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ENVISIONING UNIVERSITIES' ECONOMIC ROLE AS ENTREPRENEURSHIP INCUBATORS

Dr. Zakaria Ahmed Atyat

Department of Business Administration Al-Balqa Applied University -

Atyat.za@bau.edu.jo

This study examined the potential economic role of Jordanian universities as entrepreneurship incubators by identifying their future role as incubators for entrepreneurial businesses. The entrepreneurial business success level is demonstrated by the performance of universities in creating new job opportunities, reducing unemployment, improving the level of income and living, and in contributing to empowering the owners of these businesses and integrating them into the process of economic and social support and development, to ultimately alleviate poverty. The results showed that entrepreneurship incubators in Jordanian universities play a major pioneering role by supporting innovative business ideas based on applied scientific studies and research papers submitted by students, faculty members, and the local community. Additionally, the outputs of entrepreneurship incubators can facilitate the discovery of new and competitive entrepreneurial projects that can continue, grow and prosper in the markets at the local and international levels. Accordingly, appropriate recommendations have been made to identify the economic role of universities as incubators for entrepreneurial businesses, for instance, as provider to the necessary training and support that help entrepreneurs realize their creative ideas in scientifically establishing well-studied projects.

Keywords: Entrepreneurship, the economic role, universities, business incubators

1. Introduction

Jordan has been demonstrating significant efforts to search for effective mechanisms and means to achieve optimal use of the national human capital to achieve numerous economic and social gains in light of the high local unemployment rate and the increasing number of graduates of higher education institutions. In this regard, many entrepreneurship incubators have recently emerged as one of the solutions to create new job opportunities for the local human resources, especially in the field of entrepreneurship.

Entrepreneurial businesses play a positive role in supporting the economic development movement, increasing economic growth, raising the level of per capita income, increasing the employment rates, and reducing poverty and unemployment rates. Therefore, in the past decades, the interest of countries with different strengths of their economies has increased in entrepreneurial work. As a result of this trend supported by strategic planning and economic studies, many countries have been able to achieve their goals.

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About the authors :Dr. Zakaria Ahmed Atyat

Email:

The establishment of work systems to support creative capabilities has become necessary because it has a direct impact on the attitude improvement of Jordanian university students towards entrepreneurship and on the activation of the economic role of universities as incubators for entrepreneurial work in this context to support these works and develop students' creative fields. Based on the vision of His Majesty King Abdullah II Ibn Al Hussein, Jordanian universities seek to be among the initiators in establishing entrepreneurship incubators to have an active role in incubating entrepreneurship and pioneering ideas.

Numerous Jordanian universities, from this point of view, have worked to establish business incubators as systems consistent with the royal visions by providing all facilities and capabilities available to young people for their ideas and creativity and by offering the necessary infrastructure for creativity to advance young people and invest their creative and pioneering ideas.

Universities today have many vital and effective functions in society, as they contribute to the formulation and formation of ideas, modernization of societies, and to linking the bridges of knowledge between the educated human being and society. Universities are no longer limited to their work within the framework of the academic effort performed by faculty members. Rather, they have taken upon themselves to move societies from a state of dependency and intellectual backwardness to the stage of independence and advancement in the processes of economic development and construction, and to provide societies with scientific competencies and technical expertise qualified to contribute to the movement of development and modernization.

2. Problem of the Study

In Jordan, the problem of unemployment is increasingly growing among young graduates of educational institutions and vocational and technical training institutions –there are tens of thousands of new graduates annually, compelling some to join the ranks of the unemployed. Meanwhile, Jordanian universities have currently perceived their ability as incubators of entrepreneurial business, contributing to the kingdom's economy. This has led to the motivation for researching this field in general, specifically on the potential future role of these universities as incubators of entrepreneurial business.

Entrepreneurial businesses play a key role in supporting the economic development movement, increasing economic growth, raising the level of per capita income, decreasing employment rates, and reducing poverty. Universities contribute positively or negatively to the formation of students' minds and attitudes, considering that students are very much shaped by their study programs and actions. Since entrepreneurship is one of the most important pillars of economic and social development in Jordan for its significant role in advancing economic growth and reducing the aggravation of the problems of poverty and unemployment, the problem of the study lies in identifying the economic role that Jordanian universities can play as entrepreneurial business incubators in the future.

3. Questions of the Study

In light of the problem of the study, the following question is articulated:

- What is the economic role that Jordanian universities can play as entrepreneurial business incubators in the future?

4. Objective of the Study

The following objective has been formatted to answer the question of the study.

- Identify the economic role that Jordanian universities can play as entrepreneurial business incubators in the future.

5. Significance of the Study

The significance of this study lies in the novelty of the topic and the lack of studies and research on the economic role that Jordanian universities can play as entrepreneurial business incubators in the future. In fact, this topic has become great interest to many higher education institutions, accreditation bodies, and researchers in Jordan, the Arab nation in general, and all over the world as well. The significance of the study comes from the fact that it enables Jordanian universities to identify the possibility of playing their role in the economic field and what they can play as entrepreneurial business incubators in the future to influence students' attitudes towards entrepreneurial work.

Importantly, the significance of the study comes from the relative scarcity of studies related to the problem of the study which is evident when studying in many Jordanian university libraries and a large number of academic, information, and specialized websites in the field of the economic role that universities can play as incubators for entrepreneurial businesses in the future. More importantly, the study comprehensively, objectively, and scientifically deals with many aspects summarizing the economic role of universities, which has an impact on students' attitudes towards entrepreneurial work.

6. Methodology of the Study

The nature of the current study has necessitated the use of the descriptive analytical approach to collect information from available sources and analyze the content of theoretical information, available studies, books, journals, bulletins, and research papers related to the subject of the study, to identify the importance of the economic role of Jordanian universities as incubators for entrepreneurial businesses.

7. The Concept of Entrepreneurship Incubators

Shalaby (2011) defined entrepreneurship incubator as an integrated system that deals with every project at the beginning as if it is a newborn that needs great care and comprehensive attention to protect it from the dangers that surround it, provide it with continuous energy, and gradually push it to

become strong, capable of growth and self-reliance, and equipped with the elements of continuity and success.

One of the most prominent definitions of the concept of entrepreneurship incubators is the definition of ESCWA, which shows that entrepreneurship incubators are an integrated package of services, facilities, support mechanisms, and advice given to entrepreneurs who wish to establish their entrepreneurial businesses and small projects for a specific period to reduce the burdens and costs of the start-up stage for their projects because the launch stage is the most difficult and critical stage for most entrepreneurial businesses and private projects (Miraj, 2010).

Likewise, the National Business Incubator Association (NBIA) defined business incubator as an economic development tool designed to accelerate the growth and success of small and medium-sized business organizations through a system of resources, services, and support for their activities to produce successful organizations capable of growth and continuity after leaving the incubator and submitting these Services (Lavrow & Sample, 2021).

On the other hand, in Jordanian context, the researcher defined business incubators as an integrated package of services, facilities, support mechanisms, and consultations provided by Jordanian universities for entrepreneurial businesses for a specific period to reduce the burdens and the costs of the start-up stage, for the businesses and projects performed by students during their studies at the university, where business incubators provide a range of services required to establish, support and develop entrepreneurial businesses. The trend of Jordanian universities towards establishing business incubators is relatively new, as universities are paying increasing attention to developing the knowledge economy as a basic premise for achieving sustainable development for the Jordanian society and business development to increase its contribution to the gross domestic product (GDP) and develop ways to sponsor and organize it.

In line with that and like other developed countries, several universities in Jordan have established numerous incubators. The goals and objectives of the Jordanian Creativity Centers (business incubators) are summarized in sponsoring and developing creative ideas and working to transfer and transform them from the framework of ideas and studies into successful commercial projects and sustainable businesses with high profitability and added value. They also aim to encourage entrepreneurship and creativity in Jordanian society. Relevantly, the JICS Network currently consists of six university incubators that provide standardized services, but each of them has its own unique and distinctive character in what it offers to its target audience of entrepreneurs. The most prominent of these incubators are as discussed below and their details are available on the website: www.jedco.gov.jo/joomla/index.php?option=com_content.

1. Innovation and Entrepreneurship Center at the School of Agriculture - Agricultural Business Incubator (The University of Jordan-Amman): The Agricultural Business Incubator was

established at the College of Agriculture at the University of Jordan in 2005 and is concerned with agricultural industries with the support of the Higher Council for Science and Technology and the Ministry of Planning and International Cooperation.

2. Jordan Innovation Center for Information Technology (Philadelphia University-Jerash): This center was established in 2005 and deals with the engineering, information, and communication technology sectors. The center aims to help develop creative ideas and transfer technology, and then turn them into business enterprises that generate income for their owners by supporting creators and innovators. As new entrepreneurs, the center was established through a joint initiative between Philadelphia University, the European Jordanian project EJADA, and the Jordan Enterprise Development Corporation.
3. The Innovation and Entrepreneurship Program at the German Jordanian University: This program was established in 2014 as a unit concerned with spreading and promoting a culture of creativity and innovation, and supporting employees and students to develop their businesses and projects until they become reality on the ground. The Innovation Space was established in 2017 to be a platform for students to develop their ideas using Innovation lab, building prototypes for their ideas, and providing technical support, as the platform provides a suitable place to incubate projects undertaken by employees and students.
4. Applied Zain Innovation Campus (ZINC) at Al-Balqa: This institution was established in 2017 to crystallize and develop youth ideas and provide assistance to startup owners to enhance the necessary knowledge and develop products that fit the needs of consumers and market requirements. The incubator also provides information and networks on how to benefit from expertise and experiences, and trains communications engineering students through mobile tower cars belonging to Zain, in addition to installing umbrellas and seats for use by students at Al-Balqa Applied University and its colleges, spread throughout the Kingdom.
5. Business Incubator Unit at Zarqa University: This unit was established in 2018 as a unit affiliated with the College of Economics and Administrative Sciences, before transforming into an independent unit that adopts ideas at the university level to serve the faculty members and students. The Business Incubator at Zarqa University sponsors pioneering ideas and initiatives and provides them with studied and integrated support to transform their ideas into useful productive projects in society and provide sustainable job opportunities that contribute to addressing the problems of poverty and unemployment and the achievement of comprehensive economic development.
6. Business Incubator at the University of Petra: This business incubator named SIQ was established in the ancient city of Petra. The incubator seeks to develop the projects submitted by the students and transforms them into entrepreneurial projects applicable on the ground with added value in the markets, by studying the needs of the owners of these projects and advancing them by providing the necessary advisory and technical services and the appropriate equipment and workplaces.

7. The Queen Rania Center for Entrepreneurship at Princess Sumaya University for Technology: The center works on spreading and adopting the concept of entrepreneurial business culture, developing entrepreneurship, providing programs, initiatives, and partnerships that focus on developing awareness and training, providing consultancy, advice, and guidance, developing the entrepreneurial spirit, providing the necessary funding, supporting economic growth, and obtaining economic outcomes that benefit the individual and his community.

8. Entrepreneurial Business

Entrepreneurship is a process in which something new of meaning and value is created. It is a dynamic process to secure an increase in wealth for individuals who take risks in their capital accompanied by the process of allocating the time, money, and effort necessary to complete the work of the entrepreneurial project. After completing the requirements necessary to complete the project, the reward resulting from the entrepreneurial work and commitment to the application comes to add value to some products or services that may or may not be new or unique. However, the entrepreneur adds value to these products or services by allocating the necessary resources and skills necessary to complete a specific business of entrepreneurial work (Michael & Mark, 2015).

Entrepreneurial work is defined as exclusivity and works to secure something serious and different while giving it value and meaning and spending the necessary time and effort taking into account risks and working to receive rewards. It depends largely on the difference, the degree of diversification, new compatibility, and new methods of doing work (Grilo, 2015). On the other hand, Shattock (2015) believed that entrepreneurial business activities are based on several areas as follows:

- 1- New ideas and business: These are activities associated with the introduction of new products and ideas, and the efforts of building businesses around each new concept.
- 2- Existing ideas and new businesses: These are related to finding new businesses based on existing concepts - the new products and services are presented after the existing products are developed.
- 3- Current ideas and businesses: These are the businesses through which products and services are provided with some creative work and financial risks.

An entrepreneurial business is a living and independent organizational entity owned and managed by itself, or managed only by an entrepreneur/business person who works on managing the available resources efficiently and distinctly to provide something new or create a new economic and administrative activity. Means are used to seize the opportunity to secure something of value and meaning, and in a way that ensures the growth of the project by responding to the desires and needs of consumers through the processes of uniqueness and creativity. The implications of entrepreneurship and the attitudes of young people and students in Jordanian universities towards it.

Youth is a prominent indicator of the state's strength and ability to contribute to the comprehensive and sustainable development process in all its economic, political, social, cultural, security, environmental and other dimensions. The development process stems from the royal vision of the youth sector, the national agenda, and government directives aimed at developing and empowering this sector. Youth is the broadest sector in the overall social construction and the tool, means end, and pivot for any successful development work. There is no comprehensive development or desired change apart from investing the energies of young men and women and giving them the opportunity, hope, and promise to participate actively, consciously, and responsibly in everything related to their lives, present, and future (Strategic Plan of the Higher Council for Youth, 2014-2019).

This strategy confirms that the Royal Highness urges successive governments to define clear work policies to care for, support, and develop youth, including institutionalizing and framing work, translating them into strategies and action plans that enable the Supreme Council for Youth to serve the Jordanian youth movement in the best way. The strategy also provides the general framework for youth care and development, including policies, plans, and programs that establish a holistic view that reflects the needs of the nation and the needs of the youth themselves, believing in their latent abilities and their right to participate and play essential roles at the personal and societal levels.

In light of the unemployment situation, which is considered a problem among the youth, the Jordanian government is currently facing a large proportion of young people who are either unemployed or threatened with unemployment. Accordingly, this work draws some results of interest to decision-makers and policy-makers in Jordan, concerning the strengthening of attitudes of Jordanian youth towards entrepreneurial work and anticipating the economic role that Jordanian universities can play as incubators of entrepreneurial businesses in the future. Of these most important results are:

1. Attempts to provide employment opportunities for young unemployed graduates through relatively large-sized companies cost exorbitant money, sometimes reaching tens of thousands of dinars per job which the government may not be able to afford. Furthermore, the government's ability to provide conditions for attracting foreign investments is governed by many factors that are not under its control, even if they are available, as they are usually linked to the need for appropriate basic infrastructure, which may not be achieved in a short period for some sectors or economic fields, such as heavy industries and projects, which does not give an adequate return in the short and medium-term. Hence, encouraging the establishment and growth of the entrepreneurial business sector, which relies more on the presence of entrepreneurial entrepreneurs and a supportive climate for them, and to a lesser extent on the use of modern technology with high capital intensity, is a strategic choice that must harness all capabilities for its activation and success.
2. Entrepreneurial businesses represent an inexhaustible resource to absorb a reasonable rate of unemployment among Jordanian youth, as their fields are diverse in creating new job opportunities. If studies confirm that the GATT agreement raises unemployment rates,

entrepreneurship can temporarily contribute in the short and medium-term to alleviating unemployment among Jordanian youth. Consequently, a huge base of material and human investments could be established to increase the size of the production base and improve its performance and exit from the framework of the domestic market to the global export markets.

3. There is a relative shift in the thinking and behavior pattern of many young graduates from Jordanian universities, as these young people no longer dream of office and administrative jobs in the public sector or government administrative positions with limited salaries that could not sufficiently provide for their needs and meet their aspirations. This group of self-motivated young graduates could initiate their entrepreneurial work if the appropriate material and financial capabilities are available, or, they could participate in these projects in one way or another. Officials and decision-makers need to realize that the desire of young people to pursue entrepreneurial work alone is not enough. A supportive environment must be created and appropriate qualification, financing, marketing, and investment mechanisms should be provided so that these young people could transform their dreams into practical and viable ideas – they could implement their entrepreneurial businesses with relatively strong prospects of success.

9. Future Roles of Entrepreneurial Business Incubators in Universities

Business incubators in universities contribute to organizing and providing care and assistance, support for entrepreneurial work and local community development, support for economic development, development of human resources, and job creation. The incubators also provide assistance in specific problem, and supports to entrepreneurs who do not have sufficient resources to start implementing their ideas. This in turn will have positive repercussions on the economic, social, and functional structure of the country. Jabr (2010) stated that among the most prominent future roles played by business incubators and innovation centers in this context are:

- 1- Encouraging and supporting entrepreneurial businesses and increasing their chances of success by providing administrative, training, marketing, and advisory services.
- 2- Providing the opportunity for entrepreneurial people and encouraging them to establish entrepreneurial businesses with calculated risks, while providing the legal services they need, such as the procedures for establishing and registering them, and writing licensing contracts.
- 3- Providing job opportunities, especially for university graduates, and helping them to overcome the obstacles they face at the beginning of their working lives, thus contributing to reducing the problem of poverty and unemployment.
- 4- Working to find appropriate marketing and distribution outlets through a package of services provided by these incubators.
- 5- Directing investments towards sectors with high productivity, and transferring labor to the most productive sectors to improve the living conditions of people with low incomes.

- 6- Facilitating access to funding sources and assisting its affiliated projects in linking contacts with those wishing to invest in these projects while they are in the process of growth.
- 7- Developing and revitalizing the local community in terms of developing the business environment, establishing projects, and making the incubator a nucleus of regional and local development, and a center for spreading the spirit of self-employment among those wishing to join the labor market.
- 8- Providing infrastructure, where business incubators provide their projects with the necessary basic facilities such as laboratories, workshops, and equipment, and the additional needs of hardware, software, information technology services, and communications networks.

In improving the areas of economic development, business incubators, especially those in universities, can play a dual role by serving as experimental facilities to convert research results into commercial products and services on the one hand, and creating the appropriate environment for training emerging business owners on the other hand. Through contacting investment institutions, incubators can support the effective use of available capital and strengthen the bonds of cooperation between private and public sectors in the total economic and social development (ESCWA, 2013).

Business Dynamics Statistics Briefing (2009) confirmed that business incubators play an effective role in reducing poverty and unemployment rates based on two important aspects below:

- 1- The idea of business incubators is closely related to helping and attracting graduates of higher education institutions and their involvement with the data of self-employment in the field of entrepreneurial business.
- 2- Business incubators aim to generate qualitative job opportunities for the available human resources, especially the young ones, and these two matters ultimately involve reducing the unemployment rate in these target groups.

10. The Economic Role of Entrepreneurship Incubators in Universities

Entrepreneurial business is a mainstay in the national economy because it increases the economic and social growth, creates added value in the production of goods and services, exploits the available productive resources, contributes to reducing inflation through the investment of funds, confronts the challenges of poverty and unemployment, raises the level livelihood of citizens, develops rural areas, and motivates citizens to take initiative and independence in work (Al-Mahrouq, 2006).

The entrepreneurial business represents the ability and initiative to carry out a business or establish a new business. The entrepreneur makes a significant contribution to the development of his country, as he achieves a dual purpose by attaining his personal goals and the goals of his society with his expertise and capabilities because he is independent by himself. Also, private work provides him with an opportunity for self-expression, discovering abilities, an acceptable income, and a sense that he is

doing something new and different and is an example of achievement. The entrepreneur creates a job opportunity for himself and others, which contributes to alleviating the phenomenon of unemployment, training and rehabilitating his workers, providing needed products in his community, introducing new technology, and developing alternatives to what is imported (Arab Labor Organization publications, 2016).

11. The significance of entrepreneurship in universities

In their study, Abu Jalil et al. (2018) discussed the significance of entrepreneurship in universities as it:

- 1- Diversifies and expands the assortment of products and production services in the development of local savings.
- 2- Offers consumers high quality goods and services in the local market at competitive prices.
- 3- Develops exports through direct export of products, provides high-quality nutritious industries and price competition for large industries that export their products, and competes with some large production projects that are forced to export to escape internal competition.
- 4- Creates an added value on imported materials for re-exporting (re-export activity).
- 5- Functions as supportive industry for every industrial activity, and such role puts developed small industries in the position of supporting industries that are essential to the industrial activity as a whole, with contractual relations with other industries at the same time.
- 6- Demonstrates a great ability in employing unskilled and semi-skilled labor and provides opportunities for on-the-job training.
- 7- Contributes in the formation of capital accumulation and the use of local raw materials.
- 8- Provides job opportunity at low cost, and this facilitates the stimulation of self-employment, especially in developing countries.

More importantly, entrepreneurial business plays a major role in improving the economic situation of the individual and self-employment for entrepreneurs, increasing income, providing the entrepreneur with the opportunity for independence and excellence, and the opportunity to contribute to society, in addition to creating other job opportunities. Entrepreneurial business is one of the solutions that universities attach to hope in investing the opportunity to establish entrepreneurial businesses, and it is one of the modern methods that many universities have embraced as a great source for establishing emerging businesses and consolidating the culture of self-employment in societies.

12. Results

Based on the aforementioned discussion, the following most important results have been attained:

- 1- Business incubators in Jordanian universities play a major entrepreneurial role by supporting pioneering ideas based on applied scientific studies and research and pioneering ideas submitted by students, faculty members, and the local community.

- 2- The outputs that business incubators seek in Jordanian universities are represented in finding the new and competitive entrepreneurial projects to continue, grow and prosper in the markets at the local and international levels.
- 3- Business incubators in Jordanian universities seek to develop innovative training models by forming integrated work teams to advance various student projects, whether these projects are technical ones or in the field of business.
- 4- Entrepreneurial business is one of the very important strategies for achieving the economic development and growth in society. Therefore, providing the necessary attention and care to youth entrepreneurship is extremely important to form a generation that contributes effectively to the national economy.
- 5- Entrepreneurial businesses are an effective way to diversify and expand the production base and the structure of production and distribution in the national economy. Its establishment can be repeated in universities to bring about the economic and social development, which positively affect the redistribution of national income and the improvement of living standards.

13. Conclusion

In a nutshell, entrepreneurship is one of the main pillars of economic development, one of the most important development strategies in developing and developed countries, and one of the outlets for expanding the economic base and revitalizing the trade movement. In fact, the entrepreneurial business could achieve several important functions related to efficiency, competitiveness, job creation, product innovation, as well as being a key driver in increasing the exports and GDP growth. Significantly, entrepreneurial business incubators in universities play an important role in improving the social and economic situation, creating job opportunities, and contributing to reducing the problems of unemployment and poverty by addressing the weaknesses in growth and development, low levels of income, and high unemployment rates. These businesses also provide a suitable work environment in which the employer and employees work side by side, in addition to the fact that these businesses are productive areas for the development of innovations and new ideas.

More notably, business incubators, as a system that sponsors entrepreneurial businesses, also help in creating productive opportunities for many skills and competencies, expanding the base of businessmen, and creating opportunities to develop the administrative skills and leadership by attracting administrative capabilities and talents, encouraging initiative, creativity, and innovation and paving the way for broader activities characterized by effectiveness and efficiency in terms of the ability to achieve the economic goals of the owners.

14. Recommendations

Jordan constitutes a major station for creativity and innovation at the local and regional levels. Thus, more creative and innovative energies should be released far from routines and traditions, as these routines and traditions frustrate individuals and the capabilities of young people in developing their talents and in exploiting and employing their energies. Therefore, the current work makes several

recommendations to the Jordanian universities such as providing the necessary training and support that help entrepreneurs realize their creative ideas in creating well-studied projects in a scientific manner, encouraging the participation of experienced faculty members within the entrepreneurial project teams, working to incubate specialized and emerging service companies such as marketing companies and software development companies to facilitate the provision of services to emerging entrepreneurial businesses, providing all the ways and methods that increase the degree of awareness of the importance of the role that entrepreneurship plays in building the creative Jordanian person, placing Jordan in the rank of developed countries, holding and organizing exhibitions and seminars, providing technical support to attract financiers in preparing for their communication with entrepreneurs, and working to increase the number of business incubators in Jordanian universities and expand the base of their spread to include all public and private universities.

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