

## Business Incubators and Their Role in Entrepreneurship of Small Enterprises

Ziad J. Aldammagh<sup>1</sup>, Samia A. M. Abdalmenem<sup>2</sup>, Mazen J. Al Shobaki<sup>3</sup>

<sup>1</sup>Dean of faculty of Management and Financial Business, Gaza University, Palestine

<sup>2</sup>Department of Management and Financial Business, Al-Quds Open University, Palestine

<sup>3</sup>Dean of Bait Al-Mqds College for technical Science, Gaza- Palestine

<sup>1</sup>Z.aldammagh@gmail.com, <sup>2</sup>Samia\_edu@hotmail.com, <sup>3</sup>mazen.alshobaki@gmail.com

### ABSTRACT

The aim of this research is to study business incubators and their role in entrepreneurship of small enterprises. The researchers used the descriptive and analytical approach in conducting the study. The questionnaire was applied as a tool to collect information on the selection of a random sample consisting of (35) individual distributed among entrepreneurs of small projects, the researchers have reached the following main results:

1. There is a positive impact between business incubators and entrepreneurship of small enterprises.
2. There is a statistically significant relationship between knowledge awareness and entrepreneurship of small enterprises.
3. There is a statistically significant relationship between infrastructure and entrepreneurship of small enterprises.
4. There is a statistically significant relationship between financial support and entrepreneurship of small enterprises.

### In the light of the research results, we recommend the following:

1. Continuing the dissemination of the culture of business incubation and awareness among the public through scientific conferences and seminars on this tool, in addition to urging the Ministry of Education and its institutions on curricula for entrepreneurship.
2. We urge the government and all educational and private sector organizations and trade unions to establish business incubators and accelerators in order to contribute to the launching of entrepreneurial projects in order to support projects that contribute to economic development.
3. The necessary infrastructure, be it logistics, training or consultancy services in the establishment of business incubators, which helps the success and continuity of this tool in supporting small entrepreneurship.
4. The need to provide financial support through business incubators, which helps finance entrepreneurship of small enterprises.

**Keywords:** Business Incubators, Entrepreneurship of small enterprises, Palestine.

## 1. INTRODUCTION

The past three decades have seen great interest in small enterprises as a tool for development in many countries of the world, they account for 90% of the total institutions in developed countries and up to 95% in developing countries, these institutions are the basis of economic and social development in addition to their role in integration between Economic activities, as well as an important entry point for economic growth in light of economic changes, due to their critical role in production, employment, income, innovation and technological advancement, are today the focus of policies aimed at reducing unemployment and creating new employment opportunities, where many international organizations, including the United Nations Industrial Development Organization (UNIDO) and the International Finance Corporation (IFC), have launched a slogan towards supporting small enterprises.

With the knowledge economy as a source of wealth replacing the capitalist economy, creativity and innovation have become an inevitable necessity to raise the competitiveness of the enterprise and the national economy as a whole. Therefore, the problem of small enterprises lacks the requirements of creativity and innovation. Creativity and innovation among individuals and institutions in order to

increase their capacity for integration and enhance the opportunities of economic and social security, this can be done through the establishment of several business incubators, which in turn work to lead small enterprises.

## 2. PROBLEM STATEMENT

Increasing calls for a greater role for the private sector in economic activity, and small projects are considered a key focus in the private sector, and without the support of these projects cannot play a distinct role in the development process, and this research highlighted the importance of the search for modern tools and methods. The success of any economic project as a first step supportive and encouraging to activate its role in the development process, the problem can be formulated in the following key question:

**How do business incubators contribute to entrepreneurship of small enterprises?**

## 3. RESEARCH QUESTIONS

To reach conclusions about the role of business incubators, the following questions were focused on:

**Q1:- What is the concept of business incubators and their importance and conditions?**

**Q2:- What is the role of business incubators in entrepreneurship of small enterprises?**

**Q3:- What are the applications of international and local business incubators in entrepreneurship of small enterprises?**

#### 4. RESEARCH OBJECTIVES

The research seeks to highlight business incubators as a tool that contributes to the success of small enterprises. More specifically, the research aims to:

- Identify the concepts of business incubators, tasks, objectives and types.
- Utilize experiences and applications in the field of business incubators for entrepreneurship.
- A research attempt to highlight business incubators in generating new creative projects or contributing to the development of existing projects.

#### 5. RESEARCH IMPORTANCE

Research is of great importance in the context of the qualitative and quantitative shift in the small business sector, as well as the desire of individuals, institutions and governments to build their economies. Therefore, it was necessary to search for modern methods and tools for entrepreneurship, especially the business incubators that contribute to entrepreneurship of small enterprises.

#### 6. RESEARCH HYPOTHESIS

**Ho1:** There is no statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between cognitive awareness and entrepreneurship.

**Ho2:** There is no statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between infrastructure and entrepreneurship of small enterprises.

**Ho3:** There is no statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between financial support and entrepreneurship of small enterprises.

#### 7. RESEARCH VARIABLES

- **The Dependent Variable:**
  - Entrepreneurship of small enterprises.
- **The Independent Variables:**
  - Cognitive awareness.
  - Infrastructure.
  - Financial support.

#### 8. LITERATURE REVIEW

The researchers found many previous studies that tried to study business incubators, including:

- Study of (Alayoubi et al., 2020) aimed to identify the impact of the requirements of implementing strategic entrepreneurship in achieving technical innovation in Palestine Technical College- Deir al-Balah from the point of view of the employees. The researcher used the analytical descriptive method. The study community consists of all academic and administrative staff in the college. The researchers used the comprehensive inventory method. 149 questionnaires were distributed to all members of the study community. The number of questionnaires returned was (115), ie, the response rate was (77.1%). The results of the study showed a strong positive correlation between the requirements of

applying strategic entrepreneurship (leadership, pioneering thinking, pioneering culture, strategic resource management) and achieving technical innovation in Palestine Technical College- Deir al-Balah from the point of view of the employees of Palestine Technical College- Deir al-Balah. It also showed a statistically significant effect between the requirements of implementing strategic entrepreneurship (pioneering culture, strategic resource management) and achieving technical innovation in Palestine Technical College- Deir al-Balah, and that the remaining variables show that their effect is weak. The study recommended that the Technical College of Palestine take care of the various requirements of implementing strategic entrepreneurship and develop its organizational capabilities for its direct role in achieving technical innovation of the college.

- Study of (shahada et al., 2020) aimed to identify the reality of improving the performance of business incubators in Gaza Strip, and the study relied on the descriptive analytical approach, and the study population consisted of all employees working in business incubators in Gaza Strip in addition to experts and consultants in the incubators, where the total number (62) individuals, The researchers used the questionnaire as a main tool to collect data through the comprehensive survey method, where (55) questionnaires were retrieved with a recovery rate (88.7%). The results of the study showed that there is a high level of improving the performance of incubators in Gaza Strip with an average weight of (80.12%). The results also showed that there were no statistically significant differences between the averages of the respondents' answers about improving the performance of business incubators in Gaza Strip due to the following personal data (gender, age, Educational qualification), and the presence of differences attributable to the following data (nature of work in the incubator, years of work experience). The study came out with several recommendations, the most important of which is the need for incubators to evaluate their performance periodically, and the necessity of holding training courses for workers in incubators to familiarize them with ways to improve performance and its tools such as a balanced performance card and how to apply them, and that a more effective mechanism be designed to follow up with companies after the end of the incubation period and monitor The progress of these companies.
- Study of (shahada et al., 2020) aimed to identify the reality of using a balanced scorecard in business incubators in Gaza Strip, and the study relied on the descriptive analytical approach, and the study population consisted of all employees working in business incubators in Gaza Strip in addition to experts and consultants in incubators, where their total number reached (62) Individually, the researchers used the questionnaire as a main tool for collecting data through

the comprehensive survey method, where (55) questionnaires were retrieved with a recovery rate (88.7%). The results of the study showed that there is a high approval of all dimensions of the balanced scorecard, as it obtained a relative weight (81.44%), and the order of its dimensions came as follows, first came the incubation dimension with a relative weight (84.89%), followed by the learning dimension, which got a relative weight (82.50%), and in the third place came the entrepreneur dimension with a relative weight (80.66%), and in the last place was the societal development dimension with a relative weight (78.18%). The study came out with several recommendations, the most important of which is that business incubators seek to adopt the application of the balanced scorecard as a method for managing it and a tool for measuring and evaluating its performance, and the need to periodically evaluate its performance, and the need to hold training courses for workers in incubators to introduce them to the balanced scorecard and how to apply it.

- Study of (Owda et al., 2019) aimed to identify entrepreneurs and entrepreneurship in Gaza Strip. The researchers used the analytical descriptive approach to achieve the objectives of the study. The study community consists of 92 of the pilot projects benefiting from the three incubators in Gaza Strip (the Palestinian Information Technology Incubator, the Technology Incubator, the Business Incubator and Technology). The researchers used the comprehensive inventory method. To answer the study questions and to examine their hypotheses, the arithmetical averages, the standard deviation, the T test and the analysis of the mono-variance were used followed by a quiz test. The problem of the study in the main question: What is the reality of entrepreneurs and entrepreneurship in Gaza Strip. The study found a number of results, the most important of which are: Men are more oriented towards entrepreneurship than females. And that scientific qualification does not affect entrepreneurship. And many are looking for entrepreneurs who do not have practical experience in the labor market, but are subject to training courses through the business incubator. Based on the findings, the researchers recommend stimulating male entrepreneurship and promoting it in females. And to design training programs to refine entrepreneurial skills. And the need to add the course of entrepreneurship in the majority of university disciplines.
- Study of (Owda et al., 2019) aimed at identifying the personal variables and their effect in promoting job creation in Gaza Strip through business incubators. The researchers used the descriptive analytical approach to achieve the study objectives. The study population consisted of 92 of the pilot projects benefiting from the three business incubators in Gaza Strip (Palestinian Information Technology Incubator, UCAS Technology

Incubator and Business and Technology Incubator). The study reached a number of results, the most important of which are the existence of statistically significant differences on entrepreneurship attributed to each age as most of them are between the ages of 22-30, Gender for males, business incubator, scientific qualification for the specialties of information technology and engineering, and years of experience. Based on the findings, the researchers recommend focusing on university students in guiding them towards entrepreneurship and helping new graduates to start entrepreneurship. And to guide students to scientific disciplines that help them in entrepreneurship after graduation, whether starting a small business or self-employment, support females to entrepreneurship as most of the entrepreneurs are male, in addition to stimulating males as well.

- Study of (Al Shobaki et al., 2018) aimed to identify the level of promotion of entrepreneurship in the technical colleges in Palestine. The analytical descriptive method was used in the study. A questionnaire of 41 items was randomly distributed to the technical colleges in Gaza Strip. The random sample consisted of (275) employees from the mentioned colleges, and the response rate were (74.5%). The results of the study showed that the technical colleges achieved a high level of promotion of entrepreneurship with a relative weight of 73.45%. The results of the study showed that there is a high level of promotion of entrepreneurship (risk, preparedness, proactive competition, innovation orientation) in the technical colleges in Gaza Strip. The field of competition came in first place with a relative weight of 76.65%. In the second place came the field (the trend towards innovation) and relative weight (74.96%). In the third place came the field of pre-emptive preparedness with a relative weight of 74.07%. In the fourth and last place came the field of risk and a relative weight of 68.39%. The results confirmed that there are statistically significant differences in the promotion of entrepreneurship in the technical colleges in Gaza Strip due to the college variable in favor of UCAS. The results confirmed that there is no statistically significant relationship in the promotion of entrepreneurship in technical colleges in Gaza Strip due to the variable level of employment. The researchers suggest a set of recommendations, the most important of which is to draw the attention of the technical colleges to the importance of promoting entrepreneurship, because of their role in reducing the problem of unemployment, the importance of linking technical education and promoting entrepreneurship to the Palestinian society in general and Gaza Strip in particular. The importance of urging decision-makers in technical colleges to promote interest in leadership and to put their own courses in all technical education programs in these colleges, as well as enhancing the technical, technological and technical capabilities of technical education and keeping pace

with the latest international standards by providing the necessary material resources. There is a need to urge researchers to conduct further studies of the future which deal with the same variables of the current study in the field of entrepreneurship and applied to other sectors.

- Study of (Abu Naser et al., 2017) aimed to identify the technical education and its role in promoting entrepreneurship in Gaza Strip. The analytical descriptive method was used in the study. A questionnaire was composed of (41) items and distributed randomly by the technical colleges in Gaza Strip using stratified random sample of (275) employees from the mentioned colleges, and the response rate was (74.5%). The results showed a high degree of approval for the dimensions of technical education with a relative weight of 76.07%. The ranking and relative weights were as follows: Technical education institutions: 79.51%, graduates of technical education 75.75% Labor market and local community 72.96%. The results of the study showed that the technical colleges achieved a high level of promotion of entrepreneurship with a relative weight of 73.45%. Where the ranking and relative weights were as follows: competitive assault (76.65%), creative orientation (74.96%), preparedness (74.07%) and risk (68.39%). The results also confirmed a statistically significant relationship between the dimensions of technical education and the promotion of entrepreneurship in technical colleges in Gaza Strip. The results also confirmed a statistically significant impact of technical education on the promotion of entrepreneurship in the technical colleges in Gaza Strip. The researchers proposed a number of recommendations, the most important: the need to go to technical education because of its role in the promotion of entrepreneurship, the importance of linking technical education and promoting entrepreneurship to the Palestinian society in general and Gaza Strip in particular, the need to pay attention to technical education in line with the National Strategic Plan for Higher Education by moving towards technical education, and the importance of urging decision-makers in technical colleges to promote interest in leadership and to put their own courses in all technical education programs in these colleges. The researchers urged further studies of the same variables as the current study of entrepreneurship and their application to other sectors.
- Study of (Tatar and Halimi, 2010), which seeks to study the extent of the contribution of technology incubators in supporting innovation in small enterprises, where it deals with the study of the concepts of technology incubators and support for small enterprises, touching on some experiences in the incubators of technical works, has concluded to some Recommendations are the most important, the need for governments to support incubators, in addition to cooperation of businessmen

and funding bodies, and the need for the basic environment for the establishment of productive projects.

- Study of (Kareem and Adman, 2006), which aimed to study the concept of incubators and their role in the success of small enterprises in Algeria and the study of some international experiences, has concluded to the search for new technologies to take over these institutions such as incubators on which small enterprises are built as if they need to care and attention Comprehensive to become able to thrive and qualified for the future and equipped with mechanisms of success.
- Study of (Bouziane and Ziani, 2006), which aimed to study the success factors that helped developed countries to establish various incubators, and opportunities for the use of incubators, and the challenges facing business incubators, the study concluded to emphasize the importance of IT incubators in supporting small enterprises, Arab countries still have many opportunities to use this technology to establish and support small enterprises.
- The study of (Khalil and Hanaa, 2006) seeks to study the concept, the importance of small enterprises and their role in achieving economic development and the role they play in achieving the desired economic growth, and what methods help to establish and develop small enterprises through business incubators and their application, and international and Arab experiences that The study concluded that there are still many opportunities for Arab countries to benefit from international experiences in the business incubator to support entrepreneurship.

## 9. THEORETICAL FRAMEWORK FOR RESEARCH:

The increasing number of unemployed has led countries, both developed and developing, to seriously think about creating new job opportunities for these unemployed. The most important of these methods are business incubators, which we believe can contribute to overcome many of the challenges facing small enterprises, especially in the stage of establishment, start-up, operation or development.

### Development and Evolution

The idea of incubators is not a new idea, but it was put forward at the end of 1959 in the United States of America, and according to the American Business Incubators Association, the incubators are a way to help small enterprises to survive and grow during the start-up (Start Up), which provides them with a helping hand In this regard, the idea was spread to many developing countries, and the incubators were considered one of the most important mechanisms that help economic growth and development(Majid and Arif, 2006).

### The Basic Concepts

**The Concept of Business Incubators:** There are many definitions of business incubators, although there is a lot of

convergence among them in terms of meaning and content, here are the following details:

Defined as: An integrated framework environment of space, equipment, services, facilities, support mechanisms, consultancy and regulation dedicated to assisting entrepreneurs in managing and developing new institutions (productive, service or specialized in research and development), and sponsoring these institutions for a certain period (from one to three years), thus mitigating It provides entrepreneurs with the usual risks and provides them with greater opportunities for success through a legal entity established for this purpose (Mazi, 2003).

It is also defined as: An integrated system that considers every small project as a newborn who needs intensive care and comprehensive attention, It is then driven gradually by a strong, capable of developing and qualified for the future by the events and mechanisms of success (Shalaby, 2004).

It is clear from the previous two definitions that the name of an incubator is borrowed from the incubator in which the children are placed, and who need immediately upon birth to support and help them to overcome the difficulties of the circumstances surrounding them, business incubators are developmental and economic institutions aimed at supporting and nurturing entrepreneurs, innovators and innovators of the ideas of ambitious projects.

**The Concept of Small Enterprises:** The definition of the concept of small enterprises did not reach a precise definition and specific, because of the multiple criteria used to distinguish small projects, there are those who adopt quantitative criteria to distinguish between projects such as the criterion of the number of workers or the criterion of capital or sales volume criterion, and there is another group called standards Quality, such as the management standard or the technical standard. In our research, we adopt what the International Training Center of the ILO adopted, where the standard number of workers in the classification and definition of these projects was adopted as follows:

- **Small Projects:** These are projects or institutions that are generally managed by their owners and with the help of their family members. The number of employees ranges from 1 to 4 workers. Small businesses are predominantly local, offering their services and selling their products to customers in the immediate vicinity.
- **Small projects:** These are projects managed by their owners, and the number of employee's ranges from 5 to 19 workers, Small enterprises are also characterized by direct communication between their owner or owners, assistants and employees, and the participation of owners in the implementation of technical activities and supervision.
- **Medium Projects:** These are projects managed by their owners, and the number of employees ranging from 20 to 100, and its organizational structure requires a level of implementation management between the owner and

employees to manage production, marketing, human resources and financial management (Cap, 2013).

#### **Importance:**

The importance of business incubators in supporting the activity of innovation in the leadership of small enterprises, through the provision of technological and scientific resources, and provide them with a range of services and facilities necessary for the purpose of giving the first batch of start-up projects so as to enable them to overcome the burdens of the start-up and start-up stage, as many small projects Failure early due to lack of custody, which provides some viable.

Business incubators provide modern technology and provide innovative methods and tools for small enterprises, Innovation is one of the tools that help the project to deal with rapid changes, create new markets, adapt to new technology and its applications, and incubators are centers of innovation and innovation as a core activity within these small enterprises as well as providing funding for them (Tatar and Halimi, 2010).

#### **Objectives:**

Business Incubators aim to help graduates from universities and colleges set up projects or develop existing projects by providing the following services (Bouziane and Ziani, 2006):

1. Develop new ideas for creating and creating new projects or expanding existing ones.
2. Provide funding, extension services and facilities available to its employees.
3. Change the culture of risk sharing and action in the form of networks and information sharing.
4. Helping entrepreneurs to set up small-scale enterprises in the start-up stages.
5. Linking the competent institutions with the industrial and commercial sectors locally and internationally.

#### **Mission:**

Some of its tasks can be summarized as follows (Khalil and Hanaa, 2006):

1. Providing consultancy services related to the feasibility study of projects, selection of materials, machines, equipment and methods of work, in addition to financial support
2. Provide buildings for small projects, in addition to communication devices (fax and Internet).
3. Linking the incubated project with various governmental and non-governmental bodies.
4. Provide technical support (product design and development, quality improvement).

#### **Types:**

There are several classifications for incubators because of the different purpose for which they were found as follows:

**First Classification:** It includes the following (Rahim, 2003):

1. First-generation incubators (incubators of basic technology): Incubators that support projects that build their products on knowledge as their largest capital, i.e., which exceeds the total internal technical components in the manufacture of raw materials and labor costs, and these incubators are usually closely related to universities, research institutes and technical schools.
2. Incubators of the second generation (incubators with traditional base): It includes agricultural, industrial, food, manual, mechanical, etc., supported by research centers and technical schools and linked to local groups and commercial associations.
3. Third generation incubators (renovation centers): These provide specialized services such as technical courses in addition to special services.

**Second Classification:** It includes the following (Mazi, 2003):

1. General Business Incubators: It is concerned with the economic development of the region where it is located by continuing to develop the business.
2. Specialized business incubators: It is concerned with the development of some economic aspects of the region where it exists by encouraging certain industries in it or creating jobs or for specific categories of job seekers or to attract investments of a special type to it.
3. Technical Incubators: It is concerned with technology, developing specialized facilities and assisting researchers in universities and research centers.

**Third Classification:** It includes the following (Shalaby, 2002):

1. International Incubator: It is interested in attracting foreign capital and transferring technology in order to achieve quality and export capacity.
2. Regional Incubator: This incubator serves a specific geographical area for the purpose of development and works on the use of local resources of raw materials and invest the potential of the unemployed youth in this region or serve specific minorities or a segment of society such as women.
3. Industrial Incubator: It is set up within an industrial zone after determining its needs of feeder industries, where the benefits are exchanged for each of the large small factories affiliated to the incubator with emphasis on knowledge and technical support from large factories.
4. Specific Sector Incubator: It aims to serve a specific sector or activity such as software or engineering industries, and is managed by experts specialized in the activity to be focused on.
5. Technological Incubator: It is interested in raising the technological level of the incubated institution and

investing new products and providing modern equipment, and helps researchers to move the results of their research from the stage of laboratory innovation to the stage of commercial promotion of research results.

6. Research incubator: usually within universities or research centers to develop the ideas and research of researchers, in addition to take advantage of the workshops and laboratories available at the university.
7. Virtual incubator: It is an incubator without walls, and provides the usual services except for the place, and the small enterprise development centers in the Chambers of Commerce is an example.
8. Internet Incubator: An organization that helps other Internet companies grow from startups to mature companies. The Internet Incubator is led by David Wetherhol, who founded the CMJI Incubator in 1995.

#### **Organization Steps:**

To ensure the operation of the incubators, there are several steps to organize the incubators work as follows:

**The First Step:** It can be divided into several stages, the first of which starts in the study of the project and the discussion between the incubator administration and the applicants for their projects to ensure the applicability of the test criteria, and the second is examined the services needed by the project to be embraced and the possibility of providing them, and the third is studying the product's marketing capacity, and its ability to develop Marketing plans for future expansion of the project.

**The Second Step:** The project starts in this step after the initial encouraging results from the previous step are shown, Where the beneficiary prepares his project plan with the help and guidance of the incubator to join the incubator after accepting his project plan in the light of economic feasibility and approval of the sponsor, Where the appropriate place within the incubator to take advantage of its services.

**The Third Step:** The final phase of the incubated project is one to three years. The project is expected to have achieved some success and growth and is able to operate outside the incubator (Majid and Arif, 2006).

#### **Experiments and Applications:**

International experiences and expertise have confirmed the necessity of cooperation of various parties in the field of business incubators, and we have reached the most important experiences for the purpose of benefiting from them as follows:

- The American Experience, the American experience is one of the oldest global experiences, as the concept of incubators was developed and developed in America, and began the American experience because of the failure of nearly 50% of small projects when they start working, because of poor management and decision-making methods and lack of experience with the

requirements and needs of the labor market Austin Technology Incubator is considered as a mechanism to reduce the failure rate for small projects, and the number of American incubators has developed very significantly, there were 12 incubators in 1980, and reached about 950 incubators in 2001, and today reached more than that, has graduated more than 50 small projects from Incubator, and created more than 1900 A total of more than 720million \$ in jobs over the past ten years, mostly in cities near universities (45%), some in rural areas to develop some agricultural products (36%), and most incubators were established for a non-profit purpose (75%). The activities of the American incubators are distributed as follows: (45%) mixed technology, (30%) common uses, and (25%) other projects, and different support and funding for these incubators, where we find (20%) funded by educational institutions (18%) are funded by economic development agencies, (8%) are funded by private sector capital, and (12%) are funded by others (Bouziane and Ziani, 2006).

- The European Experience, where France is one of the oldest experiences in the European Union, where there are more than 200 incubators operating in various French cities, and in 2001 was established a central institution to organize the activities of these incubators called the French Association of incubators, followed by 200 incubators in Germany, And 100 incubators in Britain (Tatar and Halimi, 2010).
- As for the Gulf experiment, in 1996 a committee was formed at King Fahd University of Petroleum and Minerals in Saudi Arabia to prepare a study for the establishment of small incubators, but the project stopped and was not completed. This incubator transforms research-based ideas into commercial products through technical and technical support and the use of government laboratories to develop products. Also, the King Saud University Science Park was established, which is the largest and most distinguished in the Middle East. The aim of the Oasis project to strengthen the role of the university in the technical and cognitive progress service through the technical development of petrochemical products and petroleum, and technical development of automatic computer and digital products and information systems and embrace promising scientific talent and nurturing and training.

The UAE, where the Mohammed bin Rashid Foundation embraces new youth projects through the Business Incubator Center, provides them with guidance, advice and support. (CERT) and the Technology Incubators Project in Kuwait (Bouziane and Ziani, 2006); and (Tatar and Halimi, 2010).

- The Palestinian Experience, which is a recent Palestinian experience, is still in its infancy and needs more attention from government agencies, universities, colleges, research centers, trade unions and chambers of commerce. The incubator aims to support the development of small economic activities related to the technology sector by providing professional business services to Palestinian entrepreneurs who have mature ideas for unique and creative products. University in 2012, where she works in the field of technology and the role of incubators is limited to providing space and logistical support, marketing and networking, as well as help in the search for funding sources for incubated projects (Al-Habil et al., 2017).

**Finally**, there are more than 3500 business incubators, most of which are supported by local administrations, central governments, the World Bank, the European Union and the United Nations organizations. The American experience is the first in the number of incubators with more than 950 incubators, followed by China and Japan. Then Europe has more than 500 incubators, distributed to France 200, followed by Germany 200, Britain 100 incubators, and there are about 5000 incubators working in developing countries.

## 10. RESEARCH FRAMEWORK:

### Research Methodology:

Based on the objectives of the study, the researchers found the appropriate method for the study, which is the descriptive and analytical approach as it is the subject of our research. Specifically for this purpose.

### Society and Sample Research:

The study population consisted of a random sample selected from the staff of the incubator of the Islamic University and the incubator of the University College of Applied Sciences and the incubator of the General Federation of Industries and Technology Incubators, in addition to the pilot projects in Gaza Strip for the year 2019, where (35) questionnaires were distributed to the study population, and was obtained ( 28) Questionnaire valid for analysis Questionnaire valid for analysis at a rate of 80% recovery. The following is the distribution of the sample of the study according to the personal data of the individuals in it:

**Table 1:** Distribution of Research Sample by Personal Data (n = 28)

Personal Data		Number	Percentage%
Gender	Male	11	39.3

	Female	17	60.7
<b>Total</b>		28	
<b>Project Activity</b>	Trade	8	28.6
	Services	7	25.0
	Marketing	5	17.9
	Industrial	2	7.1
	Agricultural	6	21.4
<b>Total</b>		28	
<b>Business Incubators</b>	Business and Technology Incubator (Islamic University)	6	21.4
	UCAS Technological Incubator (University College of Applied Sciences)	4	14.3
	Palestinian Information Technology Incubator (PICTI)	10	35.7
	Gaza Business Incubator startup accelerator (Sky Geeks)	1	3.6
	Incubator of the General Federation of Industries	1	3.6
	Others	6	21.4
<b>Total</b>		28	

The study questionnaire was developed based on theoretical literature and previous studies. The questionnaire consisted of (23) items divided into two main axes: (business incubators) and consists of (16) items distributed in three areas: knowledge awareness, infrastructure, financial support. The second axis is the Entrepreneurship of small projects and consists of (7) paragraphs, and the Likert scale was used to measure the responses of respondents to the paragraphs of the questionnaire.

#### Validity of the questionnaire:

There are several tests that measure the accuracy of the questionnaire, the most important of which are:

**Table 2:** correlation coefficient between the degrees of each paragraph of the questionnaire with the total degree of the field to which it belongs

No.	The Field	Pearson Correlation Coefficient	Probability Value (Sig.)
<b>Cognitive Awareness</b>			
1.	The knowledge and cultural awareness of the public contributes to spreading the idea of business incubators.	.744*	0.000
2.	The strengthening of government agencies contributes to the dissemination of business incubators.	.740*	0.000
3.	Educational institutions contribute to spreading the idea of business incubators.	.831*	0.000
4.	The private sector contributes to the identification of business incubator needs.	.728*	0.000
5.	The presence of several business incubators contributes to the dissemination of knowledge and cultural awareness of this tool.	.715*	0.000
<b>Infrastructure</b>			
1.	The incubator is interested in providing a suitable location and location for entrepreneurs	.742*	0.000
2.	The incubator has the necessary equipment to meet the needs of entrepreneurs.	.713*	0.000
3.	The incubator provides all necessary training services for entrepreneurs.	.778*	0.000
4.	The incubator provides all the logistics needed for entrepreneurs.	.910*	0.000

#### 1.Virtual Honesty "Honesty of Arbitrators":

The questionnaire was presented in its preliminary form to a group of arbitrators specialized in administration, economics and statistics. The opinions of the arbitrators in terms of deletion and amendment were responded to in the light of the proposals submitted.

#### 2.Internal Validity:

The internal consistency of the questionnaires was done by calculating the correlation coefficients between each of the questionnaires and the total score of the field to which the paragraph belongs, as in Table (2).



5.	The incubator provides all necessary consultancy services for entrepreneurs.	.833*	0.000
<b>Financial Support</b>			
1.	The incubator contributes to providing funding for the incubated projects.	.819*	0.000
2.	The incubator contributes to linking the start-up projects with the funders.	.792*	0.000
3.	The incubator contributes to determining the financing needs of the startups.	.849*	0.000
4.	The incubator helps train entrepreneurs to prepare a financial feasibility study.	.844*	0.000
5.	The incubator helps train entrepreneurs to use crowdfunding platforms.	.784*	0.000
6.	The incubator contributes to coordination between the private sector and startups for funding.	.888*	0.000
<b>Entrepreneurship Of Small Enterprises</b>			
1.	The incubator transforms entrepreneurial ideas into real opportunities on the ground.	.787*	0.000
2.	There are many successful experiences of pilot projects implemented by graduates that have been embraced.	.781*	0.000
3.	The incubator contributes to the development of various technical skills needed for start-ups.	.661*	0.000
4.	The incubator provides entrepreneurs with creative thinking in solving their problems.	.754*	0.000
5.	The incubator works to provide all the equipment and equipment necessary for entrepreneurship.	.685*	0.000
6.	The incubator encourages entrepreneurs to take risks and be prepared to face them.	.775*	0.000
7.	Business incubators provide the economy with incubated projects.	.770*	0.000

\*The correlation is statistically significant at ( $\alpha \leq 0.05$ ).

It is clear from Table (2) that all correlation coefficients are statistically significant and at a significant level of ( $\alpha \leq 0.05$ ) and thus the questionnaire paragraphs are true to what was set to measure.

**Table 3:** The correlation coefficient between the degree of each questionnaire and the total questionnaire

No.	The Field	Pearson Coefficient Of Correlation	Probability Value (Sig.)
1.	Cognitive awareness	.630*	0.000
2.	Infrastructure	.894*	0.000
3.	Financial support.	.888*	0.000
	Business Incubator	.952*	0.000
	Entrepreneurship of small enterprises	.676*	0.000

\*The correlation is statistically significant at ( $\alpha \leq 0.05$ ).

It is clear from Table (3) that all correlation coefficients are statistically significant and at a significant level at ( $\alpha \leq 0.05$ ). and thus the resolution fields are true to what was set for measurement.

#### Reliability:

#### 3. Structure Validity:

To verify structural validity, the correlation coefficients between the score of each questionnaire and the total questionnaire were calculated as in Table (3).

The consistency of the questionnaire was verified by Cronbach's coefficient alpha, with a questionnaire value of 0.910.

It is clear from the results of the tests of honesty and consistency that the questionnaire is sincere in measuring what was developed to measure it, and it is very large, which qualifies it to be a suitable and effective measurement tool for this study and can be applied with confidence.

#### Normality Distribution Test:

The Kolmogorov-Smirnov Test (KS) test was used to test whether the data follows the normal distribution or not. The data distribution follows the normal distribution where the parameter tests were used to analyze the data and test the study hypotheses.

#### Statistical methods used:

Statistical Package for the Social Sciences (SPSS 25) was unloaded and analyzed using the following statistical tests:

1. Frequencies & Percentages.
2. Arithmetic mean, relative weight and standard deviation.
3. Cronbach's Alpha test.

4. Kolmogorov-Smirnov Test (K-S).
5. Pearson correlation coefficient.

**Presentation, interpretation and discussion of the study results:**

**First: Business Incubator Analysis:**

**Table 4: Arithmetic mean, standard deviation, relative weight and arrangement of paragraphs**

No.	Paragraphs	SMA	Standard Deviation	Relative Weight	Ranking
1.	The knowledge and cultural awareness of the public contributes to spreading the idea of business incubators.	4.25	0.52	85.00	2
2.	The strengthening of government agencies contributes to the dissemination of business incubators.	3.89	0.83	77.86	5
3.	Educational institutions contribute to spreading the idea of business incubators.	4.18	0.77	83.57	3
4.	The private sector contributes to the identification of business incubator needs.	4.00	0.77	80.00	4
5.	The presence of several business incubators contributes to the dissemination of knowledge and cultural awareness of this tool.	4.32	0.61	86.43	1
<b>Domain paragraphs in general</b>		4.13	0.53	82.57	

Table (4) shows that the arithmetic mean of all paragraphs of the field of cognitive awareness is equal to 4.13 and thus the relative weight of 82.57%, which means that there is approval of the paragraphs in this area, has obtained the paragraph "The presence of several business incubators contribute to the dissemination of knowledge and cultural awareness of this tool" The highest degree of approval is 86.43%, while the paragraph "Strengthening government agencies in spreading the idea of business

**Table 5: Arithmetic mean, standard deviation, relative weight and arrangement of paragraphs**

No.	Paragraphs	SMA	Standard Deviation	Relative Weight	Ranking
1.	The incubator is interested in providing a suitable location and location for entrepreneurs	4.04	0.96	80.71	5
2.	The incubator has the necessary equipment to meet the needs of entrepreneurs.	4.14	0.65	82.86	1
3.	The incubator provides all necessary training services for entrepreneurs.	4.04	0.79	80.71	4
4.	The incubator provides all the logistics needed for entrepreneurs.	4.11	0.93	82.22	2
5.	The incubator provides all necessary consultancy services for entrepreneurs.	4.07	0.98	81.43	3
<b>Domain paragraphs in general</b>		4.09	0.69	81.71	

Table (5) shows that the arithmetic mean of all items of the infrastructure field is equal to 4.09, so the relative weight is 81.71%. This means that there is approval of the paragraphs of this area. 82.86%, while the paragraph "Incubator is interested in providing a suitable location and location for entrepreneurs" received the lowest approval rate of 80.71%, which emphasizes the importance of the necessary infrastructure for business incubators, which is the

**Table 6: Arithmetic mean, standard deviation, relative weight and arrangement of paragraphs**

No.	Paragraphs	SMA	Standard Deviation	Relative Weight	Ranking
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**A. Analysis of paragraphs of the field of cognitive awareness:**

Arithmetic mean, standard deviation, relative weight and rank were used. The following table illustrates this.

incubators" received the lowest approval rate of 77.86%, which confirms the importance of this independent variable and its terms in spreading the knowledge and cultural awareness among the public about the role of business incubators in launching and developing of entrepreneurial projects as well as small projects.

**B. Infrastructure Paragraphs Analysis:**

Arithmetic mean, standard deviation, relative weight and rank were used. The following table illustrates this.

core and essence of the idea of incubators, whether at the level of Training services or provision of services Logistics or advisory services, all working on the success of business incubators.

**C. Analysis of the paragraphs of the field of financial support:**

Arithmetic mean, standard deviation, relative weight and rank were used. The following table illustrates this.

1.	The incubator contributes to providing funding for the incubated projects.	3.89	1.03	77.86	5
2.	The incubator contributes to linking the start-up projects with the funders.	4.11	0.74	82.14	3
3.	The incubator contributes to determining the financing needs of the startups.	4.14	0.80	82.86	1
4.	The incubator helps train entrepreneurs to prepare a financial feasibility study.	4.11	0.89	82.22	2
5.	The incubator helps train entrepreneurs to use crowdfunding platforms.	3.74	1.10	74.81	6
6.	The incubator contributes to coordination between the private sector and startups for funding.	3.89	0.96	77.86	4
<b>Domain paragraphs in general</b>		3.98	0.77	79.50	

Table (6) shows that the arithmetic mean of all paragraphs of the financial support area is equal to 3.98, so the relative weight is 79.50%. This means that there is approval for the paragraphs in this area. 77.30%, while the "Incubator contributes to training entrepreneurs in the use of crowdfunding platforms" received the lowest approval score of 74.81%, which shows the importance of the availability of financial and financial support for the launch of

entrepreneurship and small enterprises, and therefore the funding dimension is a key factor That contribute to The success of the idea of business incubators and thus the success of starting and nurturing entrepreneurship and small enterprises.

#### Second: Analysis of Entrepreneurship:

Arithmetic mean, standard deviation, relative weight and rank were used. The following table illustrates this.

**Table 7: Arithmetic mean, standard deviation, relative weight and order of paragraphs**

No.	Paragraphs	SMA	Standard Deviation	Relative Weight	Ranking
1.	The incubator transforms entrepreneurial ideas into real opportunities on the ground.	4.21	0.63	84.29	3
2.	There are many successful experiences of pilot projects implemented by graduates that have been embraced.	4.43	0.74	88.57	1
3.	The incubator contributes to the development of various technical skills needed for start-ups.	4.36	0.68	87.14	2
4.	The incubator provides entrepreneurs with creative thinking in solving their problems.	4.00	0.86	80.00	7
5.	The incubator works to provide all the equipment and equipment necessary for entrepreneurship.	4.11	0.69	82.14	4
6.	The incubator encourages entrepreneurs to take risks and be prepared to face them.	4.00	0.54	80.00	6
7.	Business incubators provide the economy with incubated projects.	4.04	0.69	80.71	5
<b>Domain paragraphs in general</b>		4.16	0.51	83.27	

Table (7) shows that the mean of all paragraphs of the axis of entrepreneurship is 4.16, so the relative weight is 83.27%. This means that there is approval of the paragraphs in this area. The highest degree of approval is 88.57%, while the "Incubator contributes to providing entrepreneurs with creative thinking in solving the problems facing them" has the lowest approval rate of 80.00%. , Which contributes to the continued success of small enterprises, which is reflected to contribute to the achievement of economic development.

**Table 8: The correlation coefficient between knowledge awareness and entrepreneurship**

Hypothesis	Pearson Coefficient Of Correlation	Probability Value (Sig.)
There is no statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between cognitive awareness and entrepreneurship of small enterprises.	0.201	0.153

## 11. TESTING HYPOTHESES:

**Ho1:** There is no statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between cognitive awareness and entrepreneurship.

To test this hypothesis, the Pearson correlation coefficient test was used and the following table illustrates this.

\*The correlation is statistically significant at ( $\alpha \leq 0.05$ ).

Table (8) shows that the correlation coefficient is 0.201, and that the probability value (Sig.) is 0.153, which is greater than the significance level 0.05. This indicates that there is a statistically significant relationship between cognitive awareness and entrepreneurship of small enterprises.. Therefore, we reject this hypothesis and choose an alternative hypothesis that confirms there is a relationship

**Table 9: Infrastructure Correlation Coefficient and Entrepreneurship**

Hypothesis	Pearson Coefficient Of Correlation	Probability Value (Sig.)
There is no statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between infrastructure and entrepreneurship of small enterprises.	*0.474	0.005

\*The correlation is statistically significant at ( $\alpha \leq 0.05$ ).

Table (9) shows that the correlation coefficient is 0.474, and that the probability value (Sig.) is 0.005 which is less than the significance level 0.05. Emphasizes that there is a relationship and impact between the availability of the necessary infrastructure and the leadership of small enterprises and their continued success.

**Table 10: The correlation coefficient between financial support and entrepreneurship**

Hypothesis	Pearson Coefficient Of Correlation	Probability Value (Sig.)
There is no statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between financial support and entrepreneurship of small enterprises.	*0.562	0.001

\*The correlation is statistically significant at ( $\alpha \leq 0.05$ ).

Table (10) shows that the correlation coefficient is 0.562, and that the probability value (Sig.) is 0.001 which is less than the significance level 0.05. This indicates a statistically significant relationship between financial support and entrepreneurship. Therefore, we reject this hypothesis and choose on the alternative hypothesis. The importance of financial support through business incubators for entrepreneurship of small enterprises is evidenced by the importance of small businesses to provide financing to cover their needs in order to sustain growth and success.

## 12. RESULTS

Through statistical analysis of the research shows several results, the most important of which are:

- The degree of approval of the field of knowledge awareness reached 82.57%.
- The degree of approval of the infrastructure sector was 81.71%.
- The degree of approval of financial support was 79.50%.
- The degree of approval for the field of entrepreneurship was 83.27%.
- The results confirmed a statistically significant relationship at ( $\alpha \leq 0.05$ ) between cognitive awareness and entrepreneurship of small enterprises.

and importance between the knowledge and cultural awareness of the public and entrepreneurship of small enterprises, especially graduate students and entrepreneurs.

**Ho2:** There is no statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between infrastructure and entrepreneurship of small enterprises.

To test this hypothesis, the Pearson Correlation Coefficient test was used, as follows:

**Ho3:** There is no statistically significant relationship at the level of significance ( $\alpha \leq 0.05$ ) between financial support and entrepreneurship of small enterprises.

To test this hypothesis, the Pearson correlation coefficient test was used, and the following table illustrates this.

- The results showed that there was a statistically significant relationship at the level of ( $\alpha \leq 0.05$ ) between infrastructure and entrepreneurship of small enterprises.
- The results showed that there is a statistically significant relationship at the level of ( $\alpha \leq 0.05$ ) between financial support and entrepreneurship of small enterprises.

## 13. RECOMMENDATIONS

In the light of the research results, we recommend the following:

- Continuing the dissemination of the culture of business incubation and awareness among the public through scientific conferences and seminars on this tool, in addition to urging the Ministry of Education and its institutions on curricula for entrepreneurship of small enterprises.
- We urge the government and all educational and private sector organizations and trade unions to establish business incubators and accelerators in order to contribute to the launching of entrepreneurial projects in order to support projects that contribute to economic development.
- The necessary infrastructure, be it logistics, training or consultancy services in the establishment of business incubators, which helps the success and continuity of this tool in supporting small entrepreneurship of small enterprises.

- The need to provide financial support through business incubators, which helps finance entrepreneurship of small enterprises.

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