



The Application of Electronic Management in Algerian Sports Facilities: Between the Requirements of Efficiency and the Obstacles to Implementation. A Field Study of the Rabah Bitat Multi-Sports Complex in Bouira Province (Algeria)

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PhD in Sports Administration and Management

Abstract:

This study aimed to diagnose the current state of electronic management implementation in Algerian sports facilities, to highlight the importance of information and communication technology in improving their administration, to identify the most significant obstacles impeding its application, and to explore the future strategies required for its widespread adoption. The descriptive methodology was adopted, with a questionnaire serving as the primary data collection instrument. The questionnaire was distributed to a census sample of 36 managers and administrators within the sports facilities affiliated with the Boumerdès “Rabie Bitat” Multi-Sports Complex Directorate, following verification of its validity and reliability. Data were analyzed using SPSS and the chi-square (khi-deux / χ^2) test.

The study found that most managers possess adequate knowledge of the concept of electronic management; however, actual implementation faces multiple obstacles, the most significant of which are weak financial and material resources, a shortage of specialized human competencies, and difficulties in electronic document archiving. The results also confirmed the existence of a genuine willingness among personnel to apply electronic management, alongside future strategies that require institutional and governmental support for their activation.

Keywords: *electronic management; sports facilities; sports administration; information technology; Algeria.*

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1. Introduction

Public administration constitutes the backbone upon which the management of sports institutions in all their forms and types rests, as it aims to preserve them and achieve the objectives for which they were established. Fayol defined it as “forecasting, planning, organizing, commanding, and controlling,” while John Lee regards it as “the art of obtaining maximum results at minimum cost, thereby achieving the greatest satisfaction and happiness for individuals while providing the best service to society” (Bourkhes, 2018, p. 26).

In the context of rapid technological transformations, electronic management has become an indispensable necessity for improving the performance of sports institutions. Algeria, in common with advanced nations, has attached considerable importance to the construction and equipping of sports facilities in accordance with international standards; however, the reality reveals a clear gap between what is aspired to and what actually exists—particularly with regard to the management of these facilities and the application of electronic management. Zerifi and Bel’abad (2024) found no statistically significant relationship between the application of electronic management methods at sports facilities and the improvement of service quality, underscoring the need for a deeper diagnosis of the situation in these facilities. In this context, Mirir and Ben Mohammed (2024) confirmed the existence of human, administrative, technical, and financial obstacles that limit the possibility of applying electronic management in youth and sports directorates in Algeria. Batli and Layadi (2023) further demonstrated that the organizational strategies employed contribute to the development of electronic management applications in sports institutions, with a moderate degree of adoption of procedural and organizational strategy.

Electronic management is defined as “an integrated system that aims to transform administrative work from traditional manual management to digital computer-based management, relying on powerful information systems, thereby contributing to administrative decision-making with speed, precision, and at minimal cost” (Al-Salimi, 2008, p. 32). It is also defined as “the process of converting all traditional administrative tasks and services into electronic tasks and services executed with high speed and extreme precision without the use of paper” (Al-Ayyat, 2015, p. 10).

Proceeding from this premise, the present study seeks to diagnose the current state of electronic management implementation in Algerian sports facilities, identify the most significant challenges and obstacles they face, and explore the future strategies capable of ensuring its widespread adoption.

The general research problem may accordingly be formulated as follows:

What is the current state of electronic management implementation in Algerian sports facilities, and what are the most significant challenges and obstacles it faces?

The following sub-questions derive from this general problem:

- Do the managers of sports facilities in Algeria possess adequate knowledge of the concept of electronic management?
- What are the most significant difficulties and obstacles facing the application of electronic management in Algerian sports facilities?
- Are there future strategies and plans for the widespread use of electronic management in sports facilities?

2. Research Hypotheses

2.1 General Hypothesis

There is a relative interest in applying electronic management in Algerian sports facilities, but it faces multiple challenges that limit its effectiveness.

2.2 Sub-Hypotheses

Sub-Hypothesis 1: Managers of sports facilities possess adequate knowledge of the concept of electronic management.

Sub-Hypothesis 2: The application of electronic management in sports facilities faces multiple and varied obstacles and difficulties.

Sub-Hypothesis 3: There exist future strategies and plans for the widespread use of electronic management in sports facilities.

3. Significance and Objectives of the Study

3.1 Significance of the Study

This study possesses both scientific and practical significance, which may be summarized as follows:

- Scientific significance: The study constitutes one of the most important pillars for researchers seeking to enrich their knowledge base with valuable information that enables the identification of solutions to intractable problems, and attempts to reach findings that may serve as a point of departure for new research, providing information and facts about a given phenomenon.
- Highlighting scientific importance: The study illuminates the positive characteristics accruing to sports administration through diagnosis of its administrative situation, the identification of administrative problems related to the phenomenon of electronic management, and the development of feasible and appropriate solutions.
- Assessing the degree of implementation: Determining the extent to which electronic management is applied in sports administration, given that sports facilities aspire to be among the most advanced in administrative and operational terms.
- Assessing the level of awareness: Examining the degree of awareness among managers and employees in sports facility administrations regarding the importance of technological advancement—and electronic management in particular—and clarifying the requirements for its implementation and the reasons impeding it.
- Diagnosing strategies: Diagnosing the strategies adopted toward the application of electronic management in sports facilities.

3.2 Objectives of the Study

- To identify the extent to which electronic management is applied in the sports facilities affiliated with the Boumerdès Multi-Sports Complex Directorate.
- To assess the level of awareness among managers and employees regarding the importance of electronic management in sports facilities.
- To identify the obstacles and difficulties impeding the application of electronic management in Algerian sports facilities.
- To explore the future strategies required for the widespread use of electronic management in sports facilities.

4. Rationale for Topic Selection

4.1 Personal Rationale

- Personal interest in this topic, which originates from the researcher's specialization in physical education and sports, and its relevance to contemporary issues.
- Enriching the institute's library with new references, making them accessible to other researchers for complementary studies, given the pressing need for electronic management in the context of technological development across various sectors—particularly the administrative sector.
- Raising the researcher's own methodological and substantive competence and enriching knowledge through the practice of scientific inquiry.
- Addressing certain dimensions that have not previously been explored.
- Personal interest in understanding why sports administrations lag behind other administrations in applying electronic management.

4.2 Academic Rationale

- This study constitutes a practical contribution to highlighting the importance of the requirements that substantially contribute to the application of electronic management in Algerian sports facilities, and increases scientific interest in the topic.
- Highlighting the role of electronic management in sports institutions in general and sports facilities in particular, demonstrating the repercussions of implementing electronic management requirements for the development of sports facility performance, in alignment with the modern management policy for sports facilities and the enhancement of their efficiency and the achievement of their objectives.
- The relative novelty of the topic of electronic management in the field of sports administration necessitates research into this important subject.
- The need of sports administration for development and the increase in operational efficiency.

5. Key Concepts and Terminology

5.1 Administration

Administration is defined as: “a mental activity that seeks to achieve the optimal use of the factors of production (human and material resources) with the highest possible efficiency at the lowest possible cost; it is an integrated managerial process comprising four essential functions: planning, organizing, directing, and controlling” (Salama & Ali, 2009).

5.2 Operational Definition of Administration

In the present study, administration refers to all administrative activities—including planning, control, organizing, and motivation—through which the objectives of sports complexes are achieved in accordance with available resources.

5.3 Electronic Management

Electronic management is “an integrated system that aims to transform administrative work from traditional manual management to digital computer-based management, relying on powerful information systems, thereby contributing to administrative decision-making with speed, precision, and at minimal cost” (Al-Salimi, 2008, p. 32). It is also defined as “the process of converting all traditional administrative tasks and services into electronic tasks and services executed with high speed and extreme precision without the use of paper” (Al-Ayyat, 2015, p. 10).

5.4 Operational Definition of Electronic Management

In the present study, electronic management refers to the replacement of paper-based transactions and the substitution of the electronic office through wide-scale use of information technology, and the conversion of public services into office procedures that are then processed according to pre-established sequential steps. It is the administrative work carried out by the employee using computers, the internet, and various information and communication technologies, aimed at reducing effort and time and achieving satisfaction for both employees and sports facilities.

5.5 Sports Facilities

According to Executive Decree No. 91-416 of 2 November 1991, sports facilities are defined as: “any structure equipped for sports activity, under the authority of the Multi-Sports Complex Directorate and the stadiums under the authority of the administration responsible for youth and sports.” They are also defined as “the place equipped with sports means and resources, dedicated to the practice of sports activities and the provision of services necessary to achieve sports objectives in the present and the future” (Al-Washshahh, 2012, p. 14).

5.6 Operational Definition of Sports Facilities

Any building or property designated for the practice of physical and sports activities, encompassing all fixed or mobile structures, sports equipment and accessories pertaining to sports facilities.

6. Related Studies

Zerifi & Bel’abad (2024)

This study aimed to identify the relationship between electronic management and the improvement of service quality in sports facilities. The researchers adopted the descriptive methodology using a case study approach and questionnaire, applied to a sample of 16 cadres at the Multi-Sports Complex Directorate in Biskra. The study found no statistically significant relationship between the application of electronic management methods in sports facilities and the improvement of service quality.

Mirir & Ben Mohammed (2024)

This study sought to identify the obstacles to the application of electronic management at the Youth and Sports Directorate in Khenchela and the mechanisms for overcoming them. The researchers employed the descriptive methodology and questionnaire, applied to a sample of 38 employees. The results revealed the existence of human, administrative, technical, and financial obstacles limiting the possibility of applying electronic management, with moderate mechanisms for mitigating them.

Batli & Layadi (2023)

This study aimed to highlight the role of organizational strategies in the development of electronic management applications in sports institutions in Algeria. The researchers adopted the descriptive-analytical methodology and questionnaire, applied to a total census sample of 36 administrators at the National School of Olympic Sports in Sétif. The findings indicated a high degree of adoption of the strategy of changing structural and organizational aspects, a moderate degree of adoption of the

procedural and organizational strategy, and a contribution of organizational strategies to the development of electronic management applications.

Ben Sayeh (2019)

This study aimed to identify the obstacles preventing the application of electronic management at the Institute of Physical Education and Sports Sciences at Souk Ahras University, from the perspective of administrators. The researcher used a questionnaire administered to a randomly selected sample of 14 administrators, and found the existence of technical, human, and organizational obstacles impeding the application of electronic management to a significant degree.

Cherif & Raieh (2021)

This study aimed to identify the extent to which the components of electronic management contribute to increasing the effectiveness of job performance in sports institutions in Algeria. The researchers adopted the descriptive methodology on a sample of 37 employees at the Youth and Sports Directorate in M'Sila, using a questionnaire. The key findings indicated that electronic management contributes substantially to increasing the effectiveness of job performance in sports institutions; the most important recommendations included the necessity of greater investment in the latest technology related to human resource management, and the elevation of both the institution and the human resource simultaneously.

Moumi & Karishi (2011)

This study aimed to identify the extent to which electronic management contributes to the development of administrative work in Algerian higher education institutions. Four hypotheses were formulated and tested using a range of statistical methods, with the questionnaire serving as the primary data collection instrument from a study sample of 40 individuals. The study found statistically significant relationships between: the use of equipment and devices and the development of administrative work; the use of software and administrative development; the use of communication networks and administrative development; and the use of knowledge industry and the development of administrative work at the studied institution.

Commentary on Prior Studies

A review of the prior studies related to the topic of electronic management in sports institutions reveals that the present study agrees with them in several substantive respects—most notably, the reliance of most studies on the descriptive methodology and the questionnaire as the primary data collection instrument, which are the same methodology and instrument adopted in the present study. The studies also agree in affirming the existence of multiple obstacles that impede the application of electronic management in sports institutions, whether human, material, technical, or organizational, and in their consensus that qualified human resources constitute one of the most important requirements for its successful application.

However, the present study differs from prior studies in its spatial scope, focusing on the sports facilities affiliated with the Boumerdès “Rabie Bitat” Multi-Sports Complex Directorate—a context that prior studies have not addressed. It also differs in its sample size of 36 managers and administrators using total census sampling, and in its findings, which showed that material obstacles (shortage of computers) and human obstacles (employees’ reluctance to use computers) commanded the highest consensus among sample members. Additionally, the present study uniquely combines three essential axes: awareness of the concept of electronic management, difficulties and obstacles, and future strategies and plans.

7. Methodology

7.1 Exploratory Study

The exploratory study is regarded as the first step in any field study, aimed at gaining a thorough understanding of the research topic so as to enable an examination of its various dimensions. Exploratory research addresses new topics that have not previously been investigated and for which no data or information exist. An exploratory study was conducted on five managers affiliated with the Boumerdès Multi-Sports Complex, with the following objectives:

- To identify the extent to which electronic management is applied in the sports facilities of the complex.
- To verify the possibility of collecting data in an objective manner that serves the research.

- To assess the degree to which the study sample understands the questionnaire items.
- To standardize the questionnaire and compute its scientific coefficients.

7.2 Research Methodology

Given the nature of the topic addressed in the study, and in order to analyze the findings and examine the research problem, the researchers adopted the descriptive methodology, which is characterized by the collection of data, reports, and quantitative tables. The descriptive methodology involves the study of reality or phenomena as they exist, describing them accurately and expressing them both qualitatively and quantitatively: the former describes the phenomenon and identifies its characteristics, while the latter provides a numerical description that clarifies its magnitude and degree of association with other phenomena.

7.3 Study Variables

7.3.1 Independent Variable: The factor whose influence on the studied phenomenon the researcher seeks to measure, known as the experimental variable; in the present study, this is Electronic Management.

7.3.2 Dependent Variable: The variable resulting from the independent variable; in the present study, this is Algerian Sports Facilities.

7.4 Study Population

Based on information obtained from the Boumerdès Multi-Sports Complex Directorate, the original study population comprises all directors and managers of sports facilities affiliated with the Multi-Sports Complex Directorate, distributed across the territory of Boumerdès Province, totalling 36 administrative managers of sports facilities.

7.5 Study Sample

In order to arrive at more precise, objective, and realistic results, the study sample was selected using total census sampling, as this method is appropriate to the nature of the topic. The sample included all supervisors of the units affiliated with the Boumerdès Multi-Sports Complex Directorate, without any special characteristics or criteria, comprising 36 managers and administrators of sports facilities.

7.6 Scope of the Study

7.6.1 Human Scope: The sample consists of 36 managers and administrators distributed across the sports facilities administration of Boumerdès Province.

7.6.2 Spatial Scope: The Boumerdès Multi-Sports Complex Directorate and its 21 units distributed across the municipalities of Boumerdès, Hiyayzar, Bechloul, Sour El-Ghozlane, El-Akhdaria, Ain Bessam, and others.

7.6.3 Temporal Scope: The study was conducted over a period of 30 days, divided between its theoretical and applied phases.

7.7 Data Collection Instrument

The study employed the questionnaire as its data collection instrument, which is defined as a tool for obtaining facts, data, and information through the formulation of a question form. Among the advantages of this method are economy of effort and time, and its contribution to obtaining data from the sample in the shortest possible time while ensuring standardization conditions of validity, reliability, and objectivity (Al-Shafi'i & Morsi, 1995, p. 20).

7.8 Scientific Foundations of the Measurement Instrument

7.8.1 Validity: Expert panel validity was employed to confirm that the questionnaire measures what it was designed to measure. Copies of the questionnaire were distributed to a group of expert reviewers recognized for their scientific level and experience in the study domains and research methods, who assessed the clarity, sufficiency, and appropriateness of the questionnaire items for the proposed axes. Based on their observations and guidance, amendments were made on which most reviewers agreed, including the deletion of certain statements, the rewording of others, and their rearrangement.

7.8.2 Reliability: Reliability was established using the test-retest method. The questionnaire was distributed to a pilot sample of six managers from the study population and redistributed to the same sample after a specified interval. Cronbach's alpha was also used to compute the reliability coefficient for each axis.

Table: Cronbach's Alpha Reliability Coefficients for the Questionnaire

Questionnaire Axis	No. of Items	Cronbach's α
Awareness of Electronic Management	10	0.894
Difficulties and Obstacles	10	0.762
Strategies and Plans	10	0.734
All Questionnaire Items	30	0.856

Source: Prepared by the researcher based on SPSS output.

The table above shows that Cronbach's alpha coefficients for each questionnaire axis ranged between 0.734 and 0.894—high values—while the overall Cronbach's alpha for all questionnaire items reached 0.856, indicating a high degree of instrument reliability and confirming full confidence in the validity and suitability of the questionnaire for analyzing and interpreting the study's findings and testing its hypotheses.

7.9 Statistical Methods

The study employed the following statistical methods, processed using SPSS:

- Cronbach's alpha to measure the reliability coefficient.
- Percentage: Percentage = (Number of frequencies ÷ Total sample size) × 100.
- Chi-square (χ^2) test: This test allows comparison between the results obtained from the measurement scale administered to the sample, by comparing actual observed frequencies with expected frequencies. The significance level adopted is $\alpha = 0.05$ and degrees of freedom: $df = n - 1$. If computed $\chi^2 < \text{tabulated } \chi^2$: no statistical significance. If computed $\chi^2 > \text{tabulated } \chi^2$: statistically significant.

8. Presentation and Analysis of Results

8.1 Axis One: Level of Awareness of Electronic Management

Table 1: Results of Axis One Items

No.	Item	Answer	Freq.	%	χ^2 Calc.	χ^2 Tab.	Significance
01	Do you have knowledge of electronic management?	Yes	32	89%	21.77	3.84	Sig.
		No	04	11%			
02	Have you previously conducted administrative work using electronic documents?	Yes	28	78%	11.60	3.84	Sig.
		No	08	22%			
03	Have you had experience transferring and storing electronic data and documents?	Yes	25	69%	5.44	3.84	Sig.
		No	11	31%			
04	Do you possess the scientific knowledge to control modern technology?	Yes	22	61%	1.77	3.84	Not Sig.
		No	14	39%			
05	Do you wish to replace your old professional experience with modern technological expertise?	Yes	33	92%	25.00	3.84	Sig.
		No	03	8%			
06	Do you find it difficult to understand the operating mechanisms of the electronic management system?	Yes	20	56%	0.44	3.84	Not Sig.
		No	16	44%			
07	Are you aware of the necessity of transitioning to electronic management?	Yes	34	94%	28.44	3.84	Sig.
		No	02	6%			
08	Does the facility archive data electronically?	Yes	18	50%	0.00	3.84	Not Sig.
		No	18	50%			
09	Is communication with other facilities conducted via the internet?	Yes	30	83%	16.00	3.84	Sig.
		No	06	17%			

10	Is coordination between administrative levels conducted via the internet (intranet)?	Yes	20	56%	0.44	3.84	Not Sig.
		No	16	44%			

Source: Prepared by the researcher based on SPSS output.

Table 1 shows that items 1, 2, 3, 5, 7, and 9 are statistically significant, with computed χ^2 values of 21.77, 11.60, 5.44, 25.00, 28.44, and 16.00 respectively—all exceeding the tabulated value of 3.84 at 1 degree of freedom and a significance level of 0.05. Items 4, 6, 8, and 10, by contrast, are not statistically significant, with computed χ^2 values of 1.77, 0.44, 0.00, and 0.44 respectively—all below the tabulated value.

The highest frequency rate was recorded for item 7 (“Are you aware of the necessity of transitioning to electronic management?”) at 94%, followed by item 5 (“Do you wish to replace your old professional experience with modern technological expertise?”) at 92%, and item 1 (“Do you have knowledge of electronic management?”) at 89%. Conversely, the lowest rate was recorded for item 8 (“Does the facility archive data electronically?”) at 50%, indicating a gap between theoretical awareness and actual practice.

These results reflect a high level of awareness among sports facility managers of the concept and importance of electronic management—evident in the high rates of positive responses to items related to awareness and willingness to change. However, this theoretical awareness does not necessarily translate into effective practical implementation, as evidenced by the low rate of electronic archiving (50% only) and the difficulty reported by 56% of respondents in understanding the operating mechanisms of the electronic management system. The results indicate that awareness of the importance of electronic management exists, but requires reinforcement through the technical knowledge and practical skills necessary for its application.

These findings are consistent with Zerifi and Bel’abad (2024), who confirmed the existence of awareness of the importance of electronic management among personnel in sports facilities without this awareness translating into effective implementation; and with Batli and Layadi (2023), who noted that administrators in sports institutions recognize the importance of electronic management, although actual application remains below the required level.

Conclusion: Most managers possess adequate knowledge of electronic management, with a gap between theoretical awareness and practical application.

8.2 Axis Two: Difficulties and Obstacles

Table 2: Results of Axis Two Items

No.	Item	Answer	Freq.	%	χ^2 Calc.	χ^2 Tab.	Significance
01	Does the facility have a website?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			
02	Does the facility provide the possibility of communication via email?	Yes	35	97%	32.11	3.84	Sig.
		No	01	3%			
03	Does the facility provide administrative documents that can be downloaded from its website?	Yes	32	89%	21.77	3.84	Sig.
		No	04	11%			
04	Is the facility linked to other administrative websites?	Yes	15	42%	1.00	3.84	Not Sig.
		No	21	58%			
05	Is there difficulty in archiving some traditional tasks electronically?	Yes	23	64%	2.77	3.84	Not Sig.
		No	13	36%			
06	Do routine procedures delay the transition toward electronic management?	Yes	28	78%	11.60	3.84	Sig.
		No	08	22%			

07	Is distrust of electronic transactions considered an obstacle?	Yes	28	78%	11.60	3.84	Sig.
		No	08	22%			
08	Is employees' reluctance to use computers considered an obstacle?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			
09	Does the shortage of computers hinder the application of electronic management?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			
10	Does ignorance of legislation and regulations affect their non-use?	Yes	34	94%	28.44	3.84	Sig.
		No	02	6%			

Source: Prepared by the researcher based on SPSS output.

Table 2 shows that items 1, 2, 3, 6, 7, 8, 9, and 10 are statistically significant, with computed χ^2 values of 36.00, 32.11, 21.77, 11.60, 11.60, 36.00, 36.00, and 28.44 respectively—all exceeding the tabulated value of 3.84. Items 4 and 5 are not statistically significant, with χ^2 values of 1.00 and 2.77 respectively.

The highest frequency rates were recorded for items 1, 8, and 9 (100%), indicating that all sample members unanimously agreed that the facility has a website, and that both employees' reluctance to use computers and the shortage of computers constitute genuine obstacles. Furthermore, 94% agreed that ignorance of legislation and regulations affects the non-use of electronic management, and 97% that the facility provides the possibility of communication via email.

These results indicate the existence of multiple obstacles impeding the application of electronic management in sports facilities, which may be classified into three types: material obstacles, manifested in the shortage of computers (100%) and insufficient financial and material resources; human obstacles, manifested in employees' reluctance to use computers (100%) and weak specialized competencies; and legislative and organizational obstacles, manifested in ignorance of legislation and regulations (94%), routine procedures (78%), and distrust of electronic transactions (78%). Material and human obstacles command the highest consensus rates, indicating that they represent the greatest challenge facing the application of electronic management in sports facilities.

These findings are consistent with Mirir and Ben Mohammed (2024), who revealed the existence of human, administrative, technical, and financial obstacles; and with Ben Sayeh (2019), who confirmed the existence of technical, human, and organizational obstacles impeding electronic management implementation to a significant degree.

Conclusion: Multiple obstacles impede the application of electronic management in sports facilities, most prominently material and human obstacles, alongside a clear readiness among personnel to overcome them.

8.3 Axis Three: Future Strategies and Plans

Table 3: Results of Axis Three Items

No.	Item	Answer	Freq.	%	χ^2 Calc.	χ^2 Tab.	Significance
01	Does the facility conduct training courses in electronic management?	Yes	05	14%	18.77	3.84	Sig.
		No	31	86%			
02	Does the facility work to attract experts in the electronic field?	Yes	23	64%	2.77	3.84	Not Sig.
		No	13	36%			
03	Is reliance placed on the experiences of other facilities?	Yes	21	58%	1.00	3.84	Not Sig.
		No	15	42%			
04	Do you wish to learn modern technological tools?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			

05	Are you prepared to undergo training courses in modern technology if the facility provides them?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			
06	Do you wish to abandon old methods?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			
07	Are you prepared to change your current work pattern?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			
08	Are there proposed strategies for the use of modern technology?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			
09	Do you support administrative change procedures toward electronic management?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			
10	Is there a strategic vision for the use of information technology?	Yes	36	100%	36.00	3.84	Sig.
		No	00	0%			

Source: Prepared by the researcher based on SPSS output.

Table 3 shows that items 1, 4, 5, 6, 7, 8, 9, and 10 are statistically significant, with computed χ^2 values of 18.77, 36.00, 36.00, 36.00, 36.00, 36.00, 36.00, and 36.00 respectively—all exceeding the tabulated value of 3.84. Items 2 and 3 are not statistically significant, with χ^2 values of 2.77 and 1.00 respectively.

All items 4 through 10 recorded a 100% consensus rate, indicating that all sample members wish to learn modern technological tools, are prepared to change their current work pattern, and support administrative change procedures toward electronic management. In contrast, the lowest rate was recorded for item 1 (“Does the facility conduct training courses in electronic management?”) at only 14%, indicating a gap between employees’ desire for training and the facility’s failure to provide it. Item 5 (“Are you prepared to undergo training courses in modern technology if the facility provides them?”) recorded 100%, confirming that employees are fully prepared for training if the facility makes it available.

These results reflect a strong readiness among sports facility personnel to apply electronic management—with a 100% rate of desire to learn modern technological tools, 100% readiness to change working patterns, and 100% support for administrative change procedures. However, this readiness confronts the reality of no training courses being provided by the facility (only 14%), insufficient attraction of expert personnel (64%), and limited adoption of the experiences of other facilities (58%)—indicating a gap between employees’ desire for development and the facility’s failure to meet this desire.

These findings are consistent with Batli and Layadi (2023), who confirmed that organizational strategies contribute to the development of electronic management applications in sports institutions, with a high degree of adoption of the strategy of changing structural and organizational aspects; and with Cherif and Raieh (2021), who indicated that electronic management contributes substantially to increasing the effectiveness of job performance in sports institutions.

Conclusion: There is a strong readiness among employees to apply electronic management, alongside future strategies that require activation and institutional support.

9. Conclusion

In light of the findings of this field study conducted at the sports facilities of Boumerdès Province, and the analysis of the results obtained through the distribution of the questionnaire to all managers and employees engaged in activities at these sports facilities—with a view to verifying the validity of the hypotheses upon which the study was built—it was established that the sub-hypotheses are confirmed, and consequently the general hypothesis of the study is verified.

It may be stated that the effective role played by electronic management—through its work to improve the human resource and its capacity to use all means, devices, programs, and applications

through recycling and training to develop skills and capacities for exploiting information technology and modern communication tools to achieve the objectives and mission of the sports facility—cannot be realized except through the convergence of efforts among the employees of the sports facility. This in turn is only possible through the provision of material and financial means that enable the human resource, across the many functions that make these objectives achievable, to receive training in the various technical aspects of electronic management so as to keep pace with developments in sports facilities internationally.

The results indicate that most managers possess adequate knowledge of the concept of electronic management and its applications; however, this theoretical awareness does not necessarily translate into actual implementation, as evidenced by the low electronic archiving rate of 50% only, and the difficulty reported by 56% of respondents in understanding the operating mechanisms of the electronic management system. Sports facilities also face multiple obstacles impeding the application of electronic management, most prominently: material obstacles in the form of a shortage of computers (100%), human obstacles in the form of employees' reluctance to use computers (100%), and legislative and organizational obstacles in the form of ignorance of legislation and regulations (94%), routine procedures (78%), and distrust of electronic transactions (78%).

Despite these obstacles, there is a strong readiness among personnel to apply electronic management: the rate of desire to learn modern technological tools reached 100%, the readiness to change working patterns 100%, and support for administrative change procedures 100%. However, this readiness confronts the reality of no training courses being provided by the facility (14% only), insufficient attraction of expert personnel (64%), and limited adoption of the experiences of other facilities (58%)—indicating a gap between employees' desire for development and the facility's failure to meet this desire. This necessitates institutional and governmental intervention to provide the necessary material and human resources, intensify training programs, train specialized cadres, schedule specialized scientific seminars, strengthen integration and communication among all functions of the sports facility, and pay attention to information systems and their modern procedures and technologies as the true capital of the facility in the face of the continuous challenges and changes in the business environment.

Recommendations

- Develop clear plans and strategies for the widespread application of electronic management in sports facilities.
- Provide adequate material and financial resources to establish a modern and effective electronic management system.
- Strengthen the concept of electronic management among employees by helping them achieve their personal and professional objectives.
- Work to attract distinguished human competencies in the field of electronic management.
- Provide modern software and applications to keep pace with technological developments.
- Intensify the organization of training courses for employees in the modern uses of technology.
- Train specialized cadres in the use of electronic management components.
- Schedule specialized scientific seminars in the fields of management, administration, and communication technology.
- Strengthen integration and communication among all functions of the sports facility to achieve functional coordination.
- Attend to information systems and their modern procedures and technologies as the true capital of the facility.

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