



The Management Model of 3x3 Basketball for Excellence at Guangzhou Songtian Polytechnic College, The People's Republic of China

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Received 27/08/2025

Revised 16/09/2025

Accepted 31/10/2025

Abstract

Background and Aims: 3x3 basketball has rapidly grown in China and gained Olympic recognition, yet challenges remain in planning, coaching quality, training, and institutional management. This study aimed (1) to examine the current management model of 3x3 basketball for excellence at Guangzhou Songtian Polytechnic College, Zengcheng, Guangzhou, China, and (2) to develop a comprehensive model to advance the sport toward excellence.

Methodology: A mixed-methods design was employed using the management functions of planning, organizing, implementing, and controlling as the framework. The population included 21 experts in sports management, coaching, and athletic performance; 19 were purposively selected. Data collection involved three stages: structured interviews, rating-scale evaluations, and a focus group discussion. Content analysis was used for qualitative data, while Median (Mdn) and Interquartile Range (IQR) were applied for quantitative consensus.

Results: Findings indicated strengths and gaps in current management. Planning required clear policies, strategic frameworks, and IT-based dissemination. Organizing highlighted the need for facilities, qualified coaches, partnerships, and transparent athlete selection. Implementation emphasized structured warm-ups, IT-supported learning, and enjoyable training routines. Controlling involved systematic evaluation, PDCA cycles, and safety protocols. These informed the development of a refined management model integrating all four functions.

Conclusion: The study proposes a systematic management model for 3x3 basketball excellence that enhances planning, organization, implementation, and control. It addresses current limitations and provides a replicable framework for advancing 3x3 basketball in Chinese higher education.

Keywords: 3x3 Basketball; Management Model; Sports Excellence; Higher Education; Guangzhou

Introduction

3x3 basketball has rapidly emerged as one of the world's fastest-growing sports, recognized for its dynamic pace and accessibility. Formalized by the Fédération Internationale de Basketball



(FIBA) in 2007, the format differs significantly from traditional five-on-five basketball: it is played on a half court with one basket, three players per team plus a substitute, and a 12-second shot clock, producing a style often described as a “10-minute sprint” (Whittell, 2017; Conte, Lupo, Tessitore, & Ronconi, 2019). The inclusion of 3x3 basketball as an Olympic discipline at the Tokyo 2020 Games further accelerated its development globally and in China, where the sport has gained wide recognition among youth, students, and the general public (Bian, 2022).

In China, 3x3 basketball has been strategically promoted through collaborations between the NBA and the Ministry of Education, which integrated basketball into school curricula to encourage youth participation (Gao, 2020). Despite this institutional support, challenges remain. The sport demands high-intensity skills, rapid decision-making, and considerable physical endurance due to continuous play and fewer players on the court (Conte et al., 2019; Wang, 2023). Yet, at high school and collegiate levels, program development has lagged behind its growing popularity. Research highlights gaps in systematic training, coaching expertise, and organizational structures, leaving athletes underprepared for elite competition (Yan & Tang, 2019).

A recurring limitation is coaching quality. Many college coaches lack specialized experience in 3x3 basketball, which restricts the development of offensive strategies, individual technical skills, and conditioning programs tailored to the sport (Wang, 2023). Institutional challenges include insufficient planning, limited funding, and weak administrative frameworks that prevent sustainable growth. As Fayol’s (2016) principles of management emphasize, effective planning, organizing, implementation, and control are fundamental to program success. Similarly, Bridges and Roquemore (2019) stress that sports excellence requires professional coaching, structured management systems, and evaluation mechanisms to translate popularity into performance outcomes.

Therefore, the advancement of 3x3 basketball in China must be understood not only as an athletic endeavor but also as a management challenge. Institutions such as Guangzhou Songtian Polytechnic College play a pivotal role in this process by integrating organizational capacity, athlete development, and modern training systems. This study aims to examine the existing management model of 3x3 basketball for excellence at Guangzhou Songtian Polytechnic College and to develop a comprehensive framework that addresses current shortcomings. The outcomes will provide practical guidance for advancing 3x3 basketball to national and international excellence while ensuring sustainable growth and long-term institutional reputation.

Objectives

1. To examine the management model of 3x3 basketball for excellence at Guangzhou Songtian Polytechnic College, Zengcheng, Guangzhou, China.





2. To develop a management model of 3x3 basketball for excellence at Guangzhou Songtian Polytechnic College, Zengcheng, Guangzhou, China.

Literature Review

1. Theoretical Concept of the Background of 3x3 Basketball

3x3 basketball originated from informal streetball traditions and was formalized by FIBA in the mid-2000s, with a major milestone in 2007 when FIBA trialed the format at the Asian Indoor Games in Macau, China (Red Bull, 2023; Britannica, 2025). Unlike the traditional 5-on-5 game, the 3x3 format emphasizes speed, agility, and adaptability. It is played on a half court with three players plus one substitute, employs a 12-second shot clock, and encourages continuous, fast-paced play often described as a “10-minute sprint” (Conte et al., 2019; ABC News, 2021). The sport made its international debut at the 2010 Youth Olympic Games and became an official Olympic discipline at the Tokyo Olympics in 2020 (Britannica, 2025; Wikipedia, 2025).

In China, the promotion of 3x3 has been aided by structural support and education partnerships. Institutional initiatives—particularly school-based programs—have helped expand participation at youth and collegiate levels (Gao, 2020), positioning 3x3 not only as a competitive sport but also as a mechanism for athletic development and sports excellence.

2. Theoretical Concept of Management Functions

Management functions remain foundational to effective sports administration. Koontz and O'Donnell (1976) describe management as a process encompassing planning, organizing, staffing, directing, and controlling to achieve organizational objectives. These functions are widely adopted across sports management contexts (Management Study Guide, 2025). Within basketball (and in particular 3x3), planning involves establishing goals and strategic pathways; organizing addresses resource coordination and role assignment; implementing refers to execution through leadership and motivation; and controlling ensures performance monitoring and corrective action (Koontz & O'Donnell, 1976; Management Study Guide, 2025).

Integrating these management principles into 3x3 basketball programs reinforces structured development—ranging from athlete training and competition logistics to institutional support systems—providing a clear pathway toward sporting excellence.



Conceptual Framework

In this study, the researcher applied the management functions of planning, organizing, implementing, and controlling, as proposed by Bridge and Rogemore (2019), as the theoretical basis for constructing the conceptual framework.

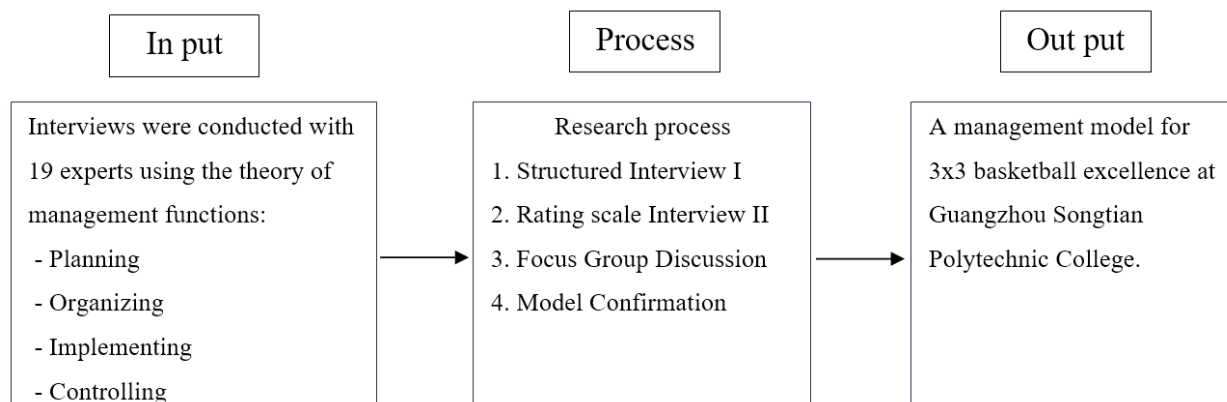


Figure 1 Conceptual framework

Methodology

Population

The population of this study comprised 21 individuals with expertise in 3x3 basketball and sports management. It included current or former presidents of the 3x3 Basketball Association with at least five years of management experience, administrators of polytechnic colleges with a minimum of three years of management experience, experts in teaching and coaching 3x3 basketball, and champion or national team players with no less than three years of competitive experience.

Sample

From the total population of 21 individuals, 19 were purposively selected. The sample consisted of three current or former presidents of the 3x3 Basketball Association of Guangzhou with at least 3 years of administrative experience, 3 polytechnic college administrators with a minimum of 3 years of management experience, 4 basketball coaching experts with at least 5 years of teaching experience, 4 champion or national team players with no less than 5 years of competitive experience, and 4 experts in sports excellence with at least 5 years of professional experience. This composition ensured balanced representation across administration, coaching, athletic performance, and sports development, thereby enhancing the validity of the study's findings (Creswell & Creswell, 2017).

Data Collection

Data were collected in multiple stages. First, relevant materials from Thonburi University in Bangkok were distributed to all 19 experts. The first round involved structured interviews with experts based on management function theory. In the second round, experts completed rating-scale evaluations, followed by a third round of interviews where corrections and clarifications from the previous round were addressed. A focus group discussion was then conducted to reach consensus on the proposed model. Finally, the collected data were systematically analyzed, leading to the summary and refinement of the management model for 3x3 basketball excellence.

Data Analysis and Statistics

Data analysis was conducted using both qualitative and quantitative approaches: 1) Interview Data – Responses from 19 experts were examined through content analysis to ensure data quality and identify key themes. 2) Focus Group Discussions – Qualitative data from group discussions were analyzed to evaluate the appropriateness and feasibility of the proposed management model for 3x3 basketball development in Guangzhou Province, China. 3) Statistical Analysis – Quantitative data from the second and third rounds of expert evaluations were analyzed using descriptive statistics: Median (Mdn) and Interquartile Range (IQR) This mixed-methods approach ensured reliability and strengthened the validity of the study's findings.

Results

The focus group discussion, conducted with ten experts in the fields of sports management, coaching, and athletic development, provided comprehensive insights into the management of 3x3 basketball for excellence at Guangzhou Songtian Polytechnic College. The experts included administrators, coaches, national-level players, and specialists in sports excellence. Their perspectives enabled both an examination of the current management practices (Objective 1) and the formulation of a refined management model (Objective 2).

Planning: the experts emphasized the need for a clear institutional policy and a long-term strategic plan that aligns with the objectives of sports excellence. Systematic management processes, budget allocation, curriculum development tailored to student-athletes, and the establishment of a strong knowledge-sharing network were identified as critical components. These findings reflect the current strengths and gaps in the planning dimension of management and underline the necessity of structured and sustainable policy frameworks.

Organizing: the experts highlighted the importance of adequate training facilities, updated coaching staff with expertise in modern basketball practices, and cooperation between institutions through memorandums of understanding (MOUs). Additionally, parent involvement, strict athlete selection criteria, and the organization of seminars and competitions were considered vital. These

recommendations demonstrate the role of effective organizational arrangements in ensuring that 3x3 basketball is managed systematically and supports long-term athlete development.

Implementing: the focus group suggested that training must begin with proper warm-up routines, follow recognized coaching standards, and emphasize enjoyment to sustain athlete motivation. The use of digital platforms and IT systems to allow continuous practice and knowledge transfer was also recommended. Training rhythms such as Cha-Cha-Cha, Samba, and Jive were highlighted as adaptable methods to enhance agility, coordination, and player engagement. These practices illustrate both the current implementation strategies and the innovations required to elevate 3x3 basketball to the level of excellence.

Controlling: experts recommended systematic evaluation through pre-practice fitness tests, expert observation during practice, and standardized assessment methods. The use of the PDCA (Plan–Do–Check–Act) cycle and integration of digital reporting systems were emphasized to monitor performance, ensure safety, and facilitate transparency. The establishment of emergency response units during training was also considered essential for safeguarding athlete welfare.

Taken together, the results of the focus group not only provide an examination of the existing management model at Guangzhou Songtian Polytechnic College but also contribute to the development of a comprehensive management model for excellence in 3x3 basketball. This model integrates planning, organizing, implementing, and controlling functions to ensure systematic management, athlete-centered training, and institutional sustainability. The findings serve as a foundation for advancing 3x3 basketball as a sport of excellence within higher education and provide a replicable framework for other institutions in China seeking to achieve similar outcomes.

Table 1 The Management Model of 3x3 Basketball for Excellence at Guangzhou Songtian Polytechnic College, The People's Republic of China.

Management Function	Key Components
Planning	1. Establish a clear institutional policy for 3x3 basketball development. 2. Develop long-term strategic plans for excellence. 3. Create a curriculum tailored to 3x3 basketball training. 4. Implement systematic management procedures. 5. Establish collaborative networks with sports organizations. 6. Regularly assess strengths and weaknesses of the program. 7. Utilize IT systems for information dissemination. 8. Allocate sufficient budget and resources.



Management Function	Key Components
Organizing	1. Provide adequate training courts and facilities. 2. Recruit and develop modern, well-qualified coaches. 3. Establish MOUs with external organizations for cooperation. 4. Ensure parental and community involvement. 5. Apply strict and transparent athlete selection criteria. 6. Conduct seminars and workshops for coaches and athletes. 7. Arrange regular competitions to develop experience. 8. Publicize team and athlete achievements to build reputation.
Implementing	1. Begin training with warm-up routines and physical readiness checks. 2. Follow standard 3x3 basketball rules and coaching principles. 3. Emphasize fun and engagement to sustain motivation. 4. Incorporate IT-based training resources for continuous learning. 5. End each session with structured cool-down activities. 6. Apply varied training drills to improve agility, strength, and tactics. 7. Integrate rhythm and movement exercises to enhance coordination. 8. Promote teamwork and communication during practice.
Controlling	1. Conduct pre-training fitness assessments. 2. Employ expert evaluation during practices and competitions. 3. Assess player enjoyment and motivation as part of performance quality. 4. Evaluate technical and tactical skills using standardized methods. 5. Apply the PDCA (Plan–Do–Check–Act) evaluation cycle. 6. Use IT systems to record and disseminate performance data. 7. Establish clear emergency and safety protocols during training. 8. Maintain consistent monitoring to ensure continuous improvement.

The proposed management model for 3x3 basketball excellence at Guangzhou Songtian Polytechnic College integrates the four core management functions: planning, organizing, implementing, and controlling. Planning emphasizes policy, strategic development, curriculum design, and resource allocation. Organizing highlights facility provision, qualified personnel, institutional partnerships, and structured competition opportunities. Implementing focuses on athlete-centered training that balances discipline with motivation, supported by IT-based learning.



Finally, Controlling ensures continuous evaluation through fitness tests, expert assessments, standardized protocols, and the PDCA cycle (Table 1).

This integrated model provides a systematic framework for developing 3x3 basketball into a sport of excellence within the college, ensuring not only athletic performance but also sustainable institutional growth and recognition at the national and international levels.

Discussion

Objective 1: To Examine the Management Model of 3x3 Basketball for Excellence. The examination of the current management model revealed both strengths and limitations across the four management functions: planning, organizing, implementing, and controlling. **Planning** was identified as the cornerstone of effective management. Experts emphasized the need for a clear institutional policy, a long-term strategic plan, and a curriculum tailored to the specific demands of 3x3 basketball. Systematic management procedures, budget allocation, and the development of collaborative networks were also highlighted as critical. These findings align with Fayol (1949/2016), who identified planning as fundamental to organizational effectiveness, and Hales (2005), who emphasized strategic foresight and the managerial role in shaping performance. **Organizing** practices at the College reflected the importance of adequate facilities, modern coaching staff, and inter-institutional partnerships. Strict athlete selection criteria, combined with regular seminars and competitions, were considered essential to enhance player development. These results are consistent with Bateman and Snell (2007), who highlight collaboration and organizational efficiency as central to sports management, and Chelladurai and Kerwin (2018), who underscore the role of leadership, structure, and stakeholder engagement. **Implementing** focused on athlete-centered training, including structured warm-ups, adherence to rules, and activities that maintain motivation. Experts also emphasized IT-based learning platforms to support independent practice, and physical preparation to meet the high-intensity demands of 3x3 basketball. These findings reflect Bridges and Roquemore (2019), who stress adaptability in sports implementation, and Bompa and Buzzichelli (2019), who highlight the importance of progressive, systematic training. **Controlling** involved systematic evaluation and monitoring. Recommended practices included pre-training fitness assessments, expert observation, standardized evaluations, and the application of the PDCA (Plan–Do–Check–Act) cycle. Digital reporting systems were seen as necessary to enhance accountability, while emergency protocols were emphasized to ensure athlete safety. These insights are consistent with Giglioni and Bedeian (1974/2019), who view control as central to accountability, and Dessler (2015), who stresses monitoring and corrective feedback in management.





The findings revealed progress in developing 3x3 basketball at Guangzhou Songtian Polytechnic College, but also highlighted gaps in strategic planning, coach development, training implementation, and systematic evaluation. Importantly, the study was limited to a single institution and relied primarily on expert perspectives rather than direct athlete feedback, which constrains the scope of the findings.

Objective 2: To Develop a Management Model of 3x3 Basketball for Excellence. Building on these findings, this study developed a comprehensive management model that integrates planning, organizing, implementing, and controlling into a cohesive framework. In **planning**, the model emphasizes institutional policies, long-term strategies, tailored curricula, systematic processes, IT-based dissemination, and adequate budgeting. For **organizing**, it highlights the provision of modern facilities, the recruitment of qualified coaches, transparent athlete selection, partnerships through MOUs, parental involvement, training seminars, and continuous competition. In **implementation**, the model incorporates structured warm-ups, adherence to coaching standards, IT-supported training, motivational and enjoyable routines, cool-downs, rhythm-based drills, and teamwork exercises. Finally, **controlling** integrates fitness assessments, expert-led evaluations, standardized performance measures, the PDCA cycle, digital monitoring, and safety protocols.

This model addresses the limitations identified in Objective 1 by providing a structured, athlete-centered, and sustainable system. It reflects Fayol's (1949/2016) principles of management, Dessler's (2015) emphasis on accountability, and Bridges and Roquemore's (2019) application of sports-specific management frameworks. Nonetheless, its validation remains limited to expert consensus within one institutional context. Future research should extend the model through pilot implementation, athlete feedback, and multi-institutional comparisons to strengthen generalizability and practical application.

Recommendation

1. Policy and Strategic Development: Establish a clear institutional policy and long-term strategic plan for 3x3 basketball that aligns with national and international standards.
2. Organizational Strengthening: Develop cooperative partnerships with sports federations, universities, and community organizations through MOUs to expand opportunities for athletes and coaches.
3. Athlete-Centered Implementation: Adopt structured training routines that balance discipline with enjoyment, fostering long-term athlete motivation.





4. Future research should validate the model through real-world implementation, assessment of athlete outcomes, and comparative studies across multiple institutions to strengthen its generalizability and practical impact.

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