

# Reality of Improving Performance of Business Incubators

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**Abstract:** This study 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.

**Keywords:** Performance Improvement, Business Incubators, Gaza Strip, Palestine.

## Introduction

Business incubators are institutions that aim to provide support and support services for emerging and small projects as their services vary between providing technical, administrative and other consultations in addition to providing financial support for these projects, as incubators are mainly aimed at supporting the continuity and resilience of these projects, and it is not clear to us how important small projects are In the development of local communities, it is considered the true nucleus of any economic and social progress that societies aspire to. From this standpoint, business incubators have become in the world today one of the basic foundations for the establishment and development of small enterprises.

The process of measuring and evaluating performance is considered one of the basic administrative processes for any organization seeking continuity and excellence. The process of measuring performance gives feedback to the higher departments about what is going on in the organization in order to be able to correct and correct.

Business incubators, like any organization that needs to constantly evaluate and monitor their performance to ensure the achievement of the goals they seek for, and this importance increases due to the important role that business incubators play in the development of small projects, for the success of incubators means the graduation of successful institutions capable of continuing and excellence.

## Problem Statement

Business incubators are an essential and important engine in the development and development of small enterprises. The role played by small enterprises, especially those that create and develop new technologies in developing society and accelerating the development process (Al-Nakhala 2015, P: 2) cannot be overlooked.

In view of the recent Palestinian experience in business incubators (Al-Shukri, 2012, P: 3), there are several problems facing the work of these incubators, the study of (Al-Nakhala, 2015) and (Barhoum, 2014) concluded that the level of services provided by incubators Business, whether in or after the incubation period, has been characterized by low levels, due to the recent experience of incubators in Gaza Strip, their neglect to provide some necessary services for projects, and the lack of an administrative staff specialized in providing these services.

A study (Al-Qawasmeh, 2010) indicated that business incubators are still going according to a non-scientific mechanism, and small projects do not help in overcoming their problems, in addition to that (Al-Safadi, 2015) stated in a study conducted by business incubators in Gaza Strip that the proportion of 25 % Of the incubated companies are the only ones that have developed into startups and successful companies that provide their services in a commercial manner and achieve good profits.

In a study by Struwig & Meru (2011) on the relationship between the "internal and external" work environment and business incubators, the study reached a conclusion that the factors of the internal environment of business incubators have a greater influence than the external environment on the success of the incubator, so that these factors include "the incubator's vision and management style" And its internal resources, "which in turn affects the services the incubator provides to startups.

In terms of the importance of business incubators as an instrument of economic development and its important role in societal development, it requires the management of these incubators to develop an administrative system that contributes to improving their performance and thus achieving their goals that were found for them, and the balanced scorecard model is considered an effective means to achieve this purpose, The results of a study in which organizations using the balanced scorecard to know how their performance improved, showed that the use of the scorecard contributed to improving the operational performance of 88% of these organizations (Debusk et al, 2006, p. 44). Based on the above, the study problem can be formulated in the following question:

**Q1-**: What is the reality of improving the performance of business incubators in Gaza Strip?

### Research Objectives

1. Contributing to enriching literature related to measuring performance in business incubators.
2. Measuring the level of performance of business incubators in Gaza Strip from the perspective of a balanced scorecard.
3. Measuring the effect of demographic factors on improving incubators performance.
4. Provide recommendations to the relevant authorities to improve the performance of business incubators in Gaza Strip.

### Research Importance

The importance of the study stems from the importance of the topic you are raising, and the importance of the study can be seen from the following aspects:

#### Applied Importance:

1. The practical importance stems from the important role that business incubators play in developing small enterprises, which in turn reflects positively on the development of the local community and the creation of job opportunities for young people.
2. Improving the performance of business incubators increases the efficiency of its services provided, which increases its ability to achieve its primary goal, which is to produce successful companies that are able to continue, resist and grow.

#### Scientific Importance:

1. Researchers expect that this study will contribute to filling the gaps of previous studies. By reviewing the previous literature, researchers note that there is a dearth (as far as researchers know) in studies related to measuring the performance of business incubators in general, especially at the Arab level.
2. Researchers hope that this study contributes to establishing the concept of measuring overall performance in business incubators using scientific and methodological tools.

### Research hypothesis

In order to provide an appropriate answer to the academic questions raised, the study seeks to test the validity of the following hypotheses:

**Ho 1:** There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the means of the respondents' answers on improving performance in business incubators due to the gender variable.

**Ho 2:** There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the means of the respondents' answers on improving performance in business incubators due to the age variable.

**Ho 3:** There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the averages of the respondents' answers about improving performance in business incubators due to the variable of the educational qualification.

**Ho 4:** There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the averages of the respondents' answers about improving performance in business incubators due to the variable nature of work in the incubator.

**Ho 5:** There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the means of the respondents' answers on improving performance in business incubators due to the variable years of work experience.

### Research Limits and Scope

The scope of the study shall be as follows:

1. **The objective limits:** The study focused on the reality of improving the performance of business incubators in Gaza Strip
2. **Human boundaries:** The study was conducted on all employees working in business incubators in Gaza Strip and experts and consultants for incubators under study in Palestine who responded by filling the questionnaire.
3. **Institutional limits:** The study was conducted on business incubators in Gaza Strip and experts and consultants for incubators in Palestine, which respondents responded to in answering the study tool.
4. **Spatial boundaries:** The study was conducted in the State of Palestine.
5. **Time limits:** The study was conducted in the year (2020).

### Research Terminology

- **Business incubators:** They are integrated systems of activities that are managed according to specialized administrative structures that carry strategic visions supported by scientific and practical experiences, and provide appropriate spaces and equipped with the capabilities necessary to start entrepreneurial projects, as incubators provide common administrative

services, in addition to technical, financial and marketing support services, and open channels of communication In the business community (governmental or private) to increase the chances of success and reduce the risk of failure of incubated entrepreneurial projects (Al-Azzam and Musa, 2010, P: 143).

## Literature Review

- 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 (Alayoubi et al., 2020) aimed to identify the strategic leadership practices and their relation to improving the quality of educational service in the Palestinian universities in Gaza Strip. The researcher used the analytical descriptive method. The study population consists of all the supervisors working in three universities in Gaza Strip (The Islamic University, Al-Azhar University, and Al-Aqsa University). A random sample of 177 employees was selected by 50% of the study population. The researcher used the questionnaire as a data collection tool. The results of the study showed a strong and statistically significant relationship between strategic leadership practices (strategic orientation, investment of strategic capabilities and talents, development of human capital, strengthening organizational culture, emphasis on ethical practices, implementation of balanced regulatory control) and improvement of quality of educational service , Responsiveness, safety, empathy) in Palestinian universities. The study recommended that Palestinian universities should take into account the various dimensions of strategic leadership practices and develop their university capacities, including strategic orientation, investment of strategic capabilities and talents, development of human capital, strengthening organizational culture, emphasis on ethical practices and implementation of balanced regulatory control. Educational service for universities.
- A study of (Owda, 2016) aimed to identify the role of entrepreneurship in job creation, researchers adopted the descriptive analytical approach, and used the questionnaire as a main tool for collecting data from the study community consisting of entrepreneurial projects benefiting from business incubators in Gaza Strip. The study reached the most important results, the presence of a statistically significant relationship between entrepreneurship and job creation, and the results confirmed the existence of a relationship between the dimensions of entrepreneurship (culture and awareness of entrepreneurship, seizing opportunities, the ability to build a network of relationships) and creating job opportunities, as for the dimension of funding The results indicated that financing is not an essential element in creating job opportunities, and the study also showed that there is not enough information about the financing process and financing institutions in Gaza Strip, and that funding is not clear to the individuals of the sample, and the results also indicated that the state does not provide suitable job opportunities for graduates 'skills and competencies , And no Amat in Gaza Strip does not study the market to serve the needs of the graduate and link to get the job.
- A study of (Al-Nakhala, 2015) aimed to identify the technological incubator and its role in supporting and developing small projects in the incubator of the Islamic University and the incubator of the University College of Applied Sciences and show the extent of the technological incubator's ability to develop its capabilities and capabilities to enable small projects to achieve their growth, the study relied on the curriculum Analytical descriptive, and the interview and questionnaire were used as two main tools to collect data from the study community and represented by the projects incubated in the incubator of the Islamic University and the community college incubator. The study reached the most important results, that technological incubators are an essential engine in supporting and developing small projects, and the participants agreed on the role of technological incubators and the extent of the impact of the incubator model used on the outcomes of the incubation process, and the incubators also helped participants to create small projects and turn their creative and entrepreneurial ideas into Startups and successful companies, linking projects to target markets, and the incubator has a prominent role in supporting scientific research, creativity and administrative and technical guidance for small projects.
- A study of (Barhoum, 2014) aimed to identify the effectiveness of business incubators in being a tool to solve the unemployment problem among young people, especially entrepreneurs, and the study relied on the descriptive analytical approach, and the questionnaire was used as a main tool for collecting data from the study community represented by incubated projects that ended their incubation period In the business and technology incubator. The study reached the most important results, that the level of service provision by the business and technology incubator was somewhat medium

while this level fell after graduation, and that investment in the information technology sector is considered the most appropriate in the Palestinian case and the attendant blockade and closures, because it depends largely on providing Professionally qualified human capacities regardless of geographical location, and also the study concluded that the success rate of projects is increased by increasing the percentage of services provided to them by the business incubator, which leads to increased job opportunities.

- Study of (M'Chirgui, 2012) aimed to evaluate the performance of business incubators in France, and this study is the first attempt to evaluate the performance of business incubators in France since its inception in 1999, where the study covers the period between 2000 -2009. The study relied on Secondary quantitative and qualitative data, mainly collected from the sources of the Ministry of Higher Education and Scientific Research in France. The study reached the most important results, that after ten years of establishing nurseries in France, they generally develop without difficulties and are an integral part of the system of innovation and creativity in the region, and the results also showed that business incubators are continuing to create innovative entrepreneurial companies, but they need to Increase her professional competence in some activities related to selection criteria, business support, networking and graduation activities.
- A study of (Struwig & Meru, 2011) that aimed to identify the relationship between the “internal and external” work environment and business incubators, and the study adopted the experimental approach, and the study community consisted of all business incubators in Kenya where the researcher designed two questionnaires, one of which was allocated to incubator managers and the second to incubated companies The study reached the most important results, that there is no relationship between the work environment and business incubators, because business incubators provide a protected environment, that is, it protects incubated companies from environmental changes, but the study found that internal environment factors affect business incubations and these factors include the organizer's vision The cycle of management used in the course affects the training and support provided by incubators to incubated companies.
- A study of (Al-Qawasmeh, 2010) aimed to identify the reality of business incubators in the West Bank, and to determine the role they play in supporting small projects, and the study relied on the descriptive analytical approach, and the questionnaire was used as a tool to collect data from the study community and consisting of all workers in incubators Business and individuals embracing as a small business incubator in the West Bank. The study reached the most important results, that small projects in Palestine suffer from many problems that can cause them to fail at the beginning of their life, and that business incubators are still going according to a non-scientific mechanism, and small projects do not help to overcome their problems, and the study added that providing services By business incubators that they are low and do not support projects significantly, and this is due to the lack of experience in this field and the reduced capabilities available to them, and the level of service provision during the incubation period was much better than the period that was after graduation from the incubator.
- A study of (Al-Azzam and Musa, 2010) aimed at identifying the reality of the situation of business incubators in Jordan, and the important role it plays in supporting and developing emerging entrepreneurial projects and their contribution to the growth of the national economy, and the study relied on the descriptive analytical approach, and it used both the questionnaire The interview is for collecting data from the study community consisting of Jordanian business incubators, entrepreneurial projects that graduated from those incubators, incubated projects, and entrepreneurial projects that did not enter incubators. The study reached the most important results, there is a statistically significant effect of service attribution factors with its dimensions (administrative and technical) in the success of entrepreneurial projects in terms of the ability to grow, the ability to generate income, the ability to provide job opportunities, and the presence of a statistically significant effect of the vision factors in its dimensions ( Strategic vision, strategic leadership, and incubation strategy (acceptance and evaluation) in the success of entrepreneurial projects in terms of the ability to grow, the ability to generate income, and the ability to provide jobs.
- A study of (Messegheem et al., 2017) aimed at building an integrated model for measuring the performance of business incubators that takes into account the viewpoint of all major stakeholders such as funders, managers and employees of business incubators, incubated projects, and to achieve this goal the study used the Balanced Scorecard approach as an ideal tool It is possible to build a performance appraisal model that is shared and accepted by all parties that have an interest in business incubators. The study used a qualitative exploratory approach, as it relied on the interview method as a main tool for collecting data. The study reached the most important results, that most of the previous studies focused on performance evaluation from the point of view of one of the stakeholders, and from here the researcher showed the importance of this study by using an integrated evaluation model that includes all parties with an interest, as the light in this study was highlighted on the dimensions Different performance related to stakeholders and these dimensions are derived from the dimensions of the balanced scorecard, and include (the socio-economic dimension, after entrepreneurs, after business support operations, and the last dimension is after learning).
- A study of (Messegheem et al., 2017) that aimed to develop a measure to measure the performance of non-profit business incubators in France, and the measurement model was built on the basics of balanced scorecard, and the study used the interview and questionnaire method to collect data from 121 business incubators in France. The study reached the most important results, that the process of evaluating the performance of incubators can be based on four dimensions derived from the dimensions of the balanced scorecard, which are as follows, after societal development and is derived from the financial dimension, while the second dimension is after entrepreneurs and the derivative from customers, and the third dimension It is after business incubation processes and the derivative of after internal processes, and the last dimension is



after learning, and the study showed the importance of using this measure as it consists of a wide range of performance indicators that help incubator managers to better manage their incubators and also help decision makers in developing C AESAT better serves the entrepreneurship sector.

- A study of (BAKKALI et al., 2014) aimed at presenting a proposal to develop a strategic tool to improve the performance of business incubators using a balanced scorecard, as this tool enables business incubators to better measure their performance and thus their ability to be managed better, and for the purpose of verifying the appropriateness of a balanced scorecard In measuring the performance of business incubators, 5 business incubators were selected to test the implementation of the balanced scorecard, as each of these incubators experimented with the implementation of the balanced scorecard from October 2010 to January 2012, and during the application period, interviews were made with the managers and employees of incubators and projects Pain Incubation, with the aim of studying the work of incubators, knowing the main challenges related to measuring the performance and management of incubators, and drawing a conclusion regarding the use of the balanced scorecard. The study reached the most important results, that the balanced scorecard is appropriate for the nature of business incubators and it enables it to measure its performance and control it efficiently and effectively.
- A study of (Vanderstraeten et al., 2012) that aimed mainly at studying the subject of measuring the performance of business incubators in Belgium, as it relied on the analysis of previous studies and on the descriptive method of data collection (interviews and focus groups) with targeted business incubator managers and external experts. The study reached the most important results, that most incubators use limited measures to evaluate performance, also the current measures do not take into account short, medium and long results, and do not address the organization's strategy, goals and how to achieve them, in addition to that there is no link between measuring incubator performance and its impact on Incubator staff. To cover this shortcoming, the researchers suggested employing the strategic map and balanced scorecard and applying it to non-profit business incubators.

## **Theoretical Framework**

### **Business Incubators**

Business incubators are institutions established to support and develop startups by providing these companies with a set of support and services resources for a limited period so that they can survive, continue, grow and reduce the risks and potential for failure of companies at the beginning of their establishment. From this, business incubators are seen as an integrated development project it contributes to achieving economic and social goals.

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### **Business Incubator Concept:**

The word incubator is inspired by the word cuddling, which means protection, support and care, especially when used in the custody of the young, which comes as a necessary life necessity for the survival and development of the human baby, whether by his parents or others, and thus the concept of incubators in the field of business projects is close to the custody of the little human being, as well as That the newborn needs those who cuddle him because he is unable to meet his needs alone and achieve his desires and directions, as is the case for small projects and new entrants to the labor market, they need those who embrace them and support them in order to be able to make their way more efficiently and efficiently, and also can look at incubators projects from Jean It is similar to the idea of nurseries where small plants are grown until they are able to grow and then transferred to large farms, and this is the case of the business nursery (Al-Senussi and Al-Duwaibi, 2003, P: 13).

Many definitions have been received for business incubators (Heikal, 2003, P: 189) defined business incubators as an integrated work system that provides all means from a place equipped with all the capabilities required to start and develop the project, and it is managed by a specialized department that provides all kinds of support necessary to increase the proportion of Small business success. (Al-Azzam and Musa, 2010, P: 143) defined it as places that contribute in one way or another to creating and developing the growth of small and medium-sized entrepreneurial projects, and the business incubator helps in refining ideas and perceptions of the owners of projects, in addition to providing the necessary consultations and facilitating building networks Connect to incubated projects.

Despite the difference of researchers about defining the conceptual framework for the concept of business incubators, there is almost a consensus on defining its concept, through reviewing the previous definitions, researchers see that business incubators are institutions established for the development and development of startups, they provide services to entrepreneurs who have ideas for entrepreneurial projects and are still At the beginning of their way to establish their project, the incubator works to provide comprehensive and integrated services for these entrepreneurs with the aim of increasing their chances of success and reducing the risk of project failure.

### **The Emergence of Business Incubators**

The history of the incubators dates back to the first project that was established at the manufacturing center known as (Batavia) in New York State, United States of America in 1959, where the owner of the center was unable to find a single tenant to rent the entire place, so he divided the headquarters into several units and rented it to individuals wishing to establish a project With advice and counseling provided to them, this idea slowly spread across the United States of America in the sixties and

seventies and most of it was sponsored by the government, and the number of incubators doubled in the eighties and nineties, especially after the establishment of the American National Business Incubation Association "NBIA In 1985 and recently it changed its name in 2015 to the International Organization for Business Innovation "International Business Innovation Association "InBIA" (Munkongsujarit, 2016, p. 74).

At the end of the year (1997), the number of incubators in the United States was approximately (550) incubators (Al-Fayhan and Salman, 2012, P: 84). As for the Arab level, Egypt is the first Arab country to establish a technology incubator affiliated to the Ministry of Industry in 1998 (Jawadi et al., 2011, P: 5).

The number of incubators in the early third millennium reached more than 4000 incubators, including 950 in the United States of America. As for the Arab countries such as Egypt, Saudi Arabia, Jordan, Lebanon, Syria and Morocco, they started recently and a decade or two ago in planning to establish business incubators, mostly with initiatives from the public sector and few of them On the initiative of the private sector, especially since most of these incubators are not-for-profit. In Egypt, an association for incubators was established and 37 incubators were studied in 1997 with funding from the Social Fund and until 2005 AD 9 technical and industrial incubators were graduated, and in Jordan a business incubator was created for small and micro enterprises Minority in the Jordan River project under the patronage of Queen Rania Al Abdullah, and in the Kingdom of Saudi Arabia the initiative was by the public sector represented in the King Abdulaziz City for Education and Technology through the establishment of a technical development center to establish business incubators that were followed by King Fahd University of Petroleum in 1416 AH with the creation of the so-called Wadi Dhahran Technology followed by the Jubail Technical Institute of the Royal Commission for Jubail and Yanbu and then the Riyadh Chamber of Commerce and Industry, which planned to establish business incubators for small projects in response to the recommendations of the advisory body in the Supreme Economic Council.

### **The Importance of Business Incubators**

The primary goal of business incubators is that they are institutions to support scientific initiatives and emerging projects that do not have the necessary ingredients for the actual start of work and production and help these projects in establishing by providing quality studies, counseling, preparing and preparing the place and other work requirements including computer services, communication and technical and technical support (Al-Senussi and Al-Duwaibi, 2003, P: 22). As business incubators are among the important mechanisms to support entrepreneurship and develop entrepreneurial projects, entrepreneurship calls for innovation and change and is considered a real engine for economic and social development, and it is still the best hope for any country to prosper, and with societies seeking to meet the requirements of employment, the importance of caring for a new generation of Entrepreneurs, where young talents and creative ideas abound in our Arab world looking for someone to take and develop them (El Talla et al., 2017, P: 3). Hence the role of business incubators in promoting entrepreneurship, and the importance of business incubators can be discerned through their expected strategic roles, the most important of which can be summarized in the following points (Jawadi et al., 2011, P: 8):

- Scientific advice and feasibility studies are provided for emerging SMEs.
- It links emerging and innovative projects with the productive sectors, market mobility and requirements.
- Encourages nontraditional and enterprising investors to create their own companies which are described as venture capital firms or risk.
- It contributes to employing the results of scientific research, innovations and creativity in the form of projects that make it convertible into production.
- It provides job opportunities for those wishing to be real businessmen, especially graduates of university studies, and helps them to start properly and bypass the rough roads at the beginning of their lives, perhaps the most prominent of which is the bureaucracy that is reflected in (loans, guarantees, founding mechanisms, etc.).
- It works to establish and support small or medium production or service projects that depend on applying appropriate technologies and modern innovations.
- A generation of business owners qualifies, supports and supports them to establish serious and rewarding businesses, which contributes to the development of production and the opening of job opportunities and the advancement of the economy.
- The SMEs help to face the administrative, financial, technical and marketing difficulties that usually face the establishment stage.
- Provides support and assistance to small and medium enterprises to achieve high growth rates and quality.
- It opens the way for investment in areas that are feasible for the national economy, such as incubators for technology businesses, incubators for small and supportive industries, incubators for information projects, and others.

The researchers believe that the importance of business incubators lies in its prominent role in economic and social development through:

- Encouraging and developing small and emerging projects, mainly business incubators were established with the aim of helping these projects and providing the necessary support to them, which helps them to overcome the difficulties facing projects at the beginning of their establishment, which is due to the lack of experience and the absence of the planning and advisory side.

- Economic and social development, where business incubators contribute to the revitalization of the local community through setting up projects and supporting the business environment, and it is considered a center for spreading entrepreneurial thought and free work among young people, and we do not lose sight of the fact that activating self-employment and setting up projects in any city or region contributes to promoting economic development. By reducing unemployment rates, increasing the number of companies that pay dues to the state, they also stimulate production, import and export operations, all of which ultimately are in the interest of the state.

#### **Types of Business Incubators:**

Business incubators vary according to the nature of their specialization, orientations and reasons for their emergence. The most important types of incubators can be referred to as follows (Al-Azzam and Musa, 2010, P: 143):

1. **Industrial Or Technological (Technological) Incubators:** Industrial incubators are generally found in universities and scientific and technological research centers, and these incubators are mainly aimed at strengthening and developing the capabilities of industrial and technological projects, by providing them with the necessary requirements in a thoughtful manner.
2. **Technological research incubators:** Technological research incubators aim to create the requirements and requirements required for the owners of intellectual and technological creativity, and for those with expertise and qualified to develop their ideas and employ their scientific research in the fields of innovation and innovation, in preparation for turning them into commodity products.
3. **Economic Incubators:** Also called empowerment incubators, which help in the growth of projects aimed at overcoming the challenges of poverty, illiteracy, and unemployment.
4. **Multipurpose Incubators (Incubators):** Incubators interested in supporting a diverse and overlapping network of businesses, and the aim of this support is to create a state of integration in the productivity of the projects and services they provide.
5. **Open incubators:** These are incubators that do not require a specific place except that its activity is spread over several places, and the goal of these incubators is to support and embrace projects in their locations by providing different and required services regardless of the place necessary to start the project.
6. **Non-profit incubators:** The ownership of non-profit incubators is generally owned by governments and universities. The goal of these incubators is to contribute to the development of the region in which they are located. Non-profit incubators do not collect any kind of fees from their incubated projects.
7. **Profit incubators:** Profit incubators are created by individuals, groups and private companies, as these incubators aim to provide their services to the projects that are incubated, and profit incubators meet the fees for services provided to their incubated projects, and these incubators also require obtaining a percentage of project profits after she graduated and entered the job market.

#### **Services Provided By Business Incubators:**

The business incubator provides a variety of services that help incubated companies to grow and develop and overcome the difficulties facing startups, and these services are represented in four main axes as follows (InfoDev, 2016a, P: 33):

1. **Infrastructure Services:** Business incubators provide the right place for incubated projects, furniture, internet, fax, telephone, meeting rooms, and more.
2. **Business Services:** The incubator provides a set of administrative and information services such as assistance in legal registration and licenses, accounting, and conducting marketing research and business plans, and others.
3. **Financial support "Financing":** The incubator facilitates the access of incubated companies to the various sources of financing, links them with government grant programs, banks or capital owners, and some incubators have their own source of financing and invest in the businesses of these companies.
4. **Communication and Communication People Connectivity:** This includes services related to orientation, training and networking, as the incubator facilitates interactions between incubated and experienced companies such as accountants, communications and marketing consultants, attorneys and experts from the industrial sector related to the company's work, these networks and communications help these companies to gain new customers and enter markets New and reaching new investors.

#### **How The Incubator Works:**

After establishing the incubator and providing the appropriate place, the applications for affiliation by the young entrepreneurs who have new ideas for their implementation begin to arrive at the incubator, and a specialized committee studies all the requests submitted to it and then issues its decision regarding acceptance of any kind of it, and then works to provide its services to the projects Selected, which may be presented in exchange for rent or incubation fees, and a contract is signed between the institutions and the incubator, which includes an undertaking from the institutions to pay the incubation fees and evacuation of the incubator after a specific time period, and this is to allow the incubator to absorb other institutions, so that the incubator undertakes to provide all necessary means To support small enterprises, a procedure in place in many countries that have developed the field of incubators (Abdul Samad, and Issa, 2017, P: 104).

As for the criteria for selecting projects for incubation, the most important conditions for enrollment can be said, is the extent to which the project needs support from the incubator, and these institutions must be based on qualified persons with new ideas that help it to grow rapidly and graduate as quickly as possible (Abdul-Razzaq, 2014).

In general, the following institutions are enrolled in the incubator (Bin Qattaf, 2016, P: 144):

- Good institutions with rapid growth, which can successfully graduate within a period not exceeding three years.
- Institutions based on various technological initiatives.
- Institutions that link and complement existing projects.
- Craft projects that wish to convert to advanced industries by introducing advanced production methods.

#### **Business Incubators in Palestine:**

The Palestinian experience in setting up and developing business incubators is the same as the recent Arab experience, and Palestinian incubators have been established mostly to achieve development goals, which are contributing to the revival and development of the local economy, the promotion of technology transfer, encouraging the establishment of small and new businesses for young entrepreneurs, and contributing to reducing unemployment rates by creating New job opportunities for unemployed youth and university graduates. The Palestinian experience in business incubators was launched in 2004 in the West Bank with the creation of the Palestinian Information Technology Incubator "Pikti", followed by the establishment of the Business and Technology Incubator at the University Islamism in Gaza in 2006 (Al-Shukri, 2012, P: 7). The following table reviews the most important incubators operating in Palestine:

**Table 1:** Business incubators in Palestine

#	Babysitter	Year Founded	Workplace
1.	Palestinian Information and Communications Technology Incubator - Picti	2004	West Bank and Gaza Strip
2.	Business and Technology Incubator - Islamic University	2006	Gaza Strip
3.	Business Women Forum - Business Development Center (BW)	2006	West Bank
4.	PPU Business Incubator	2008	West Bank
5.	Technological Incubator - An-Najah National University	2011	West Bank
6.	Technological Incubator at the University College of Applied Sciences (UCAS)	2011	Gaza Strip
7.	Gaza Sky Geeks	2011	Gaza Strip
8.	Leaders/ FastForwar	2013	West Bank
9.	Arabreneur	2013	West Bank
10.	Made in Palestine" business incubator - Al Nayzak Foundation	2013	West Bank
11.	Bethlehem Business Incubator (BBI)	2016	West Bank
12.	Business Incubation Center - Hebron Municipality	2016	West Bank
13.	The business incubator of the Hebron Chamber of Commerce and Industry	2016	West Bank

**Source:** Prepared by researchers for viewing (Abu Hashhash, 2016), (Barhoum, 2014).

All Palestinian business incubators have been established with funding from the World Bank and the European Union, whether through the Info Dev program such as the Palestinian Incubator Incubator and the Business and Technology Incubator at the Islamic University, or through the QIF Program such as the Incubator of An-Najah University and the Palestine Polytechnic University Incubator. The majority of the incubator's activities were limited to institutions Domestic and international Microsoft, Intel Google, USAID, PALTRADE, SPARK (Al-Shukri, 2012, P: 9).

#### **Business Incubators in Gaza Strip**

As shown in the previous table, there are 4 main incubators in Gaza Strip, which are the incubator of the Business and Innovation Center "Picti", the incubator of business and technology at the Islamic University, the incubator of technology at the University College of Applied Sciences "Yukas", the incubator of Gaza sky geeks, the following is a summary of these incubators:

##### **1. Business and Innovation Center PICTI Incubator**

The first business incubator in Palestine was established in 2004 and its center is in Ramallah and it has a branch in Gaza Strip, it came by the desire of the founders to support and develop the communications and information sector in Palestine, the general goal of which is to help the owners of entrepreneurial ideas in this sector to develop their ideas and turn them into emerging projects And list. (Abu Hashhash, 2016, P: 17).

##### **2. Business and Technology Incubator at the Islamic University:**

The business and technology incubator was established in 2006 by the management of the Islamic University in Gaza and its idea was to support young people and help them bridge the gap between the theoretical and practical sides, and encourage creative ideas and distinctive projects. The incubator initially targeted the ICT sector and then expanded to include new ideas in all sectors. The incubator targets students from the same university, other universities, and all disciplines (Abu Hashhash, 2016, P: 26).

##### **3. Technological Incubator at the University College of Applied Sciences (UCAS)**



The Technology Incubator is a unit established at the University College of Applied Sciences with support from the Economic Recovery Project in Gaza Strip implemented in partnership with the Oxfam Foundation and funded by the Danish International Development Agency (DANEDA). The incubator aims to support male and female entrepreneurs in the field of information technology by developing their creative ideas and embodying them on the ground (Al-Safadi, 2015, P: 7).

#### 4. Gaza sky geeks:

Gaza sky geek works as an incubator and business accelerator, established in 2011 in partnership with Google and the international organization "Mercy Corps", and the incubator's message revolves around building a technological ecosystem that can compete internationally in Gaza through technical education, free work via the Internet, and outsourcing, Entrepreneurship, the incubator in a manner that targets this type of start-up companies in order to connect them with international and regional markets, the incubator began her work in holding workshops and awareness campaigns for young people to expand and increase knowledge of entrepreneurship and technology, in 2014 she started working with emerging companies who have entrepreneurial ideas and the incubator seeks A basic form to link them to markets outside of Gaza Strip in 2014 and 2015, first started investment projects of the companies emerging in Gaza Strip [www.gazaskygeeks.com](http://www.gazaskygeeks.com).

#### Study Methodology

The study methodology and procedures are considered a main axis through which the applied side of the study is accomplished, and through it the data required to conduct the statistical analysis to arrive at the results that are interpreted in the light of the study literature related to the subject of the study, and thus achieve the goals that it seeks to achieve.

#### Study Approach:

In order to achieve the objectives of the study, the researchers used the descriptive analytical method through which it tries to describe the phenomenon under study, and to analyze its data, the relationship between its components, the opinions presented about it, the processes it includes and the effects it causes.

#### The researchers used two primary sources of information:

1. **Secondary Sources:** Where the researchers moved in treating the theoretical framework of the study to secondary data sources, which are represented in the relevant Arab and foreign books and references, periodicals, articles and reports, and previous research and studies that dealt with the subject of study, research and reading in various internet sites.
2. **Primary Sources:** To address the analytical aspects of the subject of the study, the researchers resorted to collecting primary data through the questionnaire as a study tool, specially designed for this purpose.

**Study Community And Sample:** The study community is defined as all the vocabulary of the phenomenon that the researcher studies, and based on the study problem and its goals, the target community consists of all employees working in business incubators in Gaza Strip and incubators experts and consultants, where the total number reached "62", according to the data that Researchers collected from incubators. The comprehensive "survey" survey method was used for all members of the study community, as 55 questionnaires were returned, 88.70%.

**Study Tool:** A questionnaire was prepared on "The reality of improving the performance of business incubators in Gaza Strip", as it consists of two main sections:

**The first section:** It is the personal data of the respondents (gender, age, educational qualification, nature of work in the incubator, years of work experience).

**The second section:** It is about improving the performance of the incubator, and it consists of (12) items.

A five-Likert scale was used to measure respondents' responses to questionnaire items according to the following table

**Table 2:** Five-way Likert scale

The Response	Strongly Disagree	Not Agree	Neutral	Agree	Strongly Agree
Class	1	2	3	4	5

#### Validity of the Questionnaire:

The truthfulness of the questionnaire means "that the questionnaire measures what was set for its measurement" (Al-Jarjawi, 2010, P: 105), and also means "the inclusion of the questionnaire for all the elements that must be included in the analysis on the one hand, and the clarity of its paragraphs and their vocabulary on the other hand, so that they are understood For everyone who uses it" ((Obaidat et al., 2001, P: 179). The accuracy of the questionnaire has been confirmed in two ways.

#### The first way: believe the arbitrators' opinions "apparent honesty":

The honesty of the arbitrators "means that the researcher selects a number of arbitrators who specialize in the field of the phenomenon or problem under study" (Al-Jarjawi, 2010, P: 107) where the questionnaire was presented to a group of arbitrators composed of (11) specialists in management, accounting and statistics, The researchers responded to the arbitrators' opinions and made the necessary delete and amendment in the light of the submitted proposals, thus the questionnaire was finalized.

#### The second way: validate the scale:

##### Internal Validity:

The internal consistency sincerely means the consistency of each of the questionnaire paragraphs with the field to which this paragraph belongs, and the researchers calculated the internal consistency of the questionnaire by calculating the correlation coefficients between each of the paragraphs of the questionnaire fields and the overall degree of the same field.

#### Results of the internal consistency of the scale:

**Table 3:** Correlation coefficient between each item in the "improving incubator performance" field and the overall score for the field

#	Paragraphs	Pearson Correlation Coefficient	Probability Value (Sig.)
1.	The incubator has a specific vision for the future and seeks to achieve it	.656	*0.000
2.	The incubator can achieve its goals through its available resources	.573	*0.000
3.	The incubator achieves stakeholder goals efficiently and effectively	.840	*0.000
4.	The incubator has a clear organizational structure	.720	*0.000
5.	Responsibilities are defined and the roles are distributed fairly to the employees	.655	*0.000
6.	The incubator receives honors and awards for her support of entrepreneurship	.535	*0.000
7.	There is a steady increase in the satisfaction of entrepreneurs and other stakeholders with the services provided by the incubator.	.654	*0.000
8.	The incubator takes seriously the complaints of the entrepreneurs and finds suitable solutions for them	.778	*0.000
9.	The incubator has various contacts and relationships with local and international professional networks and organizations	.774	*0.000
10.	The incubator is diversifying the sources of funding to ensure the sustainability of the incubator's work	.751	*0.000
11.	The incubator allows entrepreneurs, employees and other stakeholders to obtain relevant data and information in a timely manner	.709	*0.000
12.	There is a continuous improvement in incubator performance	.812	*0.000

\* Statistically significant correlation D at the significance level ( $\alpha \leq 0.05$ )

Tabular R is at a free degree (53) and the level of significance 0.01 is equal to 0.354

Tabular R at freedom degree (53) and moral level 0.05 equals 0.273

The previous table shows the correlation coefficient between each item of the "improved incubator performance" field and the overall score of the field, which shows that the correlation coefficients shown are a function at the significance level of 0.05  $\alpha$  and thus the field is considered true to what was set to measure it.

**Reliability:**

The stability of the questionnaire is intended to give the questionnaire the same results if it is re-applied several times in a row, and it is also intended to what degree the scale gives close readings each time it is used, or what is the degree of its consistency, consistency, and continuity when its use is repeated at different times (Al-Jarjawi, 2010, P: 97).

The researchers have verified the stability of the study resolution through the Cronbach's Alpha Coefficient, and the results were as shown in the following table:

**Table 4:** Cronbach's coefficient alpha for measuring resolution stability

The Field	The Number Of Paragraphs	Cronbach's Coefficient Alpha
Improve Incubator Performance.	12	0.905

It is clear from the results shown in the previous table that the value of Cronbach's coefficient alpha is high, reaching (0.971). This means that the stability is high and statistically significant. Thus, the researchers have confirmed the validity and consistency of the study's questionnaire, which makes it fully confident in the validity of the questionnaire and its validity to analyze the results, answer questions of the study and test its hypotheses.

**Data analysis, study hypotheses, and discussion**

It includes an offer to analyze data and test the hypotheses of the study, by answering the study questions and reviewing the most prominent results of the questionnaire that was reached through the analysis of its paragraphs, and to find the personal data of the respondents, so statistical treatments were performed for the data collected from the study questionnaire, as the packages program was used. Statistical for Social Studies (SPSS) to obtain the results of the study that was presented and analyzed.

**Statistical description of the study sample according to personal data**

The following is a presentation of the characteristics of the study sample according to personal data

**Table 5:** Distribution of the study sample according to demographic variables

Personal Data		Count	Percentage%
Gender	Male	43	78.2
	Female	12	21.8
Total		55	100.0
Age Group	Less 25 years old	9	16.4
	From 25 to 34 years old	27	49.1

	From 35 to 45 years old	13	23.6
	Over 45 years old	6	10.9
<b>Total</b>		55	100.0
<b>Educational Qualification</b>	Diploma	1	1.8
	BA	21	38.2
	Postgraduate	33	60.0
<b>Total</b>		55	100.0
<b>The Nature Of Work In The Incubator</b>	Administrative / employee in the incubator	26	47.3
	Consultant / business development expert	29	52.7
<b>Total</b>		55	100.0
<b>Years Of Work Experience</b>	Less than 3 years	10	18.2
	From 3 to 6 years	21	38.2
	From 7 to 10 years	12	21.8
	More than 10 years	12	21.8
<b>Total</b>		55	100.0

It is clear from the previous table that most of the study sample is male (78.2%), while females constitute only 21.8%, and these differences between the numbers of males and females are due to the prevailing cultural concepts in Palestinian society about women's work, in light of high unemployment, priority is usually given to males To have access to employment. It is also clear that the largest proportion was for the age group from 25 to 34 years and its percentage (49.1%), which is almost half of the sample, followed by the age group from 35 to 45 years and its percentage (23.6%), while the age group under 25 years of age reached (16.4) %, And researchers attribute this to the fact that incubators are looking for those who have practical experience, as this applies mostly to age groups older than 25, while the age group is less than 25, most of them are new graduates who lack practical experience, so they are less fortunate to work in the incubators. Age over 45 years, most of them may prefer to work in jobs that provide more job stability.

It is also clear that more than half of the sample are holders of higher degrees with a rate of (60%), and researchers attribute the majority ownership of a "postgraduate" educational qualification that almost half of the sample members are business experts and consultants who also work as lecturers in colleges and universities. It is also clear from the previous table that 47.3% of the study sample is the nature of their work in the incubator as an administrative / employee in the incubator, while 52.7% is the nature of their work as a consultant / business development expert. This percentage is representative of the study community, where consultants and business development experts represent 56.5% of the study population and their percentage is greater than incubator employees, where they represent 43.5% of the community. This result reflects the reality of work and employment in business incubators, as the number of entrepreneurial projects is increasing, which requires Hire experts and guides more.

It is also clear that 18.2% of the study sample have years of work experience less than 3 years, 38.2% of work experience years range from 3 to 6 years, while 21.8% of work experience years range from 7 to 10 years and more than 10 years, meaning that approximately 81.8% have practical experience for a period ranging from 3 years or more, as this indicates the interest of incubators to attract those who have practical experience of not less than three years in the labor market, and this is a positive indication that the incubator is interested in attracting those with competence and experience, which reflects positively on The services provided by the incubator for entrepreneurs.

#### The Criterion Adopted In the Study:

To determine the criterion adopted in the study, the length of the cells was determined in the Likert pentatonic scale by calculating the range between the scale grades (5-1 = 4) and then dividing it by the largest value in the scale to obtain the length of the cell i.e. (4/5 = 0.80) and then This value was added to the lowest value in the scale (the beginning of the scale and it is the correct one) to determine the upper limit of this cell (Ozen et al., 2012), and so the length of the cells became as shown in the following table:

**Table 6:** the criterion approved in the study

SMA	Relative weight	Degree of approval
From 1- 1.79	From 20% - 35.99%	Very weak
From 1.80- 2.59	From 36% - 51.99%	Weak
From 3.39 - 2.60	From 52% - 67.99	Medium
From 3.40- 4.19	From 68% - 83.99%	Large
From 4.20 - 5	From 84% - 100%	Very Large

To explain the results of the study and to judge the level of response, the researchers relied on the arrangement of arithmetic averages at the level of the questionnaire and the level of paragraphs in each field, and the researchers determined the degree of approval according to the criterion approved for the study.

**Answer to the study question: What is the reality of improving the performance of incubators in Gaza Strip?**

The mean, standard deviation, relative weight, rank, and t-test value were used to find the degree of approval. The results are shown in the following table:

**Table 7:** Arithmetic mean, standard deviation, relative weight, rank, and t-test value for each item in the "Incubator Performance Improvement" section

#	Paragraphs	SMA	Standard Deviation	Relative Weight	Degree Of Approval	Test Value	Probability Value	Ranking
1.	The incubator has a specific vision for the future and seeks to achieve it	4.15	0.81	82.96	Large	10.41	0.000	3
2.	The incubator can achieve its goals through its available resources	3.67	0.97	73.33	Large	5.04	0.000	11
3.	The incubator achieves stakeholder goals efficiently and effectively	3.78	0.92	75.56	Large	6.18	0.000	10
4.	The incubator has a clear organizational structure	4.09	0.81	81.85	Large	9.95	0.000	5
5.	Responsibilities are defined and the roles are distributed fairly to the employees	3.87	0.83	77.41	Large	7.75	0.000	9
6.	The incubator receives honors and awards for her support of entrepreneurship	3.91	0.80	78.18	Large	8.43	0.000	8
7.	There is a steady increase in the satisfaction of entrepreneurs and other stakeholders with the services provided by the incubator.	3.65	0.78	72.96	Large	6.10	0.000	12
8.	The incubator takes seriously the complaints of the entrepreneurs and finds suitable solutions for them	4.07	0.72	81.45	Large	11.11	0.000	7
9.	The incubator has various contacts and relationships with local and international professional networks and organizations	4.31	0.72	86.18	Very Large	13.54	0.000	2
10.	The incubator is diversifying the sources of funding to ensure the sustainability of the incubator's work	4.15	0.94	82.96	Large	8.98	0.000	3
11.	The incubator allows entrepreneurs, employees and other stakeholders to obtain relevant data and information in a timely manner	4.07	0.87	81.48	Large	9.12	0.000	6
12.	There is a continuous improvement in incubator performance	4.35	0.73	86.91	Very Large	13.75	0.000	1
<b>All Paragraphs Of The Field Together</b>		4.01	0.58	80.12	Large	12.97	0.000	

The value of the tabular t at freedom (54) and the level of significance 0.05 equals 1.67.

The value of the tabular t at freedom (54) and the level of significance 0.01 equals 2.39.

From the previous table, the following can be drawn:



- The arithmetic mean for the twelfth paragraph "There is a continuous improvement in the performance of the incubator" equal to 4.35 (total score of 5), meaning that the relative weight is 86.91%, and this means that there is great agreement by the members of the sample on this paragraph, which indicates that the incubator benefits from Her past experiences and is constantly improving her performance.
- The mean of the seventh paragraph "a steady increase in the satisfaction of entrepreneurs and other stakeholders on the services provided by the incubator" is equal to 3.65, meaning that the relative weight of 72.96%, and this means that there is great agreement by the sample members on this paragraph, researchers attribute the paragraph to obtaining the rank. Finally, incubators may need to review their mechanism for monitoring and assessing progress in achieving stakeholder expectations.
- In general, it can be said that the mean of the "improving incubator performance" field is 4.01, that is, the relative weight is 80.12%, and this means that there is agreement by the individuals of the sample on the paragraphs of this field.

This indicates that incubators are constantly working to enhance their role in supporting entrepreneurship and increasing the value of their services provided to entrepreneurs, and this is consistent with the study (Al-Azzam and Musa, 2010) where he indicated the importance of incubators focusing on the administrative and technical services they provide for entrepreneurial projects Which contributes to improving its performance and increasing the chances of its success, and also is consistent with a study (Barhoum, 2014) that indicated that the success rate of projects increases with an increase in the percentage of services provided to them by the business incubator, and with the study (Al-Nakhala, 2015) that concluded that technological incubators are considered An essential driver in the support and development of small enterprises and having a prominent role in supporting Scientific research, creativity, and administrative and technical guidance for small projects, and with a study (Owda, 2016) that confirmed the important role of business incubators in supporting entrepreneurship, and also agreed with a study (M'Chirgui, 2012) that indicated that business incubators need to constantly increase their professional competence, And with a study (Struwog & Meru, 2011) that showed the importance of improving incubator performance, which in turn affects its services to incubated companies.

**Study hypotheses test**

**Ho 1:** There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the means of the respondents' answers on improving performance in business incubators due to the gender variable.

To test this hypothesis, a T-test for two independent samples was used, and the following table illustrates this.

**Table 8:** Results of the T-test for two independent samples - gender

The Field	Gender	The Number	SMA	Standard Deviation	T Value	Significance Level	Indication
Improve the performance of business incubators in Gaza Strip	Male	43	4.03	0.48	-0.712	0.479	Not statistically significant
	Female	12	4.16	0.61			

The value of the tabular t at freedom (53) and the level of significance 0.05 equals 1.67.

The value of the tabular t at freedom (53) and the level of significance 0.01 equals 2.39.

From the results shown in the previous table, it was found that the probability value (Sig.) Corresponding to the "T-test for two independent samples" is greater than the significance level 0.05, thus it can be concluded that there are no statistically significant differences between the averages of the study sample estimates due to gender, and the researchers interpreted this. All male and female experts and employees have a common vision about the incubator's ability to improve its performance, and researchers attribute this to the fact that everyone plays its role in a manner that contributes to improving the incubator's performance.

These results were consistent with studies (Owda, 2016), (Al-Nakhala, 2015), which showed that there were no statistically significant differences in the opinions of respondents attributed to gender.

**Ho 2:** There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the means of the respondents' answers on improving performance in business incubators due to the age variable.

To test this hypothesis, a "mono-contrast" test was used, and the following table illustrates this.

**Table 9:** Results of the "monochrome" test - age

The Field	Source Of Contrast	Sum Of Squares	Degrees Of Freedom	Average Squares	"F" Value	Significance Level	Indication
Improve the performance of business incubators in Gaza Strip	Between groups	2.395	3	0.798	2.633	0.060	Not statistically significant
	Within groups	15.464	51	0.303			
	<b>Total</b>	17.859	54				

The value of the F table at the degrees of freedom (3, 51) and the significance level 0.05 equals 2.78.

The value of the F table at degrees of freedom (3, 51) and the significance level 0.01 equals 4.19.

From the results shown in the previous table, it was found that the probability value (Sig.) Corresponding to the “mono-variance” test is greater than the significance level 0.05, thus it can be concluded that there are no statistically significant differences between the averages of the study sample estimates due to age, and the researchers explain that all The study sample of all ages have a common vision about the ability of incubators to improve their performance and their ability to achieve their goals.

These results were consistent with the studies of (Owda, 2016), (Al-Nakhala, 2015), (Barhoum, 2014), whose results showed that there were no differences between the individuals of the study sample due to age.

**Ho 3:** There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the averages of the respondents' answers about improving performance in business incubators due to the variable of the educational qualification.

To test this hypothesis, a T-test for two independent samples was used, and the following table illustrates this.

**Table 10:** T-test results for two independent samples - qualification

The Field	Educational Qualification	The Number	SMA	Standard Deviation	T Value	Significance Level	Indication
Improve The Performance Of Business Incubators In Gaza Strip	BA	22	4.12	0.70	1.118	0.269	Not Statistically Significant
	Postgraduate	33	3.93	0.49			

The value of the tabular t at freedom (53) and the level of significance 0.05 equals 1.67.

The value of the tabular t at freedom (53) and the level of significance 0.01 equals 2.39.

From the results shown in the previous table, it was found that the probability value (Sig.) Corresponding to the “T-test for two independent samples” is greater than the significance level 0.05, thus it can be concluded that there are no statistically significant differences between the averages of the study sample estimates due to the scientific qualification, the researchers attribute This is because most members of the sample have high qualifications, which means that they are close in scientific and intellectual terms about their perception towards the incubator's ability to improve its performance.

These results were in agreement with the study of (Zebda and Abu Eida, 2016), (Owda, 2016), (Abdalmenem, S. A., et al.2019) and (Barhoum, 2014), whose results showed that there were no differences between the opinions of the study sample individuals attributed to the educational qualification, and they differed with the study of (Al-Nakhala, 2015), where their results showed that there are differences between the opinions of the study sample, due to the educational qualification.

**Ho 4:** There are statistically significant differences at the level of significance ( $0.05 \geq \alpha$ ) between the averages of the respondents' answers about improving performance in business incubators due to the variable nature of work in the incubator.

To test this hypothesis, a T-test for two independent samples was used, and the following table illustrates this.

**Table 11:** Results of the T-test for two independent samples - nature of the incubator

The Field	The Nature Of Work In The Incubator	The Number	SMA	Standard Deviation	T Value	Significance Level	Indication
Improve The Performance Of Business Incubators In Gaza Strip	Administrative / employee in the incubator	26	4.31	0.43	4.338	*0.000	Statistically Significant
	Consultant / business development expert	29	3.73	0.56			

\* The difference between the two averages is statistically significant at the significance level ( $\alpha \leq 0.05$ ).

The value of the tabular t at freedom (53) and the level of significance 0.05 equals 1.67.

The value of the tabular t at freedom (53) and the level of significance 0.01 equals 2.39.

From the results shown in the previous table it was found that the probability value (Sig.) Corresponding to the test “T - for two independent samples” is less than the significance level 0.05, and thus it can be concluded that there are statistically significant differences between the averages of the study sample estimates due to the nature of work in the incubator in favor of Who the nature of their work as administrator / employee of the incubator. The researchers attribute this to the fact that the incubator's employees have more contact with the incubator and are more aware of its strategy and goals and the progress the incubator is making towards achieving its goals.

He disagreed with studies (Zebda and Abu Eida, 2016), which showed that there were no differences between the study sample individuals due to the nature of the work.

**Ho 5:** There are statistically significant differences at the level of significance ( $\alpha \leq 0.05$ ) between the means of the respondents' answers on improving performance in business incubators due to the variable years of work experience.

To test this hypothesis, a "mono-contrast" test was used, and the following table illustrates this.

**Table 12:** Results of the "monochrome" test - years of work experience

The Field	Source Of Contrast	Sum Of Squares	Degrees Of Freedom	Average Squares	F Value	Significance Level	Indication
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<b>Improve the performance of business incubators in Gaza Strip</b>	Between groups	4.035	3	1.345	4.962	*0.004	Statistically Significant
	Within groups	13.824	51	0.271			
	<b>Total</b>	17.859	54				

\* The difference between the averages statistically at the significance level ( $\alpha \leq 0.05$ )

The value of the F table at the degrees of freedom (3, 51) and the significance level 0.05 equals 2.78.

The value of the F table at degrees of freedom (3, 51) and the significance level 0.01 equals 4.19.

From the results shown in the previous table, it was found that the probability value (Sig.) Corresponding to the “mono-variance” test is less than the significance level 0.05, and thus it can be concluded that there are statistically significant differences between the averages of the study sample estimates due to years of work experience, and table (41) LSD test results to compare the averages of years of work experience categories in the field of improving the performance of business incubators in Gaza Strip, where the results show that there are statistically significant differences between the averages of those with 3 to 6 years of experience and those with experience ranging from 7 to 10 years and more than 10 years , For the benefit of those with years of experience From 3 to 6 years, it was also found that there were statistically significant differences between the averages of those who have less than 3 years of experience and those whose years of experience are more than 10 years, for the benefit of those with less than 3 years of experience, and finally it was found that there were no statistically significant differences between The rest of the categories of years of experience, this means that there is a difference in the perceptions of the individuals of the study sample according to the different years of their experience and researchers attribute that because the greater the period of experience the individual becomes more understanding of reality and more able to give a more comprehensive evaluation.

These results were in agreement with the study of (Al-Nakhala, 2015), whose results showed that there are differences in the opinions of the study sample individuals due to years of experience, and they differed with the studies of (Zebda and Abu Eida, 2016), (Owda, 2016), (Abdalmenem, S. A. M., et al., 2018), (Abu Naser, S. S., et al., 2016) and (Al-Khair (2015), (Al Shobaki, M. J., et al., 2018) and (Barhoum, 2014), whose results showed that there were no differences due to years of experience.

**Table 13:** LSD test results to compare average years of work experience categories in the field of improving business incubators in Gaza Strip

Categories	The Difference Between The Averages			
	Less than 3 years	From 3 to 6 years	From 7 to 10 years	More than 10 years
Less than 3 years				
From 3 to 6 years	0.008			
From 7 to 10 years	0.429	*0.421		
More than 10 years	*0.638	*0.629	0.208	

\* The difference between the two meanings is statistically significant at the significance level of ( $\alpha \leq 0.05$ ).

### Results

- The results of the study showed that there is great agreement by the individuals of the sample on the paragraphs of the dependent variable, as it obtained a relative weight of 80.12%.
- The twelfth paragraph “There is a continuous improvement in the performance of the incubator” got the first rank, while the seventh paragraph “There is a steady increase in the satisfaction of entrepreneurs and other stakeholders on the services provided by the incubator” on the last rank
- The results 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).

### Recommendations

- Holding training sessions for incubator workers to introduce them to the balanced scorecard and how to apply them.
- Benefiting from the experiences of international organizations and consultative bodies to guide them in the effective application of the balanced scorecard.
- The need for incubators to periodically evaluate their performance in order to identify the strengths and weaknesses, and work to strengthen the strengths and address the weaknesses in order to achieve the goal for which they were established.
- Incubators can also work later, when they have gained sufficient experience in applying the balanced scorecard methodology, to training entrepreneurs in applying the scorecard methodology to their companies in dimensions that are compatible with the nature of their companies 'work.

## References

- [1]Abdalmenem, S. A. M., et al. (2018). "The Performance Efficiency of University Education between Reality and Expectations." *International Journal of Academic Management Science Research (IJAMSR)* 2(10): 66-76.
- [2]Abdalmenem, S. A., et al. (2018). "Performance Efficiency of University Education from Students Perspective." *International Journal of Engineering and Information Systems (IJEAIS)* 2(11): 10-24.
- [3]Abdalmenem, S. A., et al. (2019). "Increasing the Efficiency of Palestinian University Performance through the Implementation of E-Learning Strategies." *International Journal of Academic Management Science Research (IJAMSR)* 3(7): 15-28.
- [4]Abdalmenem, S. A., et al. (2019). "Relationship between e-Learning Strategies and Educational Performance Efficiency in Universities from Senior Management Point of View." *International Journal of Academic Information Systems Research (IJAISR)* 3(6): 1-7.
- [5]Abdul Samad, Saudi, and Issa, Hijab (2017). Evaluating the role of business incubators in establishing and supporting entrepreneurial projects in Algeria: a case study of nursery institutions - a incubator. *Journal of Business and Finance*, 1 (2), 119-100.
- [6]Abdul-Razzaq, Fawzi (2014). The problem of business incubators between development and activation: a future vision "The case of business incubators in the Algerian economy. Working paper submitted to" the Saudi International Conference of Associations and Centers for Entrepreneurship.
- [7]Abu Hashhash, Arwa (2016). Youth entrepreneurship survey and entrepreneurship survey report, Palestinian Economic Policy Research Institute (MAS), Ramallah, Palestine.
- [8]Abu Naser, S. S. and M. J. Al Shobaki (2016). "Computerized Management Information Systems Resources and their Relationship to the Development of Performance in the Electricity Distribution Company in Gaza." *EUROPEAN ACADEMIC RESEARCH* 6(8): 6969-7002.
- [9]Abu Naser, S. S. and M. J. Al Shobaki (2016). The Impact of Management Requirements and Operations of Computerized Management Information Systems to Improve Performance (Practical Study on the employees of the company of Gaza Electricity Distribution). First Scientific Conference for Community Development.
- [10]Abu Naser, S. S., et al. (2016). "KM Factor Affecting High Performance in Intermediate Colleges and its Impact on High Performance-Comparative Study." *Computational Research Progress in Applied Science & Engineering* 2(4): 158-167.
- [11]Abu Naser, S. S., et al. (2016). "KMM Factors Affecting High Performance in Universities' Case Study on Al-Quds Open University in Gaza-Strip." *International Journal of Information Technology and Electrical Engineering* 5(5): 46-56.
- [12]Abu Naser, S. S., et al. (2016). "Knowledge Management Maturity in Universities and its Impact on Performance Excellence" Comparative study". *Journal of scientific and Engineering research* 3(4): 4-14.
- [13]Al Shobaki, M. J. and S. S. Abu Naser (2016). "Performance development and its relationship to demographic variables among users of computerized management information systems in Gaza electricity Distribution Company." *International Journal of Humanities and Social Science Research* 2(10): 21-30.
- [14]Al Shobaki, M. J. and S. S. Abu Naser (2016). "The reality of modern methods applied in process of performance assessments of employees in the municipalities in Gaza Strip." *International Journal of Advanced Scientific Research* 1(7): 14-23.
- [15]Al Shobaki, M. J., et al. (2018). "The Role of Measuring and Evaluating Performance in Achieving Control Objectives- Case Study of" Islamic University". *International Journal of Engineering and Information Systems (IJEAIS)* 2(1): 106-118.
- [16]Al Shobaki, M. J., et al. (2019). "The Role of Human Resources in Interpreting the Relation between the Emphases on the Operations Standard and Improving the Overall Performance of the Palestinian Universities." *International Journal of Academic Management Science Research (IJAMSR)* 3(5): 60-75.
- [17]Al Shobaki, M., et al. (2018). "Performance Reality of Administrative Staff in Palestinian Universities." *International Journal of Academic Information Systems Research (IJAISR)* 2(4): 1-17.
- [18]Alayoubi, Mansour M., Al Shobaki, Mazen J., Abu-Naser, Samy S. (2020). "Requirements for Applying the Strategic Entrepreneurship as an Entry Point to Enhance Technical Innovation: Case Study - Palestine Technical College- Deir al-Balah", *International Journal of Business and Management Invention (IJBMI)*, 9(3) Ser. I, Mar. 2020, PP 01-17
- [19]Alayoubi, Mansour M., Al Shobaki, Mazen J., Abu-Naser, Samy S. (2020). "Strategic Leadership Practices and their Relationship to Improving the Quality of Educational Service in Palestinian Universities", *International Journal of Business Marketing and Management (IJBMM)*, 5 (3), March 2020, P.P.11-26.
- [20]Al-Azzam, Anwar and Musa, Sabbah. (2010). the impact of using business incubators on the success of entrepreneurial projects in Jordan, *Journal of Administration and Economics*, 139-165.
- [21]Al-Fayhan, Ethar, and Salman, Saadoun (2012). The role of business incubators in promoting entrepreneurial leadership. *Journal of Baghdad College of Economic Sciences (issue thirty)*, 69-97.
- [22]AlFerjany, A. A. M., et al. (2018). "The Relationship between Correcting Deviations in Measuring Performance and Achieving the Objectives of Control-The Islamic University as a Model." *International Journal of Engineering and Information Systems (IJEAIS)* 2(1): 74-89.



- [23]Al-Habil, W. I., et al. (2017). "The Impact of the Quality of Banking Services on Improving the Marketing Performance of Banks in Gaza Governorates from the Point of View of Their Employees." *International Journal of Engineering and Information Systems (IJEAIS)* 1(7): 197-217.
- [24]Alhelou, E., et al. (2017). "The Quality of Banking Services as an Input to Improve the Marketing Performance of Banks in Gaza Governorates from the Point of View of Customers." *International Journal of Information Technology and Electrical Engineering* 6(5): 58-66.
- [25]Al-Hila, A. A., et al. (2017). "The Quality of Banking Services in Light of the Financial Transformations and Their Impact on the Marketing Performance of the Banks in Gaza Strip." *International Journal of Engineering and Information Systems (IJEAIS)* 1(8): 36-57.
- [26]Al-Jarjawi, Ziyad (2010). *Methodological rules for building the questionnaire*, second edition, Sons of Surge Press, Palestine.
- [27]Al-Nakhala, Mona Radwan (2015). *The technological incubator and its role in supporting and developing small projects, a comparative study between the incubator of the Islamic University and the incubator of the university college*. (Master Thesis), Islamic University of Gaza.
- [28]Al-Qawasmeh, Mason (2010). *The reality of business incubators and their role in supporting small projects in the West Bank*. (Master Thesis), Hebron University, Palestine.
- [29]Al-Safadi, Samah Deeb (2015). *The role of entrepreneurship in developing the information technology sector in Gaza Strip*. Working paper presented to the conference "Ways to enhance the horizons of cooperation between Palestinian universities and the private sector", Gaza, Palestine.
- [30]Al-Senussi, Ramadan, and Al-Duwaibi, Abdul Salam (2003). *Business Incubators and Microenterprises*: Arab Center for Human Resources Development.
- [31]Al-Shukri, Ouda Muhammad (2012). *The Palestinian experience in business incubators and its role in developing new business for young people*. Working paper presented to the conference "Youth and Development in Palestine: Problems and Solutions" Gaza, Palestine.
- [32]Arqawi, S. M., et al. (2018). "The Degree of Employee Awareness of the Reality of Excellence in Performance at the Technical University of Palestine (Kadoorei)." *International Journal of Academic Management Science Research (IJAMSR)* 2(9): 27-40.
- [33]Arqawi, S. M., et al. (2018). "The Impact of Obstacles to the Application of Knowledge Management to Performance Excellence." *International Journal of Engineering and Information Systems (IJEAIS)* 2(10): 32-50.
- [34]BAKKALI, Chaffik, Messeghem, Karim, & Sammut, Sylvie. (2014). *Professionalization of Incubators: The Balanced Scorecard as a Useful Management Tool*. Paper presented at the ICSB World Conference Proceedings.
- [35]Barhoum, Basma (2014). *The role of business and technology incubators in solving the problem of unemployment for entrepreneurs in Gaza Strip, case study: projects of the incubator of the Islamic University of Gaza (Mubadron - Spark)*. (Master Thesis), Islamic University of Gaza.
- [36]Bin Qattaf, Ahmed (2016). *The role of business incubation programs in supporting the establishment of small enterprises "a study of some global experiences with reference to Algeria's experience"*. *New Economy Magazine*, 01-2016 (14), 139-154
- [37]DeBusk, Gerald K, & Crabtree, Aaron D. (2006). *Does the balanced scorecard improve performance?* *Management Accounting Quarterly*, 8(1).
- [38]El Talla, S. A., et al. (2018). "The Reality of the Overall Performance Level in the Palestinian Universities." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(9): 21-29.
- [39]El Talla, S. A., et al. (2018). "The Reality of University Performance According to the Models of Excellence in Palestinian Universities." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(10): 62-77.
- [40]El Talla, Suleiman, Abu Nasser, Sami, Abu Ammouna, Youssef, and Al-Shobaki, Mazen (2017). *Technical education and its role in promoting entrepreneurship in Gaza Strip*. Working paper submitted to the second scientific conference "Sustainability and the promotion of the creative environment for the technical sector", Palestine Technical College, Gaza, Palestine.
- [41]FarajAllah, A. M., et al. (2018). "The Impact of the Leadership Standard in International Quality Models on Improving University Performance through the Intermediate Role of the Strategy Standard." *International Journal of Engineering and Information Systems (IJEAIS)* 2(9): 21-32.
- [42]FarajAllah, A. M., et al. (2019). "Measuring the Dominant Pattern of Leadership and Its Relation to the Functional Performance of Administrative Staff in Palestinian Universities." *International Journal of Information Technology and Electrical Engineering* 7(5): 13-34.
- [43]Heikal, Muhammad (2003). *Practical Trainer Series: Small Project Management Skills*. Arab Nile Group.
- [44]InfoDev. (2016a) *Module one: Business Incubation Definitions and Principles*. In, *Business Incubation Management Training Program*.
- [45]InfoDev. (2016b) *Module seven: Monitoring, Evaluation and Benchmarking*. In, *Business Incubation Management Training Program*.
- [46]Jawadi, Tawfiq, Abd al-Lawy, Mufid, and Farhat, Abbas (2011). *Business incubators are a practical model to eliminate unemployment and achieve a sustainable economy*. A working paper submitted to the conference "The Government's

- Strategy to Eliminate Unemployment and Achieve Sustainable Development" The International Forum on the Faculty of Economic, Commercial and Management Sciences Laboratory of Economic Strategies and Policies in Al-Messila University.
- [47]M'Chirgui, Zouhaïer (2012). Assessing the performance of business incubators: recent France evidence. *Business and Management Research*, 1(1), p62.
- [48]Messeghem, Karim, Bakkali, Chaffik, Sammut, Sylvie, & Swalhi, Abdelaziz (2017). Measuring Nonprofit Incubator Performance: Toward an Adapted Balanced Scorecard Approach. *Journal of Small Business Management*.
- [49]Messeghem, Karim, Sammut, Sylvie, Gangloff, Florence, & Bakkali, Chaffik (2017). Performance measurement of French incubators. *International Journal of Entrepreneurship and Small Business*, 30(1), 4-21.
- [50]Msallam, A. A., et al. (2019). "Computerized Management Information Systems and Its Relationship to Improving the Job Performance of the Employees of the Palestinian Cellular Telecommunications Company-Jawwal." *International Journal of Academic Information Systems Research (IJASIR)* 3(1): 15-29.
- [51]Msallam, A. A., et al. (2019). "The Reality of the Employees Performance in the Palestinian Cellular Telecommunications Company (Jawwal)." *International Journal of Academic Accounting, Finance & Management Research (IJAAFMR)* 2(12): 9-19.
- [52]Munkongsujarit, Songphon (2016). Business incubation model for Startup Company and SME in developing economy: A case of Thailand. Paper presented at the Management of Engineering and Technology (PICMET), 2016 Portland International Conference
- [53]Obaidat, Touqan, Adass, Abdel-Rahman, and Abdel-Haq, Kayed (2001). *Scientific Research- Its Concept, Tools and Methods*, Dar Al-Fikr for Publishing and Distribution, Amman.
- [54]Owda, M. O., et al. (2019). "Personal Variables and Their Impact on Promoting Job Creation in Gaza Strip through Business Incubators." *International Journal of Academic Accounting, Finance and Management Research (IJAAFMR)* 3(8): 65-77.
- [55]Owda, Maram (2016). The role of entrepreneurship in creating job opportunities "An applied study on business incubators in Gaza Strip." (Master Thesis), Al-Azhar University - Gaza, Palestine.
- [56]Ozen, G., Yaman, M. and Acar, G. (2012). Determination of the employment status of graduates of recreation department. *The Online Journal of Recreation and Sport*, 1(2).
- [57]Salama, A. A., et al. (2017). "The Relationship between Performance Standards and Achieving the Objectives of Supervision at the Islamic University in Gaza." *International Journal of Engineering and Information Systems (IJEAIS)* 1(10): 89-101.
- [58]Salama, A. A., et al. (2018). "The Role of Administrative Procedures and Regulations in Enhancing the Performance of The Educational Institutions-The Islamic University in Gaza is A Model." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(2): 14-27.
- [59]Shamia, M. J., et al. (2018). "Using the Asian Knowledge Model "APO" as a Determinant for Performance Excellence in Universities-Empirical Study at Al-Azhar University-Gaza." *International Journal of Information Technology and Electrical Engineering* 7(1): 1-19.
- [60]Struwig, Miemie, & Meru, Abel (2011). The relationship between business environment and business incubation. *China-USA Business Review*, 10(9).
- [61]Vanderstraeten, Johanna, Matthyssens, Paul, & van Witteloostuijn, Arjen. (2012). Measuring the performance of business incubators.
- [62]Zebda, Khaled Hassan, and Abu Eida, Omar. (2016). the extent of using the balanced scorecard in evaluating the performance of banks operating in Palestine and the difficulties of implementing them. *Al-Azhar University Journal - Gaza, Humanities Series*, 18 (1), 241-276.
- [63]<https://gazaskygeeks.com>