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AN APPLIED STUDY OF INDUSTRIAL COMPANIES LISTED ON THE IRAQ STOCK EXCHANGE

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Abstract:
The research aimed to estimate the role that artificial intelligence technologies can play in improving the performance of economic development plans for a sample of industrial companies listed on the Iraq Stock Exchange. Artificial intelligence has become one of the most important tools supporting the economic decision making process, due to its advanced capabilities in analyzing big data, predicting future trends, and monitoring potential risks in complex and changing business environments. The research relies on a descriptive-analytical approach based on financial and administrative data from a number of listed Iraqi industrial companies, employing some applied AI models in areas such as resource management, improving operational efficiency, and strategic planning.
The results showed that integrating artificial intelligence into economic planning and development processes contributes to enhancing the competitiveness of industrial companies, supporting their ability to cope with market fluctuations, and providing a more stable investment environment. The research also demonstrated that adopting these technologies is not limited to increasing profits alone, but also includes improving the quality of administrative decisions and developing sustainable growth strategies in line with the requirements of the next phase of economic development in Iraq.

Keywords: Artificial intelligence, economic development, industrial companies, Iraq Stock Exchange, strategic planning, operational efficiency.

INTRODUCTION

Developing and developed countries alike are seeking to adopt modern methods in managing and implementing economic development plans, given their direct impact on achieving sustainable growth and enhancing competitiveness. The acceleration of technological developments over the past two decades, artificial intelligence has emerged as one of the most important strategic tools that can contribute to a qualitative shift in various sectors, particularly the industrial sector, which is a fundamental pillar of countries' economies. In Iraq, the industrial sector represents a fundamental component of the national economy. However, it faces multiple challenges related to weak infrastructure, the absence of advanced technology, and the absence of clear strategies for sustainable economic development. Hence, the need to employ artificial intelligence technologies as a strategic option to help improve performance efficiency, enhance the quality of administrative decisions, and enhance the ability to utilize available resources effectively.
Studying the impact of artificial intelligence on the performance of economic development plans in industrial companies listed on the Iraqi stock exchange represents an important step toward understanding how to leverage modern technological tools in a complex and challenging economic environment. These companies, as part of the financial market, require the adoption of advanced mechanisms that ensure their stability, increase their investment attractiveness, and contribute to supporting economic trends. Accordingly, this research seeks to shed light on the pivotal role of artificial intelligence in developing and modernizing economic development plans. This research analyzes the experiences of a sample of Iraqi industrial companies and demonstrates how these technologies can contribute to raising operational efficiency, improving the ability to predict economic variables, and enhancing sustainable growth strategies.

Section One: The Methodological of Research

Research Problem
Despite the growing importance of the industrial sector in Iraq, many industrial companies listed on the Iraq Stock Exchange still suffer from administrative and operational challenges, including weak economic development strategies, deficient planning mechanisms, and difficulty adapting to rapid changes in global markets. The tremendous development

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in the field of artificial intelligence, it has become necessary to study the extent to which these modern technologies can be employed to improve the efficiency of these companies' economic development plans. From here, the research problem arises in the main question: What is the role of artificial intelligence in improving the performance of economic development plans for a sample of industrial companies listed on the Iraqi Stock Exchange?
Several sub-questions branch out from this question:
1. What is the level of use of artificial intelligence technologies in Iraqi industrial companies listed on the Iraqi Stock Exchange and Financial Market?
2. What is the impact of artificial intelligence on improving the efficiency of planning and implementing economic development plans in these companies?
3. How can artificial intelligence contribute to enhancing the competitiveness and sustainability of these companies?

The Importance of Research

The research adds cognitive value by linking artificial intelligence technologies to economic development in the Iraqi industrial environment, a field that has not received sufficient study locally. Practical importance: The research provides a practical framework that industrial companies can benefit from when employing artificial intelligence technologies to improve their economic plans and increase operational efficiency. The research contributes to supporting the Iraqi economy's diversification and reducing dependence on oil by developing the capabilities of industrial sectors. Future importance: It opens up horizons for the application of artificial intelligence in other fields, such as marketing, risk management, and big data analysis within Iraqi companies.

Research Objectives

The research aims to identify the level of adoption of artificial intelligence technologies by Iraqi industrial companies listed on the Iraq Stock Exchange. It analyzes the impact of artificial intelligence on improving the efficiency and performance of economic development plans within these companies. It highlights the relationship between the use of artificial intelligence and enhancing competitiveness and sustainability in the industrial sector. It also provides a set of practical recommendations that help administrative leaders in these companies make optimal use of artificial intelligence technologies to support economic development.

Previous Studies

Abdul Sahib (2025) entitled "Artificial Intelligence and Its Impact on Sustainable Development from an Industrial Perspective" was conducted by the researcher. The study was published in the Iraqi Journal of Economic Sciences at Al-Mustansiriya University. The study aimed to demonstrate the impact of artificial intelligence technologies in supporting sustainable development goals in the Iraqi industrial sector. The researcher adopted a descriptive and analytical approach. Relying on the opinions of (50) experts from industrial institutions and research centers, the study concluded that artificial intelligence contributes to enhancing operational efficiency, reducing emissions, and improving resource management. However, there are major challenges, including weak digital infrastructure and a lack of qualified personnel. The study recommended the need to develop national policies that support industrial digital transformation.
Yasser (2024) presented a study titled "The Role of Artificial Intelligence in Reducing Space and Information Costs and Improving Production Efficiency: A Field Study of the Iraq General Contracting Company," published in the Tikrit Journal of Administrative and Economic Sciences. The study aimed to demonstrate the role of artificial intelligence applications in reducing costs and improving operational efficiency in an Iraqi industrial environment. The study relied on a field approach through a case study of the Iraq General Contracting Company. The results showed that the use of enterprise resource planning (ERP) systems, sensors, and tracking technologies significantly contributed to reducing space and information costs, increasing data accuracy, and improving the production cycle. The researcher recommended the need to generalize these applications across various Iraqi industrial companies to achieve higher levels of efficiency and productivity.
Zeng and Sun (2025) conducted a study titled "Artificial Intelligence, Domain AI Readiness, and Firm Productivity" published on the arXiv platform. The study aimed to examine the relationship between firms' capabilities in employing artificial intelligence (AI) and their level of industrial readiness (Domain AI Readiness) and its impact on firm productivity. The study relied on field data covering listed Chinese industrial companies during the period (2016–2022). The results showed that AI significantly enhances productivity and innovation, but this effect depends largely on the readiness of the surrounding infrastructure and industrial environment. The study recommended aligning firms' capabilities with their level of industrial readiness to achieve the best results.
A review of these studies reveals that artificial intelligence (AI) represents an effective tool in supporting economic and industrial development plans, whether by improving operational efficiency and reducing costs, as in the two Arab studies, or by enhancing productivity and innovation, as in the foreign study. However, all studies emphasized the presence of obstacles related to weak infrastructure and a lack of human resources, making the success of AI implementation contingent on the readiness of the regulatory and technical environment.

Research Methodology

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Research Type
The research relied on the descriptive analytical approach as it is the most appropriate for studying modern administrative and economic phenomena such as artificial intelligence, and analyzing their impact on economic development plans within the industrial companies' environment.

Research Population and Sample
• Research Population: Consists of industrial companies listed on the Iraqi Stock Exchange.
• Research Sample: A purposive sample was selected from (a specific number) of these companies, focusing on administrative leaders (general managers, department managers, IT managers, strategic planning officials).
• Sample Size: 100 based on the number of returned and analyzable questionnaires.

Data Collection Tools
• Questionnaire: A primary tool designed to measure the level of use of AI technologies and their impact on improving economic development plans (efficiency, productivity, forecasting, and cost reduction).
• Semi-structured interviews: With a sample of senior leaders to elicit in-depth opinions on challenges and opportunities.
• Secondary Sources: A review of previous studies, economic reports, and databases of the Iraq Stock Exchange.
Statistical Analysis
• Descriptive analysis (arithmetic means, standard deviations) was used to demonstrate sample trends.
• Correlation and simple and multiple regression tests were used to measure the relationship between AI and the performance of economic development plans.
• Reliance on the statistical program SPSS to test hypotheses.

Research Limits
• Spatial Limits: Industrial companies listed on the Iraqi Stock Exchange.
• Temporal Limits: Fiscal year (2024–2025).
• Thematic Limits: The research focuses on the role of AI in improving economic development plans only, without expanding into other applications such as marketing or customer service.

Section Two: Theoretical Framework of the Research
First Requirement: Artificial Intelligence (AI)
Artificial Intelligence is defined as the technology that enables machines to simulate human intelligence to perform tasks, with the ability to improve them based on the information they collect (Oracle, 2025). AI refers to the technology that enables computers and machines to simulate human learning, understanding, problem-solving, decision-making, creativity, and autonomy (IBM, 2025). Finally, AI is the technology that enables machines to exhibit human-like logic and capabilities, such as independent decision-making (SAP, 2025).

Dimensions of Artificial Intelligence
Cognitive Dimension
This dimension relates to the "mental" or "cognitive" aspect of AI, focusing on:
• Information processing: converting raw data into usable knowledge.
• Pattern recognition: such as recognizing images, sounds, and languages.
• Decision-making: Analyzing probabilities and selecting the optimal solution.
• Adaptive learning: Updating models and algorithms based on new experiences.
Lee (2025) explains that the cognitive dimension reflects AI's ability to think like humans, using techniques such as deep neural networks and expert systems.

2. Functional Dimension
This dimension focuses on the practical applications of AI and how it is used in the real world. The most prominent examples include:
• Computer Vision: Enabling machines to "see" and understand images and video.
• Natural Language Processing (NLP): Analyzing text and human speech to generate intelligent responses.
• Machine Learning: Automatically improving performance through the analysis of big data.
• Intelligent Robotics: Applying AI in fields such as manufacturing, transportation, and healthcare.
Lee (2025) believes that this dimension demonstrates the practical value of AI in supporting decisions and improving the efficiency of corporate operations.

3. Ethical and Social Dimension
This dimension concerns the ethical and social implications of using AI.
• Privacy: Protecting individual data amidst the collection of massive amounts of information.
• Bias: Reducing algorithmic bias that could lead to discrimination against certain groups.
• Safety: Ensuring that AI systems are safe and reliable.
• Impact on society: The impact of AI on the labor market, values, and human culture.

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UNESCO (2025) has noted that AI development cannot be separated from the principles of human rights and sustainable development.

4. Strategic and Political Dimension

• This dimension relates to AI as a geopolitical and strategic force, as it has become a pivotal factor in shaping the balance of power between nations.
• International competition: The race between the United States, China, and the European Union for dominance in AI technologies.
• National security: The use of AI in defense, surveillance, and intelligence.
• Global economy: AI as a driver of global economic growth and market competitiveness.
• Governance and policy: The need for international legislation (such as the EU AI Act) to regulate and guide the responsible use of AI (European Commission, 2024).

Second Requirement: Economic Development Plans

Economic development plans are pre-planned national strategies aimed at bringing about structural changes in the economy by directing resources and investments toward productive and service sectors, thus promoting long-term economic growth and sustainable development (Todaro and Smith 2020). The United Nations Economic Development Organization (UN, 2021) defines economic development plans as a set of interconnected programs and policies adopted by governments to achieve a balance between economic growth, social justice, and environmental protection, within the framework of the Sustainable Development Goals. Finally, the World Bank (World Bank, 2019) defines economic development plans as political and economic tools used to direct public and private investments to raise the efficiency of productive sectors, improve infrastructure, and increase employment opportunities, thus contributing to poverty reduction and achieving comprehensive development.

Types of Economic Development Plans:

1. Short-term plans: These typically cover a period of one to three years and focus on addressing specific problems, such as improving productivity or resolving specific crises (Todaro and Smith 2020).
2. Medium-term plans: These typically span three to seven years and aim to develop strategic economic sectors, enhance infrastructure, and achieve partially sustainable growth (World Bank, 2019).
3. Long-term plans: These span more than 10 years and include comprehensive national development strategies aimed at achieving structural transformation of the economy, diversifying sources of income, and achieving sustainable development at the national level. (UN, 2021)

Functions of Economic Development Plans

1. Directing Economic Policies (Todaro and Smith 2020)

Development plans define the country's economic priorities and direct financial and human resources toward strategic sectors, such as industry, agriculture, and services, to achieve maximum economic benefit.

2. Promoting Economic Growth (World Bank, 2019)

The plans seek to increase national productivity, raise GDP, and stimulate domestic and foreign investment, leading to sustainable long-term growth.

3. Reducing Poverty and Achieving Social Justice (Sen, 1999)

The plans aim to distribute development benefits fairly, create job opportunities, and narrow the gap between urban and rural areas and between different social classes.

4. Diversifying the Economy and Increasing Resilience (UN, 2021)

Development plans help reduce dependence on a single sector (such as oil or agriculture) and increase the economy's resilience to global economic crises.

5. Protecting the Environment and Ensuring Sustainability (UNDP, 2015)

Modern plans integrate environmental dimensions to ensure the sustainability of natural resources and environmental conservation, in line with the Sustainable Development Goals (SDGs).

The Importance of Economic Development Plans

1. Effectively allocating resources

Plans help determine investment priorities and utilize available economic resources in a way that achieves the greatest possible return for the state and society. (Mawdoo3, 2022)

2. Achieving sustainable economic growth:

By setting short, medium, and long-term goals, plans contribute to increasing productivity, strengthening various economic sectors, and sustainably raising GDP (NDF, 2021).

3. Creating job opportunities and reducing unemployment:

Directing investments to vital sectors and emerging industries leads to the creation of new job opportunities, which reduces unemployment rates and enhances social stability (Almerja, 2020).

4. Improving infrastructure and services:

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Economic plans identify development projects in the areas of roads, electricity, water, health, and education, which improve citizens' quality of life and enhance productivity (EconomTrek, 2022).

5. Addressing Economic Challenges:

Plans help address economic crises such as inflation, budget deficits, or declining prices of essential resources through well-thought-out and specific strategies (SIS Egypt, 2021).

Section Three: The Practical Framework for Research

Correlation Analysis Between Research Variables

Correlation analysis helps understand the relationship between the variables in a study and provides a wealth of useful information. Correlation analysis can reveal whether or not there is a relationship between the variables, as well as the strength and direction of this relationship. Correlation analysis can reveal whether there is a positive relationship (when the value of one variable increases, the value of the other increases), a negative relationship (when the value of one variable increases, the value of the other decreases), or a zero relationship (when there is no relationship between the two variables).

Correlation analysis can also provide a value for the correlation coefficient (Pearson's coefficient), which measures the strength and direction of the relationship between the two variables. Its values range between -1 and +1. A value of -1 indicates a perfect inverse relationship, while a value of +1 indicates a perfect positive relationship. The following table illustrates this (Abdel Fattah, 2008).

First: The main (first) hypothesis

Which: "There is no significant correlation between artificial intelligence and economic development plans."

Table (1) shows the results of the correlation coefficient values between artificial intelligence and economic development plans. It recorded a strong value of (0.951**), with the extracted (Z) value reaching (13.323), which is greater than the standard (Z) value of (1.96) at a significance level of (0.000). Therefore, we accept the alternative hypothesis, which states that there is a significant correlation between artificial intelligence and economic development plans. Based on these results, the more reliance on artificial intelligence, the more the performance of economic development plans will be improved.

1. First Sub-Hypothesis

(There is no significant correlation between the knowledge dimension and economic development plans). Table (1) shows the results of the correlation coefficient values between the knowledge dimension and economic development plans. It recorded a strong value of (0.845**), as the extracted Z value reached (9.279), which is greater than the standard Z value of (1.96) at a significance level of (0.000). Therefore, we accept the alternative hypothesis, which states that there is a significant correlation between the knowledge dimension and economic development plans. It can be understood that attention to developing and enhancing knowledge is vital to improving economic development plans.

2. Second Sub-Hypothesis

(There is no significant correlation between the functional dimension and economic development plans). Table (1) shows the results of the correlation coefficient values between the functional dimension and economic development plans. It recorded a strong value of (0.681**), as the extracted Z value reached (0.681**). (8.151), which is greater than the standard Z-value of (1.96) at the significance level of (0.000). Therefore, we accept the alternative hypothesis, which states that there is a correlation between the functional dimension and economic development plans.

3. Sub-hypothesis Three

(There is no significant correlation between the ethical and social dimension and economic development plans). Table (1) shows the results of the correlation coefficient values between the ethical and social dimension and economic development plans. It recorded a strong value of (0.753**), as the extracted Z-value reached (11.965), which is greater than the standard Z-value of (1.96) at the significance level of (0.000). Therefore, we accept the alternative hypothesis, which states that there is a correlation between the ethical and social dimension and economic development plans.

4. Sub-hypothesis Four

(There is no significant correlation between the strategic dimension and economic development plans). Table (1) shows the results of the correlation coefficient values. The correlation between the strategic dimension and economic development plans. It recorded a value of (0.778**) at an average level, with the extracted (Z) value reaching (8.590), which is greater than the standard (Z) value of (1.96) at the significance level of (0.000). Therefore, we accept the alternative hypothesis, which states that there is a correlation between the strategic dimension and economic development plans.

Table (1) Correlation values between the dimensions of artificial intelligence and economic development plans

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Dependent variable	Dimensions of the AI variable	Correlation and significance values		Z calculated	Interpreting the results
Economic development plans	Cognitive	R	0.845**	9.279	Evidence of a strong, direct relationship between the dimensions of the artificial intelligence variable and economic development plans.
		Sig	0.000		
	Functional	R	0.681**	8.151	
		Sig	0.000		
	Ethical and Social	R	0.753**	11.965	
		Sig	0.000		
	Strategic	R	0.778**	8.590	
		Sig	0.000		
	Artificial Intelligence	R	0.850**	11.323	
		Sig	0.000		
Number of accepted null hypotheses				0	
Number of accepted alternative hypotheses				5	
Percentage				100%	
Z-tab = 1.96					
** Correlation at 0.01 significance level					
Sample size = 100					

Source: Prepared by the researcher based on SPSS V.28 outputs.

Test and Analyze the Effect Between Study Variables

This stage of the analysis aims to test the hypothesis specified in the research, which suggests that there is no statistically significant effect of artificial intelligence dimensions on economic development plans. This will be done by applying simple linear regression analysis to estimate the relationship between the artificial intelligence variable and the dimensions of the economic development plans variable, given by the following formula:

$Y = \alpha + \beta 1X1 + Ui.$

The estimated equation for simple linear regression can be expressed as follows:

$Y\hat{} = \alpha + \beta 1X1.$

Where:

α represents the constant value.
β1 represents the marginal slope of the variable.
X1 represents the independent dimension.
Y represents the dependent variable.
Ui represents the error rate.

Hypothesis (Second Main)

There is no significant effect of artificial intelligence on improving the performance of economic development plans. Improving the performance of economic development plans = 0.128 + 0.951 (artificial intelligence). Table (2) shows the results of the analysis of the effect between artificial intelligence and improving the performance of economic development plans. The extracted F value reached (125.175). In light of the result, we reject the alternative hypothesis, which indicates a significant effect between artificial intelligence and improving the performance of economic development plans.

This means that there is a significant statistical effect between these two variables. On the other hand, the extracted t value, which reached (10.883), indicates that the effect of the parameter (β) is a real effect, as increasing the effect by one unit will lead to a 95% increase in the performance of economic development plans. It demonstrates that artificial intelligence has a significant impact on the performance of economic development plans. It is also noted from the result that the artificial intelligence variable is capable of explaining up to 94% of the changes in the performance of economic development plans, which means that It has a significant and significant impact on the performance of economic development plans.

1. Hypothesis (first sub-hypothesis)

There is no significant impact of the cognitive dimension on improving the performance of economic development plans. Improving the performance of economic development plans = 1.532 + 0.772 (cognitive). Table (2) shows the results of the impact analysis between the cognitive dimension and improving the performance of economic development plans.

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The extracted F value reached (101.859). In light of the result, we reject the alternative hypothesis, which indicates a significant impact between the cognitive dimension and improving the performance of economic development plans. This indicates the great importance of this factor in improving the performance of economic development plans. Based on these results, managers and decision-makers can be confident that enhancing the cognitive dimension among employees will lead to improved performance of economic development plans. On the other hand, the extracted t value, which reached (9.689), indicates that the effect of the parameter (β) is real. Increasing the effect by one unit will lead to further improvement in the performance of economic development plans. By (77%), this means that the cognitive dimension has a significant impact on improving the performance of economic development plans. It is noted that the cognitive dimension is capable of explaining a percentage of changes of up to (64%) in improving the performance of economic development plans.

2. Hypothesis (Second Sub-Hypothesis)

(There is no significant impact of the functional dimension on improving the performance of economic development plans). Improving the performance of economic development plans = 0.852 + 0.804 (functional). Table (2) shows the results of the impact analysis between the functional dimension and improving the performance of economic development plans. The extracted (F) value reached (120.685). In light of the result, we reject the alternative hypothesis, which indicates a significant impact between the functional dimension and improving the performance of economic development plans.

This indicates the great importance of this factor in achieving improved performance of economic development plans. The analysis demonstrates the importance of the functional dimension in improving the performance of economic development plans. On the other hand, the extracted (t) value, which reached (12.852), indicates that the effect of the parameter (β) is Real impact. Increasing the impact by one unit will lead to an 80% improvement in the performance of economic development plans. This means that the functional dimension has a significant impact on improving the performance of economic development plans. It is also noted that the functional dimension is capable of explaining up to 80% of the changes in improving the performance of economic development plans.

3. Hypothesis (Third Sub-Hypothesis)

There is no significant impact of the ethical and social dimension on improving the performance of economic development plans. Improving the performance of economic development plans = 0.591 + 0.902 (ethical and social). The results shown in Table (2) reveal the results of the analysis of the impact between the ethical and social dimensions on improving the performance of economic development plans.

The extracted F value reached 292.959. In light of the results, we reject the alternative hypothesis, which indicates a significant impact between the ethical and social dimensions and improving the performance of economic development plans. The extracted t value, which amounted to 22.875, also shows that the effect of the parameter (β) is a real effect, as increasing the effect by one unit will lead to an increase in improving the performance of economic development plans by (90%), as the moral and social dimension was able to explain (90%) of the changes that occur in improving the performance of economic development plans.

4. Hypothesis (Fourth Sub-Hypothesis)

There is no significant effect of the strategic dimension on improving the performance of economic development plans. Improving the performance of economic development plans = 0.853 + 0.901 (strategic). Table (2) shows the results of the analysis of the impact of the strategic dimension on improving the performance of economic development plans.

The extracted F value, which reached 80.141, shows that, in light of the results, we reject the alternative hypothesis, which indicates a significant effect between the strategic dimension and improving the performance of economic development plans. On the other hand, the extracted t value, which reached 9.371, indicates that the effect of the parameter (β) is a real effect, meaning that increasing the effect by one unit will lead to an increase in improving the performance of economic development plans by 90%.This means that the strategic dimension plays a significant role in improving the performance of economic development plans. It is noted that the strategic dimension is capable of explaining a percentage of changes of up to 77% in improving the performance of economic development plans, demonstrating the significant importance of this factor in achieving improved performance of development plans. Economic.

Table (2) Analysis of the dimensions of artificial intelligence in improving the performance of economic development plans

Dependent Variable	Dimensions of Artificial Intelligence			(R^2)	Adj(R^2)	(F)	(t)	Sig	Decision and interpretation
Improving the	Cognitive	**(α)**	**1.532**	**0.638**	**0.632**	**101.859**	**9.689**	**0.000**	There is a significant
		(β)	**0.772**						

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performance of economic development plans	Functional	**(α)**	**0.852**	**0.800**	**0.895**	**120.685**	**12.852**	**0.000**	impact between the dimensions of artificial intelligence in improving the performance of economic development plans.
		(β)	**0.804**						
	Ethical and Social	**(α)**	**0.591**	**0.908**	**0.905**	**292.959**	**22.875**	**0.000**	
		(β)	**0.902**						
	Strategic	**(α)**	**0.853**	**0.770**	**0.763**	**80.141**	**9.371**	**0.000**	
		(β)	**0.901**						
	Artificial Intelligence	**(α)**	**0.128**	**0.939**	**0.936**	**125.175**	**10.883**	**0.000**	
		(β)	**0.951**						
(F) Table = 3.94, (t) Table = 1.984, Sample size = 100									
Number of accepted alternative hypotheses = 5									

Prepared by the researcher

5. Hypothesis (Fifth Sub-Hypothesis)

There is no significant effect between the dimensions of artificial intelligence combined in improving the performance of economic development plans.

0.070 = Y + 0.351X1 + 0.050X2 + 0.507X3 + 0.100X4

Table (3) shows the results of the impact analysis between the dimensions of artificial intelligence combined in improving the performance of economic development plans. The extracted (F) value reached (70.126). In light of the result, we reject the alternative hypothesis, which indicates a significant effect between the dimensions of artificial intelligence combined in improving the performance of economic development plans. The R2 value (Adj) shows that the dimensions of artificial intelligence combined are capable of explaining 90% of the changes that occur in improving the performance of economic development plans. The extracted (t) value for the dimensions (cognitive, functional, ethical and social, strategic) shows that it reached (70.126).

The extracted (t) value for the dimensions (cognitive, functional, ethical and social, strategic) shows that it reached (70.126). (5.483, 245.7, 3.269, 3.011) respectively, indicating that the impact of the dimensions is significant, as shown by the values of the parameters (β), indicating that increasing the impact by one unit will lead to an increase in improving the performance of economic development plans by (35%, 5%, 50%, 10%), respectively.

Table (3) Analysis of the impact of the dimensions of artificial intelligence together in improving the performance of economic development plans

Dimensions of AI	(α)	(β)	(t)	Sig.	(R)	(R^2)	(R^2) Adj	(F)	Sig.
Cognitive	.070-0	0.351	5.483	0.002	0.884	0.782	0.900	70.126	0.000
Functional		0.050	7.245	0.817					
Ethical and Social		0.507	3.269	0.060					
Strategic		0.100	3.011	0.058					
F table									2.422
T table									1.984
Number of influential (acceptable) dimensions = 4									
Number of ineffective (acceptable) dimensions = 0									

Prepared by the researcher

Conclusions

The research concludes that:

1. Improving Decision-Making: Artificial Intelligence provides advanced analytical tools for industrial companies, helping them make more accurate and rapid investment and operational decisions, thus improving the efficiency of implementing economic development plans. Through applications such as machine learning and predictive analytics, companies can anticipate market needs, improve inventory management, and proactively maintain equipment, leading to increased overall economic performance.

2. Enhancing Strategic Planning: AI can help simulate future scenarios and assess the impact of various economic policies, supporting companies in long-term strategic planning in line with economic development goals.

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3. Improving Competitiveness: Companies that adopt AI have a greater capacity to innovate and improve products and services, increasing their competitiveness locally and internationally and enhancing their contribution to national economic growth.
4. Supporting Governance and Transparency: AI contributes to the collection and transparent analysis of accurate data, helping improve internal control and accountability in industrial companies, in line with the Sustainable Development Goals.

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