the Hubei Weishui Auto Campground, which has successfully built an integrated “sports + tourism” ecosystem by leveraging recreational activities such as combat archery. In 2024, it was recognized as a National Sports Tourism Excellence Project, fully demonstrating the feasibility of cultivating new economic growth points through trendy sports initiatives[12].

As an emerging sport, combat archery plays a positive role in promoting public health and wellness, with particularly significant implications for the physical development and mental well being of adolescents. From an industrial economic perspective, this sport also innovates consumption scenarios, extends industrial chains, and demonstrates promising prospects as a sunrise industry in areas such as sports tourism integration and the combination of education and sports.

Combat Archery Development Challenges

Lack of Market Awareness

As an emerging trendy sport, combat archery currently remains a niche activity in the domestic market and has yet to achieve significant breakthrough into the mainstream. Its limited public recognition stems primarily from a lack of exposure in mass media and the absence of celebrity endorsement.

In terms of operational models, the market relies mainly on standardized venues in indoor clubs and outdoor team building scenarios. The former is constrained by space, making large scale competitions difficult to conduct; the latter is often customized for corporate bookings, which objectively reduces combat archery’s identity as a sport and recasts it as a team building tool. Participants require specialized equipment such as safe bows, foam tipped arrows, and protective masks, with the cost of a single set being several times higher than that of conventional sports like table tennis or basketball. Some clubs, prioritizing safety and experience, tend to purchase imported gear. Coupled with the premium rents for indoor venues and investments in supporting facilities such as inflatable barriers and targets, the sport has developed a notably asset heavy operational characteristic.

According to data from group buying platforms like Meituan and Douyin, most operators have set a minimum group size threshold, which objectively excludes individual customers and small groups from participating. Only a few clubs offer individual trial experiences. This positioning as “exclusive for corporate team building” not only reduces the frequency of daily consumer participation but also

leads the public to mistakenly believe that the activity is only suitable for specific organizational formats, hindering the development of a personal sports ecosystem. Under the combined effect of these factors, the average price for a single experience ranges from ¥200 to ¥300 or even higher, creating a significant price barrier compared to traditional sports.

Simultaneously, the industry faces bottlenecks due to insufficient critical supporting infrastructure. The lack of professional equipment maintenance scenarios and inadequate risk assurance mechanisms directly constrain its potential for sustainable development. This not only results in inconsistent service quality but also exacerbates structural contradictions in regional collaborative development. Top level cities benefit from resource concentration, creating a siphon effect, while grassroots markets struggle to develop due to service gaps. Ultimately, these challenges hinder combat archery from breaking through regional limitations and achieving large scale, nationwide expansion.

Lack of Management Mechanism

The development of combat archery is still in a stage where standardization efforts lag behind overall progress. From an industry management perspective, there is currently neither a national nor local official organizational framework for combat archery associations, nor specialized regulatory bodies. This institutional gap has directly resulted in a lack of standardized management for the sport. In terms of administrative structure, combat archery primarily relies on limited oversight by local archery associations and outdoor sports associations. For instance, the Guangdong Division of the 2018 National Automobile Self Driving Sports Camp Combat Archery Competition was technically guided by the joint efforts of the Guangdong Archery Association and the Outdoor Sports Association [13]. As a regional industry organization, the Haizhu District Archery Association has also planned and organized multiple combat archery themed events.

At the market operation level, a distinct dual structure has emerged. The current operators can be categorized into two main types: brand authorized operators and unauthorized entities. Among them, enterprises with partial official brand authorization typically use standardized equipment such as patent protected recurve bows, foam arrows, and professional protective gear, while adhering to certified operational management systems. In contrast, unauthorized clubs dominate the market. These operators generally adopt differentiated competitive strategies: their pricing systems are highly flexible, rules are uniquely tailored, and service offerings primarily focus on corporate team building and customized outdoor activities, with few clubs equipped with dedicated indoor venues. These clubs often utilize low cost equipment and further dilute the sport's professional nature through an operational positioning that is "light on competition, heavy on recreation."

In the absence of unified industry standards, various operators modify sport rules and equipment based on their own commercial needs, resulting in significant industry fragmentation, lack of standardized systems, and weak regulatory mechanisms as defining characteristics of the sector's development.

Chaotic Tournament Framework

Although China's civilian combat archery events have developed rapidly, the tournament system still suffers from structural deficiencies in terms of systematic organization and professionalism. Currently, event operations are fragmented among local clubs and corporate team building activities, lacking coordination and guidance from a national industry association. This has resulted in significant discrepancies in rule systems across different regions: some operators adopt standard competition formats, while others have independently created various modified entertainment oriented versions. Although these innovations demonstrate creativity, they have led to inconsistent gameplay standards, making it difficult for players from different regions to adapt to varying rules and seriously hindering the establishment of a unified national tournament system.

The events are highly concentrated in economically developed areas, with participants often relying on temporary community based organizations. This regional imbalance further limits the sport's popularization. Moreover, most events remain at an early stage as a "social media sensation," where participants prioritize photo opportunities over technical improvement. The stigmatizing labels derived from social media, while highlighting the entertainment oriented tendency, also undermine public recognition of the sport.

Additionally, combat archery lacks professional certification, resulting in a disjointed talent development system. Core mechanisms such as referee certification and technical rating systems are still absent. In university tournaments, students from archery clubs often serve as part time referees, leading to subjective deviations in rule enforcement. Existing events mostly adopt one off activity models, such as corporate team building and exhibition experiences, lacking fixed seasons and ranking systems. Although universities have attempted to establish league mechanisms, these efforts often devolve into annual club social activities due to insufficient funding and venue limitations. More critically, there is no tiered pathway connecting amateur enthusiasts to high level competitive players in China.

Meanwhile, bottlenecks exist across all segments of the industry chain. The upstream sector lacks specialized equipment enterprises, resulting in a reliance on imported competitive gear and insufficient competitiveness in civilian products. The midstream segment suffers from disordered market development due to a shortage of professional operation and management talent. The downstream segment's commercial exploration is limited to ticket and sponsorship revenue, with IP derivative development nearly nonexistent. This incomplete ecosystem makes it difficult for event operations to secure sustained funding, severely hindering the scaling process of the project.

Recommendations for the Development of combat archery in China

Establishing an Association and Standardizing Project Development

Currently, there is no national level combat archery association established, and independent organizations are also lacking at the local level. As a recreational sport primarily used for corporate team building and social gatherings, combat archery is mainly sustained by player organized communities. There are significant variations in gameplay, rules, and equipment usage among clubs in different regions.

From a historical perspective, archery, as a core skill in ancient warfare, profoundly shaped the evolution of military civilization. Today, the globally popular Historical European Martial Arts (HEMA) competitions, which simulate historical European battles using cold weapons and armor, have gained widespread popularity worldwide. Although these competitions avoid archery attack, they reflect a latent demand for cold weapon sports, a market gap that combat archery could potentially fill.

China is a country with a long standing archery culture[14], particularly in some ethnic minority regions where profound archery traditions are preserved[15,16]. This provides a cultural foundation for integrating traditional archery elements into modern combat archery. Currently, combat archery in China has developed a unique growth trajectory. Initially building a user base through camping enthusiasts and outdoor adventurers, then leveraging university communities and corporate team building for social dissemination, and ultimately achieving a ripple effect on self media platforms. Today, it has formed a considerable market size.

Based on this development trend, we can leverage the long standing historical and cultural resources of archery to create distinctive sports programs through innovative transformation, thereby reducing participation costs. Immersive traditional sports experiences can be designed, such as developing themed competitions inspired by ancient war scenarios and constructing unique experiential settings that incorporate the cultural characteristics of different dynasties and regions. This will allow participants to appreciate the charm of traditional culture through competitive entertainment.

Secondly, a specialized association management system should be systematically established, with measures such as developing standardized competition rules and creating a digital ranking system to solidify the foundation. Simultaneously, a professional certification and talent development system should be implemented, alongside the advancement of mechanisms for referee certification and technical grading, thereby forming a comprehensive support structure.

Such associations should actively integrate social resources, formulate dynamic development strategies, and systematically explore the cultural essence and contemporary relevance of traditional archery. Efforts should be made to develop a new team based competitive sport with distinctive cultural characteristics, thereby achieving sustainable development.

Building a Multi Level Competition Promotion System

Hosting sports events not only fulfills people's social and leisure needs but also enhances physical fitness and boosts economic benefits [17–19]. Combat archery, with its entertaining and inclusive nature, satisfies public demand for recreation while providing moderate competitive intensity. Its implementation in settings such as scenic areas and commercial districts can effectively drive consumption upgrading. However, combat archery events currently face development challenges, including a single level competition structure and limited social influence. To address these issues, it is recommended to establish a three tier competition system encompassing “national, provincial, and campus” levels.

First, traditional archery cultural resources should be integrated, with experts selecting distinctive cultural elements to develop a competition rule system adapted to modern needs. Efforts should focus on creating a nationally recognized event IP with cultural distinctiveness. Simultaneously, a professional competition platform including leagues, open tournaments, and championships should be established to increase social attention through high level events and attract media and commercial resources.

At the provincial level, the development of a provincial competition system should be advanced concurrently, guided by the establishment of provincial combat archery associations. Expanding the participant base can be achieved through regional leagues and city invitational tournaments. Key cities should be encouraged to combine ethnic festivals, traditional games, and other cultural contexts to carry out targeted promotions, achieving deep integration between sports events and local culture.

Research indicates that promoting diverse value recognition of sports events can enhance ethnic integration, facilitate exchanges of activities, experiences, and cultures among different ethnic groups, and to some extent, revitalize ethnic folk culture. For example, the traditional sports events can foster a new model of “events + culture.” Events can act as cultural decoders, awakening and showcasing the contemporary industrial value of historical and cultural resources within traditional sports.

At the campus level, efforts should be made to actively encourage student clubs and associations to organize activities such as campus championships and teacher student tournaments. Based on the geographical distribution of universities, a tiered league system should be progressively developed, starting from municipal and provincial levels up to a national university league. For primary and secondary schools, archery culture promotion activities, such as thematic lectures, should be conducted in collaboration with institutions like museums and cultural centers, taking into account academic schedules and curriculum arrangements. These should be complemented with outdoor experiential courses in combat archery. Once a foundation is established, a four tier youth sports competition system, segmented by educational stage and spanning regions, should be gradually developed.

This systematic approach to competition organization not only enhances the physical and mental well being of youth through team based confrontations but also

fosters a sense of collective spirit and sportsmanship in collaborative competitions. Moreover, it promotes the concept of lifelong sports through engaging and entertaining methods. The development of combat archery not only sparks young people's interest in traditional archery culture but also can continues to cultivates high quality reserve talent for modern competitive archery in China.

Introducing Social Capital through Innovative Cooperation Models

The sporting goods manufacturing industry is not only a vital component of the manufacturing sector but also one of the most competitive and dynamic pillar industries within the sports industry. Under China's current sports management system, the development of sports programs is overseen by administrative sports authorities at various levels. The degree of policy support for these programs is closely tied to their maturity, public participation, and social influence. As an emerging grassroots recreational sport, combat archery faces objective gaps in policy support and funding compared to traditional dominant sports. To achieve a "curve overtaking", rapid advancement in a short time is required. It is necessary to construct a development path with Chinese characteristics.

Specifically, breakthroughs can be made through independent research, development, and manufacturing of combat archery equipment. Leveraging the industrial opportunities brought by the rise of the "Guochao" (Chinese chic) trend, traditional craft techniques of making horn bows, a national intangible cultural heritage, can be integrated to innovatively develop tactical gear systems embedded with cultural symbols. Meanwhile, efforts should be made to promote the establishment of a combat archery equipment manufacturing standard, which would systematically define core technical indicators such as structural parameters, safety performance, and material craftsmanship of archery products. To meet the needs of promoting the sport, product lines at various price points should be developed to cater to different consumer groups.

Additionally, expansion into peripheral products such as themed, trendy apparel, tactical backpacks, and custom fletching can be pursued. Marketing strategies like "limited edition competition gear sets" can be employed to implement a "hunger marketing" approach.

At the event operation level, a three tier title sponsorship system and a digital bidding system for venue advertising can be established. Through diversified collaboration models such as main sponsors, official partners, and designated suppliers, partnerships with outdoor sports brands can be formed to develop combat archery themed camping equipment, while cross industry initiatives such as combat archery themed script murder mystery games can be created as urban entertainment projects.

Targeting the young player demographic, particularly university students, an integrated online and offline communication system can be built. Online, platforms popular among young audiences such as Bilibili and Douyin can be leveraged for live event broadcasting and interactive engagement; offline, partnerships with traditional

media outlets like television stations and newspapers can help build a distinctive event IP. By enhancing the fun and social aspects of the events, young audiences can be attracted. Once a stable campus sports community is established, companies can gain brand naming rights by sponsoring university sports teams. Furthermore, through systematic operation of campus leagues and the development of combat archery training programs, brand exposure can ultimately be increased.

CONCLUSION

Currently, China is in a critical period of deepening its national fitness strategy and promoting the integrated development of sports and tourism. Combat archery, with its unique value in enhancing youth physical fitness and fostering teamwork, possesses industrial expansion potential in “sports + tourism” and “sports + culture.” Its broad development prospects make it promising to emerge as a new mass sport.

In the future, with increased policy support, deeper involvement of social capital, and innovative integration of traditional cultural elements, combat archery is expected to transition to a mainstream sport, evolving into a mass sport brand that combines competitiveness and cultural significance. Its potential in promoting the physical and mental health of youth and preserving traditional archery culture will also inject new momentum into China’s goal of becoming a leading sports nation. Achieving this objective requires not only strategic guidance from top level planning but also collaborative efforts from all sectors of society.

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