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## **Economic Innovation as a Mechanism to Activate Economic Development (Iraq is a Case Study)**

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### **Keywords:**

Innovation, Economic Development,  
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**Abstract:** The purpose of this paper is to importance of economic innovation in achieving economic development in Iraq, and reveal its role in building a society. It also develops a future vision to embrace economic innovation. This study adopted descriptive analytical and measurement approaches, and graphical figures and statistical tables. The research was divided into three topics dealing with the first topic (the theoretical rooting of concepts of economic innovation and economic development), while the second topic (analyzing the reality and challenges of economic innovation in Iraq (. The third topic (Building a future vision of the requirements and mechanisms of response to economic innovation and its impact on economic development) was discussed, and conclusions and recommendations were reached. One of the most important results reached by the researcher is that: Through the study, it was found that Iraq depends mainly on one source, which is oil, which reflects the unilateralism of the Iraqi economy and its rentier tendency. Through measurement, the results show us the ineffectiveness of the relationship between innovation and development indicators and this is the reality of the situation because development and growth in Iraq absolutely depends on revenues. Oil, and is not linked to innovation forces and indicators, and it is clear from the study and the practical aspect that Iraq needs to intensify efforts to support innovation indicators in order to develop them in a way that serves the building of the Iraqi economy.

## الابتكار الاقتصادي كآلية لتفعيل التنمية الاقتصادية (دراسة حالة العراق)

سهيلة عبد الزهرة مستور الحجامي  
كلية الإدارة والاقتصاد/الجامعة المستنصرية

### المستخلص

يهدف البحث إلى إبراز أهمية الابتكار الاقتصادي في تحقيق التنمية الاقتصادية في العراق، وإبراز دوره في بناء المجتمع. كما يُقدم رؤية مستقبلية لتبني الابتكار الاقتصادي. وقد اعتمدت الدراسة المنهج الوصفي التحليلي والقياسي، بالإضافة إلى استخدام الأشكال البيانية والجداول الإحصائية. تم تقسيم البحث إلى ثلاثة مباحث تناولت المبحث الأول (التأصيل النظري لمفاهيم الابتكار الاقتصادي والتنمية الاقتصادية)، بينما تناول المبحث الثاني (تحليل واقع وتحديات الابتكار الاقتصادي في العراق). وتم مناقشة المبحث الثالث (بناء رؤية مستقبلية لمتطلبات وآليات الاستجابة للابتكار الاقتصادي وأثره على التنمية الاقتصادية)، وتم التوصل إلى استنتاجات وتوصيات. ومن أهم النتائج التي توصل إليها الباحث: تبين من خلال الدراسة أن العراق يعتمد بشكل أساسي على مصدر واحد وهو النفط، مما يعكس أحادية الاقتصاد العراقي ونزعة الريعية. ومن خلال القياس تبين لنا النتائج عدم فاعلية العلاقة بين الابتكار ومؤشرات التنمية وهذا هو واقع الحال لأن التنمية والنمو في العراق يعتمدان بشكل مطلق على الإيرادات النفطية، ولا يرتبطان بقوة ومؤشرات الابتكار، ويتضح من الدراسة والجانب العملي أن العراق بحاجة إلى تكثيف الجهود لدعم مؤشرات الابتكار من أجل تطويرها بما يخدم بناء الاقتصاد العراقي.

**الكلمات المفتاحية:** الابتكار، التنمية الاقتصادية، مؤشرات الابتكار

### 1. Introduction:

Innovation is an important factor in raising the level of growth and economic development in countries alike, as countries around the world race to develop plans and strategies that will help them make further progress in various areas. Given the importance of innovation, countries are pursuing policies to strengthen their capacity to innovate to promote human growth. A country's ability to innovate, attract foreign investment, and develop companies and competitive services on a global scale is intrinsically linked to intellectual property and its pro-innovation system. The importance of research: The importance of research is reflected from the following starting points: The importance of research lies in the fact that it addresses an important topic: the study of the impact of economic innovation on Iraq 's economic development. Applied Theoretical Approach to Studying the Effects of Economic Innovation on Growth and Development Opportunities in Iraq. Building a Future Vision Advance Economic Development through Mechanisms of Economic Innovation.

**Research problem:**

- ❖ This research problem appears through the following question: Does innovation indicators affect economic growth in Iraq?

**Research hypothesis:**

- ❖ Innovation (or innovation indicators) has a positive impact on economic growth in Iraq.

**Research objective:**

- ❖ This study highlights the importance of economic innovation in achieving economic development in Iraq.
- ❖ Reveal its role in building a society. It also develops a future vision to embrace economic innovation.
- ❖ This research aims to identify economic innovation as a new trend in the knowledge-based global economy as a component of production compared to the economy, and its impact on economic development.

**Research Methodology:**

This study adopted descriptive analytical and measurement approaches, and graphical figures and statistical tables.

**Research Structure:** The research was divided into three topics dealing with the first topic (the theoretical rooting of concepts of economic innovation and economic development), while the second topic (analyzing the reality and challenges of economic innovation in Iraq). The third topic (Building a future vision of the requirements and mechanisms of response to economic innovation and its impact on economic development) was discussed, and conclusions and recommendations were reached.

**Spatial and temporal research boundaries:** The research takes its spatial and temporal boundaries. From the Republic of Iraq, and we obtained data from the Ministry of Planning – National Accounts Department.

**A. Previous studies:**

- ❖ Fouad Farhan al-Jubouri's study, 2021 (measuring and analyzing the impact of innovation on the sustainable development of selected countries): The study aims to ensure that innovation affects sustainable development and affects the natural, social, political and economic environment, Innovation needs to find technologies that are effective in raising long-term growth rates, and the study suggests identifying which indicators have the most positive impact on sustainable development, The study found a positive relationship between innovation indicators and the economic dimension as

spending on R&D and technology exports affects growth as well as the social and environmental dimension.

- ❖ Mustafa Nawfal Wajih's study, 2021 (analysis and measurement of the impact of some human development indicators on the economic growth of a sample of countries in Southeast Asia with reference to Iraq for the period 2004-2018): The study aims to assess the situation of Iraq and its experience in creating the elements of human development and its impact on economic growth. The study used the standard EViews method and found an impact between the life expectancy index, economic growth in Malaysia and a weak impact on education and income level.

**2. Literature Review:** (Theoretical rooting of the concepts of economic innovation and economic development): Innovation is a determining factor for the continuity and survival of enterprises, Innovation is considered the basic law of competition that prevails in the business world at present and the concept of innovation has resulted in several classifications, although it is a complex phenomenon subject to the influence of a set of factors that have a catalytic role in ones doing or not. Concept of economic innovation: The concepts of innovation have varied and the views of the researchers varied according to their schools of thought and their orientations, and (Ho Banks) expressed it as the self in its responses when deeply and effectively occupied, He also sees (Rogers) that innovation is what arises or produces a new product because of the interaction that occurs between the individual and what is in his environment or faced in it. (Debourg, 2004: 164).

Innovation indicators: We can measure innovation by some of the key indicators that most studies rely on: (Kunduz., 2017: 19) R & D Agreement: Scientific research is an important tool for knowing the facts about the universe, man and life, and scientific research allows the researcher to rely on himself in the acquisition of information, In addition, it gives the researcher the opportunity to see the different approaches and choose what suits him and makes him a different personality, in terms of thinking, behavior, discipline, and movement. Scientific research is defined as the organized group of efforts carried out by man, using the scientific method and the rules of scientific method and his quest to increase control of the environment and discover its phenomena and determine the relationship between these phenomena, The most important goal in scientific research is to find solutions to the problems facing society in various aspects of life, The

innovation of methods and tools that address these problems through scientific and technological progress, which is a measure of the progress of countries where interest in scientific research and knowledge has become a feature of developed countries. Scientific research also includes basic, applied and the discovery of knowledge.

**Advanced Technology Exports** Advanced technology exports are high quality products in terms of development and research such as aerospace, computers, and pharmaceutical products, Scientific instruments, electrical equipment and data, expressed in the current value of the US dollar, say technology exports in a broad sense include all high-efficiency products. (Mohammed Ali Al Khouri, 2020: 302)

**Patents** is a certificate granted by a state by a competent public body, to an inventor to prove to him the right to monopolize and financially exploit his invention for a limited period of time and in certain circumstances. In so doing, it represents the payment offered by the State and society to the inventor in recognition of his efforts and becomes his special and legally absolute right to the invention. The state imposes strict penalties on those who transfer or use the invention without the consent of the owner, as the patent index is the most important indicator of innovation, and gives countries great importance to this indicator, The World Bank provides detailed data on patents, to compare countries and years and to know the rate of increase and decrease for this aspect of innovation indicators in the world.

**Brands:** A brand is a key component of a product, a means of ensuring the product and the customer it blocks certain branded products for similar products marked with another label. Therefore, the producers have adopted to introduce their products and seek mastery in the manufacture to maintain customers, and the continued quality of products and their steadfastness in front of competitors is known as (Philippe Cotlar term, or name, Or a symbol or a design or a mixture of them. Aims to define the goods or services of a vendor for the goods and services of a vendor or other competitor, and the brand represents indicators of innovation in terms of outputs, Companies are competing for their market reputation and improving the quality and shape of their products as the company seeks to register its own brand. (SeferSener., 2011: 8)

**Development and the problems of the concept:** The concept of development is a powerful concept that generates much debate at the

scientific and political level, and so it has multiplied the definitions that it has mastered, and has, at all costs and components, its flexibility and its ability to generate itself in different ways. This made his study a scientific issue always present on the international scene. Development is an evolutionary process through which the economy reaches the stage of self-payment? (growth + stimulation), i.e., the generation of needs and sources of satisfaction, marked by diversity, spread and harmony As. such, they cannot be separated from growth, because the distinction between them on the basis of inclusiveness does not eliminate their congruence in terms of objective, as the goal of economic growth is to raise the level of the productive process, this goal is pursued by all development strategies). (Abdul zahra faisal, 2016: 58).

Development is a set of policies a country resorts to increase and sustain economic growth rates while ensuring social justice (A.Benassay-Quere, 2000: 347). The researcher believes that development is not just to improve living conditions and make radical changes, but is a continuous goal that overlaps many factors, Material and non-material interact and integrate with each other during development construction.

It can be said that the concept of development in all its dimensions and stages is still far from the final determination because it is different from the circumstances and data, Researchers must continuously follow up on this concept, dismantle its complex structure, follow up on its own changes and monitor the entanglement relations in its economic, cultural and social dimensions.

Determinants and variables of development: Development depends on many variables through which the benefits and burdens can be determined, namely: (Nayyar., 2006: 27). Availability of standards of good governance that take into account the political, economic and institutional aspects of:

- ❖ Degree in Economics, Social and Political Stability.
- ❖ Provision of public services and the capacity and independence of the civil service from political pressure and the quality of policy preparation.
- ❖ Government's ability to provide sound policies and regulations.
- ❖ Rule of law.
- ❖ Reducing Corruption.
- ❖ Availability and quality of benefits granted to foreign investors.
- ❖ Domestic Funds Prepared Annually for New Investments.
- ❖ Degree of Economic Structure Change.



- ❖ Degree of Improvement in Skills, Training, Education and Health.
- ❖ Motivation and Desire of Ruling Elites for Development and Change Events (Will) Change.

Through its involvement in development activities, society gains many economic benefits, most notably as follows:

- ❖ Structural changes and availability self-paying factors.
- ❖ Increase in economic growth rates.
- ❖ Prevalence of the phenomenon of economic well-being.

The U.S. economy (Cuznets) has linked structural changes brought about by economic growth and general well-being that are growing into maturity, leading to a narrowing of the income distribution gap between rich and poor, which is less than in underdeveloped countries (S.M Kanbur Anand, 1993: 214). As for the burdens it is a 'dial of sacrifices' that society sooner makes to reap the fruits of development later and this is called the cost of lost opportunity. Development is putting pressure on available resources and requires intensive investment to produce goods and services, improve the quality of education and develop infrastructure, which in fact takes time to bear fruit. Its repercussions on the standard of living as well as the authoritarian measures necessary for the success of investment programs must therefore be borne. (Osama bashir al dabbagh, 2002: 411).

Dimensions of development: Some developments believe, at all costs, that development is a process, not the outcome of societal processes and activities necessary for progress, see the division of the one and all unified concept into separate parts, adjacent structures and as follows: (abdellawi., 2010: 53)

- **Economic Development:** A process in which a government uses available resources to achieve a rapid rate of economic expansion that necessarily leads to a steady increase in its national income, however this will only happen if the lack of capital, technical and technological expertise is overcome.
- **Social Development:** is the effort to bring about a series of functional and structural changes necessary for the growth of society, by increasing the ability of its members to exploit available energies to the fullest extent, The targeted change includes the pattern of thinking, Social Assessment Standards, Political Participation.
- **Political Development:** It is about the regime's response to the challenges of state-building, through mass mobilization, political participation, and

raising the level of awareness and political stability necessary to achieve various aspects of development. (Abdullah Abdul Karim Salem, 2004: 248).

- **Cultural Development:** Most development's see Honchak as a dialectical relationship between cultural development and economic and social development, each affecting, being influenced by, and dependent on, the other, Cultural development is defined as the change in the material and non-material aspects of culture, including science, arts, philosophy, technology and tastes, as well as the change in the structure and functions of society.

- **Environmental (Sustainable) Development:** is development capable of meeting the needs of the present without prejudice to the rights of future generations to available natural resources, this will lead to economic growth based on biodiversity, control of activities harmful to the environment, regeneration of renewable materials and protection of the environment from pollution.

**Analysis of the relationship between innovation and economic development indicators:** Innovation is an essential driving force for economic development expressed in average per capita terms, as it has become an element of development, The 2030 development plan's ninth goal states on industry and innovation as well as resilient infrastructure that stimulates sustainable industrialization and income-generating innovation, Innovation helps to increase per capita income by increasing productivity, stimulating economic development and the ability to develop national production and make the rate of growth of production exceed the rate of resource use, relationship can be analyzed through the following indicators:

- ❖ The relationship between the agreement on research and development as an indicator of innovation and per capita as an indicator of economic development Many theoretical and experimental studies have confirmed that there is a strong moral and direct relationship between development and agreement on research and development especially in developed countries that have revealed and increased their spending on research and development, as the role of spending on R & D in development is no less than the rest of the traditional determinants, Especially after the revolution brought about by the development of the theory of development that considered research and development as the core of the growth process. (shtuan, 2019: 48).



- ❖ The relationship between high technology exports and development: The exports of advanced technology are highly effective in all economies of the world because of the availability of foreign currency, which is one of the main factors in the implementation of these economic development programs on the one hand and the provision of global market for the disposal of domestic production surpluses. (Issa saad, 2018: 112).
- ❖ Relationship between patents and development: A patent is a means of giving protecting to the invention subject of the patent as the patent occupies a prominent place between intellectual property rights in general and industrial property in particular, as they are closely related to economic life. (abdelnour, 2020: 18).
- ❖ The relationship between trademarks and development: A trademark is a means by which the product is determined, it serves as a product identification card and an element of the product. It is very important in the strategy of the institution and is considered the same contact between the organization and customers different community groups. (Ahlam Abu Thalja, 2015: 2).

The process of integrating innovation with development opportunities Innovation is how an economy adapts to globalization by applying alternatives in technology or by applying technology combinations that lead to changes in product, production methods and organization, Innovation is a new idea or behavior by thean individual or the management of the institution or market, Innovation is to adhere to the creative ideas reached and turn them into a good or useful service or a useful way of working, Innovation is the production of a new commodity by adopting a new way of working, introducing a production structure, opening a new market and acquiring a new resource. The culmination of the innovation process is as follows: (farid., 2020: 3).

Generating ideas: At this stage, ideas of innovation are generated through the interest in developing the culture of the organization and encouraging the transfer of new information between individuals through communications, which leads to the ease of access to this information or by searching for new industrial technology, and then the selection of new ideas suitable and applicable by individuals and the available production structure and capacity of the financial institution. Converting the idea into a project that converts the new ideas into a project from an applied scheme that

includes the type of renewal used and the limits of its application, and the type of means of work required, The modern technology used with an appropriate study of all these conditions according to the needs of the target in addition to that the institution determines the costs of the innovation project from the costs of research and development and the costs related to the launch of the project, whether in industrial or commercial terms, A study on sales forecasting, market-related developments and the reaction of competitors developed the results of the innovation project, i.e. keeping pace with the new changes in the surroundings of the enterprise that can be introduced at any moment.

**Project Coronation Realistically:** This phase consists of a set of steps by the Foundation, The latter begins with the production of an experimental product that ensures the readiness of the new means of production, the production structure and raw materials, and the efficiency of the specialized labor in the application of new technology, This pilot product allows the concerned enterprise to analyze the opinions and reactions of customers, suppliers and distributors after which the enterprise moves into actual production, where the manufacturing process must be flexible and scalable, That is, any new modifications can be added at any moment during production, and after the completion of the manufacturing process the product becomes ready to enter the market.

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Innovation is included in the context of economic development taking into account social and environmental issues and to define the contours of the relationship it is necessary to understand the complex issues of innovation, the role of government and the impact on economic and social development, The complex nature of innovation and its rapid development require strong management that drives effective means for government and the private sector to collaborate, and the economic and social environment is an integral part of the innovation system, Innovation is a major source of employment movement, particularly in terms of job creation, Working to adopt a comprehensive vision in the development of the science, technology and innovation system leads to the consolidation of the components of this system and the harmonization of its plans and strengthen its links and interaction with economic, social and cultural activities, The main objective of innovation policies should be to focus on collaboration between educational institutions and research centers, and below the figure represents the relationship between innovation and development policies. (report., 2017: 3).

This is done through the following policies: adopting a mechanism at the national level to enhance the effectiveness of the management, planning, coordination and follow-up of science, technology and innovation activities

and support their resources, Continue to complete and strengthen the necessary infrastructure for the development of the system and raise the efficiency of its work, to find intermediary institutions between the components of the different system on the one hand, and between them and the various sectors on the other, Such as technical development centers, science parks, technical incubators and funding funds, mechanisms to promote and strengthen linkages between the main components of the system, Such as research and development, education and training institutions, companies, investors, innovators, technology suppliers, consulting offices and scientific media, and stimulate the private sector to play a leading role in the implementation and management of scientific and technical activities and the identification and evaluation of research programs and investment results, As well as directing the various means of awareness to deepen the awareness of members of society and the government and private sectors of the critical role of science, technology and innovation in improving productive efficiency and increasing the competitiveness of the national economy and the preservation of the environment and natural resources and raise the standard of living Citizen, as the support, care and encouragement of human capabilities in creativity and innovation need to follow a set of policies, the most important of which are: (farid., 2020: 6).

Create an appropriate environment and provide appropriate capabilities to encourage and stimulate the creativity and initiatives of individuals, groups and private sector

**Standard aspect (measurement and economic analysis using the self-regression model var)**

**Data used in the Standard Analysis:** The data used (average per capita GDP as a dependent variable, patent, technology imports and R&D spending are mentioned as independent variables).

**Standard model construction:** For the purpose of measuring the relationship between independent variables and dependent variable, we will have the following model:

$$y = f(x_1, x_2, x_1) \dots \dots \dots 1$$

From equation (1) it can be described model (var), which measures the short-term relations between the variables of the model and can be explained in the following formula:

$$Y_i = \alpha_0 + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + U_i$$

Where:

Y: It represents the average per capita GDP and represents the dependent variable.

X1: Represents patents and represents the first independent variable.

X2: It represents the imports of high-tech goods from total imports and represents the second independent variable.

X3: It represents spending on research and development and represents the third independent variable. (Ministry of Planning, 2021)

**Test1Root1unit (Unit Root Test):** Unit root testing is a basic and preliminary test for the purpose of determining which models will be used in the analysis, The Flips Brown (Phillips Perron-test) test, which is considered one of the most accurate in the case of small samples, will be used (Batal, 2019: 86). Table (1) points to test results (Phillips Piron-test) if the dependent variable (y) and the independent variable (x1) are shown to be dormant in the second difference (2), the II, The independent variable (x2) and the independent variable (x3) achieved the state of stillness at the first difference (1), On the basis of these results, the self-regression model (VAR) should be used in the analysis of the relationship between the variables of the study because it accepts the static variables at the first and second teams (Obaidi., 2016: 108).

Table (1) Phelps-Peron Test Results (PP) for Root of Unit

variable	At level (0) I			With the first difference (1) I			By the second difference (2) I		
	Fixed limit	A fixed limit and general trend	Without a fixed limit and general trend	Fixed limit	Fixed limit and general trend	Without a fixed limit and general trend	Fixed limit	Fixed limit and general trend	Without a fixed limit and general trend
	P- value	P- value	P- value	P- value	P- value	P- value	P- value	P- value	P- value
Y	0.6629	0.9365	0.8621	0.0899	0.3117	*0.0132	*0.0009	*0.0000	*0.0000
X1	0.9982	0.9875	0.9953	0.2631	0.3898	0.0869	*0.0023	*0.0190	*0.0002
X2	0.5803	0.5526	0.7197	*0.0204	*0.0173	*0.0013	/	/	/
X3	0.6511	0.5446	0.3191	*0.0161	0.0636	*0.0009	/	/	/

Source: From the work of the researchers and drawing on the outputs of Eviews 12.

Iraq, Ministry of Planning, Central Bureau of Statistics and Information Systems, reports for different years\* Moral at 5%.

Note: 1Positive 8 value (p-value) is used if an advanced 5statistical 1 method is to replace the calculated t-comparison of the parameters with a critical t value, so if the value (p-value) is greater than 5% then the parameter 1 is not significant, If the value (p-value) is less than 5%, the parameter 1 is moral.

- Determine the optimal period of underdevelopment ((Lag):

The results of the three tests (AIC, HQ, SC) used to determine the optimal slowing period best estimate for the self-regression model, noting from table (2) that the optimal delay period is two periods, which means that the self-regression model, which will be used to detect the direction of the relationship between the variables in question will include two periods of underdevelopment.

Table (2) Optimal lag period test

Lag	AIC	SC	HQ
0	35.64702	35.83583	35.64501
1	31.77783	32.72190	31.76777
2	29.43882*	31.13814*	29.42072*

Source: From the researchers' work drawing on the outputs of the EViews 12 program.

AIC: Acike Standard, S: Schwarz Standard, HQ: Hanan Standard - Quinn

\* Indicates the number of optimal deceleration periods and all moral tests level (5%)

**Standard model estimation:** Note from table (3) below the existence of several standard models and this is the nature of the models of self-regression as each variable of the main model in paragraph (2) referred to variable sequential and The rest of the variables are independent, and since we have four variables within the model, so we will have four standard models in addition to the slowing periods for variables, which are independent variables only, Since the model below does not contain probability values (profanity), in addition, only the target model in our study described in paragraph (2) will be analyzed within this section, Therefore, we will go to Table (4) to analyze our target study subject in the manner of micro squares and based on the model (var) shown in Table (3) below.



Table (3): Estimation model(var)

Vector Autoregression Estimates				
Date: 08/07/23 Time: 07:48				
Sample (adjusted): 2006 2020				
Included observations: 15 after adjustments				
Standard errors in ( ) & t-statistics in [ ]				
	Y	X1	X2	X3
Y(-1)	0.739194	-1880.145	2.059342	1.038233
	(0.44492)	(940.467)	(1.44790)	(122.199)
	[ 1.66139]	[-1.99916]	[ 1.42230]	[ 0.00850]
Y(-2)	0.489901	3108.315	-1.171143	-170.8547
	(0.55180)	(1166.38)	(1.79570)	(151.553)
	[ 0.88782]	[ 2.66493]	[-0.65219]	[-1.12736]
X1(-1)	4.91E-05	1.090387	0.000113	0.035362
	(0.00011)	(0.22857)	(0.00035)	(0.02970)
	[ 0.45436]	[ 4.77044]	[ 0.32132]	[ 1.19067]
X1(-2)	-0.000248	-0.229723	-0.000116	-0.008389
	(0.00015)	(0.32173)	(0.00050)	(0.04180)
	[-1.63221]	[-0.71403]	[-0.23402]	[-0.20067]
X2(-1)	-0.040629	-131.7604	0.803547	-44.23609
	(0.10759)	(227.424)	(0.35013)	(29.5503)
	[-0.37762]	[-0.57936]	[ 2.29499]	[-1.49698]
X2(-2)	0.060572	-228.2914	-0.414770	-39.46936
	(0.11152)	(235.723)	(0.36291)	(30.6287)
	[ 0.54316]	[-0.96847]	[-1.14290]	[-1.28864]
X3(-1)	0.000671	0.882017	0.002723	-0.071066
	(0.00115)	(2.42884)	(0.00374)	(0.31559)
	[ 0.58395]	[ 0.36314]	[ 0.72823]	[-0.22518]
X3(-2)	0.000391	-2.452713	-0.002572	-0.014386
	(0.00091)	(1.91362)	(0.00295)	(0.24865)
	[ 0.43143]	[-1.28172]	[-0.87305]	[-0.05786]
C	-1.083159	-3349.205	-2.755755	1219.451
	(1.22038)	(2579.60)	(3.97142)	(335.179)
	[-0.88756]	[-1.29834]	[-0.69390]	[ 3.63820]
R-squared	0.933074	0.980346	0.812838	0.904765
Adj. R-squared	0.843838	0.954141	0.563289	0.777785

Sum sq. resids	0.502763	2246351.	5.324350	37925.26
S.E. equation	0.289472	611.8757	0.942015	79.50394
F-statistic	10.45633	37.41056	3.257227	7.125254
Log likelihood	4.183568	-110.6598	-13.51588	-80.04900
Akaike AIC	0.642191	15.95464	3.002118	11.87320
Schwarz SC	1.067021	16.37947	3.426948	12.29803
Mean dependent	4.747235	2113.983	2.698000	266.4033
S.D. dependent	0.732519	2857.271	1.425478	168.6561

Source: From the work of the researchers1By relying on 1Eviews 12 program outputs.

Table (4): Estimation of the target study model according to the method of small squares and based on the model (var)

System: UNTITLED				
Estimation Method: Least Squares				
Date: 08/07/23 Time: 07:59				
Sample: 2006 2020				
Included observations: 15				
Total system (balanced) observations 60				
	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.739194	0.444925	1.661392	0.1096
C(2)	0.489901	0.551800	0.887824	0.3834
C(3)	4.91E-05	0.000108	0.454357	0.6537
C(4)	-0.000248	0.000152	-1.632208	0.1157
C(5)	-0.040629	0.107592	-0.377619	0.7090
C(6)	0.060572	0.111518	0.543161	0.5920
C(7)	0.000671	0.001149	0.583951	0.5647
C(8)	0.000391	0.000905	0.431431	0.6700
C(9)	-1.083159	1.220379	-0.887559	0.3836
Determinant residual covariance		589668.7		
Equation: $Y = C(1)*Y(-1) + C(2)*Y(-2) + C(3)*X1(-1) + C(4)*X1(-2) + C(5)*X2(-1) + C(6)*X2(-2) + C(7)*X3(-1) + C(8)*X3(-2) + C(9)$				
Observations: 15				
R-squared	0.933074	Mean dependent var		4.747235
Adjusted R-squared	0.843838	S.D. dependent var		0.732519
S.E. of regression	0.289472	Sum squared resid		0.502763
Durbin-Watson stat	2.246036			

Source: From the work of the researchers1By relying on 1Eviews 12 program outputs.

**Ensure that there are no standard problems:** Through Table (4), which shows the results of the self-link test and the normal distribution of the target standard model, The model turns out to be free of standard problems and it can be seen that the Probe value for both tests is greater than the level (5% We accept the null hypothesis, which states that there are no problems above, and reject the alternative hypothesis, which states that the above problems exist in the target standard model.

Results of the test of self-correlation and normal distribution of the target standard model Test probNatural Distribution (Jarque-Bera) 0.3402, Self-correlation 0.3853. Building on the above, innovation has arguably come to occupy a significant place in both developing and developed countries alike, This is due to the significant role it plays in operationalizing development strategies accompanied by increased employment opportunities, Innovation is an imperative for the management of these institutions to maintain them by gaining a competitive capacity that improves and modifies their products, methods and business patterns, Business incubators are at the forefront of the basic mechanisms to support innovation activity by activating the potential offered by the incubator to serve innovators and creators, But the problem in Iraq and through measurement show us the results of the ineffectiveness of the relationship between indicators of innovation and development and this is the fact that the development and growth in Iraq depends absolutely on oil revenues, It is not linked to innovation forces and indicators.

**Results and Discussion:** Work on the formulation of innovation policies within the framework of their development fundamentals with a focus on the utilization of global knowledge and technology, and national scientific competencies while preserving local culture and identity, The presence of influential policy leadership in all economic sectors in order to support construction, the need to direct innovation towards sustainable development, Making the economy a catalyst for investment and innovation is the result of a process of close interconnection between development and innovation policies.

1. The existence of several standard models and this is the nature of self-regression models as each variable takes from the main model variables.

2. We conclude through the process of measurement that innovation in Iraq does not affect the development and growth and is not affected and this fact is due to the fact that the output and growth depends very heavily on oil.
3. The results of the test of self-correlation and the normal distribution of the target standard model, as the model turns out to be free of standard problems and it can be seen that the value of the prob for both tests is greater than the level (5% We accept the null hypothesis, which states that there are no problems above and reject the alternative hypothesis.
4. Innovation often does not require new technology to achieve as much as new or unfamiliar ideas.
5. Innovation achieves a competitive advantage and in terms of being sustainable or suitable, this remains according to the degree of intensity of innovation.
6. Innovation has become the most important way to survive in an ever-changing environment, where innovation plays an important role in solving these problems by looking for opportunities and turning threats into new opportunities, discovering potential needs and finding new uses for the existing product.
7. Innovation is the key to staying in the changing conditions that characterize the business environment through its ability to adapt the product to the new changes that have occurred to the needs and desires of customers by competitors, By allowing the organization to make improvements that made the product fit their needs and desires in the way it was before it changed or more or less depending on the degree of intensity of improvements and the reaction of competitors and therefore Product innovation transforms threats into opportunities and makes the best use of them.

### **Conclusions:**

1. Through the study, it was found that Iraq depends mainly on one source, which is oil, which reflects the unilateralism of the Iraqi economy and its rentier tendency. Through measurement, the results show us the ineffectiveness of the relationship between innovation and development indicators, and this is the reality of the situation because development and growth in Iraq absolutely depends on revenues. Oil, and is not linked to innovation forces and indicators.

2. It is clear from the study and the practical aspect that Iraq needs to intensify efforts to support innovation indicators in order to develop them in a way that serves the building of the Iraqi economy.
3. The Iraqi economy suffers from a set of problems, shocks and structural obstacles in the absence of a clear development strategy, which is becoming increasingly difficult in light of the economic, social, political and cultural challenges.
4. Creating the appropriate environment and providing appropriate capabilities to encourage and stimulate creativity and initiatives among individuals, groups and private sector institutions.
5. Addressing the legal, economic and social issues necessary to be able to advance innovation strategies and overcome challenges.
6. The results of the autocorrelation and normal distribution test for the targeted standard model, which showed that the model is free of standard problems. It can be noted that the probability value for both tests is greater than (5%). Thus, we accept the null hypothesis, which states that the above-mentioned problems do not exist, and reject the alternative hypothesis.
7. Innovation often does not require new technology to achieve it as much as it requires new or unfamiliar ideas.
8. Innovation achieves a competitive advantage, and whether it is sustainable or temporary depends on the degree of innovation intensity.
9. Innovation has become the most important means of survival in an ever-changing environment, as innovation plays an important role in solving these problems by searching for opportunities, transforming threats into new opportunities, discovering hidden needs, and finding new uses for the present.

### **Recommendations**

1. Improve innovation efficiency by increasing government support for innovation.
2. Strengthen public-private sector partnerships to increase the efficiency of practical research that promotes innovation and achieves human development.
3. Improve human development indicators, including per capita GDP, so that it becomes a positive factor in promoting innovation.

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