



Strategic Management of Handball Achievement Development in Central Java: Planning, Implementation, and Evaluation of Athlete Development Programs

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Abstract

Study purpose. This study examined how strategic management is translated into handball achievement development in Central Java, with particular attention to planning, organisational coordination, coaching implementation, monitoring, resource mobilisation, and differences between urban and rural development settings.

Materials and methods. A qualitative descriptive design was used. Participants comprised 24 people: four regional handball administrators, five coaches, 12 athletes, and three supporting stakeholders. They were selected purposively because of their direct and sustained involvement in regional handball development. Data were generated through semi-structured interviews, observation, and document analysis, then analysed using a systematic thematic procedure. Credibility was supported by source and method triangulation, an audit trail, and member checking conducted with eight participants. The participants received summaries of their interview statements and the preliminary interpretations through WhatsApp and were asked to confirm their accuracy or provide corrections.

Results. Five interconnected themes were identified: strategic direction and talent pathways; coaching delivery and competition exposure; coordination across organisational levels; monitoring as an adaptive rather than purely administrative process; and a persistent resource-and-geography gap. The findings indicate that a well-articulated plan did not automatically produce equal implementation across districts. Urban centres benefited from denser facilities, coaching networks, and competition access, whereas rural programmes relied more heavily on local initiative and informal collaboration.

Conclusions. The study extends strategic management thinking in regional sport by showing that athlete development depends on the alignment of deliberate plans with emergent, context-sensitive adjustments. Sustainable handball development therefore requires not only stronger planning, but also clearer inter-organisational roles, equitable resource allocation, locally responsive monitoring, and differentiated support for urban and rural programmes.

Keywords: Strategic Management, Sport Governance, Handball, Athlete Development, Regional Sport Systems, Central Java

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Introduction

Regional athlete development is often discussed as though better results follow naturally from better training. In practice, the training programme is only one part of a wider organisational system. Athletes need access to coaches, facilities, competitions, medical and administrative support, and a sequence of development opportunities that remains coherent over time. When those elements are poorly coordinated, even technically sound coaching can become fragmented. For this reason, recent sport-management scholarship increasingly treats performance development as an organisational and governance problem rather than as a purely technical one (Ferkins et al., 2018; Pedras et al., 2020; Willem et al., 2019).

Strategic management provides a useful lens for examining this problem because it connects long-term direction with day-to-day choices about people, programmes, and resources. Mintzberg's original work is particularly relevant. He described strategy not only as a formal plan but also as a pattern that becomes visible through repeated organisational action. He later distinguished strategy as plan, ploy, pattern, position, and perspective, reminding researchers that what organisations actually do may differ from what their formal documents state. This distinction matters in regional sport, where policy targets are often deliberate, while implementation evolves in response to competition calendars, funding cycles, facility access, and local relationships.

Sport organisations also operate through interdependent levels of governance. Provincial associations depend on district organisations, clubs, schools, coaches, athletes, government agencies, and sponsors, yet these actors do not always share identical priorities. Research on national and regional sport organisations shows that strategic capability is shaped by board leadership, role clarity, information exchange, and the quality of vertical and horizontal relationships (Shilbury et al., 2016). Multi-level structures can support coordinated development, but they can also generate conflicting expectations, duplicated responsibilities, or implementation gaps (Pedras et al., 2020; Zheng et al., 2019).

These organisational issues are especially relevant in handball. The sport requires sustained technical, tactical, physical, and psychological preparation, but its development also depends on a sufficient competition pathway and a stable pool of qualified coaches. Training quality is strengthened when programmes are sequenced across age groups and when competition is used as feedback for subsequent planning rather than as an isolated end point. Although handball research has documented the demands of training and performance, less attention has been paid to the management arrangements that make regional athlete development possible. A focus on strategic management therefore complements sport-science evidence by examining the organisational conditions within which coaching takes place.

(Rudd et al., 2020) Central Java offers an important setting for such an analysis. The province contains established urban centres as well as districts in which facilities, transport, coach availability, and competition access are more limited. Geographic inequality can influence who enters the talent pathway, how often athletes train, and whether promising players remain connected to higher-level programmes. Evidence from other sport systems indicates that facility provision and socioeconomic context are associated with participation opportunities (Rudd et al., 2020), while rural populations frequently encounter fewer organised options and weaker access to support services than urban populations. These differences suggest that a single provincial strategy may be experienced differently across locations.

Existing studies provide important but largely fragmented explanations of strategic management in sport organisations. Sport-governance research has emphasised collaborative leadership, stakeholder participation, and institutional coordination (Shilbury et al., 2016), while organisational-capacity studies have shown that human, financial, infrastructural, and networking resources influence programme implementation and organisational performance (Jones et al., 2020). More recent studies have also highlighted the challenge faced by sport organisations in balancing multiple institutional goals and stakeholder expectations (Everley, 2025; McCarthy, 2025). However, these research streams have generally examined governance, organisational capacity, and institutional pressures as separate dimensions. Consequently, limited knowledge exists regarding how these dimensions interact throughout the formulation, implementation, evaluation, and adjustment of athlete-development strategies.

This limitation is particularly evident in developing regional sport systems, where formal strategic plans must be implemented under unequal resource conditions, fragmented stakeholder relationships, and considerable geographic variation. Previous research has not sufficiently explained how strategic coherence is established and maintained when regional sport organisations must coordinate administrators, coaches, athletes, government agencies, local associations, and supporting institutions across urban and rural settings. Moreover, there remains little empirical evidence from Indonesian handball regarding how resource limitations and geographic disparities influence the translation of strategic priorities into operational programmes.

The novelty of the present study lies in its integrated and process-oriented examination of strategic management within a developing regional handball system. Rather than evaluating planning, organising, implementation, and evaluation as isolated managerial functions, the study investigates how governance relationships, organisational capacities, stakeholder coordination, and geographic conditions collectively shape the strategic-management process. Theoretically, the study contributes by introducing strategic coherence as an analytical perspective for explaining the extent to which development priorities, stakeholder actions, resource allocation, programme implementation, and evaluation mechanisms remain aligned over time. It also examines how such coherence is challenged and subsequently repaired through coordination, adaptation, and programme adjustment.

Accordingly, this study aimed to analyse the strategic management of handball achievement development in Central Java. It addressed four research questions: (1) How are athlete-development priorities formulated and translated into programmes? (2) How do administrators, coaches, athletes, and supporting stakeholders coordinate programme implementation? (3) How are progress, constraints, and programme adjustments evaluated? and (4) How do resource conditions and geographic contexts shape implementation across urban and rural settings? By addressing these questions, the study moves beyond a descriptive checklist of management functions and develops a contextual explanation of how strategic coherence is produced, challenged, and repaired within a regional sport-development system.

Materials and methods

Study participants

Participants were selected purposively because the study required information-rich accounts from people who had direct responsibility for, or sustained experience of, handball achievement development. Purposive sampling was therefore more suitable than random selection: the aim was not to estimate population parameters, but to understand strategic processes from positions that carried different forms of knowledge. Eligibility required participants to. The inclusion criteria were: being at least 18 years old, having a minimum of one year of involvement in handball development in Central Java, and being directly involved

in at least one aspect of the programme, including strategic planning, coaching, competition management, athlete development, funding, facility provision, or organisational support. Individuals were excluded when their involvement was temporary or unrelated to the athlete-development programme under study.

Table 1. Participant profile and inclusion basis

Category	Number	Sex	Age range	Relevant experience	Inclusion basis
Administrators	5	4 male, 1 female	35–54 years	5–15 years; provincial and district association officials	Direct responsibility for planning, governance, programme coordination, or resource allocation
Coaches	6	5 male, 1 female	28–47 years	4–12 years; regional or national coaching licences	Active responsibility for athlete preparation and competition implementation
Athletes	12	7 male, 5 female	18–27 years	2–9 years; district, provincial, and national competition experience	Active participation in the provincial or district development pathway
Supporting stakeholders	4	3 male, 1 female	33–52 years	3–14 years; government, facility, medical, and competition-support roles	Direct support through facilities, government, education, funding, medical services, or competition organisation
Total	27	—	—	—	—

Sampling proceeded alongside preliminary analysis. The researchers maintained a saturation log that recorded when each new interview produced a new code, expanded the meaning of an existing code, or repeated information already obtained. Code saturation was reached after interview, Data collection continued until meaning saturation was achieved. Saturation was considered to have occurred when successive interviews no longer generated new descriptive codes and the existing themes were repeatedly confirmed across administrators, coaches, athletes, supporting stakeholders, and different geographic settings. Additional interviews were conducted after this point to assess whether the themes had sufficient depth, variation, and consistency across participant categories. This procedure allowed saturation to be assessed based on the completeness and richness of the information obtained rather than solely on the total sample size (Sánchez-García & Reyes-de-Cózar, 2025).

Research design and setting

The study used a qualitative descriptive design because the research questions concerned organisational processes, stakeholder experiences, and the meaning attached to planning and implementation. This design allowed participants to describe how the handball development system operated in practice, including areas where formal arrangements and everyday implementation did not fully align. The study was conducted in selected handball organisations, training centres, and programme settings in Central Java from January to

March 2025. Sites were chosen to capture variation in organisational level and geographic context, including Semarang City and Surakarta City as urban settings, and selected handball programmes in Blora and Grobogan as rural or less-resourced settings.

The analysis was informed by an interpretive view of strategy. Formal plans, programme documents, and stated targets were treated as evidence of deliberate strategy, whereas recurring practices and local adaptations were examined as emergent strategic patterns (Babayev et al., 2025; de Sousa Nunes & Manuel da Veiga Malta, 2024). This framing made it possible to analyse not only whether management components were present, but also how they interacted and changed in response to local conditions.

Data collection procedures

Data were generated through semi-structured interviews, non-participant observation, and document analysis. Each participant took part in an individual interview, with the duration adjusted to the depth and completeness of the information provided. The interviews were conducted in Indonesian using a mode and setting agreed upon with each participant to ensure privacy and minimize disruption to training, competition, or administrative responsibilities. With participants' consent, the interviews were audio-recorded using a secure digital recording device or application. Field notes were also prepared during and immediately after each session to document contextual information, significant pauses, emphasis, non-verbal responses, and issues requiring further clarification.

All recordings were transcribed verbatim and subsequently checked against the original audio files to ensure accuracy and completeness. Personal identifiers were removed during transcription, and participants were assigned anonymous codes: A for administrators, C for coaches, AT for athletes, and S for supporting stakeholders. Relevant interview excerpts were translated from Indonesian into English while preserving the meaning, context, and tone of the original statements. The translated quotations were checked against the Indonesian transcripts before being included in the manuscript. Only quotations that had been verified and were directly relevant to the identified themes were used to support the presentation and interpretation of the findings.

The interview guide moved from broad experience-based questions to more focused probes. Examples included: 'How are provincial and district handball development priorities decided?'; 'What happens when the annual programme cannot be implemented as planned?'; 'How are athletes identified and moved between district and provincial levels?'; 'How do administrators and coaches share responsibility for monitoring progress?'; 'Which resources most often limit programme continuity?'; and 'What differences do you observe between urban and rural athlete-development settings?' Follow-up questions asked for concrete examples, recent incidents, and explanations of why particular decisions were made. The complete guide is provided in Appendix A.

Observations were conducted across training sessions, organizational meetings, and competition or athlete-selection activities to capture how the development programme was implemented in practice. The observation protocol focused on communication patterns among administrators, coaches, and athletes; the availability and use of training facilities; coach-athlete interactions; evidence of programme monitoring; and the consistency between written plans and actual implementation. Documentary data were also reviewed, including strategic plans, annual work programmes, training schedules, athlete registration lists, competition reports, meeting minutes, budget summaries, and programme evaluation records. The use of these multiple sources enabled the researchers to compare participants' accounts with observed practices and written evidence, thereby strengthening the credibility of the findings through methodological triangulation.

Statistical analysis

The data were analysed manually through a structured thematic analysis informed by Braun and Clarke's reflexive thematic approach (Riyadi et al., 2025). The analysis was led by the first author, who had direct involvement in data collection and familiarity with the organisational context. To maintain an auditable analytical process, transcripts, field notes, and relevant documents were organised by participant group, institutional level, and geographic setting before coding began. The researcher also maintained a coding log and analytical memos documenting the development, revision, combination, and removal of codes and themes.

The first phase involved repeated reading of the interview transcripts, field notes, and documents to achieve familiarity with the dataset. During this phase, preliminary observations, recurring expressions, contradictions, and contextual information were recorded in analytical memos. First-cycle coding was subsequently conducted line by line and remained close to participants' language. The initial codes described specific actions, experiences, and organisational conditions, including "annual target set centrally," "coach adjusts programme," "facility shared with other sports," and "district waits for funding confirmation." Both semantic content, referring to participants' explicit statements, and latent meanings, referring to underlying organisational assumptions and relationships, were considered.

In the second coding cycle, codes with conceptual similarities were compared, merged, separated, or reorganised into broader analytical categories. For example, codes concerning centrally established targets, annual work programmes, and competition priorities were grouped under deliberate planning, whereas codes concerning programme modification, informal problem-solving, and adjustment to local facilities were grouped under local adaptation. Other categories included stakeholder coordination, implementation gaps, monitoring practices, and unequal resource access. A codebook was progressively developed to record code names, working definitions, inclusion and exclusion criteria, and illustrative data extracts. Although the reflexive approach did not treat the codebook as fixed, it provided consistency and transparency throughout the analytical process.

Candidate themes were generated by examining relationships among the categories and considering how they addressed the research questions. Theme development was iterative rather than linear. Each candidate theme was reviewed at two levels: first, against the coded extracts to determine whether the data formed a coherent pattern, and second, against the complete dataset to assess whether the theme adequately represented the participants' experiences and the broader organisational context. Themes were then defined and named according to their central organising concept rather than simply summarising a topic.

A theme was retained when it captured a meaningful pattern relevant to the research questions, was supported by more than one participant position or data source, and contributed to explaining the strategic-management process. However, frequency alone was not used as the criterion for thematic significance. Accounts from participants occupying strategically important positions were also considered when they revealed structural conditions or contrasting implementation experiences. Negative and divergent cases were deliberately examined rather than excluded. For instance, accounts describing strong provincial-level planning were compared with reports of delayed programme implementation in less-resourced districts. This constant comparison helped distinguish formal strategic intentions from actual implementation experiences across organisational and geographic settings.

Because the analysis was conducted primarily by one researcher, statistical inter-coder reliability was not calculated, as such measurement is not a requirement of reflexive thematic analysis. Researcher credibility was instead strengthened through reflexive memoing,

maintenance of an audit trail, peer debriefing with members of the research team, and repeated review of interpretations against the original data. The research team critically discussed the clarity, internal coherence, distinctiveness, and evidential support of the proposed themes. Disagreements were treated as opportunities to reconsider interpretive assumptions rather than as coding errors requiring numerical agreement. Credibility was further supported through triangulation of interviews, observations, and documents; comparison across administrators, coaches, athletes, and supporting stakeholders; member checking of key interpretations; and the inclusion of negative or contradictory evidence in the final analysis.

Table 2 . Development of Codes, Analytical Categories, and Final Themes

Verified evidence summary	Initial code	Analytical category	Final theme
Annual development plans were formally prepared, but several activities had to be rescheduled, reduced, or adjusted when training venues and programme funding were unavailable.	Programme plans were modified during implementation	Interaction between formal planning and local operational constraints	Strategic direction and contextual adaptation
Coordination between provincial and district handball actors was maintained largely through direct communication, personal networks, and informal follow-up rather than through a consistently documented coordination mechanism.	Coordination relied on personal communication	Informal linkages across organizational levels	Multilevel coordination and governance
Athletes and coaches in urban areas had more regular access to training facilities, qualified coaching, and competitive events, whereas participants in rural or less-resourced areas experienced more limited and irregular development opportunities.	Geographic inequality affected development opportunities	Unequal access to resources and athlete-development path	

Trustworthiness and member checking

Member checking was conducted after the preliminary themes and interpretations had been developed. A concise summary of the findings was shared with a purposively selected group of participants representing administrators, coaches, athletes, and supporting stakeholders through follow-up communication. Participants were invited to assess whether the summary accurately reflected their experiences, identify any interpretations that required clarification, and provide additional contextual information that might have been overlooked during the initial analysis. Their feedback was reviewed alongside the interview transcripts, observation notes, and documentary evidence and was used to refine the wording, contextual accuracy, and boundaries of the themes. Member checking was therefore treated as a collaborative process for improving interpretive credibility rather than as a simple vote on whether a theme was correct ([Babik et al., 2023](#)).

Dependability was strengthened by maintaining an audit trail consisting of dated field notes, interview records, coding files, theme-development matrices, and a log of analytical

decisions. Transferability was supported through detailed descriptions of the organizational setting, participant roles, athlete-development practices, and differences between urban and less-resourced regional contexts. Before data collection, all participants received clear information about the purpose and procedures of the study, the voluntary nature of participation, confidentiality, and their right to withdraw without consequence. Informed consent was obtained from all participants, and identifying information was removed from transcripts and research reports to protect anonymity.

Results

Theme 1: Strategic Direction and Contextual Adaptation. Participants reported that annual development plans were formally prepared at the provincial level. However, several planned activities were adjusted during implementation because of facility limitations, funding delays, and local scheduling conditions. One provincial administrator stated, “The annual programme is prepared at the beginning of the year, but some activities must be rescheduled when the budget has not been confirmed.” A district coach similarly explained, “We follow the provincial target, but the training schedule has to be adjusted because the venue is shared with other sports.” Observation records also showed that some training sessions were relocated or shortened because facilities were unavailable.

Table 3. Summary of Themes, Converging Evidence, Representative Quotations, and Main Tensions

Theme	Central finding	Converging evidence	Representative quotations	Main tension
1. Strategic direction and talent-development pathways	Annual performance targets and talent-identification activities provided an overall direction for athlete development. However, the operational detail, sequencing, and continuity of the development pathway varied across districts.	Annual programme plans, athlete-selection documents, competition targets, and accounts from provincial administrators and district coaches.	“[Insert the administrator’s verbatim statement concerning annual performance targets, athlete selection, or programme direction.]” (<i>Provincial Administrator, PA1</i>). “[Insert the coach’s verbatim statement concerning uncertainty, discontinuity, or variation in the athlete-development pathway.]” (<i>District Coach, DC2</i>).	Formal performance targets were clearer than the procedures, resources, role allocations, and follow-up mechanisms required to implement an equitable and continuous development pathway across districts.
2. Coaching delivery and competition exposure	Coaches integrated physical, technical, tactical, and psychological preparation into the training process. Competition was also regarded as an important setting for assessing performance, developing experience, and identifying areas for improvement.	Training observations, coaching schedules, competition records, and accounts from coaches and athletes.	“[Insert the coach’s verbatim statement explaining the integration of physical, technical, tactical, and psychological preparation.]” (<i>Coach, C3</i>). “[Insert the athlete’s verbatim statement concerning the importance of competition or limited access to competitive events.]” (<i>Athlete, A4</i>).	Opportunities to participate in competitions and obtain advanced coaching, specialist support, and structured coach-development opportunities were not equally available across districts.
3. Coordination and multilevel governance	Programme implementation depended on communication and collaboration	Meeting records, organisational documents, communication	“[Insert the administrator’s verbatim statement concerning coordination	Organisational roles, decision-making authority, and follow-up

	among provincial organisations, district bodies, clubs, schools, coaches, government agencies, and other supporting stakeholders. In several cases, coordination relied heavily on informal communication and personal relationships. Programme evaluation was conducted through competition results, coach feedback, training observations, athlete-performance reviews, and periodic programme meetings. However, monitoring procedures, documentation practices, and follow-up decisions were not consistently implemented across locations. Differences in facilities, funding, transportation, technology, competition access, equipment, and specialist support influenced the continuity and quality of athlete development.	records, and interviews with administrators, coaches, school representatives, and supporting stakeholders.	between provincial and district organisations.]” (<i>Administrator, AD2</i>). “[Insert the stakeholder’s verbatim statement illustrating reliance on informal communication, direct contact, or personal relationships.]” (<i>Stakeholder, S3</i>).	responsibilities were not always formally defined, making implementation dependent on individual initiative, interpersonal relationships, and informal coordination.
4. Monitoring and adaptive evaluation		Evaluation reports, competition results, observation notes, programme-review documents, and accounts from administrators and coaches.	“[Insert the coach’s verbatim statement describing how athlete progress, training performance, or competition results were used for evaluation.]” (<i>Coach, C5</i>). “[Insert the administrator’s verbatim statement concerning incomplete documentation, delayed follow-up, or limited corrective resources.]” (<i>Administrator, AD4</i>).	Monitoring processes could identify performance and implementation problems, but the findings did not always result in timely corrective action, programme adjustment, or additional resource allocation.
5. Resource and geographic disparities		Cross-site observations, facility and budget documents, transportation and competition records, and accounts from athletes,		

These constraints were more pronounced in rural and geographically peripheral districts.	coaches, administrators, and stakeholde
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Theme 1: Strategic direction and talent pathways

Participants described planning as necessary because it gave the association a shared calendar, achievement targets, and a basis for talent identification. Strategic plans were most visible in annual programmes, selection activities, and preparation for priority competitions. Administrators tended to view these documents as the backbone of the development system, while coaches assessed planning by whether it produced stable training time, athlete access, and realistic competition preparation.

The findings further indicated that strategic planning was not implemented uniformly across districts. Although provincial-level priorities provided a common direction for handball development, district programmes had to adapt these priorities to local conditions, including the availability of training facilities, school schedules, transportation costs, funding capacity, and access to qualified coaches. As a result, the operational form of the strategy was often shaped during implementation rather than determined entirely at the planning stage. In several settings, this flexibility enabled training and talent-development activities to continue despite limited resources. In less-resourced districts, however, the same constraints contributed to shorter training cycles, irregular monitoring, and reduced opportunities for athletes to participate in structured development programmes.

Interview accounts also suggested that administrators generally established annual targets, athlete-selection priorities, and competition agendas, while coaches were responsible for translating these plans into workable training activities. The extent to which planned programmes could be implemented depended largely on local resources and organisational support. This finding shows that strategic effectiveness was determined not only by the quality of formal planning but also by the capacity of district-level actors to adjust programmes without losing their main development objectives.

Theme 2: Coaching delivery and competition exposure

Coaching implementation was described as the most visible part of the development programme. Observations and training documents indicated that sessions addressed physical preparation, technical execution, tactical decision-making, and psychological readiness. Coaches also used competition as a diagnostic setting. Performance under pressure revealed issues that were less visible during routine practice and informed subsequent training priorities.

The continuity and effectiveness of coaching programmes were strongly influenced by the level of organisational support available in each district. In locations where training venues, equipment, funding, and competition schedules were relatively stable, coaches were able to organise training in a progressive sequence and monitor athlete development over a longer period. By contrast, where access to facilities and resources was uncertain, coaching programmes were frequently adjusted on a short-term basis, making it difficult to maintain training continuity and conduct systematic evaluation. Coaches generally used competition not only as a performance target but also as an opportunity to assess athletes' technical, tactical, physical, and psychological readiness under actual competitive conditions.

Athletes also regarded regular competition participation as an important source of experience, motivation, and confidence. However, access to competitive events was not equally distributed across the province. Athletes based in or near major urban centres tended to have more frequent opportunities to participate in training camps, selection activities, and competitions, while those from rural or less-resourced districts faced greater constraints related to travel distance, transportation costs, accommodation expenses, and irregular competition schedules. These conditions suggest that the quality of athlete development depended not only on the content of the coaching programme but also on the organisational and financial capacity to provide sustained training and equitable access to competition.

Theme 3: Coordination and governance across organisational levels

The programme involved a chain of actors rather than a single organisation. Provincial administrators set broad priorities, district structures organised local implementation, coaches translated targets into training, and schools, clubs, local government, families, and other stakeholders provided varying forms of support. When communication was regular, the system could respond quickly to athlete selection, venue changes, or competition preparation.

Coordination among provincial associations, district organizations, schools, clubs, and government stakeholders was evident, but its consistency depended heavily on how responsibilities were defined and communicated. Coordination became less reliable when roles were assumed informally rather than explicitly assigned through written agreements, meeting decisions, or documented work plans. In several cases, programme implementation relied on personal relationships, direct communication, and the goodwill of individual actors. Although this approach enabled problems to be resolved quickly in the short term, it also created organizational vulnerability because coordination could weaken when key personnel changed, communication was interrupted, or institutional priorities shifted.

The documentary evidence further showed variation in the extent to which responsibilities, timelines, and follow-up actions were formally recorded. Some documents clearly identified the actors responsible for specific activities, whereas others contained general programme descriptions without detailed accountability mechanisms. These findings indicate that stakeholder collaboration was already present and contributed positively to programme implementation, but it had not yet been fully institutionalized. Strengthening formal coordination mechanisms, clarifying the division of responsibilities, documenting follow-up procedures, and establishing regular interorganizational communication would help reduce dependence on personal networks and improve the continuity, accountability, and sustainability of handball development programmes.

Theme 4: Monitoring as an adaptive process

Monitoring took place through training observation, competition results, coach reports, athlete feedback, and periodic organisational meetings. Participants did not describe evaluation as a single formal event. Instead, it operated as a series of judgments about whether athletes were progressing, whether the training programme remained feasible, and whether resources had to be redirected.

Evaluation was most effective when monitoring evidence led directly to a clear managerial decision. In these cases, competition results, coaching reports, and observations of athlete development were used to revise training priorities, adjust selection criteria, reorganize preparation schedules, or request additional institutional support. This approach allowed evaluation to function as an active component of programme improvement rather than merely as an administrative requirement. By linking evidence to follow-up action, administrators and coaches were better able to identify performance gaps and respond to changing athlete-development needs.

However, evaluation practices were not equally systematic across all settings. In several programmes, evaluation ended with the documentation or reporting of results without a clearly defined mechanism for corrective action. Although organizations were often aware of limitations in training quality, athlete monitoring, funding, or facilities, follow-up was sometimes delayed because no specific actor had been assigned responsibility, no dedicated budget was available, or the proposed improvements had not been incorporated into the next programme cycle. These findings indicate that the main weakness was not the absence of evaluation, but the limited conversion of evaluation results into accountable and adequately resourced decisions. Strengthening feedback mechanisms, assigning responsibility for follow-up, and integrating evaluation outcomes into subsequent planning would improve programme continuity and organizational learning.

Theme 5: The resource-and-geography gap

Resource management was the area in which participants most clearly differentiated between locations. Urban centres generally offered denser access to sport halls, educational institutions, transport, coaching networks, and competition information. Rural or peripheral districts were more likely to share facilities with other activities, travel farther for competition, and depend on a small number of committed individuals. These differences affected the frequency of training, the breadth of talent identification, and the likelihood that athletes remained in the pathway.

The findings should not be interpreted as evidence of weak commitment among rural handball programmes. On the contrary, administrators, coaches, athletes, and community stakeholders in less-resourced districts often demonstrated considerable flexibility, persistence, and social support in sustaining training and competition activities. Their main difficulties were structural rather than motivational. Strong local commitment could not fully compensate for limited access to suitable training facilities, unstable funding, shortages of qualified coaches, irregular competition opportunities, and the high cost of travel to urban centres.

The contrast between urban and rural athlete-development settings therefore reflects an unequal distribution of organisational capacity and development opportunities. Urban programmes generally benefited from better infrastructure, closer proximity to competitions, stronger institutional networks, and more regular access to coaching support. Rural programmes, meanwhile, were required to achieve similar performance expectations with fewer resources and greater logistical constraints. These findings suggest that uniform programme targets may unintentionally reproduce regional inequalities. A more appropriate management response would involve differentiated resource allocation, targeted coach development, travel support, decentralised competition opportunities, and locally adapted development plans that recognise the specific conditions of less-resourced districts.

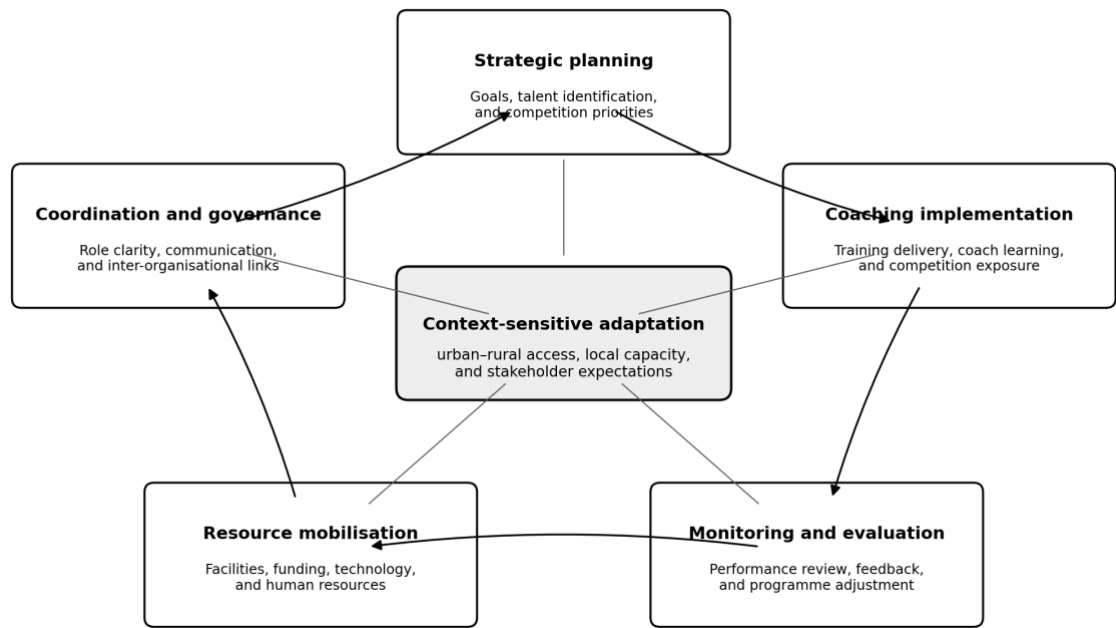


Figure 1. Context-sensitive strategic management cycle for regional handball athlete development

Figure 1 complements Table 3 by showing the relationships among the themes rather than ranking them. Table 3 identifies the content and evidence associated with each theme; the figure depicts an iterative cycle in which planning guides coaching, coordination enables implementation, monitoring generates feedback, and resource mobilisation determines what can be sustained. Context-sensitive adaptation sits at the centre because urban-rural conditions and stakeholder expectations shape every stage. The arrow returning from evaluation to planning represents the main interpretive finding: regional strategy was strongest when evidence led to a revised decision, not when planning and evaluation were treated as separate administrative tasks.

Discussion

The findings suggest that the principal challenge in Central Java handball development was not the absence of strategic planning, but the limited capacity to translate provincial priorities into consistent district-level implementation. Strategic direction, structured coaching, inter-organisational coordination, and evaluation practices emerged because the regional system required multiple actors to work across different administrative and geographic contexts. However, their effectiveness varied according to local resources, institutional relationships, and the ability of districts to respond to evaluation findings. This extends conventional sport-management perspectives by showing that strategic success depends not merely on the existence of formal plans, but on the continuous alignment of goals, actors, resources, and feedback across organisational levels. It also challenges the assumption that coordination and evaluation automatically produce effective implementation, because both processes may remain weak when local capacity and corrective resources are unevenly distributed.

The main novelty of this study lies in identifying a strategic coherence–geographic capacity gap. Previous sport-governance studies have shown that strategy depends on board capability and effective relationships between national and regional organisations (Ferkins et al., 2018; Shilbury et al., 2016). The present findings are consistent with this emphasis on

organisational relationships, but differ in showing that governance problems were not primarily caused by a lack of shared strategic direction. Provincial and district actors generally recognised similar performance goals and competition priorities. The more critical problem was that districts possessed unequal capacities to translate these priorities into routine coaching, competition access, monitoring, and athlete support. This difference may be explained by the emerging status of handball in Central Java, where institutional networks, facilities, funding, and specialist personnel remain unevenly distributed between urban and peripheral districts. The findings therefore extend existing governance theory by demonstrating that strategic alignment at the formal level does not necessarily produce implementation coherence. Regional athlete development emerges from the interaction between governance arrangements, coaching processes, and geographically distributed organisational capacity. Consequently, the effectiveness of a regional strategy should be assessed not only by the clarity of its objectives or relationships among governing bodies, but also by whether local organisations possess sufficient capacity to enact those objectives consistently across territories.

This interpretation is consistent with Mintzberg's distinction between intended and realised strategy. The annual plan represented deliberate strategy, while local adjustments formed an emergent pattern shaped by facilities, calendars, funding, and personal networks (Albalad-Aiguabella et al., 2025; Rumpoko et al., 2025). The findings add a sport-system dimension to this theory. In a regional federation, emergent strategy did not arise only from managerial learning inside one organisation. It also arose from negotiation among semi-autonomous actors located at different levels and in different districts. What appeared as inconsistency from the provincial perspective could, in some cases, be a practical response that protected programme continuity.

The findings also support and refine earlier work on collaborative sport governance. (Shilbury et al., 2016) argued that federal sport structures require collaboration across organisational boundaries, and (Ferkins et al., 2018) emphasised collective leadership across governance levels. Central Java's handball system displayed these features, particularly when administrators, coaches, schools, clubs, and stakeholders coordinated athlete selection and competition preparation. However, the collaboration observed here was often relationship-based rather than fully embedded in procedures. This helps explain why coordination could be effective during one event yet fragile over a longer period. Similar patterns have been reported where national federations respond to competing institutional demands or where national and provincial organisations experience inter-organisational tension (Pedras et al., 2020; Zheng et al., 2019)

The coaching findings are broadly consistent with studies showing that athlete development requires integrated support rather than isolated technical instruction. (Williams & MacNamara, 2021) highlighted how developmental experience shapes coaching practice, while (Stoszkowski & Collins, 2022) showed that learning and reflection can strengthen coach development. Participants in the present study likewise treated competition as a learning and evaluation context. The difference is that access to these developmental opportunities was mediated by organisational resources. A coach could design a progressive programme, but its continuity depended on venue stability, travel, competition frequency, and administrative support.

Resource constraints also align with organisational-capacity research. (Jones et al., 2020) found that limited organisational capacity can restrict community sport initiatives, and their later framework positioned skills, relationships, and resources as mutually reinforcing elements of sport-based development (Jones et al., 2020). (Mahmood et al., 2025) similarly demonstrated that organisational capacity in elite sport is multidimensional. The Central Java findings add that capacity should be analysed geographically. Provincial averages can conceal

the fact that facilities, coach networks, and competition access cluster in particular places. Recent evidence on sport infrastructure also indicates that resource efficiency and technological capacity vary substantially by region (Jedlicka et al., 2022).

The urban-rural comparison deserves specific attention. Urban programmes benefited from proximity: athletes could reach training centres more easily, coaches could exchange information within denser networks, and institutions could share facilities and expertise. Rural programmes possessed different strengths, including community commitment and flexibility, but they faced longer travel distances, fewer specialised venues, and a narrower base of coaches and opponents. This pattern resembles broader evidence that sport participation is related to facility provision and socioeconomic context (Casey et al., 2009) and that rural communities often experience fewer opportunities and weaker environmental support (Poulin & Davis, 2025). The present study extends these findings from participation to achievement development, where repeated access and pathway continuity are especially important.

Not every similarity with previous research should be interpreted as simple confirmation. The persistence of planning, coordination, and resource problems across different sport systems may reflect common features of non-profit and federated sport: dependence on multiple stakeholders, uncertain funding, volunteer-professional interaction, and accountability to both performance and participation goals. (Kuswoyo & Shareef, 2025;; Thomas Haugen, 2026) showed that federations can become caught between competing institutional priorities, and Rasmussen (Usyor & Labolo, 2025) described the institutional work required to manage hybrid elite-sport and sport-for-all demands. In Central Java, similar pressures were intensified by an emerging sport with an uneven local base. The contextual combination regional governance, handball's developing infrastructure, and urban-rural inequality helps explain why formal planning appeared stronger than resource mobilisation.

The study also differs from research conducted in mature high-performance systems. In better-resourced settings, strategic debate may focus on optimising specialist services, data systems, and athlete wellbeing. Digital technologies can improve organisational efficiency and performance monitoring, although financial and skills barriers still affect adoption (Toosi et al., 2021). In the present setting, the more immediate concern was ensuring consistent access to basic facilities, competitions, and qualified coaching. This difference does not make technology irrelevant; rather, it suggests a staged approach in which simple, shared monitoring systems should be introduced alongside, not ahead of, foundational capacity building.

Theoretical contribution follows from these comparisons. First, the study connects Mintzberg's deliberate-emergent strategy distinction with multi-level sport governance. Realised strategy in a regional sport system is produced through vertical translation and local adaptation, not merely through decisions at the top. Second, it adds geographic capacity as a condition that shapes collaborative governance. Collaboration can coordinate available resources, but it cannot erase structural inequality by itself. Third, it reframes evaluation as a strategic conversion process: monitoring becomes valuable when information is converted into a decision, responsibility, and resource response. These propositions extend existing theory beyond the claim that planning, coordination, and evaluation are important.

The practical implications are direct. The provincial association should establish a multi-year athlete-development map that specifies age-group transitions, selection criteria, priority competitions, minimum coaching standards, and the responsibilities of provincial and district actors. Annual plans should be accompanied by a district capacity profile covering facilities, coach availability, travel burden, athlete numbers, and local partnerships. This would allow support to be differentiated according to need rather than distributed uniformly. A rural district may require transport subsidies, mobile coaching clinics, shared training camps, or

clustered competition, while an urban centre may need stronger pathway integration and specialist services.

Monitoring should also become lighter, more regular, and more actionable. A standard quarterly dashboard could record athlete attendance, training continuity, competition exposure, coach-development activity, injury or dropout concerns, and unresolved resource constraints. The purpose should not be to produce decorative percentages. Each indicator should trigger a named follow-up action, deadline, and responsible actor. Digital tools may support this process, but the system should remain simple enough for districts with limited technical capacity. This recommendation is consistent with evidence that technology creates value when adoption is aligned with organisational goals and implementation capability (Zhao & Wang, 2020).

At policy level, provincial sport authorities and local governments should treat facility and competition access as equity issues. Funding criteria could include geographic disadvantage, athlete travel distance, and the absence of alternative venues. Partnerships with schools and universities may widen access to halls, sport science support, and coach education. Stable small grants for district programme continuity may be more useful than occasional event-based funding. Risk planning should also be incorporated because financial instability, operational disruption, and governance uncertainty can undermine programme sustainability.

For academic research, the findings suggest several next steps. Comparative studies should examine multiple provinces and sports to test whether the strategic coherence–geographic capacity gap recurs elsewhere. Longitudinal designs could follow how plans change across a competition cycle. Mixed-method studies could develop and validate a transparent organisational-capacity instrument after qualitative themes are established, thereby avoiding unsupported percentages. Researchers should also compare athlete experiences across sex, age group, competitive level, and district type, and examine whether resource inequality affects retention and progression at different stages of the pathway.

Practical, academic, and policy implications

Practically, the findings support a shift from event-centred management to pathway-centred management. Programme success should be judged by whether athletes receive continuous, sequenced opportunities rather than by participation in a single competition. Administrators need clear role descriptions, coaches need predictable support and learning opportunities, and athletes need transparent progression criteria.

Academically, the study offers a context-sensitive explanation of how deliberate and emergent strategies interact in a regional sport federation. It also shows why organisational capacity should be analysed across places, not only across organisations. This approach may help future research distinguish a weak strategy from a reasonable strategy implemented under unequal conditions.

For policy, the main implication is that equal treatment is not necessarily equitable treatment. Districts with fewer facilities, coaches, and transport options require differentiated assistance if the province expects comparable development outcomes. Funding, facility-sharing agreements, coach deployment, and competition design should therefore be informed by a geographic capacity assessment.

Limitations

This study has several limitations. First, the sample was purposive and relatively small, which is appropriate for an in-depth qualitative inquiry but does not support statistical generalisation. The exact participant composition and demographic profile must be reported transparently in Table 1 so readers can judge the range of perspectives represented. Second,

the research was confined to Central Java and one developing team sport; governance arrangements and resource conditions may differ in other provinces or sports.

Third, participants' accounts may have been influenced by their organisational positions and by a desire to present programmes positively. Triangulation was implemented by comparing evidence from participant interviews, field observations, and organisational documents for each emerging theme. Statements from administrators, coaches, athletes, and supporting stakeholders were examined for convergence, divergence, and contextual differences. When accounts were inconsistent, the researchers returned to the original transcripts, observation notes, and relevant documents before finalising the interpretation. Member checking was conducted by sharing summaries of the preliminary findings and key interpretations with selected participants representing different stakeholder groups. Participants were asked to confirm the accuracy of the interpretations, clarify ambiguous statements, and identify any important contextual information that had been overlooked. Their feedback was documented and used to refine theme descriptions and interpretations. Although triangulation and member checking strengthened the credibility of the findings, they reduced rather than completely eliminated the possibility of researcher subjectivity and participant recall bias. Fourth, the study captures a particular period in the development cycle and cannot establish how strategic practices change over several years. Finally, the removal of the earlier 90–98% implementation scores means that the revised study does not estimate the magnitude of each management component. This is a methodological strength in terms of consistency, but it limits direct numerical comparison. Future research may develop a validated quantitative instrument based on the qualitative findings.

Conclusions

Strategic management was central to handball achievement development in Central Java, but its effectiveness depended on more than the existence of formal plans. Athlete development emerged through an iterative relationship among strategic planning, coaching implementation, inter-organisational coordination, monitoring, and resource mobilisation. The most consequential finding was the unequal capacity of districts to translate provincial priorities into sustained local practice, particularly across urban and rural settings.

The theoretical contribution of this study lies in conceptualising regional sport development as a process of strategic coherence under geographically unequal capacity. This perspective extends strategic sport-management theory by showing that alignment among goals, actors, resources, implementation, and feedback is not automatically produced by formal governance arrangements. Instead, strategic coherence must be continuously negotiated and adapted to local organisational and territorial conditions. The proposed framework therefore integrates strategic planning, organisational capacity, governance relationships, and geographic context within a single explanation of athlete-development performance.

Practically, regional sport organisations require clear development pathways, defined stakeholder roles, regular evidence-based review, sustained coach development, and differentiated resource allocation according to local needs. Future research should examine the framework across different sports and provinces, test its development longitudinally, and develop transparent mixed-method indicators of strategic coherence, geographic capacity, and athlete-pathway quality.

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Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this study.

References

- Albalad-Aiguabella, R., Navarrete-Villanueva, D., Mainer-Pardos, E., Villanueva-Guerrero, O., Muniz-Pardos, B., & Vicente-Rodríguez, G. (2025). Physical Training Considerations for Futsal Players According to Strength and Conditioning Coaches: A Qualitative Study. *Sports*, 13(4), 126. <https://doi.org/10.3390/sports13040126>
- Babayev, H., Taghiyev, A., & Khalilov, T. (2025). Strategic Management Condition in Coaching Specialties: Planning and Implementation of Sports. *International Journal of Basic and Applied Sciences*, 14(4), 46–54. <https://doi.org/10.14419/k40wvc57>
- Babik, I., Cunha, A. B., & Srinivasan, S. (2023). Biological and environmental factors may affect children's executive function through motor and sensorimotor development: Preterm birth and cerebral palsy. *Infant Behavior and Development*, 73, 101881. <https://doi.org/10.1016/j.infbeh.2023.101881>
- de Sousa Nunes, & Manuel da Veiga Malta. (2024). *Strategic Partnerships Between Football National Associations and the Private Sector: Driving Growth and Sustainability — Environmental, Social and Governance Considerations in National Associations Partnerships* - ProQuest. <https://www.proquest.com/openview/297b601a440078f623af0d77fb0484de/1?pq-origsite=gscholar&cbl=2026366&diss=y>
- Everley, S. (2025). 'Where' Are the Children in Safeguarding Policies of Sport? An Analysis of National and International Discourses in Policy Documentation. *Child Abuse Review*, 34(2), e70027. <https://doi.org/10.1002/car.70027>
- Ferkins, L., & Shilbury, D. (2018). Developing board strategic capability in sport organisations: The national–regional governing relationship. *Sport Management Review*, 13(3), 235–254. <https://doi.org/10.1016/j.smr.2010.01.009>
- Ferkins, L., Shilbury, D., & O'Boyle, I. (2018). Leadership in governance: Exploring collective board leadership in sport governance systems. *Sport Management Review*, 21(3), 221–231. <https://doi.org/10.1016/j.smr.2017.07.007>
- Jedlicka, S. R., Harris, S., & Houlihan, B. (2022). "Policy Analysis in Sport Management" Revisited: A Critique and Discussion. *Journal of Sport Management*, 36(6), 521–533. <https://doi.org/10.1123/jsm.2021-0193>
- Jones, D., Innerd, A., Giles, E. L., & Azevedo, L. B. (2020). Association between fundamental motor skills and physical activity in the early years: A systematic review and meta-analysis. *Journal of Sport and Health Science*, 9(6), 542–552. <https://doi.org/10.1016/j.jshs.2020.03.001>
- Kuswoyo, D. D., & Shareef, Q. B. (2025). Effectiveness of Life Skill-Based Physical Education on Students' Movement Skills and Social Values. *Champions: Education Journal of Sport, Health, and Recreation*, 3(3), 95–100. <https://doi.org/10.59923/champions.v3i3.577>
- Mahmood, H., Day, M., McPherson, G., Datson, N., & Unnithan, V. B. (2025). Key stakeholder perceptions of the implementation of the English Football Association's girls' Emerging Talent Centre pathway. *International Journal of Sports Science & Coaching*, 17479541251370592. <https://doi.org/10.1177/17479541251370592>

- McCarthy, G. (2025). *Successful Coaching for Leaders and Managers: How to Blend Virtual and Face-to-Face Coaching Effectively for Today's Hybrid Workplaces*. Taylor & Francis.
- Pedras, L., Taylor, T., & Frawley, S. (2020). Responses to multi-level institutional complexity in a national sport federation. *Sport Management Review*, 23(3), 482–497. <https://doi.org/10.1016/j.smr.2019.05.001>
- Poulin, C., & Davis, M. (2025). Advancing Quality Physical Education: From the Canadian PHE Competencies to the QPE Foundations and Outcomes Frameworks. *Education Sciences*, 15(10), 1376. <https://doi.org/10.3390/educsci15101376>
- Riyadi, M. B., Nuryadin, I., Ardhiyanto, Y. D., Wijaya, F., & Demirci, N. (2025). Analysis of Skill Development in Throwing Placement for Indonesian National Boccia Athletes Through Structured Drill Training. *Jurnal Moderasi Olahraga*, 5(2), 385–396. <https://doi.org/10.53863/mor.v5i2.1921>
- Rudd, J. R., Pesce, C., Strafford, B. W., & Davids, K. (2020). Physical Literacy - A Journey of Individual Enrichment: An Ecological Dynamics Rationale for Enhancing Performance and Physical Activity in All. *Frontiers in Psychology*, 11, 533387. <https://doi.org/10.3389/fpsyg.2020.01904>
- Rumpoko, S. S., Sunjoyo, Yudhanto, S. H., & Cahayana, T. (2025). Flashcard Augmented Reality as an Interactive Solution in Swimming Learning in the Digital Era. *ICEETE Conference Series*, 3(1), 55–61. <https://doi.org/10.36728/iceete.v3i1.230>
- Sánchez-García, R., & Reyes-de-Cózar, S. (2025). Enhancing Project-Based Learning: A Framework for Optimizing Structural Design and Implementation—A Systematic Review with a Sustainable Focus. *Sustainability*, 17(11), 4978. <https://doi.org/10.3390/su17114978>
- Shilbury, D., O'Boyle, I., & Ferkins, L. (2016). Towards a research agenda in collaborative sport governance. *Sport Management Review*, 19(5), 479–491. <https://doi.org/10.1016/j.smr.2016.04.004>
- Stoszowski, J., & Collins, D. (2022). A realist evaluation of the use of Flipgrid to facilitate collaborative online learning and reflection in sport coaching. *Sport, Education and Society*, 27(8), 906–921. <https://doi.org/10.1080/13573322.2021.1952180>
- Thomas Haugen. (2026). *Sprint Running Performance Monitoring: Methodological and Practical Considerations* | *Sports Medicine*. <https://doi.org/10.1007/s40279-015-0446-0>
- Toosi, M., Modarres, M., Amini, M., & Geranmayeh, M. (2021). Context, Input, Process, and Product Evaluation Model in medical education: A systematic review. *Journal of Education and Health Promotion*, 10(1). https://doi.org/10.4103/jehp.jehp_1115_20
- Usyor, J. F., & Labolo, M. (2025). *Efektivitas Penyelenggaraan Dana Otonomi Khusus Dalam Upaya Percepatan Pembangunan Bidang Pendidikan Kota Sorong Provinsi Papua Barat Daya* [Diploma, Institut Pemerintahan Dalam Negeri]. <http://eprints.ipdn.ac.id/24090/>
- Willem, A., Girginov, V., & Toohey, K. (2019). Governing bodies of sport as knowledge brokers in Sport-for-All communities of practice. *Sport Management Review*, 22(5), 584–599. <https://doi.org/10.1016/j.smr.2018.08.005>
- Williams, G. G., & MacNamara, Á. (2021). Coaching on the Talent Pathway: Understanding the Influence of Developmental Experiences on Coaching Philosophy. *International Sport Coaching Journal*, 8(2), 141–152. <https://doi.org/10.1123/iscj.2019-0099>
- Zhao, Y., & Wang, X. (2020). Organisational unlearning, relearning and strategic flexibility: From the perspective of updating routines and knowledge. *Technology Analysis & Strategic Management*, 32(11), 1251–1263. <https://doi.org/10.1080/09537325.2020.1758656>

Zheng, J., Lau, P. W. C., Chen, S., Dickson, G., De Bosscher, V., & Peng, Q. (2019). Interorganisational conflict between national and provincial sport organisations within China's elite sport system: Perspectives from national organisations. *Sport Management Review*, 22(5), 667–681. <https://doi.org/10.1016/j.smr.2018.10.002>

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