

## UNIVERSITY BUSINESS INCUBATORS AS A MEANS OF IMPROVING COLLEGE SUSTAINABILITY: AN EXPLORATORY STUDY IN IRAQ

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### Article Info

**Keywords:** university business incubators, college sustainability, entrepreneurship, small business organizations, economic development.

### Abstract

This paper explores the use of university business incubators as a strategy to improve the sustainability and performance of colleges in higher education. The study focuses on an exploratory analysis conducted at Al-Kunooz University College in Basra, Iraq. Business incubators are defined as organizations that provide newly established companies with physical space, administrative assistance, access to finance, and other support services to help them survive and grow during the first few years of operation. The research aimed to explore the possibility of adopting university business incubators and their expected implications for improving the college's sustainability. The study found that the implementation of the incubation program strategy has a statistically significant impact on achieving the sustainability of the college. The research concludes that business incubators play a crucial role in supporting sustainable business entrepreneurship, contributing to developing small business organizations, and promoting economic development strategies. The findings suggest that universities should consider adopting incubation programs as a strategy to improve the sustainability and performance of colleges. The study provides valuable insights into the potential benefits of incubation programs and their impact on college sustainability.

### Introduction

Business incubators are referred to as a powerful technical tool in economic development that promotes the concept of growth through creativity in the application of technology, supports economic development strategies, contributes to developing small business organizations in various sectors, including the education sector, as well as encourages growth from within the local community. And it provides a mechanism for technology transfer, the term incubation refers to the support process, while the incubator means the organization and infrastructure that has been prepared for the purposes, of achieve (support). Two issues result from the use of Business incubators they:

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1 - An increasing interest in promoting internal business development, and organizing investment in small business projects in particular, as a strategy for economic development. 2- Desire to develop high-tech business in the era of globalization

Noting that theorists and practitioners did not agree on a specific definition of business incubators, and the importance of business incubators in enhancing the sustainability of the college and improving its performance, the research was directed towards adopting business incubators as a strategy to achieve college sustainability through continuous improvement of its performance.

First: A summary of some previous studies.

The previous studies dealt with business incubators from different angles, (Onur Sungur, 2015) dealt with business incubators from the angle (the effect of external activities of networks of business incubators on), and the study on Company characteristics Including the companies that have networks linked to relevant external parties that have the possibility of survival more than Companies that do not have any activities related to the external network, and (SARFRAZ A. MIAN, 1996 ) described in his study titled (Incubators: A strategy for developing new research for technology-oriented companies) incubators as a tool that provides insights for policy makers and aspiring entrepreneurs towards diverse designs of facilities,

And management policy, and added value, business incubators were used in universities Pioneering as a strategy to support new research for technology-oriented companies, (Magnus Klofsten, 2016) concluded in the paper tagged (The Role of Business Incubators in Supporting Sustainable Business Entrepreneurship) that provides networks and specializations in sustainability-oriented incubators to help tenants who need specialized support. For sustainability ideas, although these competencies may be available within the organization or through subordinate networks that involve actors such as (universities, technology groups, investors, and sponsors) , The study of (Vernet Lasrado et al , 2015) aimed to assess the possibility of graduates of companies participating in university business incubators achieving a higher level of performance compared to companies not participating in university incubators, in order to determine the level of impact of the incubator's performance., and the most important result of the study is (that companies incubated by the university grow faster (in the number of jobs and sales) compared to companies that are not incubated, And you may exceed it in a short period), The study of ( David A. Lewis et al, 2011 ) clarified that (the best practices for the incubation program is for the incubator to operate through it like the business organization itself, as it has: mission, goals, strategies, salaries, employees, cash flow, and most of the characteristics of other business organizations. Finally, incubators are business organizations that help create and promote new businesses. The annual report was identified for the implementation of the strategic plan Prepared by (Unlocking Potential Fanshawi) the strategic objectives that contribute to the sustainability of the college with (growth in local and regional support for the college, the need for job markets for graduates, the flexibility of students' opportunities to reach learning options that respond to students' needs and expectations, providing the students' initial learning needs and preparing them. For professional life, encouragement towards the achievement of high goals and sustainable college. From previous studies, the following are concluded:

- The clear role of business incubators in supporting sustainable business entrepreneurship
- Incubators that have networks linked to external parties contribute to the likelihood of business organizations staying and improving their performance.
- University incubators provide visions for policy makers and aspiring entrepreneurs towards diverse designs for productive projects, management policy, and added value.
- Incubation by universities helps companies accelerate job growth and sales.

- The incubation program should include the mission, strategic objectives, strategies, and financial requirements as they are in the business organization in which it operates.
- The good use and operation of incubators can help achieve the strategic goals of the college and the sustainable college.

Second: Research methodology.

Research purpose: try to verify the use of incubators as a strategy to improve the college's performance and sustainability.

1 - The problem: The development and growth of colleges in general, and the private ones in particular, require modern tools and techniques, the most important of which is university business incubators, which provide networks and specializations that contribute to achieving sustainability, and help stakeholders who need specialized support for sustainability ideas, and are the incubators guided by the sustainability strategy. The important tool in the growth and development of colleges, the problem was summarized by the following question: -

(Can the incubator, as a comprehensive strategy, contribute to improving the performance of the college and maintaining its sustainability?) 2 - Objectives:

- Achieving acceptable growth for enrolled students during the strategic timeframe.
- Providing opportunities that respond to the needs and desires of graduates.
- Developing leadership talents and expanding leadership development to include all higher departments, as well as improving and organizing performance development processes for all employees.
- Development of interaction and interdependence relationships between the college and the local community, and other stakeholders.

3 - Importance:

- Raising the interest of university administration and investors about the role that university incubators play in improving projects in the private and government sectors.
- Providing researchers and scholars with information about the concept of incubators and their importance to the organization and society, and how to benefit from incubators in support of the development and development of the national organizations and development assigned to them.

4 - Hypothesis

Main hypothesis: There is a statistically significant impact of implementing the incubation program strategy at Al Kunooz University College on achieving the sustainability of the college itself.

The first sub-hypothesis: There is a statistically significant impact of implementing the incubation program strategy at Al-Kunooz University College on achieving overall environmental sustainability.

The second sub-hypothesis: There is a statistically significant impact of implementing the incubation program strategy at Al-Kunooz University College on achieving overall internal sustainability.

5 - Study method: (curriculum, community and sample, data collection tools, statistical methods used for analysis according to the movement of the conceptual model)

The research involved in its study the integration between the deductive and inductive approaches, as the analysis and the adopted synthesis used logical evidence in the theoretical side of the research, and quantitative analysis in the field side of it, the research was conducted in one of the private colleges in Basra, which aspires to growth and development, and the adoption of modern technologies that They contribute to improving its performance and sustainability, and because the research is exploratory, a checklist was used to explore the possibility of adopting university business incubators in the aforementioned college, and their expected implications for improving the college's performance and sustainability. The study model was based on three main dimensions:

(the first - independent dimension : (implementation of the incubation strategy ) and it consists of the first major variable: the basic characteristics of the incubation group, and it includes 18 questions, and the second main variable (the strategic framework of incubation program ), and it includes 14 questions, and the second dimension – depend variable: ( the expected outcomes from the implementation of the incubation strategy in the college ) and includes

6 Questions The research used some appropriate statistical methods. Third: The theoretical framework of the study

1: Definition of incubators and their types: The literature on the term incubators began to be presented by looking at the definitions of the main terms to identify the degree of homogeneity between them and other studies, source ( David A. Lewis, et al , 2011 ), the industry uses some terms related to incubators interchangeably, and this may cause Some confusion, while others may be relatively new to the of terms, so it has prevailing dictionarybecome

necessary to search for clear definitions that help to achieve a common understanding of business incubators.

Business incubation programs are designed to accelerate the successful development of leading companies in the business through areas that support business resources and services, which have been established by the management of the incubator, and have been displayed both in the incubator and through its network of contacts. The main objective of the business incubation program is to present the successful companies that make the program able to provide financial returns, depending on its own capabilities. In field practice concepts, “business incubation program” and “business incubator” are often used in the same sense. The broad definition of a "business incubator" indicates that it is an institution that provides physical space for work, administrative assistance, access to finance, and other support services for newly established companies to help them survive and grow during the first years of their life (Suk and Mooweon, 2006: 30). ‘McCluskeyandAllen 1990 : 61 defined business incubators as (organizations that “provide the required space at reasonable prices, provide joint support services, and assist in developing businesses in an environment conducive to the formation, survival and growth of industrial enterprises in their early stage of growth.” (Carayannis and von Zedtwitz (2005: 104-105) introduce five services as the center point of incubation , Business incubators are referred to as (access to financial resources by entrepreneurs, venture capitalists, etc.), ( support the start-up of entrepreneurship (business plan, legal / accounting advice etc.), and access to networks. However, several other definitions were provided for business incubators, including: -

The business incubator is a multi-tenant facility that manages and directs the incubator program from the same site, An incubator also means the organization and infrastructure that has been prepared to achieve (support and backing) the organization. it is also known as (a facility established to take care of emerging (newborn) business organizations. It usually provides required space, sharing offices and services, administrative training, marketing support, and often obtaining some form of financing).

( <http://www.businessdictionary.com/definition/business-incubator.html> ) ,

It is also known as (a business unit capable of continuous growth that provides all employees with satisfaction and success) (<http://www.businessdictionary.com/definition/business-incubator.html> ) The previous definitions summarized as :

- The business incubator is an independent business unit.
- It helps to develop industrial and service projects in its early stages (birth and emergence stages).
- It contributes to accelerating growth. and sustainability, and continuous improvement.

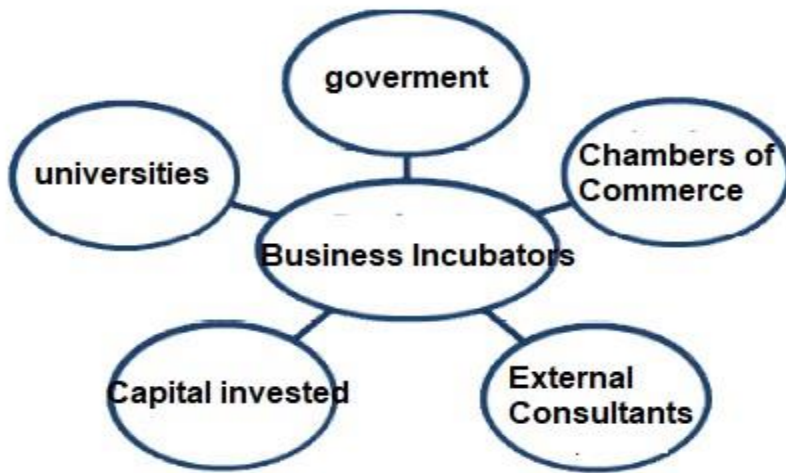
- Sponsors administrative training programs, supports marketing, and assists the organization in obtaining some forms of financing.
- it's achieved the satisfaction and success of all workers.

Some researchers have divided incubators into four types: (with walls, without walls or virtual incubators, international incubators, and accelerators). The previous classification distinguishes between business incubation models, Some researchers in the field of business incubators such (Clarysse et al, 2005), (Bøllingtoft, A., & Ulhøi, J. P. (2005), (Lewis, D.A. (2001)); ( Sherman, H. (1999) assumed :

(There are differences in programs and outputs between traditional business incubators and business incubators (without walls / virtual business incubators), Walled Incubators are intended as (a multi-tenant business incubation organization program that is subject to a management site. In addition to the aforementioned, the Walled Business Incubator offers businessmen the space in which they can save their business. The focus of the business program remains on providing additional services for new businesses, and not on the building itself. Incubators differ in the way in which they provide their services, in their organizational structure, and in the types of customers they serve. Largely adaptable incubators have different goals, among which are diverse regional economies, providing job opportunities for the local community, increasing its wealth, and transferring technology from universities (Linda Knopp, 2006), In light of the previous, business incubators have been classified as follows:

- Business incubators: Promote the continuity of national and regional industrial and economic growth, including increasing job opportunities through developing public businesses or stimulating specific economic goals such as industrial restructuring and wealth generation, or resource use.
- Technology Incubators (TI): intended to support the technology development stage. The primary goal of technology incubators is to promote the development of technology-dependent companies, and to assist in the implementation of technologies under development. These incubators are established in or near universities, research and development institutes, and science and technology sites or near them.
- Technology Business Incubators (TBI): Technology business incubators are a joint venture of universities, public research institutes, local government, and private sector institutions to promote and support the concentration of new technology for industrial projects. Technology business incubators refer to the type of incubation as the interaction of the creative focus group, and the more technology-oriented business, with the academic field provides alternative elements for the incubation process. The push towards technology business incubators appears in parallel with the strong spatial shift in the economic processes of the present stage. Interpreted on the basis of response to the challenges of a learning-based economy. Several studies emphasized network services as the most important component of the incubation process.

### The external network of business incubators



Source: Hallam and Devora, 2009: 1877. 2 - Business incubators in colleges

The research tries to identify business incubators in colleges, in order to reveal their impact on the sustainability of the college, and the continuous improvement of its performance. university campuses generate innovation, as a result of student growth based on learning and academic experience. Most universities work to nurture creativity at the university by opening business incubators, which help students and other segments of society to transform creativity from dream to reality. And that is through wonderful funding opportunities, and other opportunities to participate in learning and exchange of ideas,

For example, the Hampton University Business Incubator is a partnership project between Hampton University and the Hampton Community Development Corporation (HCDC). The US State Department of Housing and Urban Development, and the Human and Health Services Department in the United States of America, have provided funds for the construction Incubator, the partnership includes (the cities of Hampton and Virginia). The purpose of adopting this business incubator is to provide space and provide care for new and small companies during the early period of its birth. As well as providing office space, providing advice, technical assistance and other services that are often unavailable to new or small companies due to their cost or location of services, and business incubators help to refine student ideas and convert their ideas about business into viable business opportunities. Depending on the: -

- Helping to enhance students' ideas through market research and business prototypes,
- Then it is developed through training that provides instructions to students on how to present business opportunities to potential investors, other incubators, banks, and the like) Susan L. Robertson and Fumi Kitagawa , 2011) , Universities in the present stage face four main challenges: (incubation of newborn companies, commercialization of knowledge, marketing of entrepreneurship curricula, developing knowledge transfer between partners), It can be faced through the two main functions of the university, namely (teaching and research), and this means developing many alternative means and methods that contribute to generating ideas to meet these important challenges, the universities that bear such a new responsibility are called (the leading university) , ( Clark, 1998; Etzkowitz , 2003 ) , Or service university (Cummings, 1998), or (enterprise university) (Marginson and Considine, 2000), or (academic capitalism) (Slaughter and Rhoades, 2004) , The present stage showed a shift in government policy, from focusing on distinguished research and its dissemination to the

academic community, to one that includes a set of knowledge transfer activities in broad cooperation with business sectors and other stakeholders. The Action Plan for Future Universities Policy for the year 2009 showed high ambitions in Focusing on knowledge economics the most important mechanism for universities has been shown: generating, preserving, disseminating and transforming knowledge into social and economic benefits on a larger scale (BIS, 2009a: 7). In this context, governments wish to support and achieve innovation in high technology through the benefits provided by companies to the university, And high-tech incubators (Wright *et al*, 2006 ), University incubators act as "boundary spanners" whose mission is to maintain communication and new opportunities for the development of the company, as well as mutual learning between the university and the economics of the local community. University incubators also contribute to (generating, preserving, disseminating and transforming knowledge into social and economic benefits on a larger scale), and business incubators have become widely popular and everyone has become preparing it as a useful tool to create a better climate for entrepreneurship, helping to reduce the failure rate in small projects. From all of the aforementioned, the following is deduced:

- University incubators are referred to as a partnership project between a group of beneficiaries that provides care requirements for newborn companies.
- By refining student ideas about business and transforming them into meaningful business opportunities that benefit students and society.
- And the development of many alternative means and methods that contribute to generating creative ideas for students and directing them towards marketing entrepreneurship curricula, and developing knowledge transfer among partners.
- By relying on generating, preserving, disseminating and transforming knowledge into social and economic benefits on a larger scale.
- This makes them serve as border monitoring points that achieve communication with newborn companies and contribute to their development.

3 - Business incubators as a strategy for college sustainability in The strategic dimensions outlined below affect the design and implementation of the strategic framework for business incubators: higher education: - - General business environment.

- Funding and sustainability strategies.
- Owners and management. Monitoring and evaluation.

Business incubators provide center support for businessmen through a supportive environment that helps establish ideas related to their business and transform their concepts into market-ready products, contribute to the acquisition of business knowledge, facilitate the increase in necessary financing, and enable entrepreneurs to enter business networks, These all significantly reduce the level of failure, they not only allow new investors to start their business by reducing the costs and risks involved, but also increase the chances of survival and success by relying on building energy and networks. Business incubators attract substantial support from government across the world and a wide variety.

Of the areas of environmental development, incubators are usually designed and implemented to achieve the goals set as part of the broad strategic framework (regionally directed or regional strategy), or (specific policies directed towards creating job opportunities and social and competitive policies), or it may be a combination of these factors, and best practices indicate the need for strong consistency between incubator programs and the comprehensive economic development strategy. The main goal of business incubators is to help emerging organizations to reach the status with which they can rely on themselves after leaving the incubator, (Barrow, 2001, p. 14 ; Aernoudt, 2004; Hackett & Dilts, 2004), The main reason for the association of emerging

organizations with incubators is in order to build an industrial or service project that can successfully communicate with its local community ( Tötterman& Sten, 2005 ), This requires strong consistency between the economic objectives and the long-term incubator approach, which takes an average of no less than (10 years),To ensure the establishment and sustainability of the incubator industry, as well as to achieve good workflow in the business environment in which the incubator operates, the incubation policy should cover a long-term program, which is part of the clear strategic framework, which has been developed and refined during the past years of the incubator. This is due to the need for modernization and flexibility in targeting new needs, as well as revealing weaknesses in the incubation system, investing and replicating good incubation practices, as well as in order to identify and replicate good local practices, The strategic framework for the incubation also includes the revitalization of the industrial cluster that should be attractive to the country or region, Incubator graduates can generate new job opportunities by revitalizing neighboring areas, commercializing new technologies, and strengthening the local economy. Establishing incubators tend towards industries that are already of interest to the national or regional authorities, tends to suggest that businesses in such incubators will have the ability to benefit from a wide range of services and other supportive programs. And moreover, Incubators serve a greater purpose than simply helping a subset of small, independent firms with their politics. Accordingly, the incubators do not focus in a limited way on a specific sector. But it is of a mixed nature in order to ensure that a large number of cash flows are handled, Business incubators reduce the risk of failure and aid in the development and growth of existing organizations, (Allen & Rahman, 1985 ), In the emergence stage, small business organizations seek to improve opportunities that achieve acceptable outcomes for stakeholders, help them respond to the needs and desires of the local community. Business incubators generate a high level of political and economic expectations related to their performance.( Vedovello & Godinho, 2003 ).The strategic focus of university incubators should be on formulating and activating the human strategy in the college (Operationalize the College's People Strategy). The college's human strategy gives priority to options for where and how to invest in the human resource in order to achieve strategic goals and prepare entry to the workplace, The conceptual model for aligning people operations with the strategic framework is presented. The development of the model relied on consultation to define its components. the main achievement is expected to focus on completing: the human strategy model, the completion of the leadership talent management process included in the new leadership development program, the expansion of the leadership assessment program to include all senior management, and a proposal for further expansion of the evaluation program. Performance development for all employees. The college reveals a renewed vision for identifying and measuring employee participation, and completing important work that achieves alignment between human resources policies and the college's human strategy. The college reveals a renewed vision for information and measuring employee participation, and completing important work that achieves alignment between human resources policies and the college's human strategy. it supports measures to meet the current and future needs of skilled labor in the governorate. The growth of local students is achieved with the development of new markets, including students of Basra Governorate. When the programme's strategic opportunities are delivered nationwide, or training opportunities arising from contracting with other specified authorities in the governorate,

Based on the foregoing, business incubators as a strategy to improve university performance and the sustainability of the university (college),The research will deal with the issue of incubators, within the strategic framework of the following incubation

Program:-

A - Defining the strategic (long-term) goals of the incubation program, which fall within the directions that ensure (enable colleges to rely on themselves away from helping the incubator and in the shortest possible period of time). (Fanshawe Unlocking Potential 2014 / 2015 ). These goals were summarized as follows:

The first: the growth in student registration to approximately (15%) in a five-year period, in order to meet local and

national requirements for the training of skilled labor, and preparatory school outputs.

Second: Ensuring that all students have opportunities to access flexible learning options, tailored to meet their needs and expectations.

Third: Providing elementary education, student life, and creating professional experiences from within the college system itself.

Fourth: Encouraging work to achieve high performance and a sustainable college),

Fifth: Developing a general policy whereby the incubator is directed to convert creative ideas and concepts into market-ready products, based on knowledge acquisition and dissemination, to ensure successful cooperation between the college, industry and the community. And it increases the chances of survival and success of the college. The incubator network contributes to expanding the college's relationship with its wide external environment.

Sixth: Using the tools and results of the environmental and strategic analyzes to promote positive integration between the college and the environment in its private and public dimensions. To uncover a wide range of initiatives in support of the college by the government and other relevant authorities, which help to reduce the failure rates that the private college may encounter scientifically and financially, and to address other environmental problems such as (legal obstacles, governmental administrative procedures that impede the work of the college, and accelerate Colleges work towards achieving their main objectives), in addition to helping the college administration to address the lack of experience in the field of (training, advisory and other support services).

Seventh: Building a strategy that allows support for the formation of the new incubator and its expansion in the environment in which it is located, and to achieve significant improvement in coordination between the incubator and the policy of developing small projects, and other strategic initiatives that help lead the college through the targeted stages of its growth.

Eighth: It falls within the human strategy model, or the strategy whose strategic framework covers the needs and desires of people from within the organization and in its local community, as it is internally directed towards building and developing the human resources strategy, and its external vision extends to cover the goals of the local community and stakeholders.

Ninth: Developing multiple work streams through the incubator that helps ensure that the college deals with a large number of cash inflows. And to reduce the risks of failure that may be exposed to colleges and private ones in particular, as well as the growth and development of existing colleges.

Tenth: Presenting new technologies and means of work that enable the college to respond strongly and quickly to new opportunities.

Third: the field study.

1 - Description of the incubators in the college in the field of research:

Al-Kunooz University College is described as one of the important private sector colleges at the level of Basra Governorate in particular, and at the level of Iraq in general, it fully meets the requirements for university teaching, (its teaching facilities are good and sufficient, the number of its students exceeds 1500 students, its teaching and

administrative staff is semi-integrated, Teaching facilities and equipment are well available). The college aspires to be one of the distinguished colleges in Iraq, and seeks to consolidate its internal construction and improve its strategic performance, as well as build strong and advanced relationships with the local community (Basra Governorate community). The aforementioned ambitions, and it became clear to the specialists that working according to the directions of (university business incubators) is the best method in this field, Whereas incubators mean a new concept for Iraqi colleges in general, and the college in question in particular, It is difficult to establish an incubator with all the characteristics and specifications at the present stage that the country is going through. Therefore, the research in its field aspect tried to borrow the essence of the concept of university business incubators, which means (a program to be established to encourage the development of entrepreneurial projects (Article 16), The concept of incubators and the method of their college assistance were adapted according to the concept that is compatible with the Iraqi university environment. And without going beyond the main characteristic of university business incubators, The incubator has been replaced as a specific organizational entity, By (Incubation group that includes a variety of specialties), Which possesses the technical capabilities and resources that enable it to develop the internal capabilities of the college, and to maintain its communication with the local community, And regional when necessary, By building a program or strategy that frames and directs the basic concepts of incubators, and ensures that the college responds to the requirements that contribute to improving its performance and the sustainability of its active existence.

## 2 - Test the validity and reliability of the measuring instrument

Research used for the purposes of testing validity and reliability two ways

First: The method for the arbitrators' "opinions to verify the apparent validity and content validity. The arbitrators made some simple observations on the basis of which some paragraphs of the measurement tool were amended. The second: The Cronbach alpha method to verify the internal consistency of the paragraphs of the measuring instrument, as the value of (the alpha of the scale was 77.2%), and this indicates that the homogeneity of the tool is at a good level (Gliem & Gliem, 2003: 87), Thus, the validity and reliability conditions are available in the measuring instrument, which means its suitability for the test.

## 3 - Descriptive statistics (describing variables):

The arithmetic mean, standard deviation and standard error were used to estimate the importance of each of the study variables. The hypothetical mean (3) was used as a basis for determining the direction of importance. Above the value three indicates the interest of the sample members in the variable, and less than the value three indicates the weakness of the sample's interest in the variable. The arithmetic mean is the main indicator of interest, which is supported and enhanced by the standard error and standard deviation.

A - Statistical description of the dimension (basic characteristics of the incubator):

### Descriptive Statistics

	N	Mean		Std. Deviation	Variable name
	Statistic	Statistic	Std. Error	Statistic	
VAR00001	40	4.3750	.10554	.66747	1 - Incubator group
VAR00002	40	4.2500	.11740	.74248	2 - Providing tools and supplies
VAR00003	40	4.3750	.09928	.62788	- Developing policies and strategies

VAR00004	40	4.3500	.11065	.69982	- Successful administrative process
VAR00005	40	4.2750	.08761	.55412	5 - Team work
VAR00006	40	4.4000	.11767	.74421	relationship with strategic partners
VAR00007	40	4.5750	.08688	.54948	- Relationship with higher education institutions
VAR00008	40	4.4500	.10096	.63851	8 - Access to funding sources
VAR00009	40	4.4500	.12885	.81492	9 - Providing opportunities for graduates
VAR00010	40	4.3750	.12754	.80662	Matching the role of incubator
Valid (listwise)	N40				

From the above table, which includes the indicators of the statistical description of the dimension (the basic characteristics of the incubator group), the following has become clear:

- The mean values of the ten variables describing the characteristics of the incubation team ranged between (4.5 - 4.2), They are all above the hypothetical mean of the scale, and indicate a strong interest by individuals in the cuddling team dimension. The value of the variable confirmed the correspondence with the incubators of (4.37) to a very high agreement between the assumed incubation team and the incubators under study.
- The values of the standard deviations of the variables of the same dimension ranged between (0.81 - 0.541), which is very small, and indicates the homogeneity of the opinions of the sample members.
- The values of the standard error of the variables of the same dimension ranged between (0.12 - 0.08), which is very small, and indicates the accuracy of the measurement model.

Result (1) The characteristics of the assumed incubation team match the characteristics of the real incubators, and the possibility of using it as an alternative to the incubator in the current study.

B -The statistical description of the (strategic framework for the incubation program) dimension:

#### Descriptive Statistics

	N	Mean	Std. Error	Std. Deviation	Variable name
	Statistic	Statistic	Statistic	Statistic	
VAR00011	40	4.4750	.11316	.71567	11- Availability of sustainability requirements
VAR00012	40	4.3250	.14930	.94428	12 - Discuss issues with the community
VAR00013	40	4.4750	.14317	.90547	13 - Correspondence between internal capabilities and external requirements

VAR00014	40	4.5000	.11875	.75107	14 - Discussing the student admission strategy
VAR00015	40	4.6250	.09928	.62788	15 - Establishing the incubation stages.
VAR00016	40	4.4250	.08688	.54948	16 - Periodic evaluation of the program
VAR00017	40	4.5250	.10734	.67889	17 - Entrepreneurial culture
VAR00018	40	4.3750	.12754	.80662	18 - Penetration into the joints of society
VAR00019	40	4.3250	.10370	.65584	19 - Good relationship with partners
VAR00021	40	4.5250	.09465	.59861	20 - Modern educational technology
VAR00020	40	4.4500	.10712	.67748	Long term program
VAR00022	40	4.3250	.14495	.91672	22 - Community care
VAR00023	40	4.2750	.16790	1.06187	23 - Overcoming weaknesses
VAR00024	40	4.5000	.12910	.81650	24 - Enhancing the reputation of the college
Valid N (listwise)	40				

From the above table, which includes indicators of the statistical description of the dimension (the strategic framework of the incubation program), the following has become clear:

- The arithmetic mean values for all the ten dimension variables describing the strategic framework of the incubation program ranged between (4.6 - 4.3) and they are all higher than the hypothetical mean of the scale, and indicate a strong interest on the part of the sample members in the dimension of the strategy of the incubation program. The value of the variables (sustainability requirements, strengthening the relationship with the community, good relationship with partners, enhancing the reputation of the college) confirmed the response of the incubation program to the college's

- College) to the incubation program's response to the college's sustainability goals.

- The values of the standard deviations of the variables of the same dimension ranged between (1.00 - 0.54) and they are all smaller than the correct one except for the variable (23). The smallness of their values indicates the homogeneity of the opinions of the sample members.

- The values of the standard error of the variables of the same dimension ranged between (0.16 - 0.08), which is very small, and indicates the accuracy of the measurement model.

Result (2) Working according to the variables of the strategic framework of the incubation program provides an appropriate environment to achieve the college's sustainability.

C - The statistical description of the dimension (expected outcomes from the implementation of the incubation strategy):

### **Descriptive Statistics**

It is clear from the above table that includes indicators of statistical description of the dimension (expected results of the incubation program) the following:

- The mean values of all the six dimension variables describing ( the expected results of the incubation program ) ranged between (4.5 - 4.2) and they are all higher than the hypothetical mean of the scale, and indicate a strong interest by the sample members in both the environmental and internal dimensions of the college, and it emphasized the balance between the values of the two dimensions Environmental and internal, the ability of the college to respond rapidly to change in its external environment.

	N	Mean	Std. Deviation	Std. Error	Variable
Inter Statistical Job Statistic of Student En Dra Statistic Mar	Statistical Job	Statistic of Student En Dra	Statistic Mar	Variable	Leadership (IJCPL) Vol. 14 (6)
VAR00025	40	4.5500	.11294	.71432	1 - The continuity of attracting students
VAR00026	40			.78406	2- Providing job opportunities for graduates
	40	4.2750	.12397	.96609	3- Enhancing college support
VAR00027	40	4.2000	.15275	.62224	4 - Continuous improvement in the performance of teachers and employees
VAR00028	40	4.3500	.09838	.72324	5 - Rapid response to environmental changes
	40 40			.71611	6 - Continuous improvement of financial performance
VAR00029		4.2000	.11435		
VAR00030		4.5000	.11323		
Valid N (listwise)					

- The values of the standard deviations of the variables of the same dimension ranged between (0.72 - 0.62), which are all smaller than the correct one, and the smallness of their values indicates the homogeneity of the opinions of the sample members.

- The values of the standard error of the variables of the same dimension ranged between (0.15 - 0.098), which is very small, and indicates the accuracy of the measurement model.

Result (3) The application of the incubation program in the college is reflected in the ability of the college to achieve both environmental and internal sustainability, which means (the ability of the college to survive and continue).

4 - Causal statistics and (hypothesis testing): to statistically verify that the implementation of the incubation program leads to the final result of achieving college sustainability (survival and continuity), and to prove the validity of the main research hypothesis (there is a statistically significant effect of implementing the strategy of the incubation program at the University College of Konooze on the achievement of Sustainability of the college itself).

A- Regression analysis of the environmental dimension on the variables of the incubation program: The following summary of the model includes the results of regression of the environmental dimension of the college on all variables of the incubation program

Model	R	R Square	Adjusted R Square	sig
1	.849 <sup>a</sup>	.721	.565	0.00

The results of the regression included in the model summary results showed the following: -

- The value of the total correlation coefficient for the dependent variable ( the environmental dimension) ,with all variables of the independent dimension,( the strategy of the incubation program) reached (.849),This indicates the strength of the correlation of the environmental dimension with the incubation strategy dimension, enphase the common ground of the two dimensions.

- The value of the regression coefficient for the depend variable (the environmental dimension) with all the variables of the independent dimension (the incubation program strategy) reached (.721 or 72.1%), indicating that

the variables (the incubation program) explain the value of (72.1%) of the change in (The Environmental Dimension of the College), that is, it has a strong influence on changes in the environment.

- • The value of the significant significance of the test model was (0.00), indicating the significance of the test model and the validity of the first sub-hypothesis that (there is a statistically significant effect of implementing the strategy of the incubation program at Al-Kunooz University College on achieving overall environmental sustainability).

B - Regression analysis of the internal dimension on the variables of the incubation program:

The following model summary includes the results of the regression of the internal dimension of the college on all variables of the incubation program.

Model	R	R Square	Adjusted R Square	SIg
1	.813 <sup>a</sup>	.661	.472	.003

The results of the regression included in the summary of the model results revealed the following:

- The value of the coefficient of the total correlation of the depend variable (the internal dimension) with all the variables of the independent dimension (the incubation program strategy) amounted to (.813 ), indicating the strength of the correlation of ( the college's internal dimension) with the dimension of the (incubation strategy) , indicating the common ground of the two dimensions.

- The value of the regression coefficient for (depend dimension of the model) with (all variables of the independent dimension of the incubation program strategy) was (66.1%), indicated that the incubation program variables explain (66.1%) of the change in the model's adopted dimension, That is, it has a strong impact on variables for the sustainability of the college.

- The level of l significance of the test model reached (.003), indicating the significance of the test model and the validity of the second sub-hypothesis that (there is a statistically significant effect of implementing the strategy of the incubation program at Al-Kunooz University College on achieving overall internal sustainability).

C - Regression analysis of the dependent dimension (college sustainability) on the independent dimension variables (Incubation program):

Below is a summary of the results of the regression of the model dependent dimension on all the variables of the independent dimension (Incubation Program):

Model	R	R Square	Adjusted R Square	SIg
1	.839 <sup>a</sup>	.704	.539	0.001

The regression results included in the model results summary showed the following: -

- The value of the overall correlation coefficient (of the depend dimension) with all the variables (the independent dimension of the incubation program strategy) was (.839a), indicating the strength of the correlation of the depend dimension of the model with all variables of the dimension ( incubation strategy) , indicating the common ground of the two dimensions.

- The value of the regression coefficient for the depend variable (the internal dimension) with all the variables of the independent dimension (the incubation program strategy) was (.704 i.e. 70.4%), Noting that the variables (incubation program) explain the value (70.4%) of the change in the depend dimension of the model (college sustainability), meaning that it has a strong impact on changes aimed at the sustainability of the college.

- The (Beta) values that describe the effect of each of the independent variables in the depend dimension and through the relationship with the independent variables in the model, as the following: -

		Standardized Coefficients			Variable name
Model		Beta	t	Sig.	
	VAR00015	-1.265	-3.659	.001	- 15Establishing the incubation
	VAR00016				16 - Periodic evaluation of the
	VAR00017	-.469	-3.083	.005	program
	VAR00019				17 - Entrepreneurial culture
	VAR00021	-1.040	-2.489	.020	
	VAR00023	-1.231	-3.848	.001	19 - Good relationship with
	VAR00024				partners
	var32	-.698	-1.954	.062	21 - Long-term incubation
					program
		-1.091	-2.420	.023	23 - Overcoming weaknesses
		-1.181	-3.091	.005	24 - Enhancing the reputation of
					the college
		4.150	2.426	.023	32 - Independent Dimension
					(Incubation Program) .

Note: If the significance index of (Beta) is significant, then it indicates the positive effect of the independent variable in the dependent dimension, regardless of the positive or negative (Beta) value.

The above table shows the significant (Beta) values of the variables (15, 16, 17, 19, 21, 23, 24, 32) mentioned in the same table. This means that the college's sustainability depends on the availability of factors such as (establishing incubation stages, periodic evaluation of the incubation program, leadership culture, good relationship with partners, long-term incubation program, overcoming weaknesses, strengthening the college's reputation).

Result (4) (The college should pay attention to the long-term incubation program, evaluate it periodically and overcome the points of bankruptcy from the inside, and strengthen the relationship with partners from outside in order to enhance the reputation of the college and ensure its sustainability).

Summary: The positive and strong response of the sample members to (the incubation team dimision ) was a good indication of the sample's awareness of the concept of alternative incubators in this study, and this was reflected on the reliability of the answer about the other two dimensions, and the answers showed that (Incubation program) that is planned and implemented by the incubation team is the best practice in achieving college sustainability and continuously improving its performance.

Fourth: Conclusions and recommendations.

1 - Conclusions.

- There is a match between the characteristics of the assumed incubation team and the characteristics of the real incubators,
- The possibility of using the incubation team instead of the incubators in Iraqi university colleges.
- Working according to the variables of the strategic framework of the incubation program provides an appropriate environment for achieving the sustainability of colleges in Iraqi universities.
- The application of the incubation program in the Iraqi college is reflected in the college's ability to achieve both environmental and internal sustainability, which means (the college's ability to survive and continue).
- The implementation of the incubation program in the Iraqi college has a positive effect on achieving the sustainability of the college itself.
- Paying attention to the long-term incubation program, and evaluating it periodically, overcoming weaknesses from within, and strengthening the relationship with partners from outside that enhances the reputation of the college and ensure its sustainability.

## 2 - Recommendations...

The first recommendation: spreading the culture of incubation in the college subject of study and other Iraqi colleges through: -

- Distributing literature on incubators and incubation programs between faculty teachers and investors using (books, periodicals, and conferences specialized in this aspect).
- Clarify the strategic goals and short-term goals that the incubation program is expected to achieve for the college. The second recommendation: the use of the incubation team in the college subject of study and other Iraqi colleges, depending on: -
- Choosing team members from the disciplines that fit the college's specialization first, provided that they have the ability to study the local community and maintain a relationship with it second.
- Availability of cooperation and harmony between members of the same team.
- Active support from the college administration and investing party to the incubation team.

Third recommendation: Developing a clear and feasible strategy for the incubation program in light of: -

- Clearly defining the vision, mission and goals of the program, and the logical and sequential relationship between them.
- Analyzing the internal and external environments of the college to determine the most important elements in the sustainability of these two environments.
- Planning for compatibility of the requirements for the sustainability of the internal environment of the college with the continuous changes in the college community and environment.

Fourth recommendation: Determine the basic elements on which the sustainability of the college in question, and other Iraqi colleges, depends on, through: -

- Accurate prediction of expected environmental changes, using (intuitive forecasting methods and quantitative forecasting methods).
- Preparing a comprehensive and long-term plan to improve the efficiency of the academic and administrative bodies in the college. - Completing the financial and human requirements for college success.

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