

The Reality of Implementing E-Management at the Institute of Science and Techniques of Physical and Sports Activities at Souk Ahras University from the Administrators' Perspective

واقع تطبيق الادارة الالكترونية بمعهد علوم وتقنيات النشاطات البدنية والرياضية بجامعة

سوق أهراس من وجهة نظر الاداريين

Bensayah Samir ¹

¹ s.bensayah@univ-soukahras.dz, university of Souk Ahras, Algeria.

Received:07/11/2025

Accepted:18/11/2025

Published :22/11/2025

Abstract:

This study aimed to identify the reality of implementing e-management at the Institute of Science and Techniques of Physical and Sports Activities at Souk Ahras University. To achieve this goal, the researcher adopted the descriptive-analytical method, as it suits the nature of the topic. A questionnaire was distributed to a sample consisting of 18 administrative staff members working at the institute. The study concluded that the level of e-management implementation at the institute is moderate from their point of view.

Accordingly, the study recommends developing the information infrastructure, intensifying training and qualification programs for employees, and promoting a culture of digital transformation within the educational institution. It also calls for expanding the use of electronic systems to include all administrative and academic operations, in order to achieve efficiency, transparency, and enhance the quality of institutional performance.

Keywords: *e-management application, administrators, Institute of Science and Techniques of Physical and Sports Activities*

ملخص الدراسة :

هدفت هذه الدراسة الى التعرف على واقع تطبيق الإدارة الالكترونية بمعهد علوم وتقنيات النشاطات البدنية والرياضي بجامعة سوق أهراس، من أجل ذلك اعتمد الباحث على المنهج الوصفي التحليلي لملاءمته لطبيعة الموضوع، وعليه قمنا بتوزيع استمارة استبيان على عينة تكونت من 18 اداري يعمل بالمعهد، وقد توصلت الدراسة الى أن مستوى تطبيق الإدارة الالكترونية بالمعهد متوسطا وهذا من وجهة نظرهم.

وعليه نوصى بضرورة تطوير البنية التحتية المعلوماتية، وتكثيف برامج التدريب والتأهيل للعاملين، وتعزيز ثقافة التحول الرقمي داخل المؤسسة التعليمية. كما دعا إلى توسيع نطاق استخدام النظم الإلكترونية لتشمل جميع العمليات الإدارية والأكاديمية، بما يحقق الكفاءة والشفافية ويعزز جودة الأداء المؤسسي.

-الكلمات الدالة:تطبيق- الإدارة الالكترونية، الإداريين - معهد علوم وتقنيات النشاطات البدنية والرياضية.

Introduction and Problem Statement:

In recent years, the world has witnessed an unprecedented information revolution represented by the rapid development of computing and communication technologies, which has led to a fundamental change in the nature and methods of administrative work within public and private institutions alike. E-management has become one of the most prominent manifestations of this transformation, as it represents an integrated system that relies on the use of information and communication technology in planning, organizing, directing, and controlling resources and administrative procedures to achieve efficiency and effectiveness in performance (Al-Marzouqi, 2020).

E-management is considered one of the key pillars for achieving comprehensive digital transformation in educational institutions, as it provides speed in processing transactions, accuracy in data management, and ease of communication between different administrative levels (Abdullah, 2021). These systems also offer opportunities to reduce waste in time, effort, and resources, and help promote transparency and accountability within academic institutions (Smith & Johnson, 2022).

Among the most important academic institutions that combine theoretical and practical training are Institutes of Science and Techniques of Physical and Sports Activities, due to their particular nature. Managing both their academic and administrative affairs is of great importance. The application of e-management in such institutes contributes to facilitating processes such as registration, scheduling lectures, evaluating students, managing staff affairs, and developing communication mechanisms among different administrative and academic departments (Al-Hassani, 2023).

Despite the efforts made by higher education institutions to integrate technology into their administrative systems, the reality of e-management implementation still faces several challenges, such as weak technological infrastructure, lack of qualified human resources capable of efficiently using electronic systems, and the resistance of some employees to shift from traditional to digital methods (Al-Kaabi, 2021). The importance of studying these challenges increases in institutes of physical and sports education, given their specific nature, which requires precise coordination between academic and practical aspects.

Accordingly, this study aims to analyze the reality of implementing e-management at the Institute of Science and Techniques of Physical and Sports Activities at Souk Ahras University. To this end, the following research question was raised:

What is the reality of implementing e-management at the Institute of Science and Techniques of Physical and Sports Activities at Souk Ahras University?

Based on this, the study proposed the following hypotheses:

-There are no significant differences in administrators' perceptions of the level of e-management implementation at the Institute of Science and Techniques of Physical and Sports Activities due to professional experience.

-There are **no significant differences** in administrators' perceptions of the level of e-management implementation at the institute due to the position held.

-There are no significant differences in administrators' perceptions of the level of e-management implementation at the institute due to educational qualification

2. Field Procedures of the Study

2.1. Research Method

Given the nature of this study, the descriptive-analytical method was adopted as the most appropriate approach.

2.2. Study Population

The study population consisted of all administrative staff members working at the Institute of Science and Techniques of Physical and Sports Activities at Mohamed-Cherif Messaadia University – Souk Ahras, totaling 18 administrators of both genders.

2.3. Study Sample

A purposive sample was selected, due to the small size of the population and ease of accessibility. Therefore, the sample included 18 administrators working at the institute.

2.4. Study Scope

- **Human Scope:** The study was conducted on administrative staff members at the Institute of Science and Techniques of Physical and Sports Activities – Souk Ahras.
- **Spatial Scope:** The research was carried out within the same institute at Souk Ahras University.
- **Temporal Scope:** The study was conducted from **January 2022 to March 2022.**

2.5. Research Instrument

A questionnaire was designed and distributed to administrative staff members at the Institute of Science and Techniques of Physical and Sports Activities. The questionnaire was adapted and formulated in accordance with the objectives of the study. It included five questions related to personal information and 48 questions divided into three main domains, using a five-point Likert scale

Table 1: Distribution of Questionnaire Items Across Domains:

Dimensions	Items
Infrastructure and Technical Equipment Domain	1 to 16
Administrative Services Domain	17 to 32
Beneficiaries' Services Domain	33 to 48

Source: Prepared by the researcher

2-7-Scientific Basis of the Study Instruments

2.7.1. Validity of the Instrument

- **Construct validity of the questionnaire:**
The correlation coefficients between individual items and the overall questionnaire were calculated, resulting in a value of **0.87**, indicating a strong correlation.

Table 2: Correlation of Dimensions with the Overall Questionnaire

Dimension	Correlation with the overall questionnaire	Significance
Infrastructure and Technical Equipment	0.73	Significant at 0.01 level
Administrative Services	0.89	Significant at 0.01 level
Beneficiaries' Services	1.00	Significant at 0.01 level
Total	0.87	Significant at 0.01 level

Source: Prepared by the researcher based on SPSS 22 outputs

-Convergent validity:

Calculated using the positive square root of Cronbach's alpha reliability coefficient, which resulted in **0.980**, indicating strong validity of the instrument.

2.7.2. Reliability of the Scale

-Cronbach's Alpha method:

The reliability of the instrument was calculated using Cronbach's alpha formula through SPSS 22. The instrument showed a high degree of reliability, with a Cronbach's alpha coefficient of 0.962.

-Split-Half Method:

The reliability coefficient was also calculated using the split-half method via SPSS 22. The Spearman-Brown coefficient and Guttman coefficient were both 0.990, indicating high reliability of the instrument

-3Presentation and Analysis of Results in Light of the Hypotheses

3-1 Presentation and Analysis of the Results of the Questionnaire Directed to Administrators as a Whole

Table 03 represents the results of the questionnaire directed to the administrators as a whole:

No.	Domains	Mean	Relative Weight	Rank	Agreement Level
1	Infrastructure and Technical Equipment	2.47	49.40%	3	Low
2	Administrative Services	2.49	49.80%	2	Low
3	Beneficiary Services	2.61	52.20%	1	Medium

The Reality of Implementing E-Management at the Institute of Science and Techniques of Physical and Sports Activities at Souk Ahras University from the Administrators' Perspective

Overall Score	-	2.62	53.40%	-	Medium
----------------------	---	------	--------	---	--------

Source: Prepared by the researcher

According to the results presented in the table above, administrators perceive the level of e-management implementation at the institute as medium, with a mean of 2.62 and a relative weight of 53.40%. This indicates that the institute has not yet fully achieved the expected level in adopting e-management, which has become a pressing necessity, especially after the COVID-19 pandemic.

-The dimensions of the questionnaire were ranked as follows according to the administrators:

--Beneficiary Services: ranked first with a mean of 2.61, relative weight of 52.20%, and a medium level of agreement.

--The provision of electronic service request forms on the university website, activation of email communication with beneficiaries, and providing each employee with an email account were rated moderate according to the administrators.

--Administrative Services: ranked second with a mean of 2.49, relative weight of 49.80%, and a low level of agreement.

--Administrators indicated that monitoring employee attendance records electronically, maintaining data digitally, and training staff on e-management applications were insufficient.

--Infrastructure and Technical Equipment: ranked third with a mean of 2.47, relative weight of 49.40%, and a low level of agreement.

--The availability of internet service at the institute, relying on specialized entities to provide electronic services, and the independence of the institute through a dedicated website were considered inadequate.

3-2 Presentation and Analysis of the Results Related to the First Sub-Hypothesis

(There are no differences in administrators' perceptions of the level of e-management implementation at the Institute of Physical and Sports Activity Sciences and Techniques attributable to the variable of professional experience)

Table 4 represents the results of the differences in administrators' perceptions of the level of e-management implementation according to professional experience:

Professional Experience	Mean	Standard Deviation	df	Calculated t	Sig. (p)	Interpretation
Less than 10 years	2.63	0.48	16	0.068	0.946	Not statistically significant at $\alpha = 0.05$
10 years or more	2.61	0.61				

Source: Prepared by the researcher based on SPSS 22 outputs

From Table 4, it is clear that there are no statistically significant differences in administrators' perceptions of the level of e-management implementation at the Institute attributable to professional experience, as the calculated t-value = 0.068 and the significance value (Sig.) = 0.946, which is greater than the significance level $\alpha = 0.05$. Therefore, the t-value is not statistically significant at the 0.05 level with 16 degrees of freedom.

Thus, we conclude that administrators' perceptions of the level of e-management implementation at the Institute are not affected by professional experience.

3-3 Presentation and Analysis of the Results Related to the Second Sub-Hypothesis

(There are no statistically significant differences in administrators' perceptions of the level of e-management implementation at the Institute attributable to educational level: "holds a university degree / does not hold a university degree")

Table 5 represents the results of the differences in administrators' perceptions according to educational level:

Educational Level		Mean	Standard Deviation	df	Calculated t	Sig. (p)	Interpretation
Holds university degree	a	2.55	0.66	16	0.618	0.545	Not statistically significant at $\alpha = 0.05$
Does not hold university degree	not a	2.74	0.52				

Source: Prepared by the researcher based on SPSS 22 outputs

From Table 5, it is clear that there are no statistically significant differences in administrators' perceptions of the level of e-management implementation at the Institute attributable to educational level, as the calculated t-value = 0.618 and the significance value (Sig.) = 0.545, which is greater than the significance level $\alpha = 0.05$. Therefore, the t-value is not statistically significant at the 0.05 level with 16 degrees of freedom.

Thus, we conclude that educational level (“holds a university degree / does not hold a university degree”) does not affect administrators’ perceptions of the level of e-management implementation at the Institute.

Presentation and Analysis of Results Related to the Third Sub-Hypothesis

(There are no statistically significant differences in administrators’ perceptions of the level of e-management implementation at the Institute of Physical and Sports Activity Sciences and Techniques attributable to job position)

Table 6 represents the differences in administrators’ perceptions according to job position:

Job Position	Mean	Standard Deviation	df	Calculate d t	Sig. (p)	Interpretation
Manager/Responsible	2.66	0.66	16	0.307	0.763	Not statistically significant at $\alpha = 0.05$
Non-responsible Staff	2.57	0.52				

Source: Prepared by the researcher based on SPSS 22 outputs

From Table 6, it is clear that there are no statistically significant differences in administrators’ perceptions of the level of e-management implementation at the Institute attributable to job position, as the calculated t-value = 0.307 and the significance value (Sig.) = 0.763, which is greater than the significance level $\alpha = 0.05$. Therefore, the t-value is not statistically significant at the 0.05 level with 16 degrees of freedom.

Thus, we conclude that job position does not affect administrators' perceptions of the level of e-management implementation at the Institute.

4. Discussion of Results in Light of Hypotheses

4-1 Discussion of the First Sub-Hypothesis *(There are no differences in administrators' perceptions attributable to professional experience)*

As shown in the results above, **there are no differences in administrators' perceptions of e-management implementation attributable to professional experience.**

The study's findings confirm the validity of the first research hypothesis, as the significance values (Sig.) in all areas (infrastructure and technical equipment, administrative services, and beneficiary services) are greater than 0.05, indicating that differences are not statistically significant. The majority of administrators agreed that professional experience does not affect their perceptions of e-management implementation.

4-2 Discussion of the Second Sub-Hypothesis *(There are no differences in administrators' perceptions attributable to educational level)*

The results also indicate that educational level does not affect administrators' perceptions of e-management implementation.

These findings confirm the validity of the second research hypothesis, as significance values (Sig.) in all areas are greater than 0.05, meaning the differences are not statistically significant. Most administrators agreed that educational level has no effect on their perceptions of e-management implementation.

4-3 Discussion of the Third Sub-Hypothesis *(There are no differences in administrators' perceptions attributable to job position)*

The results indicate that job position does not affect administrators' perceptions of e-management implementation.

These findings confirm the validity of the third research hypothesis, as significance values (Sig.) in all areas are greater than 0.05, indicating no statistically significant differences. The researcher attributes this to the fact that all staff participated in training courses and workshops on modern technologies, regardless of their job title.

These results differ from previous studies, such as Al-Samri (2009), which showed differences in material and financial requirements, and Mellivell (2007), which reported incomplete utilization of technology in administrative areas and weak dissemination of information regarding the importance of using technological software.

5. Conclusion

This study aimed to analyze the current state of e-management implementation at the Institute of Physical and Sports Activity Sciences and Techniques, in light of the rapid digital transformations affecting educational institutions. Adopting e-management has become a strategic necessity to enhance institutional performance and improve the quality of administrative and educational services.

The study focused on assessing e-management implementation across various administrative aspects at the Institute, such as student affairs management, human resource organization, and academic process administration.

Using a descriptive-analytical approach, data were collected through questionnaires distributed to a sample of administrators. Results indicated that the level of e-management implementation ranges from low to moderate, with some electronic systems used for registration and academic tracking, while other areas still rely on traditional methods.

Key challenges include weak technical infrastructure, lack of qualified human resources, limited ongoing training, and insufficient awareness of digital transformation among some staff members.

6. Recommendations and Future Directions

Successful e-management requires a clear strategic vision that integrates technical, human, and organizational aspects.

Recommendations include upgrading IT infrastructure, intensifying training and professional development, and promoting a culture of digital transformation within the institution.

Expanding the use of electronic systems to cover all administrative and academic processes is also advised to enhance efficiency, transparency, and overall institutional performance.

References:

- Abdullah, S. (2021). *Information Technology and Digital Transformation in Educational Administration*. Cairo: Dar Al-Ma'rifa.
- Al-Hasani, M. (2023). *E-Management Applications in Arab Higher Education Institutions*. Dar Al-Fikr Al-Jami'i.

Al-Kaabi, F. (2021). Challenges of E-Management in Higher Education Institutions. *International Journal of Educational Technology*, 15(2), 55–68.

-Al-Marzouqi, A. (2020). *E-Management: Concepts and Contemporary Applications*. Amman: Dar Al-Yazouri Scientific.

-Al-Samri, A. M. (2009). *E-Management: Modern Concepts and Applications*. Cairo: Dar Al-Fikr Al-Arabi.

-Mellivell (2007) ... British University E-Management in Hong Kong Setting, Higher Education, vol.6, 2, pp. 32-77

-Moussa, R., & Ahmed, L. (2023). Digital Transformation and E-Administration in Sports Education Institutes. *Journal of Educational Administration Studies*, 18(4), 112–129.

-Smith, J., & Johnson, P. (2022). E-Management Systems in Academic Institutions: Opportunities and Challenges. *Education and Information Technologies*, 27(3), 2451–2465.