

Obstacles to the Ecosystem of Academic Entrepreneurship in Iraqi Universities

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Abstract : The problem of this research, which attempts to investigate the causes that prevent the adoption of the university entrepreneurship ecosystem and what are the obstacles that stand as a stumbling block against interaction between the two sides, the current research aims to identify the obstacles of the academic entrepreneurship ecosystem in Iraqi universities. The research included two hypotheses, the first H01: There are no university environmental obstacles that limit the cooperation of universities and other state institutions in the field of entrepreneurship, while the second hypothesis H02: There are no obstacles in the external environmental system (ecosystem) that prevent dealing with inter-entrepreneurship programs and strategies. To summarize the research, the researcher used the descriptive approach, and a questionnaire was distributed to a sample of (250) faculty members and some employees related to Iraqi universities. The most important conclusions reached by the research were the weakness of the entrepreneurial culture among university employees and the low participation of society and its institutions in shaping the university's vision and mission, in addition to the rigidity of some regulations and legislations that prevent the achievement of development at the university, such as the weakness of the technological infrastructure necessary to establish entrepreneurial projects at the university. To overcome these obstacles, the research recommended the need to prepare educational programs for researchers, faculty members and university employees about entrepreneurial trends and their requirements, and to employ material resources effectively in a way that contributes to supporting and enhancing entrepreneurial work.

Introduction: Although the term entrepreneurship has recently appeared in the theoretical literature of business administration to some extent, this scientific field has witnessed increasing interest from societies in their race to develop over time. This is due, in our opinion, to two basic factors: the first is the philosophy of entrepreneurship itself, which adopts the idea of achieving anticipation, leadership, and principles by adopting new ideas, especially creativity, and innovation, to develop a product or package that would redistribute wealth and enter the organizers or entrepreneurs in particular. Therefore, the activity of Entrepreneurial business has been considered one of the most important activities that contribute to the formation, maximization, and accumulation of capital and achieving economic development. The second is the dominance of the Internet and information technology era, which has contributed greatly to the spread of entrepreneurship activity. Many planners and job seekers have directed the idea of entrepreneurship as a model solution for creation and innovation, and through activating dormant and unused skills to provide job opportunities and reduce unemployment rates in society and in developing countries, including Iraq, and at its legitimate price to narrow the space of development separating it from developed countries that It relied in its development on creating creativity and leadership in penetrating foreign markets. These countries, including Iraq, focused on paying greater attention to scientific sciences and the entrepreneurship approach and showed greater interest in the availability of specialists and skilled workers to advance the technological and industrial reality by investing in creativity, innovation and entrepreneurship. However, what is unfortunate is that many of the ideas that would create pioneering projects did not take their share on the ground due to the many obstacles that the entrepreneurship ecosystem suffers from, whether at the level of the internal environment of universities and scientific research centers or at the level of the external environment.

Research Methodology

First: The research problem

Most of the problems of developing countries, including Iraq, are embodied in the absence of innovation and entrepreneurship, as the Iraqi economy, like many emerging economies, is a late transmitter of knowledge in almost all fields and has not recorded a meaningful presence in entrepreneurship, unlike many countries in the world that

have used the power of thought, creativity and innovation to create and implement new ideas through direct investment, including Iran, for example, where the (Karad) project announced in 2009 gave great importance to entrepreneurship at the level of Iranian universities, with greater attention to entrepreneurship in the fields of higher education. What makes the matter more complicated is the lack of sufficient allocations for research and development (R&D) budgets in most Iraqi ministries, despite the great abundance of oil money, in addition to the weakness of establishing entrepreneurship centers and marketing available scientific knowledge (Knowledge Commercialization) between universities and research centers on the one hand and state institutions on the other hand.

The need for universities to continuously renew and exploit the opportunities available beyond their current capabilities if they want to survive and continue, especially in light of the rapidly changing circumstances of this world, is what prompted the necessity of adopting the idea of an entrepreneurial approach in higher education institutions. The challenges imposed by globalization and technological developments on the work environment of higher education institutions worldwide are what called for the necessity of linking universities to the labor market by creating applied extensions that achieve communication between theory and practice and open new financial channels for universities to achieve their scientific and educational programs, in addition to providing opportunities for the industrial sector to trade in business through the application of innovative ideas. This requires universities to transform into entrepreneurial institutions with exploratory and creative activities encouraging their members to present pioneering research and ideas serving society.

For these combined reasons, this research attempts to investigate the causes that prevent the adoption of the university entrepreneurship ecosystem and answer the following research questions- :

- 1 -That limit the opportunities for interaction and cooperation between academic institutions and other state institutions in the areas of applying entrepreneurship ideas and programs?
- 2- What are the obstacles of the external environment system (Ecosystem) prevent the interaction and application of entrepreneurship programs?

Second: Research hypotheses

H01: hypotheses of the research, there are no University environmental obstacles that limit their cooperation between universities and other state institutions in the field of entrepreneurship

H02: there are no external environment system obstacles (ecosystem) that prevent dealing with entrepreneurship programs and Strategies.

Third: Research objectives

The research aims to:

- 1 -Provide a theoretical framework that touches the edges of science in the field of entrepreneurship, enabling the reader to understand an updated theoretical background for this term or its extensions.
- 2 -Identify in the environment of Iraqi universities the most important obstacles and difficulties that prevent the transfer and marketing of academic knowledge in the fields of entrepreneurship in the external organizational environment of those universities.
- 3 -Examine and analyze the external environmental obstacles that may stand as a stumbling block to Iraqi business institutions and organizations benefiting from entrepreneurship programs in universities.
- 4- Provide recommendations that would achieve constructive interaction in the field of entrepreneurship between universities and their environment.

Fourth: The importance of the research

The research derives its importance from the importance of the topic (entrepreneurship) and its decisive role in strengthening the economies of countries, increasing the welfare of peoples, and moving entrepreneurial ideas from their abstract nature to their practical nature. Due to the scarcity of sources that have addressed the topic of entrepreneurship at the level of applied and analytical research in Iraq, this research has taken it upon itself to adopt the topic of entrepreneurship in preparing a questionnaire form as a scientific measure that can comprehensively encompass all variables that represent obstacles or determinants that prevent the adoption of entrepreneurial ideas and transform them into productive or service projects that are beneficial and develop the national economy, or in other words, transforming theory into application.

The topic of academic entrepreneurship is what occupies the minds of those interested in developing and modernizing university education in all societies, both advanced and developing. In the era of the knowledge-based economy, many terms have appeared on the international scene, such as innovation, entrepreneurship, start-ups, and others. Therefore, this research sheds light on the higher education sector and its role in preparing and building qualified entrepreneurs capable of entering the global race, especially since the university has become required, in light of the societal transformations taking place, to consolidate its relationship with industry in order to achieve sustainable development in society.

Fifth: Research Method

1- The research will begin after completing its methodology by providing a deep and comprehensive theoretical background for everything related to entrepreneurship, starting with its origins, concept, importance and variables, with a focus on university entrepreneurship in the Iraqi environment and exposure to the most important environmental obstacles to the topic of entrepreneurship on the theoretical level, as indicated by entrepreneurship literature and as required by the research topic.

2- Design a scale or questionnaire form that investigates all the obstacles to the university entrepreneurship ecosystem, taking advantage of previous studies and theoretical foundations for the variables of the topic, and then presenting the form to a group of entrepreneurship specialists and experts to ensure that the scale includes the indicators, components and dimensions specific to the entrepreneurship ecosystem.

3- Conducting personal interviews with experts to mature the information content of the field survey variables and determine the priorities of the ecosystem factors.

4- Surveying the opinions of the respondents in the research sample and analyzing them to test the research hypothesis.

Sixth: Research sample

The research community consists of entrepreneurship experts in the field of Iraqi universities. The research community included the central and southern Iraqi universities (governmental and private). Because it investigates the obstacles of the environmental system of the private environment of these universities, the sample included a number of businessmen in various economic fields, as follows:-

1- (250) university professors specialized in entrepreneurship or making strategic decisions.

2- (50) businessmen experienced in managing business establishments of all kinds, with 5 for each economic sector.

Seventh: Temporal and spatial limits of the research

1 -Temporal limits: The period covered workers in the field of teaching entrepreneurship, strategic decision makers and businessmen for a period of no less than ten years, i.e. the period from 2013 - 2023. As for companies in the public and private sectors, it was required that the company be registered in the Iraq Stock Exchange and its shares traded with acceptable momentum without interruption.

2- Spatial boundaries: The sample included five universities from the Middle Euphrates, in addition to a university in the northern region and another in the southern region.

Previous Studies

First: Arab Studies

1 -Al-Rumaidi's study 2018

Study title: Evaluating the Role of Egyptian Universities in Developing the culture of Entrepreneurship among students

The study aimed to evaluate the role of Egyptian universities in developing the culture of entrepreneurship among students, using 1200 electronic and paper survey forms on a random sample of employees in Egyptian universities. The study concluded that there is a clear deficiency in the role of universities in developing the culture of entrepreneurship among students in all areas, including vision, mission, strategy, leadership and governance.

2 -Al-Sharman 2018

Study title: The extent of applying entrepreneurship among graduate students in Jordanian public universities and the role of educational leaders in its development.

This study aimed to identify the extent of entrepreneurship application among graduate students in Jordanian public universities, and by using (461) male and female graduate students, the results showed an average degree of entrepreneurship application among graduate students in Jordanian public universities.

3-Faisal Ali Najmi 2021

Study title: Enhancing the pioneering role of Saudi universities in light of global transformations: Al-Tafrud University as a model.

The aim of the study is to identify the pioneering role of Saudi universities in facing global challenges and reveal the most prominent features of Al-Tafrud University as a model for pioneering universities. This study also aimed to reach some proposals that would help transform Saudi universities into pioneering universities in light of the distinguished university model. One of the most important conclusions of the study was the decisive role of technology in shaping the future of learning and education in the coming decades. The study recommended the necessity of enhancing and keeping pace with technology in the field of education and developing primary specializations such as strategy, leadership, and innovation to accommodate the accelerating pace of change.

4 -Study by Nehal Magdy 2022

Study title: Obstacles to the Transformation of Mansoura University into an Entrepreneurial University and Ways to Overcome Them, a Field Study.

The study aimed to identify the obstacles to the transformation of Mansoura University into an entrepreneurial university and ways to overcome them. To achieve the research objectives, the researcher used the descriptive approach and a questionnaire distributed to a sample of (155) faculty members in some faculties of Mansoura University. The study reached a number of conclusions, the most important of which are: the weakness of the entrepreneurial culture among university employees, and the low participation of society and its institutions in shaping the university's vision and goals.

Second: Foreign Studies

1-Mirai Mat 2018

Study title: Building Entrepreneurship Ecosystems That Help Students to Become Entrepreneurs: New Challenges Facing Universities.

The research focused on revealing the challenges that universities face when contributing to the development of the entrepreneurship ecosystem. It highlighted the increasing nature of building the entrepreneurship ecosystem, the internal changes that universities manage that integrate student entrepreneurship activities into their technology transfer policies, and the development of policies aimed at developing an entrepreneurial culture.

2-Desislava Yordanova 2019

Study title: Towards entrepreneurship universities: barriers, facilitations, and best practices in Bulgarian and Portuguese universities.

The study aimed to identify the obstacles and special facilities for transforming Bulgarian and Portuguese universities into entrepreneurship universities. The study relied on the opinions of a sample of experts in this field to identify the obstacles and best practices in transforming these universities into an entrepreneurship approach. One of the most prominent conclusions of the study was that there are internal and external obstacles and facilities for the entrepreneurial transformation of universities in Bulgaria and Portugal. Therefore, the study recommended the need to raise awareness of the internal challenges facing entrepreneurship in Bulgarian and Portuguese universities, in addition to the factors that may facilitate the transformation process and the need to strengthen the entrepreneurship ecosystem.

3-Kobylynska Study 2020

Study title: Developing Research on the Entrepreneurship Ecosystem at the University: trends and Areas of Interest for Researchers Based on a Systematic Review of the Literature.

The aim of the study is to analyze the state of research on the issue of the university ecosystem for academic entrepreneurship and to identify the main research trends related to this topic. The study indicated that the study of the university ecosystem for academic entrepreneurship is still a new issue, not well recognized in the literature and without a solid methodological basis and in need of a comprehensive review of the university entrepreneurship ecosystem.

4-Silva2021

Study title: The Entrepreneurship Ecosystem: Analysis of the Contribution of Universities to the Creation of Technology-based Companies.

This study aimed to analyze how higher education institutions contribute to the creation of technology-based companies. The research method was multiple cases, represented by two universities and five technology companies in Belo Horizonte. The study selected companies that had founding students or former students of the universities studied, and the results of the research showed that the institutions have strong structures and programs that still operate in an internally integrated manner. In addition, the study contributed to understanding the role of the university in the entrepreneurship ecosystem. The analysis categories were defined to evaluate entrepreneurial universities.

Literature Review

First: The Entrepreneurship Ecosystem

The roots of the word "ecosystem" go back to an ecological origin and were first used by researcher Tinsley in 1935 (Wokl, 2013). The ecosystem includes three main components: the environment or the people involved, the place and location of the ecosystem, and finally the interaction between the parts of this ecosystem (Kodono and colleagues, 2013: 2). The different definitions of the ecosystem all indicate the existence of a kind of interconnection and harmony between the elements of the ecosystem and they need each other to achieve success and continuity, and each of them plays a specific and different role (Speckel, 2011).

Based on the experiences of many American regions, most definitions agree that the entrepreneurship ecosystem includes a group of different interconnected actors within a specific area, which contain at least these elements: universities and research organizations, qualified human resources, formal and informal networks, governments, angel investors, capital, professional service providers, and culture Entrepreneurship is linked to all these factors in a

dynamic and open manner (Neck et al., 2004; Eisenberg, 2011; Roberts and Easley, 2009; Cohen, 2006; Pistroui et al., 2008).

Placing the term ecosystem next to entrepreneurship created a new term called entrepreneurial ecosystem (Teudoto and colleagues (2013), which was used as a term in 1993 by the researcher (James Moore) and according to this new concept, the activities of institutions take place through an entrepreneurial home space and system that includes different areas such as customers, clients, suppliers, producers, shareholders, business associations, governmental and semi-governmental institutions and all parties concerned in the entrepreneurial ecosystem. This system emphasizes the need to create a creative climate among activists connected to each other with a focus on the role of the environment and climate in entrepreneurial work (X and colleagues, 2014) as well as (Forfas, 2009). The system is a physical environment in which there are a number of individuals and elements that affect the emergence and development of businesses and concerns that may ultimately lead to the creation of the entrepreneurial ecosystem and these elements include companies, universities, laboratories, consultants, investors and institutions (Cohen, 2006). For his part, Regal believes Nick (2012) argues that an entrepreneurship ecosystem is the result of the interaction of people, roles, infrastructure, organizations, and events that create an environment for increased levels of entrepreneurial activity. They present seven specific components of a strong entrepreneurship ecosystem, including: access to capital, government-led entrepreneurship programs, entrepreneurship education, enabling policies, research and development, legal business infrastructure, and ease of entry rules.

Second: Models and dimensions of the entrepreneurial ecosystem

Cohen (2002) considers that the system consists of seven main factors that participate together in its formation, which are the formal network and the informal network, the university, the government, professional services, support and protection services, financial services, and existing talents based on the nature of many of these components in general (Kantis and Federico, 2011).

As for (Kena, Wally and Vogel), they presented in 1994 a framework of five dimensions for the entrepreneurial environment, including government policies and procedures, the social and economic situation, business and entrepreneurship skills, and financial and non-financial assistance. Table (1) summarizes the dimensions and components of the entrepreneurial ecosystem from different visions and points of view.

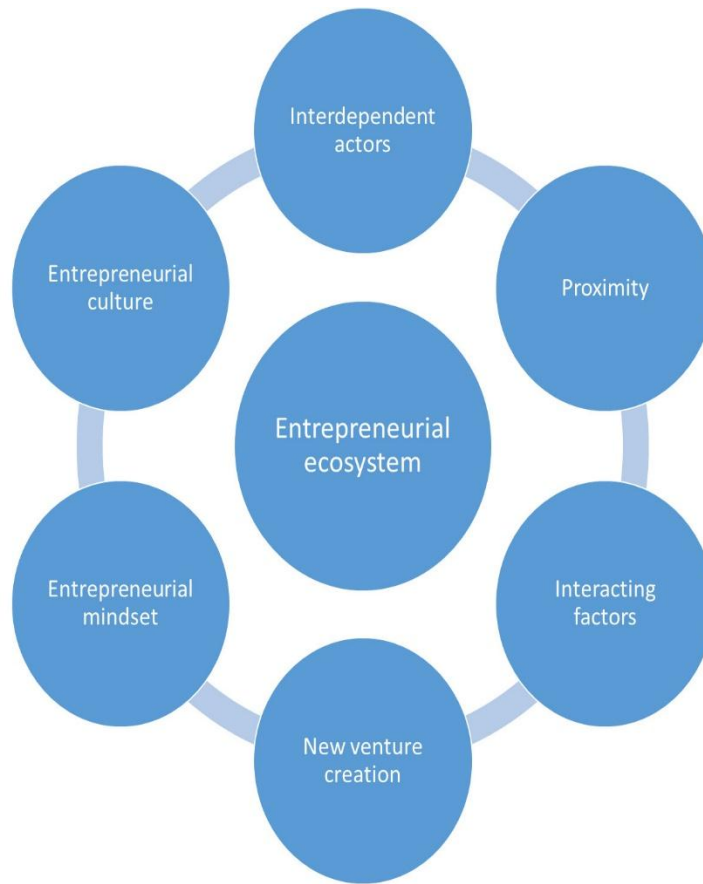
Table No. (1), dimensions and components of the different models of the entrepreneurial ecosystem

Researcher	Dimensions and components of the entrepreneurial ecosystem model
Niawali and Vogel (1994)	Government policies and procedures Political and economic factors Entrepreneurial and business skills, financial and non-financial assistance
Walds and Richardson (1998)	Environmental characteristics, resources, and impacts of the project owner or entrepreneur
	Markets, policy, human capital, protection, culture, and finance
Eisnerg (2010)	Cultural support, universities, education, legal framework, infrastructure, teachers, consultants, workforce, and available markets
Feld (2012)	Supportive culture, networks, entrepreneurial activity, business-increasing talent, investment, teachers, role models, policies, university, free market, and regulatory support
Speckel (2013)	Policies and laws Government universities and support Living conditions Formal institutions, informal networks and interactions Leadership and education
Graham (2014)	Financial support, investment, international activities, human capital, and education.
Morris and colleagues (2017)	Policies and laws Government reality and support Capital Infrastructure International activities, human capital Informal networks and interactions Leadership and education

Source: prepared by the researcher

For his part, Professor (Eisenberg) presented in his research at Babson College in the United States, after a series of successful experiments that he conducted, a conclusion in which he indicated that the success of an entrepreneur depends on the set of human, financial and professional resources that he needs to work in a structure in which government policies support and encourage entrepreneurs. Eisenberg describes this environment as an entrepreneurial ecosystem. In his opinion, the entrepreneurial ecosystem includes hundreds of elements that interact with each other in a complex manner and can be classified into a year of main areas and groups (Eisenberg, 2011: 1). Eisenberg believes that the entrepreneurial ecosystem is self-preserving; because success will create success. When each of these six groups advances, they reinforce each other. The presence of factors and characteristics such as smoothness, balance and harmony are what make the entrepreneurial system produce successful entrepreneurs. The following figure represents Eisenberg's ecosystem model.

Leisberg Entrepreneurial Ecosystem Model



The practical aspect of the research

First: Research community and sample

1 -An overview of Iraqi governmental and private universities

Iraqi universities are divided into four basic sections of universities: The first is governmental universities; which are owned by the government, then the universities of the Kurdistan Region; which are located within the borders of the Kurdistan Region and owned by the regional government, then the private universities and colleges; which are private universities not owned by the government but may be owned by non-governmental institutions, unions, public or private organizations or even universities affiliated with non-Iraqi institutions, as well as universities and higher education institutions not affiliated with the Ministry of Higher Education and Scientific Research such as military universities and colleges and police colleges supervised by the Ministries of Defense and Interior and the colleges of the Sunni and Shiite Endowments Diwans.

The number of universities in Iraq has reached 35 governmental universities, 45 private universities and colleges, and one police academy. With a total exceeding 85 universities and academies operating inside Iraq, in addition to a university affiliated with the Ministry of Defense and another affiliated with the Ministry of Interior and two universities affiliated with each of the Sunni Endowments and the Shiite Endowments.

2- Descriptive analysis of demographic information

Table (2) Descriptive analysis of demographic information

% Percentage	number	Category	Demographic information
66.1%	119	male	Gender
33.9%	61	feminine	
% 100	180	total the	
20.6%	37	year So less 30	the age

18.3%	33	year 35 -from 30	
16.1%	29	year 40 -from 36	
18.3%	33	year 45 -from 41	
26.7%	48	year And more 46	
% 100	180	the total	
% 0	0	Bachelor's	achievement Academic
57.2%	103	Master's	
% 42.8	77	PhD	
% 100	180	the total	
% 51.7	93	Assistant Professor	Academic title
1.7 % 2	39	Teacher	
15.6%	28	assistant professor	
11.1%	20	Mr	
% 100	180	the total	
77.8%	140	Teaching	Title Job
20.6%	37	administrative	
1.7%	3	technical	
% 100	180	the total	
% 51.1	92	Years So less 10	Years of experience
36.1%	65	Years 25-from 11	
12.8%	23	year And more 26	
% 100	180	total the	

Source: Prepared by the researcher based on the outputs of SPSS.V.26.

Second: Measuring the research variables

Introduction

This section sheds light on the process of analyzing the study data by measuring the study variables related to (obstacles to the academic entrepreneurship ecosystem) through the arithmetic mean, relative importance, and standard deviation of all variables and their dimensions within the questionnaire paragraphs.

The level of responses was determined in light of the arithmetic averages by determining their affiliation to any category. Because the research questionnaire relies on the five-point Likert scale (completely disagree - completely agree), there are five categories to which the arithmetic averages belong according to the opinion of (Dewberry, 2004: 15). The category is determined by finding the length of the range (5-1=4), and then dividing it by the number of categories (5) ($4/5=0.8$). After that, (0.8) is added to the lower limit of the scale (1) or subtracted from the upper limit (5), and the categories are as in the following table:(3)

Table (3) Classification of Statistical Description Categories

Level	Categories	T
I totally disagree	1.8 - 1	1
I disagree	2.6 – 1.8	2
I have no opinion	3.4 – 2.6	3
I agree	4.2 – 3.4	4

I totally agree	5.0 – 4.2	5
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Source: Prepared by the researcher based on the outputs of SPSS.V.26

Third: Analysis of sample answers

Table (4) shows that the arithmetic mean value of the obstacles to the academic entrepreneurship ecosystem reached (3.82), which is higher than the value of the hypothetical mean that represents the dividing line between agreement and disagreement (3.5), thus confirming that the level of importance of the sample's answers to the paragraphs tended towards the agreement, with a standard deviation of (0.45), and a coefficient of variation of (11.78), and the relative importance of the obstacles to the academic entrepreneurship ecosystem was recorded (76.40%), which shows the agreement of most of the study sample members on the paragraphs of the variable, and from it we conclude that Iraqi governmental and private universities clearly rely on (internal obstacles, external obstacles) in their plans regarding the obstacles to the academic entrepreneurship ecosystem, but in varying proportions.

(Table (4) Level of importance of (obstacles to the academic entrepreneurship ecosystem

Relative importance %	Coefficient variation %	Std. Deviation	Mean	Secondary variables	T
73.40	12.81	0.47	3.67	Internal obstacles	1
76.40	13.87	0.53	3.82	External obstacles	2
76.40	11.78	0.45	3.82	Overall rate of barriers to the academic entrepreneurship ecosystem	

Source: Prepared by the researcher based on the outputs of SPSS.V.26

The levels of importance of the secondary variables within the obstacles of the academic entrepreneurship ecosystem were distributed between the highest level of response achieved by the variable (external obstacles) among the variables with an arithmetic mean of (3.82) and a standard deviation of (0.53), and a relative importance of (76.40), thus indicating that most of the study sample members agreed on the paragraphs of external obstacles, which documents that Iraqi universities face external obstacles to a large extent, which lead to the formation of obstacles of the academic entrepreneurship ecosystem based on the answers of the research sample, while Table (9) showed that the variable (internal obstacles) achieved the lowest level of response within the obstacles of the academic entrepreneurship ecosystem, as the arithmetic mean value of this variable reached (3.67) and the standard deviation was (0.47), and a relative importance of (73.40), thus confirming that most of the study sample members agreed on the existence of internal obstacles, to a lesser extent, facing Iraqi universities within the obstacles of the academic entrepreneurship ecosystem. Thus, the previous analysis has arranged the secondary variables within the obstacles of the academic entrepreneurship ecosystem from the highest priority to the least, as follows (external obstacles, internal obstacles), and this is in line with the results of the confirmatory factor analysis. To further understand the results of the level analysis according to the importance of the study sample's answers regarding the secondary variables within the obstacles of the academic entrepreneurship ecosystem, they were as follows:

1. Analysis of internal obstacles:

Table (5) shows the arithmetic means, standard deviations, coefficient of variation and relative importance of the dimension of internal obstacles. We note in this table (10) that the value of the arithmetic means for organizational and administrative obstacles reached (3.82), which is higher than the value of the hypothetical mean that represents the dividing line between agreement and disagreement (3.5), thus confirming that the level of importance of the sample's answers to the paragraphs of this variable tended towards the agreement, with a standard deviation of (0.70), and a coefficient of variation of (18.32), and the relative importance was recorded (76.40), which clarifies the reliance of the study sample individuals on the paragraphs of this variable, and from it we infer that Iraqi universities clearly rely on (legislative obstacles, human obstacles, material and technical obstacles, financing obstacles, organizational and administrative obstacles) in their plans regarding internal obstacles, but at varying rates.

According to the above, the relative importance of the internal obstacles dimension reached (73.40%) with a general standard deviation of (0.47) and a coefficient of variation of (12.81), and the relative importance of this dimension was less compared to the other dimensions of the academic entrepreneurship ecosystem obstacles variable. The average response rate for the paragraphs was (3.67), which means that the responses tended towards somewhat agreeing. This indicates the possibility of rejecting the null hypothesis H01 and accepting the alternative hypothesis H1 regarding the existence of obstacles that limit the ability of universities to coordinate and cooperate with other state institutions.

Table (5) Level of importance of the internal obstacles dimension

Table (5) Importance level of internal obstacles dimension

Relative importance %	Coefficient variation %	Std. Deviation	Mean	Secondary variables	T
70.40	21.31	0.75	3.52	Leadership barriers	1
71.80	17.55	0.63	3.59	Human constraints	2

73.80	19.24	0.71	3.69	Physical and technical obstacles	3
74.20	16.44	0.61	3.71	Financing barriers	4
76.40	18.32	0.70	3.82	Organizational and administrative obstacles	5
73.40	12.81	0.47	3.67	Overall rate of internal obstacles	

Source: Prepared by the researcher based on the outputs of SPSS.V.26

1. analysis External obstacles

Table (6) shows the arithmetic means, standard deviations, coefficient of variation and relative importance of the external obstacles dimension. We note in this table that the value of the arithmetic means for cultural obstacles reached (4.13), which is higher than the value of the hypothetical mean that represents the dividing line between agreement and disagreement (3.5), thus confirming that the level of importance of the sample's answers to the paragraphs of this variable tended towards accord, with a standard deviation of (1.39), and a coefficient of variation of (33.66), and the relative importance was recorded as (82.60), which clarifies the reliance of the study sample individuals on the paragraphs of this variable, and from this we infer that Iraqi universities clearly rely on (legislative obstacles, cultural obstacles, market obstacles, political obstacles, economic obstacles) in their plans regarding external obstacles, but in varying proportions. According to the above, the relative importance of the external obstacles dimension reached (79.40) with a general standard deviation of (0.53) and a coefficient of variation of (13.35). The relative importance of this dimension was greater compared to the other dimension of the academic entrepreneurship ecosystem obstacles variable. The arithmetic mean (3.97) for this dimension shows that the answers tended towards agreement.

coefficient of variation and relative importance of the 'Table (6) Arithmetic means, standard deviations external obstacles dimension

Relative importance %	Coefficient variation %	Std. Deviation	Mean	Secondary variables	T
77.80	15.68	0.61	3.89	Legislative obstacles	1
82.60	33.66	1.39	4.13	Cultural barriers	2
74.00	18.11	0.67	3.70	Market constraints	3
80.40	16.92	0.68	4.02	Political Obstacles	4
82.00	14.39	0.59	4.10	Economic constraints	5
79.40	13.35	0.53	3.97	Overall rate of external obstacles	

Source: Prepared by the researcher based on the outputs of SPSS.V.26

The results of the table indicate the inevitability of rejecting the null hypothesis H02 and accepting the alternative hypothesis H1, as the obstacles of the external environmental system limit dealing with entrepreneurship strategies and programs.

Conclusion

First: Conclusions

the current study found that several obstacles affect the academic entrepreneurship ecosystem, which prevents Iraqi universities from becoming entrepreneurial universities. These obstacles can be explained through the following points :

1-The weakness of entrepreneurial culture among employees in Iraqi universities, especially since the topic of entrepreneurial culture is one of the modern topics that has not been adequately studied within the scope of scientific research in Iraqi universities, and the universities have not provided sufficient educational programs that are presented to university employees about entrepreneurship and its requirements.

2- Weakness of the skills of human elements that enable them to establish pioneering projects at the university; this is because the culture of establishing pioneering projects at the university is a newly established culture that has not been sufficiently applied at the university, which means that the human elements at the university do not possess sufficient skills regarding it, and thus are not able to establish projects in a way that achieves leadership for the university.

3-The weakness of the material and moral incentives that support the qualified human element to achieve leadership in the university and their lack of compatibility with the tasks and work that he performs to achieve leadership in the university.

4-The university's lack of strategic plans that aim to optimally invest in its human element by developing its scientific research system in a way that contributes to achieving its leadership.

5-The shortcomings of the programs to attract qualified human competencies to develop the university; this is because the university does not provide sufficient and necessary development programs to attract qualified human elements to bring about development in the university and achieve its leadership.

6-Lack of focus on issuing new legislation concerned with developing scientific research that supports Leadership at the university on a regular basis, and the stagnation of some regulations and legislations, which prevents the achievement of development at universities.

Second: Recommendations

1- We recommend preparing educational programs for researchers, faculty members, and university employees about the entrepreneurial university and its requirements, as their need for more entrepreneurial culture is increasing day after day in light of global trends towards entrepreneurship.

2-We recommend that administrative leaders strive to develop the skills of the university's human element and establish pioneering projects through periodic training, supporting creativity and innovation at the university, and increasing the motivation to establish pioneering projects at it.

3-Increasing the material and moral incentives for the human element at the university; this is because the feeling of the element's Human appreciation for the effort he puts into performing the roles assigned to him makes him do his best In implementing his creativity and innovation in developing his performance and developing innovative and proactive solutions to the problems he faces or is expected to occur, and then achieving the university's leadership.

4-Developing effective strategic plans to achieve optimal investment in the university's human element, and opening different paths for partnerships with leading international and local universities to benefit from their qualified human cadres in achieving the university's leadership.

5-The independence of universities in making administrative and practical decisions, and granting university faculty members more academic freedom to participate in making decisions and expressing their opinions in the college, as well as the need for colleges to have more technical, financial and administrative independence.

6-Enacting relevant regulations and legislations related to developing scientific research and diversifying sources of spending on it, in a way that supports leadership at the university.

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