The Islamic University - Gaza Deanship of Graduate Studies Faculty of Commerce Business Administration Department



## The Role of Business Incubators in Developing Entrepreneurship and Creating New Business Start-ups in Gaza Strip

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A Thesis Submitted in Partial Fulfillment of Requirements for the Degree of Master in Business Administration

October 2009 1430

# Dedication

To my parents "may ALLAH bless them" for their continuous prayers.

To my wife for her continuous encouragement & patience.

To my children Nourelhoda, Ghaydaa and Abdallah.

To my brothers and sisters for their unlimited support.

## Acknowledgment

I wish to express my deep gratitude to Dr. **Muhammed I. Migdad** for his continued guidance, supervision and comments during this study.

I wish to acknowledge Dr. Sanaa Abu Dagga, Professor Alyan Elholy, Dr. Hatem Elaydi, Dr. Samir Safi, and Mr. Arafat Elaf for their sensible efforts and continuous encouragement.

Finally, I would like to thank **my colleagues** at the Islamic university of Gaza for their efforts, support and encouragement.

### Abstract

This research aims at identifying the role of business incubators in developing entrepreneurship and creating new business ventures. It also aims at identifying and studying the business incubation initiatives, business fields suitable for business incubation, services provided of business incubators, and success factors and obstacles facing business incubators. Another objective of the research is studying the level of entrepreneurship, the entrepreneurial characteristics, and the effect of demographic data & family profile on the entrepreneurial characteristics of university students in Gaza Strip.

The present investigation consists of literature review in subjects related to business incubator, provided services, success factors, faced obstacles, and adopted polices & criteria of incubation. The literature review is also investigating entrepreneurship components, motivators, entrepreneurial characteristics, entrepreneurial process, and economic perspectives of entrepreneurship and business incubators.

The researcher makes use of different tools to implement this study: workshops, interviews, focus groups with experts and professionals and by designing a questionnaire to test entrepreneurial characteristics and intentions of university students toward entrepreneurship and to test their perceptions about business incubators in addition to demographic factors and personal profile of entrepreneurs.

The population of the study is the students in their final year of bachelor education in selected faculties and specializations in engineering, commerce, and information technology at the Islamic University of Gaza (IUG). The questionnaire was piloted and tested for validity and reliability and data didn't follow the normal distribution. Non-parametric test were used in the study. Data was described and analyzed for the whole sample to take a general view and respondents were classified as entrepreneurially inclined and non-entrepreneurially inclined based on their desire to establish their own business after graduation from university.

The deep analysis of data based on the entrepreneurial inclination of respondent and their knowledge about business incubators reveals the following points:

Nearly quarter of the students was entrepreneurially inclined and most of them are from the engineering faculty and the business administration department. Selfsatisfaction is the primary motivation behind establishing own business and money is the most required resource for establishing business.

There were no differences between entrepreneurially and non-entrepreneurially inclined students regarding entrepreneurial characteristics but for business skills. Two thirds of entrepreneurially inclined students were males, (26.2%) were the first child in birth order in their families.

There is no dependency between entrepreneurial inclination of students and their gender and faculty but dependency exist with academic specialization. The entrepreneurial inclination of students is dependent with their father's occupation and independent with the education of their parents.

Academic courses and workshops were the most effective tools for disseminating knowledge about business incubators and no dependency exists between entrepreneurial inclination of students and their knowledge about business incubators. Direct finance is the most important service to be offered by business incubators and the training in creativity and critical thinking is the most important in training services. (44.2%) prefer to have a full partnership with the incubator for profit sharing and (58.6%) prefer to leave the incubator directly after achieving profits. Information technology is the most preferred field for incubation and (45.5%) of respondents prefer to build the incubator in technology town. Occupation, closure and siege were the most top ranked obstacles to the development and operation of business incubators.

It is recommended to build a national strategy and to achieve the cooperation from academic institutions in terms of establishing new academic plans, and the cooperation from local industry and private sector in order to support establishment and development business incubators.

## Arabic Abstract ملخص الدراسة

يهدف هذا البحث إلى دراسة دور حاضنات الأعمال في تنمية مهارات الرياديين وتشجيع إنشاء الأعمال الصغيرة في قطاع غزة. كما ويهدف إلى تحديد ودراسة مبادرات إنشاء الحاضنات وما يرتبط بها من مفاهيم وكذلك الميول الريادية لدى طلبة الجامعات الفلسطينية.

لتحقيق أهداف الدراسة تم دراسة ما استطاع الباحث الوصول إليه من دراسات وكتب ومراجع ذات علاقة بالمواضيع المذكورة وخصوصا ما كتب عن حاضنات الأعمال وخدماتها وعوامل نجاحها وأسباب الفشل. وكذلك ما هو مرتبط بمفهوم الريادية والرواد وكيفية تحديد الميول الريادية لدى الأشخاص والأثار المرتبطة بالريادية وعلاقتها بحاضنات الأعمال.

لقد قام الباحث باستخدام أساليب متعددة لإتمام الدراسة من بينها ورش العمل والمجموعات البؤرية والمقابلات مع المختصين وأصحاب الخبرة والمصلحة في المواضيع المذكورة. كما قام بتصميم استبانه تهدف لتحديد المهارات والميول الريادية لدى الطلبة وقياس معرفة الطلبة بحاضنات الأعمال والخدمات التي تقدمها الحاضنات وأنواع التدريب والتأهيل للرياديين وكذلك السياسات والمعايير المتبعة في دخول الحاضنات والتخرج منها.

تتكون عينة الدراسة من الطلبة في الجامعة الإسلامية بغزة الذين يدرسون في المستوى الدراسي الأخير في مرحلة البكالوريوس في كليات الهندسة والتجارة وتكنولوجيا المعلومات بشتى التخصصات الدراسية في تلك الكليات. ولقد تم تصنيف الطلبة إلى فئتين: فئة الطلبة ذوي الميول الريادية وفئة الطلبة من غير ذوي الميول الريادية من خلال معرفة توجهاتهم الوظيفية بعد التخرج. ويعتبر الطلبة الذين ير غبون في إنشاء الأعمال الخاصة بهم بعد تخرجهم من الفئة ذوي المهارات الريادية.

ولقد أفرز التحليل الدقيق لاستجابات الطلبة اعتمادا على ميولهم الريادية ومعلوماتهم عن حاضنات الأعمال إلى أن النسبة الأكبر من الطلبة الرياديين موجودين في كلية الهندسة وفي تخصص إدارة الأعمال. تحقيق الرضا عن النفس كان الدافع الأساسي خلف سعى الرياديين إلى إنشاء الأعمال الخاصة بهم ويعتبر التمويل أهم متطلب من متطلبات العمل والنجاح في حاضنات الأعمال. لم تظهر الدراسة فروق ذات دلالة إحصائية بين فئة الرياديين وغير الرياديين فيما يتعلق بالمهارات الريادية بينما يوجد فروق بين الفئتين في المهارات المرتبطة بالأعمال. كما وأظهرت البيانات أن ثلثي الطلبة الرياديين من الذكور. لا يوجد ارتباط بين ميول الطلبة نحو الريادة وكونهم ذكور أم إناث وكذلك مع الكلية التي ينتمون إليها؛ بينما يوجد ارتباط مع تخصصهم الأكاديمي. كما تبين وجود ارتباط بين نوع الوظيفة التي يشغلها الأب والميول الريادية لدى الطلبة؛ بينما لا يوجد ارتباط بين ميول الطلبة نحو الريادة وكونهم ذكور أم إناث وكذلك مع

تعتبر المساقات الدراسية وورش العمل ذات العلاقة أهم وسيلتين حصل من خلالهما الطلبة على معلومات عن حاضنات الأعمال. لا يوجد ارتباط بين ميول الطلبة الريادية وكونه يمتلك معلومات عن حاضنات الأعمال. يعتقد الطلبة ذوي الميول الريادية أن توفير المكان والتمويل المباشر هما من أهم الخدمات التي تقدمها حاضنات الأعمال والتدريب على مهارات التفكير الإبداعي المنظم هو أهم الخدمات التدريبية التي تقدمها الحاضنات. (44.2%) من الرياديين يفضلون إنشاء علاقة شراكة وتقاسم الأرباح مع الحاضنة بينما يفضل (58.6%) منهم الخروج من الحاضنة بمجرد تحقيق الربح. يرى أغلبية الطلبة والخبراء أن تكنولوجيا المعلومات والاتصالات هي أهم المرائد ويات والاتصالات هي أمر أو التمويل المباشر قما من أم من أمم الخدمات التي تقدمها الحاضنات. الخروج من الحاضنة بمجرد تحقيق الربح. يرى أغلبية الطلبة والخبراء أن تكنولوجيا المعلومات والاتصالات هي أهم المحالات التي يمكن أن تقوم الحاضنة بعمليات الاحتضان لأفكار ومشاريع فيها؛ ويرى (58.6%) منهم أن الحروج من الحاضنة معرد تحقيق الربح. يرى أغلبية الطلبة والخبراء أن تكنولوجيا المعلومات والاتصالات هي أهم المحالات التي يمكن أن تقوم الحاضنة بعمليات الاحتضان لأفكار ومشاريع فيها؛ ويرى (54.6%) منهم أن أم الحروج من الحاضنة بمجرد تحقيق الربح. يرى أعلبية الطلبة والخبراء أن تكنولوجيا المعلومات والاتصالات هي أهم المجالات التي يمكن أن تقوم الحاضنة بعمليات الاحتضان لأفكار ومشاريع فيها؛ ويرى (54.6%) منهم أن أم الحرائي ولي المان التي يمكن أن تقوم الحاضنة بعمليات الاحتضان والوبيا الحمار والاحتلال والإغلاق العوائق الأساسية أم أن الماء مكان الحاضات. كما ويعتبر الحصار والاحتلال والإغلاق العوائق الأساسية في طريق إنساء حاضات الأوليا والعيايا المانية الحابية الحامات والاحتلال والإغلاق العوائق الأساسية في طريق إنساء حاضات المائية المائية المائية علي الحامات والوبيا أم أل

من أهم التوصيات التي خلص إليها الباحث ضرورة وجود خطة وطنية شاملة للنهوض بقطاع الأعمال الصغيرة وحاضنات الأعمال وتحقيق التعاون بين المؤسسات الأكاديمية والقطاع الخاص والصناعات والجهات الحكومية الرسمية. فالجامعات تخرج الرياديين وتهتم بالبحث العلمي والمختبرات التطويرية العلمية والقطاع الخاص لديه الإمكانات المادية والحكومات معنية بتحقيق الازدهار الاقتصادي وتخفيض نسب البطالة.

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# List of Acronyms:

BIs	Business Incubators
BTI	Business & Technology Incubator
BU	Bethlehem University
EU	European Union
FFKITCE	Friends of Fawzi Kawash IT Center of Excellence
GDP	Gross Domestic Product
GYBI	Generate Your Business Idea
HEI	Higher Education Institutions
IASP	International Association of Science Parks
ICT	Information & Communication technology
ILO	International Labor Organization
IMF	International Monetary Fund
InfoDev	Information for Development
IT	Information Technology
IUG	Islamic University of Gaza
LCEI	Lasalle Center for Entrepreneurship & Innovation
MOEHE	Ministry of Education & Higher Education
MSME	Micro, Small and Medium Enterprises
NBIA	National Business Incubation Association
NGOs	Non Governmental Organizations
OECD	Organization for Economic Cooperation & Development
OPT	Occupied Palestinian Territories
PCBS	Palestinian Central Bureau of Statistics
PFI	Palestinian Federal of Industries
PICTI	Palestine Information & Communications Technology Incubator
PNA	Palestinian National Authority
PNPA	Palestinian National Policy Agenda
PRDP	Palestinian Reform & Development Plan
QIF	Quality Improvement Fund
R&D	Research & Development
SMEs	Small & Medium Enterprises
STP	Science & Technology Park
TEIs	Tertiary Education Institutions
UNDP	United Nations Development Program
UK	United Kingdom
UKBI	UK Business Incubation
UKSPA	United Kingdom Science Park Association
UNIDO	United Nations Industrial Development Organization
USA	United States of America

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## **1** Chapter One: Introduction

This chapter makes an introduction to the Palestinian socioeconomic situation as seen and presented by the reports of international organizations and available research about Palestinian economy. It then demonstrates the efforts of reform and development stated in the Palestinian Reform & Development Plan (PRDP). An examination of business incubation initiatives in Palestine is also introduced in this chapter in addition to the brief examination of the relationship between the government, academic institutions, and the local industry & private sector. The problem will be stated in this chapter and also the objectives and hypothesis of the research. Finally, it describes the limitations of the research and its impact on different parties.

With the emergence of the knowledge-based economy, more attention has come to SMEs and how they can make effective use of innovation, integrating information and knowledge in order to constantly create value for them. Today, under the wave of knowledge-based economy and globalization, the economy, society and consumers' needs have to become more diversified. Thus, national government put forth plans to develop their economy and create employment opportunities based on creating and developing new SMEs. Therefore, creative idea and innovation become a drive to stimulate the development and create value for enterprises. Faced with the changes in the economic environment, government has to construct a knowledge-based entrepreneurial society so that enterprises can focus on innovation and making their products stand out from the crowd for higher value creation.

The platform of entrepreneurship and incubation is the most important policy for governments in order to assist SMEs in technology innovation, entrepreneurial information diffusion, and operation fund access. The platform can be constructed by three elements: incubation services, entrepreneurial knowledge and financing support. Business incubation is a dynamic process of business enterprise development for the purpose of nurturing young firms, new products, and technologies. Business Incubators help SMEs access resources of innovation and entrepreneurs, and enhance their abilities in R&D and starting up new business, in order to facilitate more competitive SMEs and promote economic development. Therefore, innovation and entrepreneurship are two core functions of incubators and play pivotal roles in SMEs' value creation.

The number of incubators grew rapidly in the past two decades. All over the world and in every region, incubation services have become a way for developing robust and strong economy. The most attractive field for incubation is the information and communication technologies which depend mainly on the human capital and few infrastructures. The most important goal at present is how to enhance the service quality and incubating function of incubators. Therefore, in order to strengthen the incubators, six strategies can be followed. The strategies are: Expanding service functions of incubators, building up fine-quality incubating environment, training the professional managers of incubators, facilitating the cooperation and interaction of incubators, popularizing the incubation information and service, and evaluating the performance of incubation services.

Most research assumes that incubators are economic development tools for job creation whose basic value proposition is embodied in the shared belief that operating incubators will result in more startups with fewer business failures (Sean & David, 2004).

Thomas O'Neal broadens the scope and benefits of business incubators to include a larger set of objectives:" There may be a need for job creation in the community, promotion of economic self-sufficiency for a selected population group, diversification of the local economy, transfers of technology from universities and corporations, or sharing venture experiences with new companies by successful entrepreneurs and investors. There is no question that whatever the motivation behind incubator, it is an economic boon for the community, providing jobs and an expanded business base"; (Thomas O'Neal, 2005).

#### **1.1 Business Incubators & Entrepreneurs:**

Business incubators provide a complete set of services and a suitable environment to support entrepreneurial skills and to help entrepreneurs in developing their ideas, skills, and knowledge. So, it is important to identify the relationship between business incubators and entrepreneurship in the right way and make the related concepts clear to all interested parties.

Entrepreneurs need a place where they can obtain operational services at a low cost to reduce start-up and growth costs. Entrepreneurs also need to reduce the risk of failures. They also want to access world class services and build on proven models. Demands for and access to reliable high-speed Internet are also critical in areas of incubation services. The lack of high speed Internet outside of a region can be a stumbling block in growing entrepreneurs. Communities prioritize an incubator as an asset to support entrepreneurs. (Elaydi et al, 2009, P16)

Peters et al (2004) mentioned what Baron and Shane (2003) explained that the entrepreneurial process unfolds over time and moves through a number of different phases. These phases are namely: (1) the idea for new product or service and/or opportunity recognition, (2) initial decision to proceed, (3) assembling the required resources (information, finance, and people), (4) actual launch of the new venture, and (5) building a successful business and finally harvesting the rewards. Events are viewed as outcomes during each phase that are affected by individual-level factors (skills, motives, characteristics of entrepreneurs), group-level (ideas, inputs from others, effectiveness in interactions with venture capitalists, customers, potential employees) and societal-level factors (government policies, economic conditions, technology, etc.). It can be seen from the above explanation, that once the idea is formed/recognized and the entrepreneur decides to proceed with that idea, incubators could play a significant role from the point of assembling the resources to harvesting the rewards. The role of the incubator in the entrepreneurial process has changed from being just a business center with office facilities to one offering training, networking and consulting in all areas of expertise to startup firms.

This implies that being tied to a broad based loosely connected network is of great importance to entrepreneurs. In social network terms brokers are actors who facilitate links between persons who are not directly connected. We propose that incubators can also be viewed as brokers. This resonates with the idea that a huge part of the value of the incubator is its role as an intermediary to a much larger set of networks. We surmise that, how incubator programs and managers deal with this conflict is a factor in incubator success. Further, we propose that the types of ties and networks will be important. There are good and bad networks for entrepreneurial success. Elaydi et al (2009) argued that Business incubators play an important role in reducing the risk and increasing the capacity of entrepreneurs to grow innovative competitive enterprises. It is the combination of infrastructure, enabling policies and regulations, appropriate financing, a culture of risk-taking, and quality education that creates a nurturing environment where people can convert innovative ideas to social and economic value. Business incubators address many of the challenges that entrepreneurs face in small business development, including problems of high information costs, low service levels, difficulties in obtaining business services, and shortages of capital sources. Combining entrepreneurial finance model, venture capital and incubator functions will lead to success. Little seed financing by venture capitalists, entrepreneurs, and incubators will make it easier to develop value enterprises and enhance the local economy.

#### **1.2 Statement of the Problem:**

Gaza Strip has a high number of university students and graduates in different fields of specializations. Some of them have great, innovative and applicable ideas, which can serve as development tools for supporting the weak Palestinian economy and as means of reducing unemployment. These entrepreneurial ideas demonstrate a great potential to success if they gain both logistic and financial support. In this regard, Palestinian entrepreneurs lack the ability to market themselves, their ideas, and to gain the required financial support. They also don't have the required set of business skills, although they have the required knowledge. Arman and Nattor (2002) have pointed out that graduates from local PHEIs are less competitive with graduates from foreign universities in the WBGS labor market. In fact, local graduates lack skills and abilities that are required to engage them in the labor market. **This is where business incubators play a distinctive and key role**.

Business incubators provide entrepreneurs with assistance to fill the knowledge gabs and with tools to present their ideas in a logical and feasible way during the preincubation stage. They also decrease the early operational cost by providing entrepreneurs with a set of shared services and facilitate their access to external information.

A great deal of the efforts in Palestine concentrates on university students and graduates and tries to reduce unemployment rates among graduates and assure an easy access to local and regional markets. Some Palestinian institutions either academic or private try to simulate the activities found in business incubators and have specialized training programs to prepare graduates and students develop their skills and improve their practical performance. Some foreign donors with rich experience and long history working in the Gaza Strip offer small business support initiatives to help Palestinian deprived families and entrepreneurs. Although these initiatives provide entrepreneurs with some financial support and training, they are still scattered efforts and don't provide a cohesive and feasible model which accounts on the Palestinian content and provide a complete set of services. So, to what extent could business incubators play a key role in developing and fostering entrepreneurship in the Gaza Strip?

#### **1.3 Purpose & Objectives:**

The main goal of the research study is to examine the role of business incubators in encouraging entrepreneurship and innovation among fresh graduates in Gaza Strip. It also aims at fulfilling the following objectives:

- 1. Identify the business fields, level of awareness, most important (key) services to be provided by business incubators.
- 2. Identify and describe the most important training fields to be provided, suitable relationship, suitable exit criteria, and most suitable place for holding the incubator from the perspectives of students.
- 3. Identify and describe the challenges (obstacles) facing business incubators in Palestine and propose suggestions & recommendations to tackle those obstacles.
- 4. Examine the level of entrepreneurial knowledge and skills among entrepreneurs in the Gaza Strip.
- 5. Examine the entrepreneurial characteristics prevalent among university students in the Gaza Strip.
- 6. Test the effect of demographic information on the entrepreneurial inclination of students.
- 7. Test the effect of family education and occupation on the entrepreneurial inclination of students in the Gaza Strip.
- 8. Study the relation between the entrepreneurial inclination of students and their perception about business incubators during incubation and after graduation from the business incubator.

#### 1.4 Hypothesis:

- 1. There is a significant difference at  $\alpha \le 0.05$  between the entrepreneurial inclination of students and:
  - Their gender.
  - Birth order in family.
  - Their academic studies & specialization.
- 2. There is a significant difference at  $\alpha \le 0.05$  between the entrepreneurial inclination of students and:
  - Level of education of their parents.
  - Occupation of their parents.
- 3. There is a significant difference at  $\alpha \le 0.05$  between the entrepreneurial inclination of students and:
  - Primary motivation to start a business.
  - Most needed resource to start a business.
- 4. Students who are entrepreneurially inclined and those who are not, don't have the same level of the following entrepreneurial qualities & skills:
  - Managerial skills.
  - Business skills.
  - Communication skills
  - Innovation & Creativity.
  - Independence

- Internal locus of control.
- Self confidence.
- Need for Achievement
- Motivation & Commitment.
- Risk taking.
- 5. There is a significant difference at  $\alpha \le 0.05$  between the entrepreneurial inclination of students and:
  - Their (ranking) valuing of incubation services.
  - Their perception of incubation policies & criteria.
  - Their perception of incubation priorities.

#### **1.5** Limitations of the Research:

It is very hard to identify all entrepreneurs in many fields. For the purpose of this study, entrepreneurs will be selected from students in their last year of bachelor education in selected faculties at IUG. The faculties are limited to Commerce, English program in business & accounting, Information Technology, and Engineering. Students from these fields show a great potential to meet the requirements of entrepreneurship in comparison with graduates from other fields. These faculties attract the best students with high marks in their secondary education in the Gaza Strip in addition that the courses and teachers at these faculties are in connection with innovation and business centers.

#### **1.6 Importance of the Research:**

This research will be very beneficial to different parties and actors inside and outside the Gaza Strip as demonstrated in the following paragraphs:

**Palestinian Economy:** As demonstrated in the background section, the Palestinian economy is very weak and depends highly on the external funds. The situation in the Gaza Strip is much worse and its environment is not attractive to external investors due to political situation and the intervention from the Israeli occupation. The research will help in examining the most suitable and attractive fields in the Gaza Strip, which could be targeted by the business incubator and have the potential to overcome the obstacles posed by the bad political and economical environment. On the other hand, business incubators help in establishing new businesses which will lead to reduce unemployment and help in creating new job opportunities.

**Policy and decision Makers:** The research will help Decision and policy makers in the following:

- Help decision makers at formal and informal institutions to adopt the best model of business incubation suitable for the Gaza Strip based on other successful models and frameworks implemented in other countries and give them a full image about Palestinian entrepreneurs.
- Help international donors and supporters of the Palestinian economy to utilize and direct their funds toward sustainable economic development through encouraging new business and creating new jobs.

• Help decision makers at academic institutions to implement major changes in academic plans to reflect entrepreneurial skills among their graduates as well as other complementary skills required for establishing new business startups.

**Fresh Graduates & Entrepreneurs:** The research will contain rich information about business incubators especially those implemented by universities, their roles, success factors, and impact on entrepreneurs and innovators. It will also help future researchers in the same topic in the Gaza strip by clarifying areas of interest which will need further investigation and deeper analysis. The study can help fresh graduates and give them the opportunity to new directions of doing business and clarify the importance of specialized training on fostering entrepreneurship.

**Small Business & Private Sector:** the relation between private sector, academic institutions, government, and economy enablers such as business incubators & science parks is very weak in the Palestinian territories as a whole. This weakness comes primarily from the absence of a unified and common strategy of economic development due to the severe and deteriorated social & political situation in Palestine. The research will present different viewpoints about BIs from the perspectives of entrepreneurs and experts which will help in drawing and establishing a reasonable relationship between business incubators, academic & research institutions, and private sector under the umbrella of a unified strategy developed mainly by the official authorities. It will present a suitable ground and make suggestions in the following areas:

- Role of private sector in developing research with academia.
- Role of private sector in providing graduates of training and internships.
- The relationship between private sector and BIs and in identifying fields of mutual cooperation between them.

#### **1.7 Research Structure:**

This research is organized in seven chapters. The first is an introductory chapter which aims at presenting the socioeconomic situation in Palestine (West Bank & Gaza) and introduces the efforts and strategies adopted by PA to stimulate economy and also the linkages between the industry, academic institutions, and government. It also presents the problem statements, research objectives, and hypothesis as well as the limitations and importance of the research.

The second chapter explains the concepts of business incubators and their alike. It also discusses different models of BIs and polices and criteria used in business incubation.

The third chapter discusses the concepts of entrepreneurship in terms of its origin, entrepreneurial process, approaches to entrepreneurship, and managerial perspectives of entrepreneurship. It also discusses the determination of entrepreneurial inclination of individuals.

The fourth chapter is about the research methodology discussing population, sampling, data collection and analysis, and piloting & testing of validity & reliability of research tools.

The fifth chapter represents primary indicators of collected data about entrepreneurship and business incubators.

The sixth chapter aims at analyzing data and testing the hypothesis of the study. It also aims at discussing the findings and compare responses of different stakeholders.

The seventh chapter lists recommendations and makes a conclusion of the research.

The last two parts of the research represent the references and appendices.

#### **1.8 Business Incubation Initiatives in Palestine:**

There are some scattered efforts and initiatives, implemented by different players in the Gaza Strip which partially simulates business incubators in their pre-incubation stage. These initiatives help entrepreneurs by providing some kind of training and in very limited circumstances small quantities of financial support. Thus, they don't provide a suitable environment for nurturing ideas, developing skills, and assuring some degree of success by providing a complete set of services for a reasonable period of time as those provided by business incubators.

Real business incubation practices in the Palestinian Territories emerged after 2003. Most of them face obstacles associated to deteriorated political and economical environments. Some of them aren't complete and focus on developing skills and improving capacities of Palestinian graduates and entrepreneurs. The following are the most successful:

<u>Palestine Information and Communications Technology Incubator (PICTI)</u> is an independent Palestinian organization that has been created through the initiative and support of the Palestinian Information Technology Community. The strategic core components of PICTI include the establishment of an Incubator facility that will offer professional business services to Palestinian entrepreneurs who have mature concepts for unique and innovative ICT products assessed to have strong market potential. These core elements will form the backbone of PICTI operations and its support to the ICT sector in Palestine as well as address many of the unique challenges facing its development, growth, and expansion. As the incubator itself matures, PICTI looks forward to working with Palestinian ICT firms to jointly identify, develop, and implement new initiatives that will be of significant benefit to the sector.

The key competitive advantages of PICTI include its governance structure that provides access to economic clusters, its dedicated staff with incubation know-how, its clients and pipeline of entrepreneurial ideas, and an initiative underway to structure a seed fund for the benefit of pre-revenue start-up companies incubated at PICTI. PICTI aims to develop the Palestinian Micro, Small and Medium Enterprises (MSME) as well as high growth model sector as a mean to generate new jobs, attract foreign investment and improve the economic situation in Palestinian territories.

PICTI is eager to join with the ICT community to ensure that the Palestinian people become a dynamic participant in the global spread, adoption and utilization of information technologies with all the resulting benefits that can be obtained; (PICTI website, 2009).

**Business and Technology Incubator (BTI),** was established as a new unit at the Islamic University of Gaza after receiving a grant from InfoDev program for the first phase and Quality Improvement Fund (QIF) for the second. BTI aims to offer professional business services to Palestinian entrepreneurs who have mature concepts for unique and innovative IT related products assessed to have strong market potential. The mission of BTI is to design, develop, implement and promote those initiatives that will support the development of entrepreneurial business ventures with high growth potential by providing them with an integrated package of world-class business development services that will nurture and support the commercialization of ideas and enhance the development and growth of dynamic enterprises.

The strategic goals of BTI is to craft promotion and marketing strategies that will separately and uniquely focus on the development of, and access to, business opportunities in regional and international markets for Palestinian ICT firms. But most importantly, BTI will identify and support the technical, intellectual and managerial talent of young entrepreneurs who can become the backbone of a dynamic export market for IT related products and services in Palestine.

The main objectives of BTI is to Provide a suitable environment for innovation and creativity, participate in the enhancement of the graduates' social situation by helping them establish their own businesses, and create and nurture relationships with bi/multilateral development organizations in order to cooperate on joint economic development initiatives that have an ICT component; (**BTI website, 2009**).

**IT Business Incubator at FFKITCE**, (Friends of Fawzi Kawash IT Center of Excellence), The idea behind the business incubator is to provide IT talents with the necessary resources, technical and business skills, and empower them to create, innovate, and convert their IT-related ideas to high quality products that are interesting, marketable, and profitable. The clients are provided with an array of business development services and resources to help accelerate their growth. The formal incubation process takes place through a sequence of interrelated phases. Each phase will lead to another phase until the project (Startup Company) is mature enough to be released from the incubator.

To overcome shortcomings and to ensure a smooth implementation of the incubation process, a pre-incubation program is implemented. The pre-incubation program focuses on business training, technical writing, and career awareness through hosting professionals from the industry to address some key issues and serve as a role model for the future leaders of the industry. Pre-incubation business skills development track is designed to build and enhance needed business skills in order for the talents to be able to finance their projects. The incubator plays a vital role in linking those talents with businesses that they are interested in, and is willing to adopt, support, and finance them. The goal of the Technology Incubator at FFKITCE is to facilitate the emerging and growth of technology clients and entrepreneurs and enable them to become startup financially successful, independent, companies that are and productive. In order to implement its vision successfully, the IT business incubator at FFKITCE is in the process of establishing relationships with the business sector, the community, international partners and other essential services provided by other units; (FFKITCE website, 2009).

**Lasalle Center for Entrepreneurship and Innovation (LCEI)** was established by The Institute for Community Partnership at Bethlehem University to contribute to the development of the ICT sector and the small and medium enterprise sector through the proper preparation of university graduates in new-business development and management, and through providing them with the right environment to innovate. The center aims at promoting entrepreneurship and new business start-ups among university graduates as a mean for economical development and job creation.

The **mission** of the Lasalle Center for Entrepreneurship and Innovation is to promote economical and social development throughout Palestine through cultivating and supporting entrepreneurial thinking, creativity, innovation, social entrepreneurship, and nurturing start-ups among Bethlehem University graduates and the entire Palestinian community. Through various activities and events, LCEI strives to:

- Build and nurture the entrepreneurial spirit and understanding across many disciplines at Bethlehem University and other Palestinian universities.
- Contribute to the vision and mission of Bethlehem University in serving the Palestinian community
- Encourage innovation, creativity, and risk-taking
- Foster innovation-driven entrepreneurship through incubation
- Support university graduates and entrepreneurs who want to pursue an entrepreneurial venture
- Promote Social Entrepreneurship among our entrepreneurs and graduates as an agent of change that will benefit disadvantaged communities and the entire society
- Help developing industry and university linkages by funding market viable University research and development and create the opportunity for additional venture financing
- In cooperation with the Fair Trade Development Center, promote Fair Trade principals among our entrepreneurs and start-ups
- Provide career counseling and find career opportunities for BU graduates
- Provide counseling, mentorship, seminars and workshops that focus on business planning, finance, accounting, legal as well as marketing and advertising.

#### (LCEI website, 2009)

# <u>Center for Business and Employment Services (SHAREK Youth Forum)</u> offers business incubation services as presented in the following paragraphs:

The center assists entrepreneurs in generating and developing their business ideas by providing them with the Generate Your Business Idea (GYBI) training. In addition to GYBI, the Center in cooperation with the Advocacy and Research Unit at Sharek Youth Forum identifies business ideas that could work at a local level. Once the business idea is formulated, it is imperative now to build on the capacities of the entrepreneur develop a business plan. Nevertheless, in acknowledgement of the different capacities of entrepreneurs and the different needs of their projects, three different programs were developed.

At the Center, different forms of financing are available to cater for the different needs of entrepreneurs and businesses. The focus in the Center is to have financing collateral-free, implying that young persons, who typically do not have social or physical capital, will still qualify for business financing.

Established businesses by the Center automatically qualify for at least 6-months of free business counseling. This includes access to business incubators in the different areas, strategic networks, and competent business counselors. The aim of the service is to ensure that on one hand the business is doing well and growing; and on the other that the income generated by this business is being used by the young entrepreneur properly on. Business beyond the 6-month counseling period, or those which are run by young persons and would like to benefit from the Center could qualify for business promotion services. These services are both paid and non-paid and focus mainly on advertising, branding, and providing access to markets; (SHAREK website, 2009).

It is very clear that business incubation initiatives in Palestine are in their primary stages. Some of which provide only training courses for university students mainly, other initiatives has external linkages with the local industry but with minor role as small tasks and consultancy services. The third part incubated real projects especially in the IT sector but the impact on the incubatees and their potential in the market are not clear enough for judgment of its success or failure.

It is also worth mentioning that the majority of initiatives are totally founded and operated by universities in the West bank and Gaza which urges the policy makers at the Palestinian MOEHE to develop a business model to enable universities operate and develop incubation projects legally.

#### **1.9 Business Incubators in Developing Countries:**

Stefanović (2008) argued that since incubators, in developing countries, are typically funded by national and local governments, their attitudes towards incubation play a key role in the success or failure of incubator programs. Some of the added difficulties incubators in developing countries are faced with are:

- the lack of financial resources available to incubators;
- the challenge of finding qualified people to staff incubators may be
- even more problematic than it is in industrialized countries;
- the lack of partnering opportunities outside the incubator organization because professional services are often scarce and focused on large companies;
- the mindset of entrepreneurs often makes them unwilling to give up equity in their companies;
- the fact that entrepreneurs may be less willing to trust outsiders;
- the general business environment may be less favorable;
- the property rights situation may be less developed;
- the fact that some national cultures may be more risk-averse;
- The lack of venture capital and networks of "angel" investors.

At the same time, incubators in developing countries have to deal with the challenge of retaining the companies that outgrow their incubator, the so-called graduates, in their region or even country. On the other hand developing countries are facing with migration of young graduates and researchers who are attracted by more promising environment in developed countries.

Following issues have significant importance for development of new incubators in developing countries:

- Estimation of markets for new companies.
- Identification of location (presumably near University or research centers).
- Selection of management and staff for incubator (experienced, highly education persons),
- Development of business plan for incubator (selection of services, marketing strategy, general strategy),
- Making financial arrangements (local, regional, state government and other such as BA, banks...),
- Development of complete infrastructure for incubator (building, ICT support)
- Selection of start-up business for incubation (preferably innovative, high-tech businesses).

The number of business incubators in developing countries is rapidly increasing and that will continue in the future. Information technology creates opportunities especially in developing countries and will support the growth of business incubators.

He then made a conclusion of his work

It is clear that business incubation is becoming increasingly important in the industrialized world and in developing countries. In developed countries they are mainly oriented toward high technology innovative firms. There is also strong connection between innovation, Universities and business incubators. In developing countries there are added difficulties for incubators. Most of them are connected with low education level, insufficient number of innovative ideas, low level of financial resources and insufficient support by government.

#### **1.10 Government-Industry-University triangle & other linkages:**

The development of business incubators comes as joint efforts between universities which produce researchers and entrepreneurs, government which develop polices and strategies to regulate business environment, and industry which has the money and interest to grow and survive.

Rice et al (1995) presented many Linkages upon which relies Business incubation:

- Other public and private business service providers (for instance lawyers, accountants, marketing experts and other professionals as well as BDS providers)
- Universities and technical colleges, as service providers and a source of emerging entrepreneurs (clients)
- Governments for support of the business incubation activity and for improvements to the enabling environment
- Finance providers, from banks and venture capital companies to informal lenders and individual equity investors (angel investors)
- Local service providers, who may offer discounts to incubatees
- The private sector including local entrepreneurs and large multinational firms, to help as mentors, trainers and as channels to markets

Academic and research institutions plays a major role in the development and operation of business incubators because they are sources of innovation and entrepreneurs. They are healthy places for generating and fostering innovative ideas and for initiating the process of innovation lead by the other two types (government & industry). Smilor & Gill (1986) highlighted the main strengths of academia by establishment of technology incubators in or around the university campuses. Interest in the university sponsored technology incubator stems from the significant potential of the concept. The concept holds out the possibility of linking talent, technology, capital, and know-how to leverage entrepreneurial talent, accelerate the development of new technology-based firms, and speed the commercialization of technology.

A lot of research stressed on the importance of linking universities with governments and industry (private sector) to stimulate the economical development in any country. Entrepreneurship plays a significant and important role toward achieving prosperity and help in eliminating some of the economical problems in societies.

How, then, can society identify and encourage entrepreneurs? Many believe that institutions of higher education can and should play a role in this effort. Education, it is argued, can serve to decrease the failure rate of new businesses and to increase the awareness and interest of students in entrepreneurial careers. Increasingly, institutions of higher education are perceiving a role for themselves in educating would-be entrepreneurs. (Hull et al, 1982, p11)

Galloway & Brown (2002, P399) argued that entrepreneurship education in universities has achieved start-ups from students to varying degrees. To a large extent this is determined by the type of entrepreneurship education delivered, and to whom. With associated and dedicated student incubators, as well as a prevailing culture and expectation of entrepreneurial realization as a strategic priority, however, these universities are more adequately equipped to facilitate student start-ups than most.

Khawar (2006:p4) argued that Entrepreneurship breeds only in an enabling environment that provides access to knowledge and financial capital, appropriate infrastructure, and research capabilities, etc. This enabling environment can be created through concerted efforts by a few key players, including universities, government, and the private sector. Universities, all over the world, are known for playing an instrumental role in promoting entrepreneurship, creating new economic opportunities through knowledge creation. Another aspect of universities, especially the business schools, is their formal understanding of the entrepreneurial process. Such knowledge can be used to enhance the community's understanding of the entrepreneurship. Promoting entrepreneurship through universities however, require efforts from multiple stakeholders including universities themselves, the government, private sector and even communities.

Research universities are important institutions for educating world-class technologists. But, among many other roles, they also provide an important social setting for students and faculty to exchange ideas, including ideas on commercial entrepreneurial opportunities (David et al, 2006, P769).

Marques et al. (2006) argued that Insofar as knowledge is becoming an increasingly important, indeed, crucial, part of innovation, the university, as an institution that produces and disseminates scientific and technological knowledge, is much more important to industrial innovation. This innovation function used to be largely the exclusive preserve of either industry or the government. It could even, depending on the social system in question, be the fruit of bilateral interaction between these two institutional spheres. Thus industrial policies would concentrate on the relation between the government and firms, either improving the 'business climate' by means of lower taxes, or influencing location decisions by means of grants. In a knowledge-based economy, the university becomes a key player in the innovation system, as both supplier of human capital and as the physical space for new enterprises.

They also mentioned that the triple helix model suggests, innovation is generated by the combination of relations and interrelations between universities, industry and the government. It further arises from the countless institutional combinations produced by networks of relations, communications and mutual exchanges. This dynamic and this complexity of relations generate a multiplicity of networks of cooperation and competition whose ultimate outcome is the climate of scientific and technological evolution in which we live today.

Simon (2008) reported that because of competition and also due to other factors, such as rapid advancements in technology, the environment for university-industry research is evolving and new challenges are being created. In this regard, there is an increased need for universities to develop more commercially oriented management practices, which are able to deliver the required research outputs in order to add value to industrial technology programs.

The linkage between universities and industry under the umbrella of the government is not available in Palestine for many reasons. The deteriorated political situation and internal conflict in addition to the occupation of Palestine play negative roles in this regard. There are no strategies or policies for organizing the relation between academic institutions which have scientific research and entrepreneurs and the private sector which has the money and financial resources as well as the real needs for developing new products and services.

#### 1.11 Socioeconomic Situation in Gaza Strip:

Gaza Strip is one of the most highly populated areas in the world with restricted access points to the rest of the world. It was under occupation for more than thirty five years suffering from unemployment, weak commercial activities, and lack of strategic plans for the future. The Occupation left Gaza with massive destruction of the industrial areas and it is expected that Gaza will receive funds in the near future. Reports of Labors & graduates surveys of the PCBS reveal that the excess supply of graduates has become more numerous. Between 1995 and 2005, educated unemployment rates rose from 21% in 1995 to 32% in 2005. The number of unemployed graduates doubled four times during that period, increasing from 20,000 in 1995 to 80,000 in 2005. It reveals the inconsistency between the supply of and demand for graduates in the local market. Also, it implies that the absorptive capacity of the private and public sectors in the WBGS is subject to several constraints. Job creation policies were ineffective and investment showed moderate trends, (PCBS, 2005).

People in Gaza need to solve their economical problems, decrease the unemployment rates, and maximize the benefits from the expected funds. Studies show that the most productive fields suitable for Gaza are those directed to attract university graduates because they can provide working opportunities for large sector of the Palestinians and have a great impact on the Palestinian economy as a whole. The special and up-normal case of Gaza Strip represented by limited mobility to other countries and by the high rate of poverty and unemployment in all business and industrial sectors and among university graduates the need to seek new and innovative development tools to boost Palestinian economy and make use of qualified Palestinian entrepreneurs.

Israel's recent bombardment and invasion of the Gaza Strip have caused extensive damage to Palestinian lives and livelihoods in the occupied coastal territory. Eighteen months of strict blockade-the harshest sanctions regime currently in force anywhere in the world - had already left Gaza's economy crippled and 80% of its inhabitants dependent on assistance, but the subsequent military offensive caused destruction on an unprecedented scale; (The Palestinian National Early Recovery and Reconstruction Plan for Gaza 2009 – 2010).

The Palestinian Federation of Industries (PFI) estimates that 98% of Gaza's industrial operations are now inactive According to PFI, of Gaza's 3900 industries, 23 are operating. As a result, Gazan banking sector activity is estimated to have dropped from 40% of total Palestinian banking to about 7% Ironically; (The World Bank Report, 2008).

#### **1.12 Socioeconomic Situation in Palestine:**

The economical situation in the Palestinian Territories is very miserable due to the closure, siege, and deliberate deterioration of capabilities and capacities imposed by the occupation forces. The Palestinian Reform and Development Plan 2008-2010 reveals that the Israeli restrictions on the entry of all but humanitarian goods and on the export of goods have led to collapse of the private sector, which represents more than half the job market in Gaza. The existing Israeli external closure regime virtually eliminates the possibility of economic and social development in Gaza. The 1.5 million Palestinians in Gaza are effectively cutoff from the outside world, markets and employment opportunities in Israel, the West Bank or regional and international markets. More generally, the closure regime has been deeply inimical to economic and private sector development throughout the OPT; (PRDP (2008 – 2010), 2007).

The system of closures detailed in the World Bank's December 2004 report is still largely in place, and remains the key risk to rapid, sustained Palestinian economic recovery. From an economic perspective, the three most important manifestations of closure are the restrictions on Palestinian labor access to Israel, the handling of Palestinian exports at the borders with Israel, and the controls on the movement of goods and people inside the West Bank; (The World Bank Report, 2005). The same findings were stressed in the 2008 report, which reveals that the economic restrictions have remained and the situation in Gaza continues to deteriorate. Consequently, the Palestinian Central Bureau of Statistics (PCBS) estimates that real GDP growth in the West Bank and Gaza in 2007 was 0.5%. IMF analysis notes a drop in GDP of -0.5% in 2007, and modest growth of 0.8% in 2008. The Palestinian economy declined and became more aid dependant. The Palestinian Federation of Industries (PFI) estimates that 98% of Gaza's industrial operations are now inactive. According to PFI, of Gaza's ,900 industries, are operating As a result, Gazan banking sector activity is estimated to have dropped from 40% of total Palestinian banking to about 7%; (The World Bank Report, 2008).

The trade balance deficits reached up to two billions dollars, while there is no national currency, which resulted in the use of three currencies for different purposes such as exchange transactions, saving and wealth measurement; (Sabri, 2008). In the Gaza Strip, 70% of the household live under the poverty line; some 42% of the household in the Gaza Strip live in extreme poverty (UNDP Poverty Report, 2007); the unemployment ratio was 30.3% in the Palestinian territories (World Bank Report,

2006); the unemployment rate (ILO definition) in Gaza reached 36.3 percent (The World Bank Group, March 2007). The Gazan economy in 2006 has all the debilitating straps of an economy under siege. Unemployment rate has exceeded 30 percent and more than 60 percent of households are living in poverty (Shaun Ferguson, 2007). Palestinian goods have consistently been unable to move out of the strip, businesses have closed and have moved elsewhere. Exports are a tiny fraction of what the Agreement on Movement and Access foresaw in November last year. The continuing of this situation affects negatively all Palestinian economy sectors.

#### **1.13 Economic Development Strategy in Palestine:**

The Palestinian Reform and Development Plan (PRDP) 2008-2010 calls for the private sector to generate productive employment, produce high value-added goods and services, and create the surplus needed to enhance national prosperity. However, evidence suggests that the private sector in the Gaza Strip finds itself in dire straits, and the obstacles it faces need to be removed, if it is to recover and carry out its role as the key actor stimulating growth; (UNDP, 2007).

PRDP 2008-2010 stated the PNA's vision for the economic development in the future Palestinian state, in particular the aspiration to be a state that: creates an enabling environment for a thriving private sector, views its human resources as the driving force for national development, and has a knowledge-based economy that is open to other markets around the world and strives to produce high value-added, competitive goods and services. For the purposes of this PRDP, the near term focus is on jumpstarting economic growth, creating jobs, and restoring trust in the PNA's economic management capability. The Palestinian National Policy Agenda (PNPA) framework includes the following high level objectives that are of particular relevance to Economy sector: First, Enable private sector development – The private sector, and in particular the productive sectors, will be the main engine of sustainable, long term economic growth. In the near term, the private sector must be enabled to establish the basis for sustainable development by generating the productive employment, producing the goods and services, and creating the surpluses needed to enhance national prosperity. Second, Develop physical capital Palestine has limited natural resources, making effective utilization and allocation critical. The conservation and effective use of national resources, such as water and stone, land and sites of historical and cultural significance are also critical to Palestine's economic development. Third, Develop human capital -The Economy sector, working in tandem with the education sector, has an important role in ensuring that the provision of suitable education and training contributes towards developing a capable labor force. The sector also needs to facilitate the provision of development assistance to increase the skills and capacity of the private sector, and increase incentives to establish and grow small and medium sized enterprises. Fourth, Move towards fiscal stability - A rapid and sustainable recovery of the Palestinian economy requires parallel actions to reduce the growth of public sector spending (through better public expenditure management and better governance generally) and to stimulate private sector growth; (PRDP (2008 – 2010), 2007).

After the latest war on Gaza in January 2009, the PNA issued a national Plan for early recovery and reconstruction of Gaza during the period 2009 - 2010. The plan presents principles and guidelines for revitalizing the private sector, civil society and the local economy by facilitating the conditions for local economic development, including

employment creation, and building local capacities to ensure that Palestinians in Gaza are not just beneficiaries but are actors in the early recovery and reconstruction process. The plan relies on Palestinians themselves to own and lead the process to transform their social and economic situation. However, adherence to this principle will provide an immediate stimulus to the local economy by supporting job creation, income generation and demand. It will also ensure that external assistance can serve to reinforce rather than replace capacities for self-reliance; (The Palestinian National Early Recovery and Reconstruction Plan for Gaza (2009 – 2010)).

The efforts of the PNA focus on the development and reconstruction of devastated sectors due to the occupation and closure of the Palestinian territories especially in Gaza. Although PNA assign nearly 30% to education as stated in PRDP, it doesn't have a concise framework for linking the private sector and academic institutions to stimulate the development of small business and enhance the generation of university spin-offs and scientific research. It doesn't contain polices and tools to motivate entrepreneurship among graduates and university students or any other interested group.

#### 1.14 Summary:

This chapter represented an introduction to understand the connection between BIs, entrepreneurship, and economic development and how to use BIs as tools for economic development. It then discussed the problem statement, the research objectives, hypothesis, limitations, structure, and importance of the research to different players. It then shed light on the country socioeconomic information (Gaza Strip & West Bank) to understand the Palestinian context and presented the reform and development strategy and some comments about it and discussed the business incubation initiatives in Palestine. It then discussed the relations between government, industry, and academic institutions clarifying the roles of each and linkages between them. Business Incubation in developing countries was also introduced.

## 2 Chapter Two: Business Incubators

The following sections provide valuable information about business incubators in terms of their origin, definition, types, models, management styles, and success factors. It will give a detailed description of polices and strategies adopted by incubators such as selection of tenants & role of business plans, exit & graduation polices, length of tenancy, and other managerial issues.

#### 2.1 History & Development of BIs:

The history of business incubators is attributable to mid of the twentieth century during the increase of unemployment and recession in USA and Europe. The origins can be traced back to Western industrialized countries in the late 1970s and early 1980s. Faced with a rapid rise in unemployment resulting from the collapse of traditional industries, it was recognized in both the Europe and the USA that fresh strategies were needed to help regenerate crisis sectors, regions and communities; (Center for Strategy & Evaluation Services, 2002:4).

Remedios & Cornelius (2003) surveyed the development and history of business incubation in different literature and argued that the beginning was in Batavia in 1959. The concept was developed jointly by governments in Europe and USA and research centers at academic institutions. During the eighties, the development was slow despite the increased care and hope by government in facing decay and unemployment by establishing business incubators. The next twenty years showed a clear increase in number of incubators and their spread worldwide.

Hackett & Dilts (2004:57) surveyed and traced the establishment of the first business incubator to 1959 in Batavia as Batavia Industrial Center as mentioned before. In the 1960s and 1970s incubation programs diffused slowly, and typically as government-sponsored responses to the need for urban/Midwestern economic revitalization. In the 1980s and 1990s the rate of incubator diffusion increased significantly due to the development of legal system and its recognition of business needs as well as the revolution of biomedical research.

In the UK it has been suggested that the foundations of incubators emerged out of the growth of managed workspace and enterprise centers in the 1970s and 1980s; (Hannon, 2004, P.274). NBIA reported that the number of business incubators in the United States was 12 in 1980 and incubator development grew from about 20 openings annually in 1984 to more than 70 in 1987. They also mentioned that the NBIA's membership has grown from approximately 40 members in its first year to approximately 1600 in 2006; (NBIA, 2009).

Nowadays, a lot of programs were initiated by joint efforts of different players operating worldwide. The UNIDO and InfoDev, are two famous programs. They provide technical support, expertise, fund, and consultancy work to newly established business incubators.

#### 2.2 Definitions:

Studies don't agree on a perfect and common definition of business incubators. There is no one standard definition of business incubation. Nearly three dozen definitions are available in the academic literature and just as many have been adopted by industry associations and policymakers in different countries, reflecting local cultures and national policies (Hamdani, 2006:9).

Hackett & Dilts cited many definitions from the literature before 2002 reflecting different views and directions. Some of the definitions focus on the purpose or goal of business incubators and describes business incubators as tools to provide some combination of necessary resources in order to nurture a new and/or growing business to some level of maturity and as locally based institutions created to encourage and support new business development. They also cited other definitions focusing on the entrepreneurial aspects of business incubators which explain the motivation in establishing incubators as the desire to encourage entrepreneurship and thereby contribute to economic development, and stressed the innovation of Business incubators in their abilities to assist technical entrepreneurs, in the development of new firms". (Hackett & Dilts, 2004, Appendix C)

Other studies focus on the services provided by business incubators as presented by Hatten who describes the business incubator as an attractive place to start a new small business. It offers support services and such equipments as photocopiers, fax machines, and computers, which young business often can't afford by themselves; (Hatten, 2006:371).

Business incubators constitute an environment, especially designed to hatch enterprises. They provide their tenant companies with several facilities, from office space and capital to management support and knowledge. This allows the start-up to concentrate on its business plan and raises the success rate. (Aerts et al, 2008:255).

It is important to look at business incubators from different views and to discuss all aspects such as goals, targeted groups, outcomes, services provided, entrepreneurial intention, and management. Hackett & Dilts asserted the broadness of business incubation: "When discussing the incubator, it is important to keep in mind the totality of the incubator. Specifically, much as a firm is not just an office building, infrastructure and articles of incorporation, the incubator is not simply a shared-space office facility, infrastructure and mission statement. Rather, the incubator is also a network of individuals and organizations including the incubator manager and staff, incubator advisory board, incubated companies and employees, local universities and university community members, industry contacts, and professional services providers such as lawyers, accountants, consultants, marketing specialists, venture capitalists, angel investors, and volunteers". They also provided the following definition: A business incubator is a shared office- space facility that seeks to provide its incubatees (i.e. "portfolio-"or "client-"or "tenant-companies") with a strategic, value-adding intervention system (i.e. business incubation) of monitoring and business assistance; (Hackett & Dilts, 2004, P57).

Other famous definitions from formal organizations working in the field and supporting incubation initiatives worldwide such as NBIA, EU, and UKBI offers inclusive definitions: NBIA defines business incubation as a business support process that

accelerates the successful development of start-up and fledgling companies by providing entrepreneurs with an array of targeted resources and services. These services are usually developed or orchestrated by incubator management and offered both in the business incubator and through its network of contacts. A business incubator's main goal is to produce successful firms that will leave the program financially viable and freestanding. These incubator graduates have the potential to create jobs, revitalize neighborhoods, commercialize new technologies, and strengthen local and national economies; (NBIA, 2009).

The EU center for strategy and evaluation services defines incubator as an organization that accelerates and systematizes the process of creating successful enterprises by providing them with a comprehensive and integrated range of support, including: Incubator space, business support services, and clustering and networking opportunities. By providing their clients with services on a 'one-stop-shop' basis and enabling overheads to be reduced by sharing costs, business incubators significantly improve the survival and growth prospects of new start-ups; (Center for Strategy & Evaluation Services, 2002:9).

UKBI defines Business incubation as a nurturing, instructive and supportive environment for entrepreneurs during the critical stages of starting up a new business. The goal of incubators is to increase the chance that a start-up will succeed, and shorten the time and reduce the cost of establishing and growing its business. If successful, business incubators can help to nurture the companies that will form the true creators of a region's or nation's future wealth and employment; (UKBI, 2009).

#### 2.3 Types (Models) of BIs:

In this section, BIs are classified according to the leading institution establish, monitor, or govern their activities. The great majority of incubators are managed by or, in some way, connected to institutions such as universities, communities, research institutes, consortiums, governmental organizations and NGOs.

Peters et al (2004:P84) classifies two models of BIs: non-profit and for-profit. The nonprofit incubators, typically affiliated with a university or a government agency are particularly popular with entrepreneurs who are not creating Internet companies or who recoil at the idea of parting with a large chunk of their equity, while it is stated that the for-profit incubators usually take as much as 70%. In contrast, the non-profit incubators demand little or no equity for similar services. Although the distinction has primarily only been between for-profit and non-profit incubators in past research studies considering the university-based incubator as a separate type of incubator could throw further light on the business models used by universities. Based on their governance structures and business models we thus identify three types of incubators: (a) Nonprofits focused on diversifying the local economy like small business incubators, (b) incubators linked to universities, and (c) for-profit incubators like private organizations.

Allen and McCluskey (1990:64) grouped incubators according to sponsors. He cited four distinct groups were: For–Profit Property Development Incubators, Non-Profit Development Corporation Incubators, Academic Incubators and, Business Development For-Profit Seed Capital Incubators.

Lalkaka (2001:P5) proposed many classifications for business incubators based on the sponsoring institutions and goals. He argued that in simple terms, the traditional business incubator is a micro-environment with a small management team that provides physical work-space, shared office facilities, counseling, information, training and access to finance and professional services in one affordable package. Incubators vary widely in their sponsors (state, economic development group, university, business, venture capital), objectives (from empowerment to technology commercialization), location (urban, suburban, rural, and international), sectoral focus (technology and mixed, now including kitchen and arts incubators) and business model (not-for-profit or for-profit). While these can serve a variety of businesses, in the developing countries the main focus has been on technology incubators for commercializing innovations. He then makes a conclusion as depicted in table 2.1.

#	Sponsor	Desired goals		
1.	Technical university	Innovation, faculty/graduate student involvement		
2.	Research institute	Research commercialization		
3.	Public/private partnership	Investment, employment, other social goods		
4.	State sponsorship	Regional development, poverty alleviation, equity		
5.	Private sector initiative	Profit, patents, spin-offs, equity in client, image		
6.	Venture capital-based	Winning enterprises, high portfolio returns.		

Table 2.1: sp	onsors &	& desired	goals of BIs

Chandra (2007) proposed and cited five types of BIs: Technology Incubators: Technology focused incubators were primarily associated with and supported by the universities, Federal/State governments and related industries, with students and professors as key founders of businesses. Traditional Incubators: The traditional incubators were created in response to the social problems of unemployment with the goal of regional/local development. The private sector/industry associations along with various levels of government acted in concert to create new firms in industrial sectors traditional to that particular region, such as shoes, furniture, fashion or agricultural equipment. Cooperative/ Social Incubator: A series of initiatives by universities and concerned citizens attempted to combat poverty and related ills by transferring the incubator model to the social sphere in order to create jobs and growth. Private Incubator: Most private incubators concentrated in the area of Information Technology appeared in 1999. Funded primarily by venture capitalists and by information technology professionals, the hallmark of these private incubators was the investment of capital in their promising client firms along with business development services provided by the founding partners. Corporate Incubators: This type of incubator is housed in the context of a large company that aims to foster new ventures selectively in order to reap the benefits of innovation.

Albert & Gaynor (2001) cited many classifications based on location (rural, urban), objectives (empowerment, for profit), configuration (residential, virtual), business model (property, venture capital) lead sponsors (university, corporate, public), type of company within it (mixed, industrial, technology, internet) and indeed combinations of location, objectives, configuration, lead sponsor and type of tenant.

Scaramuzzi (2002) classified incubators in four main generations: **First Generation Incubators** generally characterized by a strong 'real estate' component and proximity to research institutes or technical university environments, this type of incubator is generally created by building new facilities, such as science, technology parks, or techno poles, or by readapting abandoned buildings (e.g. industrial complexes). Its real estate component often implies considerable public investments, sometimes supported by national or local programs for innovation, job creation and economic development. Virtual incubators are considered the "second generation" of incubators. These incubators are non-property-based ventures which require lower fixed investments and are regarded as a possible way of servicing SMEs in areas with insufficient critical mass. Virtual incubators are often hosted by a university or a research center, and are characterized by their capacity to operate both within walls and outside. When they operate as "incubators without walls" they serve newly created firms without hosting them within the incubator's facilities. International Business Incubators is considered the "third generation" of incubators. These incubators provide a full range of support services for the development of knowledge-based businesses. Most of them are exportoriented and show impressive growth rates and sales records. They link universities, research institutes, venture capital and international joint ventures. This incubation model – based on the convergence of support mechanisms – is already present in China, Korea, and Malaysia. Some of these incubators are beginning to create Incubator Networks, incubators within the same region or country, or with the same focus. **Dot.com incubators** present a 'model' with specific features. Created under the 'wave' of the new economy, dot-com incubators or Internet business accelerators are a relatively recent but well-known phenomenon in developed markets, the U.S. in particular. They are characterized by strong venture capital orientation and shorter incubation periods (a few months instead of 2-3 years).

Lazarowich & Wojciechowski (2002) cited four types of incubators even though variations de exists are often representative of the specific location, culture, availability of resources and time of development/implementation. These are classified on the basis of sponsorship and objectives. There public (non-profit), private (for-profit), private (non-profit), or educational. Public non-profit incubators are sponsored by local government, industrial or enterprise development corporations and community based development associations. The private non-profit incubators usually attract enterprises that demonstrate the potential for the creation of local employment. The objective of these incubators is the fostering of local entrepreneurial ventures and local economic development. The private for-profit incubators attract new firms that show the ability to grow. Basically, these incubators can be described as venture capitalist establishments were the tenants exchange equity for the services and/or locale provided. In educational (university affiliated) incubators, the focus is on technology and science based industries. They are likely to be located close to a university and the university is the primary source of funding. The benefits of these incubators are the product development and commercialization derived from research and the cooperation between universities and industries.

#### 2.4 Science Parks & Technology Incubators:

Rouwmaat et al (2003) cited many classifications in this regard: A **research park** differs from a science park in the sense that it prohibits all manufacturing except prototypes. Various companies are welcome to establish their research centers in the Park adjacent to a Higher Educational Institutions (HEI). The research personnel benefit most from interaction with each other and with the academicians in the HEI.

A science park is an industrial complex close to the place of learning (Higher Educational Institute). It is designed to encourage formation of knowledge-based industries in a high quality and pleasant environment. According to the United Kingdom Science Park Association (UKSPA) a Science Park is a property based initiative which includes the following features:

- It has formal and operational links with a University, other Higher Education Institution or Research Centre
- It is designed to encourage the formation and growth of knowledge-based businesses and other organizations normally resident on site.
- It has a management function, which is actively engaged in the transfer of technology and business skills to the organizations on site.

There is a notable difference between a technology park and an incubator, as the **incubator** incorporates a new feature 'graduation', which implies that a start-up firm attains a certain level of maturity after a specific period of probation. While the technology and business incubator can be considered akin to each other, another major distinction is that the latter may focus on a wide range of tenants that are not necessarily technology intensive firms.

A **technology park** is an industrial complex where all types of facilities are provided for the growth and development of technology based small enterprises. However, a Technology Park need not to have formal links with an HEI and therefore the level of academic and entrepreneurial interaction is generally low.

Technology incubators are aimed at achieving the following objectives:

- Enterprise & Entrepreneurship development: An appropriate tool for economic development by promoting technology/knowledge-based businesses, culture of technopreneurship and creation of value added new jobs.
- Technology commercialization: To provide a much needed platform for speedy commercialization of the technologies developed in the academic and the R&D institutions to reach the clients and end-users.
- To provide an interfacing and networking mechanism between academic, R&D, industrial and financial institutions.
- To provide value addition through its services provided to its tenants as well as to the existing technology dominated SMEs.
- To provide R&D for industry: It also enables small industry to take up R&D activity and the technology up gradation activities.

OECD (1997) defined Technology Incubators as these are incubators whose primary goal is to promote the development of technology-based firms. These are mainly located at or near universities and science and technology parks. They are characterized by institutionalized links to knowledge sources including universities, technology-transfer agencies, research centers, national laboratories and skilled R&D personnel. Specific industrial clusters and technologies may also be targeted such as biotechnology,

software or information and communications technologies. A main aim is to promote technology transfer and diffusion while encouraging entrepreneurship among researchers and academics. In some countries, technology incubators not only focus on new firms but also help existing technology-based small firms, including subsidiaries of larger established firms.

Hackett and Dilts (2004a) argue, based on the U.S. experience that a science park is a location for the conduct of basic research; a business innovation centre is a location for commercializing the outputs of basic research; and an incubator is a location for fostering the development of new or fledgling businesses.

SISP (2006c) argued that a science park is a meeting ground for people, ideas, knowledge and creativity with the purpose of stimulating and developing companies. Sometimes a science park is also referred to as a technology or research park. These science parks often collaborate closely with universities. Here, companies that are based on research and technology from the university have the potential of growing. The companies in the park have access to a creative and developing environment, office space, administration and office machines. Many science parks also offer advice and counseling within fields that entrepreneurs often lack experience of. Such fields could be for example business development, finance and access or expansion to the international market.

A science or research park can be characterized as a complex set of activities within a limited geographic area around a university campus where high value-added research, industry and capital are combined by entrepreneurs, including academic and research personnel. The International Association of Science Parks (IASP) further defines science parks as being managed under a formal co-operative agreement with university research centers for the purpose of promoting the establishment and growth of knowledge-based enterprises. A main mechanism is the transfer of technical and managerial expertise to tenant firms. In some countries, the parks aim to attract existing firms as well.

The IASP defined a science park as a property-based initiative which: (1) has operational links with universities, research centers and other institutions of higher education, (2) is designed to encourage the formation and growth of knowledge-based industries or high value-added tertiary firms, normally on site, and (3) has a steady management team actively engaged in fostering the transfer of technology and business to tenant organizations.

D. Dura~o et al (2005) cited several common concepts for an STP: (1) they should be sustainable, (2) they should have operational links with universities, R&D centers and/or, other institutions of higher education, (3) they should encourage and support the start-up and incubation of innovative, high-growth and technology-based companies, (4) they should stimulate the transfer of technology and business knowledge, and (5) it is specifically mentioned that they should be property-based initiatives.
## 2.5 Incubation Model (Input/Output):

Costa-David et al (2002) proposed a model containing the incubation process as depicted in figure 2.1. The way in which business incubators operate can be depicted in terms of a simple input-output model:

- Inputs these mainly consist of the inputs made by stakeholders (e.g. providing finance), management resources, and projects put forward by entrepreneurs;
- Processes the various inputs are brought together in the business incubation process through the provision of incubator space and other services to companies;
- Outputs successful companies graduate with positive job and wealth creation impacts on local economies.

Taking the operational dimension, projects are identified that meet the criteria used to define the incubator's broad target market (e.g. projects with a particular technology focus). Some entrepreneurs may be encouraged to go through a 'pre-incubation' process, typically involving a combination of training and business planning, before they gain admission to the incubator. The incubation process itself typically brings together three categories of business support services – training, advice on business issues, financial support (either from an incubator's own sources or from external providers, i.e. financial institutions), and technology support. The provision of incubator units and networking (internally between tenants and externally with other organizations, e.g. universities, large companies) constitute the other basic features of the 'package'. (Costa-David et al, 2002)



**Figure 2.1: Incubation model** Source: Costa-David et al (2002)

UKBI (2003) has undertaken a project to develop a national best practice framework for the benchmarking of incubators in the UK. In an initial focus group for the project, incubation experts suggested that there were three different stages of incubation:

(1) Pre-incubator stage: ideas and teams were nurtured.

(2) Incubator stage: once there is a business plan prepared.

(3) Post-incubator stage: when enterprises move out to "grow-on" space.

Rouwmaat et al (2003) described the pre-incubation services provided by technology and other business incubators. Pre-incubation is the term used to describe support services to would-be entrepreneurs before they launch their business. These services usually include proactive identification of would-be entrepreneurs, helping them to develop a business plan, training and advice on forming a company. The pre-incubated entrepreneurs are typically offered desk space and other basic support (e.g. computer, telephone) for a period of time during which they are expected to prepare a business plan.

TAGHIYAREH & HEKMAT (2007) focused on the pre-incubation period and described it as an interface between universities and incubators where potential entrepreneurs are enabled to test the marketability of their products prior to the foundation of an own company. The pre-incubator provides the entrepreneur with assistance and key knowledge on how to run a company. The new and innovative feature of pre-incubation is that the academic can already test his/her business idea and gain business experience without having an own company. In contrast to a usual business incubator, the pre-incubator supports only entrepreneurial projects ("profit-centers") and not already registered enterprises. The pre-incubator management and the academic conclude a contract, which enables the profit-centers to carry out usual business transactions, e.g. a sale of pilot products, on behalf of the pre-incubator.

As the chief executive manager controls all business transactions of the profit centers, the financial risks are reduced for the academic or the entrepreneurial team. The act of registration of an enterprise usually takes place after a successful period of preincubation when academics or their entrepreneurial teams have gained sufficient knowledge, skills and experience to run a company on their own. Due to the selfconfidence and experience the academics gain during the phase of pre-incubation, their fears of failure are significantly reduced.

The new pre-incubator facility fills the gap between a university and an incubator. In contrast to incubators, which provide services for already existing companies, pre-incubators offer services and advice at a very early stage of the spin-off process up to the point of company foundation. The target groups of the university pre-incubator are students, graduates, scientific staff and the aims of the pre-incubator are:

1. To qualify academic entrepreneurs to found and to manage a company on their own.

2.To increase the number of academic spin-offs.

3.To create a "culture of entrepreneurship" within the university.

It is worth mentioning some issues important in the initiation phase of business incubators.

Scaramuzzi (2002) stressed on the importance of the establishment of an assessment of the private sector environment when planning the establishment of a new incubator, where the incubator should be established, and a survey of entrepreneurs' needs, should

always be conducted. A study of incubators' effectiveness and best practices in similar environments would also be recommended in the pre-feasibility project phase.

The concept/model of "incubation" should also be clearly identified and be consistent with the objectives the incubator wants to achieve. In the preparatory analysis, the 'incubation process' -in terms of objectives, targets, services, and deliverables – should be clearly identified. Incubation models should be considered in accordance with the country's private sector development status and needs. Successful models and governance systems should also be analyzed in order to select the approach better fitting the initiative's goals, mandate, and operational capabilities. The long-term sustainability of the incubator should also be considered key in the strategic planning of the incubator. She highlighted the importance of definition of the goals of the incubator:

- Goals should be realistic and consistent with the market environment, as well as with the resources available in the country.
- The incubator should be able to offer its clients, on the long term and on a selfsustained basis, valuable resources at affordable cost.
- The positioning, model and focus of the incubator should take into account the main market opportunities that can be seized, and the comparative advantages that can be achieved.
- The main market and financial constraints should be clearly identified and addressed.

## 2.6 Management and Governance in BIs:

In their relations with the leader institutions, the incubators generally operate as program, which has been developed by a unit of the institution, like a department, a research nucleus, or as part of a company "holding". In general, the incubators are part of a hierarchical structure, where the decision taking is vertical, and in this context they are part of a whole, branch of a larger and wider process than that which they naturally operate; (Aranha, 2003).

The National business incubation framework (2004) stressed the importance of employing a skilled and experienced management team. Incubation environments provide 'hands on' support. They therefore need the right people managing them in order to meet their objectives and to operate efficiently while meeting the needs of the clients. Building a successful incubation environment can be every bit as or more difficult as building a small business and its success derives largely from the intelligence, imagination, insight and entrepreneurial skills of the management team. The manager/team has to be able to balance the needs and expectations of clients, the board, stakeholders, financiers and other key players locally and regionally. Depending on the focus of the incubator, the manager/team may also need specialist skills and experience (e.g. technical, legal, intellectual property, fund management, etc.).

Kumar & Kumar (1997) defined the management structure of the technology incubator which is the same as any other incubator as follows: The management structure of traditional technology incubator facilities consists of incubator managers, boards of directors and special selection committees which play key roles in recommending, reviewing and approving companies for inclusion in the incubator facility. Owners or major sponsors of incubators are also involved in a variety of active and passive ways. Their involvement is in the form of financial support, serving on the board of directors, advising tenants, taking an equity position with tenant companies, working as consultants to tenant companies and even serving on boards of directors of their tenant companies. This type of owner involvement is most prevalent among privately-sponsored and university-sponsored incubators.

A full-time manager manages most incubators with a limited number of support staff depending on the number of businesses in the facility. The manager reports to the incubator's board of directors or to the board of directors of the incubator's sponsoring organization. University and college-sponsored incubators report to a variety of senior-level positions, including the university president, provost or dean. The manager of a publicly-sponsored incubator reports to the program managers or the head of an economic development group. A recent study on incubator management concluded that in successful and efficiently managed incubators, the boards of directors are generally responsible for policy development and not the day-to-day operations of the facility which are handled exclusively by the incubator manager.

Duff (1998) examined the quality of the management team of the incubator. The quality of the personnel involved with all aspects of an incubator program such as its operations, including its board of management, its staff, mentors, advisers, business network and student interns all influence the enterprise development capacity of an incubator. People selected to play a role with a business incubator should be selected on their capacity to either enhance the operation of the business incubator itself (as a business enterprise) or to make a contribution to the business development of the incubator's clients.

The ability to attract and maintain the interest of suitably skilled and experienced individuals is effected to a significant degree by many of the fundamental program design decisions made at the outset of developing a business incubator. For example, the quality and likely growth rates of tenants, the size of the program and its influence in its community, whether a proactive business development role is envisaged and the quality of existing board members or management personnel will all have implications for the type of people that will choose to participate in, or devote time to, the program.

Scaramuzzi (2002) highlighted the importance of the management and governance for the success of business incubators as follows:

- The incubator's legal structure will be influenced by its mission n (for-profit, nonfor-profit) as well as by the financial model selected to sustain its operation. The incubator should create a board to govern its activities.
- Consensus among staff and major stakeholders on the mission of the incubator should be achieved.
- The incubator management team should be composed of a Director, and a few full time staff their number depending on the size, clients and activities managed by the incubator.
- The recruitment of a good team is key to the incubator success. The Director should be a very dynamic person with business experience, preferably in a small company. She/he should also be able to attract sponsors, investors, financial stakeholders and clients. Certain staff should be designated to work directly with client services.

## 2.7 Critical Success Factors & Best Practices:

Rice & Matthews, Quorum (1995) presented NBIA best practices which lead to success:

- 1. Commitment to the core principles of Business Incubation.
- 2. Collect and assess key information.
- 3. Decide whether the Incubator is feasible or not.
- 4. Structure the Incubator to be financially self sustainable.
- 5. Structure the Incubator organization to minimize governance and maximize assistance to Incubator Businesses.
- 6. Engage stakeholders to help business and support Incubator operations.
- 7. Recruit staff who will manage the Incubator like a business and a manager who has the capacity to help businesses to grow.
- 8. Choose a building that will enable the Incubator to generate sufficient revenue and also support business incubation.
- 9. Recruit and select tenant businesses that provide revenue required in the financial model and have the potential to grow and create jobs.
- 10. Customize the delivery of assistance and address the development needs of each business.
- 11. Engage in continual evaluation and improvement as the incubator progresses through various stages of development and as the needs of tenant businesses change over time

Lalkaka (1997) identifies determinants of success based on consulting work by Business and Technology Development Strategies on establishing incubator programs in 20 countries and the 7 country studies in the Business Incubator Assessment:

#### A. The preparatory process:

Reconnaissance survey to selected locations during which potential stakeholders should be briefed frankly on probable benefits and costs of starting and sustaining an incubator, including their long-term responsibilities:

- Local consultants who are familiar with local conditions.
- Careful identification of a strong (existing) sponsor group to take local implementation responsibility, including a champion.
- Issues concerning feasibility, particularly analyses of the entrepreneurial pool of potential tenants, linkages to universities, the support services network, the availability of suitable (vacant) building space, and financial cash flow estimates.
- Commitment by state agencies at the central, provincial, and city levels to provide policy and financial support for investment as well as initial operation expenses.

#### **B.** The implementation process:

- forming a strong managing board with advisory structure and enabling them to observe incubator operations;
- appropriate legal persona for the incubator;
- careful selection, training at home and abroad, and proper remuneration of the manager and team;
- screening of the technical, business and market potential of tenants;
- prudent capital expenditures on building renovation and furnishing;
- Promotional campaign to mobilize community support.

#### **<u>C. The start of initial operations requires:</u>**

- access to equity, credit and royalty facilities by tenants, so that they in turn can pay for incubator services and for their development needs;
- involvement of private sector, through subcontracting and other arrangements;
- continuing programs for improving the management skills of the incubator staff and tenants;
- links to other SME programs in the country;
- Exchanges of information and experience through national incubator associations and international networks.

#### D. The sustainability of incubator operations calls for:

- proactive pursuit of business opportunities at home and abroad;
- imaginative ways of raising income through corporate memberships, appropriate fees for securing finance, equity/royalty in tenant companies;
- an objective evaluation of the incubator experience, and replication as warranted;
- Political stability, macro-economic policy structure and regulatory framework that encourage entrepreneurial activity and stimulate the market for new goods and services.

Lee &. Osteryoung (2004:P420) identified 14 factors emerged as important to the effective operation of the incubator system:

## **Goal/Operations Strategy**

- Goal (clarity, achievement)
- Operation strategy (concreteness, realization)

#### Physical/Human Resources

- Easy access to facility and equipment
- Common access to service space and office equipments
- Networking of entrepreneurial support
- Expert organization

#### **Incubator Services**

- Technology transfer and research and development (R&D)
- Business and law consulting
- Financial support and consulting
- Entrepreneurial education program

#### Networked Program

- Institutional networking
- Networking of tenant/off-line firm
- Networking of financing/ business consulting firm
- Government/local community support

## 2.8 **Provided Services by BIs:**

Grimaldi & Grandi, (2005) argued that different incubators provide companies with different services, depending both on the requirements of the companies that they are willing to incubate and, more importantly, on the competencies and on the knowledge base of the people who manage them.

ABDUH et al (2007) argued that Incubator Services are classified into three main groups: facilities related services, counseling and business assistance related services and accessibility to incubator networks. He then described facilities related services. Since rent is a major expense for fledging enterprises, incubators provide clients with affordable and flexible space. Services relating to building facilities typically include conference or meeting rooms, cafeteria and lunchroom, building security, and other amenities to do with physical infrastructure and real estate.

Business incubators also provide clients with shared office services and equipment that start-up ventures require but typically cannot afford or often neglect or ignore.

- Counseling and business assistance related services
- Counseling or mentoring services cover a wide range of professional business development assistance services including developing a business plan and offering support in strategic planning, accounting, financial management, sales or marketing advice, legal advice, educating them on government regulations, product development, and employment assistance.
- Accessibility to internal and external incubator networks

Allen and Dougherty (1987) surveyed incubator tenants and asked respondents to identify shared services that were offered at their facility. Nine services were identified as being provided through the incubator. These were: (a) photocopies, (b) office equipment/furniture, (c) conference room, (d) receptionist, (e) computer facilities, (1) word processing/typing, (g) security, (h) business library, and (i) additional storage.

The researchers also asked questions about the provisions of business development assistance provided through the incubator programs. They developed and presented a list of 12 types of assistance to which respondents indicated whether their facility arranged such assistance. This list included: (a) accounting, (b) marketing, (c) business plans, (d) computer training, (e) legal service, (f) government procurement, (g) government grants and loans, (h) business taxes, (i) equity and debt financing, (j) patent assistance research and development, and (k) international trade. Business plan assistance was the most often available service offered, closely followed by marketing and accounting (Allen & Dougherty, 1987).

Chandra (2007) categorized incubator services to incubatees into four categories:

- 1. Basic/administrative services, such as rental space and secretarial assistance
- 2. Financial services
- 3. Consulting/Training services
- 4. Networking

Kumar & Kumar (1997) cited many classifications and types based on surveying the literature and argued that shared services provided by a typical incubator include telephone reception, copying services and secretarial/word processing services; professional business consulting services including advice on business plans, marketing,

and finance; legal matters and general management; and information and referral services including access to sources of seed and venture capital

As per Mian (1996), the top ten services required by tenants of university-sponsored technology incubators are:

- **shared office services** photocopier, telephone, fax; access to computers and technical support;
- **business assistance and networking** rent breaks, outside connection, government loans and grants;
- University-related services university image, laboratories and equipment, and student employees.

Another service provided by technology incubators that is extremely popular with most technopreneurs is "mentorship". The basic idea underlying a mentoring program is to link new entrepreneurs with highly successful and experienced entrepreneurs (mentors) so that the mentors can provide advice and assistance to new technepreneurs on a regular basis. Various versions of mentorship programs exist (Kumar & Kumar, 1997).

Rouwmaat et al (2003) described services to be offered by technology incubators as general services, business support services, and specialized services.

General services may include common services such as a well-equipped workspace, communication facilities, phone, fax, Internet and other shared services including secretarial assistance. Business support services may include business skill development, business planning & development, business management and networking with stakeholders. Specialized services may include engineering & design, research & development, testing, legal, IPR related etc. A Technology Incubator is also expected to assist the start-ups in getting access to financing such as venture capital support, funding from angel investors, other innovative financing mechanisms and equity participation.

General business incubators also provide their tenants the general services and business services. Some incubators give some support also accessing finances and partners.

## 2.9 Incubation Policies & Strategies:

## 2.9.1 Business Plan as a tool for selection:

Just as an investor must manage the proportion of funds between cash, stocks and real estate investment instruments to generate the best returns while avoiding excessive risk, so an incubator manager should review his or her allocation of time across various clients to generate the best returns for the incubator. The incubator manager is presented with a time investment portfolio which contains three parameters: which incubator clients are likely to generate the best outcomes from the investment of incubator manager time; what form of intervention is most appropriate for each client; and an incubator manager can only work intensively with a maximum of about six clients at any one time.

More than a passing familiarity with the general business status of an enterprise is required to help make the correct intervention decisions. This requires a comprehensive business plan which serves to guide the strategic development of the client in question. Without a comprehensive business plan drawing together all the threads of a business, no verifiable source of information is available upon which strategic investment decisions can be based. Without a coherent strategy, the incubator manager will be relying upon other people's opinions, a weak position from which to make critical decisions. The business plan provides a road map which identifies the firm's position and allows it to select a road to growth. After all, fundamental strategy theory suggests "If you do not know where you are going, any path will get you there." The business plan also provides the information that an incubator needs to make its initial screening decisions and help prioritize the clients to which most management time should be devoted. Duff (1998)

## 2.9.2 Selection Criteria:

Kumar & Kumar (1997) argues that in order to achieve their objectives, incubators pursue a variety of management policies in terms of entry and exit criteria for tenant firms. The list of criteria used for selecting tenants includes job creation and local ownership. As well, the tenant company must be able to pay its own operating costs, provide a unique opportunity, be a new startup enterprise with fast growth potential, have clients who are in some cases required to have a business plan, and have business liability insurance. In terms of exit rules, most incubators impose a time limit on tenant residency.

The empirical evidence suggests that the criteria used to select tenants vary according to the types of incubators and the amount of vacancies present in the incubator facilities. For example, in admitting tenants, publicly-sponsored incubators are more likely to consider job creation potential and local ownership. Privately-sponsored corporate incubators are generally more concerned with obtaining full occupancy. Universitysponsored incubators are more open to tenants attempting to commercialize a technology developed at the university. Some university-sponsored incubators may even stipulate that tenant firms hire students as employees and faculty as consultants. Technology incubators focus on enterprises that are engaged in value-added activity such as manufacturing, assembling, developing or researching a technology-intensive product or service.

Entry criteria vary from one incubator to another. Some are very subjective and others require either a severe prescreening process for the applicants or simply an acceptable business plan.

Duff (1998) focused on the selectivity issue by citing five generic techniques to enhance the selectivity of their business development programs:

- 1. screening of prospective tenants to select the most appropriate businesses to become tenants;
- 2. monitoring tenants to identify what actions the incubator might take to facilitate or assist growth;
- 3. segment the tenant population and choose to work intensively with those tenants which exhibit most growth potential;
- 4. structure a program to allow self selection by tenants with those showing most potential progressing to higher levels of intervention; and
- 5. establishing a rigorous "deal hurdle," the structure of which, selects firms with the right character for success.

Scaramuzzi (2002) raised many points in regard to admission criteria and procedure:

• Admission criteria should be clearly set, and guidelines and transparent evaluation procedures applied.

- The screening activity should be conducted by using standard procedures and forms, and managed by a team of professional evaluators.
- Evaluators generally include the incubator manager and some members of the team, consultants, interns, academics, etc.
- The selection should be conducted in an ongoing effort to identify applicants' needs, while determining whether the services offered by the incubator can have a 'value' to the applicant.
- The screening process should be conducted according to criteria which are fully consistent with the goals of the incubator.
- Screening criteria generally include issues such as the innovativeness of the business/product idea; product feasibility and patent protectability, understanding of market and growth potential, financial plan, risks/opportunities involved in the project, professional and education background of the applicant, community benefits, ecological awareness, etc.
- The screening should be conducted taking into account the potential synergies among clients. The incubator should also avoid incubating companies directly competing in the same market/product, in order to avoid potential conflict situations.

Aerts et al (2007:P5) cited what Merrifield (1987) and Lumpkin and Ireland (1988) investigate the screening process more in detail and postulate important screening factors. Merrifield (1987) described the tenant selection process in a three-step decision tree. In the first phase, the incubator evaluates the potential tenant on six criteria: sales profit potential, political and social constraints, growth potential, competitor analysis, risk distribution and industry restructure. In the second phase the fit between the potential tenant and the host is evaluated, again on six criteria: capital availability, manufacturing competence, marketing and distribution, technical support, component and materials availability and finally management. The combination of the business attractiveness and fit factors determines the probability of commercial success and thus the potential added value the tenant has to offer to the incubator. Merrifield (1987) admits that no analytical scheme can guarantee 100% success, but careful tenant selection can definitely increase the probability of tenant –and thus incubator– success.

Based on a survey of US incubator managers Lumpkin and Ireland (1988) identified three groups of screening criteria. A first group is labeled "experience of the management team" and contains management, marketing, technical and financial skills, experience and growth rate projection of the management team. The second group, "financial strength", includes profitability, liquidity, price earnings, debt and asset utilization, personal investment of the management team and current size of firm. The written business plan, references from others, persistence, marketability of product/service, creativity, uniqueness of product/service and age of the management team are grouped under the denominator of "market and personal factors".

UKBI (2004) mentioned valuable justification for the selection policy. He argued that for a resource-intensive activity like business incubation, it is vital that proposals from prospective clients are assessed and only those that will benefit from and meet the objectives of the incubation environment and its stakeholders are selected. Most incubation environments do this by operating a selection policy. The selection policy will differ from one incubation environment to another, depending on the mission statement and overall objectives. However, it is assumed that most1 clients admitted to incubation environments should have the following characteristics:

- Exhibit potential for growth
- Meet specified targets
- Be able to put forward a business idea/plan
- Be willing to accept and act upon the advice/mentoring provided
- Have (or be able to develop) the capacity to pay for the facilities and services

Kumar & Kumar (1997) stressed the importance of assigning a selection committee which is set up to prescreen the clients. The selection criteria include: i) the homology between the incubator services offered and the clients' needs; ii) a business plan that covers the key focus, market information on competitors and customers, costs, pricing and cash flow forecasts; iii) technology sophistication; iv) potential for growth and job creation; v) R&D intensity; vi) occupational mix of the management team; vii) practical experience; and viii) personal commitment.

## 2.9.3 Exiting & Graduating Criteria:

The business incubator and the incubatee will mutually agree from the beginning on their goals. One or more of those goals will signal when to leave the incubator. According to the current research available, the average duration of incubation is two to three years but ranges from 3 months and up. Some incubators list time, space and employee counts as determinants for exit (similar to the criteria we use for our teenagers). Moreover, some incubatees will need to be cut loose when failure is evident. Conditions for exit and follow-up are important for both an incubatee and the incubator, since they allow for the continuity in the incubator's development, renewal of its client base, and give the incubatees an additional sense of urgency, thus setting the pace for its activities (Lavrow & Sample, 2000)

UKBI (2004) discussed exit strategies and arguing that: business incubation is about 'hands-on support' not 'life support' and so the overriding aim should be to move clients to a point where they are no longer dependent on the services of the incubation environment or when incubation can no longer help them.

As with the selection policy, the exit terms and strategy should fit with the incubation environment's objectives as well as taking into consideration the type of clients being supported. Exit terms may or may not be formalised, but all incubation environments should discuss their exit expectations with clients at the time of entry and review and develop these expectations throughout the incubation period. Exit strategies might include:

it strategies might include:

- Setting a maximum time limit (e.g. three years)
- Stepped rents (gradually increasing each year)
- Incentives to exit
- Removal of subsidies
- Setting growth targets which have to be met.

Scaramuzzi (2002) mentioned that the incubator should clearly define and communicate to applicants its graduation policies. Such policies should include the time limits, and the type/amount/value of services that would be provided by the incubator during the incubation process.

## 2.9.4 Other Polices & Criteria:

CSES (2002) and Costa-David et al (2002) mentioned benchmarks for other important polices regarding space, length of tenancy, and suitable number of managerial staff.

**Incubator space/number of tenants:** The average incubator space was 3,000m<sup>2</sup>. There is a good deal of evidence to suggest that a minimum of 2,000 m<sup>2</sup> space is needed (enough to accommodate 20-30 tenants) to achieve economies of scale. We suggest a range of between 2,000 to 4,000 m<sup>2</sup> as a benchmark depending on the type of incubator.

**Length of tenancy:** A benchmark of 3 years is suggested. It should be noted that the benchmark applies to the average incubator and would not be appropriate for some specialist types of incubators, e.g. biotech incubators, high-tech R&D and high-tech manufacturing because of the longer product development lead times associated with those business sectors, amongst others.

**Number of Managerial Staff, Ratio of Staff/Tenants:** The benchmark of at least two managers assumes an average of 20-30 tenants and allows sufficient flexibility to cover absence (training and professional development, conferences, holidays, sickness etc.) while still ensuring that tenant firms have permanent access to managerial-level advisory support at all times. Given that the real added value of incubation lies not in real estate aspects but in the quality, relevance and utility of business advisory, the ratio of incubator managers to incubator tenants should ideally not exceed 1:20.

**Proportion of Management Time Advising Clients:** Currently, the proportion of management time spent advising clients, highlighted in the survey, stands at 39%. We have assumed that, ideally, it should be possible to 'free-up' management so that more time is spent advising tenants and less on administrative matters.

**Survival rate of tenant firms:** The survey revealed that the survival rate of firms reared in an incubator environment was significantly higher than the business success rate amongst the wider SME community, estimated at 30-50% (over a 5 year period). In the survey, there was a notable clustering of incubators reporting a survival rate amongst tenant firms of 80-90% and the benchmark is based on this. The survival rate of incubator tenant firms operating in more high-risk sectors such as high-tech industry may well be lower. We would emphasize that survival rates are one indicator of the performance of incubators, of more importance is the extent to which incubators can contribute to the accelerated development of innovative, high-growth firms and their capacity to create new jobs.

#### 2.10 Summary:

This chapter discussed in details the concept of business incubators and the historical development of incubation process by different scholars. It also represented different models of incubation, types of business incubators, science parks & technology incubators, and incubation as an Input/output model. The chapter cited the success factors of business incubators at different incubation levels as well as the governance and managerial issues. A deep discussion of provided services was presented and also the incubation policies and practices adopted by incubators to coordinate the selection of tenants, graduation criteria, and other important issues.

# **3** Chapter Three: Entrepreneurship & Entrepreneurs

This chapter is dedicated to explain and clarify entrepreneurship in terms of its origins, definition, approaches, and schools. It also will discuss the entrepreneurial process and how the literature and scholars develop the concept of entrepreneurship and entrepreneurs. It will discuss the tools for measuring the entrepreneurial intention and inclination of people based on personal characteristics and traits and also on managerial perspectives as well as the different types of entrepreneurs. The chapter will also study the connection between entrepreneurship and the creation of new businesses, economical development, and unemployment reduction.

## 3.1 Defining Entrepreneurship:

Entrepreneurship is one of the most challenging fields. It needs more and more research to clarify and define its main components. Even the efforts of previous research don't demonstrate satisfactory results. (Matlay, 2005, P668) stressed on that by arguing that " the specialist literature on the history of entrepreneurship, both as a concept and as an economic activity, is full of contradictions and subject to conceptual and contextual debate. For instance, there appears to be little agreement on the origins, definition and impact of entrepreneurship". (Bulu et al, 2005, P1) "Current literature shows that there is no consensus among the researchers about the descriptions and definitions of entrepreneurship, entrepreneurs and their characteristics. The definitions have emphasized a broad range of activities including the creation of organizations, the exploration of opportunities, the bearing of uncertainty, and others". (Baran & Veličkait, 2008, P21) showed a similar direction: "The observed scientific problem exists within the entrepreneurship research as generally accepted definition of entrepreneurship and related definitions, such as entrepreneur, entrepreneurial team, corporate entrepreneurship, intrapreneurship, etc., cannot be imposed or even assumed. In respect, the search for an appropriate basis for understanding and describing the phenomenon creates a challenging problem for entrepreneurship researchers".

In the following sections, definition of entrepreneurship, entrepreneurs and all relevant terms and concepts will be discussed as provided by different literature from different perspectives.

As presented previously, the definition of entrepreneurship is not unique and doesn't refer to the same concepts and notions. Some scholars stressed on the individual and his behavior and traits. Others tried to define entrepreneurship in light of the environment of business. The best try to define entrepreneurship while looking for different perspectives and make use of most of the theories and research efforts done in the field.

Low and MacMillan (1988) tried to explain entrepreneurship by demonstrating the degree of its expansion across different topics: "The literature on entrepreneurship cuts across disciplinary boundaries and entails a complex set of contiguous and overlapping constructs such as the management of change, innovation, technological and environment turbulence, new product development, small business management, individualism and industry evolution". Ma & Tan (2006, P704-705) demonstrated a definition close to the characteristics and traits of entrepreneurs indirectly: "Entrepreneurship is a particular type of mindset, a unique way of looking at the world, a creative kind of adventure, and the ultimate instrument toward self-realization and fulfillment. At the heart of entrepreneurship lies the desire to achieve, the passion to

create, the yearning for freedom, the drive for independence, and the embodiment of entrepreneurial visions and dreams through tireless hard work, calculated risk-taking, continuous innovation, and undying perseverance. People who dare such dreams and commit their spirit, soul, and entire life's work to realize their dreams are the privileged bunch that we call entrepreneurs". Galloway & Wilson (2003, p16) focused on the process: "Entrepreneurship is about identifying and realizing opportunities to create change, through the exploitation and application of innovative products and processes; entrepreneurship also encompasses calculated risk taking".

Carton et al (1998:P2) argued that there are two distinctly different approaches to defining entrepreneurship. The first approach is to define what an entrepreneur is and then observe them. Based upon the observations, entrepreneurship would be defined inductively in terms of what the individuals do. The second approach is to propose an a priori definition of entrepreneurship and its related behaviors, and thereby define entrepreneurs as those who engage in entrepreneurial activity.

Table 3.1 includes different definitions based on the former discussion:

#	Definition	Citation
1.	Entrepreneurship is the process of identifying, developing, and bringing a vision to life. The vision may be an innovative idea, an opportunity, or	Gartner (1989)
	simply a better way to do something. The result of this process is the	(1)0))
	creation of a new venture formed under conditions of risk and considerable	
	uncertainty	
2	Entrepreneurship. The process of identifying opportunities for which	(hatten
	marketable needs exist and assuming the risk of creating an organization to	2006. P32)
	satisfy them.	, )
3.	Entrepreneurship is the dynamic process of creating incremental wealth. The	(Ronstadt,
	wealth is created by individuals who assume the major risks in terms of	1984, P28)
	equity, time, and/or career commitment or provide value for some product	
	or service. The product or service may or may not be new or unique, but	
	value must somehow be infused by the entrepreneur by receiving and	
	locating the necessary skills and resources.	
4.	Entrepreneurship means different things to different people and can be	(Hisrich et
	viewed from different conceptual perspectives. However, in spite of the	al, 2002,
	differences, there are some common aspects: risk taking, creativity,	P23)
	independence, and rewards.	
5.	Entrepreneurship is the process of creating something new with value by	(Hisrich et
	devoting the necessary time and effort, assuming the accompanying	al, 1986,
	financial, psychic, and social risks, and receiving the resulting rewards of	P18)
6	monetary and personal satisfaction and independence.	
6.	Entrepreneurship is the pursuit of a discontinuous opportunity involving the	(Carton et al,
	creation of an organization (or sub-organization) with the expectation of	1998, PT)
	value creation to the participants I herefore, entrepreneurship is the	
	means by which new organizations are formed with their resultant job and	
	near and the second sec	
	and/or services to society, not merely for internal consumption. Clearly this	
	definition favors the behavioral school of thought on entrepreneurship, but it	
	should not be taken to discount the importance of the traits and	
	characteristics of the entrepreneur from the perspective of their propensity to	
	act	

#### Table 3.1: Definitions of Entrepreneurship

Kaufmann and Dant (1998:P7) classified the definitions of entrepreneurship based on different viewpoints as found in the literature. They cited three main trends, namely: first are the entrepreneurs oriented definitions by stressing the characteristic traits or qualities supposedly possessed by entrepreneurs including risk taking, leadership, motivation, ability to resolve crises, creativity, low level of risk aversion, decision making ability and more. Second are the entrepreneurial process oriented definitions by stressing the process of entrepreneurship and it's result including the creation of new enterprise, introduction of new combinations of production factors and new, unique and valuable combinations of resources in an uncertain and ambiguous environment. Third are entrepreneurial activities oriented definitions by focusing on the activities entrepreneurs perform including connecting to new markets, overcoming market deficiencies, creating and managing contractual arrangements and input transforming structures, supplying resources lacking in the marketplace, activities to initiate, maintain and develop profit oriented business, to fill currently unsatisfied needs and to take operational control of the organization.

In almost all of the definitions of entrepreneurship, there is agreement that we are talking about a kind of behavior that includes: (1) imitative taking, (2) the organizing and reorganizing of social and economic mechanisms to turn resources and situations to practical account, (3) the acceptance of risk and failure. (Shapero, 1975: P187)

# 3.2 Defining Entrepreneur:

As discussed previously, regarding the definitions of the entrepreneurship, entrepreneurs were discussed by researchers from different perspectives. Some of them focused on the traits or characteristics of entrepreneurs. Others focused on the entrepreneurial process and opportunity.

The definition of an entrepreneur has changed over time and become more complex. During the beginning of middle Ages, entrepreneur was used in relation to specific occupations, but today the notion of the entrepreneur has been refined and broadened to include concepts that are related to the person rather than the occupation. (Bulu et al, 2005: P1)

Entrepreneurs come from a variety of educational backgrounds, family situations, and work experiences. A potential entrepreneur may presently be a nurse, secretary, assembly line worker, salesperson, mechanic, homemaker, manager, or engineer. A potential entrepreneur can be male or female and of any race or nationality. (Hisrich et al, 2002:P66)

Thus, understanding who the entrepreneur is and what motivates him or her is crucial to understanding and promoting the phenomenon of entrepreneurship (Larson & Ehrenworth, 1993:P1).

Gartner (1988) lists thirty-two different definitions for the purpose of showing that:

- Many (and often vague) definitions of the entrepreneur have been used (in many studies the entrepreneur is never defined);
- there are few studies that employ the same definition;
- lack of basic agreement as to" who an entrepreneur is" has led to the selection of samples of "entrepreneurs" that are hardly homogeneous

• A startling number of traits and characteristics have been attributed to the entrepreneur, and a "psychological profile" of the entrepreneur assembled from these studies would portray someone larger than life, full of contradictions, and, conversely, someone so full of traits that (s)he would have to be a sort of generic `Everyman.'

With this starting point, one central difference between entrepreneurs and nonentrepreneurs is that entrepreneurs create organizations while non-entrepreneurs do not. Entrepreneurship is, accordingly, in its most basic form the creation of organizations (Gartner, 1988).

Table 3.2 lists other definitions for more insight and details:

(Carton et al,
1998, P1)
(Larson &
Ehrenworth,
1993, P1)
Schumpeter
(1934)
(Galloway &
Wilson, 2003,
p16).
(hatten, 2006,
p32)
(1
(Longenecker
et al, 2003, p8)
(Higrigh at al
(11151101101101101101)
(Nimalathasan
(1011111111111111111111111111111111111
2000, p551)

Table 3.2: Definitions of Entrepreneur
--

## 3.3 The entrepreneurial Process:

The entrepreneurship process begins with an innovative idea for a new product, process, or service, which is refined as you think it through. (hatten, 2006:P35)

Entrepreneurship involves human agency. The entrepreneurial process occurs because people act to pursue opportunities. People differ in their willingness and abilities to act on these opportunities because they are different from each other. We argue that the variation among people in their willingness and ability to act has important effects on the entrepreneurial process. (Shane et al, 2003:P259)

As shown in figure 3.1, in order to have a complete entrepreneurial process, we need an opportunity in suitable conditions. The opportunity will lead to an applicable idea if the interested person or team has the entrepreneurial motivation and cognitive factors. First, the entrepreneurs need to have some knowledge, especially of the industry and of any relevant technology that is critical to success. They can hire people with certain specialized skills that they lack, but they must possess enough expertise to know that they are doing the right thing. Second, the entrepreneur must have skills. The necessary skills will depend on the circumstances, but they may include such factors as selling and bargaining, leadership, planning, decision making, problem solving, team building, communication, and conflict management. Third, the entrepreneur needs to have the requisite abilities, including intelligence. Possessing the necessary KSAs enables the entrepreneurs to develop a viable vision, including a strategy for the organization and to carry it out successfully. Motivation helps the entrepreneur to acquire such KSAs in the first place and provide the impetus and energy to implement the needed actions. (Shane et al, 2003:P275)



Figure 3.1: Model of entrepreneurial motivation and the entrepreneurship process (Source: Shane et al, 2003)

An entrepreneur must find, evaluate, and develop an opportunity by overcoming the forces that resist the creation of the something new. The process has four distinct phases: (1) identification and evaluation of the opportunity, (2) development of the business plan, (3) determination of the required resources, and (4) management of the resulting enterprise. Although these phases proceed progressively, none is dealt with in isolation or is totally completed before factors are being dealt with in a sequential phase. (Hisrich et al, 2002:P39)

Shane et al (2003) argued that entrepreneurship is a process that begins with the recognition of an entrepreneurial opportunity and is followed by the development of an idea for how to pursue that opportunity, the evaluation of the feasibility of the opportunity, the development of the product or service that will be provided to customers, assembly of human and financial resources, organizational design, and the pursuit of customers.

Furthermore, environmental conditions matter. First, opportunities may interact in interesting ways with the attributes of people. Second, as much of the macro level research has shown, the willingness to engage in entrepreneurial activities depends on such things as the legal system of the country in which the entrepreneur operates, the age of the industry, the availability of capital in the economy (and to the industry in particular), the condition of capital markets, and the state of the overall economy. We believe that these factors are important, but that it might also be interesting to know whether motivations of particular people lead to different types of entrepreneurial action under different environmental conditions.

# **3.4 Approaches & Schools of Entrepreneurship:**

Based on different viewpoints between scholars and researchers in analyzing the entrepreneurial phenomena, there are many schools in identifying and discussing entrepreneurship and entrepreneurs. Some of researchers took care of the approaches to understand entrepreneurship while others preferred to classify and identify schools.

Bulu et al (2005:P1) argued that a consistent universal definition of entrepreneurship does not exist, however, entrepreneurship consists of several different approaches including psychology, sociology, anthropology, management, and economics.

So, relevant literature reveals that entrepreneurship research focus on two basic approaches: individual or trait approach and process or behavioral approach. The following section presented the differences between the two approaches.

## 3.4.1 Individual (trait) approach:

The modern concept of entrepreneurship was introduced by Schumpeter (1934) who argued that the primary focus of the trait-oriented approach has been the description of entrepreneurs as a unique group of individuals that can be differentiated from others based on the examination of a few lower-order personality characteristics

Baran & Veličkait (2008:P23) reviewed the literature and found that for many years academic debate have performed in the origins of entrepreneurial behavior. Many studies tried to identify an "entrepreneurial personality" as a specific set of traits that distinguished entrepreneurs from general population. The research was mainly

interested in the "why?" question: "why do certain individuals start firms when others, under similar conditions, do not?". The entrepreneur's traits are seen as the key to explain the entrepreneurship phenomenon. Thus at this approach the individual is the primary level of analysis.

Larson & Ehrenworth (1993:P3) argued that the trait approach concentrates on the question, what are the personality/psychological characteristics that distinguish the entrepreneur from the non entrepreneur? The argument is that only a subset of people possesses certain personality traits that make them behave and succeed as entrepreneurs. This path of research has focused on the following traits: risk taking, need for achievement, locus of control, and tolerance of ambiguity. They also stated that the study of personality and psychological traits of individuals they define as entrepreneurs came after the Schumpeter's conceptual leads in 1930s. This orientation holds that entrepreneurs and make them predisposed to set up new businesses. Unfortunately, the findings from this type of research have been inconsistent, primarily because the definitions of entrepreneur and entrepreneurship have varied from study to study together with the comparison group used. The literature reveals that no particular set of traits has been found to predict future entrepreneurial outcomes definitively.

The basic weakness of trait approach is one dimensional view, focusing solely on the person of the entrepreneur. It could be observed that many authors use very vague definitions of the entrepreneur in their research and only few studies use more or less the same definition. (Baran & Veličkait, 2008:P24)

## 3.4.2 Organizational (behavioral) approach:

The weaknesses of the trait approach led to the study of the behavioral approach in the 1980s as a challenge to trait-research assumptions were entrepreneurship is seen as the process of creating new organizations.

The most important point at this approach is that entrepreneurial organization is seen as an outcome of complex processes with many influences. Hereby the role of individual boils down to a series of actions or behavior undertaken to enable the creation of the organization, but personal characteristics are considered only ancillary to the behavior. (Baran & Veličkait, 2008:P24)

The behavioral approach does not ask who the entrepreneur is. Instead, it asks, what does the entrepreneur do in the process of creating a new venture? This approach can be compared with recent approaches to the study of leaders, in which researchers attempt to understand what leaders do rather than who they are. The behavioral approach is multidimensional. Behavioral researchers believe that we can gain a better understanding of entrepreneurship by looking at many variables instead of personality alone, and that we can learn how to encourage entrepreneurial activity. (Larson & Ehrenworth, 1993:P5)

William Gartner (1989), a leading behavioral researcher argued that entrepreneurship is something one does, not something one is. He created a multidimensional framework for studying the phenomenon of organization creation with four major parts: (1) the characteristics of the entrepreneur, (2) the organization, (3) the environment, and (4) the process. Gartner focuses on the interaction of these four variables, not on the variables in isolation.

## **3.4.3 Schools of Entrepreneurship:**

Cunningham and Lischeron have identified six different major schools of thought.

- The Great Person School of entrepreneurship takes the approach that entrepreneurs are born with abilities to recognize opportunities.
- The Psychological characteristics school argues that certain traits, needs, values, and drives cause individuals to behave entrepreneurially and that these entrepreneurial traits cannot be learned.
- The Classical School regards entrepreneurs as innovators. Schumpeter, believing that the entrepreneur has the ability to recognize or create opportunities, falls into this school of study.
- The Management School perceives the entrepreneur as one who can "manage" a venture to success. The entrepreneur is seen as having technical skills that can be learned and developed.
- The Leadership School, classify the entrepreneur as a person with the ability to lead other people through the entrepreneurial process because of his or her ability to motivate others through communicating a vision.
- The intrapreneurship school which deals with individuals who exhibit entrepreneurial behavior within a corporate environment.

# 3.5 Characteristics, Traits, & Behavior of Entrepreneurs:

As stated in the previous section, there is a clear distinction between Characteristics, Traits, & Qualities from one side and the behavior from the other side. The latter is in connection with the organizational (behavioral) approach while the former belongs to the Individual (trait) approach. Gartner (1989) considers trait approaches to be unfruitful for the search of definition and suggests behavioral theories.. Traits and characteristics may be those intermediating variables that explain and predict entrepreneurial activity and behavior.

(Gartner, 1988) presented that the belief that entrepreneurs have distinctive psychological characteristics (traits) has a long tradition in entrepreneurship research. So, the literature is plenty of research indicating the characteristics and traits of entrepreneurs, but many scholars other than Gartner criticize the trait approach.

Hatten (2006:P40) argues that the conclusion of 30 years of research indicate that there are no personality characteristics that predict who will be a successful entrepreneur before entering business. He also stressed that personal characteristics or traits are not useful in predicting who will be a successful entrepreneur, but they do affect our motivations, actions, and effectiveness in running a small business (Hatten, 2006:P37).

Table 3.3 contains the characteristics cited by different researchers in some of the research. The table contains the most common, other may be found.

Carland et al (1984) gives the historical overview about these characteristics in the literature. However, new characteristics are continually being added to this evergrowing list. Table 3.4 depicts the entrepreneurial characteristics of entrepreneurs as cited by Carland et al.

ш	Changetonicting Tracity analities	Citation
#	Characteristics, Traits, qualities	Citation
1.	need for achievement, locus of control, propensity to take risk, tolerance	(Koh, H. C.,
	of ambiguity, self-confidence and innovativeness	1996:13)
2.	Risk taking-whether financial, social, or psychological-is part of the	(Hisrich et al,
	entrepreneurial process.	2002, P68)
3.	Possessing innovation and independence.	Hisrich (1992)
4.	Innovation, risk-taking, growth, a need to control, a need for	Carland et al.
	achievement, and a desire to be independent as entrepreneurial	(1984)
	characteristics.	
5.	Virtually every successful entrepreneur possesses these three	(Byrne, 1993,
	characteristics. Having perseverance, the technical skills to run a	p14)
	business and belief in your self are more important than any specific	
	psychological trait you could exhibit.	
6.	In particular, evidence shows that as compared to non-entrepreneurs,	(Ethem,
	entrepreneurs have greater need for achievement, more internal locus of	2008, P5-6)
	control, higher propensity to take risk, greater tolerance of ambiguity,	(Koh, H. C.,
	more self-confidence and greater innovativeness.	1996.16)
7.	Self-confidence: an entrepreneur must believe that he/she is able to	(Koh. H. C.,
	achieve the goals that are set.	1996:15)
8.	Timmons (1978), in a review of literature, has identified 14	(Nimalathasan,
	characteristics of an entrepreneur. These are :(1) drive and energy, (2)	2008)
	self – confidence (3) long – term involvement, (4) money as a setting,	, , , , , , , , , , , , , , , , , , ,
	(7) moderate risk- taker, (8) dealing with failure, (9) use of feed – back,	
	(10) taking initiative and seeking personal responsibilities (11) use of	
1	resources (12) competing against self imposed standards (13) internal	
	locus of control and (14) tolerance of ambiguity and uncertainty	

#### Table 3.4: Entrepreneurial Characteristics

DATE	AUTHOR(S) CHARACTERISTIC(S)		
1954	Sutton Desire for responsibility		
1959	Hartman Source of formal authority		
1961	McClelland Need for achievement		
1963	Davids	Ambition, independence, self-confidence	
1964	Pickle Drive, human relations skills		
1971	<b>Palmer</b> Risk		
1973	Winter Need for power		
1974	Borland	Internal locus of control	
1974	Liles	Need for achievement	
1977	Gasse	se Personal value orientation	
1978	Timmons	Drive, moderate risk taker	
1980	Sexton	Energetic	

Source: Carland et al (1984)

There are a number of characteristics which were stressed by different researchers, especially the fathers of this science. Researchers have sought the features that contribute to successful entrepreneurship. Carton et al (1998:P7) went in the same direction by assuring that there has been considerable attention given to the traits and characteristics that make a person act entrepreneurially. The foundations of this approach can be viewed as psychological or sociological in nature.

The personal attributes that most entrepreneurs share are strong need for achievement, a desire to be independent, self-confidence, and the willingness to make sacrifices for the sake of the business. Mazzarol et al (1999:P49) cited some examples stressed by previous research: such factors as the need for achievement (McClelland, 1961), risk-taking propensity (Brockhaus, 1980), locus of control (Brockhaus, 1982), tolerance of ambiguity (Schere, 1982), and desire for personal control (Greenberger and Sexton, 1988) have been identified and examined as possible traits associated with entrepreneurial behavior.

In the following paragraph, we want to discuss and shed some light on the most common and agreed upon characteristics of successful entrepreneurs as stated in different literatures:

**Need for achievement:** The value an individual places on achievement has also been an important area of study in understanding the entrepreneur (Larson & Ehrenworth, 1993:P3). It is believed that individuals with a high need for achievement have a strong desire to be successful and are consequently more likely to behave entrepreneurially (Koh, H. C., 1996:14). Successful entrepreneurs score high on need for achievement by striving for performance adequately and competing, if necessary. They build their company with their professional goals in mind. They set high target levels and put in much effort to reach them (Oosterbeek et al, 2008, P7). So, Need for achievement appears to be an important characteristic of the entrepreneurial personality.

**Internal locus of control:** represents an individual's perceptions about the rewards and punishments in his/her life (pervin, 1980). While individuals with an internal locus of control believe that they are able to control life's events, individuals with an external locus of control believe that life's events are the result of external factors, such as chance, luck or fate (Koh, H. C., 1996:14). Generally, it is believed that entrepreneurs prefer to take and hold unmistakable command instead of leaving things to external factors (mitton, 1989). People with a higher internal locus of control believe that they influence the outcomes of their lives. They believe that they have more control over life events, including their own success or failure. Locus of control translates into the belief that one can control one's fate. Researchers studying this characteristic in relation to entrepreneurs have reached conflicting results (Larson & Ehrenworth, 1993, P4).

**Propensity to take risk:** A person's risk-taking propensity can be defined as his/her orientation towards taking chances in uncertain decision-making contexts (Koh, H. C., 1996:15). It reflects both the ability to deal with uncertainty and the willingness of risking to take a loss (Oosterbeek et al, 2008, P8). The owner of the business bears the risk of potential loss or failure of the business (hatten, 2006, p33). So, risk taking propensity has been identified as a characteristic of entrepreneurs and entrepreneurial behavior. It is believed that entrepreneurs prefer to take moderate risks in situations where they have some degree of control or skill in realizing a profit (Koh, H. C., 1996:15). In studying risk-taking propensity as a characteristic of entrepreneurs, researchers believed entrepreneurs would be moderate risk takers (Larson & Ehrenworth, 1993:P3). Thus, Successful entrepreneurs attempt to minimize their risk exposure whenever appropriate. They do this by carefully assessing the risk/reward relationship of their actions.

**Tolerance of ambiguity:** When there is insufficient information to structure a situation, an ambiguous situation is said to exist. The manner in which a person perceives an ambiguous situation and organizes the available information to approach it reflects his/her tolerance of ambiguity. A person who has a high tolerance of ambiguity is one who finds ambiguous situations challenging and who strives to overcome unstable and unpredictable situations in order to perform well (Koh, H. C., 1996:15). Entrepreneurs are more capable of tolerating ambiguity and, in fact, enjoy it. This characteristic is important to an entrepreneur because new ventures are typically planned and established under highly uncertain conditions (Larson & Ehrenworth, 1993:P4).

Oosterbeek et al (2008:P7-8) cited many other characteristics: Need for autonomy is often the (sub) conscious reason for choosing entrepreneurship. Successful entrepreneurs score high on this competency that reflects independent decision making, the ability to resolve their problems and to bring activities to a successful end on their own. The need for power is the need to have control over others, to influence their behavior. Successful entrepreneurs score high on this competency indicating that they know what they want and how to influence others to achieve their own goals. Social orientation reflects the understanding (of successful entrepreneurs) that connections with others are required to realize their ideas. They make these connections easily and are driven by professional considerations in their social activities. They set their social needs aside and focus on their business. Self efficacy reflects the belief in one's own ability, i.e., self-confidence. Successful entrepreneurs are usually convinced that they can bring every activity to a successful end. Also, they feel that they can control their own success, which does not depend on others. Successful entrepreneurs have a high degree of endurance. It involves the ability to continue willfully, in spite of setbacks or objections. These are important competencies for successful entrepreneurs.

Market awareness is the ability to sympathize with the needs of (potential) clients and to link these to one's own business. Successful entrepreneurs appeal to the specific needs of a clearly defined target group of customers and have the ability to anticipate changes in the market based on their awareness of the needs and wants of customers and the (planned) activities of competitors. Creativity is the ability to adopt views from different perspectives and to see and try new possibilities based on open observations of (changes in) the environment. Moreover, creativity reflects the capability to turn problems into new opportunities. It is an important ingredient for successful entrepreneurship. Flexibility, finally, is based on a measure of the ability to adapt. Successful entrepreneurs react to changes they observe in their environment, such as new needs of clients or new competitors in their market.

#### Required behavior & Skills for successful Entrepreneurs:

Graves (1994:P5) cited ten D's that help define the behavior of successful entrepreneur as follows:

- 1. **Dream** Entrepreneurs have a vision of what the future could be like for them and their businesses. And, more importantly, they have the ability to implement their dreams.
- 2. **Decisiveness** They don't procrastinate. They make decisions swiftly. Their swiftness is a key factor in their success.
- 3. **Doers** Once they decide on a course of action, they implement it as quickly as possible.
- 4. **Determination** They implement their ventures with total commitment. They seldom give up, even when confronted by obstacles that seem insurmountable.

- 5. **Dedication** They are totally dedicated to their business, sometimes at considerable cost to their relationships with their friends and families. They work tirelessly. Twelve-hour days and seven-day work weeks are not uncommon when an entrepreneur is striving to get a business off the ground.
- 6. **Devotion** Entrepreneurs love what they do. It is that love that sustains them when the going gets tough. And it is love of their product or service that makes them so effective at selling it.
- 7. **Details** It is said that the devil resides in the details. That is never more true than in starting and growing a business. The entrepreneur must be on top of the critical details.
- 8. **Destiny** They want to be in charge of their own destiny rather than dependent on an employer.
- 9. **Dollars** Getting rich is not the prime motivator of entrepreneurs. Money is more a measure of their success. They assume that if they are successful they will be rewarded.
- 10. **Distribute** Entrepreneurs distribute the ownership of their businesses with key employees who are critical to the success of the business.

#### **Components of Entrepreneurship:**

Ma et al (2006) proposed a 4-P framework of entrepreneurship which hinges on 4 Ps. The four major components of entrepreneurship: Pioneer, denoting the entrepreneur as an innovator or champion for innovation; Perspective, denoting the entrepreneurial mindset; Practice, denoting the entrepreneurial activities; and Performance, denoting the outcome or result of entrepreneurial actions and activities. We first discuss the 4 Ps respectively, building on prior research literature and practical observations and drawing on diverse sources. After the presentation of the 4 Ps, we elaborate on the framework and examine the possible relationships among the 4 Ps. We examine the individual as well as the joint effects of pioneer, perspective, and practice on performance, respectively, in the direct effect model, mediation model, interaction model, and the full model.

The 4-P framework is both integrative and parsimonious theoretically. It focuses on the very fundamental factors in the entrepreneurship process and helps piece together a wide range of topics in the entrepreneurship literature, on the entrepreneurial performance. It is parsimonious and generic in that it helps put the fragmented literature on the 4 Ps into the larger perspective of the entrepreneurship process. It helps serve as a rough roadmap for future theory building and testing, inviting more robust and complete tests of the determinants of the performance of entrepreneurship. Specifically, the alternative models advanced here could be used to help make better sense of the extant empirical results in the literature and inspire future theoretical and empirical research efforts. Finally, the model allows for the phenomena of both new venture creation and corporate entrepreneurship or intrapreneurship and applies to entrepreneurship in both business settings and other social arenas and circles of life, such as non-profit organizations. Table 3.5 summarized the 4 Ps model.

Hatten (2006:P33) documented the behavior of successful entrepreneurs based on a multitude of definitions: Creation, A new business is started. Innovation, the business involved a new product, process, market, material, or organization. General

management, the owner of the business guides the business and allocates the business's resources. Performance intention, High levels of growth and/or profit is expected.

Component	Description			
Perspective	Unique mindset for creativity and innovation: There got, to be a			
	better way!			
Purpose	Clear sense of mission and vision: Everyone is on this earth for a			
	reason!			
Policy	A Winning Formula: It's in the strategy, stupid Relentless champion			
	for innovation			
Pioneer	We can make a difference!			
Passion	Desire to achieve, to create, to make it happen: Chase your dream!			
Perseverance	Mental toughness: Never give up!			
Practice	ice Action matters: Just do it!			
Persuasion Ability to convince others about your vision: Salesmanshi natural ingredient of entrepreneurship				
Pursuit	Effort to attract, and demand, societal resources: God help those who			
	help themselves			
Performance	Result driven: I did it my way!			
People	Innovation to improve and enrich people's life: Business is about			
serving people!				
Profit	Innovation pays: Creating economic value is socially responsible			
Source (Ma et al, 2006:P717)				

 Table 3.5: The 4 Ps of entrepreneurship and stylized illustrations

Lumpkin and Dess (1996) proposed that the entrepreneurial orientation consists of autonomy, innovativeness, risk-taking, pro-activeness, and competitive aggressiveness. Although their theory was based on a company-level analysis, some of the dimensions that they identified are likely to apply to individual entrepreneurs.

Hisrich and Peters (1998, P20) categorize the various skills required by entrepreneurs as follows: Technical skills; includes written and oral communication, technical management and organizing skills. Business management skills; includes planning, decision-making, marketing and accounting skills. Personal entrepreneurial skills; includes inner control, innovation, risk taking and innovation. In addition, they stress that the development of particular skills, namely inner control, risk taking, innovativeness, being change oriented, persistence and visionary leadership, differentiates an entrepreneur from a manager.

#### **Other Factors toward entrepreneurial success:**

A great deal is known about the characteristics of entrepreneurs and the motives that have urged them to set up a business venture. Previous research has examined the importance of various demographic variables such as personality, human capital and ethnic origin. Marital status, education levels, family size, employment status and experience, age, ethnicity, gender, socioeconomic status, religion and personality traits have all been considered to varying degrees (Mazzarol et al, 1999:P48).

Two key demographic variables that influence entrepreneurship activities are gender and family background. An entrepreneur's attitudes and values also impact his or her motivations to be self-employed. (Ashley-cotleur, 2003:P3)

## **3.6 New Venture Creation:**

The endeavor of the entrepreneurial process and the ultimate goal of the entrepreneur are to establish a new business. The entrepreneur uses his entrepreneurial characteristics and behaves in the right way. Timmons (1989:P1) defined entrepreneurship as the ability to create and build something from practically nothing; It is initiating, doing, achieving, and building an enterprise or organization rather than just watching analyzing or describing one. It is the knack for sensing an opportunity where others see chaos contradiction and confusion.

The definition of entrepreneurship proposed above is behavioral in nature. That is, entrepreneurs are those who engage in entrepreneurship. The entrepreneur is the individual or team that identifies the opportunity, gathers the necessary resources, creates and is ultimately responsible for the consequences of the organization. A person is an entrepreneur so long as they are engaged in entrepreneurial behaviors. As stated above, a person starts being an entrepreneur when they undertake to form a new venture and are no longer an entrepreneur when the process of organization building has resulted in managing a self-sustaining business (Carton et al, 1998, P7).

Schumpeter (1934) assured that the entrepreneurial initiatives are carried out by individuals often resulting in the formation of new firms and in innovations, which in turn, may affect whole industries and even create totally new ones.

The characteristics and motivation of entrepreneurs may lead them to start enterprises that they think will make them and their families better off. In some cases, those behaviors could result in unanticipated negative outcomes including failure and the consequent loss of family income, resources, and interpersonal relations. Observing the result of entrepreneurial behavior and activity can be helpful in understanding entrepreneurship. Ventures differ in their capacities to achieve dramatic leaps in growth. The strategic approach and behavior of the entrepreneur or the intrapreneurial team in new venture planning and initiation, as well as the behavior of the ongoing ventures that can start a new growth stage after business stabilization, have common aspects (Tapan, 2001, p124).

Mazzarol et al (1999, P49) made a clear connection between the entrepreneurial personality and the formation of new business "early research in entrepreneurship focused therefore on the entrepreneur. It sought to determine what personality characteristics distinguished entrepreneurs from non-entrepreneurs, and examined the influence of these characteristics on organization formation rates.

Mintzberg (1973:128) He argued that the entrepreneur is commonly found at the helm of a small business organization, where innovation is the key to survival. He may also be found at the head of, or within, a large organization that is changing rapidly. But his tenure here is probably short-lived.

Alstete (2002, P223 -224) examined the motivation factors for starting a new business: Literature reviewed on this area often reveals various ``push" and ``pull" factors as motivators for business start-up. The ``push" criteria of redundancy, unemployment, frustration with previous employment and the need to earn a reasonable living are important factors for business start-up. These are particularly crucial in today's era of decreasing economic growth and uncertainty of stability in the employment sector.

Other ``pull" criteria identified in the literature such as independence, being one's own boss, using creative skills, doing enjoyable work and making a lot of money are more closely associated with survival and the need to develop. Even so, these factors and their status in today's economic and post-Internet boom era will be interesting to examine. In addition, the characteristics of the entrepreneurial personality are fluid, and changes have been found in the entrepreneurs' personal relationships and the personality itself (Littunen, 2000). However, much of the literature examines established entrepreneurs or those who established a business and are then unsuccessful. Few studies examine those prospective entrepreneurs who are only now forming opinions about starting a business and may or may not proceed with an entrepreneurial venture depending on their perception. This perception may then influence their decision whether to attempt to start a business.

Although many people are interested in starting new venture and even have the background and financial resources to do so, few decide to actually start their own business. Individuals who are comfortable and secure in a job situation, have a family to support, and prefer their present lifestyle and reasonably predictable leisure time often do not want to take the risk associated with venturing out alone. Although the motivations for venturing out alone vary greatly, the reason cited more frequently for becoming an entrepreneur is independence, not wanting to work for anyone else. This desire to be one's own boss is what drives both male and female entrepreneurs around the world to accept all the social, psychological, and financial risks and to work the large number of hours needed to create and develop a successful new venture. (Hisrich et al, 2002, P72)

The link between new venture creation and a robust economy has led to the study of business start-up issues such as entrepreneurial personalities and motivations, forces influencing entrepreneurial behavior and processes driving business creations (Ashley-cotleur, 2003, p 2).

Trevelyan (2008) argued that while no one model of the development of a venture prevails, there are consistencies and overlaps between those that have been proposed, such that we can outline a generic value chain of new venture development. This might have the following five stages: (1) Intention to act and identify opportunities. (2) Evaluate opportunities. (3) Launch the venture. (4) Grow the venture. (5) Consolidate the business.

Gullander S. (2007): described the flow from idea to innovative start-up company as follows: The idea is in the very beginning of the process. The innovative or entrepreneurial idea could come from different sources:

- Students (during regular course, or students competitions, workshops etc.),
- Researchers at Universities (scientific research, research competitions, workshops..)
- Inventors (societies of inventors, competition for the best innovative idea),
- Business,
- Others (Serial entrepreneurs, risk capital association, business angels).

In the next step idea is transformed to project. Project will be supported by University pre-incubator, business incubator or virtual incubator. The next step is development of business plan for commercialization of entrepreneurial or innovative project. Successful business plans could be incubated using support of different external entities (Business, Government, Banks, Venture Capital, and Business Angels).

# 3.7 Functional & Managerial Perspectives of Entrepreneurs:

Schumpeter defined what he meant by entrepreneurship ("enterprise") and then concluded that those who perform the functions of entrepreneurship are "entrepreneurs." His definition captured several key elements that separate entrepreneurship from general management. First, and foremost, entrepreneurship involves the creation of an organization to pursue a discontinuous opportunity. Second, Schumpeter did not limit this pursuit to new ventures, he also allowed for entrepreneurship to exist within established organizations. Third, Schumpeter alluded to the fact that one becomes an entrepreneur when they act. Finally, entrepreneurship is defined by the nature of the actions performed, and a transition occurs at some point from entrepreneurship to general management as the nature of the organization and the actions of the individual change (Carton et al, 1998, P3).

Tapan (2001, p125) argued that organizations whether small or large perform both managerial and entrepreneurial functions. They manage economic resources and allocate them toward the achievement of output and profit whilst at the same time they are engaged in the exploitation of opportunities. The more the bias toward the managerial function of the firm, the more the firm moves away from being an entrepreneurial venture and the more the business strategy is directed to the allocation and the control of economic resources. In the entrepreneurial venture, the focus of business strategy is on the entrepreneurial function - pursuit of opportunities through innovation and new value creation - and growth. The entrepreneurial function as a source of sustainable competitive advantage, survival and growth is emphasized beyond the management of economic resources and strategies directed at operational effectiveness. Engagement in innovation and the discovery and exploitation of new business opportunities that will be instrumental in achieving a quantum leap in growth relative to the existing position is the priority. The entrepreneur planning a new venture or the management of the ongoing venture exaggerates the entrepreneurial function and adopts an entrepreneurial mode when is it necessary to make a forward leap in growth. The entrepreneurial mode is observed at the planning and startup stages of new ventures as well as in the behavior of ongoing enterprises which attain a forward leap in the growth trend, especially in the behavior of those that can start a new growth stage and prosper beyond the business stabilization stage.

Entrepreneurial ventures are characterized by emphasizing the entrepreneurial function of the organization which allows them a high potential for significant innovation change, and growth. Ventures emphasizing the entrepreneurial function through the adoption of an opportunity driven entrepreneurial strategy formulation approach supported by the value innovation logic for high growth are characterized as being in a state of entrepreneurial mode (Tapan, 2001, p129).

## **3.8 Classifications of Entrepreneurs:**

MacMillan (1986) argued that the research should be focused on entrepreneurs who have been involved in multiple ventures. According to his research, the truly successful entrepreneurs were those who had initiated ventures, learned the "ropes," understood their mistakes and tried again. Moreover, he suggested three types of successful entrepreneurs. Type one was the group of single entrepreneurs who had survived the perils of startup and had "graduated" to become the Chief Executive Officer of the firm. The second type of successful entrepreneur, he refers to as the "drop out" entrepreneur;

again a single entrepreneurial experience, but one in which the entrepreneur creates a successful business and then sells out or is forced out of the venture. MacMillan labels the third type of entrepreneur a "business generator" who initiates and builds a business and then hands it over to professional management teams when he or she becomes bored with the existing business, only to start another venture. He argued that the "business generators" are the entrepreneurs who should be studied, because they are the ones who learn how to become successful, impact the economy, make a difference in the industry and are not reflecting a single, novel experience which might or might not be replicated.

Carland et al (2000) defined the "entrepreneur" as an individual who holds a majority interest in a business which is individually owned and operated, who relies upon that business as a primary source of income, and who actively works in and manages that business. He also mentioned many types of entrepreneurs and defined terms in an effort to facilitate the research of multiple venturists. According to him, terms used to identify these people include business generators, experienced business founders, habitual entrepreneurs, serial entrepreneurs and portfolio entrepreneurs. He focused on two types of entrepreneurs: serial and novice entrepreneurs.

Little is known about serial entrepreneurs, individuals who repeatedly pursue the creation of new ventures. Much can be learned from the study of the serial entrepreneur, the one who is not content to simply initiate a new venture, but is driven to establish several ventures, either sequentially or concurrently. Regardless of terminology, this is a noteworthy group of entrepreneurs. In fact, serial entrepreneurs, more so than novice entrepreneurs, may be the appropriate sample about which to hypothesize because they seem to epitomize the entrepreneurial drive and the attributes which are the essence of entrepreneurship. A "novice or traditional entrepreneur" is an entrepreneur who has owned and operated, or who now owns and operates, less than three businesses, while a "serial entrepreneur" is an entrepreneur who has owned an operated, or who now owns and operates, three or more businesses.

The results of his exploratory study suggested that serial entrepreneurs have stronger preferences for innovation, greater propensity for risk taking, and higher need for achievement than do novice entrepreneurs, whether or not one requires founder status as an aspect of the definition of the entrepreneur. The same conclusion is true for male serial entrepreneurs compared to male novice entrepreneurs. Female serial entrepreneurs display a greater need for achievement than, do female novice entrepreneurs. Females in both categories have a lower risk taking propensity than do males, but otherwise, females are just as predisposed to innovation and have just as a high a need for achievement as their male counterparts.

Overall, he believes that the results of this study support a conclusion that serial entrepreneurs are characterized by greater preferences for innovation, higher levels of risk taking propensity and stronger need for achievement than are novice entrepreneurs. The psychological profile of the serial entrepreneur appears consistent with decades of literature which describes the entrepreneur as a highly motivated innovator who is willing to accept risk in the pursuit of entrepreneurial opportunity.

Carree, M.A. and A.R. Thurik (2003) discussed Schumpeterian entrepreneurs who are found mostly in small firms. They own and direct independent firms that are innovative and creatively destroy existing market structures. After realizing their goals

Schumpeterians often develop into managerial business owners, but some may again start new ventures. Intrapreneurs or entrepreneurial managers also belong to the core of entrepreneurship. By taking commercial initiatives on behalf of their employer, and by risking their time, reputation and sometimes their job in doing so, they are the embodiment of leadership resulting in entrepreneurial ventures in larger firms. Sometimes these entrepreneurial employees, either in teams or on their own, spin off, start new enterprises and become Schumpeterian entrepreneurs. Managerial business owners (entrepreneurs in a formal sense) are to be found in the large majority of small firms. They include many franchisees, shopkeepers and people in professional occupations.

## 3.9 Entrepreneurship, Economy & Unemployment:

Entrepreneurship fuels economic growth in a country by giving birth to new businesses. These businesses in turn create new jobs and reduce unemployment. This process drives innovation and results in discovering new business models and breakthrough technologies, creating wealth in the economy. Entrepreneurship, therefore, is often termed as the engine of economic growth (Khawar, 2006, p2).

Dejardin (2000:2) asserted that an increase in the number of entrepreneurs leads to an increase in economic growth. This effect is a result of the concrete expression of their skills, and more precisely, their propensity to innovate. Through his innovative activity, the Schumpeterian entrepreneur seeks to create new profit opportunities. These opportunities can result from productivity increases, in which case, their relationship to economic growth appears quite clearly. Moreover, the disequilibrium created by the entrepreneur can be propitious for additional innovations and profit opportunities. Therefore, more entrepreneurs mean more growth, which in turn leads to more entrepreneurs... The phenomena seem to be self-feeding.

Nimalathasan (2008:351) assured that in practice, entrepreneurs have historically altered the direction of national economies, industries, or markets. They have invented new products and developed organizations and the means of production to bring them to market according to their characteristics. Mazzarol et al (1999, P48) reported that the driving force in the modern economy for the past ten years, and the foreseeable future, is entrepreneurship. Entrepreneurs are meeting our economic needs through the creation of thousands of new businesses each year. Similar results were obtained by Bulu et al (2005, P1) by arguing that entrepreneurship acts as a positive force in economic growth by serving as the bridge between innovation and application.

Researchers and practitioners alike are fully aware of the (potential) contributions of entrepreneurs to the economy. Entrepreneurs generate a substantial part of the national income and they generate jobs in most countries. Entrepreneurs contribute to R&D and innovations. Entrepreneurship serves as a good alternative to wage employment for people who need more flexibility in combining work and family obligations than an employer can often offer. Entrepreneurship has been an important research field among economists and scholars worldwide for some considerable time. This prolonged and heightened interest in entrepreneurship is prompted by several factors. First, for developed economies entrepreneurial activity (new venture formation) is a means of revitalizing stagnated economies and of coping with unemployment problems by providing new job opportunities. (Gurol & Atsan, 2006, p25)

However, it has a more critical role for economies of developing countries since entrepreneurship is seen as an engine of economic progress, job creation and social adjustment. Thus, small business growth/new business formation is widely encouraged by national economic policies to stimulate economic growth and wealth creation (Gurol & Atsan, 2006, p26).

Hisrich et al (2002, P17) argued that the third method for bridging the gap between science and the marketplace is via entrepreneurship. Many entrepreneurs have a difficult time bridging this gap and creating new ventures. They may lack managerial skills, marketing capability, or financial recourses. Their inventions are often unrealistic, requiring significant modification to be marketable. In addition, entrepreneurs frequently don't know how to interface with all the necessary entities, such as banks, suppliers, customers, venture capitalists, distributors, and advertising agencies.

Yet, in spite of all these difficulties, entrepreneurship is presently the most effective method for bridging the gap between science and the marketplace, creating new enterprises, and bringing new products and services to the market. These entrepreneurial activities significantly affect the economy of an area by building the economic base and providing jobs. Given its impact on both the overall economy and the employment of an area, it is surprising that entrepreneurship has not become even more of a focal point in economic development.

# 3.10 Concluding Remarks:

This chapter presented the historical development of entrepreneurship and its different schools and perspectives. It provided many approaches to understand the entrepreneurial inclination of individuals based on the traits & qualities of entrepreneurs or based on the behavioral approach. It also discussed the entrepreneurial process and the required steps for developing and surviving new ventures. It listed the classifications of entrepreneurs and discussed the relation existed between entrepreneurship and economic development. Finally, it drew the connection between business incubators and entrepreneurship and how BIs motivate entrepreneurs and encourage the establishment of new businesses.

# 4 Chapter Four: Research Methodology

This chapter is dedicated to explain the methodology used in this research. The methodology was designed to fulfill the objectives of the research which focuses mainly on examining the level of entrepreneurial knowledge and skills among entrepreneurs in the Gaza Strip and discussing the role of business incubators in this regard. It begins with the selected study design, population, and sampling. It then focuses on the used instrument, method of validation, piloting, and data collection and analysis. It also examines the psychometric properties of the questionnaire.

## 4.1 Study Population:

The study population consists of the students in their last year of bachelor education of selected faculties. These faculties are limited to Commerce, English program in business & accounting, Information Technology, and Engineering. Students from these fields show a great potential to meet the requirements of entrepreneurship in comparison with graduates from other fields. They have above average results in their secondary education and supposed to have strong analytical & practical attributes. Table 4.1 shows the number of students meeting the study criteria which was taking from the academic affairs at IUG in the second semester of the academic year 2008/2009.

No.	Faculty	Specialization	# female students	# male students	Total
1.		Computer	35	34	69
	Engineering	Civil	22	111	133
	Engineering	Communication & Control	21	43	64
		Industrial	28	30	58
Subt	otal of Engineering Stuc	lents	106	218	324
2.	Information	Information Systems	31	29	60
	Technology	Software Development	15	19	34
Subtotal of IT Students			46	48	94
3.		Finance	28	30	58
	Commerce	Business Administration	25	36	61
		Accounting	27	51	78
Subt	Subtotal of Commerce Students			117	197
4.	Commerce / English	Accounting	21	32	53
	Program	<b>Business Administration</b>	37	16	53
Subt	Subtotal of Commerce Students / English program			48	106
	To	290	431	721	

**Table 4.1: Study Population** 

## 4.2 Study Period:

The study was conducted over a period of 10 months from December 2008 to August 2009. Interviews and literature survey were conducted in the first six months. Then the questionnaire was designed, checked out for completeness, and judged from arbitrators in May 2009. The pilot study was conducted in the next month. Then the questionnaire coding and entering to the computer using SPSS was in June 2009. Data Analysis was completed by the end of July.

## 4.3 Study Sample:

The term "sample" means a specimen or part of a whole population which is drawn to show what the rest is like (Naoum, 1998). The advantage of using a sample is that it is more practical and less costly than collecting data from all of the population.

A total number of 451 students were selected as the sample as shown in Table 4.2. This number represents 62.5% of the total population.

	Table 4.2: Study Sample					
#	# Faculty Specialization		# female students	# male students	Total	
1.		Computer	14	26	40	
2.	Engineering	Civil	20	39	59	
3.	Engineering	Communication & Control	9	12	21	
4.		Industrial	23	25	48	
Sub	total of Engineering	Students	66	102	168	
5.	Information	Information Systems	25	9	34	
6.	6. Technology Software Development		14	10	24	
Subtotal of IT Students			39	19	58	
7.		Finance	18	30	48	
8.	Commerce	<b>Business Administration</b>	22	33	55	
9.		Accounting	14	20	34	
Sub	Subtotal of Commerce Students			83	137	
10.	Commerce /	Accounting	14	22	36	
11.	English Program	Business Administration	41	11	52	
Sub	Subtotal of Commerce Students / English program			33	88	
	Total			237	451	

Table	4.2:	Study	Sample
1 ant		Study	Sample

## 4.4 Sampling Process:

The researcher used a random sampling technique to select a sample from the population. Random sampling is used primarily for the purpose of convenience and simplicity. Practically, the researcher gets the lecturing schedules of the selected students and made the required arrangements with their teachers who agreed to assign part of their lectures for filling the questionnaire. The students were encouraged by the researcher and their teachers to participate. The numbers of depicted in table 4.2 represents the number of students who agreed to fill the questionnaire. A total number of 451 students agreed to participate and hence represents the sample size.

## 4.5 Method of the Study:

The study approach was qualitative in some parts and quantitative in the others. The qualitative approach was used primarily by the researcher to collect data from interviews, study reports, analyze information from workshops and focus groups, and information taken from site visits. The qualitative research makes interaction between the researcher and the respondents. The validity & reliability of the data is also much better.

The researcher conducted several interviews with key persons who work as managers and consultants in the field of business incubation and development as well as in business financing. The quantitative part was in the form of a structured questionnaire. Quantitative approach prevents bias and converts phrases and facts into numbers. It also makes people feel free in expressing their points of view.

## 4.6 Data Collection:

The data was collected in complete by the researcher, and some parts are collected by the help of the supervisor. There were two types of data: the primary and the secondary. The following subsections shows different data collection techniques based on the type of collected data.

**Primary Data:** The tools used to collect primary data directly from stakeholders and students. Interviews<sup>1</sup>, workshops<sup>2</sup>, focus groups<sup>3</sup>; questionnaires<sup>4</sup> were used to collect primary data.

**Secondary Data:** Secondary data was collected by visiting websites and searching journals and publications for relevant literature.

## 4.6.1 Case study method:

This method was used to collect data by interviewing<sup>5</sup>, site visits<sup>6</sup>, and reviewing reports and publications<sup>7</sup>. Nima et al. (2002) argued that the purpose of the case study method is to obtain information from one or a few situations that are similar to the researcher's problem situation and its important lies in investigating the entire organization or entity very deep and with careful attention to detail. The flexibility and popularity of the case study methods was also stressed especially when it is used for presenting information, describing the problem at hand, and prescribing solutions or treatments (Nima et al., 2002).

Based on the above, the researcher used the case study method to collect data from officials and representative working for the ICT Incubation project at IUG.

<sup>3</sup> The researcher was part of a focus group about the priorities of business incubation in the Gaza Strip from the viewpoint of representatives of industrial unions and syndicates (Annex 9.3).

<sup>&</sup>lt;sup>1</sup> The first interview was with the business consultant at IUG (Annex 9.4a). The second interview was with the business consultant at the ICT incubator at IUG (Annex 9.4b). The third interview was with the coordinator of the ICT Incubator at IUG (Annex 9.4c).

<sup>&</sup>lt;sup>2</sup> The researcher organized two workshops to examine the business incubation priorities in the Gaza Strip. The first was from the viewpoint of officials from governmental, NGOs (Annex 9.2a), and private sectors. The second was from the viewpoint of Business men, experts, donors and business owners (Annex 9.2b).

<sup>&</sup>lt;sup>4</sup> The Questionnaire will be discussed in the following sections.

<sup>&</sup>lt;sup>5</sup> The researcher conducted several interviews with key persons who work as managers and consultants in the field of business incubation and development as well as in business financing. The first interview was with the business consultant at IUG (Annex 9.4a). The second interview was with the business consultant at the ICT incubator at IUG (Annex 9.4b). The third interview was with the coordinator of the ICT incubator at IUG (Annex 9.4c). He also studied their reports and some of their valuable publications.

<sup>&</sup>lt;sup>6</sup> The researcher arranged a site visit to the ICT business incubator at the IUG.

<sup>&</sup>lt;sup>7</sup> The researcher visited the websites of the ICT incubator and made personal contacts with officials working on it. He analyzed the business reports and publications of both.

#### 4.6.2 Focus Groups & Workshops:

Focus groups<sup>8</sup> and workshops<sup>9</sup> are useful tools for direct communication between the researcher and the targeted responders. They enable the researcher not only to get needed information but also to read facial expressions and hence plan new questions for better understanding of the researched problem. They are useful tools to share opinions between different parties (professionals, experts, beneficiaries...) over an issue with a common interest.

#### 4.6.3 Questionnaire:

Practically, the researcher gets the lecturing schedules of the selected students and made the required arrangements with their teachers who agreed to assign part of their lectures at the end of the academic semester for filling the questionnaire. The students were encouraged by the researcher and their teachers to participate. They were asked to read the instructions carefully and fill personal information first. Then, they were asked to answer the questions section by section.

The number of distributed questionnaires was (550), while the number of collected questionnaires was 451 with a response rate of (82%). All collected questionnaires were coded onto the computer.

#### 4.7 Questionnaire Construction:

The questionnaire was built taking into consideration the results of interviewing experts who deal with the subject at different levels, focus groups, and workshops. It was also based on an extensive review of the literature and after collection, reviewing, and formalizing of all information that help in achieving the study objectives. The questionnaire was developed after many stages of brainstorming, consulting, amending, and reviewing executed by the researcher with the supervisor. It was also introduced with an opening paragraph explaining the purpose of the study, the aim of the research, and the security of the information in order to encourage high response rate. It was designed in Arabic (Annex9.1b) for the purpose of clarity and to be more understandable from the students. An English version was developed and attached in (Annex9.1a). Unnecessary personal data, complex and duplicated questions were avoided.

The developed questionnaire consists of ten parts as explained in the following points:

- 1. The first part consists of personal information including faculty, academic specialization, sex, marital status, place of birth, and place of residence.
- 2. The second part depicts information about parents of the respondent in terms of education, occupation, and total income.
- 3. The third part is about work priorities and the ability to work with others. It consists of eight items.

<sup>&</sup>lt;sup>8</sup> The researcher was part of a focus group about the priorities of business incubation in the Gaza Strip from the viewpoint of representatives of industrial unions and syndicates (Annex 9.3).

<sup>&</sup>lt;sup>9</sup> The researcher organized two workshops to examine the business incubation priorities in the Gaza Strip. The first was from the viewpoint of officials from governmental, NGOs (Annex 9.2a), and private sectors. The second was from the viewpoint of Business men, experts, donors and business owners (Annex 9.2b).

- 4. The fourth part contains eleven items and is about the characteristics of an entrepreneur from the perspective of the respondent.
- 5. The fifth part contains twenty one items and explores the respondent self evaluation in regard to innovation, business & managerial skills.
- 6. The sixth part consists of ten items and aims at exploring the respondent self evaluation in regard to Independence & internal locus of control.
- 7. The seventh part consists of twelve items and explores respondent self evaluation in regard to self confidence & communication skills.
- 8. The eighth part consists of fifteen items and explores the respondent self evaluation in regard to need for achievement, motivation & commitment.
- 9. The ninth part examines the knowledge, information, and viewpoints which respondents have in regard to business incubators, provided services, training & development, exit criteria, preferred business sector, and coordination with other parties.
- 10. The last part is an open one and explores the respondent point of view about obstacles facing business incubators and new business development as well as the recommendations and efforts to tackle those obstacles.

It is worth mentioning the use of ordinal scale which is a tool to rank and rate data by using integers in ascending or descending order. The researcher used 5-degree Likert scale (1=very small extent, 5=very large extent). Table 4.3 depicts the used scale.

Item	To very large extent	To large extent	moderate	To Small extent	To very small extent
Scale	5	4	3	2	1

Table 4.3: Likert Scale used in the research

The fifth, sixth, seventh, and eighth parts of the questionnaire represents the four entrepreneurial factors being tested in the research. Table 4.4 depicts the four dimensions and the number of items in each one. These dimensions were developed by the researcher based on the literature in previous chapter and in light of the Palestinian context.

#	Dimension	# of items
1.	Innovation, Business & managerial skills.	21
2.	Independence & internal locus of control.	10
3.	Self confidence & communication skills.	11
4.	Need for Achievement, motivation, & commitment.	15

 Table 4.4: Entrepreneurial Factors (Dimensions)

## 4.8 Piloting:

The pretest points out weakness in wording and test the validity of the questions by measuring to which extent the concepts and the problems were familiar to the respondents (Backstorm and Hursh-Cesar, 1981). The piloting stage is very essential to measure the validity and reliability of the instrument and to test the reaction of a sample of respondents in regard to clarity, logic, and understanding of all phrases and sentences in the instrument. It is also worth mentioning the usefulness of piloting in estimating the time consumed in filling the questionnaire. The questionnaire consumed 15 - 20 minutes in this pilot study.
The pilot study was conducted by distributing the prepared questionnaire to a sample of 40 students from the potential respondents. As a result of this pilot, the researcher found some statements which need rephrasing and reformulating. The researcher discussed all comments with the supervisor before taking them into consideration. Some minor changes, modifications and reformulations were introduced to the questions and a modified version of the questionnaire was produced.

#### 4.9 Data Manipulation:

Before entering data to the computer, all questionnaires were overviewed and checked for completeness. All questionnaires were usable and no questionnaires were excluded. All questionnaires were given sequential numbers. One master questionnaire served as the coding reference for Data types. Then the researcher programmed an SPSS entry model by the help of an expert in the field. Then the questionnaires were entered onto the computer in sequence by the researcher. The researcher uses descriptive statistics for all variables to assure clean data.

#### 4.10 Data Analysis:

The researcher discussed the required types of analysis with the supervisor and also by consulting other one expert in the field. Hence, descriptive frequency tables were produced for the study variables. Statistical processes were introduced to compute other descriptive statistics such as MEANS and Standard Deviations for continuous numeric variables. The process was continued by making required tests to check reliability and validity of the instrument.

Data analysis was focused on identifying issues that may affect entrepreneurial characteristics of students and test their perceptions about entrepreneurship and business incubators in terms of provided technical & training services and incubation polices & criteria. Then advanced and much sophisticated tests were implemented to explore the potential relationships which may exist between variables. The following is a listing of the used tests in the statistical analysis:

- 1. Frequencies and percentile.
- 2. Pearson correlation coefficients for measuring validity of the items.
- 3. Split-Half Coefficient method for measuring reliability.
- 4. Pearson Coefficient.
- 5. Alpha Cronbach Test for measuring reliability of the items.
- 6. One- Sample Kolmogorov Smirnov test for normality of the distribution of data.
- 7. Mann-Whitney Test.
- 8. The Sign Test.
- 9. Chi Square Correlations coefficient.

#### 4.11 Psychometric properties of the questionnaire:

#### 4.11.1 Validity:

The validity of instrument is always stressed by researchers and regarded as one of the most important factors which give indications for acceptance of the research. Mark defines the validity as "the extent to which a measuring instrument measures what is supposed to measure" (Mark, 1996). Other researchers provided similar definitions and drew a connection between measurement and reliability. They tried to present the mutual importance of validity and relevance & simplicity. In the following subsections, three types of validity will be implemented to the instrument in the research.

### 4.11.2 Construct Validity:

Construct validity differs from content validity by focusing on the examination of the degree of fitness between conceptual definitions and operational definitions rather than on contents. So it tests the ability of the instrument to measure the hypothesis. The researcher uses the Pearson correlation method for testing the construct validity of each of the four dimension of entrepreneurship as depicted in the following tables.

Table 4.5 shows the Pearson coefficient and significance of the first factor (Innovation, Business, & Managerial Skills). The correlation of all items is significant at 0.01 levels.

#	Item	Pearson Coefficient.	P- value
1.	I take decisions after extensive study of the problem	0.467	0.000
2.	I monitor the implementation of solutions to assure effectiveness	0.386	0.000
3.	I have the ability to collect and analyze data	0.501	0.000
4.	I've the ability to take decision when ambiguous information available	0.483	0.000
5.	I've the ability to authorize others do something and monitor their work	0.554	0.000
6.	I have clear objectives and work to achieve them	0.546	0.000
7.	I have the ability to plan	0.559	0.000
8.	I can take the right decision and implement it regardless of challenges	0.526	0.000
9.	I can organize to finish my work in the available time	0.544	0.000
10.	I can easily lead working teams and directing people	0.624	0.000
11.	I always like Authority on others	0.474	0.000
12.	When I have an idea, I work on achieving it by searching & learning	0.559	0.000
13.	I have the required skills to write excellent CV	0.465	0.000
14.	I am able to present and market myself easily	0.604	0.000
15.	I have the ability to write an excellent business proposal	0.645	0.000
16.	I have the ability to manage a development project	0.690	0.000
17.	I have the skills required for writing a business plan	0.670	0.000
18.	I have excellent budgeting skills	0.664	0.000
19.	I have the ability to make visibility studies	0.660	0.000
20.	I often have unusual business ideas	0.555	0.000
21.	I always try to find creative solutions to problems	0.570	0.000

 Table 4.5: Pearson Coefficient & Significance (first dimension)

Table 4.6 shows the Pearson coefficient and significance of the second dimension. The correlation of all items is significant at the 0.01 level.

No.	Item	Pearson Coefficient	P- value
1.	I tend to start business because the family wants that.	0.502	0.000
2.	I tend to start my own business regardless of results	0.339	0.000
3.	Often, I wait to take the agreement from family and friends to do something important	0.583	0.000
4.	I rely on my father's decision to attend social events	0.525	0.000
5.	I hate go shopping for clothes alone	0.600	0.000
6.	I am afraid to disagree with others while debating	0.634	0.000
7.	I tend to business ideas tried by others	0.566	0.000
8.	I feel everything goes well and I can't make changes	0.633	0.000
9.	Luck plays the major role in projects success	0.541	0.000
10.	I feel, I won't find a suitable job after graduation	0.490	0.000

Table 4.6: Pearson Coefficient & Significance (second dimension)

Table 4.7 shows the Pearson coefficient and significance of the third dimension. The correlation of all items is significant at the 0.01 level.

No.	Item	Pearson Coefficient	P- value
1.	I can effectively communicate with others	0.589	0.000
2.	I always listen, analyze phrases and ideas, then responding logically	0.575	0.000
3.	I don't find it difficult to deal with people who have different opinions and viewpoints.	0.592	0.000
4.	I can keep good relations and gain respect of people with different opinions and viewpoints	0.589	0.000
5.	I initiate the speech with people I don't know before	0.602	0.000
6.	I like working in teams.	0.581	0.000
7.	I like sharing opinions with other people to find solutions for problems.	0.513	0.000
8.	I My colleagues and friends consult me in solving their own problems	0.628	0.000
9.	I can give people reasonable and logical solutions for solving their problems	0.648	0.000
10.	I always feel, people trust me & respect my opinions	0.668	0.000
11.	I feel that others understand my opinions and ideas.	0.649	0.000

 Table 4.7: Pearson Coefficient & Significance (third dimension)

Table 4.8 shows the Pearson coefficient and significance of the fourth dimension. The correlation of all items is significant at the 0.01 level.

No.	Item	Pearson Coefficient	P- value
1.	I find myself very committed and work hard to achieve my goals.	0.499	0.000
2.	I can overcome obstacles and difficulties of life	0.563	0.000
3.	I feel very committed when working with others to achieve my tasks and play my role positively.	0.489	0.000
4.	I am a risk taker and can take hard decisions	0.665	0.000
5.	I always develop my skills & feel responsible.	0.644	0.000
6.	I am very responsible toward family and community	0.540	0.000
7.	I tend to venturing in business and taking risk even when future is ambiguous	0.448	0.000
8.	I tend to conquer fear and go forward	0.588	0.000
9.	I like trying new varieties of foods and experience.	0.440	0.000
10.	Often, I feel satisfied about myself after finishing my current task	0.578	0.000
11.	I don't mind working long hours to achieve goals.	0.504	0.000
12.	I have the ability to expect problems before they happen.	0.392	0.000
13.	I always prefer to look in details	0.392	0.000
14.	I need to know the answer before asking the question	0.378	0.000
15.	When given a task, I do the right thing even when others don't agree	0.414	0.000

 Table 4.8: Pearson Coefficient & Significance (fourth dimension)

### 4.11.3 Content Validity (referee):

The content validity tests the degree at which the variable reflects the contents it seeks to measure. Hence, it comes after constructing the survey but before collecting data. It is about contents not about statistical analysis. It reflects different viewpoints of experts (referee) on the estimation of relevance, clarity, and completeness. The content validity was conducted by distributing the prepared questionnaire to seven experts having wide experience relevant to business development, entrepreneurship, and statistical analysis in order to get their comments.

The researcher collected, evaluated, and discussed these comments and suggestions with the supervisors and made the required modifications on the questionnaire in light of logical and valid suggestions and comments. So, minor changes and modifications were adopted and a final version of the questionnaire was constructed as depicted in Annexes (9.1a, 9.1b). Criteria of 80% acceptance among experts were used. So, the agreement of six out of seven was adopted.

#### 4.11.4 Reliability:

The reliability tests the consistency and stability of an instrument. In other words, it tests the degree of consistency which measures the attribute. Other researchers argue that, a measure is reliable if it gives the same results each time the situation or the factor is measured. Two tests can be used to measure the consistency of the questionnaire. The first test is the Half Split Method and the second is Cronbach's Coefficient Alpha. Table 4.9 presents the Split–half Coefficient for the four dimensions being tested in the questionnaire.

No.	Dimension	Split –half Coefficient	# of items
1.	Innovation, Business & managerial skills.	.784	21
2.	Independence & internal locus of control.	.626	10
3.	Self confidence & communication skills.	.728	11
4.	Need for Achievement, motivation, & commitment.	.701	15

Table 4.9: Split -half Coefficient for the four dimensions

Table 4.10 presents Cronbach's Coefficient Alpha for the four dimensions being tested in the questionnaire.

No.	No. Dimension		# of
		Alpha	items
1.	Innovation, Business & managerial skills.	.891	21
2.	Independence & internal locus of control.	.730	10
3.	Self confidence & communication skills.	.821	11
4.	Need for Achievement, motivation, & commitment.	.781	15

Table 4.10: Cronbach's Coefficient Alpha for the four dimensions

### 4.12 Eligibility Criteria:

#### 4.12.1 Inclusion Criteria:

- All students in their final year of academic study of bachelor education, and
- Registered at one of the targeted Faculties (Commerce, English program in business & accounting, Information Technology, and Engineering), and
- Registered in the second semester of the academic year 2008/2009.
- Students showing acceptance to participate.

### 4.12.2 Exclusion Criteria:

- Students refused to participate or students from outside the assigned faculties.
- Students from the assigned faculties but not in their final year of study.
- Students from the assigned faculties, who are not registered in the second semester of academic year 2008/2009.

# 5 Chapter Five: Primary Indicators of collected data

This chapter presents the results of the primary statistical analysis of the collected data based on the student's responses. Analysis of data will be done by using descriptive statistics method which provides a general overview of results. It explains the results without going into details and gives primary indications and implication for the deep analysis in the next chapter. The chapter will discuss a lot of important things such as analysis of demographic variables, family data, job priorities, motivations behind establishing businesses, and the most required resource for establishing the business. It will also discuss and examine the perceived personal profile, skills and characteristics of an entrepreneur. Business, managerial, and communication skills will be examined in addition to examining the availability of innovativeness, independence, internal locus of control, self-confidence, need for achievement, commitment, and propensity to take risk. The last sections will discuss business incubators in terms of the provided services, offered training services, partnership mechanisms, exit criteria, preferred sector, and suitable place for holding the incubator.

## 5.1 Analysis of Personal Data

The analysis in this section is related to the basic data providing information about the faculties and specializations of the students. It also analyzes other personal data such as gender, marital status, place of residence, place of birth, and order in family. Figure 5.1 shows the distribution of students to the four targeted faculties.



Figure 5.1: Distribution of students on selected faculties

37.25% of the students belong to the engineering faculty, 30.38% belongs to the commerce faculty, 19.51% belongs to the English programs at the commerce faculty, and 12.86% belongs to the IT faculty.

Table 5.1 shows the distribution of students to the specializations within Faculties. The civil engineering represents the biggest percentage (13.1%) of the specializations within the engineering faculty and all over the table. The communication & control represents the smallest percentage (4.7%) within the engineering faculty and all over the table. Other specializations are in between. All percentages can be explained in the same way and are self explanatory.

Faculty	Specialization	Frequency	Percent	Cumulative Percent
Engineering	Computer Engineering	40	8.9	8.9
	Civil Engineering	59	13.1	22.0
Communication & Control		21	4.7	26.6
	Industrial Engineering	48	10.6	37.3
Information	Information Systems	34	7.5	44.8
Technology	Software Development	24	5.3	50.1
Commerce	Finance	48	10.6	60.8
	<b>Business Administration</b>	55	12.2	72.9
	Accounting	34	7.5	80.5
Commerce/	Accounting Eng	36	8.0	88.5
English Business Administration Eng		52	11.5	100.0
		4.5.1	100.0	
Total		451	100.0	

Table 5.1: percentage of the academic specialization over the sample

Figure 5.2 shows the distribution of sample in males and females and the marital status of the respondents. The males represent 52.55% of the total sample, while the females represent 47.45%. Most of the students are single (89.53%). The married students represent 10.24% of the sample, while the divorced represents less than 1%.



Figure 5.2: Gender & Marital status of the sample

Figure 5.3 refers to the place of residence (Governorates) of all students as well as the residency in towns, villages, rural, or in other places. The majority (58.93%) live in Gaza Governorate. The southern governorates come in the second place (21.21%), and the middle governorates comes in the last place (8.48%), while northern governorates comes in between with (11.38%). It also shows that 74.72% of the students live in the

town, while 18.22% live in the village. 4.10% live in the rural areas, while 2.96% live in other places.



Figure 5.3: Place of Residence for the sample

Figure 5.4 shows the students according to their birth order in their families. 24.19% of the students come as the first child in their family. 21.89% come as the second child, while the third and fourth children represent 17.97% and 18.66% respectively. From the fifth to the tenth represent less than 20%. It also shows that 66.59% of the students were born in Palestine, while 32.74% were born in Arab countries, and 0.67% were born elsewhere.



# 5.2 Analysis of Family Data:

The analysis in this section is about the parents of the students in terms of academic qualifications they have and their current occupation. The average income of the family is also analyzed.

Figure 5.5 shows the education level of the parents. The greatest numbers of fathers have a bachelor degree (46.41%), while a percentage of (2.91%) of the fathers are illiterate. Fathers who have only secondary education certificate represent 26.01% of the total sample and other levels are in between. Nearly half of the mothers have a

secondary education certificate (51.02%), while a percentage of (4.97%) of the mothers are illiterate. (25.51%) of mothers has a bachelor degree. Other levels are in between.

- It is worth mentioning the following comments on the percentages:
  - The percentages of illiteracy among fathers (2.91%) and mothers (4.97%) are below the average percentage (7.6%) cited by the Arab Human Development Report (2009).
  - The percentages of bachelor degree holders among mothers (25.51%) is less than the percentage among fathers (46.41%) which reflect the effect of Palestinian culture in the eighties which didn't value tertiary education for women.
  - The percentage of master degree holders among fathers (9.64%) is greater than the percentages among mothers (2.48%) which also reflect cultural issues. Women takes care of children and can't travel alone to continue their higher studies.



Figure 5.6 shows the occupation of parents. (35.94%) of the fathers are employed by the government or the UN, while a percentage of (10.94%) of them are employed by the private sector. Other levels are in between. More than three quarters of the mothers (76.79%) are unemployed, while a percentage of (1.12%) of the mothers has their own work. Other levels are in between.



The researcher has the following comments regarding the occupation of parents:

• The percentage of unemployed mothers is (76.79%) which is high in comparison to fathers (18.30%). This difference reveals that the Palestinian society is

dominated by men and also the Palestinian culture and traditions don't encourage the work of women.

- The greatest percentage of fathers (35.94%) and that for women (14.73%) are employed by the government or buy the UNRWA. Employment by UNRWA or by government is considered as a lifelong job and provides job security. So, it is the most preferred job in Gaza Strip.
- (12.5%) of fathers and only (1.12%) of mothers has their own business.

Figure 5.7 shows percentages of the average income of the family. The following are some comments:

- (38.95%) of the families has an average income of (2000-5000 NIS) which indicates the estimated percentage of the middle class of Palestinian people.
- The average income of (10.48%) of families is above (5000 NIS) which is over middle class.
- (31.89%) of the parents has an average income of (1000-2000 NIS) which is less than middle class.
- (18.68%) of the families are very poor and has income less than 1000 NIS.



Figure 5.7: Average Income of the Family

# 5.3 Analysis of Job Preferences:

Table 5.2 reflects the students' opinions regarding job preferences and the motivation behind establishing own business. The following are some comments about job preference (first item):

- (32.1%) of respondents prefer to work in governmental sector or to be employed by UNRWA which reflects the tendency of them to have a secure job with known monthly payments. These students are considered not to be entrepreneurs because they don't like risk and prefer job security.
- (24.1%) of respondents prefer to establish their own business after graduation. These students are regarded as entrepreneurs because they are ambitious and risk takers in a fragile economy like the Palestinian economy. They prefer to be self employed and to be their own bosses. The focus of the deep analysis in the next

chapter will differentiate between them and between others and make comparisons based on this classification.

• (21.4%) prefer to be employed by a private company and (19.4%) prefer to travel outside Gaza which reflects their desire for a stable economy and political environment.

#	Item	Choices	Frequency	Percent
1.	Which of the following	Government / UNRWA	144	32.1
	Sectors do you prefer to	Own Business	108	24.1
	work with?	Private Company	96	21.4
		Outside Palestine	87	19.4
		Others	13	2.9
2.	If you were given the	Professional Football Player	24	5.3
	choice, what of the	Sales Man	48	10.6
	tollowing professions	Personal Counseling	107	23.7
	would you choose.	University / School Teacher	53	11.8
		Own Business	193	42.8
		Others	24	5.3
3.	Which of the following is	Self Satisfaction	235	52.1
	your primary motivation	Money & Wealth	58	12.9
	to start a business?	to be famous	8	1.8
		Independence	71	15.7
		Nation love	70	15.5
		Others	6	1.3
4.	Which ingredient do you	Finance & Money	204	45.2
	consider necessary for	Customers availability	17	3.8
	starting a business?	Suitable & applicable idea	61	13.5
		Motivation & hard work	77	17.1
		Supporting Environment	79	17.5
		Others	11	2.4

Table 5.2: Different	perspectives of Job Priorities
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Comments about the job preference based on internal tendency (second item) which aims at testing the tendency of students while referring to their competencies:

- The smallest percentage (5.3%) of the respondents prefers to be football players which indicate their tendency to be famous.
- (10.6%) of the respondents prefer to work as salesmen which reflect their abilities in convincing people and that they have excellent communication skills.
- (23.7%) of respondents prefer to work as consultants which refers that they have excellent analytical skills.
- (11.8%) of respondents prefer working as university or school teachers which reflect their tendency toward education and scientific research.
- (42.8%) choose to establish their own business which means they have the desire and intention to be their own boss.

The **third item** is very important because it reflects the primary motivation of students for starting their own business. The following are some comments:

- The greatest percentage of respondents (52.1%) has the desire to establish their own business because they want to be self satisfied and to make themselves.
- Money and wealth were the primary motivators of (12.9%) of respondents to establish their own business.
- The smallest percentage was (1.8%) and represent respondents who see that fame and reputation are the primary motivations to start their own business.
- (15.7%) of respondents seek independence. These students are the closest to the entrepreneurship.
- (15.5%) of respondents put their country first and want to establish their business to serve their community. They are nationalist and value the prosperity of their nation and country.

The **fourth item** aims at detecting primary indicators about the degree of importance of some required resources for establishing new businesses. The following are some comments in this regard:

- Finance and availability of money were the main requirements for starting business as shown by (45.2%) of the responses. This reflects weaknesses of financial system and the Palestinian economy as a whole.
- (3.8%) of respondents value the availability of customers and suitable market to sell their products and goods. They think strategically and have strategic insight.
- (13.5%) of the respondents value the availability of an applicable idea. They think in the first stage of the new venture development.
- (17.1%) of respondents value the motivation and hard work. They depend on their competencies and abilities primarily and see the commitment to establish goals as the most important.
- (17.5%) of respondents value the supporting environment at most. They need a suitable legal system, political stability, raw materials availability, and encouragement from official institutions.

The previous discussion of items shows in general a reasonable tendency of students for starting their own business and reflects a general understanding of the business environment.

### 5.4 Behavior when work with other People:

Table 5.3 presents the student's responses in regard to their distinguishing characteristics and behavior with other people. The **first item** aims at testing how students value themselves when compared to others. The following comments are worth mentioning:

- (35%) of the respondents show that their ability to plan and prioritize their work and tasks are the personal characteristics which distinguish them from other people. This characteristic draws the attention to strong managerial skills of respondents.
- (20.4%) of the students see that achievements & reputation are the most distinguishing characteristics. This characteristic reflects the focus on the outcomes.

- Punctuality and being on time is the most distinguishing characteristics as seen by (12.4%) of the respondents. This characteristic reflects a point of the discipline.
- (23.1%) of the respondents choose the pro-activity, motivation & perseverance as the most distinguishing characteristic which reflects higher degrees of commitment and focus on traits rather than skills.
- Practical skills & experience were chosen by only (6.2%) of respondents. This reflects the reality that the students lack the practical experience. They are still students and the majority of them didn't work before.

#	Item	Choices	Frequency	Percent
1.	Which	Planning & Prioritizing	158	35.0
	characteristics do	Achievements & Reputation	92	20.4
	you have, that distinguish you from	being on time	56	12.4
	others?	Pro-activity, Motivation, & Perseverance	104	23.1
		Practical skills and experience	28	6.2
		Others	10	2.2
2.	How do you behave	life of the party	313	69.4
	n cocktail parties?	never go to parties	45	10.0
		never know what to say	31	6.9
		just fit into the crowd	53	11.8
3.	When do you enjoy	clear & meaningful role	196	43.5
participating with other people?		even when you have nothing planned	7	1.6
		when can do something different & new	181	40.1
		when volunteering or helping others	61	13.5
4.	When playing a	how to play well	148	32.8
	competitive game,	to be the winner	86	19.1
	what concerns you most?	both one & two	177	39.2
most <i>:</i>		don't care	31	6.9

#### Table 5.3: Behavior when work or being with others

The **second item** aims at testing the availability of social characteristics of the students and if they prefer contacting other people and organizing collective events. The following are some comments on the responses in this regard:

- When participating in a cocktail party and shred activity, (69.4%) of the students described themselves as the life of the party. This reflects a high degree of social skills and strong abilities in organizing and managing events.
- (11.8%) of respondents don't have the ability for excellent communications. They only fit into the crowd. Other (6.9%) don't know what to say, thus they are the same style.
- (10%) don't go to the party so they have very low social skills and can't do the job if it requires communicating others.

The **third item** aims at detecting how students perceive their roles when they participate with others. The following points summarize their responses:

• (43.5%) prefer to participate when they have a clear & meaningful role to play. They prefer to cooperate with others and have defined tasks and specific role.

- A similar (in the range) percent of (40.1%) prefer to participate when they can do something different and new. These respondents are more innovative because they value the creativity and want to leave a positive impact and effect on the others. They don't just want a role but they need to play a distinguished role.
- (13.5%) of respondents prefer to support others and play a social role by helping others and offering a voluntary work.
- Only (1.6%) of respondents enjoy being with others just for enjoyment. They are enjoyed even if they don't have a specific role to play. This is a reasonable percentage.

The **fourth item** aims at detecting what do students value at most the final outcomes (results) or they are very concerned with the means by which they are going to achieve their goals. The following are some comments on this item:

- (32.8%) of the respondent are concerned with the means by which they will achieve their results. The think in the process itself and account for every step and plan for every resource.
- (19.1%) of them value being the winner and how to achieve the final results. They don't take care of the means but to achieve the final results regardless of other things.
- (39.2%) prefer to take care of both the final results and how to achieve those results. This is very important to the success of businesses and achieves benefits for both the society and the individual.
- (6.9%) don't care about achieving the final results and the used means in this regard. They don't have a clear viewpoint.

The previous discussion reveals different responses of the students regarding their most distinguishing characteristics. The ability to plan and prioritize work was the most distinguishing characteristic. To be life of the party has the greatest percentage when participating in cocktail parties which reflects high organizing skills. The most enjoying characteristics according to respondents were: having a meaningful role and the ability for making innovative and creative things when participating with others. To play well and to win the game were very important to students which reflect concern about achieving the results with the suitable means.

# 5.5 Student's perception about entrepreneurial characteristics:

Table 5.4 presents the viewpoints of students regarding age characteristics and academic qualifications owned by typical entrepreneur. It also contains valuable information about the perception of students regarding individuals who have the greatest influence on entrepreneurs and how entrepreneurs are related to managers, planners, and venture capitalists.

The following are some comments on the student's responses of the **first item**:

- (70.1%) of the students believe that the birth order of individual in his family is not important to classify him as entrepreneur. It doesn't matter if individual is the oldest or the youngest child in the family. This reflects a respondent's belief that entrepreneurial skills could be developed and entrepreneurs are not born they could be made.
- (20.6%) see that the oldest child is most likely to be entrepreneur maybe because they believe that oldest children have extra care from their parents.

• The other two choices represent less than 10%.

#	Item	Choices	Frequency	Percent
1.	An entrepreneur is most	oldest	93	20.6
	commonly the Child in	youngest	5	1.1
	the family	middle	33	7.3
		not important	316	70.1
2.	An entrepreneur is most typically	women	10	2.2
	a:	man	173	38.4
		doesn't matter	260	57.6
3.	An entrepreneur begins its first	twenties	167	37.0
	business at age:	thirties	252	55.9
		forties	23	5.1
		fifties	3	.7
4.	Usually, an individual's	less than 15 years	45	10.0
	entrepreneurial tendency appears	from 15 to 20	115	25.5
	evident at age:	from 21 to 30	234	51.9
		from 31 to 40	47	10.4
		from 41 to 50	1	.2
5.	Typically, an entrepreneur has an academic degree of:	secondary or less	19	4.2
		Bachelor	270	59.9
		Master	84	18.6
		above master	64	14.2
6.	The individual, who has the	family	280	62.1
	greatest influence on the entrepreneur is:	school teacher	23	5.1
		university teacher	46	10.2
		friends	95	21.1
7.	Entrepreneurs are best as:	managers	52	11.5
		planners	61	13.5
		Venture capitalists	49	10.9
		dowers	63	14.0
		all previous	221	49.0
8.	Entrepreneurs are:	Venture capitalists	55	12.2
		rational venture capitalists	343	76.1
		Non venture capitalists	11	2.4
		doesn't matter	38	8.4

Table 5.4: Age & Academic Characteristics of an Entrepreneur

The following are some comments about gender of entrepreneurs (second item):

- (57.6%) believe that gender doesn't matter for the individual to be an entrepreneur. It doesn't matter if individual is a woman or a man.
- (38.4%) of respondents believe that an entrepreneur is most likely a man, while only (2.2%) of them see that an entrepreneur could be a woman. These percentages reflect cultural issues and the social domination of men.

The following are some comments about the **third and fourth** items which aim at detecting the age at which entrepreneurs tend to start their own businesses and also the age at which entrepreneurial tendency begin to appear:

- A percentage of (55.9%) of the respondents believe that most entrepreneurs start their own businesses at the age of thirties and (37%) of them believe that the thirties is the most suitable age for an entrepreneur to start his/her business. Ages of forties and fifties have very low percentages. The previous percentages reflect the belief that people of thirties has completed at least their bachelor or higher studies, gain experience in their work, and have relations with officials and financial institutions which enable them to start and operate a business.
- The entrepreneurial tendency appears at the age from 21-30 as reflected by (51.9%) of the respondents. The age from 15-20 was selected by (25.5%) of respondents. These percentages show that more two thirds of respondents believe that entrepreneurial tendency appears in the ages from 15-30. ages less than 15 years and greater than 30 years were chosen by only (10%) each.

The following are some comments about the academic degree an entrepreneur is most likely to have:

- Regarding the academic degree supposed to be owned by entrepreneurs, (59.9%) choose the bachelor degree.
- (18.6%) and (14.2%) see that entrepreneurs supposed to have master degree or above master degrees respectively.

The choices reflect a logical response based on the perception that bachelor and higher academic degrees strengthening the knowledge base of the entrepreneurs and present role models of successful entrepreneurs.

The following are some comments about the individual or group of individuals who has the greatest influence on entrepreneurs:

- (62.1%) believe that family has the greatest influence on entrepreneurs. This choice reflects that Palestinian people value their families well and have strong relations with their parents.
- Friends are also influencing entrepreneurs as seen by (21.1%) of respondents.
- University teachers and school teachers have little influence on entrepreneurs as seen by (10.2%) and (5.1%) of respondents respectively. This choice shows that teachers at universities and schools don't influence the entrepreneurial intention of students which is related to weaknesses in topics of study and abilities of teachers.

The seventh and eighth items aim at examining to whom students relate entrepreneurs at most. The following are some comments:

- (49%) of the respondents regard entrepreneurs as cocktail of managers, planners, and venture capitalists, (13.5%) regards entrepreneurs as planners, (11.5%) see entrepreneurs as managers, and (10.9%) see them as venture capitalists.
- (76.1%) of them believe that the entrepreneur is acting as a rational venture capitalist which reflect an understanding of the behavior of entrepreneurs. (12.2%) of respondents regard entrepreneurs as venture capitalist. These percentages reveal that entrepreneurs are risk takers. Other responses are odd; only (2.4%) of respondents see entrepreneurs as non venture capitalists and (8.4%) doesn't care.

Previous discussion reveals that, for an individual to be an entrepreneur, majority of students (70.1%) don't value birth order and being the oldest or youngest child in the family. Thus, they see that entrepreneurs are made not born. (57.6%) of them belief that gender doesn't matter while (38.4%) see men are most likely to be entrepreneurs. Individuals at ages of twenties and thirties are most likely to establish their first own businesses and entrepreneurial characteristics begin to appear in the ages from 15-30. an entrepreneur is supposed to have a bachelor degree or above.

Family has the greatest influence on entrepreneurs as perceived by respondents which reflect the importance of family in the Palestinian culture.

Entrepreneurs are seen as a mix of managers, planners, dowers, and venture capitalists which reflects an understanding from respondents that entrepreneurs are required to have a cocktail of qualities and traits. The majority of respondents see entrepreneurs as rational venture capitalists which reflect that they take calculated risk.

# 5.6 Evaluation of Innovation, Business & Managerial Skills:

The following paragraphs aim at evaluating the skills and qualities of respondents as listed in the first entrepreneurial dimension.

### 5.6.1 Managerial Skills:

Table 5.5 shows that the overall mean of all responses of self evaluation score in managerial skills (maximum 5) is 3.7, which reflects a (74%) of agreement. This average score reveals that the students tend to have good levels of managerial skills needed to operate a business with different degrees.

#	Item	Sign Value	Mean	Weighted Average	Very Small extent	Small extent	Neutral	Large extent	Very Large extent
1.	I take decisions after extensive study of the problem	.000	3.83	76.6%	0	20	133	197	96
2.	I monitor the implementation of solutions to assure effectiveness	.000	3.93	78.6%	1	9	108	231	98
3.	I've the ability to collect & analyze data	.000	3.52	70.4%	6	35	186	162	58
4.	I have the ability to take decision even when ambiguous information available	.000	3.27	65.4%	14	75	181	128	47
5.	I have the ability to authorize others to do something and monitor their work	.000	3.70	74%	8	27	140	186	84
6.	I work to achieve them clear objectives	.000	3.95	79%	3	28	89	197	131
7.	I have the ability to plan	.000	3.68	73.6%	6	35	141	182	84
8.	I can take the right decision and implement it regardless of challenges	.000	3.87	77.4%	5	22	111	196	112
9.	I can organize to finish my work in the available time	.000	3.52	70.4%	8	47	165	158	68
10.	I can easily lead working teams and directing people	.000	3.66	73.2%	8	33	140	188	77
11.	I always like Authority on others	.000	3.64	72.8%	18	48	113	163	103
12.	When I have an idea, I work on achieving it by searching & learning	.000	3.88	77.6%	7	26	91	202	110
	Total		3.7	74%					

Table 5.5: Evaluation of Managerial Skills

The sign test for all items reflects that the mean is significantly differing from the cut point (3).

Items (1, 2, 5, 6, 8, & 12) are above the average which reflects the following comments:

- Items (1), (8) refer to above mean values (77%) in problem analysis & decision making.
- Items (2), (5) refer to above mean value (76.5%) in monitoring.
- Item (6) refers to above mean value (79%) in owning a strategic vision.
- Item (12) refers to above mean value (77.6%) in searching and learning.

Items (3, 4, 7, 9, 10, and 11) are under the average with the following details:

- Item (3) refers to under mean value (70.4%) in collecting & analyzing data.
- Item (4) refers to under mean value (65.4%) in critical thinking.
- Item (7) refers to under mean value (73.6%) in planning.
- Item (9) refers to under mean value (70.4%) in time management
- Item (10) refers to under mean value (73.2) in team work & coaching
- Item (11) refers to under mean value (72.8%) in delegating work.

Obviously, the students need to improve their skills in critical thinking, data collection & analysis, and time management. These skills represent weaknesses for the students and need to be eliminated by training or counseling or any other suitable means. Other skills could be strengthened and developed for excellent levels.

## 5.6.2 Business Skills:

Table 5.6 shows that the overall mean of all responses of self evaluation score in business skills (maximum 5) is 3.2 which reflects a (64%) of agreement. This average score reveals that the students tend to have satisfactory levels of business skills needed to operate a business with different degrees.

#	Item	Sign Value	Mean	Weighted Average	Very Small extent	Small extent	Neutral	Large extent	Very Large extent
1.	I have the required skills to write excellent CV	.000	3.58	71.6%	11	43	147	164	79
2.	I am able to present and market myself easily	.000	3.59	71.8%	7	41	146	180	69
3.	I have the ability to write an excellent business proposal	.227	3.06	61.2%	18	104	186	103	32
4.	I have the ability to manage a development project	.007	3.13	62.6%	22	6886	182	110	38
5.	I have the skills required for writing a business plan	.163	3.05	61%	26	98	174	109	32
6.	I have excellent budgeting skills	.030	2.92	58.4%	35	107	187	79	32
7.	I have the ability to make visibility studies	.052	3.10	62%	33	94	153	108	47
	Total		3.2	64%					

Table 5.6: Evaluation of Business Skills

The following are some comments about student's responses:

- Items (1), (2) refers to above mean values (71.7%) in writing CVs and self presenting & marketing.
- Item (3) refers to under mean value (61.2%) in writing business proposals. This value doesn't differ significantly from the cut point.
- Item (4) refers to under mean value (62.6%) in managing projects.
- Item (5) refers to under mean value (61%) in writing business plans. This value doesn't differ significantly from the cut point.
- Item (6) refers to under mean value (58.4%) in budgeting skills.
- Item (7) refers to under mean value (62%) making visibility studies. This value doesn't differ significantly from the cut point.

The previous presentation of results refers clearly to different levels of weak business skills. All business skills need to be improved and reflect problems in academic plans and offered courses at IUG.

#### 5.6.3 Innovation & Creativity:

Table 5.7 shows that the overall mean of all responses of self evaluation score in innovation & creativity (maximum 5) is 3.58, which reflects a (71.6%) of agreement. This average score reveals that the students tend to have good levels of innovation & creativity needed for establishing and operating a business with different degrees. The following are some comments about student's responses:

#	Item	Sign Value	Mean	Weighted Average	Very Small extent	Small extent	Neutral	Large extent	Very Large extent
1.	I often have unusual business ideas	.000	3.44	68.8%	16	59	153	149	68
2.	I always try to find creative solutions to problems	.000	3.71	74.2%	12	32	125	179	96
	Total		3.58	71.6%					

 Table 5.7: Evaluation of Innovation & Creativity

- Item (1) is under average and reflects a (68.8%) level in innovation.
- Item (2) is above the average which refers to a (74.2%) in creativity.

Tools for improving innovation & creativity will be discussed in later chapters

As a conclusion for the first dimension of entrepreneurship, students show different levels managerial skills. They need to improve their managerial skills especially in managing their times, collecting and analyzing data, and in critical thinking. Business skills in general are weak and need to be improved which will provide students with tools to improve their tendency to start and operate a business. Innovation & creativity is moderate.

# 5.7 Evaluation of Independence & Internal Locus of Control:

The following paragraphs aim at evaluating the qualities of respondents as listed in the second entrepreneurial dimension.

### 5.7.1 Degree of Independence:

Table 5.8 shows that the overall mean of all responses of the score of "Independence" (maximum 5) is 3.07, which gives a percentage of (61.4%). This average score reveals that the students tend to have satisfactory levels of independence with different degrees.

The following are some comments about student's responses:

- Item (1) refers to above mean value (65.8%) of independence from family in starting business.
- Item (2) refers to under mean value (61.2%) of independence from family & friends in doing important things.
- Item (3) refers to under mean value (61%) of independence in making decisions.
- Item (4) refers to under mean value (59.2%) of independence in achieving personal requirements.
- Item (5) refers to under mean value (60%) of independence in founding and creating new ideas.

The values of the items from item (2) to item (5) don't differ significantly from the cut point.

#	Item	Sign Value	Mean	Weighted Average	Very Small extent	Small extent	Neutral	Large extent	Very Large extent
1.	I tend to start business because the family wants that.	.000	3.29	65.8%	77	112	147	78	30
2.	Often, I wait to take the agreement from family and friends to do something important	.056	3.06	61.2%	51	118	133	86	54
3.	I rely on my father's decision to attend social events	.117	3.05	61%	68	99	127	75	70
4.	I hate go shopping for clothes alone	.455	2.96	59.2%	71	85	120	73	86
5.	I tend to business ideas tried by others	.452	3.00	60%	41	96	165	102	38
	Total		3.07	61.4%					

Table 5.8: Evaluation of Independence & Internal Locus of Control

The previous responses reveals low levels of independence in taking crucial decisions such as starting new business and in finding new creative ideas. They show a remarkable percentage of dependence on family or friends. These findings are connected to the Palestinian culture in which family is responsible to the behavior and future of its children. So, family is responsible for feeding, spending money for education and for every step of its children.

### 5.7.2 Degree of Internal Locus of Control:

Table 5.9 shows that the overall mean of all responses of the score of "Internal Locus of Control" (maximum 5) is 2.99, which gives a percentage of (59.8%). This average score reveals that the students tend to have dissatisfactory levels of internal locus of control with different degrees. The following are some comments about student's responses:

- Item (1) refers to above mean value (67%) of intention to start business.
- Item (2) refers to under mean value (51.4%) of fear in making debates.
- Item (3) refers to under mean value (57.6%) of control things around them.
- Item (4) refers to above mean value (61.2%) of controlling & monitoring business projects. This value doesn't differ significantly from the cut point.
- Item (5) refers to above mean value (61.8%) of shaping their future. This value doesn't differ significantly from the cut point.

#	Item	Sign Value	Mean	Weighted Average	Very Small extent	Small extent	Neutral	Large extent	Very Large extent
1.	I tend to start my own business regardless of results	.000	3.35	67%	77	124	141	79	22
2.	I am afraid to disagree with others while debating	.000	2.57	51.4%	28	50	129	120	112
3.	I feel everything goes well and I can't make changes	.001	2.88	57.6%	34	67	189	113	37
4.	Luck plays the major role in projects success	.232	3.06	61.2%	61	103	126	101	49
5.	I feel, I won't find a suitable job after graduation	.051	3.09	61.8%	68	92	146	72	59
Í	Total		2.99						

Table 5.9: Evaluation of Internal Locus of Control

The responses of respondents reveal that students don't have a strong internal locus of control. They don't have the courage to defend their arguments when debating, they can't affect things around them, and they can't shape their future and let things just happen. These results are direct results of the social and political environment in Palestine where people live under occupation and are very frustrated because of unemployment and devastated economy.

As a conclusion for the second dimension, students show weak responses regarding independence. They depend on family & friends in taking crucial decisions. They also don't have the feeling of owning and controlling their future as they like. The overall result in this dimension reveals the Palestinian culture and traditions which value the family and make children depend on their families when taking crucial decisions.

# 5.8 Evaluation of Self-confidence & Communication Skills:

The following paragraphs aim at evaluating the qualities of respondents as listed in the third entrepreneurial dimension.

#### 5.8.1 Degree of Self-confidence:

Table 5.10 shows that the overall mean of all responses of the score of "Self-confidence" (maximum 5) is 3.84, which gives a percentage of (76.8%). This average score reveals that the students tend to have good levels of Self-confidence with different degrees. The following are some comments about student's responses:

- Item (1) refers to under mean value (74.2%) of confidence in dealing with difficult & different types of people.
- Item (2) refers to above mean value (78%) of confidence in solving problems for other people.
- Item (3) refers to under mean value (75%) of confidence in giving right solutions to problems.
- Item (4) refers to above mean value (80.6%) of confidence in offering sincere opinions and gaining respect.
- Item (5) refers to under mean value (76.6%) of confidence in convincing people of opinions & ideas.

#	Item	Sign Value	Mean	Weighted Average	Very Small extent	Small extent	Neutral	Large extent	Very Large extent
1.	I don't find it difficult to deal with people who have different opinions and viewpoints.	.000	3.71	74.2%	8	32	122	192	84
2.	My colleagues and friends consult me in solving their own problems	.000	3.90	78%	3	18	120	175	121
3.	I can give people reasonable and logical solutions for solving their problems	.000	3.75	75%	5	24	130	196	83
4.	I always feel, people trust me & respect my opinions	.000	4.03	80.6%	3	12	82	214	129
5.	I feel that others understand my opinions and ideas.	.000	3.83	76.6%	8	23	106	204	99
	Total		3.84	76.8%					

Table 5.10: Evaluation of Self-confidence

The previous discussion shows that students have a comfortable feeling about their abilities in convincing people and gaining their respect and confidence. They feel they can offer reasonable and logical solutions to the offered problems and provide help for others.

### 5.8.2 Communication Skills:

Table 5.11 shows that the overall mean of all responses of the score of "Communication Skills" (maximum 5) is 3.83, which gives a percentage of (76.6%). This average score reveals that the students tend to have good levels in communication skills with different degrees. The following are some comments about student's responses:

- Item (1) refers to above mean value (80.4%) of ability to communicate effectively with other people.
- Item (2) refers to above mean value (78%) of the ability to listen, analyze, and respond logically.
- Item (3) refers to above mean value (79.4%) of gaining respect & confidence of other people.
- Item (4) refers to under mean value (67.4%) of the ability to initiate conversations with foreign people.
- Item (5) refers to under mean value (77.2%) of confidence in adapting themselves to team settings.
- Item (6) refers to under mean value (77.4%) of the ability to share the work on a specific task or problem.

The previous responses show a high ability of communication skills especially in listening, analyzing, communicating, and responding. They need to improve their skills in working with others in teams. The Arabic culture generally doesn't support team work and people in Arab countries tend to work alone.

#	Item	Sign Value	Mean	Weighted Average	Very Small	Small extent	Neutral	Large extent	Very Large
					extent				extent
1.	I can effectively communicate with others	.000	4.02	80.4%	2	9	109	180	140
2.	I always listen, analyze phrases and ideas, then responding logically	.000	3.90	78%	2	22	99	209	107
3.	I can keep good relations and gain respect of people with different opinions and viewpoints	.000	3.97	79.4%	7	14	88	207	122
4.	I initiate the speech with people I don't know before	.000	3.37	67.4%	37	60	126	135	80
5.	I like working in teams.	.000	3.86	77.2%	6	27	110	172	122
6.	I like sharing opinions with other people to find solutions for problems.	.000	3.87	77.4%	6	24	116	163	126
	Total		3.83	76.6%					

 Table 5.11: Evaluation of Communication Skills

Results in the third dimension reveal that students have strong competencies for convincing people and gaining their respect. They have the ability to recognize problems and offer suitable & solutions. They can communicate effectively with others, listen, analyze, and respond in an efficient way. They show weaknesses in playing roles within teams and to fit in team settings which raise a point of cultural issues.

# 5.9 Need for Achievement, Motivation & Commitment:

The following paragraphs aim at evaluating the qualities of respondents as listed in the fourth entrepreneurial dimension.

## 5.9.1 Degree of Need for Achievement:

Table 5.12 shows that the overall mean for all responses of the score of "Need for Achievement" (maximum 5) is 3.91, which gives a percentage of (78.2%). This average score reveals that the students tend to have good levels in Need for Achievement with different degrees. The following are some comments about student's responses:

- Item (1) refers to above mean value (80.8%) of the high need to achieve goals
- Item (2) refers to above mean value (78.4%) of achieving assigned tasks by playing a positive role.
- Item (3) refers to under mean value (76.6%) of working hard and searching for problems before they happen.
- Item (4) refers to under mean value (67.8%) of the accuracy by examining details of assigned work.

#	Item	Sign Value	Mean	Weighted Average	Very Small extent	Small extent	Neutral	Large extent	Very Large extent
1.	I find myself very committed and work hard to achieve my goals.	.000	4.04	80.8%	4	10	77	222	126
2.	I feel very committed when working with others to achieve my tasks and play my role positively.	.000	3.92	78.4%	2	19	103	201	112
3.	I have the ability to expect problems before they happen.	.000	3.83	76.6%	3	23	133	174	114
4.	I always prefer to look in details	.000	3.84	76.8%	10	38	103	155	138
	Total		3.91	78.2%					

In general, students have a high degree in assuring the achievement of goals and objectives. They need to give attention to detailed tasks and works.

### 5.9.2 Degree of Motivation & Commitment:

Table 5.13 shows that the overall mean for all responses of the score of "Motivation & Commitment" (maximum 5) is 4, which gives a percentage of (80%). This average score reveals that the students tend to have very good levels in motivation & commitment with different degrees.

The following are some comments about student's responses:

- Item (1) refers to under mean value (74.2%) of overcoming obstacles & difficulties of life.
- Item (2) refers to above mean value (85.8%) of very high commitment by developing skills and feeling responsible.

- Item (3) refers to above mean value (85%) of very high commitment to social responsibilities.
- Item (4) refers to under mean value (77.6%) of motivation by eliminating unnecessary fears.
- Item (5) refers to above mean value (85.4%) of very high feeling of self satisfaction.
- Item (6) refers to above mean value (82.2%) of reflecting commitment to achieve goals by working harder.
- Item (7) refers to under mean value (69.4%) of motivation by active thinking & curiosity.
- Item (8) refers to above mean value (80.8%) of motivation and commitment by doing the right things to achieve goals.

#	Item	Sign Value	Mean	Weighted Average	Very Small	Small extent	Neutral	Large extent	Very Large
				Tiverage	extent	CATCHE		CATCHI	extent
1.	I can overcome obstacles and difficulties of life	.000	3.71	74.2%	5	20	145	196	72
2.	I always develop my skills & feel responsible.	.000	4.29	85.8%	4	3	50	188	196
3.	I am very responsible toward family and community	.000	4.25	85%	0	7	68	173	194
4.	I tend to conquer fear and go forward	.000	3.88	77.6%	7	23	103	189	116
5.	Often, I feel satisfied about myself after finishing my current task	.000	4.27	85.4%	5	11	69	130	225
6.	I don't mind working long hours to achieve goals.	.000	4.11	82.2%	5	29	76	133	195
7.	I need to know the answer before asking the question	.000	3.47	69.4%	15	59	143	159	70
8.	When given a task, I do the right thing even when others don't agree	.000	4.04	80.8%	5	16	90	177	154
	Total		4	80%					

Table 5.13: Evaluation of Motivation & Commitment

The responses to the motivation and commitment items reflect high commitment to develop competencies and skills, high social responsibility toward family and society, high satisfaction after achieving results, high commitment by working long hours, and high commitment to do right things. They also reflect moderate motivation to overcome obstacles of life and for conquering fears and advance forward. They show a low tendency to look into details.

#### 5.9.3 Propensity to take risk:

Table 5.14 shows that the overall mean for all responses of the score of "Propensity to take risk" (maximum 5) is 3.65, which gives a percentage of (73%). This average score reveals that the students tend to have good levels towards propensity to take risk with different degrees.

The following are some comments about student's responses:

- Item (1) refers to above mean value (73.4%) of taking risk by making hard decisions.
- Item (2) refers to under mean value (67.6%) of taking risk in ambiguous situations.
- Item (3) refers to above mean value (78%) of trying different things which reflects eagerness to venturing and challenging risky situations.

Respondents show different responses regarding propensity to take risk. They have moderate response to risk taking, low tendency to take risk in ambiguous situations, and above average tendency to challenge risky situations.

#	Item	Sign Value	Mean	Weighted Average	Very Small extent	Small extent	Neutral	Large extent	Very Large extent
1.	I am a risk taker and can take hard decisions	.000	3.67	73.4%	16	36	128	154	105
2.	I tend to venturing in business and taking risk even when future is ambiguous	.000	3.38	67.6%	15	63	169	122	70
3.	I like trying new varieties of foods and experience.	.000	3.90	78%	16	26	90	160	147
	Total		3.65	73%					

#### Table 5.14: Evaluation of Propensity to take Risk

The summary of the fourth dimension shows that students show high tendency to achieve goals and objectives. They are also highly motivated toward improving their skills and competencies and have high commitment and social responsibilities toward their families. They can take moderate risk but not in ambiguous situations. They need to give more attention to work details and eliminate ambiguity.

## 5.10 Business Incubators: (basic concepts, polices & Services)

This section aims at examining and presenting students responses regarding business incubators in terms of basic concepts, provided services, offered training activities, and incubation policies and criteria. It also aims at detecting obstacles facing business incubators and how to cope with them.

#### 5.10.1 Knowledge about Business Incubators:

As depicted in figure 5.8, only (38.46%) of the students have information about business incubators, while 61.54%) didn't hear anything about business incubators. This reflects the absence of efficient tools to disseminate knowledge about BIs between students at IUG.



Figure 5.8: Students knowledge about business Incubators

#### 5.10.2 Sources of Information about BI:

Table 5.15 reflects the student's responses regarding the sources from which they got information about BIs. Academic courses ranked as the first source of information with (22.7%). Workshops came in the second place with (18%). Self learning and TV programs come in the third position with (14%) each. brochures and training courses come in the fifth and the sixth places with (11.6%) and (11%) respectively.

	Table 5.15. Sources of Information about Br								
#	Item	Frequency	Percent	Rank					
1.	academic course	39	22.7	1					
2.	training course	19	11.0	6					
3.	workshop	31	18.0	2					
4.	brochure	20	11.6	5					
5.	self learning	24	14.0	3					
6.	television	24	14.0	4					
7.	others	15	8.7	7					
Total		172	100.0						

Table 5.15: Source	of Information about BI
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The previous results reveal that not all students attend academic courses and workshops dealing with small business motivators and enablers. This raises the need to redesign academic plans and curriculums for business and non-business students to enrich them with concepts and knowledge needed to motivate and enable small business in Gaza strip.

## 5.10.3 Services provided by BI:

Table 5.16 shows the rank of services provided by BI from the viewpoint of the respondent according to their importance. Direct Finance was ranked as the first service to be provided by business incubators. Providing a suitable place was ranked as the second needed resource and consultancy work came in the third place. Training and capacity building came in the fourth place. Other services were ranked as shown in the table.

#	Item	Ν	Mean	Weighted				Cho	oices				Rank
				Average	1	2	3	4	5	6	7	8	
1.	Consultancy Services	300	3.70	53.75%	46	40	58	55	42	32	27	0	3
2.	Direct Finance	314	2.61	67.38%	140	61	26	23	26	15	18	5	1
3.	communication & marketing	303	4.44	44.50%	16	34	47	57	51	49	48	1	6
4.	technical services	303	4.48	44.00%	26	34	49	35	42	55	61	1	5
5.	place	297	3.37	57.88%	67	70	36	33	31	32	36	1	2
6.	logistics & administrative support	302	4.74	40.75%	15	26	26	64	51	67	50	3	7
7.	Training & Capacity Building	298	4.44	44.50%	33	37	34	34	41	68	43	8	4
8.	Others	207	7.51	6.13%	9	1	0	4	1	4	5	183	8

 Table 5.16: Services provided by BI (priorities)

Note: the lowest mean value represents the highest priority because respondents were asked to rank services in ascending order from one to eight

These results reflect the deteriorated economical situation in Gaza and the absence of trust between financial and donation institutions which make the finance as the most needed resource to start new business. Gaza doesn't have strong industrial and economical infrastructure and industrial areas which lead directly to choose the "Place" as the second most needed resource. Finance & Place are needed for the establishment and foundation of new business startups.

Consultancy and training services are also important to the advancement and operating of new businesses and it is a logical choice to set them in the third and fourth places respectively.

Other shared services and support such as technical, administrative, and logistics are needed in the operation of the business with different degrees. They weren't regarded in the most needed services because the background of students and the business environment in Gaza don't require specific types of logistics or technical services.

### 5.10.4 Training Services provided by BI:

Table 5.17 shows the rank of training services provided by BI from the viewpoint of the respondent. "Creativity & critical thinking" was ranked as the first training service to be provided by business incubators. Training on visibility studies and business plans comes in the second place. Financial management and HRM come in the third and fourth places respectively. Communication skills and marketing come in the fifth and sixth places respectively. Other training services were ranked as shown in the table.

The results of previous analysis highlight the importance of organizing training activities in "creativity & critical thinking", "visibility studies and business plans", and "financial management". This rank is justified and logical taking into considerations the results of the evaluation processes of some entrepreneurial qualities and skills in previous sections within this chapter. Students showed weaknesses in some managerial skills (critical thinking) and in some business skills (writing business plans, budgeting skills, and making visibility studies).

In harmony to these results, students showed strong communication skills and ability to convince people and gaining their respect in the analysis made in previous sections while, training in communication skills comes as the fifth important training service as depicted in table 5.17.

#	Item	Ν	Mean	Weighted		Choices				Rank			
				Average	1	2	3	4	5	6	7	8	
1.	Visibility studies & Business Plans	303	3.35	58.13%	76	51	38	48	33	36	17	4	2
2.	Marketing	302	4.47	44.13%	28	32	35	43	61	48	52	3	6
3.	Financial Management	293	4.20	47.50%	30	34	40	67	38	41	36	7	3
4.	Communication	298	4.35	45.63%	20	37	48	42	51	68	29	3	5
5.	Creativity & Critical Thinking	309	2.56	68.00%	137	59	25	30	21	23	13	1	1
6.	HRM	290	4.21	47.38%	28	50	42	33	42	47	41	7	4
7.	Modern Technology	296	4.91	38.63%	22	35	29	28	34	52	88	8	7
8.	Others	200	7.34	8.25%	7	3	3	3	6	6	8	164	8

Table 5.17: Training Services provided by BI (priorities)

Note: the lowest mean value represents the highest priority because respondents were asked to rank services in ascending order from one to eight

The results of both current and previous analysis within previous sections in this chapter support each others and give high degree of credibility to the results. More intention will be drawn on this point when discussing the results of interviews, focus groups, and workshops in the next chapter.

### 5.10.5 Criteria & Polices of Business Incubation:

Table 5.18 discusses other important issues which are very important to business incubation.

The first item aims at detecting the most suitable relationship (partnership style) are students prefer to establish with the business incubator.

• The highest percentage (42.4%) of respondents prefers to share profit with the incubator in a continuous partnership. This type of partnership accounts for the

risk of failure and is suitable for both sides because it make both parties obliged to achieve satisfactory results and assure success. It is also a very logical choice taking into consideration that students didn't have positive attitudes toward taking risk as seen in previous sections.

- The second choice (28.8% of respondents) was based on sharing profit in the first five years. This choice is better for the tenants because the incubator has the advantage only to benefit from the profit in the first five years but it is also very risky because failed businesses won't pay any money and the incubator will lose a large amount of money.
- (22.5%) of respondents choose to pay fiscal amounts of money for the provided services. This style put the risk on the tenant's side and incubators don't worry about their investments because they got their money in an organized way for the provided services regarding of the success or failure of incubated projects.

To achieve success and serve different purposes, BIs may choose different styles and mix between partnerships scenarios according to the need of potential tenants and the investment conditions of the incubated projects. This will make the incubator accounts for risky situations from one side and satisfy different needs of tenants on the other side.

#	Item	Choices	Frequency	Percent			
1.	What is the relationship	continuous relation with profit sharing	147	42.4			
	with business incubator do you tend to choose	Fiscal amounts of Money for provided services	78	22.5			
irom your point of view?		Profit sharing for the first five years	100	28.8			
	view.	Others					
2.	If you have the	When covering my expenses	187	53.3			
	opportunity to start	Immediately after achieving profit	55	15.7			
	your business in the incubator, when will	will never leave	53	15.1			
	you leave it?	after three years	27	7.7			
		others	29	8.3			
3.	Which business sector	IT	118	33.9			
	do you prefer to start	Export & Import	101	29.0			
	your dusiness in?	Legal & Consulting	33	9.5			
		Electronics	45	12.9			
		Others	51	14.7			
4.	Which place is most	Industrial Area	61	17.4			
	suitable to operate and	Ministry	88	25.1			
	nota the incubator in?	Tertiary Education Institution	46	13.1			
		Technology Town	129	36.8			
		Others	27	7.7			

|--|

The second item deals with identifying the exit criteria as preferred by students, the following are some comments about these responses:

• (53.3%) prefer to leave the incubator when covering their expenses. This choice needs to be discussed carefully because in a fragile economy like the one in Gaza it is hard to know when the business will cover its expenses. It may be take a long

time to achieve this result. This will prohibit the incubator from attracting new businesses because it doesn't have the financial capacity and available premises to welcome new tenants. On the other hand earlier exit may affect the business negatively and push it to fail because it is a weak business.

- (15.7%) see that they will leave after achieving profit. This choice sounds better for tenants because they achieve profits and have enough resources to cover their expenses and expansion. But it also a hard scenario to the incubator because when to achieve profit is unknown.
- (15.1%) prefer not to leave the incubator at all. This is unacceptable to the incubator because it prohibits the natural task of the incubator reflected in attracting new businesses supporting them until they reach maturity stages and then let them go out to attract other businesses. This choice sounds good to the tenants.
- (7.7%) will leave after three years regardless of covering expenses rather achieving profits. It seems to be good for the incubator but incubator success depends on many factors, one of which is number of failed businesses in the incubator.

In general, initial exit criteria must be set from the early beginning, but there should be some flexibility. Some businesses will take the whole incubation period, some will leave earlier, and some will need more time depending on the economy, nature of business, availability of suitable markets, and other factors. Thus, every case has its privacy and must be studied separately.

The third item is about the business sector students prefer to establish their business in. the following are the responses of students and some comments about them:

- The IT sector was the field with highest preference for starting a new business with a percent of (33.9%). This result is understood in light of two important things: the first is the academic background of the students. Most of the engineering and IT students prefer to stay in the business. The second is the closure and the restricted accessibility to global markets and the complexity to find raw materials. This pushes many entrepreneurs to think in business sectors which is not affected directly by closure and restricted access. IT is the most suitable sector to serve this issue.
- (29%) prefer the Export & Import sector. This choice sounds better for non-IT students. But such businesses are more vulnerable to direct effects of closure and restricted accessibility to the outside. Because accessibility and freedom in access are at the heart of such businesses.
- (12.9%) of responses prefer electronics sector. This is somehow related to the IT sector under the umbrella of the ICT.
- Establishing businesses in legal & consulting sectors was selected by only (9.5%) of respondents which reflect the weaknesses of the economy.

In general, ICT is the most suitable business sector for Gaza Strip because it is not affected directly by closure and restricted accessibility to the outside. It also doesn't need heavy investments in machines or any other resources and doesn't need a lot of space. The hurdle in such businesses is in marketing services and in establishing communication channels with potential customers. The customers also may be other businesses in other countries.

The fourth item aims at identifying the most suitable place in which to build business incubators. The following are some comments about student's responses:

- The greatest percentage (36.8%) of respondents believes that the technology town is the most suitable place for establishing and operating business incubators. This choice is based on the background of students as engineering & IT and conforms to the student's preferences of IT and electronics (46.8%) sectors as the most suitable business field for incubation. Thus this choice is reasonable on such basis.
- (25.1%) of respondents prefer a ministry as a suitable place for holding business incubators. This choice conforms to the literature which reflects a governmental interest in building and operating business incubators to stimulate economical development and reduce unemployment. This is true at most in developing countries. In developed countries different players and actors build business incubators to serve a variety of purposes.
- (17.4%) of students prefer industrial areas as the most suitable places for holding business incubators. This selection is suitable for heavy businesses which need a well prepared infrastructure.
- (13.1%) of students prefer Tertiary education institutions (TEIs) over other places. This choice is based on the fact that TEIs are very essential for feeding incubators with entrepreneurs, providing businesses with scientific research and professionals & experts such as researchers, instructors, and trainers.

As a conclusion for the fourth item, the choice of the most suitable place for holding the incubator is highly affected by the academic background of students, the intended business sector, and the access to important resources such as entrepreneurs, experts, and scientific research. The establishment of incubators is a joint effort of governments, industry, and academia. Each party has its role and eager to achieve a specific goal or group of goals. The integration of all efforts will lead to satisfactory results in achieving goals on the national context.

The previous section discussed many important policies and criteria as perceived by students. The most important outcomes of the previous discussion lead to the following comments:

- The partnership mechanism between the incubator and the tenants has many implications. Each scenario has its complexities and affects the basic role of business incubation processes.
- The tenancy period must be identified from the early beginning but the exit strategy must be flexible and studied carefully for each tenants aside from others. Some businesses need reach maturity early while others need more time depending on the business type and availability of suitable markets among other important things.
- The preferred business sector in which students prefer to establish their new businesses depend on their academic background, availability of suitable markets, and the vulnerability of failure due to closure and restricted accessibility to the outside world.
- The most suitable place to hold business incubator is identified in the light of the business sectors preferred, availability of entrepreneurs, training, and scientific research. Other things may play a major role depending on many factors.

# 5.11 Conclusion:

This chapter presented and discussed a lot of important and basic indicators of entrepreneurship and business incubators. It begins by presenting demographic, academic, and family data of respondents. It then analyzed the job preferences and priorities of students and their primary motivation behind establishing new ventures as well as the most required resource for starting a new business.

It then examined the student's behavior when participating in collective activities and tested their intentions toward means of achieving goals and objectives. It also drew attention to some distinguishing characteristics of successful entrepreneurs and the individuals who has the greatest influence on entrepreneurs.

The chapter investigated the availability of managerial, business, and communication skills most prevalent among students. It also tested the tendency of students toward innovation & creativity, independence, internal locus of control, self-confidence, and motivation & commitment.

It then discussed business incubators in terms of disseminated information, provided services, offered training activities, partnership mechanisms, length of tenancy period, exit criteria, preferred sector, and most suitable place for holding incubators.

# 6 Chapter Six: Study Results & Discussion

This chapter presents the analysis of empirical data collected through the questionnaire, interviews, workshops, and focus groups. At the beginning, the normality of data will be tested in order to identify the type of tests to be used. Then all hypotheses will be tested and discussed in light of the analysis and previous studies. The discussion of the results will achieve the goals of the study and represent detailed answers to them.

It will begin by analyzing demographic data, academic profile, and parent's data. It also will test the effects of these data to the entrepreneurial intention (inclination) of students. It will also discuss the student's perceptions and viewpoints regarding the characteristics of successful entrepreneurs.

It will then discuss business incubators in terms of basic services they provide, offered training, incubation polices, exit & graduation criteria, and which are the most important business fields to be incubated in the Gaza strip.

Major obstacles and complexities facing establishment and development of business incubators and small businesses will also be analyzed and discussed as well as the factors to assure success of incubation industry in Gaza Strip.

#### 6.1 Testing normality of data distribution:

It is favorable to test the data distribution and examine if it follows a normal distribution or not. This step helps in identifying the suitable tests to achieve the best results and fulfill the objectives of the study. Kolmogorov-Smirnov & Shapiro-Wilk tests will be used and the result will be supported by plotting the deviation of each dimension from the normal distribution. Kolmogorov-Smirnov & Shapiro-Wilk tests is considered necessary in testing hypotheses as most parametric tests stipulate data to be normally distributed. Histogram graphs give a general sketch of the data.

Table 6.1 shows that the significant level calculated for each dimension of entrepreneurship is less than 0.05 (sig. < 0.05). This in turn denotes that the data don't follow normal distribution, and so the nonparametric tests can be used. This result is supported by the graph plot in figure 6.1. The figure depicted the Q-Q plots showing deviations from normality (expected value) for each dimension being tested. Another factor to test is the Z-score for skewness and kurtosis. The z-score is the outcome of the skewness over its std. error and kurtosis over its std. error for both skewness and kurtosis respectively. Normal distributions have z-score values of 1.96 or less for 95% confidence.

	our unitens	10110 01	si enear smp			
ITEM / TEST	Kolmogor	ov-Sn	Shapiro-Wilk			
	Statistic	df	Sig.	Statistic	df	Sig.
First Dimension of Entrepreneurship	.068	381	.000	.987	381	.001
Second Dimension of Entrepreneurship	.087	416	.000	.983	416	.000
Third Dimension of Entrepreneurship	.047	421	.027	.990	421	.006
Fourth Dimension of Entrepreneurship	.072	411	.000	.986	411	.000

Table 6.1: Normality tests for the four dimensions of Entrepreneurship

Table 6.2 shows that the absolute value of z-scores is over 1.96 for all dimensions except for the third dimension which has a value very close to 1.96. This indicates the non-normality of the distribution. As a conclusion for the normality issue of the data

and based on the previous discussion, the data don't follow a normal distribution and hence the nonparametric tests will be used.



Figure 6.1: Deviation from normality of each dimension

ITEM / VALUES	Skewness	Std. Error Skewness	Z-score for Skewness	Kurtosis	Std. Error of Kurtosis	Z-score for Kurtosis
First Dimension of Entrepreneurship	357-	.125	-2.856	.854	.249	3.429
Second Dimension of Entrepreneurship	.395	.120	3.291	.471	.239	1.971
Third Dimension of Entrepreneurship	184-	.119	-1.546	.061	.237	0.257
Fourth Dimension of Entrepreneurship	391-	.120	-3.258	152-	.240	0.633

Table 6.2: Z-scores for all Dimensions

#### 6.2 Demographic Data & Entrepreneurial Inclination of Students:

It is worth noting before going into deep analysis and discussions of collected data that we classify the students according to their tendency (intention) toward entrepreneurship (entrepreneurial inclination of students). To measure entrepreneurial inclination, students were asked to indicate their occupational preference after graduation. Students who preferred to establish their own business are classified as entrepreneurially inclined. Other students who selected not to start their own business (i.e. prefer to be employed by others) are classified as non-entrepreneurially inclined.

This measurement is consistent with previous literature which defines an entrepreneur as the one who favor to be self-employed or going into his/her own business (Longenecker et al, 2003), (Hisrich et al, 2002), (Koh, 1996).

Figure 6.2 depicts the classifications of the respondent according to their job preference after graduation. As shown in the graph, only 23.95% of the respondents prefer to establish their own business. Other respondents have different tendencies and preferences. The biggest percentage (31.93%) prefers to have a job with the government or with the UNRWA because they prefer job security and Gaza Strip suffer from high rates of unemployment. The other part of figure 6.2 reclassifies the respondents into two major categories. The first category (23.95%) denotes the students who prefer to start their own business after graduation (entrepreneurially inclined). The second category (76.05%) denotes the students who prefer other jobs (non-entrepreneurially inclined). All the analysis as stated previously will depend on this classification of respondents; namely: entrepreneurially inclined and non-entrepreneurially inclined.

Similar results were found by many researches some of which those found by Teixeira & Portela (2009) who argued that 26.4% of inquired students stated that after graduation they would like to start their own business (or be exclusively self-employed).

Nishantha (2008) found that out of the respondents 76% of the respondent was expecting to work under someone else (Salaried employment) after their graduation.



Figure 6.2: Classifications of respondents in terms of inclination to Entrepreneurship

Gurol & Atsan, (2006) found a similar result in this regard and that although a large group of students participated in their study, the number of students who intended to be entrepreneurs was fairly limited. There can be a number of reasons for this: First of all, the economic, social and political instability in the country may lead people to prefer salaried jobs in public or private sectors instead of running their own business. This tendency is observed amongst the university students. Besides, lack of sufficient incentives toward entrepreneurship and lack of sound entrepreneurship education hamper the development of any entrepreneurial vision of individuals.
Koh (1996) found that 40.74% of the MBA students were found to be entrepreneurially inclined and 59.26% non-entrepreneurially inclined.

The greater percentages cited by Koh (1996) is due to the fact that MBA students have experience working for other people and their interest and motivation differs from the undergraduate students.

Previous analysis and research reveal that the number of entrepreneurially inclined students is around 25%. The percentage was exceeded in the case of MBA students (40%). These percentages will be changed after graduation due to many factors and initial expectations tend to predict a remarked drop.

#### 6.2.1 Gender Analysis:

Gender is very important when talking about entrepreneurship because some of the research was dedicated to discuss and examine the effect of gender on entrepreneurial inclination. Table 6.3 shows the classification of respondents according to their gender in light of their job preference after graduation. As depicted in the table two thirds (67.59%) of the entrepreneurially inclined respondents were males, while 32.41% were females.

Gender / Work Preference	Government /UN	Establish own business	Private sector	Outside Palestine	Other
male	63 (43.8%)	73 (67.59%)	40 (41.7%)	51(58.6%)	8 (61.5%)
female	81(56.3%)	35 (32.41%)	56 (58.3%)	36 (41.4%)	5 (38.5%)
Total	144	108	96	87	13

 Table 6.3: Differences between entrepreneurially inclined and others (Gender)

When looking at figure 6.3, we notice that the non-entrepreneurially inclined males represent (47.81%) of the total percentage while females represent (52.91%). It is very clear that there is a difference between men and women in entrepreneurial inclination and men are much more entrepreneurially inclined than women.



Figure 6.3: Differences between entrepreneurially inclined and others (Gender)

This result agrees with Ashley-cotleur (2003:4) who argued that males were more likely to indicate an intention to start a business than females. And also with Nishantha

(2008), who found that male students have strong attitude towards entrepreneurship than female students. The same findings were stressed by Crant (1996), who also found that students who reported higher entrepreneurial intentions tended to be male rather than female. Hsu et al (2006) also found that male alumni were 65% more likely to found a firm relative to their female counterparts. Couto & Tiago (2009), found similar results which indicate that male students have more appetence for entrepreneurship

Teixeira & Portela (2009) argued that in general, male students are statistically significant more entrepreneurially driven than their female counterparts 31% of male students would like to start their own business after graduation, whereas in the case of female students, that percentage is around 23%. They also cited other results which approve that "females reveal a much lower propensity for entrepreneurship than their male colleagues. Such result ties in with other studies (e.g., Martínez et al., 2007), which indicate that entrepreneurship activities are more related to males, although it contrasts with the earlier study of Ede et al. (1998), who found no difference between male and female African American students in their attitudes toward entrepreneurship education".

Fischer et al (1993) argued that "the empirical findings and recommendations that have been reported are diverse and often contradictory; while many studies suggest that there are few differences between the experiences and needs of female and male entrepreneurs (e.g., Buttner and Rosen 1989; Chrisman et al. 1990; Riding and Swift 1990), other investigations seem to confirm the existence of relevant male/female differences in traits (e.g., Sexton and Bowman- Upton 1990), in experiences, and in needs (e.g., Belcourt et al. 1991)".

The previous results give primary indications of the existence of a relation between entrepreneurial inclination of students and their gender. To test the assumed dependency (relation) between the entrepreneurial inclination of students and their gender the researcher used the Chi-Square test. Table 6.4 shows the results of the test which gives a significant value = 0.000. This means that there is a dependent relation between the entrepreneurial inclination of the students and their gender. In other words, there is a difference between males and females in their intention toward entrepreneurship.

The previous discussion proof the first hypothesis partially indicating that at  $\alpha \le 0.05$ , there will be a significant relationship (difference) between males and females (gender) of the students and their entrepreneurial inclination.

Table 6.4: Chi-Square Test (Gender)							
Item	Ν	Chi-Square	df	Asymp. Sig.			
Sex	108	12.887	1	.000			

Tabla 6 1.	Chi-Square Test	(Condor)
1 able 0.4.	CIII-Square rest	Genuer

This result is in agreement with Choy et al (2005) who found that "respondents Males have higher entrepreneurial inclination compared to females and the difference is significant. The finding is in line with past studies where male students tend to have a stronger entrepreneurship aspiration than females (Crant, 1996; De Wit & Van Winden, 1989; Kourilsky & Walstad, 1998; Matthews & Moser, 1996)".

This result contradicts with Koh (1996) who found that the two subgroups of entrepreneurially inclined and non-entrepreneurially inclined respondents are considered homogeneous with respect to sex with a significant value = 0.088.

# 6.2.2 Birth Order in Family:

Birth order is another factor, which was researched by scholars. Table 6.5 shows that respondents with the first birth order represent the highest percentage (26.2%) within the entrepreneurially inclined students.

Birth order / Work Preference	Government /UN	Establish own business	Private sector	Outside Palestine	Other
First	29 (20.9%)	27 (26.2%)	28 (29.8%)	13 (15.5%)	5 (45.5%)
Second	28 (20.1%)	25 (24.3%)	19 (20.2%)	23 (27.4%)	0
Third	31 (22.3%)	14 (13.6%)	20 (21.3%)	12 (14.3%)	1 (9.1%)
Fourth	24 (17.3%)	19 (18.4%)	16 (17%)	20 (23.8%0	2 (18.2%)
Fifth	8 (5.8%)	10 (9.7%)	7 (7.4%)	9 (10.7%)	0
sixth	9 (6.5%)	4 (3.9%)	2 (2.1%)	2 (2.4%)	0
seventh	4 (2.9%)	2 (1.9%)	2 (2.1%)	2 (2.4%)	1 (9.1%)
eighth	3 (2.2%)	1 (1%)	0	3 (3.6%)	0
ninth	2 (1.4%)	0	0	0	2 (18.2%)
tenth	1 (0.7%)	1 (1%)	0	0	0
Total	139	103	94	84	11

 Table 6.5: Differences between entrepreneurially inclined and others (Birth order)

The common birth order of non-entrepreneurially inclined respondents was the first with a percentage of (22.74) as presented in figure 6.4.



Koh (1996) found that the first born represents 54.55% of entrepreneurially inclined MBA students and 75% of non-entrepreneurially inclined MBA students. Turan & Kara (2007) found that "one-third of the respondents were the first child in the family (33.5%) were in line with existing literature (Machado et al. 2002)".

These results sound logical because people normally take care of their first child and gives him extra care. They are normally very passionate when they got their first child.

To test the relation between birth order and entrepreneurial inclination of students, the researcher used the Chi-Square test. Table 6.6 shows the results of the test which gives a significant value = 0.819. This means that there is no dependent relation between the

entrepreneurial inclination of the students and their birth order. In other words, there is no difference between students regarding their entrepreneurial inclination based on their birth order

1 able	6.6: Cn1-8g	luare Test (BI	rtn or	aer)
Item	Ν	Chi-Square	df	Asymp. Sig.
Birth Order	103	5.169	9	.819

Table	6.6: Chi-So	quare Test	(Birth	order)

The previous discussion contradicts with the first hypothesis partially and indicates that at  $\alpha \le 0.05$ , there will be no significant relationship (difference) between birth order of the students and their entrepreneurial inclination.

This result agrees with koh (1996) which found that the two subgroups of entrepreneurially inclined and non-entrepreneurially inclined respondents are considered homogeneous with respect to birth order with a significant value = 0.117.

## 6.2.3 Academic Studies & Specializations:

It is important to discuss the relation between student's inclination and their academic specialization. This importance was stressed on by Duchesneau & Gartner (1990) who found that successful entrepreneurs attained higher levels of: education. It was also mentioned by Teixeira & Portela (2009) who argued that the results based on their estimated models demonstrate that the course or area of study matters for assessing entrepreneurial intents.

#### A. Distribution per Faculty:

Table 6.7 shows the distribution of the students on the four faculties while classifying them based on their job preference after graduation. (44.44%) of the entrepreneurially inclined students, who eager to establish their own business after graduation, belongs to the engineering faculty. Only (7.4%) of them belongs to the IT faculty. (34.3%) belongs to the faculty of commerce while (13.9%) belongs to the English program at the faculty of commerce.

Work Preference/ Faculty	Engineering	IT	Commerce	Commerce/English	Total
Government/UN	47 (32.6%)	29 (20.1%)	38 (26.4%)	30 (20.8%)	144
Establish own business	48 (44.4%)	8 (7.4%)	37 (34.3%)	15 (13.9%)	108
Private sector	25 (26%)	12 (12.5%)	30 (31.5%)	29 (30.2%)	96
Outside Palestine	41 (47.1%)	6 (6.9%)	27 (31%)	13 (14.9%)	87
Other	5 (38.5%)	3 (23.1%)	4 (30.8%)	1 (7.7%)	13

 Table 6.7: Faculty distribution of entrepreneurs & non-entrepreneurs

Figure 6.5 make a graphical comparison between entrepreneurially inclined and nonentrepreneurially inclined respondents based on the associated faculty. The importance of the figure lies in the classification process which shows the two major categories of respondents. It shows that the percentage of the entrepreneurially inclined students in the engineering (44.44%) and commerce (34.26%) faculties is greater than those of the non-entrepreneurially inclined (34.99%), (29.15%) for both engineering and commerce

respectively. As opposite to this result, the figure shows that non-entrepreneurially inclined students represent (21.28%) of the English program in commerce and (14.58%) of IT students which is greater than entrepreneurially inclined students for both faculties (13.89%) and (7.41%) respectively. The previous results reveal that engineering and commerce students are much more entrepreneurially inclined than IT and English program in commerce.



#### **B.** Distribution per Specialization:

Table 6.8 shows the classification of respondent on the academic specializations existed within the selected faculties. (14.8%) of the entrepreneurially inclined students belongs to the Business Administration department, while only (2.8%) of them belongs to the Information Systems department. The table also shows the percentage of the non-entrepreneurially inclined students for each specialization and according to the work preference after graduation.

Specialization / Work Preference	Government /UN	Establish own business	Private sector	Outside Palestine	Other
Computer Engineering	14 (9.75%)	12 (11.1%)	3 (3.1%)	10 (11.5%)	0
Civil Engineering	20 (13.9%)	14 (13%)	10 (10.4%)	12 (13.8%)	3 (23.1%)
Communication & Control	6 (4.2%)	7(6.5%)	6 (6.3%)	2 (2.3%)	0
Industrial Engineering	7 (4.9%)	15 (13.9%)	6 (6.3%)	17 (19.5%)	2 (15.4%)
Information Systems	17 (11.8%)	5 (4.6%)	5 (5.2%)	5 (5.7%)	2 (15.4%)
Software Development	12(8.3%)	3 (2.8%)	7 (7.3%)	1 (1.1%)	1 (7.7%)
Finance	16 (11.1%)	10 (9.3%)	10 (10.4%)	12 (13.8%)	0
Business Administration	15 (10.4%)	16 (14.8%)	11 (11.5%)	8 (9.2%)	4 (30.8%)
Accounting	7 (4.9%)	11 (10.2%)	9 (9.4%)	7 (8%)	0
Accounting Eng	11 (7.6%)	7 (6.5%)	10 (10.4%)	8 (9.2%)	0
Business Administration Eng	19 (13.2%)	8 (7.4%)	19 (19.8%)	5 (5.7%)	1 (7.7%)
Total	144	108	96	87	13

Table 6.8: Differences between entrepreneurially inclined and others (Specialization)

These results sound logical because business administration students are exposed more than other students to small business concepts and principles during their academic study. The case is similar with the students in the industrial engineering department who are introduced to applications and examples related to modern industry and businesses. The results reveal primary that the academic plans at the IUG need to be restructured and redesigned to contain new courses related to business venturing and industry.

Figure 6.6 depicts a graphical representation of the data according to the two basic classifications namely: entrepreneurially and non-entrepreneurially inclined students.



Figure 6.6: Differences between entrepreneurially inclined and others (Specialization)

To test the relation between entrepreneurial inclination of students and their faculties & academic specializations, the researcher used the Chi-square test. By examining the numbers in table 6.9, we will see that there is no relation between academic specialization and entrepreneurial inclination of students with a significant value = 0.326, but there exists a relation between faculty and entrepreneurial inclination of students with a significant value = 0.026, but there exists a relation between faculty and entrepreneurial inclination of students with a significant value = 0.041.

Item	Ν	Chi-Square	df	Asymp. Sig.
Faculty	108	8.262	3	.041
Specialization	108	11.417	10	.326

Table 6.9: Chi-Square Test (Faculty & Academic Specialization)

In conclusion, the entrepreneurial inclination of the students and their academic specialization are independent of each others, while the entrepreneurial inclination of the students and the faculty at which they study are dependent on each others.

The previous discussion contradicts with the first hypothesis partially in which it indicates that at  $\alpha \le 0.05$ , there will be no significant relationship (difference) between academic specialization of the students and their entrepreneurial inclination and there is a significant relationship between faculty and entrepreneurial inclination of the students.

These results contradict partially with Birdthistle (2008) who stressed his results found in (2006) in which he argued that entrepreneurs emanate more often from the areas of engineering, science and other technical disciplines rather than in commerce and business studies.

The results are in agreement with Hsu et al (2006) who found that relative to natural science graduates, engineering, management and architecture graduates were more likely to start firms.

In conclusion for this section, the following points are worth to be stressed on:

- The researchers took care of demographic variables such as gender, birth order, and academic specialization. Other variables such as race and religion were also researched by other scholars live in societies with different races.
- There exist relationships between the entrepreneurial inclination of students and their gender and faculty of study.
- There exist no difference between entrepreneurially inclined students and nonentrepreneurially inclined students in relation to their birth order in family and their academic specializations.
- The first hypothesis is partially proved.

### 6.3 Family Data & Entrepreneurial intention of students:

Some research discussed the effects of family data on the entrepreneurial inclination of their children especially the occupation of parents. Some research argued that children who have self-employed fathers tend to establish their own business (entrepreneurially inclined). The following subsections shed light on two variables: parent's education and parent's occupation.

# 6.3.1 Parent's Level of Education:

Table 6.10 shows that (46.3%) of the fathers of entrepreneurially inclined students has a bachelor degree and (32.1%) of the mothers. It shows also that (45.3%) of the mothers has only a secondary school certificates and (30.8%) of the fathers. In total, (68.5%) of the fathers have a diploma, bachelor, or master degree. This percentage drops to (50.9%) for the mothers.

Figure 6.7 shows closer percentages of father's education for entrepreneurially inclined and non-entrepreneurially inclined students. Thus the difference is very slight between respondents regarding their father's education. The difference between respondents regarding their mother's education is not small. These are primary indications which need more investigations to examine the relationship and test its durability.

To test the relation between entrepreneurial inclination of students and the education level of their parents, the researcher used the Chi-Square test. Table 6.11 shows the results of the test. The significant value = 0.801, 0.445 for fathers education and mothers education respectively which means that there is no dependency between the entrepreneurial inclination of the students and the education of their parents. So, there is no difference between both groups in regard to parent's education. These results fail to

Father's Education / Entrepreneurially inclined

prove the second hypothesis partially and indicate that there is no relation between the entrepreneurial inclination of the students and the level of education their parents have.

Parent's education / Work Preference	Government /UN	Establish own business	Private sector	Outside Palestine	Other				
Father's Education Level									
Illiterate	7 (4.9%)	2 (1.9%)	0	3 (3.6%)	0				
Secondary School	44 (30.8%)	32 (29.6%)	17 (17.9%)	16 (19%)	6 (46.2%)				
Diploma	20 (14%)	15 (13.9%)	16 (16.8%)	13 (15.5%)	3 (23.1%)				
Bachelor	58 (40.6%)	50 (46.3%)	52 (54.7%)	42 (50%)	4 (30.8%)				
Master or above	14 (9.8%)	9 (8.3%)	10 (10.5%)	10 (11.9%)	0				
Total	143	108	95	84	13				
Mother's Education L	level								
Illiterate	8 (5.6%)	4 (3.8%)	6 (6.3%)	4 (4.8%)	0				
Secondary School	76 (53.5%)	48 (45.3%)	48 (50.5%)	42 (50.5%)	10 (76.9%)				
Diploma	24 (16.9%)	17 (16%)	13 (13.7%)	16 (19%)	1 (7.7 %)				
Bachelor	31 (21.8%)	34 (32.1%)	27 (28.4%)	18 (21.4%)	2 (15.4%)				
Master or above	3 (2.1%)	3 (2.8%)	1 (1.1%)	4 (4.8%)	0				
Total	142	106	95	84	13				

Father's Education / Non-entrepreneurially inclined

Master or above

rially inclined

 Table 6.10: Diff. between entrepreneurially inclined & others (Parent's Education)







Item	N	Chi-Square	df	Asymp. Sig.
Father's Education	108	1.646	4	.801
Mother's Education	106	3.721	4	.445

Table 6.11: Chi-Square Test (Parents Education)

# 6.3.2 Parent's Occupation:

Parent's occupation is very important factor when dealing with entrepreneurship. Researchers show high interest in examining the job of the parents of entrepreneurially inclined people. Table 6.12 shows that the highest percentage (25%) of the fathers of entrepreneurially inclined students own their private business, while (23.15%) of them work for the government or UNRWA. People in Gaza regard working for the government or UNRWA as secure jobs. The unemployed fathers represent (20.4%) which is a primary motivation as regarded by some research to push people entering the business and entrepreneurship world. The previous percentages reveal a direct connection between entrepreneurial inclination of students and the occupation of their fathers but it needs more discussion and investigation.

Figure 6.8 shows that (40%) of the fathers of non-entrepreneurially inclined students work for the government or employed by UNRWA, while only (8.53%) of them own a private business. It is important to recognize the difference (25%-8.53%=16.47%) between the fathers of both entrepreneurially inclined and non-entrepreneurially inclined students regarding ownership and operation of their own business.

The situation with mothers differs from fathers, which reflect the culture and traditions of the Palestinian society. The majority of the mothers are unemployed, (70.1%) and (78.89%), for both entrepreneurially inclined and non-entrepreneurially inclined students respectively.

Parent's Occupation /	Government	Establish	Private	<b>Outside Palestine</b>	Other
Work Preference	/UN	own business	sector		
Father's Job					
Private (non governmental)	14 (9.7%)	13 (12%)	10 (10.5%)	12 (14%)	0
Government / UNRWA	53 (36.8%)	25 (23.1%)	41 (43.2%)	38 (44.2%)	3 (23.1%)
Own a private business	16 (11.1%)	27 (25%)	9 (9.5%)	2 (2.3%)	2 (15.4%)
Unemployed	24 (16.7%)	22 (20.4%)	12 (12.6%)	20 (23.3%)	4 (30.8%)
Others	37 (25.7%)	21 (19.4%)	23 (24.2%)	14 (16.3%)	4 (30.8%)
Total	144	108	95	86	13
Mother's Job					
Private (non governmental)	1 (0.7%)	5 (4.7%)	4 (4.2%)	1 (1.2%)	0
Government / UNRWA	17 (11.8%)	20 (18.7%)	17 (17.7%)	10 (11.6%)	2 (15.4%)
Own a private business	0	1 (0.9%)	1 (1%)	2 (2.3%)	1 (7.7%)
Unemployed	121 (84%)	75 (70.1%)	72 (75%)	65 (75.6%)	9 (69.2%)
Others	5 (3.5%)	6 (5.6%)	2 (2.1%)	8 (9.3%)	1 (7.7%)
Total	144	107	96	86	13

 Table 6.12: Differences between entrepreneurially inclined & others (Parent's Job)

These results are in line with other results in previous research. For example: Bulu et al (2005) found that 61% of the respondents state that the primary motivation for the entrepreneur's high ego and need for achievement is based upon a relationship with

father. Crant (1996) also found that students who reported higher entrepreneurial intentions had at least one parent who owned a business.

Birdthistle (2008) cited the results of "Fitzsimons and O'Gorman (2005) who found that having self-employed parents increase the propensity of individuals to engage in new venture creation. O'Farrell's (1986) study showed that 46% of new firm founders had fathers who were self-employed. He then argued that not having entrepreneurial parents does not preclude potential entrepreneurs from establishing a business in the future, however it does make potential entrepreneurs aware of the demands it takes to run and operate a business".



Figure 6.8: Differences between entrepreneurially inclined/others (Parent's Education)

These results give primary indications and the relation needs to be tested and more investigated against durability. To serve this purpose, the researcher uses the nonparametric Chi-Square test. By examining the numbers in table 6.13, we will see that there exist a relationship between the entrepreneurial inclination of the students and the occupation of their fathers with a significant value = 0.000, but when talking about mother's job there is no relationship between the entrepreneurial inclination of students and the occupation of their fathers, while there is no significant relationship between the entrepreneurial inclination of students and the occupation of their fathers, while there is no significant relationship between the entrepreneurial inclination of students and the occupation of their fathers, while there is no significant relationship between the entrepreneurial inclination of students and the occupation of their fathers, while there is no significant relationship between the entrepreneurial inclination of students and the occupation of their fathers, while there is no significant relationship between the entrepreneurial inclination of students and the occupation of their mothers. The results seem to be reasonable based on the culture and traditions of the Palestinian people in the Gaza strip where men are dominating the small business industry.

Item	N	Chi-Square	df	Asymp. Sig.
Father's Job	108	25.282	4	.000
Mother's Job	107	5.312	4	.257

Table 6.13: Chi-Square Test (Parents Ocupation)

The results agree with the second hypothesis partially by approving the existence of a significant relationship at  $\alpha \le 0.05$  between entrepreneurial inclination of students and the occupation of their fathers while negating the existence with mother's occupation.

These results agree partially with koh (1996) which found that the two subgroups of entrepreneurially inclined and non-entrepreneurially inclined respondents are considered homogeneous with respect to family entrepreneurial inclination with a significant value = 0.821.

They are partially in line with previous research such as Ashley-cotleur (2003) who found that those respondents whose parents currently or previously owned a business were more likely to start businesses than those respondents whose parents had never started a business. Similar results were reached by Turan & Kara (2007) where "Over half of the respondents had a family history of self-employment was in line with existing literature (Machado et al. 2002)".

Grilo et al (2007) found similar results in which Self-employed parents appear to be important for both women and men in stepping up the entrepreneurial ladder. Nevertheless, it is more important for men than for women. This seems in line with Matthews and Moser (1996) who find that men who have self-employed parents are more likely to be interested in self-employment than women. Note that self-employed parents may also contribute to the success of the entrepreneurial venture by providing financial and/or mental support.

Choy et al (2005) found that respondents whose fathers are self-employed or entrepreneurs represent (36%). And their results suggested students with parents who are entrepreneurs have higher entrepreneurial inclination and the difference is significant. They argue that "their result is consistent with past findings that individuals with entrepreneurial parents are more likely to express entrepreneurial intentions (Hisrich & Peters, 1995; Krueger 1993a; Scott & Twomey, 1988)."

Duchesneau & Gartner (1990) found that successful lead entrepreneurs came from entrepreneurial families and previous family business experience appears to provide entrepreneurs with more realistic expectations from self-employment and the kinds of attitudes and behaviors necessary for surmounting the crises of entrepreneurship. They argued their findings "corroborate most of the results found in Van de Ven et al. (1984) as well as other studies that have evaluated entrepreneurial characteristics (Brockhaus 1982; Brockhaus and Horwitz 1986; Sandberg 1986). Some researchers (Mescon and Montanan 1981; Timmons et al. 1985) have considered the value of family role models as an influence on new venture success".

Nishantha (2008) contradicts with our result when she found that although 45.8 percent of the respondents had fathers who are occupied with independent businesses and 12 percent had mothers engaged in self employment, only 5 percent of the respondents

were preferred for entrepreneurial career by following their entrepreneurial parents. So, she argued that an individual whose father or mother is an entrepreneur was not more likely to have positive attitude towards entrepreneurship.

Teixeira & Portela (2009) "couldn't also confirm, therefore, the results of other entrepreneurship studies (Brockhaus and Horwitz, 1986; Brush, 1992; Cooper, 1986; Krueger, 1993), which found that students from families with entrepreneurs have a more favorable attitude toward entrepreneurship than those from non-entrepreneurial backgrounds".

The results of this section reveal the following points:

- The entrepreneurial inclination of the students and the level of education of their parents are independent of each others at  $\alpha \le 0.05$ .
- The entrepreneurial inclination of the students has a dependent relationship at  $\alpha \le 0.05$  with father's occupation while it shows no dependency with mother's occupation at the same significant level. The results reflecting cultural and traditional issues.
- These results are partially in agreement with other research because in western culture men and women are allowed to compete for jobs.

#### 6.4 Initial Perceptions about successful Entrepreneurs:

This section aims at testing the entrepreneurial intention of students by testing their perception about successful entrepreneurs in terms of primary motivation toward starting a business. It also will investigate the most required resource for starting new businesses and testing the student's perception about the characteristics of successful entrepreneurs.

#### 6.4.1 Primary motivation behind establishing new business

It is important to examine the motives of students toward establishing their own business. As shown in figure 6.9, nearly both entrepreneurially inclined and non-entrepreneurially inclined students have the same response and don't show a significant difference in regard to the motives behind establishing a new business.



The most important percentage to be mentioned is the motive of self satisfaction. (53.7%) of entrepreneurially inclined students and (52.06%) of non-entrepreneurially inclined students showed that the self-satisfaction is the primary motives toward establishing their own business. (15%) of entrepreneurially inclined students value the money and wealth while less than half of them (6.48%) of non-entrepreneurially inclined students regard money as their primary motives for establishing their own business. This low percentage given to money and wealth reflect religious issues. The people in Gaza are very conservatives in comparison with other countries and don't value the money over self-reliance.

These results contradict with the other research which generally classifies money as the primary motivation for establishing new businesses. Ashley-cotleur (2003) found that the possible reasons to start a business were "to make more money". The same result was supported by Bulu et al (2005) who found that 51% of the respondents perceive that an entrepreneur's primary motivation for starting a business is to make money.

Birdthistle (2008) assured his results in the study of (2006) which identified a number of major motivational factors. Over 37% cited a desire for independence, whilst 30% cent ranked opportunity to make money as their primary reason for start-up. He found that an overwhelming majority of respondents identified independence as being important. In order to achieve this motive the best avenue for the respondents is to establish their own business. The majority of respondents rated having autonomy of decision-making as important. If these motivating factors were to be achieved by the respondents the best avenue for them would be to establish their own venture.

In their study when comparing the characteristics of Turkish and Irish entrepreneurs, Turan & Kara (2007) indicated that Turkish entrepreneurs were motivated by "being his/her own boss," "challenging self," and "dissatisfaction in the previous job" as other important motivating factors. Although these are the same factors listed by the Irish entrepreneurs, Irish entrepreneurs have also indicated that "idea or innovation" was the second most important factor for the venture. This is a significant difference, which could have been influenced by the differences in culture. Turkish entrepreneurs did not consider "making a lot of money" an important motivating factor whereas Irish entrepreneurs did not consider "continuing family tradition" as an important factor. They also argued that their findings "were also consistent with the existing literature, and they provided additional support for the entrepreneurship literature. For instance, Birley and Westhead (1990) and Shane et al. (1991) found that people who are in need of independence or freedom created new ventures. Young and Welsch (1993) also found that Mexican entrepreneurs are motivated to create new ventures to gain financial independence and to deal with something challenging".

Hsu et al (2006) discussed many characteristics of entrepreneurs in technology-based universities and examined differential motivations for entering entrepreneurship according to gender. They cited that some studies suggest that men tend to be more motivated by wealth creation, whereas women have family-oriented motivation and desire the flexibility that entrepreneurship offers, though these differences are less apparent among women and men who do not have children. Shane et al (2003) argue that "in interviews with U.S. female firm founders, Hisrich (1985) found that one of the prime motivations for starting a business was a desire for independence.

To test if there exists a difference between entrepreneurially inclined students and nonentrepreneurially inclined students with their motivation behind establishing new business, the researcher used the Chi-Square test as presented in table 6.14. The test result reveals that no dependent relationship between entrepreneurial inclination of students and their motivation for starting business since the significant value = 0.137.

I able 6.14: Chi-Square 1 est (Motivation to start business)									
Item	Ν	Chi-Square	df	Asymp. Sig.					
Motivation to start business	103	8.375	5	.137					

 Table 6.14: Chi-Square Test (Motivation to start business)

This result contradicts partially with the third hypothesis by proving that there is no difference between entrepreneurially and non-entrepreneurially inclined students and their motivation to start new business.

### 6.4.2 Most required resource for starting new business

Figure 6.10 shows the perception of respondents regarding the most important required resource for starting new business. The largest portion of respondents shows that the finance and money is the most required resource. Entrepreneurially inclined and non-entrepreneurially inclined students have close responses with (47.22%) and (44.87%) respectively. Entrepreneurially inclined student value the need for applicable idea and the motivation and hard-work while non-entrepreneurially inclined students value the availability of supporting environment. Availability of customers doesn't represent a great concern for the entrepreneurially inclined students with a percentage of less 1%.

These results are very important and give primary indications about entrepreneurial characteristics of students. Entrepreneurs normally are motivated and have internal locus of control which gives them a feeling that they can shape their future and make them account for every thing. They believe in themselves and don't rely on and value the supporting environment over the ideas and hard work.



Bulu et al (2005) found that 58% of the respondents perceive that to be successful in an entrepreneurial venture, there is a need for a number of factors including luck, hard work, good idea, and money.

To test the existence of difference between entrepreneurial inclination of students and their perception of the most required resource for starting business; the researcher used the Chi-Square test. The results of the test in table 6.15 reveal that there is no significant relationship exists between entrepreneurial inclination of students and their perception about the most required resource to start a new business.

Table 0.15. Clin-Square Test (Required resource to start business)										
Item	Ν	Chi-Square	df	Asymp. Sig.						
Required Resource to start business	103	9.885	5	.079						

### Table 6.15: Chi-Square Test (Required resource to start business)

The results of this section contradict with the third hypothesis by revealing that at  $\alpha \le 0.05$ , thee is no significant difference between entrepreneurially and non-entrepreneurially inclined students in regard to:

- Their motivation to start their new business.
- Their perception about the most required resource to start new business.

# 6.5 Perceived Characteristics of successful Entrepreneurs:

It is important to look at some questions which detect the characteristics of successful entrepreneurs as perceived by entrepreneurially inclined respondents as depicted in table: 6.16.

(79%) of the respondents don't care about the birth order of the entrepreneurs in their families and regard birth order as not important. Only (13.3%) regard the oldest child (first born) of the family as entrepreneur.

(56.3%) of the respondent neither regard women nor men as entrepreneurs and hence the gender of the entrepreneur doesn't matter from their point of view. A remarkable percentage of (39.8%) see the entrepreneur as a man while only (3.9%) see the entrepreneur as a woman.

Regarding the perceived age at which entrepreneurs begin their first own business, (50.5%) of the students choose the age of twenties and (42.9%) choose the age of thirties, thus the ages of twenties and thirties (20-40) represent more than (90%) of the responses. These results are in line with Turan & Kara (2007) who found that "almost two-thirds (62.8%) of the interviewed entrepreneurs were in the 25-40 age range, which is consistent with the current entrepreneurship literature that asserts most of the beginning entrepreneurship age falls between the ages of 25 and 40 (Hisrich and Peters 1996)". They also argued that "a typical Turkish entrepreneur is about 35 years old. Although this age level might look bit younger, it is consistent with the current literature (Hisrich and Peters 1996); While surprisingly, a typical Irish entrepreneur is about 40 years old (Hisrich 1988)".

The first appearance of entrepreneurial tendency lies in the ages between 21 and 30 years as seen by (48.5%) of the students, while (29.1%) of respondents see the age from

15 to 20. This result is also in line with Turan & Kara (2007) who found that "the average self-explicated age of first entrepreneurial activity was 22.9 years. Although there is some evidence in the literature that men and women start their entrepreneurial activity at different ages (Hisrich and Peters 1996), our analyses did not find any differences between the average ages of men and women".

#	Item	Choices	Frequency	Percent
1.	An entrepreneur is most	oldest	14	13.3
	commonly the	youngest	2	1.9
	Child in the family	middle	6	5.7
		not important	83	79.0
2.	An entrepreneur is most	women	4	3.9
	typically a:	man	41	39.8
		doesn't matter	58	56.3
3.	An entrepreneur begins	twenties	53	50.5
	its first business at age:	thirties	45	42.9
		forties	7	6.7
		fifties	0	0
4.	Usually, an individual's	less than 15 years	16	15.5
	entrepreneurial tendency	from 15 to 20	30	29.1
	appears evident at age:	from 21 to 30	50	48.5
		from 31 to 40	7	6.8
		from 41 to 50	0	0
5.	Typically, an	secondary or less	3	2.9
	entrepreneur has an	Bachelor	70	67.3
	academic degree of:	Master	16	15.4
		above master	15	14.4
6.	The individual, who has	family	71	67.0
	the greatest influence on	school teacher	7	6.6
	the entrepreneur is:	university teacher	4	3.8
		friends	24	22.6
7.	Entrepreneurs are best	managers	8	7.6
	as:	planners	15	14.3
		Venture capitalists	17	16.2
		dowers	11	10.5
		all previous	54	51.4
8.	Entrepreneurs are:	Venture capitalists	18	17.0
		rational venture capitalists	75	70.8
		Non venture capitalists	3	2.8
		doesn't matter	10	9.4

Table 6.16: Prevalent characteristics among entrepreneur
--

(67.3%) of the entrepreneurially inclined students see that entrepreneurs has a bachelor degree while (15.4%) and (14.4%) choose the master degree and above master studies respectively.

(67%) of respondents see that family has the greatest influence on entrepreneurs and Friends come in the second place by (22.6%). The research of Turan & Kara (2007) assured that "fathers, siblings, and spouses were the most frequently cited groups who provided the strongest support to Turkish entrepreneurs. These results are also strongly supported by the literature (Young and Welsch 1993)".

When trying to resemble entrepreneurs to others, (16.2%) describes entrepreneurs as venture capitalists and (14.3%) describes them as planners. (51.4%) of the respondents see entrepreneurs as a cocktail of planners, venture capitalists, dowers, and managers. (70.8%) of respondents see entrepreneurs as rational venture capitalists while (17%) of them see entrepreneurs as venture capitalists.

The previous results in line with the results of other research while don't agree with other results. The following are the results of two major researches:

Bulu et al (2005) argued that according to their questionnaire results, entrepreneurs are perceived as active and dynamic (as the youngest child in the family-38%), single, and male individuals, 66% and 93% respectively. On the other hand, 62% of the respondents perceive that an individual usually begins his first entrepreneurial business enterprise at his twenties. Furthermore, 33% of the respondents also perceive that usually an individual's entrepreneurial tendency first appears evident in his twenties. In addition, 41% of the respondents believe that typically, an entrepreneur has achieved the high school diploma by the time the first significant business venture begins. In addition, 58% of the respondents perceive that to be successful in an entrepreneurial venture, there is a need for a number of factors including luck, hard work, good idea, and money. According to the results of the study, 38% of the respondents believe that entrepreneurs and venture capitalists get along well, and they are the best of friends. One crucial finding of this research is that, entrepreneurs are perceived best as planners by the 46% of the respondents.

Choy et al (2005) found that the perception from closest family that the respondents should pursue a career as self-employed has the highest mean score. This is supported by Ajzen's (1998) study where such perception would reinforce the respondents' likelihood of becoming self-employed. Several other studies also observed that family plays a significant role in influencing the students' career decision, particularly on the decision to pursue entrepreneurship (Bohmer & Sitton, 1993; Carroll & Mosakowski, 1987; Deivasenapathy, 1986; Fraboni & Saltstone, 1990; Hisrich & Peter, 1995; Korin, 1989; Scherer, Brodzinski & Wiebe, 1991). The two remaining items, perception from closest friend and people, are also important in influencing entrepreneurial choice intentions. These results were supported by Nelson (1989) and Shapero and Sokol's (1982) who found that family, friends and other important people are considered as the key influencing individuals in influencing whether or not a person decides to start a new business venture.

# 6.6 Evaluating Entrepreneurial Qualities (Traits) & Skills:

The characteristics, qualities, and traits of successful entrepreneurs were discussed in a lot of research and were given extra care from many scholars.

Nimalathasan (2008) described the individual entrepreneurs as "these people do have certain characteristics and character traits that make them standout (Burns, 2001). These traits are well documented in the literature on the subject and include risk taking and the need for achievement (McClelland, 1961), locus of control (Rotter, 1966) and the desire for autonomy and deviancy (De vries, 1977)".

Gurol & Atsan, (2006) identified six personality characteristics which are used to define the entrepreneurial profile of students. "These are need for achievement, locus of control, risk taking propensity, tolerance for ambiguity, innovativeness and selfconfidence. These characteristics were chosen since they are frequently cited in different studies in the entrepreneurship literature".

Harper (2005) described the best entrepreneurs as hybrids. "They have the innovativeness to come up with new things to do and new ways to do things. They have the entrepreneurial ability to create a venture that can bring revolutionary products and services to market. They have leadership skills to inspire people to do things they have never done before. They also have the management skills to keep their ventures from being derailed by the never-ending challenges that can shut a firm down in a heartbeat. They are driven by a vision for what is possible, have the ability to take initiative, have a higher level of confidence in their ability to make things happen than most people, and they must make numerous commitments each day".

### 6.6.1 Managerial Skills:

Managerial skills are needed to enable entrepreneurs manage and lead successful businesses and understand the persons and environment around them. Since the data is not normally distributed, we will use the Mann-Whitney nonparametric test. By looking at table 6.17, we notice that the mean value of all responses of entrepreneurially inclined students (3.78)75.6% doesn't differ from the mean value of all responses of non-entrepreneurially inclined students (3.68)73.6%. So, both the entrepreneurially inclined and non-entrepreneurially inclined are homogeneous regarding having managerial skills.

This result is in line with Duchesneau & Gartner (1990) who found that "successful entrepreneurs attained managerial experience & skills and argued that their results are in agreement with Buchele (1967); Van de Ven et al. (1984); Vesper (1990)".

Recalling the results of Table 5.5 in chapter five, it is clear that the students tend to have good levels of managerial skills needed to operate a business with different degrees but they need to improve their skills in critical thinking, data collection & analysis, and time management. These skills represent weaknesses for the students and need to be eliminated by training or counseling or any other suitable means. Other skills could be strengthened and developed for excellent levels.

#	Item	Entrepreneurially Inclined			Non-entrepreneurial Inclined		
		Ν	Mean	S. D.	Ν	Mean	S. D.
1.	I take decisions after extensive study of the problem	106	3.79	.813	340	3.84	.817
2.	I monitor the implementation of solutions to assure effectiveness	106	4.03	.723	341	3.90	.753
3.	I have the ability to collect and analyze data	106	3.59	.870	341	3.49	.863
4.	I have the ability to take decision even when ambiguous information available	104	3.21	.889	341	3.28	.990
5.	I have the ability to authorize others to do something and monitor their work	105	3.88	.874	340	3.64	.909
6.	I have clear objectives and work to achieve them	106	4.05	.866	342	3.92	.902
7.	I have the ability to plan	106	3.74	.865	342	3.66	.927
8.	I can take the right decision and implement it regardless of challenges	106	3.98	.743	340	3.84	.923
9.	I can organize to finish my work in the available time	106	3.48	.958	340	3.53	.929
10.	I can easily lead working teams and directing people	105	3.76	.838	341	3.62	.930
11.	I always like Authority on others	104	3.85	.993	341	3.58	1.092
12.	When I have an idea, I work on achieving it by searching & learning	99	4.01	.851	337	3.84	.926
Tot	al		3.78	0.857		3.68	0.913

Table 6.17: Mean Values & Standard Deviations (Managerial Skills)

To test the previous results and predict if there is a significant difference between the entrepreneurially inclined students and non-entrepreneurially inclined students in having managerial skills, we used the Mann-Whitney nonparametric test. Table 6.18 reveals that the significant value of the total score is 0.051 which is greater than 0.05. U (95) =13118 at a significant level of 0.051. So there is no significant difference at  $\alpha \le 0.05$  between both groups regarding the managerial skills. So, test result agrees with previously mentioned results. It is worth noting that not all items have significance greater than 0.05.

These results sound logical because both groups live in the same socioeconomic environment, don't have practical experience to test their knowledge and skills, and have similar level of academic education.

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I take decisions after extensive study of the problem	106	17679.000	314-	.753
2.	I monitor the implementation of solutions to assure effectiveness	106	16301.500	-1.667-	.096
3.	I have the ability to collect and analyze data	106	16769.500	-1.198-	.231
4.	I have the ability to take decision even when ambiguous information available	104	17174.000	511-	.609
5.	I have the ability to authorize others to do something and monitor their work	105	15082.000	-2.549-	.011
6.	I have clear objectives and work to achieve them	106	16667.500	-1.334-	.182
7.	I have the ability to plan	106	17170.500	867-	.386
8.	I can take the right decision and implement it regardless of challenges	106	16762.000	-1.155-	.248
9.	I can organize to finish my work in the available time	106	17853.000	152-	.879
10.	I can easily lead working teams and directing people	105	16532.500	-1.258-	.208
11.	I always like Authority on others	104	15290.500	-2.216-	.027
12.	When I have an idea, I work on achieving it by searching & learning	99	15029.000	-1.603-	.109
To	tal	95	13118.000	-1.949-	.051

#### Table 6.18: Mann-Whitney Test (Managerial Skills)

### 6.6.2 Business Skills:

Business skills enable entrepreneurs to plan for the success of their businesses, raise fund for their projects & test their economic visibility, make financial calculations & decisions, and understand the business environment on national and international contexts. By looking at table 6.19, we notice that the mean value of all responses of entrepreneurially inclined students (3.34)66.8% have a significant difference from the mean value of all responses of non-entrepreneurially inclined students (3.16)63.2%. So, both the entrepreneurially inclined and non-entrepreneurially inclined are non homogeneous regarding having business skills.

This result is in line with Duchesneau & Gartner (1990) who found that successful entrepreneurs attained broad business skills.

To test the previous results and predict if there is a significant difference between the entrepreneurially inclined students and non-entrepreneurially inclined students in having business skills, we used the Mann-Whitney nonparametric test. Table 6.20 reveals that the significant value of the total score is 0.033 which is less than 0.05. U (101) =13582 at a significant level of 0.033. So there is a significant difference at  $\alpha \le 0.05$  between both groups regarding the managerial skills. So, test result agrees with previously mentioned results.

#	Item Entrepreneurially Inclined			urially d	Non- entrepreneurially Inclined		
		Ν	Mean	S. D.	Ν	Mean	S. D.
1.	I have the required skills to write excellent CV	105	3.59	1.035	339	3.58	.953
2.	I am able to present and market myself easily	106	3.70	.886	337	3.56	.921
3.	I have the ability to write an excellent business proposal	105	3.23	1.002	338	3.01	.939
4.	I have the ability to manage a development project	105	3.34	.939	333	3.06	.998
5.	I have the skills required for writing a business plan	106	3.27	1.000	333	2.98	.991
6.	I have excellent budgeting skills	104	2.94	.912	336	2.92	1.045
7.	I have the ability to make visibility studies	105	3.30	1.048	330	3.03	1.099
Tot	al		3.34	0.975		3.16	0.992

Table 6.19: Mean Values & Standard Deviations (Business Skills)

It is worth noting that not all items have significance values less than 0.05. Table 6.20 reveals that both groups are homogeneous in writing CVs, self presentation & marketing, and in owning budgeting skills. It also shows that both groups are non homogeneous in writing excellent proposals, managing development projects, writing business plans, and making visibility studies.

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I have the required skills to write excellent CV	105	17723.000	068-	.946
2.	I am able to present and market myself easily	106	15987.000	-1.725-	.084
3.	I have the ability to write an excellent business proposal	105	15492.500	-2.072-	.038
4.	I have the ability to manage a development project	105	14706.500	-2.581-	.010
5.	I have the skills required for writing a business plan	106	14928.000	-2.506-	.012
6.	I have excellent budgeting skills	104	17016.000	424-	.672
7.	I have the ability to make visibility studies	105	14812.000	-2.323-	.020
Tot	al	101	13582.000	-2.132-	.033

 Table 6.20: Mann-Whitney Test (Business Skills)

Although table 6.20 gives us indications about the existence or nonexistence of differences between groups, it doesn't describe the weakness and starkness of the business skills. So, when looking back to table 5.6 in chapter 5 and table 6.19 in this section, we will see that all mean values are fewer than 72%. This score reveals that the students tend to have satisfactory levels of business skills and reflect problems in academic plans and offered courses at IUG.

### 6.6.3 Communication Skills:

Communication skills are very essential to the success of entrepreneurs in achieving their endeavors. Table 6.21 reveals that the mean value of all responses of entrepreneurially inclined students (3.84)76.8% doesn't differ significantly from the mean value of all responses of non-entrepreneurially inclined students (3.83)76.6%. So, both the entrepreneurially inclined and non-entrepreneurially inclined are homogeneous regarding having communication skills.

The responses show a high ability of communication skills especially in listening, analyzing, communicating, and responding. They need to improve their skills in working with others in teams. The Arabic culture generally doesn't support team work and people in Arab countries tend to work alone.

This result is partially agrees with Duchesneau & Gartner (1990) who found that successful entrepreneurs attained strong communication skills and propensities.

#	Item	Entrepreneurially Inclined			eneurially lined Entrepreneu Incline		
		Ν	Mean	S. D.	Ν	Mean	S. D.
1.	I can effectively communicate with others	107	3.97	.783	333	4.03	.846
2.	I always listen, analyze phrases and ideas, then responding logically	105	3.96	.784	334	3.89	.855
3.	I can keep good relations and gain respect of people with different opinions and viewpoints	106	4.00	.793	332	3.95	.890
4.	I initiate the speech with people I don't know before	106	3.41	1.031	332	3.36	1.219
5.	I like working in teams.	105	3.90	.904	332	3.85	.953
6.	I like sharing opinions with other people to find solutions for problems.	105	3.80	.984	330	3.89	.928
Tot	Total		3.84	0.88		3.83	0.949

 Table 6.21: Mean Values & Standard Deviations (Communication Skills)

To test the previous results and to assure or neglect the availability of a significant difference between the entrepreneurially inclined students and non-entrepreneurially inclined students in regard to communication skills, we used the Mann-Whitney nonparametric test. Table 6.22 reveals that the significant value of the total score is 0.717 which is greater than 0.05. U (101) =15973 at a significant level of 0.717. So there is no significant difference at  $\alpha \le 0.05$  between both groups regarding the communication skills. So, test result agrees with previously mentioned results.

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I can effectively communicate with others	107	16932.500	821-	.412
2.	I always listen, analyze phrases and ideas, then responding logically	105	16743.500	750-	.453
3.	I can keep good relations and gain respect of people with different opinions and viewpoints	106	17406.000	180-	.857
4.	I initiate the speech with people I don't know before	106	17491.500	095-	.924
5.	I like working in teams.	105	16865.000	528-	.598
6.	I like sharing opinions with other people to find solutions for problems.	105	16529.500	746-	.456
Tot	al	101	15973.000	362-	.717

Table 6.22: Mann-Whitney Test (Communication Skills)

## 6.6.4 Innovation & Creativity:

Innovation & creativity are two important entrepreneurial traits which were stressed on in the literature. They distinct entrepreneurs from others in the way of thinking and acting innovatively and by coming up with new creative things. Table 6.23 reveals that the mean value of all responses of entrepreneurially inclined students (3.71)74.2% differ slightly from the mean value of all responses of non-entrepreneurially inclined students (3.53)70.6%.

#	Item	En	treprene Incline	eurially ed	Non- entrepreneurially Inclined			
		Ν	Mean	S. D.	Ν	Mean	S. D.	
1.	I often have unusual business ideas	106	3.49	1.053	339	3.42	1.007	
2.	I always try to find creative solutions to problems	106	3.92	.902	338	3.64	.986	
Tot	al		3.71	0.978		3.53	0.997	

Table 6.23: Mean Values & Standard Deviations (Innovation & Creativity)

To test the previous difference for significance and to assure that it is not accidental, we used the Mann-Whitney nonparametric test. Table 6.24 reveals that the significant value of the total score is 0.113 which is greater than 0.05. U (106) =16117 at a significant level of 0.113. So, test result doesn't agree with previously mentioned result and there is no significant difference at  $\alpha \le 0.05$  between both groups regarding Innovation & creativity trait.

This result contradicts with previous results such as Gurol & Atsan, (2006) who found that there was a significant difference between entrepreneurially inclined students and those who are not entrepreneurially inclined with regard to innovativeness. It also contradicts with (Koh, 1996) who tested the entrepreneurial characteristics of MBA students and found that students who are entrepreneurially inclined have greater innovativeness.

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I often have unusual business ideas	106	17494.000	428-	.669
2.	I always try to find creative solutions to problems	106	15051.500	-2.615-	.009
Tot	al	106	16117.500	-1.585-	.113

 Table 6.24: Mann-Whitney Test (Innovation & Creativity)

This contradiction is related to the deteriorated socioeconomic situation in Gaza strip and the restricted communication with the outside word. It is also a direct cause to the traditional education systems at schools and in higher education.

The results agreed with VELLA (2001) who found that the Maltese entrepreneur has a fairly high innovativeness (Mean = 3.67, SD = .65), but decreases with age.

# 6.6.5 Independence:

Independence reflects the desire to take decisions after making the required consultations based on clear information. Table 6.25 reveals that the mean value of all responses of entrepreneurially inclined students (2.99)59.82% differ slightly from the mean value of all responses of non-entrepreneurially inclined students (3.09)61.8%.

# Item		En	Entrepreneurially Inclined			Non- entrepreneurially Inclined		
		Ν	Mean	S. D.	Ν	Mean	S. D.	
1.	I tend to start business because the family wants that.	107	3.51	1.127	337	3.22	1.143	
2.	Often, I wait to take the agreement from family and friends to do something important	107	2.92	1.214	335	3.10	1.178	
3.	I rely on my father's decision to attend social events	107	2.81	1.282	332	3.12	1.281	
4.	I hate go shopping for clothes alone	104	2.88	1.324	331	2.98	1.353	
5.	I tend to business ideas tried by others	107	2.83	1.077	335	3.05	1.076	
Total			2.99	1.205		3.09	1.206	

 Table 6.25: Mean Values & Standard Deviations (Independence)

The overall means of both groups reveal weak responses which reflect cultural issues and problems in the social and education systems.

To test the previous difference for significance and to assure that it is not accidental, the researcher used the Mann-Whitney nonparametric test. Table 6.26 reveals that the significant value of the total score is 0.263 which is greater than 0.05. U (104) =15672.5 at a significant level of 0.263. So, test result doesn't agree with previously mentioned result and there is no significant difference at  $\alpha \le 0.05$  between both groups regarding independence.

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I tend to start business because the family wants that.	107	15311.000	-2.429-	.015
2.	Often, I wait to take the agreement from family and friends to do something important	107	16503.000	-1.271-	.204
3.	I rely on my father's decision to attend social events	107	15336.500	-2.179-	.029
4.	I hate go shopping for clothes alone	104	16524.000	630-	.529
5.	I tend to business ideas tried by others	107	15777.500	-1.940-	.052
Tota	al	104	15672.500	-1.119-	.263

#### Table 6.26: Mann-Whitney Test (Independence)

This result contradicts with the studies cited by Shane et al (2003) who discussed the results of many research regarding independence. They argue that Hornaday and Aboud (1973) surveyed 60 founders with several personality inventories and showed that these founders were significantly higher than the general population on measures of independence. Similarly, in a study with 63 founders, Aldridge (1997) found that firm founders scored significantly higher than the general population on personality measures of independence".

# 6.6.6 Internal locus of control:

Internal locus of control is one of the entrepreneurial traits which were discussed deeply from different researchers in different countries. It reflects the ability of individuals to shape their life according to their plans to achieve their stated goals. Table 6.27 reveals that the mean value of all responses of entrepreneurially inclined students (3.08)61.6% differ slightly from the mean value of all responses of non-entrepreneurially inclined students (2.96) 59.2%. The mean value for both groups suggests that students score low in internal locus of control.

# Item			Entrepreneurially Inclined			Non- entrepreneurially Inclined		
		Ν	Mean	S. D.	Ν	Mean	S. D.	
1.	I tend to start my own business regardless of results	107	3.79	.991	336	3.21	1.112	
2.	I am afraid to disagree with others while debating	105	2.82	4.902	335	2.49	1.153	
3.	I feel everything goes well and I can't make changes	107	2.89	.974	333	2.88	1.037	
4.	Luck plays the major role in projects success	107	3.00	1.221	333	3.08	1.207	
5.	I feel, I won't find a suitable job after graduation	107	2.92	1.158	330	3.14	1.260	
Total			3.08	1.849		2.96	1.154	

Table 6.27: Mean Values & Standard Deviations (Internal Locus of Control)

To test the previous difference for significance, the researcher used the Mann-Whitney nonparametric test. Table 6.28 reveals that the significant value of the total score is 0.306 which is greater than 0.05. U (105) =15834.5 at a significant level of 0.306. So, test result doesn't agree with previously mentioned result and approves that there is no significant difference at  $\alpha \le 0.05$  between both groups regarding internal locus of control.

The literature reveals different viewpoints regarding internal locus of control. The result of this research agrees with Begley & Boyd (1987) who found that the two groups (entrepreneurs & non-entrepreneurs) are similar on internal locus of control.

Duchesneau & Gartner (1990) found that successful entrepreneurs attained higher levels of internal locus of control and argued that their study is "in line with Brockhaus (1980); Brockhaus & Horwitz (1986); Frederickson & Mitchell (1984); Sandberg (1986) and contradicts with Sandberg & Hofer (1982)".

It contradicts with the most of the research namely with Birdthistle (2008) who found that that the majority of respondents in his study could be described as having an internal locus of control, which is one of the characteristics of being an entrepreneur. It also contradicts with Green et al (1996) who found in their study of Russian first-generation entrepreneurs that they share characteristics of groups similarly labeled in research in capitalist Western economies, i.e. higher scores on internal locus of control.

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I tend to start my own business regardless of results	107	12735.000	-4.700-	.000
2.	I am afraid to disagree with others while debating	105	16482.000	-1.005-	.315
3.	I feel everything goes well and I can't make changes	107	17477.000	312-	.755
4.	Luck plays the major role in projects success	107	17197.500	555-	.579
5.	I feel, I won't find a suitable job after graduation	107	16003.500	-1.498-	.134
Tot	al	105	15834.500	-1.024-	.306

 Table 6.28: Mann-Whitney Test (Internal Locus of Control)

The contradiction is very clear with Gurol & Atsan, (2006) who found that there was a significant difference between entrepreneurially inclined students and those who are not entrepreneurially inclined with regard to Locus of Control and with (Koh, H. C., 1996) tested the entrepreneurial characteristics of MBA students and found that students who are entrepreneurially inclined have more internal locus of control.

It also contradicts with Turan & Kara (2007) who found that Turkish students like challenges, have high self-esteem, possess an internal locus of control (they do not give up easily), and like to work on their own; and with VELLA (2001) who found that the Maltese entrepreneur has a moderate internal locus of control (Mean = 3.26, SD = .64).

Based on these results and the results obtained in chapter five, we can conclude that the students don't have a strong internal locus of control which is a direct result of the social and political environment in Palestine where people live under occupation and

are very frustrated because of unemployment and devastated economy and also reveals the Palestinian culture and traditions which value the family and make children depend on their families when taking crucial decisions.

# 6.6.7 Self confidence:

Self confidence or self reliance is a trait which was stressed on by previous research. It reflects the individual's internal belief in his/her self, abilities, and vision. Table 6.29 reveals that the mean value of all responses of entrepreneurially inclined students (3.87)77.4% differ slightly from the mean value of all responses of nonentrepreneurially inclined students (3.84)76.8%. The mean value for both groups suggests that students score moderate in self-confidence.

This result agrees with VELLA (2001) who found that the Maltese entrepreneur has a fairly high self-confidence (Mean = 3.78, SD = .50). Self-confidence increases with the length and stability of the business career. It also agrees partially with Choy et al (2005) who found that business students score above the average mean in self-confidence (mean = 3.62).

Turan & Kara (2007) found that Turkish entrepreneurs are achievement oriented, highly responsible, optimistic, and self- confident.

#	Item	Entrepreneurially Inclined			Non- entrepreneurially Inclined		
		Ν	Mean	S. D.	Ν	Mean	S. D.
1.	I don't find it difficult to deal with people who have different opinions and viewpoints.	107	3.79	.858	331	3.69	.939
2.	I My colleagues and friends consult me in solving their own problems	105	3.88	.863	332	3.91	.883
3.	I can give people reasonable and logical solutions for solving their problems	106	3.81	.806	332	3.73	.882
4.	I always feel, people trust me & respect my opinions	106	4.08	.686	334	4.02	.842
5.	I feel that others understand my opinions and ideas.	106	3.79	.891	334	3.84	.904
Total			3.87	0.821		3.84	0.89

 Table 6.29: Mean Values & Standard Deviations (Self Confidence)

To test the previous difference for significance, the researcher used the Mann-Whitney nonparametric test. Table 6.30 reveals that the significant value of the total score is 0.592 which is greater than 0.05. U (105) =16625 at a significant level of 0.592. So, test result doesn't agree with previously mentioned result and approves that there is no significant difference at  $\alpha \le 0.05$  between both groups regarding self-confidence.

Our result agrees with Gurol & Atsan, (2006) who found that there wasn't a significant difference between entrepreneurially inclined students and those who are not entrepreneurially inclined with regard to Self-confidence.

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I don't find it difficult to deal with people who have different opinions and viewpoints.	107	16947.500	710-	.478
2.	I My colleagues and friends consult me in solving their own problems	105	17261.000	158-	.874
3.	I can give people reasonable and logical solutions for solving their problems	106	16891.500	663-	.507
4.	I always feel, people trust me & respect my opinions	106	17455.000	234-	.815
5.	I feel that others understand my opinions and ideas.	106	17047.500	613-	.540
Tot	tal	105	16625.000	536-	.592

#### Table 6.30: Mann-Whitney Test (Self Confidence)

The result contradicts with (Koh, H. C., 1996) who tested the entrepreneurial characteristics of MBA students and found that students who are entrepreneurially inclined have more self-confidence; and also with Duchesneau & Gartner (1990) who found that successful entrepreneurs attained a high but moderated self-confidence and reliance.

### 6.6.8 Need for Achievement:

The need for Achievement trait is fundamental in testing and recognizing entrepreneurial psychology. It represents the desire and eagerness of entrepreneurs to achieve their endeavors and realize their dreams. Table 6.31 reveals that the mean value of all responses of entrepreneurially inclined students (3.93)78.6% differ slightly from the mean value of all responses of non-entrepreneurially inclined students (3.9)78%. The mean value for both groups suggests that students score moderate in need for achievement.

#	Item	Entrepreneurially Inclined			Non- entrepreneurially Inclined			
		Ν	Mean	S. D.	Ν	Mean	S. D.	
1.	I find myself very committed and work hard to achieve my goals.	106	4.09	.697	333	4.02	.827	
2.	I feel very committed when working with others to achieve my tasks and play my role positively.	106	3.97	.774	331	3.90	.858	
3.	I have the ability to expect problems before they happen.	106	3.82	.871	341	3.84	.898	
4.	I always prefer to look in details	104	3.82	.963	340	3.85	1.053	
Total			3.93	0.826		3.9	0.909	

 Table 6.31: Mean Values & Standard Deviations (Need for Achievement)

This result is similar to VELLA (2001) who found that the Maltese entrepreneur has a fairly high need for achievement (Mean = 3.81, SD=.59) and His/her need for

achievement is mainly related to competitive spirit and preoccupation with work, even during holidays; and Choy et al (2005) who found that business students score above the average mean in need for achievement (mean = 3.48).

Other results were cited by Nishantha (2008) who found that individuals with high need for achievement are more likely to have positive attitude toward entrepreneurship; and also by Green et al (1996) who found in their study of Russian first-generation entrepreneurs that they share characteristics of groups similarly labeled in research in capitalist Western economies, i.e. higher scores on need for achievement; and by Turan & Kara (2007) who found that Turkish entrepreneurs are achievement oriented, highly responsible, optimistic, and self- confident.

To test the previous difference for significance, the researcher used the Mann-Whitney nonparametric test. Table 6.32 reveals that the significant value of the total score is 0.727 which is greater than 0.05. U (103) =16409.5 at a significant level of 0.727. So, test result doesn't agree with previously mentioned result and approves that there is no significant difference at  $\alpha \le 0.05$  between both groups regarding need for achievement.

This result contradicts with Gurol & Atsan, (2006) who found that there was a significant difference between entrepreneurially inclined students and those who are not entrepreneurially inclined with regard to need for achievement; and with Koh (1996) who tested the entrepreneurial characteristics of MBA students and found that students who are entrepreneurially inclined have greater need for achievement.

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I find myself very committed and work hard to achieve my goals.	106	17086.500	539-	.590
2.	I feel very committed when working with others to achieve my tasks and play my role positively.	106	16922.500	587-	.557
3.	I have the ability to expect problems before they happen.	106	17662.500	373-	.709
4.	I always prefer to look in details	104	17056.000	570-	.569
Tot	tal	103	16409.500	349-	.727

 Table 6.32: Mann-Whitney Test (Need for Achievement)

Begley & Boyd (1987) argued that "although a study of business students by Hull et al (1980) found that need for achievements was a weak predictor of prospective entrepreneurs, most studies support the prevalence of high need for achievement among practicing entrepreneurs (Sexton and Bowman 1985). For example: Hornaday and Aboud (1971) as well as DeCarlo and Lyons (1979) found that entrepreneurs score higher than normative groups". So, they reached a final conclusion that entrepreneurs rank higher in need for achievement than do non-entrepreneurs.

### 6.6.9 Motivation & Commitment:

Motivation for establishing and developing businesses and commitment to achieve goals are core qualities of successful entrepreneurs. Table 6.33 reveals that the mean value of all responses of entrepreneurially inclined students (4.05)81% differ slightly from the mean value of all responses of non-entrepreneurially inclined students (3.99)79.8%. The mean value for both groups suggests that students score very good in motivation & commitment. This score shows a high degree of commitment and eagerness to achieve endeavors. It shows commitment towards self development, towards family and society, and high motivation by working hard and long hours.

#	Item		Entrepreneurially Inclined			Non- entrepreneurially Inclined		
		Ν	Mean	S. D.	Ν	Mean	S. D.	
1.	I can overcome obstacles and difficulties of life	106	3.75	.757	332	3.70	.859	
2.	I always develop my skills & feel responsible.	106	4.37	.637	335	4.27	.799	
3.	I am very responsible toward family and community	106	4.34	.702	336	4.23	.790	
4.	I tend to conquer fear and go forward	105	3.88	.885	333	3.88	.928	
5.	Often, I feel satisfied about myself after finishing my current task	105	4.31	.880	335	4.26	.899	
6.	I don't mind working long hours to achieve goals.	104	4.15	.932	334	4.09	1.006	
7.	I need to know the answer before asking the question	106	3.52	1.044	340	3.46	1.008	
8.	When given a task, I do the right thing even when others don't agree	107	4.10	.752	335	4.02	.935	
Total			4.05	0.824		3.99	0.903	

Table 6.33: Mean Values & Standard Deviations (Motivation & Commitment)

This results agrees with Turan & Kara (2007) who found that Turkish entrepreneurs are intrinsically and extrinsically (desiring higher income) motivated and highly involved with the control of the operations of their businesses; and it is better than the results of Choy et al (2005) who found that business students score above the average mean in hard working (mean = 3.53).

To test the significance of the difference, the researcher used the Mann-Whitney nonparametric test. Table 6.34 reveals that the significant value of the total score is 0.345 which is greater than 0.05. U (103) =15513 at a significant level of 0.345. So, test result reveals that there is no significant difference at  $\alpha \le 0.05$  between entrepreneurially and non-entrepreneurially inclined students regarding motivation & commitment.

Gupta (2009:56) argued that "early empirical studies indicated that Indian entrepreneurs have low levels of achievement motivation (McClelland & Winter, 1969). Hoewver, more recent studies show fairly high levels of achievement motivation among men entrepreneurs, while only medium level among women entrepreneurs (Shivani et. al., 2006)".

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I can overcome obstacles and difficulties of life	106	17131.000	439-	.660
2.	I always develop my skills & feel responsible.	106	16977.000	745-	.456
3.	I am very responsible toward family and community	106	16607.000	-1.135-	.256
4.	I tend to conquer fear and go forward	105	17454.000	027-	.979
5.	Often, I feel satisfied about myself after finishing my current task	105	16984.000	580-	.562
6.	I don't mind working long hours to achieve goals.	104	16963.000	383-	.701
7.	I need to know the answer before asking the question	106	17245.000	699-	.485
8.	When given a task, I do the right thing even when others don't agree	107	17505.500	385-	.700
Tot	al	103	15513.000	944-	.345

#### Table 6.34: Mann-Whitney Test (Motivation & Commitment)

## 6.6.10 Propensity to take Risk:

Taking calculated risk and account for every obstacle as well as taking informed risky decisions are important traits of successful entrepreneurs. Table 6.35 reveals that the mean value of all responses of entrepreneurially inclined students (3.69)73.8% differ slightly from the mean value of all responses of non-entrepreneurially inclined students (3.64)72.8%. The mean value for both groups suggests that students score good in risk taking propensity. This score shows a moderate degree and tendency to take risk. It reveals that students account for risk but take calculated risky decisions.

This result agrees with Gupta (2009:56) who found that "empirical studies of different Indian regions indicate that both male and female entrepreneurs in India score rather low on risk-taking propensity measures (Rutten, 2006)".

It also agrees with VELLA (2001) who found that the Maltese entrepreneur has a moderate risk propensity (Mean = 3.22, SD = .55). They were not prepared to take high risks for high returns and were generally unwilling to risk family savings on a new venture and would rather settle for an entrepreneurial career with moderate risk taking that could offer income security and where it is not necessary to risk the family savings on new ventures.

#	Item	Entrepreneurially Inclined			Non-entrepreneurially Inclined		
		N	Mean	S. D.	Ν	Mean	S. D.
1.	I am a risk taker and can take hard decisions	106	3.75	.967	333	3.65	1.064
2.	I tend to venturing in business and taking risk even when future is ambiguous	105	3.49	.931	334	3.35	1.052
3.	I like trying new varieties of foods and experience.	105	3.84	1.057	334	3.92	1.045
Total			3.69	0.985		3.64	1.054

 Table 6.35: Mean Values & Standard Deviations (Propensity to take Risk)

Choy et al (2005) found similar results and argued that business student's score had considerably high mean values even though they were below the average mean score in risk taking (the lowest mean of 3.17). This may be due to the reason that most of the respondents do not have much exposure to risk-taking events throughout their schooling years as compared to those already working with extensive experiences.

Duchesneau & Gartner (1990) found that "successful entrepreneurs attained risk reducing behaviors which is in line with Collins & Moore (1967); Mitton (1984); Van de Ven et al. (1984); Webster (1976)".

To test the significance of the difference between both entrepreneurially and nonentrepreneurially inclined students, the researcher used the Mann-Whitney nonparametric test. Table 6.36 reveals that the significant value of the total score is 0.513 which is greater than 0.05. U (105) =16498.5 at a significant level of 0.513. So, test result reveals that there is no significant difference at  $\alpha \le 0.05$  between both groups of students regarding propensity to take risk.

#	Item	df	Mann- Whitney U	Z	Asymp. Sig. (2- tailed)
1.	I am a risk taker and can take hard decisions	106	16810.500	769-	.442
2.	I tend to venturing in business and taking risk even when future is ambiguous	105	16214.000	-1.218-	.223
3.	I like trying new varieties of foods and experience.	105	16734.500	742-	.458
Tot	Total		16498.500	653-	.513

|--|

Our result doesn't agree with Begley & Boyd (1987) who found that entrepreneurs score higher in risk-taking propensity than do non-entrepreneurs.

In conclusion, the results in this section show that there is no significant difference at  $\alpha \le 0.05$  between entrepreneurially and non-entrepreneurially inclined students in regard to managerial skills, communication skills, Innovation & creativity, independence, internal locus of control, self-confidence, need for achievement, motivation & commitment, and propensity to take risk but both groups are non homogeneous regarding having business skills. The results disapprove the fourth hypothesis except for the business skills.

This conclusion reveals the effect of culture, traditions, and deteriorated political & economical situation in the Gaza strip. It also refers to the effect of education system and raises the need for adopting a new reform strategy for higher education in Palestine which motivates entrepreneurship in all academic disciplines.

# 6.7 Student's perspectives (sources of information about BIs):

This item aims at detecting the most important sources from which the students got information about business incubators. Table 6.37 shows that (21.6%) of the respondents got their knowledge about business incubators when attending academic courses and (19.1%) got their knowledge when attending a workshop. Other sources represent percentages less than (15%) each. The results reveals that students don't pay enough attention to self learning (14.2%) which needs to find mentoring tools in order to encourage students to seek information and enrich knowledge.

	Table 0.57. Sources of milor	mation about	DIS
#	Item	Frequency	Percent
1.	Academic courses	35	21.6
2.	Training course	18	11.1
3.	Workshop	31	19.1
4.	Brochure	19	11.7
5.	Self learning	23	14.2
6.	Television	22	13.6
7.	Others	14	8.6
Total	·	162	100

Table ( 27. Sources of information about DIa

The researcher got the responses of the experts during the interviews regarding the most effective source for disseminating knowledge about business incubators. Table 6.38 shows the rankings given by experts to different sources. Academic courses were ranked as the first tool for disseminating knowledge by all experts which reflects its importance and suitability for students. It is also in line with the responses of students in the previous table. Workshops and training courses come in the second and third places. They are valuable resources but students aren't urged but encouraged to attend them. Other sources were ranked differently from experts reflecting different backgrounds.

4	Itom	Expert Ranking (Annexes 9.4a, 9.4b, 9.4c)								
#	Item	1 <sup>st</sup> interview	2 <sup>nd</sup> interview	3 <sup>rd</sup> interview						
1.	Academic courses	1	1	1						
2.	Training course	3	2	3						
3.	Workshop	2	3	2						
4.	Brochure	4	6	5						
5.	Self learning	5	4	6						
6.	Television	6	5	4						

 Table 6.38: Expert Ranking (BIs information dissimination tools)

It is important to recognize the role of academic courses and workshops, hence to increase the number of academic courses and enrich their contents to motivate entrepreneurial perspectives of students. It is also important to find a framework for cooperation between business incubator initiatives, faculties, and alumni units to arrange workshops and training courses for students and university graduates to serve this purpose.

Other sources such as media could be used in light of a national plan for promoting entrepreneurial culture among youth in all ages at schools, universities, colleges, and for handcrafts workers.

# 6.8 Services provided by Business Incubators:

This section aims at discussing the types of services provided by business incubators from the viewpoint of students and experts. The literature refers to two major services: the general shared services and the training services.

## 6.8.1 Most important services to be provided by BIs:

The literature identified a set of services which must be provided by a typical business incubator. Costa-David et al (2002) argued that benchmarking and best practice sharing should focus on a four key incubator service areas: entrepreneur training, business support, financing, and technology support. They also argued that practices are now more or less standardized with regard to the provision of incubator space and the challenge facing incubators is more to focus on developing first-class business support services, including a virtual dimension for firms not located in incubators.

As depicted in table 6.39, respondents see that the "direct finance" is the most important resource to be provided by business incubators. This result comes as a direct response to the economic problems and high rates of unemployment in the Gaza Strip. It is also very logical since entrepreneurs have the applicable ideas, motivation, and skills to begin a business but don't have the required financial resources.

#	Item	Ν	Mean	Weighted		Choices						Rank	
				Average	1	2	3	4	5	6	7	8	
1.	Consultancy Services	139	3.68	54.00%	18	19	33	24	21	13	11	0	3
2.	Direct Finance	144	2.69	66.38%	62	27	11	12	12	11	7	0	1
3.	Communication & marketing	141	4.51	43.63%	5	17	23	25	24	22	24	0	5
4.	Technical Services	141	4.64	42.00%	12	10	23	21	15	27	32	0	6
5.	Place (Premises)	139	3.32	58.50%	29	39	15	18	9	11	17	0	2
6.	Logistics & Administrative Support	143	4.81	39.88%	8	12	8	27	30	34	22	0	7
7.	Training & Capacity Building	141	4.20	47.50%	21	18	18	12	22	28	21	0	4
8.	Others	88	7.70	3.75%	1	1	0	3	0	0	1	82	8

Table 6.39: Most important services provided by BIs

The "place" comes as the second most needed resource to be provided by business incubators. This is also important for Gaza because it lacks the infrastructure such as industrial areas in addition to the weak political environment and official bodies such as ministries and industrial consortiums. "Consulting services" comes in the third place because students and graduates need to be mentored by professional people who have rich experience in finance, marketing, business establishment, and legal system. "Training & capacity building" comes in the fourth place which indicates that some of the respondents lack skills and competences such as building business plans, writing proposals, budgeting, and other services needed to establish and operate new business. This weakness was very clear in previous sections when evaluating the business skills of students. "Communication & marketing" comes in the fifth place because the respondents are concerned with the initial services & resources needed to establish a

business. They don't think in recourses needed to market goods and products. Technical services and logistics & administrative support come in the sixth and seventh place.

Table 6.40 shows how experts rank services provided by BIs to tenants based on their experience in the field. The responses reveal different viewpoints which reflect the levels of experience, role played in incubation sector, and academic background of the experts. "Communication & marketing" comes either in the sixth or the seventh places according to experts and in the fifth place by students which reflects its importance in the future and after achieving the success in business development and operation. "Training & Capacity building" comes in the fourth place by the students and one of the experts and in the fifth place by the other two experts which reflects moderate importance. Other services have mixed ranks.

4	Itom	Expert Ranking (Annexes 9.4a, 9.4b, 9.4							
#	Item	1 <sup>st</sup> interview	2 <sup>nd</sup> interview	3 <sup>rd</sup> interview					
1.	Consultancy Services	6	1	3					
2.	Direct Finance	2	7	1					
3.	Communication & marketing	7	6	6					
4.	Technical Services	3	2	7					
5.	Place (Premises)	1	4	2					
6.	Logistics & Administrative Support	5	3	4					
7.	Training & Capacity Building	4	5	5					

#### Table 6.40: Expert Ranking (Services provided by BIs)

These different and non-homogenous results of experts reflect the absence of a development strategy on national and academic levels. It also reflect the shortage of information in regard to business development, graduates skills, and development polices & strategies. Hence, it reflects the absence of a unified framework for small business & entrepreneurship development.

The experts provided an additional two services to be provided by business incubators including: legal advisory services and mentoring.

Table 6.41 shows the relationship and degree of dependency between entrepreneurial inclination of students and how they rank the services provided by business incubators. By examining the numbers in the table, we will see that there is no relationship between entrepreneurial inclination of students and their perception about the provided services by business incubators. All significance values are above the 0.05 level

	Table 0.41. Chi-square rest (Incubation services)										
#	Item	Ν	Chi-Square	df	Asymp. Sig.						
1.	Consultancy Services	300	6.292	6	.391						
2.	Direct Finance	314	5.308	7	.622						
3.	communication & marketing	303	1.080	7	.993						
4.	Technical services	303	6.715	7	.459						
5.	place	297	6.534	7	.479						
6.	logistics & administrative support	302	2.582	7	.921						
7.	Training & Capacity Building	298	11.494	7	.118						

Table 6.41:	Chi-Square	Test	Incubation	services)
1 4010 0.111	Chi Square	I COU	Incubation	Ser vices

This means that there is no difference between entrepreneurially and nonentrepreneurially inclined students in regard to their perception of incubation services provided by BIs which contradict partially with the fourth hypothesis in the research.

Costa-David et al (2002) in their studies of benchmarks of BIs in Europe argued that two areas – entrepreneur training and financing -might be prioritized since these appear to be where there is the least know-how.

Von Zedtwitz, M.; Grimaldi, R. (2006) listed the following five services and argued that they are the most frequently mentioned in the incubation research:

- 1. Access to physical resources such as office space and IT infrastructure.
- 2. Office support services such as secretarial and mail services, security systems, and IT troubleshooting.
- 3. Access to capital, including seed money, venture capital, etc.
- 4. Process support such as mentoring, coaching, consulting, but also legal advice and bookkeeping.
- 5. Networking services, both incubator internal as well as external with customers, collaborators, and potential investors.

Our results agree with Abduh et al (2007) who found that "for facilities related services space and building facilities item is perceived to be the most important service (x= 3.77), which is followed, by the credibility/visibility enhancement (x= 3.52), Office Equipment (x= 3.17), and Shared Office Services (x= 3.15). It is interesting to note that all the mean values denoting the importance attached to these services exceed 3.0 suggesting that all services are perceived as important by the clients".

### 6.8.2 Most important training fields to be covered by BIs:

Table 6.42 shows the responses of the students in regard to the training fields to be provided by the business incubator.

#	Item	Ν	Mean	Weighted	-	Choices						Rank	
				Average	1	2	3	4	5	6	7	8	
1.	Visibility Studies & Business Plans	140	3.24	59.50%	34	28	15	25	16	15	7	0	2
2.	Marketing	139	4.76	40.50%	7	11	18	18	32	26	26	1	6
3.	Financial Management	138	4.30	46.25%	11	18	18	26	23	23	17	2	4
4.	Communication	135	4.42	44.75%	6	14	26	20	23	33	12	1	5
5.	Creativity & Critical Thinking	145	2.30	71.25%	73	27	12	14	8	4	6	1	1
6.	HRM	134	4.22	47.25%	11	23	20	17	21	21	19	2	3
7.	Modern Technology	138	4.77	40.38%	11	19	14	17	11	21	42	3	7
8.	Others	85	7.56	5.50%	2	1	0	2	1	2	2	75	8

 Table 6.42: Most important training fields to be provided by BIs

Training in "creativity and critical thinking" has the highest score in the rank. The respondents feel that they need to learn how to think logically and innovatively in order to take calculated and informed decisions regarding establishing their new businesses.
"Visibility studies and business plans" comes in the second place in the rank. This course is very important because it deals with techniques to broadcast the market and how to make cost/profit analysis as well as testing the economical visibility of new projects. Again it is worth considering that this response is in line with the evaluation of student's skills. "HRM" takes the third place in the rank and shows that the respondents think in grasping the skills needed in managing people to effectively manage their business. "Financial management and communication skills" come in the fourth and the fifth places. They are needed to manage financial resources and communicate with other people during the operation stage. Marketing and modern technology come in the sixth and seventh places in the rank. Marketing is very important but it is an advanced skill and is needed in the maturity stages of the businesses and not at the startup. Respondents concentrate on the training needed to establish a new business and aren't concerned with skills needed in the operation and maturity stages.

Table 6.43 shows the ranks of training fields to be covered by the business incubator as perceived by the experts.

щ	Itom	Expert Ranking (Annexes 9.4a, 9.4b, 9.4c)			
#	Item	1 <sup>st</sup> interview	2 <sup>nd</sup> interview	3 <sup>rd</sup> interview	
1.	Feasibility Studies & Business Plans	1	1	1	
2.	Marketing	5	3	2	
3.	Financial Management	3	4	4	
4.	Communication	2	2	6	
5.	Creativity & Critical Thinking	7	5	5	
6.	HRM	4	7	3	
7.	Modern Technology	6	6	7	

 Table 6.43: Expert Ranking (Training provided by BIs)

There is an agreement between the three expert that the "Visibility studies & business plans" is the field with the highest priority. This result agrees with the outcomes from the previous two chapters which indicated weakness in business skills especially in preparing visibility studies and business plans and it is also in agreement with the literature which gives extraordinary space for clarifying the importance of business plans for the establishment of new businesses in BIs. Training on "modern technology" has partial agreement in ranking between the sixth (responses of two experts) and seventh (responses of one expert & the students) places which indicate a very low level of priority. Training on "financial management" comes in the fourth place as ranked by two experts and the students which reflect a moderate level of priority. Training on creativity and critical thinking was very striking because it was ranked as the highest important field by students but has a very low priority as perceived by experts.

Table 6.44 shows the relationship and degree of dependency between the entrepreneurial inclination of students and how they rank the training services provided by business incubators.

By examining the numbers in the table, we will see that there is no relationship between entrepreneurial inclination of students and their perception about (ranking of) the training services to be provided by business incubators. This means that there is no difference between entrepreneurially inclined and non-entrepreneurially inclined students in regard to their perception of training fields to be covered by business incubators which contradict partially with the fourth hypothesis in the research.

#	Item	N	Chi-Square	df	Asymp. Sig.
1.	Visibility studies & Business Plans	303	4.815	7	.682
2.	Marketing	302	4.031	7	.776
3.	Financial Management	293	6.065	7	.532
4.	Communication	298	6.859	7	.444
5.	Creativity & Critical Thinking	309	7.601	7	.369
6.	HRM	290	6.349	7	.500
7.	Modern Technology	296	6.992	7	.430

Table 6.44: Chi-Square Test (Training Services)

The previous discussions in the last two subsections reveal that there is no significant difference at  $\alpha \le 0.05$  between entrepreneurially and non-entrepreneurially inclined students and their perception about the provided services by business incubators which contradicts partially with the fourth hypothesis.

# 6.9 Incubation Policies & Criteria:

This section discusses some important polices and criteria adopted by business incubators. These policies deal with partnership mechanisms, exit criteria, and most suitable place for holding the business incubator.

# 6.9.1 Most suitable type of partnerships (mechanism) with the BIs:

There are many forms of partnerships adopted by different types of BIs in different countries, some of which could not be adopted or rejected due to religious, social, and cultural differences. These forms also depend on the local economy and legal system applied in the country. The entrepreneurial tendency of graduates and potential incubate plays a major role too.

Table 6.45 shows the responses of the students in regard to the relationship they intend to make with the business incubator. (44.2%) of the respondents prefer to have a full partnership with the business incubator for profit sharing. This type of partnership accounts for risk and assures a reasonable profit for continuous period of time. (31.8%) prefer to make a partnership in the first five years and share profit with the incubator. They want to own their business fully after five years and go out of the incubator. (21.4%) prefer to pay fiscal amounts of money for the services they got from the incubator. They want to own their business fully from the early beginning. The rest (2.6%) of the respondent prefer other forms of partnership with the incubator.

#	Item	Frequency	Percent
1.	Continuous Relation for profit sharing	68	44.2
2.	Fiscal Amounts of Money for Provided Services	33	21.4
3.	Profit Sharing in the first five years	49	31.8
4.	Others	4	2.6

Table 6.45:	Types of	partnerships	with	BIs

Table 6.46 reflects the ranking of partnership schemes as perceived by experts. There are mixed responses in which two experts give the highest priority for "sharing profit in the first five years". This selection is based on the perception that tenants could achieve success within the specified time limit and hence they will be very motivated to leave the incubator and keep their money for further development and expansion. The success of the incubated projects within the time limit enables the incubator to recover its costs and gain some additional money for incubating new businesses. "Fiscal amount of money" is ranked in the third place by two experts and in the second by one which reflects the complexity facing its application in Gaza because entrepreneurs don't have enough money to pay.

#	Itom	Expert Ranking (Annexes 9.4a, 9.4b, 9.4d			
#	Item	1 <sup>st</sup> interview	2 <sup>nd</sup> interview	3 <sup>rd</sup> interview	
1.	Continuous Relation for profit sharing	2	1	2	
2.	Fiscal Amounts of Money for Services	3	2	3	
3.	Profit Sharing in the first five years	1	3	1	

Table 6.46: Expert Ranking (Partnership Mechanism)

The method of paying monthly payments for the offered services could not be applied in the Gaza strip because of the bad economical situation and the unsuitable environments of investment. To give loans with interest rates is also not acceptable due to religious backgrounds and conservativeness of the people. Thus, shared percentages of profit are the most suitable method and are highly preferred from tenants. It gives tenants the ability to survive until they achieve profits but it has high risk to the incubator and gives a feeling of irresponsibility from the side of tenants.

The results of the focus group (annex 9.3) and the workshops (annexes 9.2a, 9.2b) stressed the importance of borrowing and providing loans for entrepreneurs to establish and develop their businesses.

## 6.9.2 The most suitable exit criteria preferred:

Table 6.47 shows the responses of the students in regard to the exit criteria from the incubator. It is an important topic and is part of polices adopted by business incubators. (58.6%) of the respondent prefer to exit the incubator directly after covering their expenses. They will leave as soon as covering their expenses regardless of making profit. (10.2%) of the respondents prefer to leave the incubator directly after achieving profits. They want to assure the success of their business and account for risk before leaving. (17.8%) of the respondent prefer not to leave the incubator at all regardless of success or failure of their businesses. Business incubators normally don't accept such propensity from incubated tenants because the primary concept of incubation aims at helping in establishing and supporting the initial stages of new businesses for a fixed period of time and accounts for new interested entrepreneurs to generate new businesses. (6.4%) of the respondent prefer to leave after three years regardless of business success or failure and without paying attention to covering expenses or achieving profit. The last choice sounds illogical and contradicts with the primary concepts of business development.

#	Item	Frequency	Percent
1.	When Covering Expenses	92	58.6
2.	Immediately after Achieving Profit	16	10.2
3.	Never leave	28	17.8
4.	After Three Years	10	6.4
5.	others	11	7.0

#### Table 6.47: Exit criteria from BIs

Table 6.48 reflects the expert's responses in regard to exit criteria. The choice to "never leave the incubator" is rejected from all experts and takes the lowest priority in the rank. "Leave when covering expenses" is ranked in the second place by two experts and in the first by one expert & the students in the previous table. Other choices have mixed responses.

The results of the focus group (annex 9.3) and the workshops (annexes 9.2a, 9.2b) stressed the importance of the following things:

- Assuring continuity of new businesses after graduation & exiting the incubator.
- Making sure that tenants have gained the required experience to survive.
- Establishing legal systems & rules to protect the Palestinian products provided by emerging and fragile businesses.

# Itom		Expert Ranking (Annexes 9.4a, 9.4b, 9.4c)			
#	Item	1 <sup>st</sup> interview	2 <sup>nd</sup> interview	3 <sup>rd</sup> interview	
1	When Covering Expenses	2	1	2	
2	Immediately after Achieving Profit	1	2	3	
3	Never leave	4	4	4	
4	After Three Years	3	3	1	

Table 6.48: Expert Ranking (Exit Criteria from BIs)

In conclusion, exit and graduation criteria must be established from the early beginning of the incubation process and the tenants have to take care of such polices. The tenancy period is normally between 6 months and three years. Policies must be established to organize this process for successful and unsuccessful tenants. The relation with the tenants must be continued after graduations to assure the continuity of success and to offer other types of support as well as having benefit from those graduated companies.

Costa-David et al (2002) argued that "the importance of adopting exit criteria that ensure a turnover of client companies is desirable even if the turnover of firms makes revenue levels from rental income and other services less certain. Similar considerations apply to the question of exit rules. The research suggests that most incubators do, in fact, limit the length of time companies can remain as tenants (typically to around 3 to 5 years). Moreover, in many cases, companies move on to new locations because they need more space to grow". They then argued that highly specialized incubators – e.g. biotechnology incubators – may have longer tenancy periods for their clients reflecting the nature of business activities".

UKBI (2004) discussed exit strategies and arguing that time limit must be set to a maximum of three years; and Lavrow & Sample (2000) preferred an a average duration of incubation of two to three years but ranges from 3 months and up.

## 6.9.3 The most suitable place for holding the incubator:

Kumar & Kumar (1997) showed the advantage of locating the incubator either near a university or near a research laboratory so that tenants have easy access to technical facilities; and argued that incubators located near a university get added advantage of access to students, faculty members, research labs and libraries. Similarly, proximity to a research lab provides access to scientists, engineers and state-of-the-art equipment/testing facilities. In both cases "image" is an added bonus. It is also preferred to situate the incubator in a high-tech, top quality building, preferably with a telecommunications infrastructure to electronically connect companies with each other and the outside world.

Table 6.49 reflects the student responses regarding the most suitable place to hold the business incubator. There are many trends in this regard but the most prevalent are those led by the government by one of its ministries or in the technology town. (45.5%) of the respondents prefer the technology town. This choice is most suitable for ICT industry but not for other industries and reflects that a great number of respondents plan to establish their business in the ICT sector as will be tested in the following sections. Other responses come without significant difference between respondents. (18.6%), (17.3%), and (45.4%) are for industrial area, ministry, and tertiary education institution respectively.

#	Item	Frequency	Percent
1.	Industrial Area	29	18.6
2.	Ministry	27	17.3
3.	Tertiary Education Institution	24	15.4
4.	Technology Town	71	45.5
5.	Others	5	3.2

Table 6.49: Suitable place to hold the incubator

Table 6.50 shows the responses of the experts regarding the most suitable place for holding the incubator. There is homogeneity of responses by all experts that "Ministry" is not a preferred place although the establishment and development of business incubators in developing countries is typically funded by national and local governments as cited by Stefanović (2008). This contradiction reflects the deteriorated and unstable political situation in the Palestinian territories. "Technology town" was ranked in the second place by two experts and in the first place by one expert and was given the highest percentage in student's responses; so, it sounds the best choice. Other responses were mixed.

	Table 0.50: Expert Kanking (Suitable place for <b>B</b> 18)				
#	Item	Expert Ranking (Annexes 9.4a, 9.4b, 9.4c)			
#		1 <sup>st</sup> interview	2 <sup>nd</sup> interview	3 <sup>rd</sup> interview	
1.	Industrial Area	1	3	2	
2.	Ministry	4	4	4	
3.	Tertiary Education Institution	3	1	3	
4.	Technology Town	2	2	1	

 Table 6.50: Expert Ranking (Suitable place for BIs)

## 6.9.4 Students Entrepreneurial Inclination & Incubation Policies:

This subsection aims at testing the relationship between entrepreneurial tendency of students and their perceptions about business policies and criteria. Table 6.51 shows that the significance values of the three main polices discussed in the previous subsections. The significance value of the first item equals 0.030 which is less than 0.05 and reflects the availability of significant difference between entrepreneurially and non-entrepreneurially inclined students in their perception of the partnership mechanism to be adopted for business incubation in the Gaza strip. The significance value of the second item is 0.626 which is greater than 0.05 and reflects that both entrepreneurially and non-entrepreneurially inclined students are homogeneous in regard to the exit period and criteria. The significance value of the third item is 0.022 which is less than 0.05 and reflects the existence of difference between both groups in regard to the most suitable place for holding the incubator.

In conclusion, there will be a significant difference at  $\alpha \le 0.05$  between the entrepreneurial inclination of respondents and their perception of the partnership mechanisms and the most suitable place for holding the incubator which agrees partially with the fourth hypothesis. There also will be no difference between entrepreneurial inclination of students and their exit "graduation period" which contradicts partially with the fourth hypothesis.

#	Item	Ν	Chi-Square	df	Asymp. Sig.
1.	Partnership mechanisms with the Incubator	347	8.942	3	.030
2.	Exit Period & Criteria	351	2.606	4	.626
3.	Most suitable place for holding the incubator	351	11.397	4	.022

Table 6.51: Chi-Square Test (incubation policies & criteria)

# 6.10 Supported Business fields & Incubation Priorities:

Table 6.52 shows the responses of students in regard to the business fields suitable for business incubation. (41.9%) of the respondents see that the information & communication technology (ICT) as the most suitable field for incubation. Their choice depends on the notion that ICT can overcome obstacles such as closure, siege, and don't want raw materials like other types of industries. (20.6%) prefer the field of export and import while (10.3%) prefer the field of legal consulting services. (16.1%) prefer to establish the business in the electronics field. They may be affected by their academic background but in general we can merge them to those who prefer the ICT sector.

	Table 0.52. Wost suitable business neids for incubation					
#	Item	Frequency	Percent			
1.	ICT	65	41.9			
2.	Export & Import	32	20.6			
3.	Legal & Consulting	16	10.3			
4.	Electronics	25	16.1			
5.	Others	17	11.0			

Table 6.52: Most suitable business fields for incubation

Table 6.53 shows the ranks of the business fields by the experts. The responses of experts agree with those of students in regard to the ICT sector. The three experts rank

the ICT as the first sector suitable for incubation projects. Export & Import was ranked in the fourth place with the least priority because it needs a free economy without closure and siege which is in contradiction with ICT in this regard. The other two sectors have the same priority.

Tuble Gleet Expert Running (Buisness Fields)					
#	Itom	Expert Rank	nking (Annexes 9.4a, 9.4b, 9.4c)		
#	Item	1 <sup>st</sup> interview	2 <sup>nd</sup> interview	3 <sup>rd</sup> interview	
1.	ICT	1	1	1	
2.	Export & Import	4	4	4	
3.	Legal & Consulting	2	2	3	
4.	Electronics	3	3	2	

 Table 6.53: Expert Ranking (Buisness Fields)

The results of the interviews (Annexes 9.4a, 9.4b, 9.4c) with the experts reveals additional fields which are suitable for incubation in Gaza such as: modern farming companies & biotechnology-based industries. They also stressed the importance of establishing specialized firms for different branches of ICT such as: information security, cartoon production, and web applications.

Table 6.54 shows the outcomes of the workshops and focus group in regard to incubation priorities suitable for Gaza strip.

Toola	1 <sup>st</sup> Workshop	2 <sup>nd</sup> Workshop	Focus Group
1 0015	(annex 9.2a)	(annex 9.2b)	(annex 9.3)
Incubation Priorities	<ul> <li>Electronics and electrical sector</li> <li>Programming and IT sector</li> <li>Media, Journalism, and English language</li> <li>Mechanical and recycling industries</li> <li>Cleaning and hygiene products</li> <li>Handcraft such as pottery and ceramics</li> <li>Clothes and textile manufacturing</li> <li>Wood industries like domestic furniture</li> </ul>	<ul> <li>Electronics and IT sectors (ICT).</li> <li>Media Coverage Services.</li> <li>Translation &amp; linguistics services.</li> <li>Recycling industries &amp; hygiene products</li> <li>Clothes and textile manufacturing</li> <li>Wood industries like domestic furniture</li> </ul>	<ul> <li>Clothes and textile industry</li> <li>Plastic, metal and wooden industries</li> <li>IT industry</li> <li>Agriculture industry</li> </ul>

 Table 6.54: Incubation Priorities (results of focus group & workshops)

The previous list contains a lot of fields but the following four fields are the most common:

**Information & Communication Technology (ICT):** ICT field is very attractive for investment due to the technological prosperity all over the world. An important slice of the graduates in the Gaza Strip have an academic background related to the ICT. They have academic degrees in computer engineering, IT, computer science, electrical & industrial engineering and other related fields. ICT is now widely accepted by developing countries as a critical tool in their efforts to eradicate poverty, enhance human development, and achieve development goals.

**Textile Industry:** it is also a very attractive field because Gaza Strip has a pool of professionals in the field. They were educated and trained nearly before five years when Gaza was opened to the outside world and have access to other countries.

**Agriculture-based industries:** Gaza Strip has a very fertile soil and high unemployment. The farmers in Gaza have rich experience and very competent. They export their products (strawberry & flowers) to Europe and other countries. The agriculture industry faces obstacles due to the restricted access to outside world.

**Media, Journalism, and English Language:** the field of media & journalism is growing in Gaza due to the deteriorated political situation and the competence between news agencies in delivering news and medial materials. Translation is also very attractive because a lot of graduates can work virtually from their homes in translation without a need to a fixed office.

Gaza Strip is highly populated area with restricted access to the outside world. The economical situation is very bad and it is under hard siege and closure since three years. This situation has a direct impact on the small business industry because of the lack of raw materials and it is impossible to export goods and products from Gaza strip to the outside world.

To test the relationship between entrepreneurial inclination of students and their perception about incubation priorities, the researcher used the Chi-Square test. Table 6.55 shows that the significance value equals 0.029 which is less than 0.05 and reflects the existence of difference between entrepreneurially and non-entrepreneurially inclined students in regard to their perception about incubation priorities. This approves the fourth hypothesis partially.

Table 6.55: Chi-Square Test (incupation priorities)

#	Item	Ν	Chi-Square	df	Asymp. Sig.
1.	Business establishment sector	348	10.754	4	.029

# 6.11 Obstacles & Success Factors of BIs in Gaza Strip:

## 6.11.1 Obstacles facing the establishment & development of BIs:

There are many obstacles facing the establishment and operation of business incubators in the Gaza Strip. Some of which are direct results of the siege, closure, and occupation while the others are related to common factors as found in any country all over the world. Table list the most frequent obstacles as seen by the students ranked from the most important to the less important obstacle.

Table 6.56 reveals that a majority of the respondents (students & experts) as reported in the open questions of the questionnaire, focus group & workshop reports, and the interviews see that the occupation, closure, and siege of Gaza Strip represent the greatest obstacle to the development and operations of business incubators. These obstacles affect directly the availability of materials, accessibility of the outside world, and availability of international experts.

Due to the humanitarian crisis in the Gaza strip the international donors are focusing on relief activities and not to think in developmental issues. As a direct result, there is a shortage in the available funds aiming at supporting the business incubators. The deterioration of political situation and internal conflict are directly affecting the environment of investment in Gaza Strip. Shortages in professional labor and shortages

in raw materials were mentioned by the respondents as obstacles. High rates of unemployment are a controversial issue. Some of the researchers found it as a motivating issue to establish business incubators while the others classified it as an obstacle.

#	Item
1.	Occupation, Closure, & Siege
2.	Shortages in available funds & financial support
3.	Political embargo & internal conflict
4.	Shortages in professional labor
5.	Shortages in raw materials
6.	High rates of unemployment
7.	Shortages in entrepreneurs and venture capitalists

Costa-David et al (2002) mentioned many Challenges Facing Incubators in the industrializing and restructuring countries where incubation has started more recently and where incubators operate in the more difficult environments of:

- Governance structures that are not autonomous nor pro-active,
- Management that often lacks specific business experience and training,
- Inadequate preparation to assess the market needs, the financial viability, the location and size of building, and to mobilize community support,
- Poor operating procedures with haphazard selection and exit processes for client-companies,
- Weak linkages to the knowledge base and external support networks,
- Inadequate services for clients and cheap work-space as the main attraction,
- Limited financial resources, for the incubator development and for the clients
- Inadequate monitoring and evaluation systems, continuing dependence on external subsidy

Lalkaka (1997) argued that starting a new business at anytime and anywhere is a hazardous task and problems are compounded for developing countries in knowledge-based ventures:

- Appropriate work-spaces are difficult to find and require long-term leases and demonstrated ability-to-pay that increase the financial pressure on early-stage businesses.
- Capital requirements are generally larger, while traditional banks are ill equipped to deal with the perceived risk. Venture capital generally only becomes an option when the venture has documented the merits of its management, market and innovation;
- Technology-based ventures can benefit from linkages to sources of knowledge that is the technical university or research lab. Such mentoring needs to be cultivated;
- Entrepreneurs often have technical skills but usually lack the business management and marketing skills necessary for success. They often lack credibility and contacts with business networks;
- In fields where technology is changing rapidly, it is often advantageous to make technology acquisition arrangements. Sourcing such innovations, negotiating technology licensing agreements and protecting the intellectual property itself require special skills;

- Knowledge-based innovations are inherently more risky than others. The management of this unique risk requires assessment techniques and vision.
- Technology based ventures often have social and environmental implications, which need to be managed carefully;
- Penetrating a competitive niche market requires market intelligence, a sound strategic plan and good luck.

## 6.11.2 Required tools to assure success of BIs:

There are a lot of tools required to assure success of business incubators and establishment of small business. The researcher in this section sheds light on those factors as perceived by Stakeholders and experts participated in the workshops, the focus group, and interviews and the respondents to the questionnaire. Table 6.57 lists summaries of the most common success factors for the three categories of respondents.

Tools	Workshops & focus group	Interviews	Students questionnaire
	(annex 9.2a, 9.2b, 9.3)	(Annexes 9.4a, 9.4b, 9.4c)	(annex 9.1)
Success Factors	<ul> <li>Financial support</li> <li>Financial support</li> <li>Business Plans and continuous assessment</li> <li>Legal environment &amp; legal system</li> <li>Rehabilitate the management team (training &amp; development)</li> <li>Marketing Services</li> <li>Regular supervision &amp; mentoring</li> <li>Availability of raw materials</li> <li>Database includes all companies, institution and associations</li> <li>Suitable environment for the incubator (place+ requirements)</li> <li>Provide Training for staff</li> <li>Logistic services including consultancies, IT &amp; telecommunication and regular developments courses.</li> </ul>	<ul> <li>Availability and durability of funds and diversified donors.</li> <li>Experienced, entrepreneurial, proactive, &amp; competent management team.</li> <li>Availability of real &amp; motivated entrepreneurs.</li> <li>Access to regional &amp; international markets.</li> <li>Availability of a pool of consultants &amp; professionals</li> <li>Excellent Infrastructure.</li> <li>Excellent Infrastructure &amp; Suitable Polices.</li> <li>Strategy &amp; Cooperation between interested Parties.</li> </ul>	<ul> <li>Availability of financial support.</li> <li>Provide training in management &amp; finance.</li> <li>Disseminate knowledge of the importance of BIs.</li> <li>Remove the closure and open communication channels with outside.</li> <li>Provide specialized and entrepreneurial training for graduates &amp; students.</li> <li>Provide a suitable environment for development &amp; investment.</li> <li>Establish financial bodies &amp; providing loans according to Islamic culture.</li> </ul>

#### Table 6.57: Success Factors of BIs

The following paragraphs discussed the most common and agreed upon factors:

Availability and durability of financial support and the commitment of local and international donors to support the development of Business incubators is very important to the success of such projects. Incubation projects receive support from international donors such as UNIDO, InfoDev, the World Bank, Islamic Development Bank, and UNDP. Thus, it is very crucial to have excellent relations and viable connections with such donors in addition to other local and regional donors in the Arab countries. It is very important to gain and sustain the trust and confidence of local,

regional, and international donors by establishing financial bodies and providing legal environment suitable for investment and development.

As stated previously, entrepreneurs and university graduates are the main customers of business incubators. The study presented valuable information about them and detected deficiencies of entrepreneurs in some fields which was agreed upon by scholars and researchers. So, it is also important for universities and other players to have dedicated and customized training programs to develop competencies and skills of graduates in general and of those who show entrepreneurial inclination as specific. Parallel to this step, it is important to disseminate knowledge about business incubators and highlight their importance in supporting local economy and reducing unemployment.

The most successful countries in the world have systems which support the cooperation and synergy between academic institutions, local industry & private sector, and the local governments. So, Gaza needs to establish and communicate a new strategy to encourage the cooperation and coordination between those players.

Legal environment and legal systems must be approved and applied to protect the rights of professionals, inventors, and employers in order to encourage innovation and creativity and protect intellectual property. This will boost the development process and make people feel comfortable about their work and efforts.

The management team & staff who work in the incubator as well as the consultants for tenants need to have high qualifications and competencies in order to assure the sustainability, continuity, and continuity of the work at the incubator. So, these people need to attend dedicated training program and visit successful incubators in neighborhood countries to gain hand-on experience in management and governing business incubators as well as in counseling and mentoring of incubates.

Marketing skills and the availability of local, regional, and international markets is very crucial to the success of business incubators. So, the incubators must open communication channels with potential markets and find niches for specific projects to target. This will assure the success of the products and services offered by incubated companies and hence easy graduation from the incubator giving the chance to other projects entering the incubator.

Birdthistle (2008) found that the biggest obstacles respondents see in starting up a business is that which is related to finance and funding. An overwhelming majority of respondents identified that the biggest obstacle for starting up a business is their lack of debt equity with financial risk coming a close second, followed by lack of equity. Other obstacles that respondents believe they may face when starting up a business were the lack of the right business idea; lack of contact with clients and customers and lack of courage.

Bulu et al (2005) found that 58% of the respondents perceive that to be successful in an entrepreneurial venture, there is a need for a number of factors including luck, hard work, good idea, and money.

Lalkaka (2001) mentioned the following factors to assure success in BIs:

- Develop a range of counseling services, capacity-building and entrepreneurship development programs, and networking opportunities targeted to the ascertained needs of the tenants and affiliates
- Encourage out-sourcing for advisory, training and accounting services, by developing networks of BDS providers.
- Promote the convergence of support for new venture creation, with the incubator serving as the platform where university, Technology Park, venture capital, private business & publicly-funded research come together, one reinforcing the other.
- Create the associations, chambers, clubs and other structures which can play an advocacy role in promoting the interests of incubators and their members among decision-makers, provide a platform for exchanges of experiences, expertise, training and trade opportunities, both within the country and with counterparts internationally. Informal networks and NGOs, with some initial, external support, can be strengthened to help entrepreneurs learn from each other and help themselves.
- Develop linkages to a sound knowledge base. Successful incubators invariably have strong affiliations to university and professional network, in order to develop:
  - 1. Preferred access to or an embedded association with the resources of a major research laboratory, or technical university. Importantly, this also provides the aura of respectability for both incubator and tenants.
  - 2. Arrangements to enable graduate students to work, at small remuneration and/or credits at tenant firms, as well as to faculty to augment their incomes through consultant services. The protection of confidentiality becomes essential.
  - 3. Well developed networks of professional friends and alumni, who may contribute an annual subscription to a "donors club", provide mentoring to individual tenants, sub-contracting opportunities and serve on incubator advisory committees,
  - 4. Synergistic system of alliances which provide the financial, banking, technology, marketing and business support, to mutual advantage.
- Leverage state policy and legislative support, at the city, provincial and central levels. The supportive environment for sound incubator performance requires:
  - 1. Stable political, economic and regulatory regimes, providing a sound business infrastructure, initial funds, to facilitate venture creation despite the inherent risks,
  - 2. Competitiveness strategy which has analyzed and identified the sub-sectors of advantage, selected the change agents and markets,
  - 3. Human resources development which helps build the full range of specializations needed, from trainer to technician, innovator to manager.
  - 4. Functioning institutions for banking, insurance, stock markets, tax, intellectual property and environmental protection.

Peters et al. (2004:P458) cited the past research of "Wiggens and Gibson (2003) showing that incubators must do five things well in order to succeed: (1) establish clear metrics for success; (2) provide entrepreneurial leadership; (3) develop and deliver value-added services to member companies; (4) develop a rational new-company selection process; and (5) ensure that member companies gain access to necessary human and financial resources".

Kumar & Kumar (1997) listed other factors to assure success in BIs as follows:

- An advisory committee, consisting of 5 or 6 experts from different business areas has been established for each tenant company to assist in developing business plan, in obtaining funding, and for marketing and legal issues.
- The incubator has created an opportunity for its tenants to network among themselves, with the industry, and with contacts of the advisory/mentor group members.
- The funding and support from private, public or government organizations, specifically to pay off the heavy costs associated with the real estate component is already in place.
- The manager is a highly motivated visionary individual whose goal is to see their tenant firms succeed.
- Boards of directors are generally responsible for policy development and not dayto-day operations, which are left to the incubator manager. Bureaucracy, in case of government-sponsored incubators, is kept at a minimum.
- The incubator focuses more on support programs than on space or physical infrastructure.

# 6.12 Chapter Summary:

This chapter presents the major discussion and analysis of results. It also tested the four hypotheses and fulfilled the objectives of the study. The data didn't follow the normal distribution and hence non-parametric tests were used.

There was a significant difference at  $\alpha \le 0.05$  between males and females regarding their entrepreneurial intention while there was no significant difference regarding birth order. So, the first hypothesis is partially proved.

The entrepreneurial inclination of students and the level of education of their parents are independent of each others at  $\alpha \le 0.05$ ; and dependent with father's occupation while it shows no dependency with mother's occupation. The results reflect cultural and traditional issues.

The third hypothesis wasn't approved which means that at  $\alpha \le 0.05$ , there was no significant difference between entrepreneurially and non-entrepreneurially inclined students in regard to: their motivation to start their new business and their perception about the most required resource to start new business.

There was no significant difference at  $\alpha \le 0.05$  between entrepreneurially and nonentrepreneurially inclined students in regard to managerial skills, communication skills, Innovation & creativity, independence, internal locus of control, self-confidence, need for achievement, motivation & commitment, and propensity to take risk but both groups are non homogeneous regarding having business skills. The results disapprove the fourth hypothesis except for the business skills. This conclusion reveals the effect of culture, traditions, and deteriorated political & economical situation in the Gaza strip. It also refers to the effect of education system and raises the need for adopting a new reform strategy for higher education in Palestine which motivates entrepreneurship in all academic disciplines. Academic courses and workshops were the most important tools to disseminating knowledge about business incubators.

There was no difference between entrepreneurially and non-entrepreneurially inclined students in regard to their perception of incubation services provided by BIs which contradict partially with the fourth hypothesis in the research. The "Place" was ranked the most important service to be provided by BIs.

The method of paying monthly payments for the offered services could not be applied in the Gaza strip because of the bad economical situation and the unsuitable environments of investment. To give loans with interest rates is also not acceptable due to religious backgrounds and conservativeness of the people. Thus, shared percentages of profit are the most suitable method and are highly preferred from tenants. It gives tenants the ability to survive until they achieve profits but it has high risk to the incubator and gives a feeling of irresponsibility from the side of tenants.

Exit and graduation criteria must be established from the early beginning of the incubation process and the tenants have to take care of such policies. The tenancy period is normally between 6 months and three years. The relation with the tenants must be continued after graduations to assure the continuity of success and to offer other types of support as well as having benefit from those graduated companies.

There was homogeneity of responses by all experts that "Ministry" is not a preferred place for holding BIs while "Technology town" was ranked in the second place by two experts and in the first place by one expert and was given the highest percentage in student's responses; And there was a significant difference at  $\alpha \le 0.05$  between the entrepreneurial inclination of respondents and their perception of the partnership mechanisms and the most suitable place for holding the incubator but there was no difference between entrepreneurial inclination of students and their exit "graduation period" which contradicts partially with the fourth hypothesis.

ICT was ranked as the first sector suitable for incubation projects. Export & Import was ranked in the fourth place with the least priority because it needs a free economy without closure and siege which is in contradiction with ICT in this regard. The other two sectors have the same priority. There was a significant difference between entrepreneurially and non-entrepreneurially inclined students in regard to their perception about incubation priorities. This approves the fourth hypothesis partially.

Occupation, closure, and siege of Gaza Strip represented the greatest obstacle to the development and operations of business incubators. These obstacles affect directly the availability of materials, accessibility of the outside world, and availability of international experts.

To assure success of business incubation industry in Gaza there must be a guaranteed & durable financial support and commitment from local and international donors to support the development of BIs; availability of entrepreneurs and university graduates; cooperation and synergy between academic institutions, local industry & private sector, and local government; Legal environment; and availability of local, regional, and international markets is very crucial to the success of business incubators.

# 7 Chapter Seven: Conclusion & Recommendations

This chapter is very important because it gives a conclusion of all important points and shed light on the main concepts of the research. It also makes useful recommendations to different parties and stakeholders on how to support the establishment and development of business incubators to take their role in boosting the local economy and developing the entrepreneurial characteristics of university graduates. The study will also make suggestions for future research in the field based on the final results of the study and making use of the information provided by stakeholders, experts, and entrepreneurs.

# 7.1 Conclusion:

This section deals with the outcomes of the study and concludes the most important points of the topics discussed based on the questions and hypothesis of the study.

## 7.1.1 Importance of Entrepreneurship:

The importance of entrepreneurship was stressed and revealed by reviewing the literature and making comparisons between literature and the results of the study in many aspects. The following are some principal points in this regard:

- 1. Entrepreneurship is a collection of distinctive characteristics which give individuals a special way in thinking, perceiving, acting, and social living. These traits and qualities make entrepreneurs very passionate, committed, and self-convinced. It enables entrepreneurs to make their future and succeed in business venturing.
- 2. Entrepreneurial skills could be developed by taking effective steps and using specialized techniques based on cooperation between different parties from corporate to family levels.
- 3. Entrepreneurial education and training is very crucial to the economic development and unemployment reduction in any country.
- 4. There must be a framework of cooperation between official bodies, academic institutions, media, and NGOs for disseminating and communicating entrepreneurship on different levels.
- 5. Entrepreneurship improves managerial, communication, and business skills of individuals and makes them positive actors in the society.
- 6. Entrepreneurship represents an intrinsic enabler for business incubators and similar bodies.

## 7.1.2 Summary of the major findings in regard to entrepreneurship: <u>Entrepreneurial Characteristics & Inclination of IUG students:</u>

The students have some of the entrepreneurial characteristics and have deficiencies in the others. The following points highlight the major conclusion in this regard: (23.95%) were denoted as entrepreneurially inclined and prefer to start their own business. (44.44%) of the entrepreneurially inclined students belongs to the engineering faculty. (14.8%) of the entrepreneurially inclined students belongs to the Business Administration department.

(53.7%) of entrepreneurially inclined students and (52.06%) of non-entrepreneurially inclined students showed that the self-satisfaction is the primary motives toward establishing their own business; and the largest portion of respondents shows that the finance and money is the most required resource for establishing business and entrepreneurially inclined and non-entrepreneurially inclined students have close responses with (47.22%) and (44.87%) respectively in this regard.

There was no significant difference at  $\alpha \le 0.05$  between entrepreneurially and nonentrepreneurially inclined students in regard to managerial skills, communication skills, Innovation & creativity, independence, internal locus of control, self-confidence, need for achievement, motivation & commitment, and propensity to take risk but both groups are non homogeneous regarding having business skills. The results disapprove the fourth hypothesis except for the business skills. This conclusion reveals the effect of culture, traditions, and deteriorated political & economical situation in the Gaza strip. It also refers to the effect of education system and raises the need for adopting a new reform strategy for higher education in Palestine which motivates entrepreneurship in all academic disciplines.

#### Entrepreneurial Inclination & Demographic Data:

Two thirds (67.59%) of the entrepreneurially inclined respondents were males, while 32.41% were females. Students with birth order as a first child represent the highest percentage (26.2%) within the entrepreneurially inclined students.

There was a significant difference at  $\alpha \le 0.05$  between males and females regarding their entrepreneurial intention while there was no significant difference regarding birth order. So, the first hypothesis is partially proved.

#### **Entrepreneurial Inclination and Parents Information:**

In total, (68.5%) of the fathers of entrepreneurially inclined students have a diploma, bachelor, or master degree. This percentage drops to (50.9%) in the case of their mothers. The highest percentage (25%) of the fathers of entrepreneurially inclined students own their private business, while (23.15%) of them work for the government or UNRWA. People in Gaza regard working for the government or UNRWA as secure jobs. The majority of the mothers are unemployed, (70.1%) and (78.89%), for both entrepreneurially inclined and non-entrepreneurially inclined students respectively.

The entrepreneurial inclination of students and the level of education of their parents are independent of each others at  $\alpha \le 0.05$ ; and dependent with father's occupation while it shows no dependency with mother's occupation. These results reflect cultural and traditional issues.

# 7.1.3 Common concepts of BIs:

Business Incubation industry spread across the world and supported by international donors and development agencies all over the world. The following are some points about business incubators as grasped from the literature and based on the results of this study:

1. BIs represent corner stone in economic development in any country by encouraging the establishment & development of small businesses.

- 2. BIs are places for nurturing entrepreneurial ideas by providing tenants with shared services, consultancy services, and suitable place for starting business.
- 3. BIs coordinate between academic institutions, local government, and private sector to foster entrepreneurship and innovation.
- 4. BIs have their own policies and criteria to organize the acceptance of new ideas and the graduation of tenants.
- 5. They normally built near academic institutions and research laboratories to make use of other facilities owned by universities and to assure a solid connection with experts and university students.
- 6. They have different models and characterized by their target business fields or by the governing agency (institution).
- 7. They have different partnership strategies ranging from rental of services to full partnerships and profit sharing.
- 8. The characteristics of the management staff are very crucial to the success of BIs.
- 9. BIs have specialized teams to provide consultancy and mentoring of incubated tenants.

## 7.1.4 Summary of the major findings in regard to BIs:

The following paragraphs shows the main findings of the research in regard to business incubators from establishment through provided services, polices & strategies to graduating tenants:

#### **Basic Issues & Business Incubators:**

(21.6%) of the respondents got their knowledge about business incubators when attending academic courses and (19.1%) got their knowledge when attending a workshop. So, most effective tools in knowledge dissemination about BIs are the academic courses and dedicated workshops.

#### **Provided Services by Business Incubators:**

There is a significant relationship between the entrepreneurial inclination of students and their perception about some of the provided services by business incubators, while there is no significant relationship between the entrepreneurial inclination of students and their perception about other services.

Respondents see that the "direct finance" is the most important resource to be provided by business incubators. This result comes as a direct response to the economic problems and high rates of unemployment in the Gaza Strip. It is also very logical since entrepreneurs have the applicable ideas, motivation, and skills to begin a business but don't have the required financial resources.

Training in creativity and critical thinking has the highest score in the rank. The respondents feel that they need to learn how to think logically and innovatively in order to take calculated and informative decisions regarding establishing the business. Visibility studies and business plans takes the second place in the rank.

There is no difference between entrepreneurially and non-entrepreneurially inclined students in regard to their perception about incubation services. The expert's opinions reveal different and non-homogenous results which reflect the absence of a

development strategy on national and academic levels. It also reflect the shortage of information in regard to business development, graduates skills, and development polices & strategies. Hence, it reflects the absence of a unified framework for small business & entrepreneurship development.

#### Polices & Criteria in Business Incubation:

(44.2%) of the respondents prefer to have a full partnership with the business incubator for profit sharing. This type of partnership accounts for risk and assure a reasonable profit for continuous period of time for both sides. The method of paying monthly payments for the offered services could not be applied in the Gaza strip because of the bad economical situation and the unsuitable environments of investment. To give loans with interest rates is also not acceptable due to religious backgrounds and conservativeness of the people. Thus, shared percentages of profit are the most suitable method and are highly preferred from tenants. It gives tenants the ability to survive until they achieve profits but it has high risk to the incubator and gives a feeling of irresponsibility from the side of tenants.

(58.6%) of the respondent prefer to exit the incubator directly after covering their expenses. They will leave as soon as covering their expenses regardless of making profit. (10.2%) of the respondents prefer to leave the incubator directly after achieving profits. Exit and graduation criteria must be established from the early beginning of the incubation process and the tenants have to take care of such polices. The tenancy period is normally between 6 months and three years. Policies must be established to organize this process for successful and unsuccessful tenants. The relation with the tenants must be continued after graduations to assure the continuity of success and to offer other types of support as well as having benefit from those graduated companies.

(41.9%) of the respondents see that ICT is the most suitable field for incubation. Their choice depends on the notion that IT can overcome obstacles such as closure, siege, and doesn't depend on raw materials like other types of industry. Stakeholders & professionals see that there are four fields representing high priority for incubation: Information & communication technology (ICT), textile industry, agriculture-based industries, and media, journalism, & politics.

There are many trends regarding the preferred place to hold business incubators, but the most prevalent are those led by the government by one of its ministries or in the technology town. (45.5%) of the respondents prefer the technology town. This choice is most suitable for ICT industry but not for other industries. There is homogeneity of responses by all experts that "Ministry" is not a preferred place "Technology town" was ranked in the second place by two experts and in the first place by one expert and was given the highest percentage in student's responses; so, it sounds the best choice. Other responses were mixed.

#### Success Factors & Obstacles facing Business Incubators:

Majority of the respondents see that the occupation, closure, and siege of Gaza Strip represent the greatest obstacle to the development and operations of business incubators. These obstacles affect directly the availability of materials, accessibility of the outside world, and availability of international experts.

There are six success factors for business incubation: Availability & durability of financial support, Capacity building of graduates and entrepreneurs, synergy with industry, academic institutions, and local government, availability of legal system, entrepreneurial management team and a pool of experts, and availability to outside markets. Entrepreneurs and university graduates are the main customers of business incubators. The study presented valuable information about them and detected deficiencies of entrepreneurs in some fields which was agreed upon by scholars and researchers. So, it is also important for universities and other players to have dedicated and customized training programs to develop competencies and skills of graduates in general and of those who show entrepreneurial inclination as specific. Parallel to this step, it is important to disseminate knowledge about business incubators and highlight their importance in supporting local economy and reducing unemployment.

The motivation and encouragement of establishing and developing business incubators needs a corporate national strategy, the cooperation from academic institutions in terms of establishing new academic plans, and the cooperation from local industry and private sector.

## 7.1.5 Bls, Entrepreneurship, and development in Palestine:

Business Incubators are important tools to encourage entrepreneurship and foster development in Palestine. The following are some comments:

- BIs have the suitable environment for nurturing entrepreneurs and develop their skills and abilities in many fields such as creativity & innovation.
- BIs open the doors for entrepreneurs to implement their ideas by providing them with many services ranging from physical apace to marketing efforts.
- BIs cooperate with academic institutions and research laboratories to encourage scientific research which leads to new products and innovations. This step leads to an economic advancement on the national level.
- BIs could offer help and consultancy to established firms and industries outside the incubator which support the development and expansion of these businesses.
- BIs help establishing new small businesses and develop them toward large scale industries.
- The final impact of BIs is to reduce unemployment and advance the economy reform by offering new jobs and work places for unemployed and enhance the total GDP.

# 7.2 Recommendations:

Based on the results of this research and of other researchers, the following paragraphs presents the most viable and important recommendations as seen by the researcher.

The issue of entrepreneurship, new venture creation, and business incubators are connected to each others and represent complementary components in the cycle of economic development and unemployment reduction. As seen by in the literature, entrepreneurs are the main customers of business incubators while business incubators are vehicles of development and play a viable and significant role in boosting local economy.

In order to make this cycle (discipline) to work effectively, we need to work on three different levels. The first is the national (corporate) level which is the responsibility of the government, the second is the academic level which is the responsibility of the ministry of education and higher education and off course the universities and colleges, and the third is the responsibility of the local industry and private sector.

# 7.2.1 Responsibility of Governmental Bodies & Ministries:

It is the responsibility of all governments all over the world to build and develop a national strategic plan for economical development based on a clear strategy and governed by specific and well-advised polices and criteria. This strategy is built on needs assessment studies, local & regional markets studies, and on skilled work force as well as on other measures and constructs. The strategy contains the tools for achievements, roles & responsibilities of all parties, and the monitoring measures. Thus, on the corporate level, the suggested roadmap is as follows:

- 1. Deep analysis of the local and regional markets and the potential growth in the perceived three years.
- 2. Identification of most viable investment fields in Palestine.
- 3. Develop a strategy for development having business incubators and small business development on its heart.
- 4. Establish and authorize a dedicated body (supreme council) for small business development responsible for building and developing business incubators, technology parks, industrial areas, and research institutions.
- 5. Encourage the development of business incubation programs based on best practices in other regions.
- 6. Focus on business incubators for growing competitive firms to make real contributions to the local economy.
- 7. Discuss the plan with the ministries of higher education, labor, and trade for dissemination and adjustments.
- 8. Coordinate with Tertiary Education Institutions (TEIs) and encourage them establishing new academic specializations and interdisciplinary studies.
- 9. Publish the strategy and discuss it with international and regional donors to raise fund and assign a suitable part of the general budget for this issue.
- 10. Motivate and encourage local industries and businesses to take their role in the development process.
- 11. Monitor the performance of all parties and make the required adjustments.
- 12. Work with incubator stakeholders and managers to develop a suitable pre incubation stage to assure smooth development and expansion.
- 13. Coordinate with international & local donors to assure durability and avoid short term financial assistance.

The Ministry of Education & Higher Education (MOEHE) must have its own strategy for development and reform of TEIs and to improve the quality of their graduates and off-springs. The strategy must be based on the corporate strategic plan taking into account the capacity of TEIs and the needs of local and regional markets. MOEHE have to monitor the performance of TEIs and find tools to have direct and viable reports about the performance of TEIs.

#### **Responsibility of other ministries:**

Other ministries must take part on implementing the strategy as follows:

- 1. The ministry of labor must develop its vocational centers and schools for and equip them with modern technology.
- 2. The ministry of youth must encourage new generations of Palestinians to invest their times in new and innovative methods leading to achieve the national goal.
- 3. The ministry of trade and industry must take the required steps for protecting Palestinian industries and foster them until maturity.
- 4. They must have legal system to protect intellectual properties.

## 7.2.2 Roles of Academic Institutions:

TEIs have a lot of work to do. They can follow the following scenario:

- 1. Revise all academic plans especially those of the scientific, engineering, commerce, and information technology and make adjustments and modifications by approving new courses to prepare students for market needs and develop their entrepreneurial skills and competencies.
- 2. Develop interdisciplinary studies and specializations to cover market needs and support the development process.
- 3. Improve the performance of their staff members and develop their competences and research skills for better performance and achievements.
- 4. Establish research centers and labs to support research and improve researching skills of their students.
- 5. Activate the center of excellence at the universities and design customized training and development programs to improve quality of their students and graduates.
- 6. Encourage academic staff and faculties to arrange workshops and other activities and invite local industries and other players for discussions and participation.
- 7. Activate Alumni units at the TEIs and encourage them to take their roles and responsibilities in the development process.
- 8. Develop new professional diploma and encourage the role of continuous education centers at the universities.
- 9. Develop and nurture a strategy for vocational education & training.

## 7.2.3 Role of Local Industry and Private Sector

Local industry and private sector as well as industrial unions and experts have their role in the development process. The researcher suggests the following steps:

- 1. Support research initiatives of the TEIs by offering slight amounts of money.
- 2. Give the opportunity to students & graduates to gain hands-on experience.
- 3. Participating in the workshops and career days.

## 7.2.4 Roles of University Graduates & Entrepreneurs:

The graduates and entrepreneurs have to play a positive role in the development process and cooperate with formal bodies and industries in boosting local economy. They may follow these recommendations:

- 1. Develop their IT, business, and analytical skills.
- 2. Keep excellent relations with their universities and professors.
- 3. Attend public lectures and workshops related to the field.
- 4. Participate and arrange discussion forums and seminars to share opinions and ideas.
- 5. Train and coach their colleagues on subjects and technologies on which they have excellent experience.
- 6. Establish homogeneous working teams and seek fund to implement their ideas.
- 7. Keep learning by using personal search techniques.

# 7.2.5 Ten Recommendations for BIs:

- 1. There is a need to develop skills of business incubator management because it plays a major role in success of the incubator and the incubated projects.
- 2. Provide high quality of shared services, training programs, and coaching for tenants and entrepreneurs.
- 3. They should not be work alone but rather alongside other organizations and to promote national development strategies.
- 4. Integrate the operations and outcomes of BIs into a broader economic context on the national level.
- 5. Identify target markets by implementing market analysis (needs assessment) studies to help prioritizing of incubation projects.
- 6. Incubators belongs to academic institutions must develop managerial practices following a suitable business model (manage incubators as a small business project).
- 7. Develop a set of virtual services for businesses and local industry to use the full capacity of the resources in the incubators, exchange knowledge, and sustain the relationship with private sector.
- 8. Coordinate with local and regional financial institutions to provide loans and financial support to potential incubated projects consistent with the Islamic culture and principles.
- 9. Develop a business model which assures a continuous relation with incubated business after graduation to gain mutual benefits and assure the continuity and sustainability of those businesses.
- 10. Work with other parties on developing a legal system and implement new rules to protect the intellectual properties of individuals and the Palestinian products.

# 7.3 Future Research:

The subject of Business Incubators and Entrepreneurship are new to the developing countries but it is given a great deal from international donors and policy makers. These topics have connection with different fields and draw the attention of several players. The following are some of the topics for future research as seen by the researcher:

- 1. Market and needs assessment surveys for different types of industries and fields especially those having high priorities and are suitable for business incubation.
- 2. Best model for business incubation suitable for Palestine taking into consideration the needs of Gaza Strip and West Banks.
- 3. Best Strategies to be adopted for business in Palestine.
- 4. The role of business incubators in reducing unemployment.
- 5. Establishing a business model for Palestinian universities.
- 6. Identifying the relationship between academic institutions, private sectors, and local government.
- 7. Identifying a suitable financial system for affording loans based on Islamic culture and principles.

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# 9 List of Appendices:

#### Annex (9.1a): English translation of the Questionnaire:

The Islamic University of Gaza Faculty of Commerce

**Master of Business Administration** 



#### **Questionnaire Explanatory Letter**

#### Questionnaire The Role of Business Incubators in Developing Entrepreneurship & Creating New Business Startup

#### **Dear Student:**

I appreciate your participation in this evaluation research as a part of my study at the Islamic University of Gaza (IUG). The study aims to assess & identify the entrepreneurial skills and degree of awareness in regard to business incubators among students in their last year of bachelor education study. The targeted students are from selected faculties at the IUG: Engineering, IT, Commerce, and English Bachelor Degree Program in Accounting & Business Administration.

Business incubator is as an attractive place to start a new small business. It offers support services and such equipments as photocopiers, fax machines, and computers, which young business often can't afford by themselves.

There are five scales to choose your answer from, please select the answer that best reflect your feelings.

I am highly appreciating your time and efforts in answering the attached questionnaire. Filling this questionnaire takes 15-20 minutes; if you feel uncomfortable please ask to stop the process. If you accept to participate you have the right to withdraw at any time. Confidentiality is guaranteed, and no need to write down your name, assuring you that the collected data will be used solely for scientific purposes and all personal information will remain absolutely confidential.

#### Thanking you in advance for your assistance in this matter.

<b>A.</b> 1. 2.	General Data: Faculty DE Specialization	ngineering	IT 🗆 Comm	erce 🗆 Com	merce/English
3.	Sex	$\Box$ male		$\Box$ female	
4.	Marital Status	$\Box$ single [	☐ married	$\Box$ widow	$\Box$ divorced
5.	Residence	□ Gaza □	□ North	$\Box$ Middle	$\Box$ South
6.	Order in Family	First, second, th	ird, fourth,		
7.	Place of Birth	$\Box$ Palestine	$\Box$ Arabic Cour	ntry	$\Box$ Other,
δ.	Place of residence	L Iown			
R	Family Data:				
1	Father's Education	□ Illiterate	□ Secondary o	r less 🛛 Dir	oloma
		$\square$ Bachelor		or above	
2.	Mother's	□ Illiterate	□ Secondary o	r less 🛛 Dip	oloma
	Education	□ Bachelor	□ Master	or above	
3.	Father's Job	□ Private	□ Government	/UN 🗆 Ow	n Business
		$\Box$ Unemployed	$\square \text{ Other,.}$		
4.	Mother's Job	□ Private		$/ \text{UN} \square \text{Ow}$	n Business
~			$\Box$ U Other,.	$\neg c 1 000 i$	2 000 NHG
Э.	Family's Average	$\Box$ less than 1,0	00 NIS L	$\square$ from 1,000 t $\square$ A house 5,000	0 2,000 NIS
	Income (INIS)		10 3,000 MIS		) INIS
C.	Job Priorities and wo	orking with othe	r people		
1.	Which of the followi	ng Sectors do vo	ou prefer to work	in?	
	□ Government/ UN		wn Business	🗆 Priva	te Sector
	□ Outside Palestine		□ Other,		
2.	If you were to choice	e, what of the fol	lowing profession	ns would you o	choose?
	$\Box$ Professional footba	all player	$\Box$ Sales	$\Box$ Cons	ultant
_	University / Schoo	l Teacher	□ Own Busines	s 🗆 Other	ſ,
3.	Which of the followi	ng is your prima	ary motivation to	start a busine	ess?
	$\Box$ Make my future		ing Money (wealth	i) $\Box$ to be	famous
4	□ don't want to work	tor others	Serving Commun	ity $\Box$ Other	۶, ۹
4.	$\square$ Money	you consider no $\Box$ Cur	stomers	$\Box$ Ing a dusiness	? or product
	$\Box$ Motivation & Hard	$\square Cus$	morting Environm	$\Box  \Box  \Box  \Box  \Box  \Box  \Box  \Box  \Box  \Box $	r
5	Which characteristi	cs do vou have. 1	hat distinguish v	ou from other	s?
υ.	$\Box$ Planning & Priorit	izing 🛛 🗆 Achi	evements & good	records $\Box$ I	Punctuality
	□ Motivation & Hard	l Work 🛛 🗆 Exp	perience & Profess	sionalism 🗆	] Other,
6.	How do you behave	in cocktail parti	es?		
	$\Box$ I am the life of the	work	🗆 I don't like w	orking with tea	ams
	$\Box$ I never know what	to say to people	🗆 I just fit into t	the crowed	
7.	When do you enjoy	participating wi	th other people?		
	$\Box$ when you have a n	neaningful role	$\Box$ Even when ye	ou have nothin	g planned
0	$\square$ when you can do s	omething new &	different $\Box$ wh	en helping con	nmunity
8.	When playing a com	petitive game, w	what concerns you	1 most?	
	$\Box$ how well you play		$\Box$ winning not l	osing	
	$\Box$ both of the above		$\Box$ neither of the	above	

D. Characteristics of an entrepreneur from your point of view:

1.	An entrepreneur is mo	ost commonly	the	Child i	n the family
	$\Box$ oldest $\Box$ yo	ungest	$\Box$ middle	$\Box$ do	esn't matter
2.	An entrepreneur is mo	ost commonly	:		
	$\Box$ married $\Box$ sir	ngle	$\Box$ divorced	🗆 wi	dowed
3.	An entrepreneur is mo	ost typically a	:		
	□ woman	$\Box$ man		∃ doesn't m	atter
4.	An entrepreneur begin	ns its first bus	siness at age:		
	$\Box$ twenties	$\Box$ thirties	$\Box$ fo	orties	$\Box$ fifties
5.	Usually, an individual	's entreprene	urial tendency	y appears e	vident at age:
	$\Box$ less than 15 yrs.	□ 15-20	□ 21-30	□ 31-4	0 🗆 41-50
6.	Typically, an entrepre	neur has an a	academic degr	ee of:	
	$\Box$ less than secondary	□ Bacheloi	$\Box$ Mas	ster 🗆	Above master
7.	The primary motivation	on of an entre	epreneur to sta	art a busin	ess is:
	□ Wealth & Money	□ Job secu	rity 🛛	☐ to be fam	ous
	$\Box$ to gain power & auth	nority	$\Box$ to be ind	lependent	
8.	The individual, who have	as the greates	st influence on	the entrep	reneur is:
	$\Box$ Parents $\Box$ Scho	ool teacher	$\Box$ Universit	y teacher	$\Box$ Friends
9.	To be successful in sta	rting and ope	erating a busin	iess you ne	ed:
	$\Box$ Money $\Box$ Luck	$\Box$ Applicable	e Idea $\Box$ H	ard work	$\Box$ All of previous
10.	Entrepreneurs are bes	st as:			
	$\Box$ managers $\Box$ planned	ers 🗆 ventu	ire capitalists	$\Box$ doers	$\Box$ All of Previous
11.	Entrepreneurs are:				
	🗆 high risk takers	🗆 realistic	🗆 take few	chances	🗆 doesn't matter

# E. How do you evaluate your self in Innovation, Business & managerial skills?

#	Skill	To very larg e exte nt	To larg e exte nt	moderate	To Sma Il exte nt	To very smal l exte nt
1.	I take decisions after extensive study of the problem					
2	I monitor the implementation of solutions to assure					
2.	effectiveness					
3.	I have the ability to collect and analyze data					
Δ	I have the ability to take decision even when					
4.	ambiguous information available					
5	I have the ability to authorize others to do something					
5.	and monitor their work					
6.	I have clear objectives and work to achieve them					
7.	I have the ability to plan					
0	I can take the right decision and implement it					
0.	regardless of challenges		Pry larg od s rg e exte at the nt			
9.	I can organize to finish my work in the available time					
10.	I can easily lead working teams and directing people					
11.	I always like Authority on others					
12	When I have an idea, I work on achieving it by					
12.	searching & learning					
13.	I have the required skills to write excellent CV					
14.	I am able to present and market my self easily					

15	I have the ability to write an excellent business			
10.	proposal			
16.	I have the ability to manage a development project			
17.	I have the skills required for writing a business plan			
18.	I have excellent budgeting skills			
19.	I have the ability to make visibility studies			
20.	I often have unusual business ideas			
21.	I always try to find creative solutions to problems			

#### F. How do you evaluate your self in Independence & Internal locus of control?

#	Skill	To very larg e exte nt	To larg e exte nt	moderate	To Sma Il exte nt	To very smal l exte nt
1.	I tend to start business because the family wants that.					
2.	I tend to start my own business regardless of results					
3	Often, I wait to take the agreement from family and					
5.	friends to do something important					
4.	I rely on my father's decision to attend social events					
5.	I hate go shopping for cloths alone					
6.	I am afraid to disagree with others while debating					
7.	I tend to business ideas tried by others					
8.	I feel every thing goes well and I can't make changes					
9.	Luck plays the major role in projects success					
10.	I feel, I won't find a suitable job after graduation					

# G. How do you evaluate your self in Self-confidence & Communication Skills?

#	Skill	lo very larg e exte nt	To larg e exte nt	moderate	To Sma Il exte nt	lo very smal l exte nt
1.	I can effectively communicate with others					
2.	I always listen, analyze phrases and ideas, then responding logically					
3.	I don't find it difficult to deal with people who have different opinions and viewpoints.					
4.	I can keep good relations and gain respect of people with different opinions and viewpoints					
5.	I initiate the speech with people I don't know before					
6.	I like working in teams.					
7.	I like sharing opinions with other people to find solutions for problems.					
8.	I My colleagues and friends consult me in solving their own problems					
9.	I can give people reasonable and logical solutions for					

	solving their problems			
10.	I always feel, people trust me & respect my opinions			
11.	I feel that others understand my opinions and ideas.			

# H. How do you evaluate your self in Need-for-achievement, motivation, & commitment?

#	Skill	To very larg e exte nt	To larg e exte nt	moderate	To Sma Il exte nt	To very smal l exte nt
1.	I find my self very committed and work hard to achieve my goals.					
2.	I can overcome obstacles and difficulties of life					
3.	I feel very committed when working with others to achieve my tasks and play my role positively.					
4.	I am a risk taker and can take hard decisions					
5.	I always develop my skills & feel responsible.					
6.	I am very responsible toward family and community					
7.	I tend to venturing in business and taking risk even when future is ambiguous					
8.	I tend to conquer fear and go forward					
9.	I like trying new varieties of foods and experience.					
10.	Often, I feel satisfied about my self after finishing my current task					
11.	I don't mind working long hours to achieve goals.					
12.	I have the ability to expect problems before they happen.					
13.	I always prefer to look in details					
14.	I need to know the answer before asking the question					
15.	When given a task, I do the right thing even when others don't agree					
I.	Information about Business Incubators:					
----	--					
1.	Do you have previous information about Business Incubators?					
	$\Box$ Yes $\Box$ No					
2.	If yes, how did you get those information?					
	□ Academic Course □ Training Course □ Workshop □ brochure					
	$\Box$ Self learning $\Box$ TV Program $\Box$ Other,					
3.	Rank the following services provided by Business Incubators according to					
	their importance from your point of view (from 1 - 8)					
	□ Consulting Services □ Finance □ Marketing □ Technical Services					
	$\Box$ Space $\Box$ Logistic & managerial support $\Box$ vocation $\Box$ Other,					
4.	Rank the training services provided by business incubators to entrepreneurs					
	according to their importance from your viewpoint $(1-8)$					
	□ Visibility studies & planning □ Marketing □ Financial Management					
	□ Mobilization & communication □ Creativity & critical thinking					
	$\Box$ HR management $\Box$ IT $\Box$ Other,					
5.	What is the relationship with business incubator do you tend to choose from					
	your point of view?					
	□ Partnership for profit share □ Annual payments for provided Services					
	$\Box$ profit sharing in the first 5 years $\Box$ Other,					
6.	If you have the opportunity to start your business in the incubator, when will					
	you leave it?					
	$\Box$ when being able to finance my business $\Box$ when achieving profit					
	$\Box$ will never leave $\Box$ After 3 years regardless achieving profit $\Box$ Other,					
7.	Which business sector do you prefer to start your business in?					
	□ Software & IT □ Import/ Export □ Legal & Consultancy Services					
	$\Box$ Electronics $\Box$ Other,					
8.	Which place is most suitable to operate and hold the incubator in?					
	$\Box$ Industrial Area $\Box$ Ministry $\Box$ University or polytechnic					
	$\Box$ Technology Town $\Box$ Other,					
J.	Obstacles facing business incubators & small business and how to tackle them:					
1.	What are the main obstacles & problems facing business incubators in Gaza					
	Strip?					
	1) 2)					
	3)					
2.	What are the main obstacles & problems facing small business development in					
	Gaza Strip?					
	1)					
_	3) 4)					
3.	What are the procedures to be taken in order to support and develop business					
	incubators in Gaza Strip?					
	1)					
	3)					
4.	What are the procedures to be taken in order to support and develop small					
	business in Gaza Strip?					

1)	2)
3)	4)

## Annex (9.1b): Questionnaire:



في إدارة الأعمال	الماجستير	/ برنامج	التجارة	كلية
فزة	الإسلامية ب	الجامعة		

استبيان دور حاضنات الأعمال في تنمية مهارات الرياديين وتطوير المشروعات الصغيرة تكوين نموذج لحاضنة أعمال ملائمة لبيئة الأعمال في قطاع غزة

تحية طيبة وبعد .....

أخى الطالب / أختى الطالبة

تهدف هذه الاستبانة إلى تحديد المهارات الريادية ودرجة المعرفة بحاضنات الأعمال لدى الطلبة في المستوى الدراسي الأخير في كليات الهندسة وتكنولوجيا المعلومات والتجارة ضمن أدوات البحث المستخدمة لانجاز رسالة الماجستير الموضحة في العنوان أعلاه. كما ستساعد تعبئة الاستبانة في إنشاء نموذج لحاضنة أعمال ملائمة لبيئة الأعمال قطاع غزة الخاصة والتي تختلف عن مثيلاتها في العديد من دول العالم.

تعرف حاضنات الأعمال كمر اكز جذابة لإنشاء أعمال خاصة (صغيرة). تقدم الحاضنة خدمات ودعم متمثلة في التجهيز ات مثل خطوط الهاتف، الطابعات، خدمات الانترنت، السكرتارية، التسويق، أجهزة الحاسوب، ورش العمل، وغيرها من الخدمات التي لا يستطيع أصحاب الأفكار الإبداعية توفيرها لأنفسهم.

وإنني أقدر جهودكم عاليا في الإجابة على أسئلة الاستبيان. حيث تستغرق تعبئة الاستبيان 15-20 دقيقة. ونؤكد على أن تبقى معلوماتكم الشخصية التي يتم الحصول عليها سرية ولا تستخدم إلا لأغراض البحث العلمي، لذا نرجو منكم الإجابة عليها بصدق وموضوعية ولكم مني جزيل الشكر.

الباحث: خالد عبد دهليز 2009 - 05 - 30

أولا: البيانات الشخصية تكنولوجيا المعلومات التجارة التجارة الإنجليزية 🗌 الهندسة 1. الكلية 2. التخصص ..... 🗌 أنثى 🗆 ذکر 3. الجنس 🗌 مطلق 🗌 أر مل 🗌 متزوج 🗌 أعز ب 4. الحالة الاجتماعية 🗌 محافظة غزة 🛛 الشمال 🗌 الجنوبية 🗌 الوسطى مكان السكن .5 ما هو ترتيبك في الأسرة؟ (الأول، الثاني، الثالث، الرابع......) .6 ..... 🗌 غير ذلك 🗌 دولة عربية 🗌 داخل فلسطين مكان الميلاد .7 8. طبيعة السكن 🗌 ريف زراعي 🛛 🔄 غير ذلك 🗌 قرية / حي 🗌 مدينة ثانيا: البيانات الأسرية 🗌 أمي (لا يقرأ) 🗌 دبلوم 🗌 توجيهي فأقل 1. ما هو المستوى 🗌 ماجستير ودکتوراه 🗌 بكالوريوس العلمى للأب؟ ما هو المستوى .2 🗌 دبلو م 🗌 توجيهي فأقل 🗌 أمى (لا تقرأ) العلمي للأم؟ 🗌 ماجستير ودکتور اه 🗌 بكالوريوس 🗌 موظف حکومی/ وکالة 🛛 🗌 يمتلك شرکة خاصة 🗌 موظف شركة خاصة 3. ما هي الحالة الوظيَّفية للأب؟ 🗌 أخرى، ..... 🗌 لا بعمل 🗌 موظفة حكومي/ وكالة 👘 🗌 تمتلك شركة خاصبة 🗌 موظفة في شركة خاصة 4. ما هي الحالة 🗌 أخرى، ..... 🗌 لا تعمل الوظيفية للأم؟ 🗆 من 1000 إلى 2000 شيقل 🗌 أقل من 1000 شيقل متوسط دخل الأسرة 🗆 من 2000 إلى 5000 شيقل 🗌 أكثر من 5000 شيقل (بالشيكل) ثالثا: أولوية العمل والمشاركة مع الآخرين 🗌 وظيفة حكومية، وكالة 🛛 إنشاء عمل خاص 🔄 وظيفة لدى شركة خاصة فى أى الأعمال 🗌 أخرى..... 🗌 العمل خارج الوطن تفضل الإلتحاق؟ إذا أتيحت لك الفرصة للعمل في أكثر من وظيفة فأي الوظائف تختار : .2 🗌 استشاري في شركة 🗌 لاعب كرة قدم محترف 🚽 🗌 موظف مبيعات في شركة 🗌 مدرس في مدرسة / جامعة 🛛 🔄 عمل خاص 🗌 أخرى، أذكر ها..... إذا أتيحت لك الفرصة لإنشاء عمل خاص بك فإن الدافع وراء ذلك يكمن في: .3 🗌 الرغبة في تحقيق الذات 🛛 🗌 الرغبة في أن تكون ّ ثرياً 🗌 الرغبة في تحقيق الشهرة 🗌 الرغبة في أن تكون سيد نفسك 🛛 🗌 خدمة الوطن 🗌 أخرى، أذكر ها..... ما هي أهم المتطلبات الواجب توفرها حتى تبدأ عمل خاص؟ 🗌 توفر النقود (التمويل) 🛛 🗌 توفر عدد كاف من الزبائن 🗌 توفر الفكرة أو المنتج المناسب 🗌 توفير البيئة الداعمة 🗌 توفر الدافعية والعمل الجاد 🗌 أخرى، ..... ما أهم المزايا الموجودة لديك والتي تساعدك على التفوق على الآخرين؟ .5 التخطيط والعمل وفق أولوية
 الإنجاز والسمعة الطيبة
 المثابرة والدافعية والمبادرة 🗌 دائماً تلتزم بالمواعيد والوقت المحدد 🗌 أخرى، ..... عندما تشارك في نشاط جماعي فإنك تصف نفسك ك: .6 🗌 لا أفضل المشاركة في الأنشطة الجماعية 🗌 أحد المحركين للنشاط (محرك رئيسي) 🗌 غالباً لا أستطيع أن أجد الكلمات للمشاركة مع الآخرين 🗌 فقط أكون موجوداً مع الأخرين فى أى الحالات تكون مستمتعاً مع الآخرين: .7 🗌 حتى ولو لم يكن لديك أي شيء مخطط 🗌 عندما يكون لديك دور واضح تفعله 🗌 عندما تستطيع أن تفعل شيء مختلف وجديد 🗌 عندما يكون هناك مجال للخدمة العامة عندما تشارك في لعبة تنافسية ما هو أهم شيء لديك: .8 🗌 أن تكون رابحاً ولا تكون خاسراً 🗌 كيف تلعب جيداً 🗌 الخيارين السابقين معاً 🗌 لا يهم أي من الخيارين السابقين

	ريادي؟	نطبق على الشخص ال	و من وجهة نظرك ت	رابعا: بين أي الأشياء
		أسرته	۽ يکون في أ	<ol> <li>الريادي في الأغلم</li> </ol>
🗆 لا يھم	🗌 الأو سط	🗌 الأصغر سناً	-	🗌 الأكبر سناً
			ب يكون	<ol> <li>الريادي في الأغلي</li> </ol>
🗌 أرمل	🗌 مطلق	🗌 أعزب		🗌 متزوج
			، يكون	3. الريادي في الغالب
	🗆 لا يھم	🗆 رجل		🗌 امرأة
		مالهم الخاصة في	ديون إلى إنشاء أعم	4. غالباً ما يبدأ الريا
🗌 الخمسينيات	🗌 الأربعينيات	🗌 الثلاثينيات		🗌 العشرينيات
		س في سن	ريادية لدى الأشخاء	5. تظهر المهارات ال
50-41 🗆	40-31 🗆	30-21 🗆	20-15 🗆	🗌 أقل من 15
		يحمل درجة	، هو الشخص الذي	<ol> <li>6. في الغالب الريادي</li> </ol>
🗌 أعلى من ماجستير	🗌 ماجستیر	🗌 بكالوريوس		🗍 ثانوية أو أقل
	ىةبهم هو:	ين لإنشاء أعمال خاص	ل الأشخاص الرياديا	7 الدافع الرئيس لدو
	ُ 🗌 تحقيق الشهرة	🗌 الأمن الوظيفي		🗌 الْثْروة والمال
کون سید نفسه	🗌 الاستقلالية و أن ي	-	والنفوذ	🗌 امتلاك السلطة
		ريادي:	فى بناء شخصية ال	8. أكثر الناس تأثيراً
🗌 الأصدقاء	🗌 مدرس الجامعة	🗌 معلم المدرسة	-	🗌 الأهل
		فإنك تحتاج إلى:	; في العمل الخاص <sub>ا</sub>	9. حتى تحقق النجاح
جميع الخيارات السابقة	🗌 العمل الدءوب 🔄	فكرة القابلة للتطبيق	🗋 الحظ 🔄 ال	🗌 الثروة والمال
		ى	لأن يكونوا أقرب إل	0 الرياديون يميلون
🗌 جميع ما سبق	🗌 الفاعلون (المنجزون)	🗌 المغامرون	🗌 المخططون	🗌 المدراء
				1 الرياديون هم:
المغامرة 🗌 لا يهم	ة ودراسة 🛛 لا يحبون	🗌 يغامرون بعقلاني	اطرون	🗌 مغامرون ومذ

خامسا. كيف تقيم نفسك في المهارات والممارسية الإدارية والحياتية التالية.		
	في المعارات والممارسة الادارية والحياتية التالية:	خامسان كيف تقيم نفسك

بدرجة	بدرجة	بدرجة	بدرجة	بدرجة	المهارة	#
فليله جدا	فليله	متوسطه	كبيرة	کبیرۂ جدا	stere there is a first start of the start of	1
					أنخد فراري بثائي ودراسه عميفة للمشكلة.	.1
					اتابع المشكلة حتى أتأكد من الحل	.2
					أمتلك المهارة لجمع المعلومات وتحليلها والاستفادة منها	.3
					أستطيع اتخاذ قرارات صعبة حتى في ظل عدم وضوح المعلومات.	.4
					أستطيع توزيع المهام على الأخرين ومتابعة انجاز هم لأعمالهم إ	.5
					أمتلك أهداف واضحة وأسعى إلى تحقيقها.	.6
					أمتلك مهارات التخطيط	.7
					أستطيع اتخاذ القرار المناسب والإصرار على تنفيذه رغم التحديات.	.8
					أستطيع تنظيم مهامي ضمن وقتى المتاح	.9
					أستطيع بسهولة إدارة فريق العمل وتوجيه الأخرين	.10
					أحب دائماً أن أكون صاحب مسئولية ونفوذ.	.11
					لدي فكرة وأسعى إلى تحقيقها عن طريق البحث والتعلم.	.12
					أمتلك المهارة اللازمة لكتابة السيرة الذاتية	.13
					أستطيع إبراز نقاط قوتي وتسويق نفسي لدى الأخرين	.14
					أمتلك آلمهارة لكتابة مقترح مشروع تنموي بجميع عناصره	.15
					أمتلك المهارة اللازمة لإدارة مشروع تنموي	.16
					أمتلك المهارة اللازمة لكتابة خطة عمل لمشروع تنموي	.17
					استطيع بناء موازنة دقيقة لمشروع تنموي	.18
					أمتلك المهارة لكتابة وتكوين در اسة جدوي لمشروع تنموي	.19
					غالبا ما أقوم بطرح أفكار غير تقليدية	.20
					أسعى دائما إلى إيجاد طرق وحلول إبداعية للمشكلات	.21

### سادسا: كيف تقيم نفسك في الاعتماد على النفس:

بدرجة	بدرجة	بدرجة	بدرجة	بدرجة	المهارة	#
قليلة جدا	قليلة	متوسطة	كبيرة	كبيرة جدا		
					أميل إلى إنشاء عمل خاص بي لأن العائلة تر غب في ذلك.	.1
					أميل إلى إنشاء العمل الخاص بي مهما كانت نتيجة الأمر.	.2
					غالباً ما أنتظر الموافقة من الأهل والأصدقاء لعمل شيء مهم.	.3
					أعتمد على قرار الوالد فيما يتعلق بمشاركتي في مناسبات اجتماعية.	.4
					أكره الذهاب لشراء حاجاتي بمفردي وأستعين بالآخرين	.5
					أخشى أن أخالف الآخرين في أرائهم أثناء النقاش.	.6
					أميل إلى الأعمال والأفكار التي تم تجربتها من قبل أناس آخرين.	.7
					أشعر أن الأمور تسير كما يرام ولا أستطيع التأثير في مسارها.	.8
					يلعب الحظ الدور الأساسي في نجاح الأفكار والمشروعات	.9
					أشعر بأنني لن أجد عمل يناسبني بعد التخرج	.10

سابعا: كيف تقيم نفسك في مهارات الاتصال والتواصل التالية:

بدرجة	بدرجة	بدرجة	بدرجة	بدرجة	المهارة	#
قليلة جدا	قليلة	متوسطة	كبيرة	كبيرة جدا		
					أستطيع أن أتواصل مع الأخرين بشكل فعال	.1
					غالبًا أنصت للآخرين وأحلل كلماتهم وأستطيع الرد بمنطقية.	.2
					لا أجد صعوبة في التعامل مع من يخالفني الرأي ووجهة النظر.	.3
					أستطيع كسب ود الأخرين حتى لو اختلفت معهم في الرأي.	.4
					أبادر إلى الحديث مع الأشخاص الذين لا أعرفهم مسبقاً.	.5
					أحب العمل ضمن فريق وأستطيع التأقلم مع الأخرين.	.6
					أحب مشاركة الآخرين لي في البحث عن حل المشكلات	.7
					أجد أصدقائي وزملائي يطلبون مساعدتي في حل مشكلاتهم	.8
					أستطيع إعطاء الآخرين حلولا منطقية لمشكلاتهم	.9
					أشعر دائماً بثقة الآخرين واحترامهم لأرائي.	.10
					أشعر بأن الآخرين يتفهمون أرائي وأفكاري.	.11

### ثامنا: كيف تقيم نفسك في درجة الدافعية والالتزام والمثابرة:

بدرجة	بدرجة	بدرجة	بدرجة	بدرجة	المهارة	#
قليلة جدا	قليلة	متوسطة	كبيرة	كبيرة جدا		
					أجد نفسي مثابرأ وأسعى بجدية لتحقيق أهدافي.	.1
					أجد نفسي قادرأ على التغلب على العقبات والصعاب	.2
					أشعر بالالتزام الشديد نحو انجاز مهامي ودوري في أي عمل.	.3
					أميل إلى الجرأة في اتخاذ القرار وتحمل المخاطر ِ	.4
					أبادر إلى تطوير ذاتي وأشعر بالمسؤولية تجاه ذلك	.5
					أشعر بمسؤولية تجاه أسرتي ومجتمعي	.6
					أميل إلى المغامرة وتحمل المخاطر حتى لو لم أعرف النتائج.	.7
					أميل دائماً على قهر الخوف الوسواس والسير قدماً إلى الأمام.	.8
					أحب تجربة أنواع جديدة من الطعام وخبرات مختلفة	.9
					غالباً ما أشعر بالرضي عن نفسي عند إتمام المهمة الموكلة لي.	.10
					لا مانع لدي من العمل ساعات طويلة لتحقيق الهدف المنشود	.11
					أجد نفسي قادر أعلى توقع حدوث المشكلات	.12
					أحب أن أبحث في التفاصيل.	.13
					أبحث لأعرف الإجابة قبل أن أتقدم بالسؤال.	.14
					عندما أكلف بمهمة، أفعل الصواب حتى لو لم يكن مرضيًا للأخرين.	.15

تاسعا: معلومات عن حاضنات الأعمال . هل لديك معلومات مسبقة عن حاضنات الأعمال؟ ע 🗆 🗌 نعم إذا كانت إجابتك نعم، فقد حصلت على المعلومات عن طريق: 🗌 مساق در اسي 👘 🗌 دورة تدريبية 🗌 نشر ة تثقبفبة 🗌 ورشة عمل 🗌 أخرى، ..... 🗌 بحث ومطالعة ذاتية 👘 🗌 برنامج تلفزيوني 2 إذا علمت أن حاضنات الأعمال توفر الدعم للمشاريع، قم بترتيب الخدمات الآتية والتي توفرها الحاضنة حسب أهميتها من وجهة نظرك: (من 1 إلى 8) 🗌 خدمات استشاریة 🗌 تمویل مباشر 👘 تسویق واتصالات 👘 خدمات تقنیة (انترنت، برمجیات) 🗌 مكان للعمل/ مقر 🛛 خدمات لوجستية وإدارية 📄 خدمات فنية (تدريب وتأهيل) 🔄 غير ذلك،...... 3. إذا علمت أن حاضنات الأعمال توفر خدمات التدريب والتأهيل للرياديين، قم بترتيب مهارات التأهيل الآتية حسب أهميتها من وجهة نظرك: (من 1 إلى 8) 🗌 إعداد در إسات الجدوبي وخطط العمل 🔲 مهار ات الادارة المالبة 🗌 مهارات التسويق 🗌 مهارات الاتصال و التشبيك 📄 مهارات التفكير و الإبداع 👘 ادارة الموارد البشرية 🗌 مهارات تكنولوجية حديثة 🛛 🗆 مهارات أخرى..... 4. ما هو شكل العلاقة التي ترغب في تكوينها مع حاضنة الأعمال؟ □ علاقة شراكة مستمرة بنسبة من الربح
 □ مبالغ سنوية تدفعها مقابل تلقي خدمات الحاضنة
 □ نسبة من الربح خلال السنوات الخمسة الأولى للإنتاج
 □ أخرى، 5 إذا أتيحت لك الفرصة لتنفيذ مشروعك داخل الحاضنة، فمتى تعتقد أنه بمقدورك ترك الحاضنة؟ ا بمجرد استطاعتي على تمويل أنشطتي 🗌 بعد ثلاث سنوات ّمن دخولي بغض النظر عن الربح 🛛 🔄 غير ذلك؟\_\_\_\_\_\_ 6 إذا أتيحت لك الفرصة بإنشاء شركة من خلال الحاضنة ففى أي المجالات الآتية ترغب بتأسيس شركتك؟ شركة برمجيات وتكنولوجيا
 شركة استيراد وتصدير
 شركة خدمات استشارية وقانونية
 شركة أجهزة إلكترونية
 غير ذلك، 7 برأيك ما هو أنسب مكان لوجود حاضنة الأعمال والإشراف على إدارتها؟ المنطقة الصناعية 🗌 جامعة أو معهد تقنى 🗌 أخرى،..... 🗌 مدبنة تكنو لو جبة عاشرا: معوقات العمل في الحاضنات وكيفية التغلب عليها؟ ما هي أهم المشاكل والمعوقات التي تواجه حاضنات الأعمال في قطاع غزة؟ ما هي أهم المشاكل والمعوقات التي تواجه إنشاء مشروعات صغيرة في قطاع غزة؟ .2 من وجهة نظرك، ما هي أهم الإجراءات التي تساعد في دعم وتنمية حاضنات الأعمال في قطاع غزة؟ .3 من وجهة نظرك، ما هي أهم الإجراءات التي تساعد في دعم وتنمية المشروعات الصغيرة في قطاع غزة؟ .4 

# Annex (9.2a): Workshop (Incubation Priorities (1))

Place: Workshop Hall, Community Service & Continuing Education Deanship, IUG.Facilitators: Dr. Muhammed Migdad, Eng. Khalid DahleezAttendees: Officials from governmental sector, & NGOs.

## **Objectives:**

The Workshop brought together 21 representatives from governmental sector and NGOs to discuss the incubation priorities. The workshop aimed at fulfilling the following objectives:

- 1. Examine Priorities of incubation
- 2. Identify the needed requirements for success
- 3. Identify best partnership mechanisms
- 4. Examine the best exit and graduation mechanisms (criteria)
- 5. Discuss tools to decrease business failure and encourage investments.

## Structure:

The format of the workshop was highly interactive, offering ample opportunity for discussions, sharing of ideas.

## **Outcomes:**

### **Priorities of Business Incubator According to Participants are:**

The following are the fields most suitable for business incubation in the Gaza Strip as discussed by the participants:

- 1. Electronics and electrical sector
- 2. Programming and IT sector
- 3. Media, Journalism, and English language
- 4. Mechanical and recycling industries
- 5. Cleaning and hygiene products
- 6. Handcraft such as pottery and ceramics
- 7. Clothes and textile manufacturing
- 8. Wood industries like domestic furniture

#### **Needed Requirements for Success:**

- 1. Financial support
- 2. Business Plans and assessment
- 3. Suitable place for the incubator and a large area
- 4. Legal environment & legal system
- 5. Rehabilitate the management team (training & development)
- 6. Marketing Services
- 7. Regular supervision
- 8. Availability of raw materials
- 9. Logistic services & support
- 10. Database includes all companies, institution and associations

#### Partnership Mechanism:

- 1. Corporate partnership in financial and administrative fields between the incubator and the tenants.
- 2. Assure sustainability & durability of projects
- 3. Provide regular reports for the donors.

### **Exit and Graduation Mechanism:**

- 1. Pay off the services costs to the incubator and share the profits according to what was agreed upon.
- 2. Possibility for long term partnership and cooperation

- 1. Provide suitable environment for the incubator
- 2. Cooperation between public, private, and academic institutions.
- 3. Setting clear strategy for development on the national level
- 4. Enforcement of partnership concept & maintain intellectual property.
- 5. Confront smuggled products, encourage usage of national products, and assure quality of the products.
- 6. Encourage scientific research & providing training for graduates.
- 7. Establish Database containing all Palestinian companies and business

# Annex (9.2b): Workshop (Incubation Priorities (2))

Place: Workshop Hall, Community Service & Continuing Education Deanship, IUG.Facilitators: Dr. Muhammed Migdad, Eng. Khalid DahleezAttendees: Donors, Business Experts.

## **Objectives:**

The Workshop brought together 19 representatives from donation institutions and expert in the field of business development to discuss the incubation priorities. The workshop aimed at fulfilling the following objectives:

- 1. Examine Priorities of incubation
- 2. Identify the needed requirements for success
- 3. Identify best partnership mechanisms
- 4. Examine the best exit and graduation mechanisms (criteria)
- 5. Discuss tools to decrease business failure and encourage investments.

## **Structure:**

The format of the workshop was highly interactive, offering ample opportunity for discussions, sharing of ideas.

### Comments of Participants about their experiences:

- Mr Halim Al-Halabi DAI, talked about their successful experience in training and employing fresh graduates. He recommended that we should focus on one sector for instance IT sector according to markets needs
- Mr Hussein Abu Mansour Rehab Association, talked about their successful experience in training some fresh graduates who suffer for disabilities and how they helped them to find jobs.
- Mr Yousef Al-Haddad Emirates friends Association, he asserted on the importance of encouraging poor families who have potential to start their projects by supporting them with fund and training.
- Mr Nael Da'alsah Islamic Relief, they had successful experience with people who have good ideas to implement their projects, some of these experiences were fostering bees, livestock and open business like groceries

• Mr Farouq Ammar – Palestinian Association to protect consumers, he asserted on the importance of providing raw materials to start business.

### **Outcomes:**

The participants asserted the importance to specify the needs via studying the markets needs. They also stressed on supporting the development of existing projects as well as providing them with the required human and financial sources. The following are the incubation priorities:

- 1. Electronics and IT sectors (ICT).
- 2. Media Coverage Services.
- 3. Translation & linguistics services.
- 4. Recycling industries & hygiene products
- 5. Clothes and textile manufacturing
- 6. Wood industries like domestic furniture

### **Needed Requirements for Success:**

- 1. Financial support
- 2. Suitable environment for the incubator (place+ requirements)
- 3. Provide Training for staff
- 4. Marketing and looking for new markets(export)
- 5. Administrative directing
- 6. Logistic services including consultancies, IT & telecommunication and regular developments courses.

### Partnership Mechanism:

- 1. Financial and administrative cooperation between incubator and tenants.
- 2. Share profits & Offer loans.

### Exit and Graduation Mechanism:

- 1. It is important to make sure that the tenants have gained the needed experience to continue their projects.
- 2. Follow up with the tenants after graduation.
- 3. Work with the official authorities to protect the Palestinian products and to monitor imports.

4. Make networking with foreign companies

- 1. Provide suitable environment for the incubator
- 2. Cooperation between public, private, and academic institutions.
- 3. Setting clear strategy for development on the national level
- 4. Enforcement of partnership concept & maintain intellectual property.
- 5. Confront smuggled products, encourage usage of national products, and assure quality of the products.
- 6. Encourage scientific research & providing training for graduates.
- 7. Establish Database containing all Palestinian companies and business

# Annex (9.3): Focus Group (Incubation Priorities (3))

Place: Workshop Hall, Community Service & Continuing Education Deanship, IUG.Facilitators: Dr. Muhammed Migdad, Eng. Khalid DahleezAttendees: Business Men & representatives of industrial unions.

## **Objectives:**

The Workshop brought together 9 representatives from industrial unions and businessmen to discuss the incubation priorities. The workshop aimed at fulfilling the following objectives:

- 1. Examine Priorities of incubation
- 2. Identify the needed requirements for success
- 3. Identify best partnership mechanisms
- 4. Examine the best exit and graduation mechanisms (criteria)
- 5. Discuss tools to decrease business failure and encourage investments.

## **Structure:**

The format of the focus group was highly interactive, offering ample opportunity for discussions, sharing of ideas.

### **Outcomes:**

### **Priorities of Business Incubator According to Participants are:**

The following are the fields most suitable for business incubation in the Gaza Strip as discussed by the participants:

- 1. Clothes and textile industry
- 2. Plastic, metal and wooden industries
- 3. IT industry
- 4. Agriculture industry

### **Needed Requirements for Success:**

- 1. Financial support and continuous assessment.
- 2. Suitable place for the incubator and a large area.
- 3. Development of management teams and providing consultants.
- 4. Marketing and regular supervision.
- 5. Providing Logistics and constancy.

## Partnership Mechanism:

Establishing a full partnership between tenants and incubator for sharing profit.

## Exit and Graduation Mechanism:

- 1. Pay off the services costs to the incubator and share the profits.
- 2. Possibility for long term partnership and cooperation.

- 1. Provide suitable environment for the incubator
- 2. Cooperation between companies, associations and ministry of economic and industry.
- 3. Setting clear strategy to develop the economic sector
- 4. Enforcement of partnership concept
- 5. Importance of keeping track with the latest technology
- 6. Organizing regular training courses especially in Marketing and management.
- Organizing with companies, associations and institutions to host exhibitions at University.

# Annex (9.4a): Interview (Business Consultant (1))

Place: Quality Unit, IUG.

Interviewer: Eng. Khalid Dahleez

Interviewee: Dr. Hatem Elaydi, professor at the faculty of engineering, IUG.

### **Objectives:**

The interview aimed at fulfilling the following objectives:

- 1. Identifying the most common business services to be provided by the BI.
- 2. Identifying types of training services needed for tenants.
- 3. Success factors and tools to avoid failure of incubated businesses.
- 4. Incubation priorities for the Gaza Strip.
- 5. Most suitable partnership style.
- 6. Incubation period & exit criteria.
- 7. Most suitable place to hold the incubator.
- 8. Relationship between business incubators and entrepreneurs.

### **Outcomes:**

#### Most common business services:

The following services were stressed by the business consultant::

- 1. Suitable place for tenants.
- 2. Financial & technical support.
- 3. Administrative & logistical support.
- 4. Mentoring by specialized professionals.
- 5. Legal advisory services.
- 6. Financial & budgeting services.

### Most important training practices:

- 1. Preparing business plans.
- 2. Fund raising & proposal writing.
- 3. Managerial functions & skills.
- 4. Feasibility studies.

#### Success Factors:

- 1. Experienced & competent management team.
- 2. Availability and durability of funds.
- 3. Availability of real entrepreneurs.
- 4. Access to regional & international markets.

#### **Incubation Priorities:**

- 1. ICT
- 2. Trading (Consulting Firms)
- 3. Modern Farming
- 4. Biotechnology

#### **Partnership Styles:**

- 1. Annual payments for services (hard to implement)
- 2. Shared Ownership (easier)
- 3. Shared percentages of profit (the easiest)
- 4. Shared partnership with industry

### **Incubation Period & Exit Criteria:**

- 1. Incubation period from 18 to 36 months.
- 2. As soon as achieving profit.

#### Most Suitable Place for holding the Incubator:

- 1. Industrial Areas (public or private)
- 2. Universities (managerial problems)

#### **Relationship with Entrepreneurs:**

Entrepreneurs are the fuel for Incubation.

- 1. There must be a strategy for small business
- 2. Raising Funds on corporate level

# Annex (9.4b): Interview (Business Consultant (2))

Place: Quality Unit, IUG.

Interviewer: Eng. Khalid Dahleez

Interviewee: Mr. Arafat El-Af, Business Consultant, ICT Incubator, IUG

## **Objectives:**

The interview aimed at fulfilling the following objectives:

- 1. Identifying the most common business services to be provided by the BI.
- 2. Identifying types of training services needed for tenants.
- 3. Success factors and tools to avoid failure of incubated businesses.
- 4. Incubation priorities for the Gaza Strip.
- 5. Most suitable partnership style.
- 6. Incubation period & exit criteria.
- 7. Most suitable place to hold the incubator.

## **Outcomes:**

### Most common business services:

The following services were stressed by the business consultant:

- 1. Technical Support (financial & managerial consultations)
- 2. Logistics Support (equipments, place, internet ...).
- 3. Legal advisory services.
- 4. Financial & budgeting services.

### Most important training practices:

- 1. Projects Management
- 2. Business Planning, fund raising & proposal writing.
- 3. Managerial functions & skills.
- 4. Feasibility studies & Marketing.
- 5. Entrepreneurship.

### Success Factors:

- 1. Entrepreneurial & proactive management team.
- 2. Availability of a pool of consultants & professionals

- 3. Excellent Infrastructure.
- 4. Availability and durability of funds.
- 5. Availability of motivated entrepreneurs.
- 6. Access to regional & international markets.
- 7. Innovative & applicable ideas.

### **Incubation Priorities:**

- 1. ICT & E-business
- 2. Legal Service & Consultancy firms.
- 3. Artificial Arts.
- 4. Textile Industry.

## **Partnership Styles:**

- 1. Annual payments for services (hard to implement)
- 2. Shared Ownership (easier)
- 3. Shared percentages of profit (the easiest)
- 4. Loans with Interest rates (hard to implement)

## **Incubation Period & Exit Criteria:**

- 1. Incubation period from one to three years.
- 2. Exit as soon as achieving profit.

### Most Suitable Place for holding the Incubator:

- 1. Universities or Technical Colleges
- 2. Technology Parks & Industrial Areas.

- 1. Establishing & communicating a support strategy.
- 2. Mixture & homogeneity of tenants.
- 3. Establishing a set of laws for encouraging & protecting small businesses.
- 4. Availability of a governing body & database for projects.
- 5. Availability of funds for continuous periods of time

# Annex (9.4c): Interview (ICT Coordinator)

Place: Quality Unit, IUG.

Interviewer: Eng. Khalid Dahleez

Interviewee: Mr. Ouda Elshokry, Coordinator of the ICT Incubator - IUG

### **Objectives:**

The interview aimed at fulfilling the following objectives:

- 1. Identifying the most common business services to be provided by the BI.
- 2. Identifying types of training services needed for tenants.
- 3. Success factors and tools to avoid failure of incubated businesses.
- 4. Incubation priorities for the Gaza Strip.
- 5. Most suitable partnership style.
- 6. Incubation period & exit criteria.
- 7. Most suitable place to hold the incubator.

#### **Outcomes:**

#### Most common business services:

The following services were stressed by the business consultant:

- 1. Managerial Support & consultations.
- 2. Logistics Support (equipments, place, internet ...).
- 3. Marketing & Technology.
- 4. Financial & budgeting services.

#### Most important training practices:

- 1. Projects Management & Writing Business Plans
- 2. Specialized training in IT.
- 3. Fund raising & proposal writing.
- 4. Financial Management & Feasibility studies.
- 5. Marketing.

#### Success Factors:

- 1. Well-trained & proactive management team.
- 2. Excellent Infrastructure & Suitable Polices.

- 3. Diversity of Donations & funds.
- 4. Strategy & Cooperation between interested Parties.
- 5. Accessibility & Mobility.

## **Incubation Priorities:**

- 1. ICT (Information Security, Web applications, Cartoon Production)
- 2. Service Industry
- 3. Translation & Linguistics Services

# Partnership Styles:

- 1. Shared percentages of profit in the first five years (the easiest)
- 2. Monthly rental & payments for services
- 3. Shared Ownership

# **Incubation Period & Exit Criteria:**

- 1. Incubation period from 6 months to three years
- 2. As soon as achieving profit.

## Most Suitable Place for holding the Incubator:

- 1. Technology Parks & Industrial Areas.
- 2. Universities (managerial problems)

- 1. Create Alliances & Partnerships with regional players.
- 2. Providing training to management teams & establishing a pool of consultants in different fields and specializations.
- 3. Providing continuous training to entrepreneurs
- 4. Mixture & homogeneity of tenants.
- 5. Establishing of a specialized council directed by the state.