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## *The Impact of Employing Artificial Intelligence Technologies on the Quality of Administrative Decisions of Sports Clubs Participating in the Elite Football League*

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### **ABSTRACT**

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The study aimed to identify the areas of use of artificial intelligence in sports management within the elite league clubs. Measuring the impact of the application of artificial intelligence technologies on the quality elements of administrative decisions such as accuracy, speed, and efficiency. Analyze the role of artificial intelligence in improving planning, organization, and control processes within sports clubs. The most prominent challenges facing the clubs in the adoption and application of artificial intelligence technologies were: **the human domain:** members of the administrative bodies of the sports clubs of the elite league in Iraq and **the temporal domain:** 7/3/2025 to 20/7/2025 and **the spatial field:** the headquarters of the sports clubs participating in the elite football league for the season 2023-2024. The current research population was identified from the members of the sports federations of the Iraqi football clubs for the 2023/2024 football season, representing (20) clubs and the The research population was identified from the members of the administrative bodies of the sports clubs of the Elite Football League in Iraq, and the number of members of the administrative bodies reached (166) with a percentage of (100%) distributed among the sports clubs of the Elite Football League and the participants in the league for the season 2023/2024, according to the available statistics. The researcher adopted a percentage of (100%) and the method of comprehensive inventory of the research sample, and (166) members of the administrative bodies of the sports clubs of the Elite Football League in Iraq, which are (20) clubs, were approved by the researcher recommended the development of infrastructure: Clubs should prioritize investing in a strong digital infrastructure, including fast and reliable networks, and advanced data storage systems. This structure is the basis that allows the effective application of artificial intelligence technologies. Empowering human resources: Management should provide continuous training and qualification programs for all employees, from managers to trainers, to increase their knowledge and skills in using and interpreting the outputs of smart tools. This investment in the human element ensures the maximum use of technology and the adoption of a culture of data-driven decision-making with data as the primary source: Management must establish a culture of reliance on factual data and data in all decision-making processes, whether they are related to the sports aspect (such as analyzing the performance of players) or the administrative aspect (such as financial planning).

### **1.1 Introduction and importance of the research:**

Over the past two decades, the world has witnessed an unprecedented knowledge and technology revolution, in which artificial intelligence has received a lot of attention and development. This field has become one of the most important drivers that push organizations towards innovation and achieving excellence, as it provides advanced capabilities in data processing, information analysis, and predicting future trends with high accuracy.

In recent years, the sports field has undergone a remarkable development in management and decision-making methods, as a result of the openness to modern technologies that have fundamentally transformed various sectors, foremost of which is artificial intelligence technologies. This field has become an effective tool in analyzing big data, predicting results, and monitoring indicators, which enhances the ability of organizations to plan and make accurate and effective decisions.

In the context of football, especially in clubs participating in the elite league, the scale of the challenges facing management requires the adoption of more efficient mechanisms in performance analysis, human and financial resource management, and strategic planning, areas where AI can add tangible value. For example, machine learning and data processing technologies can contribute to identifying strengths and weaknesses, and developing integrated strategies to improve managerial and technical performance.

Despite these potentials, the use of artificial intelligence in sports management, especially in elite football league clubs, raises questions about the extent to which it actually affects the quality of administrative decisions. This problem highlights the need for a scientific study that investigates this impact and identifies its dimensions, in a way that contributes to enriching academic knowledge and providing practical recommendations that help clubs make the best use of these technologies. The importance of the research lies in the fact that the research contributes to enriching scientific knowledge in the field of sports management by linking it to the latest technical developments represented in artificial intelligence. He adds to the Arab academic literature a specialized study that investigates the impact of artificial intelligence on the quality of administrative decisions in the context of the Elite Football League, a topic that is still limited in the Arab environment. It illustrates the relationship between modern technology and sports management practices, opening the way for more in-depth future studies. It works to provide the administrations of elite league clubs with scientific results that help them evaluate the feasibility of investing in artificial intelligence technologies to support their management decisions. Providing practical recommendations that can contribute to improving the quality of decisions, which enhances institutional performance and helps achieve the competitive goals of clubs. Helping decision-makers in sports institutions identify best practices for using AI effectively, and overcome the challenges that may face the implementation process.

### **2.1 Research Problem:**

Elite Football League clubs strive to achieve the highest levels of managerial and technical performance in order to compete effectively and sustain their success, but the contemporary sports work environment has become more complex and intertwined, with sports, financial, marketing, and fan factors intertwined. In light of this complexity, the quality of management decisions is a crucial element in determining the club's path towards success or failure.

Despite the advanced tools that AI technologies provide in analyzing data and formulating recommendations, the degree to which clubs benefit from them and their impact on the quality of their management decisions is still not sufficiently clear. Some clubs may adopt these technologies to a limited extent, while others may not have the infrastructure or knowledge to implement them effectively. Based on this, the research problem is to try to answer the following main question: **"What is the impact of the employment of artificial intelligence technologies on the quality of administrative decisions of sports clubs participating in the Elite Football League?"**

### **3.1 Research Objectives:**

1. Identify areas of use of AI in sports management within elite league clubs.
2. Measure the impact of the application of AI technologies on the quality elements of management decisions such as accuracy, speed, and efficiency.
3. Analyze the role of artificial intelligence in improving planning, organization, and control processes within sports clubs.
4. Explore the most prominent challenges facing clubs in adopting and applying artificial intelligence technologies.
5. Formulate practical recommendations that help clubs make the best use of AI technologies in raising the quality of administrative decisions.

### **4.1 Research Areas:**

1. **Human Field:** Members of the Administrative Bodies of the Sports Clubs of the Elite League in Iraq
2. **Temporal Domain :** 7/3/2025 until 20/7/2025
3. **Spatial Field :** The headquarters of the sports clubs participating in the Elite Football League for the 2023-2024 season.

### **2. Research methodology and field procedures:**

#### **2-1 Research Methodology:**

The researcher used the descriptive method with the survey method and correlational relationships in order to solve the problem of the current research and in line with the objectives of the research <sup>1</sup>.

#### **2.2 Research Population and Sample:**

The current research population was identified from the members of the sports federations of the Iraqi football clubs for the football season 2023/2024, representing (20) clubs, and the research population was identified from the members of the administrative bodies of the sports clubs of the Elite Football League in Iraq, and the number of members of the administrative bodies reached (166) with a percentage of (100%) distributed among the sports clubs of the Elite Football League and the participants in the league for the 2023/2024 season, according to the available statistics. The researcher approved a percentage of (100%) and the method of comprehensive inventory of the research sample, and (166) members of the administrative

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1. Majid Muhammad Al-Khayyat: **Fundamentals of Measurement and Evaluation in Education,** Amman, Dar Al-Raya for Publishing and Distribution, 2009, p. 36.

bodies of the sports clubs of the Elite Football League in Iraq, which are (20) clubs, were approved as shown in Table (1)

**Table (1)**  
**Shows the research population, sample, survey sample, construction, application, and percentage**

Sample Application	Reconnaissance	Research Sample	Research Community	Clubs	t
9	0	9	9	Air Force	1
9	0	9	9	The police	2
9	0	9	9	Zakho	3
8	0	8	8	Duhok	4
5	0	5	5	Students	5
10	10	10	10	Nowruz	6
9	0	9	9	Al , Zawraa	7
7	0	7	7	Border	8
9	0	9	9	Oil	9
9	0	9	9	Missan Oil	10
7	0	7	7	Najaf	11
8	0	8	8	Port	12
7	0	7	7	Erbil	13
10	0	10	10	Electricity	14
10	0	10	10	Karbala	15
10	0	10	10	Basra Oil	16
6	0	6	6	Karkh	17
8	0	8	8	Al-Qasim	18
9	0	9	9	Baghdad Municipality	19
7	0	7	7	Al , Wasat Oil	20
156	10	166	166	Total	
94%	6.02%	100%	100%	Percentage	
100%					

### **3.2 Research Tool:**

The researcher identified the study criteria through previous studies that dealt with the scales of (employing artificial intelligence technologies and the quality of administrative decisions), where (3) areas were identified for the scale (employing artificial intelligence technologies) and (4) areas (the quality of administrative decisions), where the researcher prepared statements that fit those scales, where the first scale consisted of

(9) phrases) and the second scale consists of (8) phrases, where the researcher presented those dimensions with their phrases to a group of experts in the field of sports management, the exact specialization of the researcher, and the number of them reached (5) experts, and they expressed their opinion on the validity of those dimensions and their suitability for the set phrases, where it was shown through the use of (K2 box) that all dimensions and phrases are appropriate and highly credible in dealing correctly with the problem and objectives of the current research, and as in Table (2) it shows the number of fields and phrases that You belong to it.

Metric for Employing AI Technologies		
Phrases	Dimensions	t
1. The availability of the digital infrastructure necessary to implement AI technologies in the club. 2. Systems and databases are ready to accommodate advanced analytics. 3. Fast and efficient processing of information through smart tools.	Supporting Technology Architecture	1
1. The level of knowledge and experience of the employees with smart tools and applications. 2. The degree of employees' acceptance of the use of artificial intelligence technologies in administrative work. 3. The ability of cadres to interpret the outputs of smart systems and make decisions based on them.	Human Resource Efficiency in Dealing with Artificial Intelligence	2
1. Use predictive models to predict the performance of a team or players. 2. Rely on real-time analytics to support quick decisions. 3. Employing AI-based decision support systems in strategic planning.	Methods of employing AI in decision-making	3
Measure of the Quality of Administrative Decisions		
Phrases	Dimensions	t
1. The correctness of the decisions compared to the actual data. 2. Decisions are consistent with the club's goals and policies.	Accuracy	1
1. Decision time from the moment the data is available until it is adopted. 2. The Department's ability to respond quickly to developments on the ground.	Speed	2
1. Decision ability to adapt to changing circumstances. 2. The management is ready to modify decisions based on new information.	Flexibility	3
1. Achieving the desired results at the level of sports and administrative performance. 2. Contribute to the improvement of the club's ranking or financial performance.	Effectiveness	4

The researcher applied the two scales to a survey sample and from outside the application sample, which amounted to (10) members and a percentage of (6.02%) to identify the difficulty of the two scales and the extent of clarity and difficulty of the phrases, and this is done by answering the answer key for the five-point Likert alternatives (very large, to a large degree, to a moderate degree, to a low degree, to a very low degree), where the answer key was (1.2.3.4.5). Then the researcher extracted the scientific foundations of the two scales by identifying the honesty and consistency of the two scales, and the apparent honesty of the two scales was achieved by presenting the dimensions and phrases to the experts and expressing their approval of all of them without modification, as well as through the value obtained from the value of ( $K^2$  square), which was all the calculated values higher than the tabularity, and thus it was obtained that the scale was true as it was designed for. Then, the researcher extracted the stability value of the two scales through Cronbach's alpha equation, through which the stability of the scale was obtained by (0.890), which is a high and reliable stability percentage.

#### **4.2 Application of the Scale:**

The two scales were applied to the sample of the application, which numbered (166) members of the administrative staff, with a percentage of (94%), by sending the questionnaires in the form of a link and through (Google Drive), and (100) valid forms were obtained for statistical analysis on 20-7-2025.

#### **5.2 Statistical Methods:**

The researcher used the SPSS statistical bag to process the data.

3. Presenting and discussing the results of the two scales.

1.3 Presentation and discussion of the results of the (Employing AI Technologies) scale:

Table (3)

Shows the arithmetic mean and standard and hypothetical deviation of the dimensions of the AI Employability Scale

Value (v)		The hypothetical medium	Standard deviation	Arithmetic mean	Variables
Sig	Calculated				
0.000	3.986	9	1,680	10,436	Supporting Technology Architecture
0.000	3.670	9	2,609	9,809	Human Resource Efficiency in Dealing with Artificial Intelligence
0.000	3,466	9	1,609	10.558	Methods of employing AI in decision-making

The integration of AI into professional football clubs represents a comprehensive strategic shift, not limited to one aspect, but extends to the infrastructure, the human element, and the actual employment of technologies. This transformation begins with the solid foundation of digital infrastructure. In order for clubs to be able to implement AI technologies effectively, they must have strong and reliable internet networks, massive cloud or internal storage systems, as well as highly capable data-processing computers. This infrastructure is the nerve that connects all



processes, and enables systems to collect and analyze data from multiple sources such as player trackers, on-field surveillance cameras, and even physiological performance data<sup>2</sup>.

On the readiness side of systems and databases, data is the fuel that drives AI. Club databases must be designed to accommodate vast amounts of structured and unstructured data. This includes historical player data, such as their stats, injury records, and performance in training, as well as data on competitors, and fan behaviors. When this data is standardized and structured, AI can perform advanced analytics quickly and efficiently, reducing the time needed to obtain Valuable insights. The speed and efficiency of information processing is the third element in this equation, as the ability to analyze data in real-time gives a decisive competitive advantage, whether it is in making tactical decisions during a match, or in adjusting training programs in real time.

The human element cannot be overlooked, it is the primary driver of any digital transformation process. The success of integrating AI requires the presence of administrative and technical staff that possesses a high level of knowledge and experience with smart tools and applications. Trainers, analysts, and managers must understand how to use these technologies not only as aids, but as partners in the decision-making process. This requires ongoing training programs and skills development. The degree to which employees accept these technologies is a crucial indicator, as resistance to change can hinder the best plans. That's why it's important to build an organizational culture that encourages experimentation and innovation, and shows employees how AI can make their work easier and more effective. Finally, staff must have the ability to interpret the outputs of intelligent systems. Data alone is not enough; there must be people who can understand this data and turn it into concrete strategies and action plans, whether it is to improve a player's performance or to modify the team's tactical plan<sup>3</sup>.

Then comes the actual use of these technologies. Clubs can use predictive models to predict the performance of potential players before signing them, or to identify players who are most at risk of injury based on their physical data. This helps in making better and safer investment decisions. Real-time analytics has also become an indispensable tool for coaches, as they can get real-time data on players' performance during the match, enabling them to make tactical changes or substitutions at the right moment. In addition, AI-based decision support systems are used in long-term strategic planning, such as analyzing the transfer market to identify the best opportunities, or improving the management of a club's finances. It is these integrated applications of AI that put professional clubs on the path to success and sustainability.

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- 1) Al-Masri, Othman, The Role of Artificial Intelligence Technologies in Improving the Quality of Services Provided to University Students of Jordan from Their Perspective. Journal of the Faculty of Education (Assiut), 38(9.2), 265–290, 2022.
  - 2) Drar, Khadija Mohammed. Ethics of Artificial Intelligence and Robotics: An Analytical Study. International Journal of Library and Information Science, 6(3), 237–271, 2019.

### **2.3 Presentation and discussion of the results of the (Quality of Administrative Decision) scale:**

Table (4)

Shows the arithmetic mean and the standard and hypothetical deviation of the dimensions of the Administrative Decision Quality Scale

Value (v)		The hypothetical medium	Standard deviation	Arithmetic mean	Variables
Sig	Calculated				
0.000	4,765	6	1,589	7.984	Accuracy
0.000	3,875	6	1.705	6.972	Speed
0.000	4,983	6	2.554	6,554	Flexibility
0.000	3,554	6	2,799	7.886	Effectiveness

The researcher believes that the governing bodies of professional football clubs face complex challenges in decision-making, and this process requires a careful evaluation based on a set of key criteria that ensure the effectiveness and sustainability of decisions. These criteria can be summarized in four main axes: decision quality, speed, flexibility, and results. The quality of the decision is the first criterion for evaluating the efficiency of management. The accuracy of the decisions compared to the actual data is at the heart of this quality. Management must use all available data, whether it is statistics on the performance of players, medical reports, or accurate financial analysis, to make informed decisions. A decision that is not based on correct and in-depth information often leads to negative results.<sup>4</sup> For example, the decision to sign a player without a full analysis of his injury record or technical abilities may cost the club huge sums of money without achieving the desired benefit. In addition, the decisions must be aligned with the club's goals and policies.<sup>5</sup> Every step taken by management, whether administrative or sporting, must serve the overall vision of the club, whether that vision is to win titles, build a young team, or achieve financial stability. Speed is a vital element in a dynamic football environment. The time it takes to make a decision from the moment the data is available to the moment it is adopted is an important measure of management efficiency. In the transfer market, delay in making a decision about a particular player can result in him losing to a rival club.<sup>6</sup> There must be clear and fast mechanisms for collecting, analyzing, and making decisions based on data. This requires a flexible management structure that allows for immediate response to variables. The ability of management to respond quickly to developments on the ground is also critical. In

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- 1) Al-Otaibi, Abdulrahman Bajad Shara. The Role of Cybersecurity in Achieving Vision 2030 (Master's Thesis, 2020), Naif Arab University for Security Sciences..
  - 2) Mukhtar, Mohammed. Cyber Security Future Concepts, Journal of Event Trends, (2), 6–7, 2023.
  - 3) Al-Sharari, Jamal, The Impact of Artificial Intelligence on the Quality of Administrative Decision from the Perspective of Secondary School Leaders in Al-Jouf Educational Zone. Behavior, 7(1), 14–37, 2021.



emergency situations, such as the injury of a key player<sup>7</sup>, management must be able to quickly find alternative solutions, whether it is by hiring a new player or adjusting the team's plans. It is not enough for a decision to be right and fast, it must be able to adapt to changing circumstances. The ability of a decision to adapt to changing circumstances means that the decision is not static, but can be adjusted to suit the situation. In football, circumstances can change quickly, whether it's a player's injury, a change in the regulations of the association, or even a change in the economic climate. Decisions must be adjustable. For example, a strategic plan for an entire season may be developed, but when new factors emerge, management must be prepared to modify decisions based on new information. This flexibility ensures that the club is not at a dead end, but can continuously correct its course to ensure that its goals are achieved<sup>8</sup>. Ultimately, the effectiveness of decisions is measured by the results they achieve. Decisions achieving the desired results at the level of athletic and managerial performance is the ultimate indicator of management success. Did the decision to hire a coach improve the team's performance? Did the financial decisions contribute to strengthening the budget? This is the essence of evaluation. In addition, contributing to the improvement of the club's ranking or financial performance is a tangible criterion for evaluating decisions. If the decisions lead to positive results on the pitch, such as winning trophies, qualifying for continental competitions, or leading to an improvement in the club's financial performance, this reflects high efficiency in the decision-making process. It is the direct link between decisions made and the final results that highlights the true value of management<sup>9</sup>.

#### **4. Conclusions and Recommendations:**

##### **1.4 Conclusions:**

1. Statements related to decisions show that effective decision is an integrated process that is not limited to a single step. The quality of a decision starts from how correct it is compared to the realistic data.
2. The importance of speed in decision-making is highlighted, as the time of decision making and the ability of the management to respond quickly to field developments are critical indicators of the efficiency of the administrative body.
3. Flexibility is an imperative necessity. The ability of the decision to adapt to changing circumstances and the willingness of management to adjust decisions based on new information shows that planning is not a static process.
4. AI-related phrases show that adopting these technologies requires a strategic investment in infrastructure and the human element. The availability of digital infrastructure and the readiness of systems and databases.

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( Salam Hantosh Rashed; Administrative possibilities of academic institutions and their correlation with sports tendencies of students and attitudes towards practicing sports. Journal of Global Pharma Technology . Volume 10 Issue

- 1) Amin, Essam, The Effect of the Auditor's Adoption of a Hybrid Model of Artificial Intelligence Tools on Improving the Quality of His Judgment on Continuity: An Applied Study on Companies Listed on the Egyptian Stock Exchange. Alexandria Journal of Accounting Research, 7(1), 601–659, 2023.
- 2) salaM HANTOUSH RASHEED: Supervisory management quality effectiveness of sports and scholastic activities supervisors from the sports activities teachers' viewpoint, Supplementary Issue: Spring Conferences of Sports Science. Costa Blanca Sports Science Events, 21-22 June 2021. Alicante, Spain

5. It is concluded that digital transformation requires a transformation in the organizational culture, as the level of knowledge and experience of employees, the degree of employees' acceptance of the use of artificial intelligence, and the ability of cadres to interpret the outputs of smart systems are critical factors for the success of any technology application.

6. It concludes that AI serves three main axes: forecasting, real-time analysis, and strategic planning. The use of predictive models enables clubs to anticipate performance and make proactive decisions.

#### **2.4 Recommendations:**

1. Infrastructure development: Clubs should prioritize investing in robust digital infrastructure, including fast and reliable networks, and advanced data storage systems. This architecture is the foundation that allows for the effective application of AI technologies.

2. Empowering human resources: The department should provide continuous training and qualification programs for all employees, from managers to trainers, to increase their knowledge and skills in using and interpreting the outputs of smart tools. This investment in the human element ensures the maximum use of technology.

3. Adopt a culture of data-driven decision-making Relying on data as a primary source: Management must establish a culture of relying on factual data and data in all decision-making processes, whether it is related to the sports aspect (such as analyzing the performance of players) or the administrative aspect (such as financial planning).

4. Enhance speed and flexibility in management Rapid decision-making mechanisms: It is preferable to establish flexible management structures that allow for quick and efficient decision-making, especially in emergency circumstances or in highly competitive environments such as the transfer market.

5. Flexibility of plans: Plans and decisions should be designed to be adaptable and adaptable. Management should be prepared to change its decisions based on the new information provided by intelligent analysis systems, ensuring continuity of development and improvement.

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1. Al-Masri, Othman, The Role of Artificial Intelligence Technologies in Improving the Quality of Services Provided to Students at the University of Jordan from Their Perspective. *Journal of the Faculty of Education (Assiut)*, 38(9.2), 265-290, 2022.
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7. Salam Hantosh Rashed; Administrative possibilities of academic institutions and their correlation with sports tendencies of students and attitudes towards practicing sports. *Journal of Global Pharma Technology* . Volume 10 Issue

8. SALAM HANTOUSH RASHEED: Supervisory management quality effectiveness of sports and scholastic activities supervisors from the sports activities teachers' viewpoint, Supplementary Issue: Spring Conferences of Sports Science. Costa Blanca Sports Science Events, 21-22 June 2021. Alicante, Spain