

Smart Governance and the Quality of Administrative Decision-Making in Sport Organizations: A Conceptual Approach Toward Institutional Excellence

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Abstract

This study examines the relationship between smart governance and the quality of administrative decision-making in sport organizations, in a context where pressure for transparency and accountability intersects with the accelerating expansion of digitalization and data analytics. The study adopts a theoretical and analytical design based on a structured conceptual review of a selected body of literature, chosen according to explicit criteria of topical relevance, scholarly weight, and verifiability. The study concludes that smart governance is not a technological addition to traditional governance, but rather a restructuring of the decision-making architecture itself through four mechanisms: the digitalization of information flows, the institutionalization of evidence, the extension of accountability to algorithms, and the shortening of the feedback cycle. The study proposes a three-loop operational model in which smart governance is the independent variable, the quality of administrative decision-making is the mediating variable, and institutional excellence is the dependent variable, supported by a set of measurement indicators and a four-level maturity matrix. The study concludes that the effect of smart governance on institutional excellence is indirect and necessarily operates through decision quality, and that disregarding this mediation in applied research produces misleading estimates.

Keywords: smart governance; quality of administrative decision-making; sport organizations; institutional excellence; digital transformation; algorithmic accountability.

Introduction

The world is currently experiencing a profound digital transformation that is no longer a passing technological development, but rather a repositioning of economies, societies, and institutions. As data production accelerates and reliance on smart technologies increases, modern administration has found itself confronted with a far-reaching renewal agenda that requires reconsideration of the logic of its practices, its decision-making methods, and its relationships with its various actors, including

its human resources, which have become both a condition for and a framework of every transformation. Governance in its traditional form, based on procedural control and ex-post oversight, is no longer equipped to keep pace with an environment characterized by the rapid flow of information, the interconnection of processes, and rising stakeholder expectations regarding transparency, flexibility, and responsiveness.

Smart governance has consequently emerged as a mature extension of good governance. It draws on the potential of digital transformation, big data, artificial intelligence, and digital platforms to improve planning, oversight, and decision-making. It does not consist merely in introducing technology into existing structures, but in rebuilding institutional relationships around the integration of technology, data, leadership, participation, accountability, and the development of human capabilities. Its importance is particularly evident in sport organizations, where competitive, educational, social, and economic functions converge; relationships with athletes, coaches, spectators, sponsors, and government agencies are extensive; and resources are subject to a strong need for rationalization and accountability. These conditions have required sport organizations to adopt models that reconcile efficiency, transparency, and innovation without abandoning the principles of good governance.

The transition toward smart governance, however, is not straightforward. Reliance on data and algorithms raises pressing questions concerning data quality, privacy, cybersecurity, algorithmic transparency, and responsibility for decisions supported by artificial intelligence. Smart governance is therefore an integrated administrative system that requires organizational maturity, human capabilities, and a system of values. From this perspective, the central question remains: **How can smart governance reshape the administration of sport organizations in the age of digital transformation, and what are the theoretical foundations for constructing an integrated model that achieves institutional excellence?**

To answer this question, together with the related questions concerning the definition of the concept and the differentiation between successive generations of governance, the role of data and artificial intelligence in reshaping sport administration, and the relationship between smart governance, decision quality, and institutional excellence, this article adopts a descriptive and synthetic theoretical and analytical approach that is not based on field data. Its central outcome is the proposal of an integrated theoretical model that brings these components together and provides a basis for subsequent empirical studies.

The First Section: The Conceptual Framework of Smart Governance in Sport Organizations

1. The concept and evolution of governance

Governance is a relatively recent concept in administrative and economic thought. It is the Arabic equivalent of the term corporate governance and refers to the set of rules, practices, and organizational structures that guide the management of an institution and determine the distribution of responsibilities and powers among the parties involved, thereby ensuring a balance between different interests and protecting stakeholder rights (Hamad, 2004; Abbas, 2023).

The Organisation for Economic Co-operation and Development defines governance as the set of relationships between an institution's management, its board of directors, its shareholders, and its other stakeholders, as well as the structure through which the institution's objectives and the means of achieving them are determined and performance is monitored, thereby ensuring efficiency, integrity, and responsiveness (Al-Kalza, 2012; Hoye & Cuskelly, 2007).

In its good governance form, governance rests on a set of principles endorsed by international organizations, most notably the United Nations principles of good governance. These principles include participation, the rule of law, transparency, responsiveness, consensus orientation, equity and fairness, effectiveness and efficiency, and accountability (United Nations Economic and Social Commission for Western Asia [ESCWA], 2016; Mohammed bin Rashid School of Government, 2023).

The concept of governance has passed through successive stages, which may be summarized as follows.

- **Corporate governance:** The term emerged in the context of corporate financial governance, particularly following the financial scandals and economic crises that shook markets during the 1980s and 1990s. Within this context, the Cadbury Report was issued in the United Kingdom in 1992, followed by the Organisation for Economic Co-operation and Development principles in 1999, which were subsequently revised.
- **The transition to public governance:** The concept of governance expanded from the business sector to the public sector, nongovernmental organizations, and service institutions. It consequently came to be known as public governance or good governance, with the aim of consolidating the principles of transparency, accountability, and participation in the management of public affairs (Rodríguez Bolívar & Meijer, 2016).
- **The transition to electronic and digital governance:** With the spread of information and communication technologies, the concept developed toward e-governance, based on the automation of services and transactions, and subsequently toward digital governance, based on the reengineering of processes and digital interaction with stakeholders.
- **The transition to smart governance:** In the contemporary context, and with the development of artificial intelligence, big data, and the Internet of Things, the concept of smart governance has emerged as a qualitative extension that makes governance dependent on data, predictive analytics, and smart decision-making.

2. Sport governance

- **The concept of sport governance:** Sport governance refers to the application of general governance principles to the sports system. It involves the use of rules, structures, and oversight mechanisms that ensure the management of sports bodies, including Olympic committees, sport federations, clubs, and sport-related agencies, in accordance with the principles of transparency, democracy, accountability, integrity, and efficiency. Its purpose is to achieve a balance among the interests of the various actors in the sports sector (Thompson et al., 2023).

- **The distinctive features of governance in the sports sector:** Sport organizations have characteristics that distinguish them from other institutions, including the following.
 - They have multiple functions and objectives, including competitive, educational, social, and economic functions, as well as extensive relationships with athletes, coaches, referees, spectators, sponsors, government bodies, and international organizations.
 - Their financial resources are vulnerable, while pressure for transparency in the management of funds and player transfers continues to increase.
 - Their popular and emotional character gives them a broad social and media presence.
 - Volunteerism and unpaid work dominate the management of substantial parts of their structures.
 - They enjoy organizational autonomy from public authorities while remaining closely connected to public funding.

These characteristics constitute fundamental governance challenges. They require the general principles of governance to be adapted to the nature of sport organizations, particularly in defining responsibilities, managing the relationship between governing boards and technical bodies, and ensuring integrity in the management of competitions and transactions (Chappelet & Mrkonjic, 2013).

- **International references for sport governance:** Several international references have contributed to consolidating governance in the sports sector. The most prominent include the following.
 - The International Olympic Committee's Basic Universal Principles of Good Governance of the Olympic and Sports Movement, which address vision and mission, structure, democracy, development, integrity standards, and transparency.
 - The Organisation for Economic Co-operation and Development standards on integrity in sport, with an emphasis on combating corruption, match manipulation, and doping (Al-Ghalibi & Idris, 2007).
 - International agreements and initiatives to combat corruption, match manipulation, and money laundering in sport, in addition to the standards of international federations relating to club licensing and financial discipline.
 - Sport governance issues: The major problems associated with sport governance include corruption within sports bodies, conflicts of interest, weak internal democratic practices, financial discipline, and the integrity of competition results. These issues make sport governance an essential condition for the sustainability and credibility of the sports system (Boutalbi, 2025).

3. Digital governance

- **The concept of digital governance:** Digital governance refers to the use of digital technologies, electronic platforms, and communication networks to manage institutions,

administer their processes, provide their services, and interact with stakeholders. It therefore goes beyond the boundaries of e-government and toward the reengineering of processes and institutional relationships on the basis of an integrated digital system, in which technological infrastructure intersects with data systems and channels of interaction. Three successive stages of maturity may be distinguished in this process (Shalabi, 2023).

- **Electronic automation:** The transfer of paper-based procedures and transactions to electronic systems without a fundamental change in the logic of work. This corresponds to e-governance.
- **Digitization:** The conversion of information and documents into digital formats and the creation of databases that can be processed.
- **Full digital transformation:** The redesign of processes, services, and relationships through a comprehensive digital vision that includes open data, electronic services, and digital communication with the public and partners through e-participation (Al-Ghalibi & Idris, 2007).

The main components of digital governance consist of digital infrastructure, management information systems, databases, digital platforms for services and interaction, digital identification documents and electronic signatures, open data, and frameworks for cybersecurity and data protection.

Applications of digital governance in sport: Sport organizations are undergoing an increasing digital transformation, reflected in platforms for managing sporting events and competitions, digital systems for administering the human and financial resources of clubs and federations, digital attendance systems and electronic tickets for spectators, technical systems for managing matches, such as video assistant referee systems, and digital platforms for communicating with the public and athletes (Jaa'di, 2017; Falese et al., 2026).

4. Smart governance and its foundations

- **The concept of smart governance:** Smart governance is a more mature extension of digital governance. It is an integrated administrative system that uses the capabilities of artificial intelligence, big data, the Internet of Things, predictive analytics, and smart systems to analyze and regulate decision-making, planning, oversight, and participation. It thus makes governance dependent on evidence, anticipation, and continuous adaptation (Meijer & Rodríguez Bolívar, 2016, pp. 392–408; Rodríguez Bolívar & Meijer, 2016, pp. 673–692). Smart governance does not, however, remain confined to the logic of technological transformation. It goes beyond that logic by reconstructing institutional relationships on the basis of integration between technology, data, leadership, participation, and accountability. Providing smart digital tools is not sufficient to achieve smart governance. Policies, institutions, capabilities, and values are also required to govern the use of these tools.
- **Foundations of smart governance:**

- Data-driven governance: Reliance on big data as a fundamental basis for policy formulation, performance measurement, and decision support, thereby connecting administrative decisions to evidence rather than to impression and intuition.
- Digital leadership: The provision of leadership with strategic vision and informed digital competence, capable of directing transformation toward a smart system and consolidating a data-based culture.
- Algorithmic transparency: The possibility of understanding and monitoring the operating logic of algorithmic systems and verifying their fairness in decision-making, so that they do not become a black box that makes decisions without accountability.
- Predictive control: Reliance on predictive analytics to identify risks before they occur and to transform oversight from a subsequent process into a real-time and proactive process.
- Smart participation: The real-time involvement of stakeholders through interactive platforms in a manner that strengthens transparency and institutional acceptance of decisions.
- Ethics and accountability: The regulation of the ethical and legal implications of using data and artificial intelligence, together with the determination of human responsibility for decisions supported by automated systems.

5. Comparison of traditional, digital, and smart governance

The distinctions among the three models, traditional governance, digital governance, and smart governance, may be illustrated through the following table.

Comparison criterion	Traditional governance	Smart governance	Digital governance
Decision-making	Experience and periodic reports	Predictive decision-making with human responsibility	Immediate digital reports
Information	Limited and fragmented	Extensive, interconnected, and continuous	Centralized and digital
Oversight	Subsequent and procedural	Proactive and risk-oriented	Immediate and digital
Participation	Meetings and reports	Interaction and the co-production of knowledge	Electronic participation
Accountability	Internal administrative accountability	Accountability of people, data, and systems	Digitally documented accountability

Risks	Slowness and bureaucracy	Privacy, bias, and technological dependence	Information security
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Source: Adapted from Rodríguez Bolívar, M. P., and Meijer, A. J. (2016), “Smart Governance: Using a Literature Review and Empirical Analysis to Build a Research Model,” *Social Science Computer Review*, 34(6), 673–692.

This comparison shows that smart governance does not eliminate traditional and digital governance so much as integrate with them. It depends on the structures and rules of traditional governance and the infrastructure and digital tools of digital governance, while adding the dimensions of data, intelligence, anticipation, and real-time participation.

6. Characteristics and dimensions of smart governance in sport organizations

a.Characteristics of smart governance

- Evidence-based decision-making: Smart governance bases decisions on accurate data and reliable analytics rather than on impression and administrative intuition.
- Proactivity and prediction: It enables the institution to anticipate changes, risks, and opportunities rather than responding to them only after they occur.
- Algorithmic transparency: It requires disclosure of and oversight over the operating logic of smart systems.
- Flexibility and adaptation: Its structures and processes continuously adapt to environmental and technological changes.
- Integration and interconnectedness: It connects technological, organizational, and behavioral dimensions in a balanced manner.
- Stakeholder orientation: It places the interests of diverse actors at the center of policy and service design.
- The ethical dimension: It adheres to privacy, cybersecurity, and fairness in algorithmic processing.

b.Dimensions of smart governance in sport organizations

- The technological dimension: The provision of smart infrastructure, including information systems, sensors, interactive platforms, and cloud computing, required for managing the sport organization.
- The data dimension: The collection, processing, and analysis of data relating to sports performance, financial management, spectator flows, and stakeholder behavior.
- The organizational and leadership dimension: The development of digital leaders and capabilities, together with flexible organizational structures able to accommodate transformation.
- The participatory dimension: The involvement of athletes, coaches, spectators, sponsors, and partner bodies in policy formulation and performance evaluation through smart platforms.
- The oversight and financial dimension: The sound management of resources, monitoring of financial flows, and compliance with standards of integrity and anti-corruption.

- The ethical and legal dimension: The protection of privacy, the regulation of responsibility for decisions supported by artificial intelligence, and compliance with national and international legal frameworks.
- The foregoing discussion shows that the conceptual framework of smart governance in sport organizations rests on a cumulative theoretical and technological foundation. It moves from the principles of public governance, through sport governance with its issues and references, to digital governance with its tools, and then to smart governance with its integrated characteristics and dimensions. This progression prepares the way for the following section, which examines how smart governance reshapes sport administration (Al-Asadi, 2005; Boutalbi, 2025).

The Second Section: How Does Smart Governance Reshape Sport Administration?

1. Reconstructing the logic of decision-making

The central idea of smart governance is to shift the center of gravity of administrative decision-making from personal experience and intuition toward evidence derived from data. In traditional practice, decisions in sport organizations were formed within small councils on the basis of managers' experience, intuition, and direct observation of events. As a result, decisions were often delayed and inherently subjective. Under smart governance, however, decision-making is based on continuous data analysis involving performance and training data, spectator and attendance data, financial flows, player transfers, and competitors' behavior (Watanabe et al., 2021, pp. 197–202).

This shift raises a fundamental question concerning the position of human beings within the decision-making cycle. A clear distinction must be made between fully automated decision-making and algorithm-assisted decision-making. Smart governance keeps the human in the loop and treats the algorithm as a tool for support and for presenting possible outcomes, while the final decision and responsibility for it remain within the authority of institutional leadership. In this regard, Meijer and Rodríguez Bolívar (2016) emphasize that smart governance is not confined to the technical domain. Rather, it "concerns the formulation of new forms of human collaboration through the use of information and communication technologies to achieve better outcomes and more open governance processes" (p. 392).

2. Transforming oversight and accountability

Under smart governance, oversight shifts from a subsequent process based on inspection after a violation has occurred to a real-time and proactive process based on real-time monitoring and the early detection of abnormal indicators. Instead of waiting for a defect to appear and then attempting to correct it after the opportunity for timely intervention has passed, smart systems identify potential deviations as they occur in financial management, regulatory compliance, and sports integrity. This approach is also reflected in the capacity of analytics to detect patterns of match manipulation and unexplained financial flows, thereby supporting the integrity objectives adopted by the global sports system (Chappelet & Mrkonjic, 2013; European Commission, 2013).

This issue is closely connected to algorithmic transparency. Algorithmic transparency requires the operating logic of systems that assist decision-making and oversight to be understandable and

subject to review, so that these systems do not become a black box that makes decisions without accountability. Accordingly, the scope of accountability expands beyond individuals to include the quality of systems and data, as well as the standards adopted, while preserving ultimate human responsibility for decisions made on the basis of these systems.

3. Reconstructing the relationship between the institution and stakeholders

Sport organizations have multiple stakeholders, and reconstructing their relationship with these stakeholders is one of the most prominent manifestations of the transformation produced by smart governance. In the case of spectators, the spectator moves from being a recipient of services to becoming a participant in the co-production of institutional knowledge through interactive platforms that enable the collection of opinions and the customization of the spectator experience, subject to strict controls on the use of personal data. For athletes and coaches, evaluation becomes an objective process based on indicators, thereby increasing the fairness of selection, evaluation, and reward criteria, provided that these criteria do not become a means of exerting pressure on their professional futures without adequate safeguards.

With regard to partners, government bodies, and sponsors, smart governance provides real-time reports and transparency concerning contracts and obligations. This strengthens trust and opens the way for cooperation on more stable foundations. It should nevertheless be emphasized that, regardless of its level of interaction, smart participation should not replace the internal democratic mechanisms of sport organizations or become a cover for weaknesses in genuine institutional action.

4. Sound management of financial resources

The financial dimension constitutes the core of financial governance and the central point of corruption issues in sport. Smart governance contributes in this area by forecasting revenues, planning budgets on the basis of analytical models, automatically monitoring financial flows to identify unusual transactions, and documenting contracts and transfers in a transparent and auditable manner. Its tools also make it possible to produce reliable reports that support compliance with club licensing and financial sustainability regulations imposed by the bodies responsible for supervising clubs. This strengthens financial integrity as a condition for the sustainability of sport organizations (Hamad, 2004; Al-Karkhi, 2024; UEFA, 2022).

5. Managing sports performance through smart data

The effects of smart governance are not limited to the financial and organizational dimensions. They extend to the core of sporting activity itself. Through sensors and wearable tracking systems, organizations have become capable of monitoring training loads, preventing injuries, improving recovery processes, and developing seasonal planning on the basis of connected objective data. Sports analytics are also used to identify emerging talent and monitor its development through standardized indicators, thereby reducing the dependence of these decisions on individual preferences.

Although contemporary sports research recognizes the benefits of big data for tactical analysis among elite athletes (Rein & Memmert, 2016), it is necessary to remember that these tools support

human capabilities rather than replace them. Data expands the capacity of coaches and managers to observe and understand, but it does not eliminate the need for their judgment, experience, and values.

6. Digital leadership and the redefinition of roles and structures

Smart governance cannot be achieved merely by installing technological systems. It requires digital leadership with the vision, competence, and readiness to place a data-based culture at the center of the organization. This entails redefining roles by creating specialized functions concerned with data stewardship, digital ethics, and compliance, as well as restructuring governing boards to include digital expertise.

This orientation nevertheless faces a major obstacle in the form of organizational resistance to change. Such resistance may come from managers who view data as a threat to their discretionary authority or from parties that remain cautious about the contemporary technical character of these systems. The success of transformation therefore depends on a change management approach that involves and trains the relevant parties and clarifies the benefits that smart governance can bring to their organizations (Falese et al., 2026; Al-Ghalibi & Idris, n.d.).

7. Cybersecurity and data governance

Cybersecurity and data protection constitute the basic condition for any smart digitalization of a sport organization, particularly as the sensitivity of data relating to athletes' health, minors' data, and tactical performance secrets increases. Smart governance requires the establishment of institutional frameworks to ensure data quality and integrity, the allocation of responsibility for data protection, and compliance with national and international legislation governing personal data.

The absence of this dimension makes smart transformation a source of new risks rather than a means of strengthening trust and integrity (European Parliament, STOA, 2019; Regulation (EU) 2016/679).

Summary of the Second Section

This analysis demonstrates that smart governance reshapes sport administration not merely by introducing new tools, but by changing the logic of administration itself in four fundamental areas: the logic of decision-making, the mode of oversight and accountability, the nature of the relationship with stakeholders, and the rules governing resources and performance. This change is meaningful only if it preserves the institutional and human character of governance. This conclusion provides the basis for moving to the third section, which develops an integrated theoretical model linking smart governance, the quality of administrative decision-making, and institutional excellence.

The Third Section: Toward an Integrated Theoretical Model of Smart Governance in Sport Organizations

This theoretical model is based on the foundations established in the preceding two sections. After establishing the conceptual framework in the first section and mapping the process of administrative reconfiguration in the second, it becomes possible to move to the stage of theoretical synthesis. At this stage, the components of the model are formulated and the presumed relationships among them,

decision quality, and institutional excellence are specified in a manner that can subsequently provide a basis for controlled field studies. The model cannot be theoretically complete unless it can be converted into measurable hypotheses.

This approach rests on a multidimensional understanding of institutional intelligence. As Gil-Garcia, Zhang, and Puron-Cid (2016) emphasize, intelligence should be understood as a broad and multidimensional concept. This justifies the multiplicity and intersection of the model's foundations rather than reducing them to a single technological dimension.

The explanatory logic of the model

The model follows an input, process, and output logic. Digital capabilities do not produce excellence directly. Rather, they are transformed through institutional practices into better decisions, which then affect performance, trust, and sustainability. This sequence prevents a direct leap from possessing technology to assuming a particular outcome. It also makes it possible to test direct and indirect effects and to distinguish the mediating variable from the final outcome. In addition, the model includes a feedback loop through which institutional excellence reinvests in digital infrastructure and attracts capabilities, thereby creating a cumulative cycle that may widen the gap between resource-rich institutions and others.

1. Foundations and components of the model

The model consists of interconnected groups of components, among which a set of moderating factors operates.

Enabling inputs

Digital environment and smart infrastructure: Information systems, platforms, sensors, and cloud computing constitute the technological foundation on which the system rests.

Data: The methodological value of data lies in its availability, quality, and quantity. Data constitute the basic fuel of any smart governance system, and data quality remains a condition for producing reliable readings.

Digital leadership: This involves possessing a transformational vision, competence, and the capacity to direct change, since technology alone does not create smart governance.

Policy and institutional frameworks: These include regulatory texts, compliance mechanisms, and ethical rules governing the use of data and smart systems.

Transformational processes

Data-driven decision-making: This involves shifting the center of gravity of decision-making toward evidence while keeping the human in the decision-making loop.

Smart control and early risk detection: This involves real-time monitoring and proactive analytics instead of subsequent oversight.

Smart participation: This involves the real-time engagement of stakeholders through interactive platforms.

Transparent resource management: This involves forecasting budgets, monitoring financial flows, and documenting contracts and transfers.

Targeted outcomes

Operationalization of the proposed variables and indicators

To convert the model into a testable instrument, the study proposes four composite indicators. Their scores are calculated on a scale from zero to one hundred after the measurement units have been standardized. The following weights are not presented as final results, but as a starting point subject to expert review and confirmatory factor analysis.

Indicator	Measurement examples	Components
Smart governance readiness	Percentage of digitized processes; system integration; transformation budget; training hours	Structure, integration, leadership, policies, and capabilities
Data quality	Percentage of completed fields; error rate; data update time; duplicate records	Accuracy, completeness, currency, consistency, and availability
Decision quality	Decision cycle time; percentage of decisions supported by evidence; review rate; implementation rate	Process quality and outcome quality
Institutional excellence	Service cost; compliance; sustainable revenues; stakeholder satisfaction	Efficiency, effectiveness, integrity, innovation, sustainability, and satisfaction

Source: Prepared by the researcher.

The data quality index should be calculated as the simple average of the dimensions of accuracy, completeness, currency, consistency, and availability. The decision quality index distinguishes between a procedural dimension concerning the clarity of criteria, transparency of the process, and reviewability, and an outcome dimension concerning accuracy, timeliness, appropriateness, and implementability. This distinction prevents the conceptual circularity that would make a decision appear good merely because its outcome is desirable (Al-Sayed, 2017).

Institutional maturity matrix

Level	Transition criterion	Description
1. Initial	Data inventory and assignment of responsibilities	Fragmented data and personal decisions
2. Organized	Standardization of definitions and connection of systems	Partial digitization and documented procedures
3. Integrated	Quality and authority control	Interconnected databases and monitoring dashboards
4. Predictive	Periodic verification of accuracy and bias	Predictive analytics and decision experiments

5. Responsible	Independent evaluation and continuous institutional learning	Transparency, review, and auditable impact
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Source: Prepared by the researcher on the basis of Chappelet and Mrkonjic (2013) and the European Commission (2013).

Quality of administrative decisions: This is reflected in the accuracy of timing, the appropriateness of the decision to its context, reliance on evidence, and accountability.

Institutional excellence: This is reflected in efficiency, effectiveness, transparency, responsiveness, innovation, integrity, and sustainability.

Moderating factors

Determining the position of control variables

To ensure testability, human capabilities are treated as an enabling input rather than as a moderating factor, while digital transformation maturity is treated as a contextual variable for classifying institutions. Organizational culture moderates the path of transformational processes toward decision quality, whereas ethics and compliance operate as a normative constraint on the legitimacy of the outcome. This separation removes the overlap among constructs and gives each variable a defined position within the sequence.

Institutional typology and conditions of comparison

The model should be tested within a two-dimensional matrix comprising the degree of professionalization and available resources on the one hand, and the nature of accountability on the other. Accountability is market-based in the professional club, public in the government-funded body, and membership-based in the association or federation. This typology prevents the relationships of a single model from being generalized to institutions that differ in ownership, funding, incentives, and capacity to invest in data.

The moderating factors consist of organizational culture, human capabilities, ethics and compliance, and the degree of digital transformation maturity. These factors may either accelerate the effect of smart governance or constrain it, and they should therefore be included in any subsequent test of the model.

2. Presumed relationships among the model variables

The model can be formulated as a set of theoretical relationships presented as testable hypotheses rather than as established findings:

Criteria for accepting or rejecting the model

Hypotheses acquire scientific meaning when they are falsifiable. Accordingly, it is not sufficient to establish a statistical association between digitalization and excellence. The effect of transformational processes should appear after controlling for institutional size and resources, and the direct effect of inputs should weaken after decision quality is introduced as a mediator. The stability of the measures, convergent and discriminant validity, multigroup differences among institutional types, and common method bias should also be tested if the data are collected through a single questionnaire.

The enabling inputs, particularly digital leadership and data quality, have a positive effect on the completeness of transformational processes.

Transformational processes increase the quality of administrative decisions in terms of timeliness, accuracy, transparency, and accountability.

The quality of administrative decisions has a positive effect on the achievement of institutional excellence.

The ethical factor moderates this effect and limits the potential risks of smart digitalization.

Smart participation improves decision quality through feedback that strengthens trust and appropriateness.

These relationships remain theoretical propositions requiring empirical verification. They therefore constitute one of the most important avenues for future research opened by the article.

3. Issues opened by the model for discussion

The model raises several issues that may serve as starting points for future research, most notably the following:

Does smart governance represent a genuine transformation in institutional logic, or does it reproduce bureaucratic practices through new technological tools?

To what extent does the professional judgment of athletes, coaches, and managers remain necessary in a world dominated by digital systems? Does data restrict administrative discretion or expand it?

Does data-driven governance lead to convergence in performance among institutions, or does it become a source of lasting competitive advantage?

Who owns sports data, who possesses the capacity to interpret it, and what effect does this have on the balance of power among clubs, federations, players, and spectators?

Does smart participation achieve genuine democracy within sport organizations, or does it become a seductive mechanism that conceals weak institutional action?

What are the distributive effects of smart governance? It may deepen the gap between large institutions capable of investing in data and smaller institutions that lack capabilities and resources.

4. Limitations of the model

The limitations of this theoretical proposal must be acknowledged. It emerged from a literature-based and conceptual analysis rather than from field data, and it does not assume that all sport organizations possess the same degree of digital maturity. The strength of the presumed relationships may also vary according to the type of institution, whether professional, federative, school-based, or youth-oriented, as well as according to the national and cultural context.

These limitations reduce the possibility of generalization. At the same time, they define the conditions and foundation for testing the model in subsequent studies. The limitations thus become not a weakness of the study, but an explicit methodological control.

Summary of the Third Section

This section may be summarized through a clear logical equation:

Smart governance = enabling inputs + transformational processes, leading to decision quality, which contributes to institutional excellence, provided that the moderating factor, represented by

ethics, leadership, and culture, remains active and ultimately determines the effectiveness of the entire sequence.

This conception provides the starting point for a considered selection of variables and indicators in any future empirical study. It also opens a discussion concerning the limits of the model and its controlling conditions when the objective is to transform it from a proposed theoretical framework into a field measurement instrument.

Conclusion

Within a theoretical and analytical approach, this article sought to establish the concept of smart governance in the administration of sport organizations, explain how it reshapes the logic of administration in these organizations, and develop a theoretical model linking enabling inputs, transformational processes, decision quality, and institutional excellence. The central problem may be answered through a clear conclusion: smart governance reshapes sport administration not merely by introducing new tools, but by rebuilding the logic of administration itself. The center of gravity of decision-making, oversight, participation, and accountability shifts from personal experience alone toward evidence derived from data and intelligence, while preserving the institutional and human character of decision-making. Although this shift depends on digital leadership, qualified structures, and ethical and legal frameworks governing the use of data, the article's thesis remains subject to an explicit qualification: technology is a necessary but not sufficient condition for achieving institutional excellence in sport.

This conclusion intersects with the article's subsidiary questions in a coherent methodological response. The first section defined smart governance and identified its characteristics and components, while distinguishing it analytically from traditional and digital governance. The second section showed how digital transformation, data, and artificial intelligence participate in reshaping sport administration while keeping the human in the decision-making loop. The third section established the theoretical relationship among smart governance, the quality of administrative decision-making, and institutional excellence, and defined the components of the model and its presumed relationships as testable hypotheses.

The importance of this conception is reinforced by a context in which the demands for integrity, transparency, and sustainability placed on sport organizations are increasing and the value of data as a new strategic resource is rising. It should nevertheless be recalled that the scientific value of this model will not be complete until it is subjected to empirical verification. The proposed relationships remain theoretical hypotheses requiring controlled field testing, through which the stated benefits can be transformed into methodological commitments for subsequent studies.

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