



# International Journal of Innovative Technologies in Social Science

e-ISSN: 2544-9435

Scholarly Publisher  
RS Global Sp. z O.O.  
ISNI: 0000 0004 8495 2390

Dolna 17, Warsaw,  
Poland 00-773  
+48 226 0 227 03  
editorial\_office@rsglobal.pl

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**ARTICLE TITLE** ADMINISTRATIVE AND TECHNICAL CONSTRAINTS OF ELECTRONIC ADMINISTRATION AND THEIR IMPACT ON THE EFFECTIVE MANAGEMENT OF SPORTS ADMINISTRATION IN ALGERIA

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**DOI** [https://doi.org/10.31435/ijitss.3\(47\).2025.4088](https://doi.org/10.31435/ijitss.3(47).2025.4088)

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**RECEIVED** 10 March 2025

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**ACCEPTED** 20 August 2025

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**PUBLISHED** 30 September 2025

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# ADMINISTRATIVE AND TECHNICAL CONSTRAINTS OF ELECTRONIC ADMINISTRATION AND THEIR IMPACT ON THE EFFECTIVE MANAGEMENT OF SPORTS ADMINISTRATION IN ALGERIA

**Imed Delhoum**

*Dr., Institution: Hassiba Ben Bouali University, Chlef, Algeria*

**Allaoua Samir**

*Dr., University of Hassiba Ben Bouali, Chlef, Algeria*

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## ABSTRACT

Change has become a characteristic feature of the civilisational dimension of the developed world, necessitating the monitoring of all transformations occurring within the environment surrounding both individuals and organisations to confront the consequences of such change and keep pace with new developments. In this context, organisations must adopt and utilise the most advanced administrative methods, in line with technological advancements and in response to the digital age and information technology. Among these methods is electronic administration (E-Management), a contemporary concept that has emerged in recent years as a result of the increasing use of computers and networks and the information revolution in general. Electronic administration represents a strong response to the challenges of the twenty-first century, an era defined by globalisation, knowledge, and the dynamics of the internet revolution. Most administrations worldwide, in general, and sports administrations in particular, have responded to this transformation according to their specific conditions, capacities, and circumstances. In recent years, there has been rapid and significant development in information and communication technology across multiple levels, with a profound impact on human behaviour, methods, and approaches to administration. Consequently, many organisations, including those in both developed and developing countries, such as Algeria, have begun to adopt the concept of electronic administration. This transition has been made evident through the dissemination of information via the internet, as well as the conduct of numerous internal transactions through the internet and intranet. These networks have provided sports organisations and their clients with opportunities for communication beyond intricate bureaucratic procedures. Notably, the application of electronic administration in the sports field has achieved remarkable success across various organisations worldwide. However, the situation in China is distinct. Despite the rapid progress in information technology, many challenges and obstacles persist, hindering its application as a means to facilitate management processes and enhance effectiveness. Within this framework, our study addresses the following topic: "Administrative and Technical Constraints of Electronic Administration and Their Impact on the Effective Management of Sports Administration in Algeria." The study aimed to identify the most significant administrative constraints that hinder the effective management of electronic administration within Algerian sports organisations and to highlight the technical and human obstacles impeding its application in these organisations. Among the key findings of the study are that the reliance of the Algerian sports administration on traditional management methods has delayed the transformation towards a smooth and efficient application of electronic administration. The technical constraints identified include the limited development of the infrastructure required to implement electronic administration in sports management; the difficulty experienced by sports organisations' administrators in Algeria in keeping pace with the rapid global changes and advancements in information technology; and the absence of security systems to safeguard databases related to management processes within sports organisations. The study also revealed several human constraints, including the lack of specialised training and development programmes dedicated to enhancing the capacities of human resources in Algerian sports administration, to master modern electronic technologies necessary for the successful implementation of electronic administration. Additional constraints included the absence of a culture of change among those responsible for managing Algerian sports organisations, as well as the shortage of qualified personnel specialising in maintaining electronic equipment, devices, and management-related software at various administrative levels.

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## KEYWORDS

Administrative Constraints, Technical Constraints, Electronic Administration, Management, Sports Administration

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## CITATION

Imed Delhoum, Allaoua Samir. (2025) Administrative and Technical Constraints of Electronic Administration and Their Impact on The Effective Management of Sports Administration in Algeria. *International Journal of Innovative Technologies in Social Science*. 3(47). doi: 10.31435/ijitss.3(47).2025.4088

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### Introduction to the Problem

Political, social, economic, and cultural life throughout history has been characterised by various developments that have influenced human performance, perspectives, and intellectual perceptions. This evolution encompasses the transition from a simple agricultural society to a preindustrial society, followed by an industrial, post-industrial, and ultimately an information and communication technology society (the information society). With the closure of one era, a new era unfolds, marked by contradictions that reshape relationships and concepts in ways that provoke numerous issues and inquiries among researchers and scholars. The overarching concern revolves around a central question regarding the beginning and end of each era, as well as the features and technical achievements peculiar to every stage (Mohamed, 2009, p. 24).

In light of this rapid scientific progress and massive technological advancement, it has become imperative for the entire world to harness these technologies across all domains, including the administrative sphere. This necessity has given rise to what is termed "electronic administration," which provides services to both employees and clients through institutional websites on the global information network. It offers them whatever services and information they require from their homes, offices, or wherever they are located across the globe. In this context, nations are diligently striving to implement the concept of electronic administration across their daily operations and transactions to overcome the limitations of traditional administration, thereby facilitating the exchange of goods and services, enhancing both the quantity and quality of performance and productivity, and ensuring continuous communication with internal and external environments in pursuit of sustained reforms.

The application of electronic administration within sports organisations constitutes one of the most significant reforms, particularly in the second decade of the twenty-first century, during which we are witnessing an explosion in the information technology revolution and rapid advancements in means of communication. Without such developments, it would be impossible to move forward into the future and keep pace with other nations. Consequently, it has become imperative to contribute to improving the level of administration in both public and private sports organisations. This ambition can be achieved only by restructuring their administrative systems in a manner consistent with the spirit of the age, ensuring their positioning on an equal footing with sports organisations in the developed world. The implementation of electronic administration is thus conceived as a tool for realising total quality management across various projects, strengthening existing capacities, and prioritising continuous improvement.

The emergence and proliferation of electronic administration, with its various components (hardware, software, systems, application systems, technologies, and local networks), during the second half of the 1980s clearly reflected the nature of the relationship between electronic administration and its users. This was followed by the expansion of the internet in the second half of the 1990s as a medium of communication and information exchange, thereby marking a fundamental technological distinction between traditional administrative applications and electronic administrative applications.

The integration of electronic administration within sports organisations, along with its related methods and techniques, clearly contributes to the overall process of development and total quality management (TQM) of administrative services. It also advances the objectives of comprehensive quality management across administrative, technical, and human domains. Thus, the advantages and importance of applying electronic administration are clarified, as it enhances outputs and aligns with the aspirations of both developed and developing nations to embrace this concept, which has become synonymous with quality of life by ensuring high precision, reduced effort, and lower financial cost.

Although the application of electronic administration in the sports sector has achieved notable success in many organisations across various countries, the situation in Algeria is different. Despite the rapid advancement of information technology, numerous challenges and obstacles hinder its implementation. For this reason, the present study was undertaken under the following theme: "Constraints to the Effective

Application of Electronic Administration in Sports Organisations in Algeria" (Ministry of Youth and Sports, Directorates of Youth and Sports, Sports Associations, Sports Clubs, etc.).

Accordingly, the central research question of this study was formulated as follows:

**What is the impact of the administrative and technical constraints of electronic administration on the effective management of sports administration in Algeria?**

### **Importance of the Study**

The significance of this study lies in the vitality and importance of its subject, since it addresses electronic administration and the obstacles that hinder the exploitation of its numerous advantages in the management of sports organisations in Algeria.

Furthermore, there is a notable shortage of applied studies and research that investigate the field of electronic administration within the Algerian context, as this concept has emerged relatively recently, arising from global transformations and developments during the shift towards electronic work and away from traditional, paper-based processes that consume considerable effort, time, and expenditure.

This study may serve researchers and scholars working in the field of electronic administration or its subfields.

It also aims to provide insights into how sports administration in Algeria can overcome the obstacles encountered in implementing electronic administration, thereby facilitating its adoption by identifying the most significant barriers impeding the widespread use of such applications and proposing approaches to mitigate them.

Additionally, this work may constitute a new scientific contribution to the field of academic knowledge.

### **Key Terms of the Study**

#### **3.1 Electronic Administration**

- **Linguistically**, the term *electronic administration* is derived from the word *electron*, the plural being electronics, which refers to the science concerned with the composition, utilisation, and application of electronics (Al-Jami', n.d., p. 126).

- **Terminologically**, it is defined as "the administration that encompasses all uses of information and communication technology, including computers, networks, fax machines, and wireless data entry devices, serving daily administrative matters" (Sindi, 2002, p. 18).

- Adel defined it as "a general framework and an integrated technological system, distinct from conventional societal practices human, social, economic, and productive designed to enhance internal development and to provide better services than those delivered by traditional administration" (Ahmed, 2009, p. 25).

- **Operationally**, electronic administration is the use of all modern administrative techniques, including planning, organising, directing, and controlling, enabling sports organisations to achieve their objectives with minimal time and effort.

#### **3.2 Constraints**

- **Linguistically**, according to *Al-Mu'jam Al-Wasit*, the term *constraint* is defined as "from the verb to hinder, meaning to prevent or obstruct, something that stops a person from doing what they intend" (Al-Basit, 1972, p. 372).

- Constraints can be defined as barriers that stand between an individual and the performance of their tasks (Al-Assaf, 2003, p. 23).

- **Operationally**, the researcher defines constraints as administrative, technical, and human obstacles that hinder the application of electronic administration in sports organisations.

#### **3.3 Sports Organisation**

Sports administration is defined as the process of planning, leading, and monitoring the efforts of individuals within a sports institution, utilising all available resources to achieve specific objectives.

- Sports administration refers to *a service* wherein administrators serve others or deliver services through the administration, meaning the execution of tasks via others by planning, organising, directing, and monitoring their efforts.

- Sports administration is also considered an art that involves the coordination of labour, sports products, and related elements within sports institutions and is systematically conducted to realise the goals of these organisations (Al-Ni'ma, 2004, p. 524).

#### 4. The Concept of Electronic Administration

The term *electronic administration* (e-management) is often used interchangeably with other terms, such as *e-business* and *e-commerce*, among other concepts that connect activities and communications within the digital world.

Although it is challenging to compare electronic administration with domains and activities such as *e-banking*, *e-marketing*, or *email*, it is essential to distinguish and critically examine the three fundamental concepts that have recently become widespread in *e-business*, *e-commerce*, and *e-management*, which often lack clear differentiation.

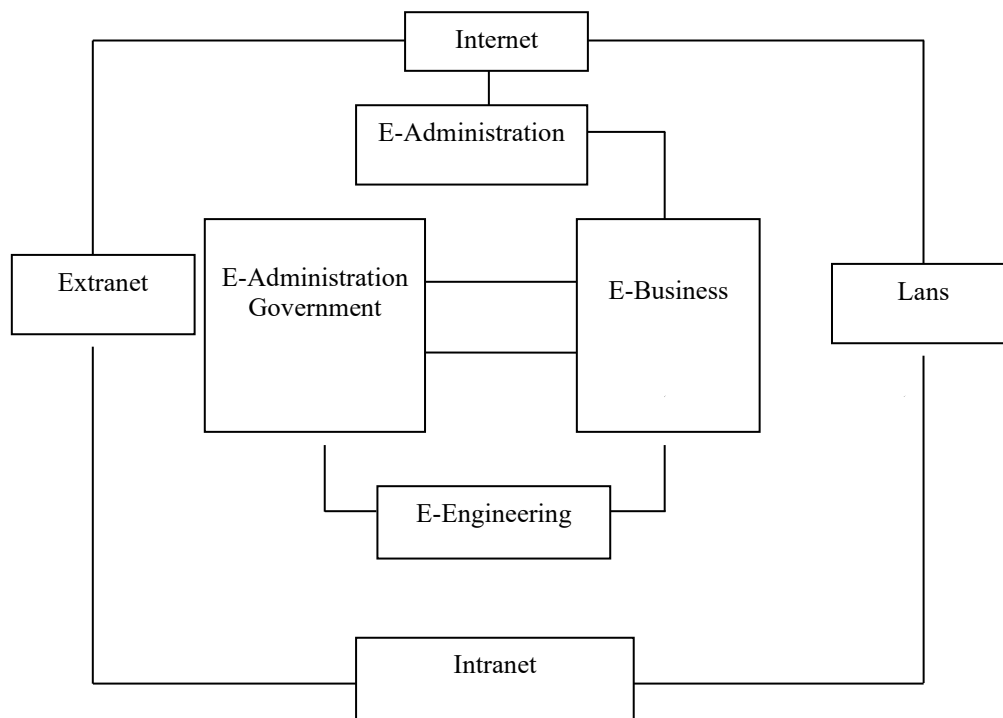
Electronic administration refers to the transformation of internal administrative processes through the utilisation of technology. Accordingly, the concept pertains to administration as a *process* that has been transformed by the incorporation of information and communication technologies (ICTs), particularly with the advent of the internet (Al-Salmi, 2008, p. 23).

#### 5. The Nature of Electronic Administration

The relationships between work departments within organisations and the terms *e-business*, *e-commerce*, and *e-management* reveal that the notion of electronic administration extends far beyond the role of individual departments. It encompasses the integration of an organisation's entire data and information systems across different departments, utilising this information to guide institutional policies and procedures toward achieving organisational objectives. Furthermore, it provides the flexibility required to respond to continuous internal and external changes.

Electronic administration includes all fundamental administrative components: planning, implementation, monitoring, evaluation, and motivation. However, what distinguishes it is its capacity for continuous knowledge creation and its strategic employment to realise institutional goals.

Moreover, electronic administration relies on developing the organisation's information infrastructure in a manner that ensures a comprehensive vision, thereby facilitating the optimal performance of tasks (Al-Wadi, 2011, pp. 190–191).



**Fig. 1.** Dimensions of E-Administration  
Source: (Ghaleb, 2005, p.21)

## 6. Components of Electronic Administration

An electronic administration is composed of four core elements:

### 1. Computer Hardware

2. This refers to the physical components of the computer, including systems, networks, and peripherals.

### 3. Software

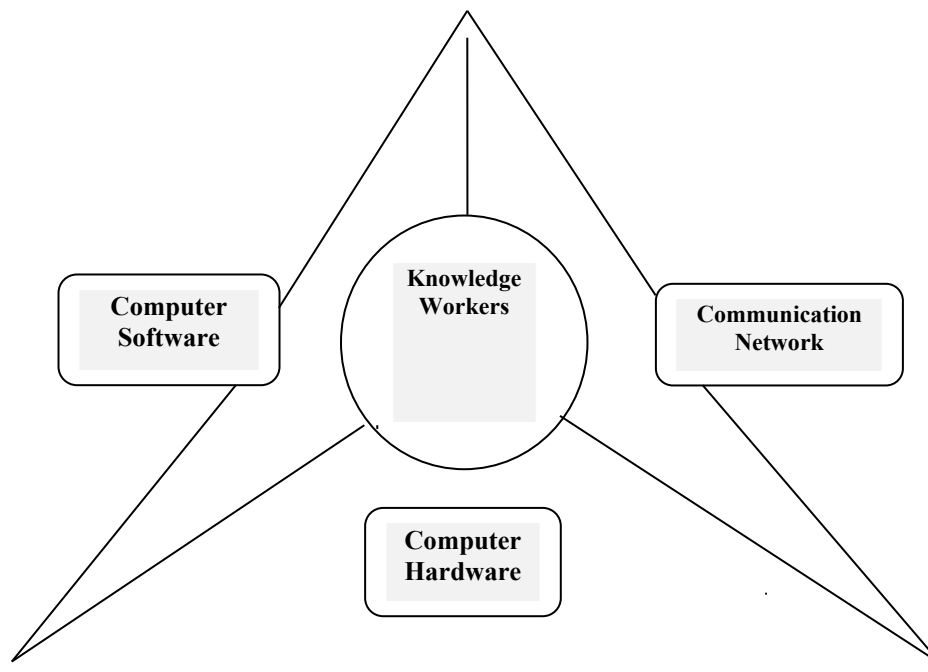
4. In terms of the intellectual aspects of computer systems and networks, software can be divided into two categories:

- **System Software:** Includes operating systems, network management systems, programming language compilers, software debugging tools, and computer-aided software engineering systems.

- **Application Software:** Includes web browsers, email programs, groupware, spreadsheets, databases, functional software packages, e-commerce applications, and software for administration and enterprise resource planning.

### 5. Communication Networks

6. These are the electronic linkages extended through the connective fabric of the internet, extranet, and intranet, representing the value network that enables electronic administration.



*Fig. 2. Components of Electronic Administration.*

*Source: (Ghaleb, 2005, p. 24)*

## 7. Objectives of Electronic Administration

The primary objectives of electronic administration include the following:

- Managing files and reviewing content rather than merely storing documents and revising document content instead of rewriting it.
- Relying on email correspondence instead of conventional incoming and outgoing documentation.
- Saving time and ensuring prompt transaction completion, as electronic processing occurs instantaneously without waiting.
- Promoting transparency in administrative operations and in the display of information to clients, suppliers, and other stakeholders.
- Transitioning towards a rationalised public service through the advancement of public administration via modern technical mechanisms.
- Efficient preparation for meetings (Al-Hafeez, 2014, p. 10).



Consequently, electronic administration transforms surplus labour into an essential workforce by retraining them to adapt to new developments within the institution while permitting the dismissal of unqualified staff and reducing decision-making barriers through increased data availability (Al-Malik, 2007, p. 13).

### **8. Importance and benefits of electronic administration in sports organisations**

Electronic administration yields multiple advantages for organisations in general and for sports organisations specifically, including the following:

- Reduced production and service costs, coupled with increased organisational profitability.
- Enhanced performance levels in government-run sports organisations.
- Avoidance of risks associated with paper-based operations.
- Creation of new opportunities for self-employment and the utilisation of available technological prospects (Ghoneim, 2004, p. 43).
- Rapid advancements in information technology, with anticipated continued increases, are enabling new and comprehensive technological applications that increase organisational efficiency and effectiveness.
- Digital information systems facilitate breakthroughs in operations that are unattainable with paper-based systems (Truban, 2003, p. 154).

The interest of the advanced world in harnessing information technology is rooted in tangible benefits, which are summarised as follows:

- Streamlining the duration of various administrative transactions.
- Achieving precision and clarity in administrative processes within sports organisations.
- Simplifying procedures within these organisations and their devices directly enhances the quality of services provided.
- Facilitating communication among departments within sports organisations and with other institutions and agencies
- Converting surplus labour into an essential workforce through retraining to adapt to institutional developments and dismissing those unable to adapt to new circumstances (Al-Salmi, 2008, p. 13).

### **9. Constraints to the Implementation of Electronic Administration**

#### **9.1 Administrative Constraints**

The shift from traditional to electronic administration faces several notable administrative constraints, including the following:

- Inadequate planning and coordination by senior management for project execution, whether due to poor timing or unfavourable conditions, often necessitates postponement until a suitable climate is established. Excessively weak planning may approach randomness, potentially yielding outcomes that are contrary to the project's intended objectives.
- Some leaders underestimate the necessity of closely monitoring the progression of the transformation project and overseeing its development to proactively address any emerging issues or requirements during implementation and verify diligent, accurate adherence to the transformation plan. This lack of attention from upper management constitutes a significant barrier; in resistant or unenthusiastic environments, senior leadership must actively endorse the process to inspire staff and target stakeholders and to secure essential societal support for the initiative.
- Institutions adopting electronic administration may benefit from utilising the expertise of organisations and agencies with prior experience, thereby facilitating implementation, expediting progress, and avoiding previously encountered obstacles. The absence of coordination among these entities and the discontinuation of consultative channels become constraints, as each body starts its project anew rather than building on the achievements of others.
- Inflexible administrative procedures and a lack of enthusiasm for electronic administration projects constitute a key barrier, reducing such initiatives to fragmented technical practices without the integrity or identity of an established administrative entity.
- The complexity of administrative procedures and the absence of organisational structure flexibility further hinder the execution of electronic administration projects.
- The scarcity of resources required for technological transition, including financial resources, human capacities, and the general preparedness of administrative personnel.

- Neglecting to focus on key processes essential for effective organisational transformation, while concentrating on minor points and concepts that merely shuffle administrative positions without benefiting or altering the core reality, results in traditional administration managed by computers.
- The dominance of traditional bureaucratic concepts in the organisational work environment, with an inability to overcome or mitigate their influence.
- The mistaken belief that change occurs only in administrative operations and procedures, whereas change should also encompass leadership relations with employees, interactions with lower-tier leaders, and electronic environment concepts such as transparency, flexibility, and decentralisation.
- Lack of conviction within organisational management regarding the necessity or need for electronic administration.
- Failure to psychologically prepare individuals and make them aware of their important role as part of the transformation and success process.
- Variation in management systems within the same administrative entity obstructs a smooth and seamless transition to electronic administration (Al-Hasan, 2011, p. 188).

### 9.2 Technical Constraints

Several technical obstacles hinder the transition to electronic administration within many sports administrations, notably:

- One initial challenge for sports organisations seeking to extend technological applications across administrative departments is the technical requirements related to computer maintenance and repair, updating outdated equipment, and the scarcity of expert consultancies. The rapid obsolescence of technical skills exacerbates this problem amid continual technological innovations, necessitating the ongoing renewal of expertise, which presents difficulties in establishing or sustaining electronic administration departments.
- The ageing and outdated skills of technical personnel within sports organisations lead to resistance against modern technologies, as staff feel culturally and technically left behind, thereby obstructing the adoption of new technologies in the workplace and administrative circles, which can protect their job positions. The translation for the remaining part of section 9 is as follows:
- The scarcity of the resources required for the technological transition, including financial resources, human capacities, and the general preparedness of administrative personnel.
- Neglecting to focus on key processes essential for effective organisational transformation, while concentrating on minor points and concepts that merely shuffle administrative positions without benefiting or altering the core reality, results in traditional administration managed by computers.
- The dominance of traditional bureaucratic concepts in the organisational work environment, with an inability to overcome or mitigate their influence.
- The mistaken belief that change occurs only in administrative operations and procedures, whereas change should also encompass leadership relations with employees, interactions with lower-tier leaders, and electronic environment concepts such as transparency, flexibility, and decentralisation.
- Lack of conviction within organisational management regarding the necessity or need for electronic administration.
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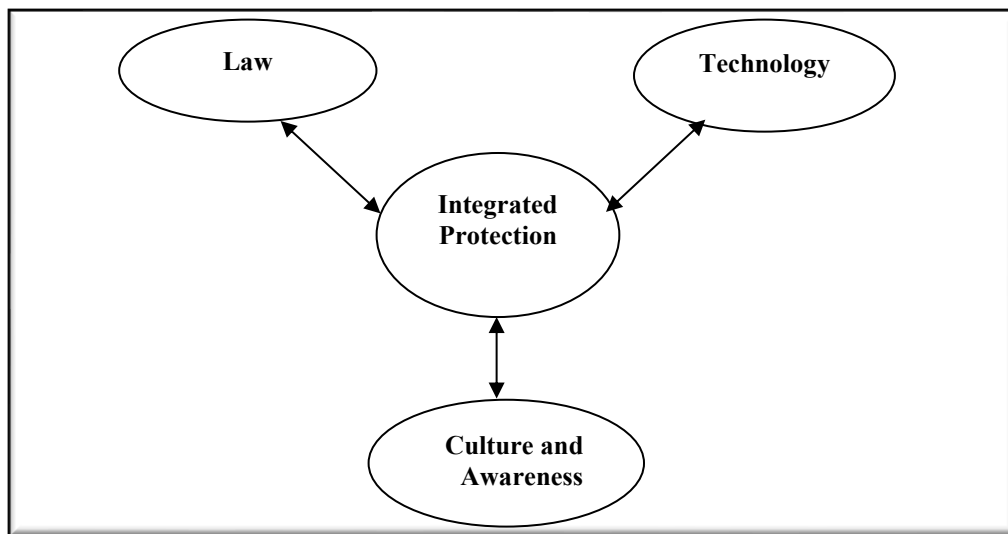


- Variations in administrative systems and methods, even within the same sports organisation or institution, make it extremely difficult to reach a consensus on a fully integrated electronic administration model within some sports organisations.
- The difficulty in software development arises from confusion in specifying the required software, its specifications, and operational requirements, which undermines the ability to address new experiences effectively and predict the success of the administration.
- The inability of some countries' infrastructures to meet the operational commitments of electronic administration relies on these infrastructures, which should ideally be part of national development projects.
- Weakness in Arabic language support technology, as certain information organisation technologies are not available or enabled for use with the Arabic language (Al-Hasan, 2011, p. 194).

### Risks to Data Privacy in Sports Organisations

With respect to the confidentiality of personal data in electronic transactions within sports organisations, maintaining data privacy is critical. The principal pillars of comprehensive information privacy protection in the digital environment are as follows:

- Technical Dimension:** This dimension involves supplying protective technical tools that enable users to interact with the digital environment with confidence and security.
- Legal Dimension:** This encompasses the provision of necessary legislation to regulate protection-related matters.
- Awareness dimension:** This dimension includes educating and raising the awareness of individuals about the risks facing data, as well as informing them of essential measures required to ensure data protection (Al-Salmi, 2008, p. 305).



*Fig. 3. Elements of Integrated Personal Data Protection in the Digital Environment.  
Source: (Al-Salmi, 2008, p. 306)*

## 10. Study Results

The study identified several key findings:

- The reliance of the Algerian sports administration on traditional management methods caused a delay in the smooth and effective implementation of electronic administration.
- The technical constraints included:
  - Weak infrastructure for implementing electronic administration in sports management.
  - Difficulty for managers of Algerian sports organisations in keeping pace with the rapid changes and developments in global information technology.
  - A security system to protect the database related to sports administration transactions is lacking.
- Human constraints consisted of the following:

○ Insufficient specialised training and development courses for human resources in Algerian sports organisations are needed to manage modern electronic technologies effectively and ensure the successful implementation of electronic administration.

○ There is no culture of change among those responsible for managing and administering Algerian sports organisations.

Shortage of qualified personnel specialising in maintaining electronic devices, equipment, and management software across various administrative levels within sports organisations.

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