Key requirements for implementing digital governance in Algerian sports institutions

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ABSTRACT

The present study aims to determine the human, technical, and legislative prerequisites for implementing electronic governance in Algerian sports institutions. Employing a descriptive methodology, we selected a purposive sample of 30 employees from the Youth and Sports Directorate in the state of Souk Ahras, using a questionnaire as the primary research tool. Our findings indicate that there are specific human, technical, and legislative requirements necessary for the successful implementation of electronic governance in sports institutions in Algeria.
Keywords: Sport management, Digital governance, Sports institutions, Sports directorate.

INTRODUCTION

The topic of sports management has gained widespread acceptance among researchers and specialists in recent times, largely due to the advancement of sports programs within institutions amidst technological developments. These technological advancements have significantly contributed to the exploration of methods to enhance administrative work.

As sports organizations are increasingly required to adopt a more professional, transparent, and accountable approach to their operations, it has become crucial for students, researchers, and professionals in the field to understand the principles of governance and how to effectively implement them (O'Boyle & Bradbury, 2013).

Chappelet (2018) highlights that "*Since the beginning of the twenty-first century, governmental and intergovernmental bodies, national and international sport governing bodies, and academics have provided numerous lists — more than 30 in total — of governance principles for sports organizations.*" (p. 724) These principles pertain to the authority and powers granted to monitor, direct, manage, and control the strategic performance of a sports organization, ensuring compliance with relevant regulations and laws while considering internal dynamics and external environments (Sungho et al., 2024, p. 280).

This also encompasses the public sector's use of information and communications technology to "*enhance the delivery of information and services, foster citizen participation in decision-making, and increase government accountability, transparency, and effectiveness*" (Palvia & Sharma, 2007, p. 3).

Over the past two decades, digital governance has evolved from a focus on the direct application of technology in public administration to an interdisciplinary understanding of governance and a comprehensive, integrative view of administrative processes (Janowski, 2015).

Governance involves the application of information technology in government operations to enhance the delivery of public services to individuals, organizations, and users of other government services (Twizeyimana & Andersson, 2019, p. 167).

It also contributes to the effective management of resources, thereby improving the use of natural resources and mitigating potential future harm (Conceição & Lopes, 2022, p. 881).

In light of this context, this research paper aims to assess the extent to which digital governance requirements are implemented in sports institutions in Algeria and to identify the most critical requirements for digital governance within these institutions.

MATERIAL AND METHODS

The research process involved targeted searches within digital governance sites, with all records imported from these sites undergoing a thorough, two-stage review. Initially, the records were assigned to two experts in the field for detailed examination and feedback.

In the first stage, titles and abstracts of all collected articles and published research were evaluated. The second stage involved a full-text review of the research papers by five reviewers. This process ensured that

25% of the excluded studies were assessed for quality control in peer-reviewed research, ensuring they were relevant to the research topic.

The study utilized empirical data with both descriptive and inferential statistical analysis, chosen as the most suitable method for achieving the research objectives.

Procedures

The researchers used a questionnaire consisting of 15 statements divided into four sections:
- Section One: Human Requirements (5 statements).
- Section Two: Technical Requirements (5 statements).
- Section Three: Legislative Requirements (5 statements).

The questionnaire was designed with closed-ended questions using a five-point Likert scale, named after psychologist Rensis Likert, asking respondents to indicate their level of agreement with each statement.

The study population comprised employees of the Youth and Sports Directorate of Souk Ahras, with a sample size of 30 workers selected randomly. The sample includes 10 workers under 45 years old and 20 workers over 45 years old. Table 1 details the sample distribution by age:

Table 1. Sample distribution by age variable.

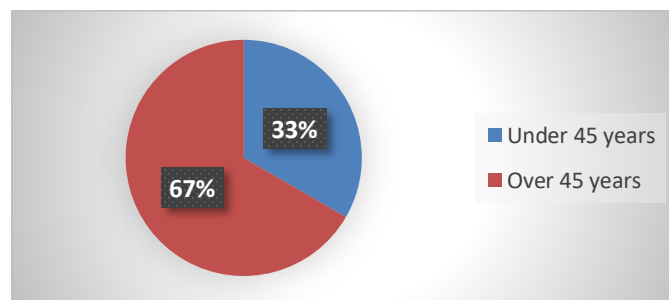| Age	Repetition	Percentage
Under 45 years old	10	33.33
Over 45 years old	20	66.66
Total	30	100

Figure 1. Distribution of sample members.

The study population comprised employees of the Youth and Sports Directorate of Souk Ahras, with a sample size of 30 workers selected randomly. The sample includes 10 workers under 45 years old and 20 workers over 45 years old.

Validity of the tool
- *Face Validity*: On March 15, 2024, the researchers presented the preliminary version of the questionnaire to a panel of experienced experts in the field of scientific research and qualified in the study's subject area for their evaluation.
- *Internal Consistency Validity*: After establishing face validity, Pearson's correlation coefficient was employed to assess the construct validity and internal consistency of the instrument, as well as to determine its internal coherence. Table 2 illustrates this.

Table 2 shows the correlation coefficients between each item in the digital governance requirements section for sports institutions and the overall score for the section. The correlations ranged from .865 to .976, indicating statistical significance at the .01 to .05 level. This demonstrates that the items in this section are valid for measuring what they are intended to.

Table 2. Correlation coefficients between each item in the digital governance requirements section for sports institutions and the overall score of the items.

Number	Axe	Correlation coefficient	Sig.
01	Requirements for implementing digital governance in sports institutions	.865 - .976	.01

Reliability of the instrument
Reliability is crucial for determining the validity of any test or questionnaire.

Split-Half method
The researchers assessed the reliability using the split-half method on the study sample. The questionnaire was divided into two halves (odd-numbered items and even-numbered items), and the correlation coefficient between the scores of the odd-numbered and even-numbered questions was calculated. This correlation coefficient was then adjusted using the Spearman-Brown formula:

$$\text{Adjusted correlation coefficient} = 2r / 1+r$$

where r is the correlation coefficient.

Table 3. Split-half reliability of the questionnaire items.

Questionnaire themes	Number of statements	Split half method	Stability coefficient	Spearman-Brown correlation coefficient
Requirements for implementing digital governance in sports institutions	15	08 07	.985 .989	.993

Statistical analysis
The researchers used the statistical program SPSS (Statistical Package for the Social Sciences, version 22).

RESULTS

Are there requirements for implementing digital governance in sports institutions in Algeria?

To answer this question, the arithmetic mean, standard deviation, frequencies, and percentages were employed.

Table 4. Requirements for implementing digital governance in sports institutions in Algeria.

Number	Themes of statements	SMA	Standard deviation	Ranking
01	Human requirements	3.84	0.72	01
02	Technical requirements	3.67	0.84	02
03	Legislative requirements	3.45	0.96	03
All axis statements		3.65	0.84	

Source: Outputs of SPSS version 22.

Table 4 illustrates that the mean values of responses from the sample regarding the requirements for implementing digital governance in sports institutions in Algeria ranged from 3.45 to 3.84, with standard deviations between 0.72 and 0.96.

Digital governance requirements in Algerian sports institutions
Based on frequencies, percentages, and the ranking of mean values and standard deviations of the sample responses, the results are as follows:

Human requirements
ranked first with a mean of 3.84 and a standard deviation of 0.65. This indicates that digital governance in sports institutions primarily relies on human resources, which are essential for managing information technology within the organization.

Technical requirements
ranked second with a mean of 3.67 and a standard deviation of 0.84. This suggests that digital governance depends on providing internet access, websites, and computer equipment to achieve institutional goals and progress.

Legislative requirements
Ranked last with a mean of 3.45 and a standard deviation of 0.96. This reflects that digital governance in Algeria lacks legal frameworks and legislative texts to effectively implement digital governance in sports institutions due to the absence of relevant legal provisions.

The overall mean score for the requirements of implementing digital governance in sports institutions in Algeria was 3.65 with a standard deviation of 0.84, indicating an acceptable level of implementation.

DISCUSSION

The statistical analysis of the data collected in this study revealed that "*Human Requirements*" is the most significant factor for implementing digital governance in sports institutions, with a mean of 3.84 and a standard deviation of 0.65. The development of external digitization may significantly reduce the number of employees, potentially marginalizing human resources. Despite the lack of a similar counterpart in human resource management, the concept of digital disruption can still be applied (Strohmeier, 2020, p. 351).

"*Technical Requirements*" ranked second with a mean of 3.67 and a standard deviation of 0.84. In the context of rapid technological advancement, changing societal needs, and unexpected crises, it is crucial for governments to effectively use technologies and digital data to enhance productivity and flexibility in public sectors. Establishing the correct institutional arrangements, coordination mechanisms, and policy tools is essential for supporting long-term transformations and overcoming shifting political priorities (OECD, 2021, p. 8).

"*Legislative Requirements*" ranked last with a mean of 3.45 and a standard deviation of 0.96, indicating that legislative texts are insufficient or lacking in the sports sector, which hinders the effective implementation of digital governance.

General hypothesis
"*There is an acceptable level of digital governance requirements implementation in sports institutions in Algeria*," with a mean of 3.65 and a standard deviation of 0.84, which is considered acceptable.

CONCLUSIONS

The findings suggest that implementing digital governance in Algerian sports institutions requires human resources capable of adapting to technological advancements, such as data security and website management. Additionally, effective digital governance needs the development of legal texts to protect individuals and employees in the sports sector. The study's key results are as follows:

- *Human Requirements*: The most critical factor for implementing digital governance, with a mean of 3.84 and a standard deviation of 0.65.
- *Legislative Requirements*: The least addressed, with a mean of 3.45 and a standard deviation of 0.96, due to weak or nonexistent legal provisions.
- *Overall Implementation*: There is an acceptable level of digital governance implementation in sports institutions in Algeria, with a mean of 3.65 and a standard deviation of 0.84.

AUTHOR CONTRIBUTIONS

The authors collected, analyzed, and processed the data for this study. The first author proposed the overall study framework and theoretical frameworks and analyzed the data, while the second author was responsible for data collection and analysis.

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DISCLOSURE STATEMENT

No potential conflict of interest was reported by the authors.

REFERENCES

Chappelet, J.-L. (2018). Beyond governance: The need toimprove the regulation of international sport. Sport inSociety, 21(5), pp.724-734. https://doi.org/10.1080/17430437.2018.1401355

Cho, S., Conrad, M., Holden, J., & Dodds, M. (2023). Regulatory Schemes and Legal Aspects of Sport Governance: Theoretical Perspectives and Conceptual Framework. Journal of Global Sport Management, 9(2), 269–284. https://doi.org/10.1080/24704067.2023.2249481

Conceição Castro & Cristina Lopes.(2022). Digital Government and Sustainable Development. Journal of the Knowledge Economy,v.13,pp.880-903. https://doi.org/10.1007/s13132-021-00749-2

Jain Palvia, S. C. and Sharma, S. S.(2007). E-government and e-governance,Deinitions/ Domain framework and status around the world.

Janowski, T. (2015).Digital government evolution: from transformation to contextualization. Gov. Inf. Quart. V.32,n.3,pp.221-236. https://doi.org/10.1016/j.giq.2015.07.001

O'Boyle, I., & Bradbury, T. (Eds.). (2013). Sport governance: International case studies. London and New York: Routledge Press. https://doi.org/10.4324/9780203408773

OCDE.(2021). The E-Leaders Handbook on the Governance of Digital Government OECD Digital Government Studies, OECD Publishing, Paris.

Strohmeier, S. (2020). Digital human resource management: A conceptual clarification. German Journal of Human Resource Management, 34(3), 345-365. https://doi.org/10.1177/2397002220921131

Twizeyimana, J. D., & Andersson, A.(2019).The public value of E-Government-A literature review. Government Information Quarterly, 36(2), 167-178. https://doi.org/10.1016/j.giq.2019.01.001