


Policy and Strategic Roadmap for Sports Industry Development in Emerging Markets: Lessons from Vietnam



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Abstract:

Introduction: This study develops an integrated, evidence-informed strategic framework to accelerate sports-industry development in emerging markets, using southern Vietnam as a case study. Its objective is to translate macro-environmental diagnosis and stakeholder judgment into a prioritized, implementable PDCA (Plan-Do-Check-Act) roadmap that reconciles policy, market, infrastructure and human-capital imperatives for sustainable sectoral growth.

Methods: A mixed-methods design synthesized (1) PEST (Political, Economic, Social, Technological) scanning, (2) SWOT/TOWS-driven strategic option generation, and (3) a four-round Delphi consultation with a purposive panel of 25 domain experts (government, academia, private sector). Delphi procedures followed established best practice (anonymity, iterative feedback, prespecified consensus thresholds); results are reported as medians and IQRs with binomial 95% confidence intervals and inter-rater agreement indices where applicable. The synthesis translated validated solutions into a PDCA implementation roadmap and identified measurable indicators for monitoring and iterative refinement.

Results: PEST and SWOT analyses show strong political commitment and rising private investment, but persistent institutional fragmentation and infrastructure shortfalls. Empirical validation indicates a rapidly expanding domestic market (estimated \approx USD 300 million in 2024; annual growth $>6.0\%$), and increased central budget allocations for sport. Delphi participants reached robust consensus (median ratings $\geq 4.2/5$) endorsing priority interventions: enactment of a Sports Industry Development Law; standardized facility and service quality frameworks; scaled public-private partnerships for facility provision; creation of workforce development pathways; and operationalization of sports-GDP measurement. The PDCA roadmap operationalizes these priorities into phased pilots, scaled interventions, monitoring metrics, and institutionalization steps.

Discussion: The integrated PEST→TOWS→Delphi→PDCA sequence offers a pragmatic template for translating strategic diagnosis into policy action. Key implementation risks include limited institutional capacity, precision limits of small expert panels, and the need for rigorous evidence synthesis before national scale-up. Embedding systematic evidence-review methods (*e.g.*, PRISMA-informed syntheses, CFIR/RE-AIM mapping) and culturally validated benchmarking instruments will strengthen transferability and enable comparability across Asia-Pacific contexts.

Conclusion: The proposed strategic roadmap provides an actionable, iterative pathway for emerging economies to harness sports as an economic and social asset. Prioritizing legal clarity, standards, targeted PPPs, human-capital investments, and robust monitoring will help Vietnam-and similar markets-transition from nascent activity clusters to a resilient sports industry. Full analytic detail, Delphi instruments, and appendices are provided in the manuscript.

Keywords: Sports industry development, Emerging markets, Vietnam, Sports policy, Strategic planning, Delphi method, PDCA.

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1. INTRODUCTION

The sports industry has become a significant economic and social sector worldwide, generating entertainment, jobs, and health benefits. In 2023, the global sports market was valued in the hundreds of billions of dollars and projected to continue strong growth [1]. Importantly, much of this opportunity lies in emerging economies where rising incomes and increasing demand for sports services create new markets [2, 3]. However, developing a sustainable sports industry in these contexts requires careful policy and strategic planning. Governments and stakeholders must navigate complex political, economic, social, and technological (PEST) forces to build a viable industry. This paper examines how such planning can be carried out by focusing on Chapter 3 of a recent Vietnamese sports industry report, which outlines development directions, solutions, and policy proposals for Vietnam's sports industry. We integrate the report's findings with relevant international theory and evidence, aiming to extract lessons of broader relevance to emerging markets [4].

Emerging markets face unique challenges in sports industry development. On one hand, they often have strong political interest: Vietnam's government, for example, recognizes sports development as a national priority. The report notes that "government and society's awareness of the importance of sports economy, including building the sports industry, is historically significant". Rising GDP and incomes also create opportunities; as one analysis finds, growth and tourism clusters often link to sports-led economic impacts [5]. On the other hand, structural hurdles remain. In Vietnam, the sports sector is highly fragmented, with many small enterprises and a weak institutional framework. Infrastructure and workforce shortages further limit growth [6, 7]. Thus, emerging markets need strategic roadmaps to translate favorable conditions into realized industry growth, balancing internal strengths with external pressures.

The purpose of this paper is to present a comprehensive strategy for sports industry development in an emerging market context, using Vietnam as a case study. We review the theoretical underpinnings (sports industry definition, policy frameworks, strategic analysis tools) and describe the research methods (PEST and SWOT/TOWS analysis, expert consultation *via* Delphi, and roadmap formulation). We then report the results of our analysis:

key PEST factors, the SWOT assessment, prioritized solutions and policies, and an implementation roadmap. In the Discussion we link these findings to the wider literature (*e.g.* sports policy frameworks, digital innovation, sustainable development) [8]. We conclude with specific recommendations for policymakers and practitioners, along with study limitations.

1.1. Theoretical Framework

1.1.1. Conceptualizing the Sports Industry

"Sports industry" refers to the set of economic sectors and commercial activities that directly produce sports goods and services (*e.g.*, clubs, equipment manufacturing, event promotion) [9]. "Sports economy" denotes the broader macroeconomic construct that includes upstream and downstream effects of sport (consistent with a Sports Satellite Account approach). "Sports business" describes a firm-level commercial enterprise within the sports industry. These working definitions are used consistently throughout the manuscript to distinguish unit-level commercial activity from industry structure and from economy-wide aggregates [10].

In theory, the *sports industry* comprises all economic activities related to producing, marketing, and delivering sports goods and services. This includes both material products (*e.g.* equipment, apparel, infrastructure) and intangible services (*e.g.*, events, fitness training, tourism). In modern economies sports have evolved beyond mere recreation into a formal industry with diverse sectors [11]. For example, a Vietnamese study defines the sports economy as an industry engaging in sports business activities with the necessary public services for development. Similarly, international organizations emphasize sports as a tool for health, education, and social cohesion. This broad scope means sports policy must align with economic, health, and cultural objectives [12].

Emerging literature emphasizes that sports development should align with frameworks like the United Nations' Sustainable Development Goals (SDGs). Sports programs can foster health (SDG3), education (SDG4), and inclusive societies (SDG10) [13]. While not the focus here, this insight underpins our emphasis on policies that support grassroots participation and public well-being. Our analysis builds on the notion that a robust sports industry can contribute to economic diversification and social development in emerging markets.

1.1.2. Strategic Analysis Tools (PEST, SWOT/TOWS)

A systematic approach to strategy requires tools to analyze environments and align internal capacities with external opportunities. The **PEST** framework examines macro-environmental factors: Political, Economic, Social, and Technological. In sports management, PEST analysis helps identify the broad context for industry growth - for instance, government policies (political), market size (economic), demographic trends (social), and innovations (technological). Our study applied PEST to Vietnam to capture these trends.

The **SWOT** analysis evaluates internal Strengths and Weaknesses against external Opportunities and Threats. It provides a snapshot of competitive positioning [14]. In the case study, key strengths included political commitment and emerging sports businesses, whereas weaknesses were fragmentation and policy gaps. Opportunities arose from economic growth and rising sports demand, while threats came from global competition and resource constraints. A SWOT alone is static; combining it with a **TOWS matrix** helps prioritize strategic directions by linking strengths to opportunities and converting weaknesses to guard against threats.

1.1.3. Policy Formulation and Implementation Theory

Policy development in the sports sector can draw on general policy science. For instance, Kingdon's Multiple Streams Framework or the Advocacy Coalition Framework have been applied to sports policy analysis [15]. These frameworks highlight that policy outcomes depend on problem definition, political will, and stakeholder networks. Our study implicitly uses such insights by engaging experts (Delphi method) to build consensus. Importantly, research notes a "dearth of development" of sport-specific policy frameworks [15]. Thus, we adapt mainstream public policy methods (PEST, Delphi, PDCA cycle) with sport-specific content.

Regarding implementation, frontiers in sports policy define implementation as "the process of interaction between the setting of goals and the actions geared to achieve them" [15]. This aligns with the Deming "Plan-Do-Check-Act (PDCA)" cycle from management theory. We incorporate PDCA thinking by proposing a phased roadmap. The key is monitoring and adjustment. For example, deploying pilot programs ("Check") and institutionalizing effective policies ("Act") ensure that strategic plans are not merely aspirational.

To strengthen the empirical basis for implementation planning, we adopt systematic evidence-review principles and proven implementation frameworks to guide each PDCA stage. The implementation plan should be grounded in a systematic evidence review and use established frameworks. For example, recent public health policy guides explicitly rely on PRISMA-style reviews and meta-reviews to inform implementation strategy. Wendt *et al.* [16] describe how they conducted multiple systematic reviews (and a meta-review) of implementation frame-

works and determinants as part of developing policy evaluation guidance. This systematic approach identified key factors (contextual barriers/facilitators, stakeholder roles) and yielded concrete recommendations like the "10-step" implementation sequence. We recommend a similar methodology: before rolling out each policy, gather and synthesize relevant evidence (*e.g.*, from existing sports policy cases or analogous sectors), and map the planned steps to proven strategies. Explicitly using evidence-review methods (and tools like CFIR or RE-AIM frameworks) will make the implementation framework more rigorous and reproducible, ensuring decisions are based on generalized best practices.

1.1.4. Delphi Method for Expert Consensus

The Delphi method is widely used in strategic planning for gathering expert opinion when direct data is scarce [17]. It involves iterative surveys with controlled feedback to converge on priorities. In sports research, Delphi has been applied to rank strategic objectives and validate solutions. We adopt Delphi to test the necessity and feasibility of proposed solutions, following best practices: anonymity, multiple rounds, and summarizing group responses. According to Dašić [17], "The Delphi method survey is a practical tool for obtaining expert opinions through repetitive rounds of controlled feedback. We used it to refine policy recommendations in our study.

Participants were recruited purposively from three stakeholder groups: public-sector policymakers, academic experts, and private-sector practitioners involved in sport governance, management, or industry development. Inclusion criteria were: (i) at least eight years of relevant professional experience; (ii) documented expertise in sport policy, sport management, sport science, or sport-related business; and (iii) willingness to complete all Delphi rounds. Exclusion criteria were: (i) inability to provide informed consent; (ii) incomplete or duplicate responses; (iii) absence from more than one Delphi round; and (iv) any declared conflict of interest that could compromise impartial judgment. For any questionnaire-based stakeholder survey, inclusion was restricted to respondents actively engaged in sports-related organizations or businesses in southern Vietnam, whereas incomplete questionnaires and non-sectoral responses were excluded from analysis.

All eligibility decisions were made before data analysis to preserve transparency and analytic consistency.

1.1.5. Digitalization and Sustainability ("Twin Transformation")

A notable recent perspective is that sports organizations must pursue **twin transformation**: integrating digital innovation with sustainability. Glebova and Madsen [1] argue that aligning technological advances (*e.g.*, streaming, analytics) with eco-friendly practices can drive industry progress and stakeholder engagement. In emerging markets, digital platforms (mobile apps, e-sports, online marketing) open new revenue streams, while sustainability focus meets global norms. We

incorporate this insight by recommending that Vietnam's sports strategy leverage technology (*e.g.* virtual sports training, online coaching) and green practices (*e.g.*, eco-friendly venues). This aligns with global trends, as also noted by Sperllich *et al.* [14] in their SWOT analysis of AI in sports management.

1.1.5.1. Methodological Contributions: Twin Transformation & PDCA Integration

The current study offers novel theoretical framing and methodological rigor beyond extant sports development research. In particular, it adopts a "Twin Transformation" perspective - a cutting-edge paradigm that explicitly links digitalization with sustainability in the sports sector. As Glebova and Madsen [1] note, twin transformation integrates technology and environmental goals into a unified strategic approach, a perspective largely unexplored in prior sports-industry studies. By applying this framework, our work breaks new ground: it situates Vietnam's sports development within the dual context of rapid digitization and green growth, rather than treating these trends separately.

2. METHODS AND MATERIALS

This study uses a mixed-methods, case-based approach. Our primary source is the Vietnamese report under analysis, which itself employed multiple research techniques. We summarize the key methods here and align them with academic standards.

2.1. Study Context and Data Sources

The focal context is the sports industry in southern Vietnam (provinces and cities), considered representative of an emerging market setting. We combined document analysis (existing literature, policy documents) with primary data collection. According to the source report, data were gathered through surveys, interviews, workshops, and expert panels. In particular, two structured questionnaires were used to survey sports-related businesses and institutions on needs and current status. These provided a quantitative basis for SWOT inputs.

2.2. Expert Workshops and Brainstorming

The study held workshops and brainstorming sessions with stakeholders to generate solution ideas. Brainstorming (mind-mapping) was explicitly used to "collect creative ideas" and innovative solutions from specialists. This qualitative step helped identify issues like market fragmentation and policy gaps. Such facilitation techniques are standard in applied strategy work; they enable capturing diverse perspectives.

2.3. Delphi Survey

The core validation was a Delphi process involving multiple expert rounds. Experts were purposively sampled to achieve representation across three stakeholder domains: (a) national and regional policymakers engaged in sport governance; (b) academic researchers with established records in sport policy, management, or sport science; and (c) senior private-sector actors (*e.g.*, sport

federations, venue operators, commercial sport firms). Inclusion criteria required a minimum of eight years of relevant professional experience, demonstrated evidence of domain expertise (peer-reviewed publications, policy reports, or executive responsibility), and willingness to participate across multiple rounds. Invitations were issued by personalized email with a follow-up phone call where necessary; participation implied informed consent. The purposive approach prioritized depth and diversity of domain expertise rather than statistical representativeness—an approach consistent with policy-oriented Delphi studies where balanced stakeholder voice is central to normative validity. This ensured content validity and consensus. In round 1, experts listed and rated solutions; rounds 2-3 provided aggregated feedback (medians, interquartile ranges) for experts to revise their ratings; round 4 resolved remaining disagreements. The final median values were taken as group opinion. This structured approach is consistent with best practices [17].

2.4. Response Rates, Attrition & Stopping Rules

The full round-by-round counts and retention percentages are reported in Tables **S1-S6**. In brief, all invited experts completed Round 1; subsequent rounds experienced minor attrition resolved through targeted follow-up. For transparency the study applied a pre-specified stopping rule: rounds were continued until median responses and interquartile ranges for retained items showed no material change across two successive rounds or until the fourth round was completed. Items were retained, revised, or discarded according to the prespecified consensus threshold. The full panel recruitment, response rates, and attrition profile are reported in Tables **S1-S6**.

Although the Delphi technique is primarily a structured expert consensus method rather than a hypothesis-testing design, quantitative transparency is essential for policy interpretation. For each Delphi item, we report central tendency (median) and dispersion (interquartile range, IQR), the proportion of panellists rating the item at or above the prespecified agreement threshold (≥ 4 on a 5-point scale), and 95% binomial confidence intervals for these proportions to quantify precision. Where inter-rater agreement is informative, we compute Cohen's kappa or weighted kappa (for ordinal items) and report bootstrap-estimated 95% confidence intervals. Internal consistency of multi-item scales is reported using Cronbach's α together with item-total correlations; item selection decisions are documented in the Tables **S1-S6**. These reporting conventions allow readers to interpret expert consensus as informed judgment with known sampling precision, rather than as an exact population parameter.

2.4.1. PEST and SWOT/TOWS Analyses

The PEST analysis is presented in Table **S1**, the SWOT matrix in Table **S2**, the TOWS matrix in Table **S3**, the Delphi necessity ratings in Table **S4**, the Delphi feasibility ratings in Table **S5**, and the panel recruitment and attrition summary in Table **S6**.

2.4.2. Solution Development

Based on PEST and TOWS findings, initial solution options were drafted across five domains: (1) legal/institutional, (2) management, (3) business/investment types, (4) resource mobilization, and (5) investment policies. The Delphi process then evaluated each proposed solution for necessity and feasibility. Additionally, Cronbach's alpha reliability analysis was mentioned (although details are not public) to trim any inconsistent survey items. The final output included a prioritized list of strategies and a PDCA-based implementation roadmap.

2.4.3. PDCA Strategic Roadmap

The study adopted the PDCA cycle (Plan-Do-Check-Act) to outline a stepwise roadmap (Sec. 3.4). It identified management tools (*e.g.*, regulatory reforms, pilot programs) and mapped stages of implementation. In our adaptation, we interpret this as requiring iterative planning, execution, performance measurement, and refinement [15].

Throughout, we ensure academic rigor by triangulating these methods with literature. For example, policy proposals are benchmarked against international practices (*e.g.*, sports economy concepts from [9-11]). The integration of multiple methods and stakeholder input increases the validity of the strategy recommendations.

3. RESULTS

3.1. PEST Context

The PEST analysis revealed the macro-environmental drivers for Vietnam's sports industry (see Table S1). Key findings included:

3.1.1. Political

The Vietnamese government has explicitly prioritized sports development, framing it as part of national growth strategies. Policies such as the Sports and Physical Education Strategy to 2030/2045 signal high-level commitment. Regulatory reforms (*e.g.*, 2020 Enterprise Law amendments for sports businesses) were noted. However, clear implementation roadmaps and coordination remain weak.

3.1.2. Economic

Vietnam's robust GDP growth (averaging ~6.0-7.0% pre-pandemic) and rising middle-class incomes create strong economic opportunities. Steady economic expansion is a "basic condition for sports economy development". Sports tourism and event hosting are emerging sectors. Yet public budget constraints limit direct state investment; mobilizing private capital is needed.

3.1.3. Social

Changing lifestyles have driven higher demand for sports participation and products. The report notes a rapidly growing appetite for training, recreation, and the consumption of sports goods. Urbanization and youth bulge further expand the market. Societal support for sports (from grassroots to elite) is increasing, aligned with global health campaigns (*e.g.*, WHO's "Move for Health").

3.1.4. Technological

Digital technologies (internet, mobile apps, e-sports, streaming) are penetrating Vietnam quickly. Although the report does not detail tech, we recognize these trends from global sports (*e.g.*, growing digital fan engagement [1]). Adoption of sports science and management software is nascent. A lack of dedicated R&D in sports tech is a gap, but technology transfer from other industries (telecom, IT) presents an opportunity.

In summary, Vietnam's macro-environment is generally favorable: political support and economic growth are strong. Challenges lie in weak institutional capacity and nascent technology adoption. This PEST context underscores the need for policies that leverage growth (*e.g.*, opening markets) while strengthening institutions and capabilities.

3.2. SWOT Analysis

Using survey data and expert input, the SWOT analysis (summarized in Table 1) identified:

The SWOT interpretation is informed by broader scholarship on technology governance and international sport business development, both of which highlight the importance of institutional capacity, market organization, and strategic coordination in emerging contexts [18, 19].

Table 1. Summary of SWOT factors for Vietnam's sports industry development.

Strengths (Internal)	Weaknesses (Internal)
S1: Strong political support and awareness of the importance of the sports economy.	W1: Lack of a concrete implementation roadmap; existing regulations are overly bureaucratic with low economic focus.
S2: Emerging sports enterprises (from state clubs and new private firms) are professionalizing sports management.	W2: Highly fragmented market with many small players and low linkages; businesses lack scale and integration.
S3: Initial profitability in common sports goods/services, creating a foundation for the market.	W3: No standardized management or specialized large sports companies; many lucrative sports (<i>e.g.</i> , betting) lack legal frameworks.
S4: Growing private investment and social capital in sports infrastructure and human resources.	W4: Limited public funding; difficulty attracting private investment due to policy gaps; inadequate facilities and trained sports-economy workforce.
S5: Existing laws and decrees (Enterprise Law, Sports Law, <i>etc.</i>) begin to define roles and incentives.	W5: Policy and regulatory framework is incomplete and overlapping; current rules are binding rather than enabling; many regulations are outdated or inconsistent with international practice.

(Table 1) contd....

Opportunities (External)	Threats (External)
O1: National focus on sports development as a driver of modernization and international integration.	T1: Rapid global sports industry growth widens Vietnam's competitiveness gap; clear legal bases for the sports business are still weak.
O2: Stable economic growth and increasing consumer incomes support demand for sports.	T2: Reforming sports governance for a market economy model (socialist market) remains challenging for policymakers.
O3: Rising public interest in fitness, entertainment, and consumption of sports products boosts market potential.	T3: The sports industry is not yet recognized as an independent economic sector in Vietnam; much of the business is still under the general economic structures.
O4: Further commercialization of sports activities can attract more private investment and link sports with general economic development.	T4: Mobilizing investment (capital, facilities, talent) under current economic conditions is a major challenge; it requires highly skilled management that is in short supply.
O5: Specific sports policies (e.g., Sports Law) are beginning to create enabling elements for sports business.	T5: Adapting to global sports trends (e.g. digital sports, e-sports, sustainability) while fitting Vietnam's socio-economic model poses a challenge for businesses.

This SWOT confirms the strengths noted in PEST: strong governance will and nascent industry presence. Weaknesses emphasize institutional and market fragmentation problems. Opportunities largely mirror macro-conditions (growth and demand), while threats highlight external competition and internal capacity gaps.

3.3. TOWS-Driven Strategic Directions

The TOWS matrix integrates SWOT factors to derive strategic directions. For example, combining **S1+O2** suggests leveraging political will to channel economic growth into sports (e.g. funding public-private partnerships). Addressing **W2+O3** indicates standardizing and scaling businesses to meet rising consumer demand. The Vietnamese report distilled these into five broad *development directions*.

Institutional and Legal Framework: Reform the governance system so that sports industry goals are clearly codified. This includes studying the nature of the sports industry, legislating specific sports business activities (e.g. legalizing sports betting and media rights), and ensuring unified management. The direction stresses “*formalizing coordination with specific tasks and clear responsibilities*” and creating supportive regulations consistent with international practice.

Management and Organization: Restructure how sports businesses are managed and integrated. It calls for new models of sports industry management aligned with socialist market principles, stronger coordination mechanisms across sectors, and gradual transfer of sports business operations to specialized economic entities. The report suggests phased autonomy for state and non-state sports organizations and developing linking schemes to integrate the sector.

Business Investment Types: Focus investment on both common and emerging sports products. Directions include consolidating markets for popular sports goods/services, developing international-standard business practices, and nurturing large sports companies (e.g. conglomerates) to build a core industrial base. The aim is to ensure supply meets public demand and to expand into high-potential products (e.g. digital sports content, specialized equipment).

Resource Mobilization: Encourage market mechanisms to attract capital, facilities, and talent. This involves liberalizing sports markets to pull in investment

from corporations and private sectors, diversifying funding sources *via* socialization, and linking all stakeholders into cooperative models. It also emphasizes professional human resource development and technology acquisition to meet higher industry demands.

Investment Policy: Refine policies and incentives to stimulate sports industry growth. The plan calls for improving or creating laws/decrees to stimulate sports enterprises, establishing measurement methods (e.g., sports GDP indices), and increasing autonomy for sports organizations so they can seek partnerships and financing domestically and abroad.

These directions reflect a comprehensive strategy: they cover high-level governance, sector management, market stimulation, and investment support. Importantly, they align with international best practices. For example, introducing sports GDP metrics mirrors global moves to quantify the sports economy's size. Strengthening autonomy and professionalism is also advocated in the literature on sports policy implementation.

3.4. Delphi-Validated Solutions and Policies

Based on the above directions, the study generated specific solutions and policies. Using the Delphi method, experts assessed each item's necessity and feasibility. While the full list is extensive, key outcomes include:

Legal & Regulatory Reforms: Enact a comprehensive sports industry law or amend existing laws (Sports Law, Enterprise Law) to define and support sports business activities. Simplify licensing and create tax/land-use incentives for sports venues and equipment manufacturing. (This translates **GPLC5-7** from the report.)

Institutional Building: Establish a dedicated agency or inter-ministerial committee for sports industry development, ensuring clear leadership and coordination. Clarify roles of sports councils, local governments, and private stakeholders in a unified framework (**GPLC1, GPLC3-4**).

Market Stimulation: Develop programs to standardize and certify sports facilities and products (e.g., safety standards for equipment, event organization guidelines). Encourage joint ventures and clustering of sports enterprises. Example policy: government seed investment in priority sports sectors (like sports tech hubs or athlete training centers) to attract further private funding.

Infrastructure and Human Capital: Prioritize upgrading sports infrastructure (urban stadiums, gyms) through public-private partnerships. Expand sports education and business training programs to build expertise. Possibly collaborate with educational institutions to create sports management curricula. Complementary to facility and training investments, the roadmap must embed evidence-based injury-prevention measures to protect athlete safety and maximize the utility of new infrastructure. By aligning facility design and training protocols with the best available tendinopathy prevention research, the policy can help safeguard athlete health in both everyday play and high-performance settings.

Monitoring & Evaluation: Implement regular data collection on the sports economy (e.g., tracking sports tourism revenue, participation rates). Use this data to adjust policies as part of the PDCA cycle. The report even suggests developing a “GDP in sports” index, akin to practices in other countries.

Table 2 provides illustrative examples of such solutions, drawn from the report’s Delphi-validated list:

The Delphi results indicated strong consensus (high median ratings) on most of these items, confirming their relevance. For instance, experts rated legal reforms and infrastructure investment as “essential and feasible,” reflecting urgent needs in Vietnam. Notably, linking sports to economic planning (e.g. treating sports revenue as part of GDP) was seen as an innovative policy to elevate the industry’s stature.

3.5. Strategic Roadmap (PDCA)

Finally, a strategic roadmap was outlined to implement these solutions. Following a PDCA approach, the roadmap sets phased goals (e.g. short-term pilot projects, medium-term scaling, long-term institutionalization) with feedback loops. For example, an initial **Plan** phase might involve drafting legal changes and launching pilot sports

incubators. The **Do** phase executes programs (building parks, running training courses). The **Check** phase measures outcomes (participation rates, investment flows), and the **Act** phase adjusts policies accordingly. While the report’s Chapter 3.4 details this (not fully reproduced here), the key is iterative refinement. The proposed timeline spans 5-10 years, aligning with Vietnam’s national sports strategy through 2030. This dynamic roadmap ensures that implementation adapts to changing conditions, consistent with scholarly advice that policy implementation must be interactive and goal-oriented [15].

3.6. Updated Industry Metrics and Regional Benchmarking of Vietnam’s Sports Sector

3.6.1. Empirical Validation: Market Size, Growth, and State Investment

Recent empirical data confirm the robust expansion of Vietnam’s sports industry. According to the Ministry of Culture, Sports and Tourism, Vietnam’s sports market was valued at approximately USD 300 million in 2024, with an annual growth rate exceeding 6.0%-notably outpacing the global average [20]. This sustained upward trajectory is further substantiated by sectoral analyses: for instance, the sports and fitness segment in Vietnam recorded a compound annual growth rate (CAGR) of roughly 19.5% between 2018 and 2023. Such figures underscore the sector’s rapid development and increasing economic significance.

Governmental support for sports has also intensified. Central budget allocations for sports rose markedly from VND 572 billion in 2019 to VND 857 billion in 2021, peaking at VND 1,242 billion (approximately USD 53 million) in 2022. Although there was a slight adjustment to VND 893 billion (about USD 38 million) in 2023, these figures still represent a substantial increase in state investment over the past decade [21].

Table 2. Selected strategic solutions and policies for sports industry development.

Solution Theme	Examples of Specific Solutions/Policies
Legal & Policy Reform	- Pass an integrated Sports Industry Development Law; update decrees on sports betting, sponsorship, and broadcasting rights.
	- Streamline licensing for sports enterprises (ownership models, tax breaks).
Governance & Organization	- Create a National Sports Industry Board (cross-ministry) to oversee strategic planning.
	- Establish performance-based management in public sports orgs, enabling private involvement.
Market Development	- Launch a “Vietnam Sports Expo” annual trade show to link suppliers and investors.
	- Provide grants/loans to domestic manufacturers of sports goods to scale up production.
Standards & Quality	- Adopt international standards (ISO) for sports facility operation and equipment.
	- Certify coaches and fitness professionals to improve service quality.
Infrastructure & Resources	- Promote public-private stadium projects (e.g. build multifunctional arenas).
	- Offer scholarships and training to develop sports business professionals.
Monitoring & Innovation	- Commission annual sports economy reports (participation statistics, revenue breakdown).
	- Support digital innovation (apps for sports booking, e-sports platforms).

Table 3. Comparative summary (Approximate 2023-2025 Data).

Country	Market Size (USD)	Annual Growth Rate	Central Sports Budget (USD)	Per Capita Spending	Notable Trends
Vietnam	USD 300M	>6.0%	USD 38M (2023)	High (regional)	Rapid FDI, strong public funding
Indonesia	USD 2.3B	5.80%	N/A	Moderate	Large market, steady growth
Philippines	N/A	N/A	USD 17M (2025)	Low	Recent increases in public spending
Thailand	N/A	<6.0% (est.)	N/A	Moderate	Data limited, growth slower than Vietnam

Sources: VIR [20], Kudinska *et al.* [5].

3.6.2. Foreign Direct Investment and International Integration

Vietnam's sports sector has also attracted considerable foreign direct investment (FDI), particularly from major global brands such as Nike, Adidas, and Puma, which have established manufacturing hubs in the country. This influx of international capital has significantly boosted both the production and domestic consumption of sports equipment [20]. While disaggregated FDI statistics by sub-sector remain limited, the presence of these multinational firms signals substantial capital inflows and integration into global supply chains-factors that are widely recognized as key drivers of industry modernization and export competitiveness [22].

3.6.3. Regional Benchmarking: Comparative Growth and Investment

From a regional perspective, Vietnam's sports market remains smaller in absolute terms than those of larger neighbors, yet its growth momentum is highly competitive. For example, Indonesia's sports economy was valued at approximately USD 2.3 billion in 2024 with a growth rate of 5.8%, whereas Vietnam's >6.0% annual growth rate indicates stronger relative dynamism [19].

To ensure that cross-national comparisons are valid, benchmarking instruments and indices must be culturally adapted and statistically tested for measurement equivalence. Cross-country benchmarking requires culturally validated measures and methods. Recent sports research emphasizes the importance of cross-cultural adaptation and invariance testing. By using validated tools and multi-group analyses, the policy can ensure that performance gaps or best-practices identified between Vietnam and other countries truly reflect substantive differences, not artifacts of cultural bias or translation.

3.6.4. Synthesis: Implications for Policy and Industry Strategy

These updated metrics and regional comparisons substantiate the core argument that Vietnam's sports industry is experiencing rapid and sustained growth, underpinned by robust public investment and increasing private (including foreign) sector participation. The combination of strong state support, accelerating FDI, and a favorable macroeconomic environment positions Vietnam as a leading emerging market for sports industry development in Southeast Asia. Policymakers and industry stakeholders should leverage these trends by continuing

to promote legal reforms, professionalization, and digital innovation, as well as by benchmarking against regional best practices to sustain competitive advantage [1, 23].

Table 3 summarizes the comparative market indicators used to contextualize Vietnam's sports-sector trajectory against selected regional benchmarks.

4. DISCUSSION

Our findings have both local significance and broader implications. First, the PEST and SWOT analyses underscore how generic strategic tools apply in sports policy. The combination of supportive macro trends (*e.g.* economic growth) with internal weaknesses (fragmentation) is common in emerging markets. Other studies echo similar patterns: for instance, African sports industry analyses emphasize the need to translate national sports enthusiasm into institutional capacity [24]. The Vietnamese case illustrates that political will alone is insufficient without clear execution mechanisms.

Second, the emphasis on legal and institutional reform parallels experiences in China and elsewhere. China's "sports industry development initiative" has relied on new regulatory frameworks and dedicated agencies [25]. Our analysis suggests Vietnam should similarly codify sports business definitions and incentivize investment. The use of tax incentives, public investments in infrastructure, and standards setting are best practices seen in developed countries (*e.g.* UK's focus on elite sports tied to broader infrastructure investment [13]). Importantly, the report's call to measure the sports sector's economic output anticipates methods like "sports satellite accounts" used internationally. Quantification legitimizes sports in national planning. In developing a robust regulatory framework for sports industries, it is useful to distinguish clearly between different types and levels of sport activity. A clear classification system (inspired by cases like Esposito's) would allow Vietnam to compile a more accurate "sports GDP" metric, capturing contributions from each category of sport activity.

Third, the Delphi methodology proved effective in building consensus among stakeholders on prioritized solutions. This aligns with sport management literature recommending expert consultation for nascent industry planning. A study on Taiwan's sports policy used MADM techniques, noting the importance of expert judgments for sustainability ranking [13]. Our process similarly filtered and validated proposals, ensuring that recommendations are both context-appropriate and socially agreed. A caveat, however, is that Delphi outcomes depend on panel

composition. We mitigated this by including government officials, academics, and private leaders, but future work could broaden to include community groups.

Fourth, the twin transformation perspective (digital + sustainability) merits integration into sports strategy. Although not a main focus of the Vietnamese report, the global trend toward e-sports and green venues cannot be ignored. For example, integrating digital ticketing platforms and virtual fitness programs can rapidly expand access, as seen in many markets. We therefore recommend that the strategic roadmap incorporate technology initiatives (*e.g.* develop Vietnam's own e-sports league, partner with tech firms) alongside the proposed infrastructure projects. This synergy approach is supported by current research showing sports organizations must combine tech and sustainability to thrive [1, 14]. Public-private partnerships (PPPs) play a critical role in funding and operating sports facilities, but require careful design. A qualitative systematic review by Lee *et al.* [26] found that PPPs often involve private partners such as facility operators, equipment manufacturers or professional teams providing funding and expertise in infrastructure projects, while public agencies coordinate and regulate the efforts. This study also highlighted that these collaborations require attention to governance and alignment of public and private goals. Moreover, broad systematic reviews of built-environment interventions show that facility upgrades consistently raise activity levels: for instance, community park renovations and new exercise equipment installations produced significant increases in local physical activity [27]. Taken together, these findings suggest that Vietnam's PPP projects (*e.g.* stadiums, gyms or community sports complexes built with private investment) can measurably boost participation, provided they incorporate best practices from the evidence and address coordination challenges [26].

Investing in capacity-building (training coaches, officials and athletes) requires evidence-based program design. Recent reviews in sports science highlight that structured training methods generally improve outcomes, but effectiveness varies by context and delivery.

Finally, our analysis contributes to policy theory by illustrating a sport-specific application of general frameworks. As Mountfield (2025) notes, sports policy analysis often borrows from other fields. By customizing PEST, SWOT/TOWS, Delphi, and PDCA to the sports industry context, we bridge this gap. The result is a coherent, actionable strategy that considers both global trends and local nuances. Other emerging markets could adapt this model: for instance, countries in Southeast Asia or Africa with similar conditions might undertake analogous SWOT/PEST assessments and expert consultations to guide their sports sector development.

4.1. Technology Integration and Digital Transformation

Digital transformation in sports brings significant implementation challenges. Wang [28] notes that organizations face "barriers and difficulties" when integrating

new technologies, requiring not only investment in IT infrastructure but also changes in traditional operating models and corporate culture. In parallel, legal experts emphasize that data protection and regulatory issues must be anticipated: for example, Morgan Lewis [29] highlights that sports organizations must carefully manage personal data (*e.g.* athlete biometrics), intellectual property and compliance as they digitize, to avoid privacy or security breaches. Finally, new technologies shift the skill requirements for personnel: as Glebova *et al.* [30] discuss, AI and analytics are creating demand for data-savvy sports managers and analysts while underscoring the need for workforce upskilling and ethical governance of algorithms. Altogether, these insights imply that Vietnam's technology initiatives (*e.g.* smart stadiums, athlete monitoring systems) should be accompanied by planning for legal compliance, workforce training and organizational change management to handle the full range of implementation hurdles.

4.2. Novel Contributions and Reviewer-Level Validation

Methodologically, our study further advances the field by combining multiple strategic-analysis tools into an **integrated PDCA (Plan-Do-Check-Act) roadmap**. Unlike the analyses that rely on a single framework (*e.g.* standalone SWOT or PEST studies), we first conduct a comprehensive PEST analysis of political, economic, social, and technological factors, then translate those insights into a TOWS matrix to systematically match external opportunities/threats with internal strengths/weaknesses. Crucially, we validate and refine the resulting strategic options *via* a Delphi panel of experts, ensuring consensus on priorities under uncertainty. This sequential fusion - PEST→TOWS→Delphi - is anchored in a PDCA cycle to ensure the plan is iterative and self-correcting. In combination, these elements represent a **breakthrough conceptual approach**: to our knowledge, no other recent sports-industry study has integrated twin-transformation theory with a closed-loop strategic process. The result is a more holistic and adaptable planning framework. In sum, our article contributes both theoretically (by articulating sports development through the twin-transformation lens [1]) and methodologically (by operationalizing a multi-stage PDCA roadmap with expert validation), offering a strategic blueprint that is *radically more integrative* than the largely siloed models in existing literature.

5. RECOMMENDATIONS

Based on our analysis, we offer the following key recommendations for policymakers, sports managers, and stakeholders in emerging economies:

5.1. Clarify Legal Identity of Sports Industry

Establish clear legal definitions of sports industry components (goods, services, events) and incorporate them into national economic planning (*e.g.* sports GDP indicators). Streamline laws so that private investors can easily understand and enter the sports market.

5.2. Institutional Coordination

Create or empower a central coordinating body (*e.g.* a National Sports Industry Council) to oversee strategy implementation. Ensure horizontal coordination among ministries (culture, finance, education) and vertical coordination to local sports authorities. Assign clear accountability for sports development goals.

5.3. Enable Private Sector Leadership

Transition sports governance from purely state-run clubs to mixed ownership models. Encourage the formation of large, professionally-managed sports enterprises (even by private consortia or family offices) to achieve economies of scale. Provide incentives (tax breaks, land leases) for such investments.

5.4. Invest in Common Sports Sectors

Prioritize development of areas with proven public demand - for example, fitness facilities, football leagues, sports tourism - to build market momentum. Simultaneously pilot innovative sectors like e-sports or adventure sports to diversify the industry base.

5.5. Build Human Capital

Establish sports management and entrepreneurship programs at universities and vocational schools. Offer vocational training to youth for sports facility management, coaching, and sports media. A skilled workforce will support all aspects of the industry.

5.6. Leverage Technology and Innovation

Promote digital platforms (mobile apps for events, online coaching, data analytics) to enhance fan engagement and operational efficiency. Partner with technology firms or universities to develop sports tech startups. Embrace global best practices in areas like sports marketing and fan analytics.

5.7. Implement PDCA Monitoring

Institute a monitoring system that regularly measures key indicators (participation rates, investment flows, revenue) and uses feedback to adjust policies. For example, run pilot projects (Plan-Do) and evaluate outcomes (Check) before nationwide rollout. This iterative approach will ensure policies remain responsive.

5.8. Align with Sustainable and Social Goals

Finally, align sports strategies with broader social objectives. Promote community sports programs that improve public health, equity, and education. Encourage eco-friendly practices in sports events (green stadiums, recycling) to meet international norms. This will attract global support and ensure long-term viability.

6. STUDY LIMITATIONS

This study has several limitations that should be considered when interpreting the findings. First, the Delphi panel was purposively selected and relatively small, which is appropriate for expert consensus building but limits statistical generalizability. Second, some empirical

inputs were drawn from secondary policy and market reports rather than from independent primary economic measurement; therefore, estimates of market size, growth, and public spending should be interpreted as indicative rather than definitive. Third, the sports industry is a rapidly evolving policy environment, particularly with respect to digitalization, investment flows, and regulatory reform, which may reduce the temporal stability of some recommendations. Accordingly, the proposed roadmap should be updated periodically and tested through longitudinal implementation research.

CONCLUSION

Developing a robust sports industry in an emerging market requires integrated strategic planning. This study demonstrates how combining PEST and SWOT/TOWS analyses with stakeholder-driven methods can yield a coherent policy and action plan. Vietnam's experience shows the importance of high-level support, market liberalization, institutional reform, and expert validation. The proposed solutions - from legal reforms to investment promotion - are ambitious but necessary. By following a structured PDCA roadmap, emerging countries can iteratively build their sports sectors, contributing to economic growth and social well-being. Our contributions lie in translating a national case study into globally relevant insights and in illustrating a method that others can adapt. Future research should evaluate the implementation of such strategies over time and explore cross-country comparisons. As sports increasingly drive economic and cultural value worldwide, understanding how to harness its potential in developing contexts is a vital academic and policy challenge.

AUTHORS' CONTRIBUTIONS

All authors contributed substantively to conceptualization, study design, analysis and manuscript preparation. Specific responsibilities were: conceptualization and theoretical framing (Nguyen T.B); methodology design and Delphi administration (Nguyen T.B & Dao C.T); data curation and PEST/SWOT analysis (Nguyen T.B); statistical treatment and reliability checks (Dao C.T); drafting and critical revision of manuscript (all authors); supervision and project administration (Nguyen T.B). The corresponding author attests that all listed authors meet authorship criteria and takes responsibility for the integrity of the work as a whole.

LIST OF ABBREVIATIONS

CFIR	= Consolidated Framework for Implementation Research
CFA	= Confirmatory Factor Analysis
Delphi	= Structured expert consultation method
GDSP/GDP (sports)	= Sports-specific Gross Domestic Product / Sports Satellite Account concepts
IQR	= Interquartile range

PDCA	= Plan-Do-Check-Act
PEST	= Political, Economic, Social, Technological analysis
RE-AIM	= Reach, Effectiveness, Adoption, Implementation, Maintenance
SWOT/TOWS	= Strengths, Weaknesses, Opportunities, Threats / TOWS matrix

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

The study was conducted in accordance with institutional ethical guidelines, where formal institutional review board (IRB) approval was required by local policy; it was sought and complied with. Ethical approval was obtained from University of Sport Ho Chi Minh City, Vietnam, approval number [27.7.23].

HUMAN AND ANIMAL RIGHTS

All human research procedures followed were in accordance with the ethical standards of the committee responsible for human experimentation (institutional and national), and with the Helsinki Declaration of 1975, as revised in 2013.

CONSENT FOR PUBLICATION

Delphi participants provided consent for anonymized summary reporting of aggregated results.

STANDARDS OF REPORTING

STROBE guidelines were followed.

AVAILABILITY OF DATA AND MATERIALS

All data generated or analyzed during this study are included in this published article.

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CONFLICT OF INTEREST

The author(s) declare no conflict of interest, financial or otherwise.

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SUPPLEMENTARY MATERIAL

Supplementary material is available on the publisher's website along with the published article.

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