

إقرار

أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان

تأثير برامج تسريع الاعمال على استدامة المشاريع الناشئة
دراسة حالة: حاضنات الأعمال في فلسطين

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كلية التجارة
برنامج إدارة الاعمال

تأثير برامج تسريع الاعمال على استدامة المشاريع الناشئة

دراسة حالة: حاضنات الأعمال في فلسطين

The Effect of Acceleration Programs on the Sustainability of Startups Projects

Case Study on Business Incubators in Palestine

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نتيجة الحكم على أطروحة ماجستير

بناءً على موافقة شئون البحث العلمي والدراسات العليا بالجامعة الإسلامية بغزة على تشكيل لجنة الحكم على أطروحة الباحثة/ آمال رمضان محمد أبوشماله لنيل درجة الماجستير في كلية التجارة/ قسم إدارة الأعمال وموضوعها:

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دراسة حالة: حاضنات الأعمال في قطاع غزة

The Effect of Acceleration Programs on the Sustainability of Startups Projects Case Study on Business Incubators in Gaza Strip

وبعد المناقشة التي تمت اليوم الثلاثاء 02 رجب 1436هـ، الموافق 2015/04/21م الساعة

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واللجنة إذ تمنحها هذه الدرجة فإنها توصيها بتقوى الله ولزوم طاعته وأن يسخر علمها في خدمة دينها ووطنها.

والله ولي التوفيق

مساعد نائب الرئيس للبحث العلمي والدراسات العليا

أ.د. فؤاد علي العاجز

DEDICATION

To

The Memory of My Dad & My Brother Mohammed,

To

My Mom,

My Beloved Husband, Mohammed,

To My little Twins, Sara & Rayan,

My Brothers,

My Friends,

With all Love and Gratitude

I dedicate this work

ACKNOWLEDGEMENT

I would like to express my heartfelt gratitude to everyone who supported me through my work of this thesis, both directly and indirectly. First of all, thanks to Allah Almighty for giving me the courage and power to accomplish this research.

I would like to thank my supervisor, Dr. Wasim Al-Habil for his optimistic and open-minded research spirit and methods and for their constant guidance, inspiration, generous help, support and patience throughout the development of this study. I have encountered many difficulties during my study, my supervisor has had the wisdom to point me in the right direction, yet allow me to find my own answers..

Finally, and most importantly, none of this would have been possible without the love and patience of my family, my Mam, my brothers and my beloved husband. Without their unconditional love, faith and unimaginable patience, this thesis would never have been possible.

ABSTRACT

This research intends to study the role played by Accelerator programs in Gaza towards the sustainability of the start-ups. The research has been performed with the help of a case study of various accelerator programs and the graduated start-ups. The research tries to explore the complete working of accelerators from screening the applicants, various processes during the mentorship period and post-graduation benefits to the startups. The study establishes the key parameters which contribute to the sustainable startups. Gaza accelerators have been evaluated against those parameters against the actual services offered to the startup founders and their teams. The study established various requirements and support required by the startups from the accelerator programs, hence the improvements required to attain a sustainable growth of Palestine economy.

The Study Population included the Startup founders, co-founders and their team members. The Indicators for measuring the performance of the accelerators were chosen from the previous researches and literature. The study was conducted with the help of a systematic survey distributed to the population. 111 of this population have responded to the questionnaire.

It's concluded that there is a direct relationship between the accelerators and the sustainability of the startups. Investors existing, Marketing, Market Competition, Founder skills and competence and professional networking are vital for sustainability. However the respondents did not seem to be satisfied with level of services of accelerator programs in Gaza against the above mentioned parameters, suggesting the need of improvement on various fronts. The recommendations pertain to Improving availability of startup investment and follow up funding, market analysis support and marketing support, nurturing the skills and competencies of founders and their teams and finally creating more opportunities for professional networking for the startups.

ملخص الدراسة

هذه الدراسة تدرس العلاقة بين برامج تسريع المشاريع واستدامة تلك المشاريع في غزة. حيث تم الاستعانة بدراسة حالة مسرعات الأعمال والمشاريع الناشئة المستفيدة. هدفت هذه الدراسة إلى تسليط الضوء على عمل مسرعات الأعمال بدءاً من مرحلة الاختيار الأولي مروراً بمراحل الإرشاد والتوجيه وصولاً إلى فوائد ما بعد التخرج. وتحدد الدراسة المعالم الرئيسية التي تسهم في تحقيق الاستدامة. وقد تم تقييم مسرعات الأعمال في غزة وفقاً لتلك المعايير واستناداً إلى الخدمات الفعلية المقدمة لمؤسسي هذه الشركات الناشئة وفرقهم. وتحدد الدراسة مختلف الاحتياجات والدعم المطلوب من قبل هذه الشركات الناشئة، وبالتالي فإن تلك التحسينات المطلوبة لتحقيق نمو مستدام في الاقتصاد الفلسطيني.

وشملت عينة الدراسة مؤسسي تلك المشاريع، وشركائهم وأعضاء فرقهم. وقد تم اختيار مؤشرات لقياس أداء مسرعات الأعمال من البحوث والدراسات السابقة. وقد أجريت الدراسة باستخدام منهجية استطلاع آراء مجتمع الدراسة حيث تم توزيع الاستبيان على عينة الدراسة، وقد استجابت 111 شخصاً..

وقد خلصت الدراسة إلى أن هناك علاقة مباشرة بين مسرعات الأعمال واستدامة الشركات الناشئة. كما أن وفرة المستثمرين، التسويق، المنافسة السوقية، مهارات المؤسس وكفاءته والتشبيك وبناء العلاقات أمر حيوي لتحقيق تلك الاستدامة. إلا أن المشاركين عبروا عن عدم رضاهم عن مستوى الخدمات المقدمة من برامج التسريع في غزة قياساً على المعايير المذكورة أعلاه، مما يشير إلى الحاجة لتحسين تلك الخدمات على مختلف الجبهات.

وقد تلخصت التوصيات في زيادة الاستثمارات، متابعة الدعم والتمويل، تحليل السوق ودعم التسويق، تطوير مهارات وكفاءات المؤسسين وفرقهم وأخيراً تعزيز فرص التشبيك المحترف للشركات الناشئة.

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LIST OF ABBREVIATIONS

GEM	Global Entrepreneurship Monitor
SMEs	Small and Medium Enterprises
MENA	Middle East and North Africa Region
WBGES	World Bank. Entrepreneurship and the Financial Crisis: An World Bank. Entrepreneurship and the Financial Crisis: An
BTI	Business and Technology Incubator
IUG	The Islamic University of Gaza
PICTA	Palestinian Incubator of Communication and Technology
SUS	Startup Suana
ACE	Aalto University center for Entrepreneurship
TEKES	The Finnish funding agency for technology and innovation
EDA	The U.S. Department of Commerce Economic Development Administration
ICT	Information Communication and Technology
BI	Business Incubator
GSG	Gaza Sky Geeks
DWBI	Data Warehouse and Business Intelligence
QIF	Quality Improvement Fund

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Chapter 1

Introduction

1 CHAPTER 1: INTRODUCTION & Study Methodology

1.1 Entrepreneurship

Entrepreneurship is an important measure of a country's potential for economic growth - not all entrepreneurship is innovative, but the most powerful innovators are also entrepreneurs.

There is tremendous interest in entrepreneurship around the world. (Barringer & Ireland; 2012)

There are probably more entrepreneurs operating today than at any time in history, thanks to profound changes in the startup landscape. New technologies, like cloud computing, are making it easier and cheaper to get started. New management methods, like the Lean Startup, are helping founders make better use of these capabilities. There has never been a better time to be an entrepreneur. (Ash Maurya, 2012, Running Lean)

According to the Global Entrepreneurship Monitor (GEM), globally, more than 110 million people aged 18-64 were actively engaged in starting a business, 140 million were a running a new business less than 3.5 years old, and 250 million were involved in early-stage entrepreneurial activity. However, the quality and nature of entrepreneurship varies widely depending on the type of economy. GEM breaks down economies into three types: factor-driven, which are agricultural and natural resources intensive; efficiency-driven, which are typified by scaled industrialization, large firms, and niche SMEs; and innovation-driven, which are predominantly service-oriented and knowledge intensive. (D. Kelley, N. Bosma, and J. Amoros, 2010).

Entrepreneurs are everywhere. You don't have to work in a garage to be in a startup. The concept of entrepreneurship includes anyone who works within my definition of a startup: a human institution designed to create new products and services under conditions of extreme uncertainty. That means entrepreneurs are everywhere and the Lean Startup approach can work in any size company, even a very large enterprise, in any sector or industry (E. Ries, 2011).

The Gaza economy can be termed as a brave economy. Despite of long war conflict; the young entrepreneurs still possess a strong will to develop world class

businesses. Back in 2007, export and import sanctions in the Gaza strip has hit back at the economy severely. The startups which can serve the international customers shall be encouraged to take part in this economy. We can notice a decrease in the doing-business rank moving from 2014 to 2015. A serious effort is required from the incubator and accelerator organizations to promote the successful launch of new startups. These organizations must mentor and support the new startups with everything it takes for the development of a sustained business.

In MENA (Middle East and North Africa Region) only 6.3 businesses are formed each year for every 100 people, compared to 42 in high-income countries. This represents one of the lowest start-up rates worldwide. (*World Bank Annual Report, WBGES, 2010*).

Despite of all the statistics above the region presents large number of willing entrepreneurs, to be promoted with right kind of programs such as Incubators and accelerators programs. According to the report from World Bank Group following are some statistics about ease of starting a business in west bank and Gaza.

In Paul Graham's view, startups are qualitatively superior to large corporations in just about every way. Leading the list of the startup's superior attributes is the ability of its founders to choose one another and then hire employees considering nothing but merit. One advantage startups have over established companies is that there are no discrimination laws about starting businesses. (*R. STROSS*)

Table 1.1: Economy Overview

REGION	Middle East & North Africa	DOING BUSINESS 2015 RANK	DOING BUSINESS 2014 RANK***	CHANGE IN RANK
INCOME CATEGORY	Lower middle income	143	139	↓ -4
POPULATION	4,169,506	DOING BUSINESS 2015 DTF** (% POINTS)	DOING BUSINESS 2014 DTF** (% POINTS)	CHANGE IN DTF** (% POINTS)
GNI PER CAPITA (US\$)	1,665	53.62	53.00	↑ 0.62
CITY COVERED	Ramallah			

Rankings			
TOPICS	DB 2015 Rank	DB 2014 Rank	Change in Rank
Starting a Business	162	155	↓ -7
Dealing with Construction Permits	173	169	↓ -4
Getting Electricity	83	74	↓ -9
Registering Property	99	98	↓ -1
Getting Credit	116	111	↓ -5
Protecting Minority Investors	141	130	↓ -11
Paying Taxes ✓	51	79	↑ 28
Trading Across Borders	130	123	↓ -7
Enforcing Contracts	105	104	↓ -1
Resolving Insolvency	189	189	No change

✓=Doing Business reform making it easier to do business. X=Change making it more difficult to do business.

Doing Business 2015 data for West Bank and Gaza
(Source: www.doingbusiness.org)

According to the statistics from Palestine Bureau of Statistics, following table represents the number of establishments.

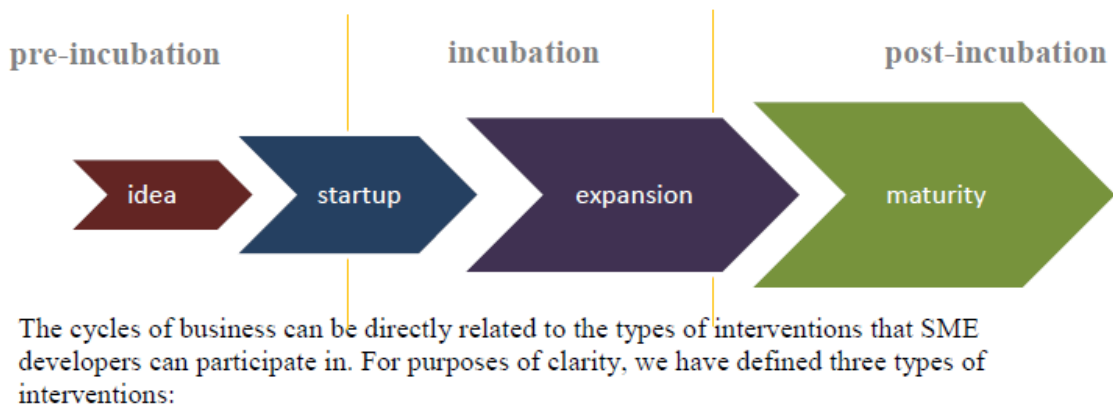
Table 1.2: Number of Establishments by main activity in Gaza Strip

Establishment	Periodicity	Year	Value
Mining & quarrying	5 Years	2012	24
Manufacturing	5 Years	2012	4889
Electricity, gas, steam and air conditioning supply	5 Years	2012	13
Water supply; sewerage, waste management and remediation activities	5 Years	2012	430
Construction	5 Years	2012	203
Wholesale and retail trade; repair of motor vehicles and motorcycles	5 Years	2012	24437
Accommodation and food service activities	5 Years	2012	1890
Transportation and storage	5 Years	2012	2124
Information and communication	5 Years	2012	316
Financial and insurance activities	5 Years	2012	327
Professional, scientific and technical activities	5 Years	2012	1042
Administrative and support service activities	5 Years	2012	747
Public administration and defence; compulsory social security	5 Years	2012	222
Education	5 Years	2012	1568
Human health and social work activities	5 Years	2012	1477
Arts, entertainment and recreation	5 Years	2012	622
Other service activities	5 Years	2012	6013
Activities of extraterritorial organizations and bodies	5 Years	2012	109

1.2 Business Incubators

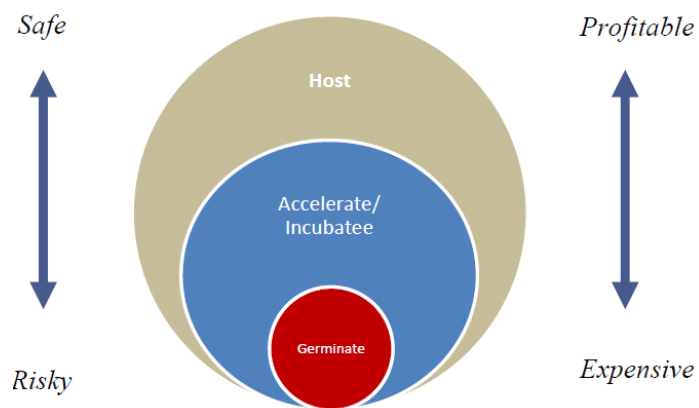
Business and Innovation incubators have proved fertile ground for the weaning of fledgling ideas and businesses. Historically, incubators have been sponsored by corporations, venture capitalists and universities. They serve to cultivate and commercialize new technologies and startups by providing innovators and entrepreneurs with the necessary resources from funding to networking opportunities.

Figure 1.1: The Cycle of Business



Source: Infodev Document

Fig 1.2: Incubator model



Source: Infodev Document

1.3 Acceleration

It is at this critical point in the business life cycle that most incubator programs end, as the firm is technically ready to spread its wings. Nonetheless, the journey towards sustained growth is far from over. Often it becomes necessary to receive advice and guidance from a business accelerator. (*Sepulveda, 2012*)

By means of acceleration services, often in the form of “acceleration programs”, business accelerators help companies get through adolescence and prepare them to enter adulthood, providing them with strong arms and legs, sound values and a clear mindset (strategy) for the future. In other words, while incubators help companies stand and walk, accelerators teach companies to run.

1.4 Problem Statement

The objective of this study is to understand the role, operational models and identify good practices of programs that seek to accelerate innovative entrepreneurship by managing, nurturing and leveraging social and business networks.

According to Business and Technology Incubator' (BTI) statistics, more than 65% of startups projects fail after terminating the Incubation period.

So we can summarize the problem of the study in the following question: To what extent do acceleration programs contribute to the sustainability of startups in Gaza Strip.

1.5 Research Objectives

1. Get to know entrepreneurial projects' current status in Gaza strip.
2. Get to know more about services offered to entrepreneurial projects incubated.
3. Study the most affecting factors causing entrepreneurial projects' failure after its graduation.
4. Define the most important entrepreneurial projects' needs after incubation period.
5. Study incubation process phases and services offered in each phase.

1.6 Research Importance

This study is important for the following reasons:

1. Helps Business Incubators to identify the needs of Startups in each stage of the incubation process starting from pre-incubation stage till the acceleration one.
2. Encourage the entrepreneurs and graduates to start their own businesses.
3. Helps the startups to know more about their role and encourage them to go ahead in their own business.
4. Serve the community, where Business Incubations provide the community with success companies which support the community and achieve the economic recovery.
5. Helps the researcher who is an employee of BTI to get the recommendation in order to identify and follow the needed procedures to adopt new strategies for supporting entrepreneurs after incubation.

1.7 Study Variables

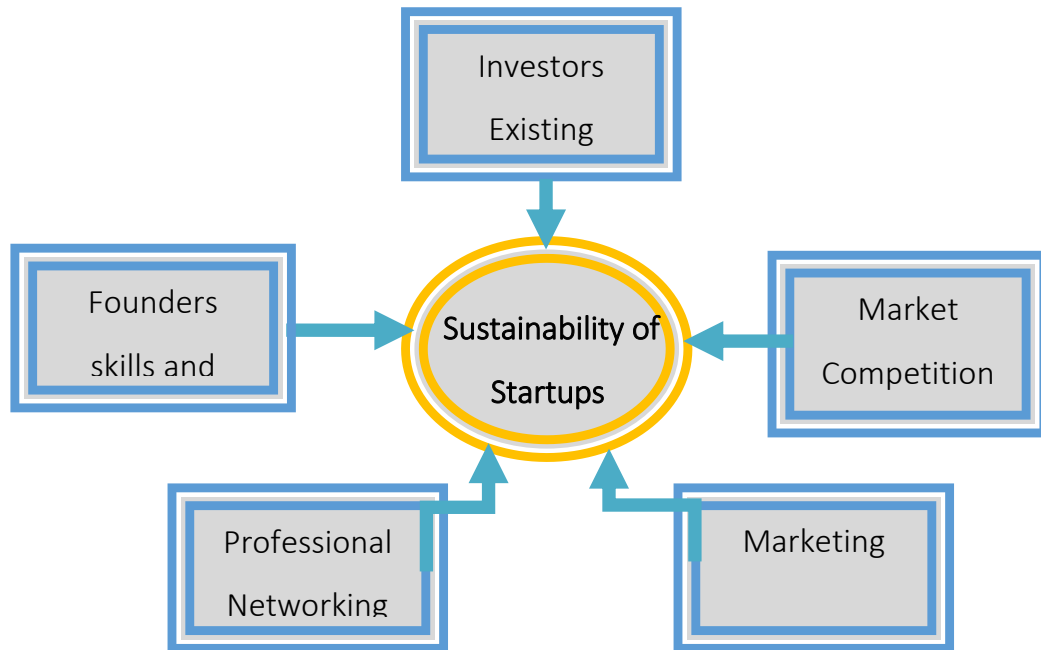
a. Dependent variable

1. Sustainability of Startups projects

b. Independent Variables

1. Investors Existing/ Enough Fund
2. Market Competition
3. Professional Networking
4. Marketing and Promotion.
5. Founders' skills and Competencies.

Figure (1.3): The Relationships between Dependent and Independent Variables



Source: Developed by researcher

1.8 Research Hypotheses

1. There is a significant effect of investors existing on the results of Sustainability of Startups projects
2. There is a significant effect of market competition on the results of Sustainability of Startups projects.
3. There is a significant effect of professional networking on the results of Sustainability of Startups projects.
4. There is a significant effect of marketing and promotion on the results of Sustainability of Startups projects.
5. There is a significant effect of founders' skills and competencies on the results of Sustainability of Startups projects.

1.9 Research Methodology

The researcher is going to use the descriptive analytical method, which describe the acceleration programs effect on the sustainability of startups in business Incubators Gaza strip.

Population: The population of the study includes all entrepreneurs and startups incubated in or graduated from: Business and Technology Incubator (BTI) of IUG, Technology Incubator in UCAS and Palestinian Incubator of Communication and Technology (PICTA), which is (111)

The Sample: Thesis will depend on surveying a random sample of entrepreneurs and startups which benefits or have already benefited from incubation services offered from one or more of the mentioned incubators which is considered to be about **%80** of thesis community population. This is due to being a small population.

1.10 Research Parameter

Time Horizon: 2014

Place of study: Islamic University of Gaza – Business and Technology Incubator – Gaza Strip, Palestine.

Subject: Measuring the Effect of Acceleration Programs on the Sustainability of Startups Projects

1.11 Research Structure

First Part: General Frame

- Introduction and study methodology
- Previous Studies

Second Part: Theoretical frame

- Accelerators
- Sustainability
- Incubators and Accelerators of Gaza

Third Part: Case Study

- Study tools and procedures
- Study Results

Fourth Part: Study Conclusion and Recommendations

Chapter 2

Previous Studies

2 CHAPTER 2: LITERATURE REVIEW

This section presents some of the studies conducted on the role of accelerators in the sustainability of the startups. The findings of these studies shall be able to prepare a foundation of the work done in the field of our research and also help to prepare a pathway for this study.

2.1 Foreign Studies

In the following summary of some of foreign studies related to the research topic.

2.1.1 Study 1: The Evolution of a rapidly growing industry

Michael Birdsall, Clare Jones, Craig Lee, Charles Somerset and Sarah Takaki, Business Accelerators: The Evolution of a rapidly growing industry: UNIVERSITY OF CAMBRIDGE, JUDGE BUSINESS SCHOOL-2013

Study Objectives: The study Interviewed 14 accelerators, 15 investor and more than 130 entrepreneurs. The accelerator programs studied were located across United Kingdom, Eastern Europe and Israel. The research studied the accelerator ecosystem and different stake holders involved in the eco system. Examined the development of the accelerator programs and the various companies which had gone through the accelerator programs, it studied their sustainability over time. Identified factors for accelerator success and best practices followed.

Following were the objectives of the study:

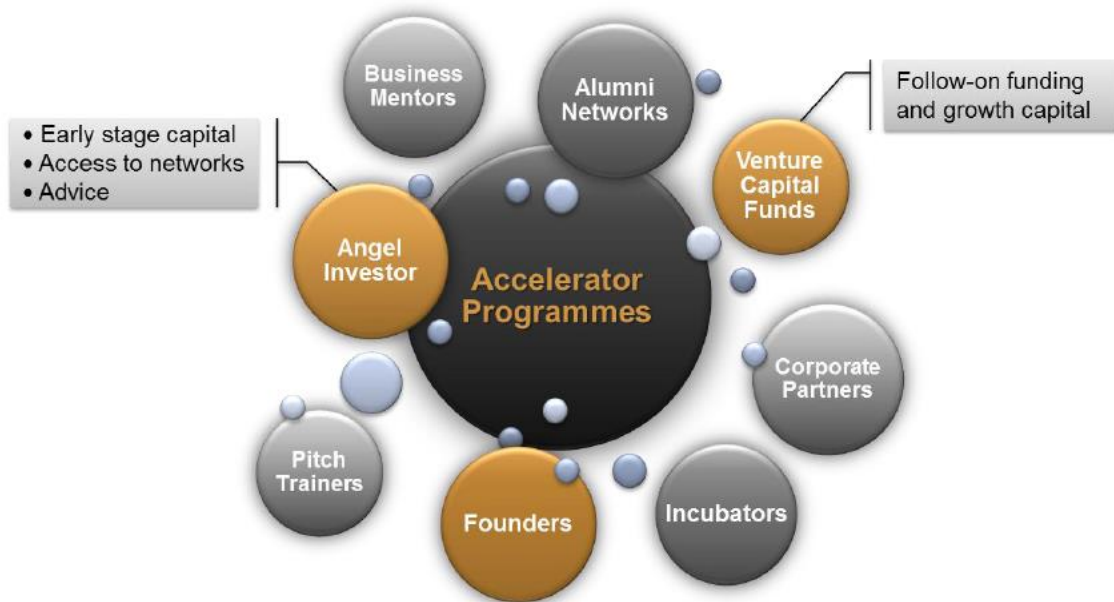
1. Why do entrepreneurs choose accelerator programs?
2. How do follow-on funders choose investments and to what extent does an accelerator program influence their decision to invest in a company?
3. What are the best practices in accelerator programs?

2.1.1.1 Accelerator Programs background and theory

The research established that accelerators evolved from the incubators but they have different properties. The number of accelerator programs is increasing rapidly. The study established that there are different and opposing views on the success of accelerator programs. Some researchers had believed them to be successful while some other thought that they were a failure.

However they accepted that there were not enough standard metrics available for the evaluation of the success of the accelerators. In other words the definition of success is unclear.

Figure 2.1: Principle actors in the accelerator system



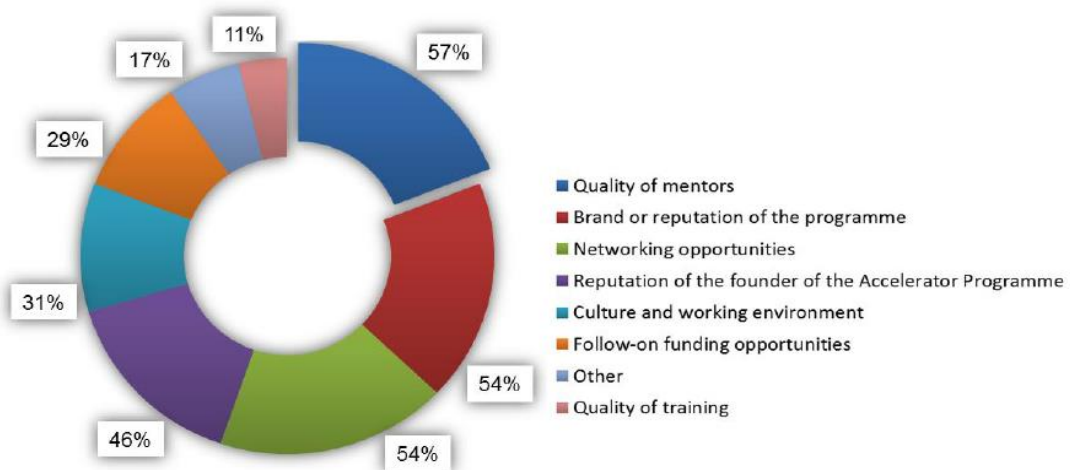
Source: Business Accelerators: The Evolution of a rapidly growing industry

2.1.1.2 Findings of the research

The Entrepreneurs: The entrepreneurs highlighted the following points which they consider vital while choosing the accelerator program. Reputational effects of the accelerator programs were mentioned as the greatest inspiration. Also the graduates from top tier programs feel themselves as associated with a brand and they feel ease of acceptance in their business. The benefits derived from the accelerator programs were listed as alumni network, investor networking opportunities, follow on funding, mentoring and training.

A quantitative analysis of the entrepreneur's responses indicated that quality of mentors, brand or reputation of the program and networking opportunities were most sought benefits.

Figure 2.2: Factors that Entrepreneurs consider while choosing Accelerator Programs.



2.1.1.3 Other findings

- International brands were perceived nine times more valuable than the local brands
- The programs with better follow up funding were reported favorites.
- The top two reasons why entrepreneurs did not apply for the accelerator programs were lack of understanding of the benefits and awareness about the programs.
- Eighty percent of the respondents accepted that their expectations were not met by the accelerator programs.
- 100% of the respondents were ready to recommend the accelerator programs to their knowns and friends.
- Improvements in structure and timings were sought.

2.1.1.4 Success of the Accelerator Programs

The research used two criterion to measure the success of the accelerator programs: Survivorship of the startups and their merger & acquisitions.

Data from the Bureau of Labor Statistics in the United States was used to benchmark survivorship of startups. Following survival rates were considered, national survival rates and California’s survival rates, Silicon Valley firm’s survival rates and two of the most widely referenced accelerators, TechStars and Y-Combinator.

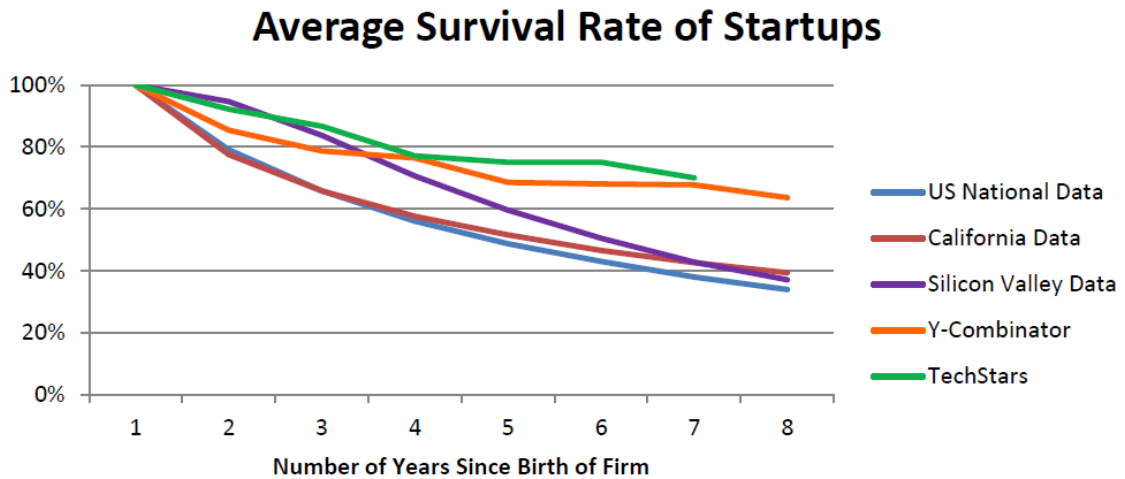


Fig 2.3: Survival rates of startups, United States, Bureau of labor statistics

These data indicate accelerator programs increase survivorship by 10% to 15% by year five. With respect to the merger and acquisition, the rate with which the firms get acquired is higher than the average rate of US backed companies. But the companies from the accelerator exhibited faster exits.

2.1.2 Study 2: Entrepreneurship in Startup Accelerators

Betaspring: Entrepreneurship in Startup Accelerators: The Honors Program Senior Capstone Project by Matthew Mason Los Kamp, 2013

This case study was conducted with three focus areas: the entrepreneurial ecosystem in the U.S, the startup accelerator Industry specifically focused on Betaspring and one startup 121nexus which went through the Betaspring. The accelerator program studied here, Betaspring found in 2009 has successfully accelerated 57 startups and has achieved a top spot among the competitors. Betaspring takes in early stage companies and provides them with intense mentoring, networking and up to \$20000 in seed funding over a period of three months program in return for approximately 6% equity stake in each company. 121nexus after graduating from Betaspring had made a significant progress. Their initial area was dating, then they worked through politics to the pharmaceuticals. They had worked with several big name clients including Obama's presidential 2012 campaign.

The study observed that the cost of startup launch has come down and the entrepreneurs have access to more information and resources. Number of accelerators is

on the rise too, which pose some threat to this Industry. Accelerators and Investors are investing heavily in the startups with very little information about how many of them are going to succeed. The accelerator program studied here, Betaspring has improvised against the points by special recruitment, expanded revenue by paid co working space and has grown its influence in the region among the entrepreneur community to attract more startups.

The study lists following four purposes:

1. Students shall be able to analyze the investment in startups and also predict the situation of saturation for both the startups and the accelerator industry.
2. This case study allows the students to examine the idea of pivoting. With example of 121nexus they will learn to gather market feedback and making decisions and also about how to make a tradeoff between market feedback and the decision making.
3. The case study intended to build an understanding of the economic system and industrial development.
4. The study intended to build an understanding of how accelerators add value to the startups and what are the costs of the accelerator programs to the startups.

2.1.2.1 Findings of the case study

Summarized below are the findings of the research:

Accelerator Efficacy: This study established that the accelerators can't be termed as the only one solution for the startup or the economic growth. However the study did not deny the advantages of the accelerator programs to the startups. While answering the question whether to adopt the accelerator programs, it suggested to analyze all the benefits and the costs of the accelerator programs such as mentoring and networking opportunities. The study also avoids to make a generalization of the accelerator programs. It suggested that all the programs are different in terms of specialization, networking and other parameters. So a case by case approach is suggested.

2.1.2.2 Accelerator Industry structure and saturation concerns

The study established that despite of the rapid development it is still an early call to declare the saturation among the startup and the accelerator industry. The study showed that investing in the startups has turned slightly more profitable and the cost of

the startup has come down considerably. The study predicts that there will be a high level of competition among the accelerator programs and only the best will survive. However study has also accepted that new player will still be entering the market because there are not very strong entry barriers and high returns are expected.

2.1.2.3 Entrepreneurial eco system and Geographical presence:

This study established that the local characteristics have a vital role to play in the profits and hence the sustainability of the firm. Entrepreneurial eco system and availability of local skilled workforce etc. could make an impact of the survival and profitability. The study suggests that the startups shall analyze the location advantage as it has a role to play in their long term sustainability.

2.1.2.4 Lean startup methodology

With the example of 121nexus, the study established that lean startup methodology could be promoted among the startups as this is the management style which focuses on reducing the waste while developing any product or service.

2.1.3 Study 3: Open Sourced Sees Accelerator as a Facilitator of Startup Success

Open Sourced Sees Accelerator as a facilitator of startup success, Case: Startup Sauna. Master's Thesis by Jukka Karimaa at Aalto University School of Economics, 2012

This study was an effort to provide an insight into the seed acceleration. This study tried to investigate the value addition by the accelerator programs to the new startup creation and their long term sustainability. The study put forward a case study of Starup Suana (SUS), an open sourced seed accelerator which is a nonprofit sponsored by Aalto University center for Entrepreneurship (ACE) and TEKES (the Finnish funding agency for technology and innovation). SUS offers its service mainly to Finland, Russia, and the Baltics and recently to China.

The research intended to establish the value proposition by an open seed accelerator program focusing specially from the viewpoints of startups. Following research questions was formed with couple of sub questions.

Q. How does an open sources seed accelerator facilitate the success of Startups?

- Why do startups apply to an accelerator?
- How does acceleration affect the success of startups?

Q. How has Startup Sauna succeeded in facilitating the success of startups?

2.1.3.1 Research Findings:

Interviews were used for the study. First four batches of Startup Sauna were interviewed. Some of the respondents had already completed two years of their graduation. The research established that the accelerators create value to the startups. Following are the important findings of the research.

2.1.3.2 Motivation and Confidence

The research established that the accelerator programs boost the confidence of the participant startups. Some of the startup were just in Idea stage when they were admitted to the program. So it gave them a lot of confidence that their idea is worth for business.

2.1.3.3 Coaching and Programmed Events:

The startups were mentored by the best coaches which came from a variety of backgrounds. They were open and willing to share their experiences with the participants. Mentorship related to business and specific product and service was provided. Also networking, legal issue and funding was well explained. The startups also got an opportunity to learn from the successful entrepreneurs. They were also exposed to the investor network. This was a high quality program which pushed the teams to work hard and perform better.

2.1.3.4 Peer Pressure, Support and Competition

Teams from various background and motives were competing against one another. Some tasks were related to deadlines but some were similar tasks for each team. It created a healthy competition among the teams. They shared their feedbacks. They could learn from one another. This effect helped to increase the overall performance.

2.1.3.5 Professional Networking:

The startups were exposed to various levels of professional networking. Networking is one of the most cited benefits of the accelerator programs. The startup were introduced to various coaches and experts and also to the successful entrepreneurs.

Some of the formal network access could also be there. Then the startups were introduced to investor network, which is vital for their growth and sustainability. Among themselves the startups developed networking which would grow as the startups would graduate and build their business. This is one of the greatest benefit with respect to the learning and business expansion.

2.1.3.6 Association and Validation:

The bigger the reputation of the Accelerator brand, the more beneficial it is for the startup. They get an association with the brand which provides them with a ready to work stamp. The startup teams are also validated for the investors, media and also the potential clients. This gives them a platform.

2.1.4 Study 4: Incubating Success: Incubation Best Practices that lead to Successful New Ventures

Incubating Success: Incubation Best Practices that lead to Successful New Ventures:
David A. Lewis, Elsie Harper-Anderson, and Lawrence A. Molnar-2011

This research was sponsored by The U.S. Department of Commerce Economic Development Administration (EDA) to examine the relationship between incubator best practices and client outcomes. This research was conducted by the University of Michigan's Institute for Research on Labor, Employment and the Economy; the State University of New York at Albany, the National Business Incubation Association, and Cybergroup. This study examined relationships between operations of incubation program and how its graduate startups perform, evaluated by different methods. The purpose of this study was to test if there existed a relationship between incubator practices and the success of its graduated firms, typically after the firm has graduated.

The research team also created a Web-based tool for incubation practitioners that measures their program's performance compared with industry best practices and provides feedback about how they can improve their performance (see <http://EDAincubatortool.org>).

Data was obtained from 111 incubator managers. In general the study brought out the results that the Incubator practices matter the most than other factors for the client firms' success. This study suggested that there is a positive relationship between the business incubation.

2.1.4.1 Findings

The study established the following points:

1. The study established that no single policy, practice or service does guarantee the success of the client firm rather it is a mix of all these factors that works. The Incubators serve client with different areas of business, skills and requirements.
2. Most of the highly successful programs share common practices usually. Most of them select clients based on cultural parameters, chances of being successful, review the startup at the time of admission, present them to potential clients and investors and have a definite expenditure plan.
3. Presence of specialists in the advisory board according to this study acts great for the success of the startup. Accounting, legal and patent filing expertise of the Incubator is very important for the success. Local government and economic body representatives help the startup get integrated among the community and help suggesting the funding resources, so they play a vital role in the success.
4. This study established that the size and age of the Incubator program does not contribute to the success of the startup rather it is the management and functioning of the incubator.
5. The study observed that the more successful programs collect startup firm's data for longer durations. This research observed that 66.7% of the total Incubators collect data. Half of them collect the data for two or more year and more than 30% collect client data for more than five years. This data include revenue, employment, and survival rate, polices and services. This established that the incubator programs which have resources to collect client data also have resources to implement the best practices for the startup success.
6. The Incubators which were more successful, most of them were nonprofit models. This established that the earing driven incubators were not necessarily successful. This research found out that the goals of the most successful programs were job creation, economic development, promoting entrepreneurship, building new industries and businesses, attracting and retaining the businesses to the region.

7. Public sector support and investment in the Incubators contributes to the success of the Incubator. This support could be from the local government bodies, economic development groups and bodies and universities.
8. Incubators with larger budgets performed better towards the success. Programs with good deal of financial resources performed better in terms of the services provided to the clients and were more stable. Further this study established that for most successful programs the revenue shall be generated from rent and the service fees while most of the expenditure shall be on the staffing and program delivery.
9. This research established that the growth and size of the economy is not an indicator of the incubator success rather it is the policies.
10. This study established that the various variables measured collectively for a region such as work force skills, urbanization, locally available capital and higher education have moderate impact on the successful outcome.
11. This studied established empirically that the business incubator best practices contribute greatly to the success of the Incubator programs. Some of the practices named were related to the composition of the advisory board, hiring qualified staff, spend sufficient time with the clients and tracking the performance.

2.1.4.2 Recommendations

1. Incubation programs which receive public funding shall adopt best practices. The Incubators shall also be provided with the operating subsidies.
2. Funding agencies shall help to ensure that the Incubator programs collect the client data for sufficient time to track the performance after graduation.
3. Independent periodic audit of the Incubator programs to assess their performance shall be conducted.
4. A national database of all the Incubator programs shall be maintained with all the current information and it could be made public. This database can also ensure that all the programs listed meet at least a minimum criterion.
5. Public supported programs shall submit a performance report annually to the funding agencies. Their performance against the set goals can be reviewed. New opportunities and methods of improvement can be identified.

6. Once the best industry best practices are implemented by the Incubator, further focus on the complimentary services can be laid down. Examples could be seed funding, creating graduate space, tax credit benefits for clients, support the development of the business service provider network and collaborating with higher education institutes for the support of Incubators.
7. Incubator Advisory board shall bear diverse expertise. This study suggests to have an advisory board of 8-20 members. The study suggests to have the following professionals, Graduate firm, experienced entrepreneur, local economic development official, and corporate executive, representative of the finance community, business lawyer, university official and chamber of commerce representative. Other specialists can be according to the specific needs of the incubator and the startup. They could be marketing professionals, manufacturing expert, IT expert or a real state expert.
8. Incubator program management shall periodically review its services provided to the startups. They shall be able to cater the specific needs of the startups.
9. Staff of the Incubators shall be able to take care of its responsibilities effectively. The main points identified by the study are collecting outcome data, providing pre and post incubation services, conducting periodic reviews of the budget, services and other program activities, marketing and developing entry and exit criterion for the incubator.
10. Funders and the Incubators shall evaluate the program at two levels, one at the incubator level and one at the client performance level. The study suggested that data collection shall be conducted at least annually. Startup performance evaluation shall be conducted very three to five years while the Incubator evaluation shall be more frequent.

2.1.5 Study 5: Nordic Business Incubators' Contribution to Sustainable Businesses Start-ups

Nordic Business Incubators' Contribution to Sustainable Businesses Start-ups Multiple case studies of business incubators in Norway, Denmark and Iceland by Veslemøy

The literature has always followed two different approaches towards sustainability and profitability. This has given rise to some economic, social and environmental concerns. It is a well-known fact that the Incubators play a vital role in the startup development. This research purpose was to analyze how business incubators contribute to the new business startups. The study analyzed business incubator's socio economic and environmental performance. The hypothesis of this research was that the Incubators in the Nordic region are contributing to sustainable performance of the new business startups. The main research question is explicitly outlined as follows; *“How are business incubators in Norway, Denmark, and Iceland contributing to sustainable performance of new business start-ups?”*

This study focused on sustainability with three different aspects:

- **People:** This area targets sustainability in terms of social impacts such as job creation, products and service which increase social welfare. Incubator consists of typically a management, Staff, coaches, external advisers and the networking partners. All of the stake holders shall bear in mind a clear understanding of the mission and vision of the Incubator. They should ensure that the sustainability is managed throughout from idea to the execution.
- **Planet:** All the organizations, business incubators consume energy, water and produce waste. All of the organizations can have some kind of environmental impacts such as electronics, IT, office equipment, laboratory equipment, energy, chemicals etc. Here contribution can be made with good housekeeping practices, cleaner production principles, conserving electricity and water. This type of sustainable development towards the environment usually does not require advanced technology or big investments. Awareness can make a big difference here. Again it is the responsibility of all the stake holders.
- **Profit:** In terms of the sustainability related to the economical aspect the study considered two parts one related to the Incubator sustainability and the other related to that of startups. First of all the study emphasized that the incubator shall be able to making profit , if it does not do so , it will cut short its services

to the startups and its effective ability to create sustainable business will be affected. The second aspect deals with the survival and growth rate of the startups. It is an important measure of Incubator's capability to contribute towards the creation of successful startups.

2.1.5.1 Findings of the Research:

With an aim to address business incubators' contribution to sustainable performance of new startups, this study has assessed how 6 business incubators, located in Norway, Denmark and Iceland, contribute to assist sustainable business start-ups using a novel assessment framework.

This study has found that sustainability was not reflected from Vision, communication and policies of the incubators in Norway, Denmark and Iceland. The Nordic business Incubators are required to operate in accordance to the general vision and recommendation of the government institutions. However the economic perspective exists among the Incubators. Following are the findings of the study related to the people, planet and profit.

- **People:** No significant sustainability considerations related to the social impact were observed. More focused stayed on business, marketing, ICT and sales.
- **Planet:** Few Business Incubators mentioned that they were aware about the environmental sustainability and they were making serious efforts for it. They were trying to reduce waste and trying to maintain good housekeeping practices. Some of the Incubators defined lack of resources as the reason for not being trying for the environmental sustainability, the others mentioned that they already had more than enough to do. There was no criterion on environmental basis for the admission of the startup into an accelerator program.
- **Profit:** All the graduated startups admitted that they were helped by the Incubator to create a sustainable business. How successful the incubators are related to their financial mission to produce economic viable businesses can be reflected through survival and growth rate of graduated companies.

Nordic business incubators overall survival rate is calculated at 74.6 % as compared to the overall survival rate of Norwegian start-ups, estimated at 21% in 2008, the survival rate from Nordic business incubators' can thus be seen as highly contributing towards increasing the survival rate of new start-ups. Although many of

the graduated companies stated it was likely that their company would have been established regardless of being in an incubator.

2.2 Local Studies

In this section we will examine few studies conducted in the Gaza region and look at their findings to develop better understanding of the concept specific to the region.

2.2.1 Study 1: The Role of Business Incubator in Achieving Sustainable Development in Gaza Strip

The Role of Business Incubators in Achieving the Sustainable Development in the Gaza Strip by Mohammed Z. Skaik, 2013

Business Incubators are playing a vital role in the economic growth worldwide by developing new enterprises. The study tried to examine the role on business Incubators in reducing the failure rate among the startup companies. The study also looked on how the Incubators were achieving the sustainable development. The study also examined the social, economic and environmental development in Palestine.

The research question was formulated as "*What is the role of business incubators in the achievement of sustainable development in Gaza Strip?*"

This study established its importance in the context that with the help of incubators, it foresaw the future to achieve development of Palestine, reduction of poverty and promoting entrepreneurship and creativity.

2.2.1.1 Research Findings

- 1.** The study concluded that most of the startups included in the study agreed that the services produced by a business incubator along with its activities positively affect the utilization of available resources of the incubated startups.
- 2.** It was established that startups agreed that business Incubators help transforming the innovative ideas into small startup companies.
- 3.** The study established that the services offered by the incubators help increasing the success potential of the startup.
- 4.** The study concluded that the services and activities of the Incubator help generating new job opportunities.

5. It was established that the Incubators positively increase the marketing opportunities for the startups.
6. The study found that the services and activities of the business incubators affect positively in enhancing the success and growth of the innovative graduation projects.
7. The study concluded that the business Incubator improve the networking between the academic institutions with Industry.
8. The differences among the respondents' opinion about the role of business incubators in achieving the sustainable development in Gaza referred to the following personal variables (gender, age, education and years of experience), have no effect on the result of the study.
9. The study further established that most of the Incubated SMEs are founded by youth, they prepared their business plans and started business from new ideas which are very important for the success.

2.2.2 Study 2: The Role of business Incubator in Developing the Entrepreneurship and Creating of New business Start-ups in Gaza Strip

The Role of Business Incubators in Developing the Entrepreneurship and Creating New Business Start-ups in Gaza Strip by Khalid Abed Dahleez, 2009

The study considered the weak economic situation of the Palestine economy but in a similar instance also identifies large talent in the form of university graduates in various fields. The study observed many youth as having many innovative and practically applicable ideas. If these Ideas could be supported to create a new startup business. This is the point where the study identified the role of the Business Incubators. The study identified unorganized efforts from various organizations, universities and other private institutions to act in the similar manner as incubator to create new startups. But all these efforts were reported to be scattered and full functionality of the Incubator was not available.

The research question was formulated as *"To what extent could business incubators play a key role in developing and fostering entrepreneurship in the Gaza Strip?"*

2.2.2.1 Research Findings:

Entrepreneurial Characteristic and Inclination of IUG students:

23.95% of total number of students were interested to be entrepreneurs and wanted to start their own business. 44.44% of the total number of students who wanted to start their businesses were from engineering faculty and 14.8% were from Business Administration. Most of the students whether wanting to start their own business or not pointed that self-satisfaction was the motive behind the own business. Finance was found to be the biggest resource needed to start the business as concluded from the survey responses.

No significant difference for the skills was noted between the entrepreneurial inclined group and the non-inclined group such as managerial skills, communication skills, innovation, creativity and Independence, self-confidence and motivation and risk taking capability. The only difference was noted for the business skills. The research suggested the need of a better educational system which promoted the entrepreneurship among the students.

2.2.2.2 Business Incubators:

The following lists the findings of the research related to the business Incubators.

- Most of the knowledge about the Incubators was obtained during an academic course or a workshop. Hence these two are the two most important tools for spreading awareness about BIs.
- Direct finance was the most sought benefit or the service from the Incubator by the entrepreneurs.
- Students wanted the BIs to deliver training related to analytical and innovative thinking. The next sought training was visibility studies and the business plans.
- The study established the absence of unified framework for small business and entrepreneurship development.
- It was established that the most of the entrepreneurs wanted to have a full partnership model with the Incubator rather than monthly payment for the services. The study notified that this is best in the interests of the startups but is not equally well for the BIs.

- Largest percentage of the tenants wanted to exit the BI once they had recovered their expenses regardless of the profits. Hence a generalized exit criterion was required.
- ICT industry was seen as the best choice among the students.
- Most of the students wanted to hold the business among the technology parks.
- The most mentioned hurdles towards the development of the BIs were occupation, closure and siege of Gaza strip.

The study identified the six success factors for Business Incubation as: 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.

2.3 Conclusion from the Previous Studies

The literature and studies related to the accelerator programs are limited. The available studies have undoubtedly established some very critical and important points. Following are some observations from the studies:

2.3.1 Incubator and Accelerator Programs

There exists a confusion to some level about the difference between the Incubators and the accelerator programs. The line of difference is not clear at places. Though the accelerator programs have developed from Incubators over time, but they bear a considerable difference with the Incubators. An agreement about the separate identity of accelerator programs seems to be developing over time. They are establishing their identity with the parameters such as period of mentorship and services provided to the startups.

2.3.2 Services of the Accelerator Programs

All the examined studies have a common agreement about the services of the accelerator programs. Mentorship from expert coaches and the experienced entrepreneurship, marketing support, Professional networking with various organizations including investors which opens door for long term investment and survival, are considered as the most sighted benefits of the accelerators.

2.3.3 Selection process for startups

Studies have emphasized the need for a structured selection process. All examined studies accept that every accelerator uses a different selection and screening process. Emphases have been laid on choosing the best startup teams so as to yield the best results. The business idea shall be scalable. Studies have suggested that most of the accelerators are choosing the startups which need low investment and have larger opportunities for profit. A number of startups apply for the accelerator programs, some of them might be rejected because of the strict screening process but this will ensure overall progress of the industry. It is beneficial for the accelerator programs and the startups both.

2.3.4 Profit making for the Accelerators

It has been established that a profitable organization can provide better services to its client. Accelerators usually take 6-8% of equity from the startups against their services. Some views are against the equity and question the profitability of the accelerators. On the other hand long term survival of the accelerators is used to justify the equity. The type of services that are provided by the accelerators at expert level are hard to find anywhere else. The fee of the accelerator programs is thus favored.

2.3.5 Sustainability

All the examined studies established that the accelerators work towards the economic sustainability of the startups and the ecosystem. However sustainability has been identified in three terms, People or Social, Planet or Environmental and Profit. The studies have suggested that all the three types of sustainably are important.

We have to grow in present but without compromising the future.

All the examined studies have however established that the accelerator programs increase the chances of sustainability of the startups. The startups admitted in the accelerator programs have depicted better success rates.

2.3.6 Criticism

Accelerator programs have also been criticized in terms of few parameters. They are blamed for profit making, only accepting as small companies, creating a saturation bubble in the business and taking away the talent from already existing businesses.

Chapter 3

The Acceleration

3 CHAPTER 3: Acceleration

3.1 Introduction

This chapter introduces vital information about the accelerator programs. It describes the definition, background and types of the accelerator. It will describe the operations, funding and management of the accelerator programs. The chapter will enlist the benefits of the programs to the startups and also look at the paybacks from the startups.

3.2 Background

Historically, nascent firms relied on traditional sources of funding such as bootstrapping, family and friends, angel investors, and venture capitalists (*Falbe et al., 2011*). After the Internet revolution started venture capitalists were reluctant to invest in the new startups. The businesses were left at the mercy of the angel investors. Angel investors were small level investors so they could not fulfill the demand of the investment as needed by the market. Hence a vacuum was created. In the past, business incubators have tried to fill this gap by offering "*a support environment for start-up and fledgling companies*" (*Peters et al., 2004, p. 83*).

In the year 2005 the first accelerator emerged in the Silicon Valley, founded by Paul Graham a former entrepreneur, names Y-Combinator. Eight startups were admitted in the first batch. Some of the most successful graduates are Dropbox and Airbnb. It was followed by tech stars accelerator in 2007. These two are the most copied accelerators worldwide. A steep rise in the number of accelerator programs has been noticed since 2005.

Accelerators are groups of experienced business people who provide services, office space, guidance, mentorship, networking, management services, knowledge, and expertise to nascent firms on an as-needed basis to help them succeed in the early stages of venture life (*Fishback, Gulbranson, Litan, Mitchell, & Porzig, 2007*).

The accelerator programs can be considered as modified form of technology based incubators. Many of their characteristics resemble that of the business incubators. The term incubator was first used in its business sense in 1959 and the general idea behind the concept is to create an institutionalized environment that assists and enables startup companies and business ideas to grow. The process of developing a startup company

within an incubator can be rather extensive, sometimes spanning several years. The incubator focuses on providing the prerequisites for a company to develop, such as housing, expertise and business contacts. Further, the costs associated with administrative functions within a company may be subsidized. Startups participating in an incubator program have historically had a greater chance of success compared to startups not participating. The incubator model is suitable for a large variety of companies and ideas and the time they spend inside the incubator varies depending on the needs of the company.

About Ycombinator and Techstart two US based accelerators,”These are programs that must be applied for, and once accepted a start-up surrenders a small amount of equity for a similarly small amount of seed funding. The biggest advantage of getting into one of these programs is the mentorship opportunities the programs provide”. (B. Barringer & R. Ireland, 2012)

3.1.1 Definition

This section will describe the some of the widely accepted definitions of the startup accelerators.

The formal definition of a startup or seed accelerator, first offered by *Cohen and Hochberg (2014)*, is a fixed-term, cohort-based program, including mentorship and educational components, that culminates in a public pitch event, often referred to as a ‘demo-day.’

There is still not a clear acceptance of definition of the accelerators. Some of the programs accept the *Cohen and Hochberg (2014)* while some others still consider accelerators as a part of the Incubators.

A definition was found in the report published by U.S. Department of Commerce Economic Development Administration:

“(1) A late-stage incubation program, assisting entrepreneurial firms that are more mature and ready for external financing; or (2) a facility that houses a modified business incubation program designed for incubator graduates as they ease into the market.” (Lewis et al. 2011)

Here it would be beneficial to establish the understanding the following terms:

3.1.1.1 Startup

Startup designates a team or an early stage company which has just started with an idea or some of them might just only have an idea and they want large scale realization of their business or idea. *From Paul Graham, founder of YCombinator: "A startup is a company designed to grow fast. Being newly founded does not in itself make a company a startup. Nor is it necessary for a startup to work on technology, or take venture funding, or have some sort of "exit." The only essential thing is growth. Everything else we associate with startups follows from growth."*

3.1.1.2 Incubate firm

An Incubator is a firm which admits and mentors the startups providing them access to the resources required to build a long term business. Such as office space, advice, business plan writing, admin and accounting services etc. The business incubators are long term programs typically lasting from somewhere 6 months to 3 years. *(Kh. Dahleez, 2009)*

3.1.1.3 Accelerator:

Accelerator programs are similar to the modified technology incubators. They focus on the growth oriented companies. These are usually short term programs typically three months. They offer services such as mentoring, networking, marketing assistance and funding in some cases. They are intensive programs mentored by the experienced coaches or successful entrepreneurs. *(E. Salido, M. Sabás and P.Freixas, 2013)*

3.1.1.4 Types of accelerator programs

Mainly two types of accelerator programs have been identified:

Seed accelerator: A time bound mentorship program offered to the startups which are accepted as teams rather than individuals. The program offers seed funding to the startups. The programs take equity from the startups against the services provided.

Open sources seed accelerator: Otherwise similar to the typical model of acceleration programs, but differs in one major aspect. An open sources approach means that the program is free to the participants. An open sources accelerator does not take an equity stake in the startups, and thus does not offer major seed funding. There is also significant literature on startups and entrepreneurship, but seed accelerator programs are

so new that they still consider their own success an open question as early stage investors expect a return within five to 10 years. (*Christiansen 2009, Chafkin 2009*).

3.1.2 Characteristics:

The general features of the accelerator program according to *Miller and Bound (2011)* are:

3.1.2.1 An application process that is open yet highly competitive.

The application process usually consists of filling out an online application as the first step. If an application is deemed interesting by the accelerator the applicants will be called upon for an interview. Many of the programs have a very high application rate, the most well-known accept less than 1% of the applicants. It is therefore important that the selection is made by a qualified and experienced jury that can assess the applicants and their potential.

3.1.2.2 Provision of pre-seed investment, usually in exchange for equity.

The accelerators typically invest between £10 000 and £50 000 in the startups during the program. This investment is first and foremost meant to cover their living expenses during the program. These expenses are generally funded by external investors.

3.1.2.3 A focus on small teams not individuals.

Most accelerators are of the opinion that running a startup during the period of the program would be too much work to handle for just one person. Therefore it is very rare that an accelerator program accepts a single entrepreneur.

3.1.2.4 Time-limited support comprising programmed events and intensive mentoring.

Most of the startups going through an accelerator are working with web related products, hence iterations and product development can be done rapidly. The programs are usually limited to about three months and this is believed to create a sense of urgency that encourages intense work and rapid progress. During the program the startups receive mentoring from experienced founders and investors. It is also common with structured events treating subjects like pitching practice, which means practicing

presentation skills, or legal advice. The programs usually end with a demo day in which the teams pitch their products to investors.

3.1.2.5 Startups supported in cohort batches or ‘classes’.

The peer support that the classes provide is an important advantage for the startups. The teams can for example get help from each other with different problems and moreover, receive early feedback on their ideas. Some accelerators provide office space at their facilities while other encourage the teams to find their own places to work in. If there is no single office for the startups they will meet with each other at dinners and events each week instead.

Such programs may be for-profit or non-profit, and may vary in the amount of stipend, the size of the equity stake taken, the length of the mentorship and educational program, the availability of co-working space and in industry vertical focus. Some are affiliated with venture capital firms or angel groups, some with corporations, and other with universities or local governments or non-governmental organizations. The fixed length of the program, its intensity, the provision of a stipend and services and the cohort-based nature of accelerator programs distinguishes them from other entities such as incubators, which lack a fixed term, do not typically provide equity investment in return for cash, primarily focus on co-working space and shared office resources (internet, etc.), are not selective in admissions, and offer ad-hoc educational offerings and mentoring if at all.

3.2 Impact of the accelerator

Early stage innovation funding program from *infoDev* and *World Bank* has identified the following impacts or expected performance indicators from the accelerator programs (*infoDev, Early Stage Innovation Financing (ESIF) Facility, Project Information Document*).

- 1) Increase in start-ups’ access to finance
 - a) Total number of firms receiving equity financing leveraging angel investors

- b) Total amount of equity financing received (leveraged) through the project, leveraging investors
 - c) Total number of angels and networks created
- 2) Level of Innovation
 - a) Number of new/ improved products/processes offered
- 3) Growth of beneficiary -start-ups
 - a) Growth in sales/ turnover of beneficiary start-ups
 - b) Number of new jobs created in beneficiary start-ups
- 4) Commercial Viability of Angel Investing as an Asset Class
 - a) Positive aggregate investing returns of the Financing Facility
 - b) Creation of angel investor culture and proof of MENA start-ups as an asset class
- 5) Capacity Increase of Incubators (and other enablers) to support start-ups
 - a) Number of new/improved supporting activities
 - b) Quality of new/improved supporting activities

3.3 Benefits of the accelerator program to the startups

- Technical support – Startup teams are mentored by the expert coaches which have a proven track record in their field. The startups can discuss the technical problems they face in their product or the service and with the help of the coaches they will be able find a solution. The mentoring could also lead to the adopting cutting edge technologies to save time, reduce errors and be able to produce better product or services. (*Bluestein & Barrett, 2010*).
- Business Mentoring – The mentors in the accelerator programs are experienced entrepreneurs. They have experience with the both the success and the failure. They have willingness to share their experience and provide feedback to the startup teams based on their problems faced. So the startups get to know many problems and their solution without even facing them. This helps them avoiding these mistakes in their business. According to the founders of accelerators, the key ingredient for a successful start-up is early, high quality mentorship (*Bluestein & Barrett, 2010; TechStars, 2010*).

“In a startup, you don’t always know which metrics are key, because you’re not entirely sure what business you’re in. You’re frequently changing the activity

you analyze. You're still trying to find the right product, or the right target audience. In a startup, the purpose of analytics is to find your way to the right product and market before the money runs out. (*A. Croll & B. Yoskovitz, 2013*)

- Alumni networking – Working in a cohort has several benefits for founders. One of the most important is that it encourages them to immerse themselves in their startups and the accelerator program through being surrounded by likeminded entrepreneurs. Accelerators fostering a community within their cohorts encourage founders to help one another overcome business and technical challenges which spreads knowledge and experience between the founders.
- Seed Funding – While \$20,000 in financing is not a significant amount it does give founders the ability fully commit themselves to their startup for the duration of the program. While the average start-up needs early stage funding, it is not a massive amount of capital (*Bluestein & Barrett, 2010*).
- Approval of the business or Idea – When the startups are admitted into the accelerator programs, they become confident about their business. This means their idea, product or service will be making profit. Once they pass the process of the admission, it gives them a stamp of approval for the other resources also, for example if they approach an investor after passing the accelerator admission process, they will have an advantage.
- Access to Future Capital – Accelerator programs can help their startups by providing them with connections to venture capitalists and angel investors through “demo days” and personal connections within the accelerators network.
- Higher chances of success – Going through an accelerator program reduces the uncertainty for an entrepreneur around their startup's outcome. With expert mentoring at every step the chances of the success become very high. The uncertainty factor is reduced.
- Access to the professional networking: The accelerator programs provides the startup with the access to the professional network access with investors, universities, local government bodies and economic bodies. Which is beneficial for long term survival of the business.

3.3.1 Cost of the accelerator program to the startup

The accelerator program is an intensive training program. Hence the startup team must be willing to give a strong commitment towards the program. It is usually a full time program, which requires a great deal of dedication and time management. So it can be said that time is one of the cost of the accelerator program to the startup.

Second is equity. The accelerator program often take an equity 6-8% in return of the services provided. But the accelerator also provides the seed funding approximately 22000\$ in the beginning. “The primary disadvantage of equity funding is that the firm’s owners relinquish part of their ownership interest and may lose some control. The primary advantage is access to capital. In addition, because investors become partial owners of the firms in which they invest, they often try to help those firms by offering their expertise and assistance. Unlike a loan, the money received from an equity investor doesn’t have to be paid back. The investor receives a return on the investment through dividend payments and by selling the stock. (B. Barringer & R. Ireland, 2012)

3.4 Functioning of accelerators

This section describes the functioning of the accelerator programs, their objective, expectations and screening process.

3.4.1 Objectives

The startups have some expectations which shall be fulfilled by the accelerator programs. Similarly the accelerator companies are also motivated by their own reasons or objectives. The accelerator programs generally consider only those startups which they believe possess a great chance of scalability in the future. Most of the accelerators are also profit-driven and accept equity of approximately 5% to 6% in the startup. They also look to obtain equity for their angel investor partners, for the business which are most promising and chances of success are high.

The main aim of almost all of the accelerators remains the same to help the startups with funding at early stage and mentorship, still the reason behind each

accelerator varies. Hoffman and Kelley illustrated this with three prominent US accelerators.

Table 3.1: Motives of accelerator companies

<i>Reasoning behind Accelerator Companies</i>	
Accelerator	Reason Accelerator was Founded
LaunchBox Digital	Support entrepreneurship and fill the early-stage capital gap
TechStars	Ecosystem development
Capital Factory	Personal initiative - both rewarding and fun

Source: Hoffman and Kelley, 2012

3.4.2 Performance of the startups

The performance of the startup cannot be measured under a common criterion because it is not available. There are no commonly studied or defined parameters. Some link it to the sustainability of the startup and some others to the profits generated or the ability to secure investment in the future after the accelerator boot camp is over. We look at the startup success from the sustainability point of view. Most accelerator founders explained that they anticipate nearly 20 percent of participating ventures to fail at some point, while nearly half of accelerator graduates will become self-sustaining by year five. In addition, three-quarters of accelerator founders anticipate that more than three-quarters of the boot-camp participants who graduate from their accelerator programs will receive subsequent funding at some point, and several will be acquired. (Hoffman and Kelley, 2012).

3.4.3 Screening Process

It has been well established after looking at the number of accelerators from the US and the other developed countries that most of these only accept the technology ventures and that too related to the web and internet.

According to accelerator founders, the single most important criteria used for selecting candidates for their boot-camp programs is the accelerator company's ability to make a difference to the start-up. In addition, half of the participants in the study reported that start-ups must have strong lead founders, a willingness to adapt their

business concepts if necessary, and a business concept that solves a real-world problem in a creative way. A working prototype and stellar technical expertise were viewed as important, but not vital when selecting candidates for the boot-camps. The following tables show typical results from US accelerators. (Hoffman and Kelley,2012)

Table 3.2: Criterion for startup selection

Criteria for Selection

Accelerator	Most Important Criteria for Selecting Candidates
LaunchBox Digital Capital Factory	Strong Lead Founder
TechStars	Tech Expertise
LaunchBox Digital Capital Factory TechStars	Accelerator’s Ability to Add Value to Incoming Start-Up
TechStars	Working Prototype
Capital Factory	Incoming Team’s Willingness to Listen & Adapt
LaunchBox Digital TechStars	Idea Solves a Real Problem

Source: Hoffman and Kelley, 2012

Table 3.3: Accelerator Screening Process

Accelerator Screening Process

Accelerator	Screening Process
TechStars Capital Factory LaunchBox Digital	Interview Start-up Founders
TechStars Capital Factory LaunchBox Digital	Review Application
Capital Factory	Video/Demo
LaunchBox Digital	Ability to Be On-site for 3 Months

Source: Hoffman and Kelley, 2012

Because the accelerators have their own criterion and only support ventures which are of their interest only, so some of the good ideas are left behind. Accelerators emphasize that they will only accept concepts for which they can add value. As a

consequence, they may reject good ideas because they do not believe that they can assist the venture. (Hoffman and Kelley, 2012)

And this was a real problem, because some accelerators and even incubators target specific major of startups like ideas related to Information and Communication Technology ICT, while we can find unique and profitable startups has been omitted because it did not match the incubation requirements. But nowadays; the accelerators in Palestine pave the way for all startups to apply for its programs regardless if this startup is related to ICT or any other fields. That's why we can see many success stories for startups in handmade producing, interior designs any many others.

3.4.4 Challenges for the startups

The first challenge that the startups face is the funding. Next to it is the Marketing and professional networking which is the main need of the startup. Some of the businesses have very good services or products, still they struggle to make sales and on the other hand companies with comparatively lower quality product and the service capture the ground, the difference stands in the marketing.

3.4.5 Challenges for the Accelerators

The accelerators shall be facing a problem of how the startups act after the mentorship period is over, which will decide their success or failure. The skills and expertise of the entrepreneurs and availability of innovative ideas shall be their concerns. Also the availability and willingness of the coaches to share their experiences with the startups must be their concern.

3.5 Critique towards accelerators

As the internet business model saturated many of the IT companies could not make profit. This decline in the value resulted that the investors lost their money without making any profit. Critics of the networked incubator investment model coined the term “incinerator” to emphasize the problems of investing large amounts of capital at once without demanding measurable results. (Miller & Bound 2011).

Seven major points of criticism have been listed:

- They only build small companies: First of all accelerators are blamed for only building relatively small companies.

Miller & Bound consider this as a negative point, but it is not, the large companies do not need support, they have to be a part of supporting system for small enterprises beside the incubators and accelerators. When this happens, then we can build a strong economy in Palestine.

- Diverting talent: By making entrepreneurship accessible, accelerators are also blamed for diverting talent from other high-growth tech startups, increasing the already great difficulty of startups to find and attract talent. (Miller & Bound 2011).
- Companies still fail after graduation: Investors have expressed concern that the hype around some accelerator programs is distorting the view of how difficult building a successful business actually is and that after graduating good companies still fail, when they have to face the market, since they are still fragile and need to prove whether or not they are viable. (Miller & Bound 2011)
- Exploiting startup founders: Some critics have blamed accelerators for exploiting startups founders by taking equity, especially in cases where the program team themselves lack experience and credibility as startup founders. In addition to taking significant equity without delivering much serious value, some accelerators have been blamed for forcing entrepreneurs to sign bad preferential terms that may make it difficult for subsequent investors to come in. (Miller & Bound 2011; Johnson 2011)

This point has two sides, the positive one is that the entrepreneurs will be in serious situation and this will build a commitment and show some loyalty for their startups, and this could leads them to success. The negative side; is that could increase the pressure on those entrepreneurs who have no real experience in business world, which might leads them to fail.

- Attracting already struggling companies: There is worry that accelerators attract companies that are struggling and they won't succeed as well as companies that do not need help, and that this problem will be more severe if the number of accelerators grows. Accelerator program teams also have to make uninformed decisions since the fast application process does not offer full information about the applicant and also due to the fact that it is difficult to analyze the future success of a startup firm at such an early stage. (Miller & Bound 2011)

- Creating a bubble: The accelerator phenomenon has been blamed for helping to create a bubble. If the programs start churning out small companies to be acquired by established technology companies by the thousands, there is the risk that the overall quality of ideas might be brought down. As a consequence a bottleneck might develop and in the event of a crash in confidence in the sector the value of the portfolios of companies supported by accelerators could shrink considerably. There is also discussion, which is the wiser way to invest in the firms, a large number of investments in different companies with the hope that few successful firms will come out, or a smaller number of highly targeted investments. (Miller & Bound 2011, Johnson 2011)
- They're just startup schools: There has been some speculation that rather than viable investment options, accelerators are just startup schools, a reaction to shortcomings of university education system to build suitable technical and business founders. However Miller and Bound (2011) deem it unlikely that accelerator programs would accept teams that are only looking for a learning opportunity rather than planning on building a business. Still, the career benefits and validation from participating in an accelerator program may add security for aspiring entrepreneurs applying to the programs. (Miller & Bound 2011)

3.6 Incubation and acceleration

The startup accelerator model differs from traditional venture capital and business incubators in many respects as highlighted in Miller and Bound's (2011) definition. More similar to accelerators are venture incubators and co-working spaces. These companies also offer some of the same services of an accelerator such as mentoring and networking but do not use a cohort or time limited approach. These approaches have a wide variety of revenue models from cash fees to equity to government support with the vast majority (>50%) operating on a fee-based business model. (Miller and Bound, 2011)

The first incubator, Batavia Industrial Center in New York, was started in 1959. However, it was not until the 1980s that the concept of incubation started to gain significant traction. Since then the business model has evolved and in 2006 there were approximately seven thousand incubators worldwide. (Lewis et al 2011).

3.6.1 Difference between Incubator and Accelerator

Accelerators are often confused by the media, researchers and policy makers, with existing institutions such as incubators and angel or seed stage investors. Table 2 below provides a summary of the differences between incubators, angel investors, and accelerators, which we discuss in detail in this next section (Cohen, 2013).

Table 3.4: Difference between Incubators, Investors and Accelerators

Summary of the Differences between Incubators, Investors, and Accelerators			
	Accelerators	Incubators	Angel Investors
Duration	3 months	1-5 yrs	Ongoing
Cohorts	Yes	No	No
Business model	Investment; non-profit	Rent; non-profit	Investment
Selection frequency	Competitive, cyclical	Non competitive	Competitive, ongoing
Venture stage	Early	Early, or late	Early
Education offered	Seminars	Ad hoc, hr/legal	None
Venture location	Usually on-site	On-site	Off-site
Mentorship	Intense, by self and others	Minimal, tactical	As needed, by investor

Source: (Cohen, 2013)

Even prior to the rise of seed accelerators, groups that provided shared workspace, ad hoc mentoring and services, known as incubators, had proliferated across the Globe. In general, tenant firms pay reduced rent to incubators in exchange for office space and administrative support services (Allen and McCluskey 1990). Incubator managers may also introduce firms to financiers, and legal, technology transfer, and accounting consultants (Hackett and Dilts 2004). University-affiliated incubators may also transfer intellectual property from faculty members to firms that are commercializing the university's intellectual property.

Philosophically, incubators are designed to nurture nascent ventures by buffering them from the environment, providing them room to grow in a space sheltered from market forces. Accelerators, in contrast, are designed to speed up market interactions in order to help nascent ventures adapt quickly and learn. Practically, accelerators differ from incubators on four important dimensions. (S. Cohen, 2014)

3.6.1.1 Duration

The limited duration of accelerators, usually three months, is the characteristic that most clearly defines accelerator programs. Research on incubators suggests that

firms graduate from incubators anywhere from one to five years after they begin (Amezcuca, 2011). Established timelines and strict graduation dates reduce the amount of codependence between ventures and accelerators and force ventures to face the selection mechanisms that operate in the market. Participating in an accelerator program may not necessarily keep the venture (or the venture idea) alive; instead, it may speed up the cycle of the venture—leading to quicker growth or quicker failure. Quicker failure does have a benefit if those entrepreneurs move on to a higher-value opportunity: they can help grow different ventures and the overall economy. The limited duration of accelerator programs focuses founders' attention. Founders work at an often unsustainable pace for the three-month programs; often working seven days a week, doing little else but work and sleep. Of course, they could not sustain this pace if the programs were longer or ongoing. (*S. Cohen, 2014*)

3.6.1.2 Cohorts

Another byproduct of the structured, limited-duration programs of accelerators is that ventures enter and exit the programs in groups, known as cohorts or batches. While venture founders in an incubator may also develop relationships with other founders at the incubator, the experience of starting in the program at the same time fosters uncommonly strong bonds and communal identity between founders in the same accelerator cohort. The batching selection process also focuses the accelerator's marketing and outreach around key dates. Moreover, the open application process attracts ventures from a wide, even global, pool. Top accelerator programs accept as few as one percent of applicants.

3.6.1.3 Incentives

Many accelerators are privately owned, and take an equity stake in the ventures participating in the programs. Incubators, on the other hand, are mostly publicly owned, managed by managers, and generally do not have their own investment funds (Allen and McCluskey, 1990; Hackett and Dilts, 2004). As a result, the incentives of accelerator directors are often more closely aligned with the ventures than are those of professional incubator managers. Further, some accelerator owners have extensive experience as entrepreneurs or angel investors, giving them the first-hand experience

they need to assist ventures with a myriad of tasks, from customer development to fundraising and hiring. Accelerators typically seek growth that leads to a positive exit, while the best outcome for an incubator might be companies consistent with the fact that most accelerators take equity stakes in participating firms. (*S. Cohen, 2014*)

3.6.1.4 Educational Program

Intense mentorship and education are cornerstones of accelerator programs and often a primary reason that ventures participate. Research on incubators (Hackett and Dilts, 2004) suggests that incubators offer fee-based professional services, such as accountants and lawyers. Education at accelerators, however, appears to be extensive, and often includes seminars on a wide range of entrepreneurship topics, including unit economics, search engine optimization, and term sheet negotiation. Such seminars are usually given by either the directors of the program or by guest speakers who often provide one-on-one guidance after their talks. (*S. Cohen, 2014*)

3.6.1.5 E. Mentorship & Network Development.

Mentorship is also frequently cited as a valuable aspect of accelerator programs, but it varies quite substantially among programs. Some programs schedule meetings with up to 75 different mentors during their first month. Others may either make introductions on an as-needed basis, or simply hand entrepreneurs a list of pre-selected mentors. Meeting with four or five mentors a day for nearly a month provides a unique opportunity for ventures to build their social network and learn about alternate strategies. Generally, network development is cited as an important aspect of accelerator participation. Finally, managing directors provide guidance throughout the program, helping entrepreneurs understand the knowledge they are garnering through mentor meetings, seminars, and other means. (*S. Cohen, 2014*)

3.7 Accelerators and Incubators in context of Gaza Strip

The innovation and entrepreneurship ecosystem in the Palestinian territories is nascent, but developing quickly. In the past few years, incubators, accelerators, start-up competitions, entrepreneurship training, mentoring programs, informal entrepreneur networks, and even a venture capital fund have been created. This is no doubt linked to the move toward a knowledge economy in the region as a whole. Indeed, the ecosystem

in the Palestinian territories is strengthened by support and ties to a number of regional technology and entrepreneurial actors, such as Oasis 500, Mowgli, and others. There is an apparent gap between seed financing and support to entrepreneurs through training, competitions, incubators, and accelerators, and firms entering the venture capital and small/ medium-capital equity investment pipeline.

Following is a recommendation from Social Entrepreneurship in the Middle East, toward sustainable development for the next generation.

Supporting innovative start-ups is critical for elevating their chances of success and sustainability. Incubators can provide start-ups with subsidized or pro bono services such as shared infrastructure; legal and accounting support; social business planning, management, and leadership mentoring; documentation; impact evaluation; and seed funding through a seed investment fund for social enterprise start-ups. These needs have been established throughout this report. Based on existing models either globally and in the region (and depending on the specific c needs and stage of the incubated entity), incubation should last for a maximum three-year period. After this period, the incubated social enterprises should graduate to independent legal entities. (*E. ABDOU, A. FAHMY, D. GREENWALD, and J.NELSON,2010*).

Chapter 4

Sustainability

4 Chapter 4: Sustainability

4.1 What is sustainability

Sustainability is a broad and complex concept. For some it speaks to ecology and protection of natural resources. For others it refers to sustained economic progress or, conversely, for social issues and with a focus on development and support of the most disadvantaged. For still others, it is a combination of these. Few see the potential of value creation to contribute toward sustainability. However, sustainability is all this, and more. (*O. Pascual, A. Klink, J. Grisales, 2011*).

4.2 Why Sustainable Entrepreneurship

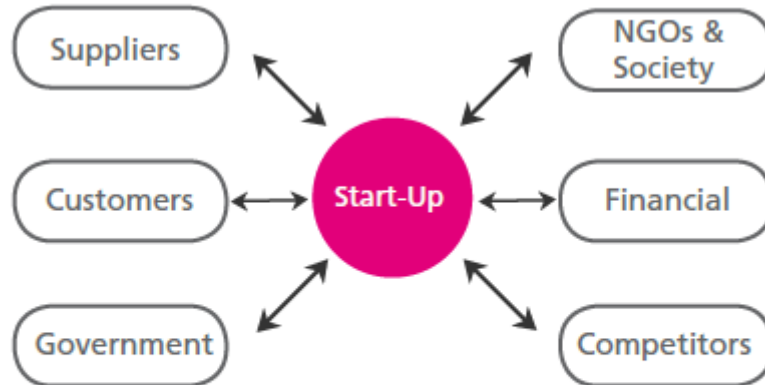
It is only recently that we are aware of the relationship between certain human activities and the implications for the planet. The subject has reached such a level of maturity that it is only now that all the environmental and social conditions. Traditionally, environmentalists have focused their attention on established corporations:

“They have created all the problems, and they have to solve them”. The truth is that the ultimate drivers of the current environmental stress are consumers. It is also true that, until recently, little was known about the effects of industrialization.

Today large companies are doing much to reduce their sustainability footprint. At the same time it is true that large organizations lack flexibility and often the necessary culture to develop innovative sustainable solutions.

That is why the future of sustainability is in the hands of passionate individuals driven to create environmental, social, and economic value. These are the individuals who will create the innovative technologies and business models of tomorrow. (*O. Pascual, A. Klink, J. Grisales, 2011*).

Figure 4.1: Sustainability Issue for Startups



Source: *Sustainability Issues for Start-up Entrepreneurs*, Hildegard Schick, Sandra Marxen and Jürgen Freimann University of Kassel, Germany

The concept of entrepreneurship covers many types of organizational and individual activities but it takes its most obvious form in the decision by an entrepreneur to start a new business. In recent years, researchers from different perspectives have focused more attention on the entrepreneurial activity involved in starting one's own business.

Sustainability has 'become a multidimensional concept that extends beyond environmental protection to economic development and social equity' (Gladwin *et al*, 1995). There can be three important aspects of Sustainability. They are called 3Ps: People, Planet and Profit. To remain viable, businesses and companies must now incorporate and pay greater attention to these 3P's. They effectively measure and capture entities ecological, economic and societal values. (Langdon, 2010)

- **People:** When we talk about sustainability in terms of People, it covers the social concept. The stake holders of the eco system, Startups, Investors and accelerates, All shall put a combined effort towards the social sustainability. This shall include job creation, removal of poverty and strengthening economy. The eco system shall work to create education for all. Specially the higher education and the professional education. This in the long terms helps the local

region and the economy. This prepares a future workforce. The social sustainability shall be included in the mission and vision statements of the accelerators and the tenant companies.

- **Planet:** The environment is equally important. The need for ecofriendly products and clean environment is the need of the hour. Environment policies are usually also governed by the government laws, so there exists a relation between the profitability and being environment friendly. All of the businesses shall work to conserve the electricity and water. Reduce waste. This is only motivational aspect and is not technology dependent. Also it does not require a lot of investment. Awareness is the key for this type of sustainability.
- **Profit:** Profits are the value created by the organization minus the costs. The Businesses work to maximize the profits always to stay sustainable in the market. The accelerator programs impart knowledge to the startups to make them more economical sustainable. Profit model is very important because the profitable enterprise have the capacity to provide the required services to the customers. If they are short of the profits, they will cut the services provided and at the end customer is affected and he stops or reduces the use of product or service, profit is further reduced within the chain. Hence whole ecosystem is disturbed. This aspect of sustainability is vital for long term survival of the firm.

4.3 Definitions

The concept of Sustainable Entrepreneurship is thus introduced. Following are the two definitions:

“The continuing commitment by business to behave ethically and contribute to economic development, while improving the quality of life of the workforce, their families, local communities, the society and the world at large, as well as future generations. Sustainable Entrepreneurs are for-profit entrepreneurs that commit business operations towards the objective goal of achieving sustainability”. (*Crals and Vereeck, 2005*).

“Sustainable Entrepreneurship is focused on the preservation of nature, life support, and community in the pursuit of perceived opportunities to bring into existence future products, processes, and services for gain, where gain is broadly construed to include economic and non-economic gains to individuals, the economy, and society”.
Shepherd & Patzelt (2011)

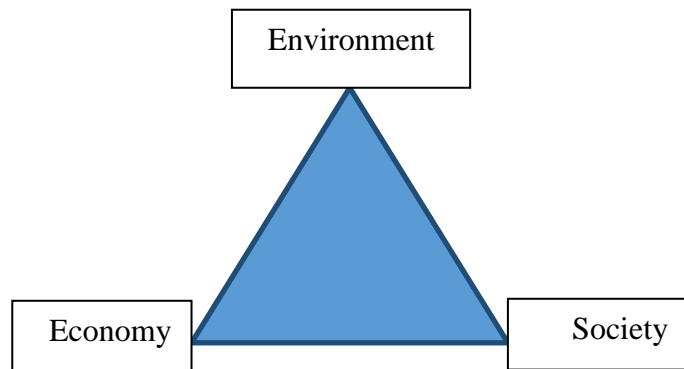
Sustainable Entrepreneurship has the following building blocks which have been mentioned in *Sustainable Entrepreneurship by (J. Bell and J. Stelligwerf, 2012)*

4.4 Sustainable Development

Sustainable development is said to be achieved if we are able to meet the needs of the present without compromising the needs of the future. *Brundtland Commission “Our common future” 1987*. The composition of Sustainability is illustrated below:

- **Environment:** A stable resource base, do not overwhelm the waste assimilative ability of the environment nor the regenerative services of the environment, deplete non-renewables only to the extent we invest in renewable substitutes. Environment could have its components as biodiversity, materials, energy and biophysical reactions.
- **Economy:** An economically sustainable system must be able to produce goods and services on a continuing basis, to maintain manageable size of government and external debt and to avoid sectorial imbalances (maintain diversity). It consists of Money and capital, employment, technical growth, investment and market forces. Getting paid is, in some ways, the ultimate metric for identifying a sustainable business model. If you make more money from customers than it costs you to acquire them—and you do so consistently—you’re sustainable. You don’t need money from external investors, and you’re growing shareholder equity every day. (A. Croll & B. Yoskovitz,2013)
- **Society:** Achieve distributional equity, adequate provision of social services including health and education, gender equity and political accountability and participation. Cultural and ethnic diversity, independence, quality of life, institutional and organizational structure and political structure.

Figure 4.2: Composition of Sustainability



Source: Prepared by researcher

To achieve the sustainable development, the business must take some steps or they bear some responsibilities. Businesses need to analyze if their product or service fits the social context, availability of the skills and labor, utility of product (it shall make people's lives easier), any hazard related to the product or the service. The product or service shall be low cost, effective, labor intensive.

4.5 Balancing Environment, Social & Economic Concepts

No business, company or venture operates on a desert island; it is embedded in an economic, social, cultural and ecological environment (*Crals & Vereek, 2005*). Hence to sustain and develop a business must maintain a balance between social, economic and environmental existence. All are crucial for the eco system, the economy and the society. Companies always work to achieve the balance and minimize any adverse effect.

4.5.1 Market Disequilibria and Market Failures:

Successful Identification of market opportunities is the main characteristic related to the entrepreneurship. There occur many market failures which give rise to new opportunities.

4.5.1.1 Transformation of Industries towards Sustainability:

Recent research into the transformation of sectors towards sustainability has derived from the identification of sustainability-related market failures as opportunities for Sustainable Entrepreneurs. *Hockerts and Wüstenhagen (2010)* set out how the transformation of an industry towards sustainability takes place.

- First stage: A sustainable entrepreneur (who is highly motivated idealist) launches a sustainability innovation and initiates the transformation of an industry towards sustainability.
- Second stage: The Sustainable Entrepreneur grows their business and is followed by incumbents that catch up with the growing trend. The transformation of an industry towards sustainability continues.
- Third stage: Business minded Sustainable Entrepreneurs emerge with start-ups backed up by professional investors. These understand their market niche well and are able to implement both product innovation as well as process innovation. These Sustainable Entrepreneurs achieve profitable growth and will extend market share, while defending it against incumbents.
- Fourth Stage: In this maturity stage, mass-market brands see the growing competitive threat from the Sustainable Entrepreneurs and will try to gain market share as well, taking the transformation of an industry towards sustainability further.

We can adopt the definition of Sustainable Entrepreneurship from *Sustainable Entrepreneurship* by (J. Bell and J. Stelligwerf, 2012) because it is related to the innovative startup and closely associated with the research. “*Start-ups that introduce an innovation, with the aim to solve a sustainability-related market failure, which initiates the transformation of an industry towards sustainability* “

4.6 The start-up process

The period of startup process is relatively vague, there is not clear demarcation about the start and the end. The process of creating a new venture is consistently characterized as a complex event in which varied planning and preparation activities are necessary and in which decisions need to be taken.

What seems to be similar for most entrepreneurs is that they do not change their business ideas to any large extent in the course of the start-up process. They may decide

to adapt the legal form of their enterprise, as well as the financing structures, to make use of tax advantages, and they may alter minor operating procedures but they do not vary their basic business idea. Once they have developed a picture of their future business venture, they are determined to pursue it.

A very problematic phase in most start-up processes is the first months of transacting business. At this time entrepreneurs are exposed to a heavy workload and often fail to execute important management tasks such as strategic planning and control. Financial difficulties are often a consequence and indicate that corrective action is necessary. Sometimes, though, it is too late to make the necessary changes. The reason for this phenomenon is that in most cases entrepreneurs work alone or in pairs and have to deal with every individual course of action themselves. In many cases, entrepreneurs are just not able to cope with the pressures with respect to time or the business administration skills required (*H. Schick, S. Marxen & J. Freimann (2002)*).

4.7 Sustainability of startups

The sustainability of the startups depend on how the advisers assess the situation and design sustainable policies. The focus of the coaches or mentors is to address the major management problems such as finance, marketing and operations. They try to deal with the most established and conventional problems.

There is a need to measure the performance of the accelerators. It has been done in the past, but there is no single metrics available. There does not exist a common standard for the measurement of the either accelerator or the startup. States that the performance of a business incubator should be measured by “the survival and growth of the businesses it incubates.” However, there is little consensus among researchers on the best measures for enterprise growth (*Lalkaka, R., & Bishop, J. (1996)*).

Following are points in connection with accelerators, which can be related to the sustainability of the startup and hence to the success.

4.7.1 Profitability and smooth operation:

The accelerator shall remain profitable in order to provide better services to the startups. The accelerator can charge the startups for the office space and other services which could be a good stream of revenue for it. Also an accelerator shall spend more on the training and development of their staff and betterment of their services. Funding

sources for the accelerator is very important. Continuous and smooth funding operation is expected to boost the performance.

4.7.2 Screening process:

By the rule of the nature stronger survives. None of the ideas and persons applying for the accelerator programs could be underestimated but the best talent and the idea has to be chosen. This affects in long term the sustainability of the business and the reputation of the accelerator and overall impact on the eco system. Better the screening process better will be the selection. Only capable will be taken in, and there will be a great chance of sustainable business as a result.

4.7.3 Quality of Services

The main problems with the startups is too much information and they are not aware what to get and from where to get. They have administrative, legal and accounting needs. If these needs are met, then the chances of survival and long term sustainability increase.

4.7.4 Networks

Professional networking is a widely agreed parameter for the success of the accelerator and is greatly beneficial for the startups as well.

4.8 Concerns of startup success or failure

As we have seen in the previous sections, the new startups worldwide have grown. A large number of people are willing to start new ventures. This is an excellent sign from the point of view of the Entrepreneurship culture. But there is a problem that the startups face. A large percentage of startups (typically more than half) fail in less than five years of start. This is a serious concern, because they play a major role in the economy and also for the job creation.

New small businesses are considered to be especially vulnerable in the infancy period following start up. Many fail to develop into thriving, prosperous businesses. An understanding of the determinants of success and failure in new small businesses and the motivations of the founders in establishing a new business should provide valuable insights into the support needs of new businesses and their founders in the early years.

4.9 Advantages of the sustainable development:

- **Represent Innovation and Development:** The formation of new firms that focus on the development and introduction of new technology is a major source of innovation and technological advance. Many of these start-ups transfer new knowledge or new ideas for products and processes into commercial applications. Knowledge and ideas may either originate from public research or from established companies. In the former case, start-ups transfer academic findings into market products. In the latter case, so-called company spin-offs often pick up innovations (or ideas for innovations) that were not fully utilized by their parent firm, partly because a market potential was estimated to be too low, partly because they were outside the market focus of the firm.
- **Promote Healthy Competition:** start-ups spur competition in their markets. Especially for upcoming technologies and when new product markets develop, divergent innovation designs compete with each other. Start-ups are likely to bring in new solutions and challenge established companies that enter these new markets, too. In general, intensifying competition is a relevant function of any new firm foundation which may impel innovation through fierce competition in any product market.
- **Substitute for Failures:** New firms represent a source for innovative firms that substitute those firms that failed and thus contribute to continuity in the number of technology developing and innovating firms. Without new market entries, the stock of innovating small firms would likely diminish, restricting the innovative potential of the small and medium enterprise sector (*Centre for International Trade in Technology (2007)*).

Chapter 5

Incubators and Accelerators of Gaza

5 CHAPTER 5: Incubators & Accelerators of Gaza

5.1 Gaza Sky Geeks (GSG): One of the Accelerators in Gaza

Gaza Sky Geeks is one of the accelerator programs of Gaza region. It is supported and run by MercyCorps. MercyCorps is a global humanitarian agency which helps people living in problematic areas around the globe. MercyCorps both funds and implements Gaza Sky Geeks.

Gaza Sky Geeks was founded in 2011 to build a startup movement in a frontier market with strong potential. Gaza Sky Geeks runs a vibrant co-working, conducts active outreach, and builds a vibrant community that nurtures innovation. Gaza Sky Geeks is one of the main organizers of Startup Weekend Gaza (*Retrieved from <http://www.gazaskygeeks.com>*).

Investors from around the world invested in the startups and partnered with Gaza Sky Geeks to provide them with expertise, mentorship, and networks. Gaza has a high density of well-educated, technically-savvy, and eager youth.

Gaza Sky Geeks believe that the startups in Gaza are the most important entity. They invest in selected startups yet provide training to other startups. They provide seed funding to the top startups and the acceleration program in partnership with Oasis500. Following are some of the startups supported by Gaza Sky Geeks.

5.1.1.1 Tevy:

Tevy is a second screen app and a social network built around TV shows, it connects people with the same taste in TV shows, Tevy also allows them to chat and connect when they are watching the show in real time. Tevy also can be considered your personal TV guide and reminder, once you set your favorite shows on tevy, the app will start reminding you when your show is on, also you can browse TV channels grid to see what shows are coming up next.

5.1.1.2 Wasselni:

Wasselni is a carpooling and taxi ordering network. Available as a mobile app and a website, Wasselni empowers users to share their transportation efficiently. In cities like Gaza, Cairo, and Amman, people see tons of taxis in the streets, but are often not

able to find an empty one that can take them to their destination. Carpooling does not exist, and public transport is rare.

5.1.1.3 Datrios:

Datrios is a sports social network that transfers real-life fan activities onto an online platform. Initially, Datrios targets Arab soccer fans. Because the content is entirely crowd-sourced and verified with a rigorous quality assurance algorithm, the network can be seamlessly scaled to new languages, regions, and sports.

5.1.1.4 DWBI Solutions

Data Warehouse and Business Intelligence Solutions (DWBI Solutions) is a cutting-edge data warehouse and business intelligence solutions company. Harnessing six years of intensive research, advanced algorithms, and the team's long industrial experience, DWBI enables top management at governments and other large organizations to easily obtain the data they need to make decisions. This product has already acquired recognition from large entities globally, including Telecom Malaysia, SAS, and Sybase. In addition, it has won gold medals worldwide.

5.1.2 Achievements:

Gaza Sky Geeks (GSG) was founded by Mercy Corps in 2011 with a generous donation from Google. Initially, GSG contributed to the Gaza ecosystem by running training, outreach events, and competitions to generate interest in startups. GSG helped run the first [Startup Weekend](#) in Palestine in 2011 and has organized a Startup Weekend with local partners annually since then. In 2013 GSG became a startup accelerator. Gaza's startup sector is young and quickly growing, and has seen a jump in activity in late 2013 and early 2014.

- **Investments:** The first private investments in Gaza startups were made in December 2013, sourced by Gaza Sky Geeks. Four startups secured investment from foreign investors.
- **Pipeline:** Over 600 Gazans applied to most recent Startup Weekend in June 2014.

- **Rigor:** Startups continued to work during the seven-week conflict in summer 2014.
- **Inclusivity:** Half of the startups in pipeline are led by women, and two of the top three winning teams at Startup Weekend 2014 were led by women
- **Community:** co-working hub is vibrant with optimistic, laughing, resilient, hardworking entrepreneurs and potential entrepreneurs making use of the space each day.

5.1.3 Gaza Sky Geeks Community:

The community includes the following:

- Google Developer Group: GDG – Gaza: is a Google Developer Group Gaza-based, focused on developers and technical content related to Google’s developer technology; we meet on regular basis to discuss and share ideas, knowledge, network, and experiences among the group and enjoy the company of fellow engineers. All through workshops, lectures, & events like code sprints and hackathons.
- Microsoft Student Partners: The Microsoft Student Partners is a worldwide educational program to sponsor students majoring in disciplines related to technology. The MSP program enhances students’ employ ability by offering training in skills not usually taught in academia, including knowledge of Microsoft technologies.
- NewToon: Company specializing in the production of promotional animation breaks for companies that need to work for the marketing of their products, whether products or services, the goods having produced a creative team in animation. Video publishing advertising in the Middle East to reach the largest number of companies and increase the demand for our products and our entry into global markets. Currently the company is developing products to add new business and new ideas with the beginning of the New Year 2015.
- Lilac: Lilac is an intermediate company between customers, designers, and furniture companies. Lilac makes it easier for the customers to get any design they want by connecting them with the designer, and it also allows customers to choose

any furniture piece they want through the store which companies display their furniture pieces in. Lilac also offers designers the opportunity of finding jobs by helping them display their work on Lilac website, which allows customers to view and choose among them.

5.2 Business and Technology Incubator Gaza

5.2.1 Introduction

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.

5.2.1.1 Mission Statement:

BTI will 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.

5.2.1.2 Strategic-Objectives

BTI will 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.

5.2.1.3 Objectives

- Provide a suitable environment for innovation and creativity.
- Participate in the enhancement of the graduates' social situation by helping them establish their own businesses.
- Create and nurture relationships with bi/multilateral development organizations in order to cooperate on joint economic development initiatives that have an ICT component.
- Assist existing Palestinian ICT firms to access regional and international markets.
- Help non-ICT industry sectors integrate ICT into their business operations.
- Create promotion and marketing strategies focused on regional and international markets.
- Create and nurture relationships with bi/multilateral development organizations in order to cooperate on joint economic development initiatives that have an ICT component.
- Work with regional/international investors and financial institutions to create a loan fund for new ICT enterprises in Palestine while also providing investment capital for ICT firms and non ICT companies.

5.2.1.4 Industry-University Linkages:

One of BTI's core objectives is the establishment of a dynamic, market driven industry-university linkage program that will focus on identifying the key technical and managerial curriculum that will be essential for university graduates to be internationally competitive in their respective field. The establishment of a finely tuned and calibrated market driven, BTI educational and training program will produce the technical talent that is required to create those companies that can compete on a regional and international level.

5.2.2 Services

Business and Technology incubator provides a number of services for its clients during the incubation period such as:

- **Working-Place**: Setting up a suitable and comfortable work place for each individual project, including furniture and other required equipment.
- **Technical-support**: Provide the incubated project with all material, parts and equipment required for implementing the project and ensuring its success in the future.
- **Logistic-support**: Logistic support means providing all necessary stuff needed to manage and implement the project with high quality, such as: secretary, communication services, convening and managing meetings, internet, printing, stationery, etc.
- **Training**: Training is considered one of the most important services BTI provides for its clients because it is essential for improving their performance and for the fact that training courses are relatively expensive which makes it hard for an individual to afford.
- **Consultancy**: It is predictable that any incubated project will face some technical and management problems which are time consuming and always the solutions provided are not very practical for the lack of experience, so the incubator provides its clients with the practical solutions through a team of experienced consultants.
- **Marketing**: Marketing is considered one of the important issues which directly affect the success or failure of companies, so BTI considers marketing to be a very important service where it provides a complete marketing plan for its clients to ensure their products get promoted outside the incubator and consequently the success of the project.
- **Networking**: Networking is the process of connecting and integrating the staff of the incubated projects with the local society so they can easily develop their products by establishing relationships with potential business partners.
- **Management and financial (accountancy) support**: Where the management team of the incubator helps members of incubated projects organize their management and financial issues and create new mechanism for implementing

their projects by using available resources efficiently, so the project will have a correct start based on correct management concepts.

5.2.3 Incubated Projects

The following are some of the projects Incubated by BTI.

- WEB - WAP Student Information System Development
- Roiana Group for Design and Video Prouction
- Future Boy
- Akary
- Souki
- E-Tech
- PC Home Support

PART III

Research Methodology, Result & Analysis

Chapter 6

Research Methodology

6 CHAPTER 6: Research Methodology

This chapter describes the methodology that was used in this research. The adopted methodology to accomplish this study uses the following techniques: the information about the research design, research population, questionnaire design, statistical data analysis, content validity and pilot study.

The hypothesis for the research is that the Business accelerators in the Gaza strip are helping to create sustainable startups. By the end of this research we shall be able to support or reject this hypothesis.

6.1 Research Method

This study uses descriptive methods to establish the current status of the research problems. The collected data helps to establish various aspects of the study. The study examined the role of Gaza accelerators in establishing sustainable startups.

The research is an empirical case study trying to explain the effects and value that an accelerator offers to participant startups. The research aims to answer the question of how does the open sources seed accelerator facilitate the success of startups. Five important criterion for startup sustainability are identified as investment, marketing, marketing competition, networking and founder's skills and competence. The research investigates the effect of Accelerator programs on these criterion and if the graduated startups are able to maintain the pace acquired during the coaching period.

6.2 Data collection and analysis

Primary data collection method for the study was implemented by distributing and recording feedback from a questionnaire. The Questionnaire records the responses from startup founders about their experience with startup accelerators. The secondary data collection resources considered are previous studies, Journals and web articles.

The research area of accelerators is relatively little studied and there is no enough previous studies done on the accelerator. The study focuses on the motivations and experiences of the teams and so it was likely from start that the answers would be complex. Thus a questionnaire was prepared to record the feedback of the startups on various points and also some subjective questions were.

The themes were (1) the challenges and success factors of the team, (2) motivation to participate and expectations for the program prior to participation, (3) experiences during the program, and (4) after the program. Free discussion and analysis of one's experience was encouraged. This way the person interviewed was able to formulate the experience by way of dialogue instead of just answering questions. In addition, to create open dialogue, the answers were handled confidentially, and quotations will be used anonymously to protect the privacy of the interviewees.

6.3 Study Population

The study population for this study is the startup founders, graduated firms from Incubators and accelerators, The study was implemented using a comprehensive survey with a total of 112 participants who belonged to the incubators and accelerators in Palestine such as Business and Technology Incubator BTI at Islamic University of Gaza, Technology Incubator at UCAS, Gaza Sky Geeks GSG at Mercy Corp, Palestinian Information and Communication Technology Incubator PICTI.

6.4 Sample Selection

The main purpose of the case study was to study the effect of the accelerator programs on the sustainability of the startups in the Gaza strip. Due to the limited availability of the literature related to the accelerators in Gaza. Accelerator program studies from other part of the world were studied, to gain an understanding the concept and to find the answer for the research question for this thesis.

The study was implemented as a comprehensive survey where the population was 112 participants. 111 of those were respondents to the questionnaire. The respondents are the entrepreneurs who are involved in incubation or acceleration programs in Gaza strip.

6.5 Research Design

The research began with a planning report, which described the content of the thesis and outlined the processes of the project. Included in the report were milestones that defined dates when certain objectives were to be met. This gave the study a starting point in the search for relevant literature and theory. Most of the early information came from articles about established accelerators and blog post by accelerators and authors of

the literature outlined in the theory chapter. In conjunction with the information search online and the books was studied to gain an understanding of the management principles and that appeared to be used by accelerators. The study of these accelerators also meant that it was possible to get a better understanding of how an accelerator operates. After gaining more knowledge about accelerators it was decided to carry out case studies. A questionnaire was prepared.

- **The first phase:** Of the research thesis proposal included identifying and defining the problems and establishment objective of the study and development research plan.
- **The second phase:** Of the research included a summary of the comprehensive literature review.
- **The third phase:** Of the research included a field survey which was conducted with the graduated startups, startup founders and their employees to finalize the survey questionnaire.
- **The fourth phase:** Of the research focused on the modification of the questionnaire design, through distributing the questionnaire to pilot study, The purpose of the pilot study was to test and prove that the questionnaire questions are clear to be answered in a way that help to achieve the target of the study. The questionnaire was modified based on the results of the pilot study.
- **The fifth phase:** of the research focused on distributing questionnaire. This questionnaire was used to collect the required data in order to achieve the research objective.
- **The sixth phase:** of the research was data analysis and discussion. Statistical Package for the Social Sciences, (SPSS) was used to perform the required analysis. The final phase includes the conclusions and recommendations. Figure 6.1 shows the methodology flowchart, which leads to achieve the research objective.

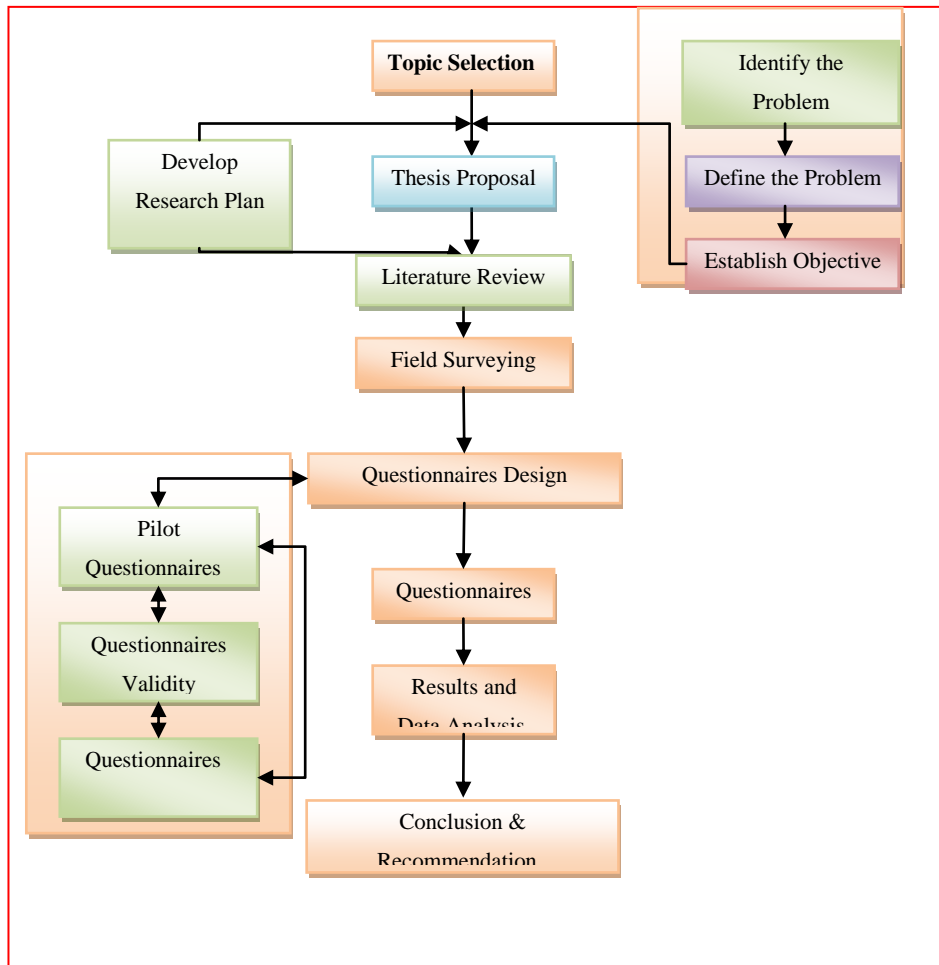


Figure 6.1: Methodology Flow Chart

6.6 Data Measurement

In order to be able to select the appropriate method of analysis, the level of measurement must be understood. For each type of measurement, there is/are an appropriate method/s that can be applied and not others. In this research, scale 1-10 is used.

6.6.1 Test of Normality

The One-Sample Kolmogorov-Smirnov Test procedure compares the observed cumulative distribution function for a variable with a specified theoretical distribution, which may be normal, uniform, Poisson, or exponential. The Kolmogorov-Smirnov Z is computed from the largest difference (in absolute value) between the observed and theoretical cumulative distribution functions. This goodness-of-fit test tests whether the observations could reasonably have come from the specified distribution. Many parametric tests require normally distributed variables. The one-sample Kolmogorov-Smirnov test can be used to test that a variable of interest is normally distributed, (Henry, C. and Thode, Jr., 2002).

Table (6.1) shows the results for Kolmogorov-Smirnov test of normality. From Table (6.1), the p-value for each field of the questionnaire is greater than 0.05 level of significance, then the distributions for these variables are normally distributed. Consequently, parametric tests will be used to perform the statistical data analysis.

Table 6.1: Kolmogorov-Smirnov Test of Normality

No.	Variables	Kolmogorov-Smirnov	
		Test Value	P-value
1.	Investor Existence	0.580	0.890
2.	Market Competition	0.785	0.568
3.	Marketing	0.890	0.406
4.	Professional Networking	0.611	0.849
5.	Founder Skills and Competencies	0.498	0.965
	Acceleration Programs	0.766	0.601
	Sustainability	0.912	0.376
	All paragraphs of the questionnaire	0.780	0.577

6.6.2 Statistical analysis Tools

The researcher would use data analysis both qualitative and quantitative data analysis methods. The Data analysis will be made utilizing (SPSS 22). The researcher would utilize the following statistical tools:

1. Cronbach's Alpha for Reliability Statistics.
2. Pearson correlation for Validity.
3. Frequency and Descriptive analysis.
4. Kolmogorov-Smirnov test of normality.
5. Parametric Tests (One-sample T test and One-Way Analysis of Variance).
6. Multiple Liner Regression Model.

6.6.2.1 T-test:

It is used to determine if the mean of a paragraph is significantly different from a hypothesized value μ_0 . If the P-value (Sig.) is smaller than or equal to the level of significance, $\alpha = 0.05$, then the mean of a paragraph is significantly different from a hypothesized value μ_0 . The sign of the Test value indicates whether the mean is significantly greater or smaller than hypothesized value μ_0 . On the other hand, if the P-value (Sig.) is greater than the level of significance, $\alpha = 0.05$, then the mean a paragraph is insignificantly different from a hypothesized value μ_0 .

6.6.2.2 The One- Way Analysis of Variance (ANOVA):

Is used to examine if there is a statistical significant difference between several means among the respondents toward the (The Effect of Acceleration Programs on the Sustainability of Start-ups) due to (Age, Job title, Industry Sector, Industry Sector, Number of Employees, University Specialization and Accelerator Program Enrolled in).

6.7 Statistical Validity of the Questionnaire

Validity refers to the degree to which an instrument measures what it is supposed to be measuring. Validity has a number of different aspects and assessment approaches. To insure the validity of the questionnaire, two statistical tests should be applied.

6.7.1 Internal Validity

Internal validity of the questionnaire is measured by a pilot sample, which consisted of 20 questionnaires through measuring the correlation coefficients between each paragraph in one field and the whole field.

6.7.2 Structure Validity of the Questionnaire

Structure validity is the second statistical test that used to test the validity of the questionnaire structure by testing the validity of each field and the validity of the whole questionnaire.

6.7.3 Internal Validity

Tables (6.2) through table (6.7) present the correlation coefficient for each paragraph of a field and the total of the corresponding field. The p-values (Sig.) are less than 0.05, so the correlation coefficients of all paragraphs are significant at $\alpha = 0.05$, so it can be said that all paragraphs of each field are consistent and valid to be measure what it was set for.

Table 6.2: Correlation coefficient of each paragraph of “Investor Existence” and the total of this field

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Acceleration programs in Gaza offer start up investment.	.706	0.000*
2.	Our Start-up was able to secure initial investment with accelerator help.	.621	0.002*
3.	Accelerators in Gaza provide follow up investment (Other than Initial investment) if needed by start-up.	.733	0.000*
4.	Accelerator investment helped us scale our start up faster.	.797	0.000*
5.	Accelerators in Gaza shall increase the available investment amount for start-ups.	.411	0.040*

* Correlation is significant at the 0.05 level

Table 6.3: Correlation coefficient of each paragraph of “Market Competition” and the total of this field

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1.	A healthy market competition helps businesses improve their product and services.	.652	0.001*
2.	We had good understanding of market competition before enrolling in accelerator program.	.457	0.025*
3.	Accelerator program helped us to achieve better position than that of our competitors.	.748	0.000*
4.	In some areas of Business our competitors are better than our start up.	.755	0.000*
5.	My product or service is based on a unique idea.	.783	0.000*
6.	We have kept our prices lower than our competitors to overcome market competition.	.662	0.001*
7.	Accelerator program helped us decide optimal price for our product/service.	.724	0.000*
8.	Our Product or Service has better features than our competitors.	.719	0.000*
9.	Accelerator program helped us to improve our product or service features to stand better than competitors.	.819	0.000*

* Correlation is significant at the 0.05 level

Table 6.4: Correlation coefficient of each paragraph of “Marketing” and the total of this field

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Our Start-up had clearly identified target market before enrolling in accelerator program.	.441	0.029*
2.	Our start-up had a marketing plan from the beginning.	.843	0.000*
3.	Marketing is one of the most important requirement for the start-ups.	.643	0.001*
4.	Marketing support from Gaza accelerators is available for the start-ups.	.883	0.000*
5.	Accelerator program helped our start-up to expand the customer base.	.800	0.000*
6.	Expert marketing advice from the accelerator helped us improve our product/service awareness.	.907	0.000*
7.	Our start-up experienced an increase in sales with marketing advice from accelerator.	.820	0.000*
8.	Accelerator program provides marketing support even after the graduation of the start-up.	.765	0.000*

* Correlation is significant at the 0.05 level

Table 6.5: Correlation coefficient of each paragraph of “Professional Networking” and the total of this field

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Professional Networking is one of the biggest benefit of the accelerator program for the start-ups.	.741	0.000*
2.	Our start-up has expanded professional networking with the help of accelerator.	.685	0.001*
3.	Our start-up got access to investor network with the help of accelerator.	.758	0.000*
4.	Our Start-up got access to university network with the help of accelerator.	.834	0.000*
5.	Accelerator program helped us achieve networking with some government bodies.	.668	0.001*
6.	Accelerator program helped us get advice from successful entrepreneurs.	.827	0.000*
7.	Accelerator program helped us create formal/informal networks of likeminded or similar industry.	.756	0.000*
8.	Our Start-up has benefited from the professional networking attained with the accelerator.	.824	0.000*

* Correlation is significant at the 0.05 level

Table 6.6: Correlation coefficient of each paragraph of " Founder Skills and Competencies " and the total of this field

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Accelerator programs in Gaza use a screening process to test founder skills.	.564	0.006*
2.	Founder skills and competencies are of primary importance for the start-up.	.572	0.005*
3.	Accelerator Programs help entrepreneurs improve their skills and competencies.	.872	0.000*
4.	Leadership is the greatest skill a start-up founder shall have.	.674	0.001*
5.	Technical or commercial expertise of the founder is a very important for the start-up.	.482	0.018*
6.	Accelerator program helped me improve my technical or commercial skills.	.806	0.000*
7.	I have been able to grow my start-up better with the skills acquired/refined with accelerator help.	.684	0.001*
8.	Accelerator programs in Gaza use a screening process to test founder skills.	.564	0.006*

* Correlation is significant at the 0.05 level

Table 6.7: Correlation coefficient of each paragraph of “Sustainability” and the total of this field

No.	Paragraph	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Higher Investment available for start-up will help build a sustainable business.	.790	0.000*
2.	Investment provided to our start-up by accelerator program is helping/ (has helped) us to achieve sustainability.	.725	0.000*
3.	Uniqueness of product/service or its features than competitors is important for sustainability of start-ups.	.759	0.000*
4.	Accelerator program has helped our start-up in marketing completion to create sustainable enterprise.	.812	0.000*
5.	Marketing is the back bone for long term business.	.735	0.000*
6.	Accelerator program helped our start-up strengthen our marketing to achieve sustainability.	.840	0.000*
7.	Professional Networking helps start-ups to build partnerships which help business sustainability.	.787	0.000*
8.	Professional Networking created with accelerator’s help will direct our start-up to maintain sustainability.	.819	0.000*
9.	Founder skills and competencies are the foundations of a sustainable Business.	.807	0.000*
10.	Accelerator program helped me refine and improve founder skills which will build a sustainable business.	.749	0.000*

* Correlation is significant at the 0.05 level

6.7.4 Structure Validity

Table 6.8 clarifies the correlation coefficient for each field and the whole questionnaire. The p-values (Sig.) are less than 0.05, so the correlation coefficients of all the fields are significant at $\alpha = 0.05$, so it can be said that the fields are valid to be measured what it was set for to achieve the main aim of the study.

Table 6.8: Correlation coefficient of each field and the whole of questionnaire

No.	Field	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Investor Existence	.796	0.000*
2.	Market Competition	.882	0.000*
3.	Marketing	.946	0.000*
4.	Professional Networking	.802	0.000*
5.	Founder Skills and Competencies	.886	0.000*
	Acceleration Programs	.994	0.000*
	Sustainability	.934	0.000*

* Correlation is significant at the 0.05 level

6.8 Reliability of the Research

The reliability of an instrument is the degree of consistency which measures the attribute; it is supposed to be measuring. The less variation an instrument produces in repeated measurements of an attribute, the higher its reliability. Reliability can be equated with the stability, consistency, or dependability of a measuring tool. The test is repeated to the same sample of people on two occasions and then compares the scores obtained by computing a reliability coefficient. To insure the reliability of the questionnaire, Cronbach's Coefficient Alpha should be applied.

6.8.1 Cronbach's Coefficient Alpha

Cronbach's alpha (George D. & Mallery P, 2006) is designed as a measure of internal consistency, that is, do all items within the instrument measure the same thing? The normal range of Cronbach's coefficient alpha value between 0.0 and + 1.0, and the higher values reflects a higher degree of internal consistency. The Cronbach's coefficient alpha was calculated for each field of the questionnaire.

Table 6.9 shows the values of Cronbach's Alpha for each field of the questionnaire and the entire questionnaire. For the fields, values of Cronbach's Alpha were in the range from 0.729 and 0.956. This range is considered high; the result ensures the reliability of each field of the questionnaire. Cronbach's Alpha equals 0.968 for the entire questionnaire which indicates an excellent reliability of the entire questionnaire.

Table 6.9: Cronbach's Alpha for each field of the questionnaire

No.	Field	Cronbach's Alpha
1.	Investor Existence	0.729
2.	Market Competition	0.871
3.	Marketing	0.899
4.	Professional Networking	0.895
5.	Founder Skills and Competencies	0.787
	Acceleration Programs	0.956
	Sustainability	0.928
	All paragraphs of the questionnaire	0.968

Thereby, it can be said that the researcher proved that the questionnaire was valid, reliable and ready for distribution for the population sample.

Chapter 7

Data Analysis & Discussion

7 CHAPTER 7: Data Analysis & Discussion

This chapter tests the research hypothesis against the results obtained from the research.

7.1 Personal Information

7.1.1 Gender

Table No. 7.1 shows that 60.4% of the sample are Males and 39.6% of the samples are females. These results indicate considerable number of women are coming up with starting their own businesses. Currently Males outnumber females which is oblivious due to long prevalent social and cultural effects.

Table 7.1: Gender

Gender	Frequency	Percent
Male	67	60.4
Female	44	39.6
Total	111	100.0

7.1.2 Age

Table No. 7.2 shows that 55.9% of the sample are "20 – less than 25 " and 44.1% of the sample are of "25 –less than 35 ". No samples appear in "35 or more". The survey distribution was done irrespective of age. The table indicates that there is a strong tendency among youth to setup their own business. People between 20 and 25 years are the highest to start their own business. Table also indicates that people with higher age do not tend to find a startup.

Table 7.2: Age

Age	Frequency	Percent
20 – less than 25	62	55.9
25 –less than 35	49	44.1
35 or more	-	-
Total	111	100.0

7.1.3 Job title

The study population has 45.9% of Founders and 24.3% co-founders. 23.4% Team members were included. The study aimed at testing the effect of Gaza accelerators on actual startups. Founders and their teams could only be the best source to answer these questions.

Table 7.3: Job title

Job title	Frequency	Percent
Founder of Start-up	51	45.9
Co-Founder	27	24.3
Team member	26	23.4
Incubator/ Accelerator Director	-	-
Others	7	6.3
Total	111	100.0

7.1.4 Industry Sector

Mobile applications had a great share among the new startups evolved which is 25.2%, followed by 21.6% with web application startups and 27% of Media and production. These figures similar to other part of the world. Due to the spread of the internet, web and mobile services, startups in these sectors also increased. Another reason for people to look for startups in these sectors is low investment and the global reach of the business.

Table 7.4: Industry Sector

Industry Sector	Frequency	Percent
Mobile Application	28	25.2
Web Application	24	21.6
Media & Production	30	27.0
Marketing Services	7	6.3
E-Commerce	-	-
Others	22	19.8
Total	111	100.0

7.1.5 Establishment Year

Table 7.5 indicates that main study population is with startups less than 4 years old. The trend also show that each year significant number of startups are being added. People are being inspired to set up their own businesses.

Table 7.5: Establishment Year

Establishment Year	Frequency	Percent
2010 and less	27	24.3
2011	18	16.2
2012	21	18.9
2013	25	22.5
2014 and more	20	18.0
Total	111	100.0

7.1.6 Number of Employees

Table 7.6 Indicates that almost 77% of the startups are small and have less than 4 employees. Also the percentage of startups with more than 5 team members is good at 23.4%. So there is a tendency to start small companies.

Table 7.6: Number of Employees

Number of Employees	Frequency	Percent
1and 2	44	39.6
3and 4	41	36.9
5 and more	26	23.4
Total	111	100.0

7.1.7 University Specialization

The specialization background of the study population indicates that Computer Engineering and Information technology students are more likely to find their own business. This is again due to their knowledge in a field which requires lower investment for startup as compared to other specializations. Multimedia share is also considerable which is a good sign, because multimedia is replacing the text very fast, an example is increase video traffic on the global scale. There is an interesting fact which

comes up is that management background students do not have a large contribution towards starting up their own business.

Table 7.7: University Specialization

University Specialization	Frequency	Percent
Computer Engineering	38	34.2
Information Technology	22	19.8
Multimedia	16	14.4
Management	5	4.5
Others	30	27.0
Total	111	100.0

7.1.8 Accelerator Program Enrolled in

The following table indicates that BTI is still the largest contributor towards helping the new startup founders. GSG is also following up with 19.8%. Few more are trying to come up in the region which is a good sign for the economy.

Table 7.8: Accelerator Program Enrolled in

Accelerator Program Enrolled in	Frequency	Percent
Business & Technology Incubator' Programs	62	55.9
GSG' Programs	22	19.8
PICTI' Programs	13	11.7
Technology Incubator at UCAS' Programs	8	7.2
Others	6	5.4
Total	111	100.0

7.2 Analysis for each field

7.2.1 1. Investor Existence

Table 7.9 shows the following results:

- The mean of paragraph #5 “Accelerators in Gaza shall increase the available investment amount for start-ups” equals 5.69 (56.94%), Test-value =-1.12, and P-value =0.133 which is greater than the level of significance $\alpha = 0.05$. Then the mean of this paragraph is insignificantly different from the hypothesized value 6. We conclude that the respondents "neutral" to this paragraph.
- The mean of paragraph #3 “Accelerators in Gaza provide follow up investment (Other than Initial investment) if needed by start-up” equals 4.83 (48.29%), Test-value =-4.76, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this paragraph is significantly smaller than the hypothesized value 6. We conclude that the respondents disagree to this paragraph.
- The mean of the field “Investor Existence” equals 5.26 (52.63%), Test-value =-4.20, and P-value =0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this field is significantly smaller than the hypothesized value 6. We conclude that the respondents disagree to field of “Investor Existence ”.

It is concluded that Respondents disagreed with the availability of investor existence sufficient funding for the startups. It can be established that startups lack funding which shall be increased and more investment shall be made available.

Table 7.9: Means and Test values for “Investor Existence”

No.	Paragraph	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Acceleration programs in Gaza offer start up investment.	5.14	51.35	-3.40	0.000*	4
2.	Our Start-up was able to secure initial investment with accelerator help.	5.22	52.16	-2.65	0.005*	3
3.	Accelerators in Gaza provide follow up investment (Other than Initial investment) if needed by start-up.	4.83	48.29	-4.76	0.000*	5
4.	Accelerator investment helped us scale our start up faster.	5.44	54.41	-2.04	0.022*	2
5.	Accelerators in Gaza shall increase the available investment amount for start-ups.	5.69	56.94	-1.12	0.133	1
	Investor Existence	5.26	52.63	-4.20	0.000*	

* The mean is significantly different from 6

7.2.2 Market Competition

Table 7.10 shows the following results:

- The mean of paragraph #1 “A healthy market competition helps businesses improve their product and services” equals 6.72 (67.21%), Test-value =2.81, and P-value = 0.003 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 6. We conclude that the respondents agree to this paragraph.
- The mean of paragraph #3 “Accelerator program helped us to achieve better position than that of our competitors” equals 5.50 (54.95%), Test-value =-1.97, and P-value = 0.026 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this paragraph is significantly smaller

than the hypothesized value 6. We conclude that the respondents disagree to this paragraph.

- The mean of the field “Market Competition” equals 6.00 (60.00%), Test-value =0.00, and P-value =0.500 which is greater than the level of significance $\alpha = 0.05$. The mean of this field is insignificantly different from the hypothesized value 6. We conclude that the respondents "neutral" to field of “Market Competition”.

It can be concluded that respondents agree to the presence of a healthy competition environment which can be established by helping more startups. It is also established that the startups disagree to the fact that the accelerator programs helped them to stand better against their competitors. Hence more startups shall be brought up, whereas the accelerator programs shall change or modify their strategies of market completion analysis and implementation.

Table 7.10: Means and Test values for “Market Competition”

No.	Paragraph	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	A healthy market competition helps businesses improve their product and services.	6.72	67.21	2.81	0.003*	1
2.	We had good understanding of market competition before enrolling in accelerator program.	5.76	57.57	-0.90	0.184	6
3.	Accelerator program helped us to achieve better position than that of our competitors.	5.50	54.95	-1.97	0.026*	9
4.	In some areas of Business our competitors are better than our start up.	6.14	61.44	0.54	0.294	4
5.	My product or service is based on a unique idea.	5.94	59.37	-0.20	0.419	5
6.	We have kept our prices lower than our competitors to overcome market competition.	6.22	62.16	0.88	0.191	3
7.	Accelerator program helped us decide optimal	5.64	56.40	-1.30	0.098	8

	price for our product/service.					
8.	Our Product or Service has better features than our competitors.	6.41	64.05	1.56	0.060	2
9.	Accelerator program helped us to improve our product or service features to stand better than competitors.	5.68	56.85	-1.13	0.131	7
	Market Competition	6.00	60.00	0.00	0.500	

* The mean is significantly different from 6

7.2.3 Marketing

Table 7.11 shows the following results

- The mean of paragraph #3 “Marketing is one of the most important requirement for the start-ups” equals 7.23 (72.25%), Test-value =4.55, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 6. We conclude that the respondents agree to this paragraph.
- The mean of paragraph #8 “Accelerator program provides marketing support even after the graduation of the start-up” equals 5.17 (51.75%), Test-value = -3.04, and P-value = -3.04 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this paragraph is significantly smaller than the hypothesized value 6. We conclude that the respondents disagree to this paragraph.
- The mean of the field “Marketing” equals 5.76 (57.56%), Test-value =57.56, and P-value =0.062 which is greater than the level of significance $\alpha = 0.05$. The mean of this field is insignificantly different from the hypothesized value 6. We conclude that the respondents "neutral" to field of “Marketing”.

It can be concluded that respondents agree to the importance of marketing for the success of startups but they are not happy with the marketing support provided by accelerator programs.

Table 7.11: Means and Test values for “Marketing”

No.	Paragraph	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Our Start-up had clearly identified target market before enrolling in accelerator program.	6.21	62.07	0.79	0.216	2
2.	Our start-up had a marketing plan from the beginning.	5.29	52.88	-2.70	0.004*	6
3.	Marketing is one of the most important requirement for the start-ups.	7.23	72.25	4.55	0.000*	1
4.	Marketing support from Gaza accelerators is available for the start-ups.	5.86	58.65	-0.47	0.318	3
5.	Accelerator program helped our start-up to expand the customer base.	5.35	53.51	-2.30	0.012*	5
6.	Expert marketing advice from the accelerator helped us improve our product/service awareness.	5.75	57.48	-0.92	0.179	4
7.	Our start-up experienced an increase in sales with marketing advice from accelerator.	5.18	51.80	-3.25	0.001*	7
8.	Accelerator program provides marketing support even after the graduation of the start-up.	5.17	51.75	-3.04	0.001*	8
	Marketing	5.76	57.56	-1.55	0.062	

* The mean is significantly different from 6

7.2.4 4. Professional Networking

Table 7.12 shows the following results:

- The mean of paragraph #1 “Professional Networking is one of the biggest benefit of the accelerator program for the start-ups” equals 6.20 (61.98%), Test-value =0.74, and P-value =0.231 which is greater than the level of significance $\alpha = 0.05$. Then the mean of this paragraph is insignificantly different from the hypothesized value 6. We conclude that the respondents "neutral" to this paragraph.

- The mean of paragraph #5 “Accelerator program helped us achieve networking with some government bodies” equals 4.92 (49.19%), Test-value =-3.96, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this paragraph is significantly smaller than the hypothesized value 6. We conclude that the respondents disagree to this paragraph.
- The mean of the field “Professional Networking” equals 5.68 (56.80%), Test-value =-1.89, and P-value =0.030 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this field is significantly smaller than the hypothesized value 6. We conclude that the respondents disagree to field of “Professional Networking ”.

It is concluded that the respondents are neutral to the effect of professional networking. They disagree to receiving networking benefits by enrolling into the accelerator programs. This is because the accelerators might not be able to provide adequate professional networking opportunities to the startups.

Table 7.12: Means and Test values for “Professional Networking”

No.	Paragraph	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Professional Networking is one of the biggest benefit of the accelerator program for the start-ups.	6.20	61.98	0.74	0.231	1
2.	Our start-up has expanded professional networking with the help of accelerator.	5.64	56.40	-1.33	0.094	5
3.	Our start-up got access to investor network with the help of accelerator.	5.39	53.87	-2.10	0.019*	7
4.	Our Start-up got access to university network with the help of accelerator.	5.43	54.32	-2.10	0.019*	6

5.	Accelerator program helped us achieve networking with some government bodies.	4.92	49.19	-3.96	0.000*	8
6.	Accelerator program helped us get advice from successful entrepreneurs.	6.18	61.80	0.67	0.253	2
7.	Accelerator program helped us create formal/informal networks of likeminded or similar industry.	5.77	57.66	-0.86	0.195	4
8.	Our Start-up has benefited from the professional networking attained with the accelerator.	5.92	59.19	-0.30	0.382	3
	Professional Networking	5.68	56.80	-1.89	0.030*	

* The mean is significantly different from 6

7.2.5 Founder Skills and Competencies

Table 7.13 shows the following results:

- The mean of paragraph #5 “Technical or commercial expertise of the founder is a very important for the start-up” equals 7.25 (72.52%), Test-value =4.96, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 6. We conclude that the respondents agree to this paragraph.
- The mean of paragraph #1 “Accelerator programs in Gaza use a screening process to test founder skills” equals 5.32 (53.15%), Test-value =-2.59, and P-value = 0.006 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this paragraph is significantly smaller than the hypothesized value 6. We conclude that the respondents disagree to this paragraph.
- The mean of the field “Founder Skills and Competencies” equals 6.43 (64.26%), Test-value =2.68, and P-value =0.004 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this field is significantly greater than the hypothesized value 6. We conclude that the respondents agree to field of “Founder Skills and Competencies ”.

This has been established that the respondents agree to the importance of the Founder skills and expertise for startup success however they do not agree to the fact that the accelerator screening process is able to identify skillful founders. This demands a change in the screening process of the accelerator programs so that skilled founders can make it to the accelerator programs and help establish a sustainable startup.

Table 7.13: Means and Test values for “Founder Skills and Competencies”

No.	Paragraph	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Accelerator programs in Gaza use a screening process to test founder skills.	5.32	53.15	-2.59	0.006*	7
2.	Founder skills and competencies are of primary importance for the start-up.	7.05	70.54	3.91	0.000*	2
3.	Accelerator Programs help entrepreneurs improve their skills and competencies.	6.11	61.08	0.40	0.346	5
4.	Leadership is the greatest skill a start-up founder shall have.	6.96	69.64	3.63	0.000*	3
5.	Technical or commercial expertise of the founder is a very important for the start-up.	7.25	72.52	4.96	0.000*	1
6.	Accelerator program helped me improve my technical or commercial skills.	6.24	62.43	0.93	0.178	4
7.	I have been able to grow my start-up better with the skills acquired/refined with accelerator help.	6.05	60.45	0.18	0.429	6
	Founder Skills and Competencies	6.43	64.26	2.68	0.004*	

* The mean is significantly different from 6

7.2.6 In General “Acceleration Programs”

Table 7.14 shows the mean of all paragraphs of “Acceleration Programs” equals 5.86 (58.59%), Test-value =-1.11, and P-value = 0.135 which is greater than the level of significance $\alpha = 0.05$. The mean of this field is insignificantly different from the hypothesized value 6. We conclude that the respondents "neutral" to all paragraphs of “Acceleration Programs ”.

Overall approach of the respondents towards the accelerator programs is neutral. However the respondents agreed to the benefits an ideal accelerator can provide but they seemed to be dissatisfied with the benefits actually received from the accelerators in Gaza, which suggests that there is need for improvement.

Table 7.14: Means and Test values for “Acceleration Programs”

Item	Mean	Proportional mean (%)	Test value	P-value (Sig.)
All Paragraphs" Acceleration Programs "	5.86	58.59	-1.11	0.135

*The mean is significantly different from 6

7.2.7 Sustainability

Table 7.15 shows the following results:

- The mean of paragraph #5 “Marketing is the back bone for long term business” equals 7.41 (74.05%), Test-value =5.74, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is positive, so the mean of this paragraph is significantly greater than the hypothesized value 6. We conclude that the respondents agree to this paragraph.
- The mean of paragraph #4 “Accelerator program has helped our start-up in marketing competition to create sustainable enterprise” equals 5.00 (50.00%), Test-value =-3.75, and P-value = 0.000 which is smaller than the level of significance $\alpha = 0.05$. The sign of the test is negative, so the mean of this

paragraph is significantly smaller than the hypothesized value 6. We conclude that the respondents disagree to this paragraph.

- The mean of the field “Sustainability” equals 6.14 (61.38%), Test-value =0.93, and P-value =0.176 which is greater than the level of significance $\alpha = 0.05$. The mean of this field is insignificantly different from the hypothesized value 6. We conclude that the respondents "neutral" to field of “Sustainability”.

It can be concluded that startups do not agree to the accelerators helping to startups to attain sustainability. Improvements in the services is further desired.

Table 7.15: Means and Test values for “Sustainability”

No.	Paragraph	Mean	Proportional mean (%)	Test value	P-value (Sig.)	Rank
1.	Higher Investment available for start-up will help build a sustainable business.	6.61	66.13	2.34	0.011*	3
2.	Investment provided to our start-up by accelerator program is helping/ (has helped) us to achieve sustainability.	5.17	51.71	-3.13	0.001*	9
3.	Uniqueness of product/service or its features than competitors is important for sustainability of start-ups.	6.30	62.97	1.17	0.121	5
4.	Accelerator program has helped our start-up in marketing completion to create sustainable enterprise.	5.00	50.00	-3.75	0.000*	10
5.	Marketing is the back bone for long term business.	7.41	74.05	5.74	0.000*	1
6.	Accelerator program helped our start-up strengthen our marketing to achieve sustainability.	5.71	57.12	-1.00	0.159	8
7.	Professional Networking helps start-ups to build partnerships which help business sustainability.	6.43	64.32	1.51	0.067	4

8.	Professional Networking created with accelerator's help will direct our start-up to maintain sustainability.	6.14	61.44	0.54	0.294	6
9.	Founder skills and competencies are the foundations of a sustainable Business.	6.84	68.38	3.15	0.001*	2
10.	Accelerator program helped me refine and improve founder skills which will build a sustainable business.	5.77	57.66	-0.86	0.195	7
	Sustainability	6.14	61.38	0.93	0.176	

* The mean is significantly different from 6

7.3 Hypothesis Testing

7.3.1 Hypothesis #1:

There is statistically significant relationship between Acceleration Programs and Sustainability. Table 7.16 shows the correlation coefficient between Acceleration Programs and Sustainability. We conclude the following results.

The p-value (Sig.) for the correlation coefficient between Acceleration Programs and Sustainability is smaller than 0.05, so the correlation coefficient is statistically significant at $\alpha = 0.05$. We conclude there is significant positive relationship between Acceleration Programs and Sustainability.

Table 7.16. Correlation coefficient between Acceleration Programs and Sustainability

No.	Field	Pearson Correlation Coefficient	P-Value (Sig.)
1.	Investor Existence	.515	0.000*
2.	Market Competition	.644	0.000*
3.	Marketing	.627	0.000*
4.	Professional Networking	.549	0.000*
5.	Founder Skills and Competencies	.702	0.000*
	Acceleration Programs	.754	0.000*

* Correlation is statistically significant at 0.05 level

7.3.2 Hypothesis #2

There is statistical significant effect at level $\alpha \leq 0.05$ of the Acceleration Programs on Sustainability. This hypothesis is analyzed by using analysis of multiple linear regression “Stepwise regression method “as follows

- Table 7.17 shows the Multiple correlation coefficient $R = 0.791$ and R-Square = 0.626. This means 62.6% of the variation in Sustainability is explained by Founder Skills and Competencies, Market Competition and Investor Existence.
- Table 7.17 shows the Analysis of Variance for the regression model. $F=59.791$, Sig. = 0.000, so there is a significant relationship between the dependent variable Sustainability and the independent variables " Founder Skills and Competencies, Market Competition and Investor Existence ".
- Based on Stepwise regression method, the variables “Marketing and Professional Networking " have insignificant effect on startup sustainability.

The estimated regression equation is:

$$\text{Sustainability} = 0.514 + 0.446 * (\text{Founder Skills and Competencies}) + 0.304 * (\text{Market Competition}) + 0.177 * (\text{Investor Existence})$$

The estimated regression equation is used to predict the value of Sustainability for any give values (responses) to the independent variables “Founder Skills and Competencies, Market Competition and Investor Existence ".

Table 7.17: Result of Stepwise regression analysis

Variable	B	T	Sig.	R	R-Square	F	Sig.
(Constant)	0.514	1.177	0.242	0.791	0.626	59.791	0.000**
Founder Skills and Competencies	0.446	6.870	0.000*				
Market Competition	0.304	3.630	0.000*				
Investor Existence	0.177	3.050	0.003*				

* The variable is statistically significant at 0.05 level

** The relationship is statistically significant at 0.05 level

7.3.3 Hypothesis #3:

There is statistical significant differences at level 0.05 in the responses of the research sample due to the following personal information variables (Age, Job title, Industry Sector, Establishment Year, Number of Employees, University Specialization and Accelerator Program Enrolled in)

Table 7.18 shows that the p-value (Sig.) is greater than the level of significance $\alpha = 0.05$ for each personal information, then there is insignificant difference in respondents' answers toward The Effect of Acceleration Programs on the Sustainability of Start-ups. We conclude that the personal information have no effect on The Effect of Acceleration Programs on the Sustainability of Start-ups.

It can be concluded that none of the personal traits or other characteristics have affected the responses. Founder skills come first before any specialization. Most of the founders are of young age, so the responses were not affected. Most of the startups are less than 4 years old, so they represent similar business mindset and environment.

Table 7.18: Analysis of Variance for Personal Traits

No	Personal Traits	Test Name	Test Value	P-value(Sig.)
1.	Age	Analysis of Variance	0.955	0.331
2.	Job title	Analysis of Variance	1.156	0.330
3.	Industry Sector	Analysis of Variance	1.303	0.274
4.	Establishment Year	Analysis of Variance	2.325	0.061
5.	Number of Employees	Analysis of Variance	2.111	0.126
6.	University Specialization	Analysis of Variance	1.079	0.371
7.	Accelerator Program Enrolled in	Analysis of Variance	2.435	0.052

PART IV

Conclusions & Recommendations

Chapter 8

Conclusions & Recommendations

8 CHAPTER 8: Conclusions & Recommendations

This chapter will conclude the findings of the study and also suggest improvements and changes required for developing sustainable startups. The findings shall allow the accelerator programs to from strategically effective changes in the program structure which will help in long term success of the startups. Also the startup founders and teams would be able to anticipate the efforts and preparation required at their side.

8.1 Conclusion

This study examines the role of accelerator programs in establishing sustainable startups in the Gaza strip. The study identifies the core services of the accelerator programs. Examines the previous studies. It hypothesizes the variables to study the effect of accelerator programs on the startup sustainability. The hypothesis is tested with the help of a case study on a study population of startup founders and their teams. The conclusions can be listed down as:

1. The study concludes on the basis of responses from study population that there is a positive relationship between accelerator programs and sustainability.
2. The study concluded that 62.6% of the variation in Sustainability is explained by Founder Skills and Competencies, Market Competition and Investor Existence. It has been established with the multiple correlation coefficient 0.791 and R-Square =0.626.
3. The study established with the Analysis of Variance for the regression model. $F=59.791$, Sig. = 0.000, that there exists a significant relationship between the dependent variable Sustainability and the independent variables "Founder Skills and Competencies, Market Competition and Investor Existence".
4. Based on Stepwise regression method, the variables "Marketing and Professional Networking" have insignificant effect on sustainability.
5. The study also established that there was no effect of age, gender, educational qualification, job title, industry, establishment year, number of employees on the responses recorded.
6. The study also established that the respondents did not agree to the Gaza accelerators offering a satisfactory support for the startups.

8.2 Recommendations

1. On the basis of results from the studies it is recommended that Investor existence shall be improved in the region.
2. More funding shall be made available to the startups in the beginning.
3. There shall also be provisions for follow up funding for the startups who perform and are able to achieve a certain level of growth.
4. Analysis of market competition is very important and the respondents agreed positively to the importance. Strategies and knowledge which is imparted to the startups by the accelerator will help them to establish themselves in the market and overcome competition. From the findings of the study it has been established that the performance of the Gaza accelerators is not satisfactory and improvements are required.
5. Most of the startups are being established in the mobile, internet and web domain. So the competence in these areas shall be improved.
6. Professional networking is one of the most cited benefits of the Accelerator programs. Respondents in this study disagreed to the receiving networking benefits by enrolling into the accelerator programs. This is because the accelerators might not be able to provide adequate professional networking opportunities to the startups. Hence, the accelerators have to enhance its role in this aspect.

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Appendices

Appendices

9.1 Appendix1: Questionnaire (English)

Islamic University of Gaza
Post-Graduation Deanship
Faculty of Commerce
MBA Program



Questionnaire of:

“The Effect of Acceleration Programs on the Sustainability of Start-ups”

Case Study: Business Incubators and Accelerator in Gaza Strip

Dear Entrepreneur,

I am an MBA student of Islamic University of Gaza, performing this research to study “The Effect of Acceleration Programs on the Sustainability of Start-ups Projects” in Gaza strip. The research is focused on start-ups to sustain and run successfully after their graduation from the Incubators and accelerator programs. This will further help to shortlist the reasons for failures of the start-ups, if any. We will be able to suggest improvement areas for the Incubators and accelerators, so that they can collectively work with the entrepreneurs to produce a sustainable and profitable organization. Your experience with the Incubator or accelerator is of utmost importance and can be very useful for the future entrepreneurs in Gaza strip; this will be a great contribution.

I request you take out 15 minutes from your valuable time and fill out this questionnaire. This will fulfill the case study requirements of the thesis. Most of the questions are objective and qualitative only. Kindly answer the questions as most applicable responses from your start-up or as applicable to other start-up ventures you have witnessed.

Regards,

Amal Abu Shammala

1. Personal Information:

Gender:

- Male Female

Age:

- 20 – less than 25 25 –less than 35 35 or more

Job title:

- Founder of Start-up Co-Founder Team member
 Incubator/ Accelerator Director Others

Industry Sector

- Mobile Application Web Application Media & Production
 Marketing Services E-Commerce Others:

Establishment Year:

.....

Number of Employees:

.....

University Specialization:

- Computer Engineering Information Technology Multimedia
 Management Others:

Accelerator Program Enrolled in:

- Business & Technology Incubator' Programs GSG' Programs
 PICTI' Programs Technology Incubator at UCAS' Programs
 Others:

2. Acceleration Program Impact Assessment:

A. Acceleration Programs		
1. Investor Existence		
No.	Question	Choose from 1 to 10 (1= strongly Disagree, 10= strongly Agree)
1	Acceleration programs in Gaza offer start up investment.	
2	Our Start-up was able to secure initial investment with accelerator help.	
3	Accelerators in Gaza provide follow up investment (Other than Initial investment) if needed by start-up.	
4	Accelerator investment helped us scale our start up faster.	
5	Accelerators in Gaza shall increase the available investment amount for start-ups.	
2. Market Competition		
No.	Question	Choose from 1 to 10 (1= strongly Disagree, 10= strongly Agree)
1	A healthy market competition helps businesses improve their product and services.	
2	We had good understanding of market competition before enrolling in accelerator program.	
3	Accelerator program helped us to achieve better position than that of our competitors.	
4	In some areas of Business our competitors are better than our start up.	
5	My product or service is based on a unique idea.	
6	We have kept our prices lower than our competitors to overcome market competition.	
7	Accelerator program helped us decide optimal price for our product/service.	
8	Our Product or Service has better features than our competitors.	
9	Accelerator program helped us to improve our product or service features to stand better than competitors.	
3. Marketing		
No.	Question	Choose from 1 to 10 (1= strongly Disagree, 10= strongly Agree)

1	Our Start-up had clearly identified target market before enrolling in accelerator program.	
2	Our start-up had a marketing plan from the beginning.	
3	Marketing is one of the most important requirements for the start-ups.	
4	Marketing support from Gaza accelerators is available for the start-ups.	
5	Accelerator program helped our start-up to expand the customer base.	
6	Expert marketing advice from the accelerator helped us improve our product/service awareness.	
7	Our start-up experienced an increase in sales with marketing advice from accelerator.	
8	Accelerator program provides marketing support even after the graduation of the start-up.	

4. Professional Networking

No.	Question	Choose from 1 to 10 (1= strongly Disagree, 10= strongly Agree)
1	Professional Networking is one of the biggest benefit of the accelerator program for the start-ups.	
2	Our start-up has expanded professional networking with the help of accelerator.	
3	Our start-up got access to investor network with the help of accelerator.	
4	Our Start-up got access to university network with the help of accelerator.	
5	Accelerator program helped us achieve networking with some government bodies.	
6	Accelerator program helped us get advice from successful entrepreneurs.	
7	Accelerator program helped us create formal/informal networks of likeminded or similar industry.	
8	Our Start-up has benefited from the professional networking attained with the accelerator.	

5. Founder Skills and Competencies

No.	Question	Choose from 1 to 10 (1= strongly Disagree, 10= strongly Agree)
-----	----------	---

1	Accelerator programs in Gaza use a screening process to test founder skills.	
2	Founder skills and competencies are of primary importance for the start-up.	
3	Accelerator Programs help entrepreneurs improve their skills and competencies.	
4	Leadership is the greatest skill a start-up founder shall have.	
6	Technical or commercial expertise of the founder is a very important for the start-up.	
7	Accelerator program helped me improve my technical or commercial skills.	
8	I have been able to grow my start-up better with the skills acquired/refined with accelerator help.	

B. Sustainability

No.	Question	Choose from 1 to 10 (1= strongly Disagree, 10= strongly Agree)
1	Higher Investment available for start-up will help build a sustainable business.	
2	Investment provided to our start-up by accelerator program is helping/ (has helped) us to achieve sustainability.	
3	Uniqueness of product/service or its features than competitors is important for sustainability of start-ups.	
4	Accelerator program has helped our start-up in marketing completion to create sustainable enterprise.	
5	Marketing is the back bone for long term business.	
6	Accelerator program helped our start-up strengthen our marketing to achieve sustainability.	
7	Professional Networking helps start-ups to build partnerships which help business sustainability.	
8	Professional Networking created with accelerator's help will direct our start-up to maintain sustainability.	
9	Founder skills and competencies are the foundations of a sustainable Business.	
10	Accelerator program helped me refine and improve founder skills which will build a sustainable business.	

9.2. Appendix 2: Questionnaire (Arabic)

The Islamic University Gaza
Higher Education Deanship
Faculty of Commerce
MBA Program



الجامعة الإسلامية - غزة
عمادة الدراسات العليا
كلية التجارة
برنامج إدارة الأعمال

استبيان عن:

تأثير برامج تسريع الاعمال على استدامة المشاريع الناشئة

دراسة حالة: حاضنات الأعمال في فلسطين

أعزائي رواد الأعمال،

تحية طيبة وبعد،

أنا طالبة ماجستير إدارة أعمال في كلية التجارة في الجامعة الإسلامية بغزة، أقوم بهذا البحث لدراسة " تأثير برامج تسريع الاعمال على استدامة المشاريع الناشئة، في فلسطين. حيث يسلط البحث الضوء على استدامة المشاريع الناشئة واستمرار نجاحها بعد الانفصال عن الحاضنات وبرامج التسريع.

هذه الدراسة ستساهم في تحديد اسباب فشل المشاريع الناشئة، ان وجدت. وبالتالي سوف نكون قادرين على اقتراح تحسينات وحلول تساعد حاضنات الأعمال وبرامج التسريع في تطوير خدماتها، والذي بدوره ينعكس على انشاء مشاريع ريادية ناشئة تتسم بالاستمرارية والربحية. لذلك فإنه من الأهمية بمكان الاستعانة بخبرتك في هذا المجال واستطلاع آرائكم بهذا الخصوص.

لذلك ارجو منكم التكرم مشكورين بملئ هذا الاستبيان، حيث أنه ضروري لاستيفاء متطلبات الأطروحة. علماً أن معظم الأسئلة الواردة موضوعية ونوعية.

شاكراً لكم حسن تعاونكم،

الباحثة/ أمل أبو شمالة

3. المعلومات الشخصية

الجنس :

ذكر أنثى

العمر:

20 – أقل من 25 25- أقل من 35 أكثر من 35

المسمى الوظيفي:

مؤسس شركة ناشئة مؤسس شريك عضو فريق شركة ناشئة

مدير حاضنة/مسرعة أعمال أخرى.....

مجال العمل

تطبيقات الهواتف الذكية تطبيقات الويب الإعلام والوسائط المتعددة

خدمات التسويق التجارة الإلكترونية أخرى..... :

سنة التأسيس:

.....

عدد الموظفين:

.....

التخصص الجامعي:

هندسة الحاسوب تقنية المعلومات الوسائط المتعددة الإدارة

أخرى..... :

برنامج الاحتضان/التسريع المستفاد منه:

حاضنة الأعمال والتكنولوجيا بالجامعة الإسلامية مسرعة الأعمال Gaza Sky Geeks

بيكتي حاضنة الأعمال بالكلية الجامعية للعلوم التطبيقية أخرى:.....

2. قياس مدى فعالية برنامج التسريع:

أ. برامج التسريع

1. توفر المستثمرين

م.	السؤال	إختر من 1 إلى 10 (1=أختلف بشدة، 10=أوافق بشدة)
1	برامج التسريع في غزة توفر الاستثمار في الشركات الناشئة.	
2	تمكنت شركتي الناشئة من توفير الاستثمار المبدئي (investment initial) بمساعدة حاضنة/مسرعة الأعمال.	
3	توفر مسرعات الأعمال في غزة الاستثمار الثانوي (بخلاف الاستثمار المبدئي) في حال احتياجه من قبل الشركات الناشئة.	
4	ساعد الاستثمار المقدم من مسرعات الأعمال في نمو شركتنا الناشئة بشكل أسرع.	
5	سوف تزيد مسرعات الأعمال في غزة باعتقادك من قيمة الاستثمار المقدم للشركات الناشئة.	

2. التنافسية السوقية

م.	السؤال	إختر من 1 إلى 10 (1=أختلف بشدة، 10=أوافق بشدة)
1	المنافسة السوقية القوية تساعد الشركات على تطوير منتجاتها وخدماتها المقدمة	
2	كان لدينا رؤية وفهم واضح لطبيعة المنافسة السوقية قبل الانضمام إلى مسرعة الأعمال.	
3	ساعدنا برنامج التسريع على تحقيق مرتبة سوقية أفضل من تلك الخاصة بمنافسينا.	
4	يملك بعض منافسينا الأفضلية في بعض مجالات الأعمال مقارنة بشركتنا الناشئة.	
5	تعتمد منتجاتنا/خدماتنا على فكرة فريدة من نوعها.	
6	قمنا في شركتنا الناشئة بإبقاء أسعارنا أقل من تلك الخاصة بمنافسينا وذلك للتغلب على المنافسة السوقية.	
7	ساعدنا برنامج التسريع على اتخاذ القرار في تحديد السعر الأفضل الخاص بمنتجاتنا وخدماتنا.	
8	يملك المنتج/الخدمة الخاصة بنا ميزات أفضل من تلك التي يملكها منافسينا.	
9	ساعدتنا برامج التسريع على تطوير ميزات منتجاتنا/خدماتنا لتصبح أفضل من تلك الخاصة بمنافسينا.	

3. التسويق

م.	السؤال	إختر من 1 إلى 10 (1=أختلف بشدة، 10=أوافق بشدة)
1	حددنا في شركتنا الناشئة السوق المستهدفة بشكل واضح ودقيق قبل الانضمام إلى برنامج التسريع/الاحتضان.	
2	امتلكت شركتنا الناشئة خطة تسويقية منذ بدايتها.	

3	يعتبر التسويق واحدا من أهم متطلبات الشركات الناشئة.
4	توفر مسرعات الأعمال في غزة الدعم في مجال التسويق للشركات الناشئة.
5	ساعدنا برنامج التسريع على توسيع قاعدة العملاء الخاصة بشركتنا الناشئة.
6	ساعدتنا النصائح والتوجيهات في مجال التسويق والتي زدتنا بها مسرعات الأعمال على زيادة وعي الجمهور (Awareness) بمنتجاتنا/خدمتنا.
7	شهدت شركتنا الناشئة زيادة في المبيعات بفضل نصائح وتوجيهات مسرعة الأعمال.
8	توفر برامج تسريع الأعمال الدعم في مجال التسويق حتى بعد تخرج الشركات الناشئة من تلك البرامج.

4. شبكة العلاقات المهنية (Networking Professional)

إختر من 1 إلى 10 (1=أختلف بشدة، 10=أوافق بشدة)	السؤال	
	تعتبر شبكة العلاقات المهنية واحدة من أهم المزايا التي تمتلكها مسرعات الأعمال بالنسبة للشركات الناشئة.	1
	تمكنت شركتنا الناشئة من توسيع مدى العلاقات المهنية الخاصة بها بمساعدة مسرعة الأعمال.	2
	تمكنت شركتنا الناشئة من الوصول إلى شبكة مستثمرين بمساعدة مسرعة الأعمال.	3
	تمكنت شركتنا الناشئة من الوصول إلى شبكة علاقات مع الجامعات بمساعدة مسرعة الأعمال.	4
	ساعدنا برنامج التسريع على إقامة شبكة علاقات مع بعض الجهات الحكومية.	5
	ساعدنا برنامج التسريع على الحصول على النصائح والتوجيهات من ريادي الأعمال الناجحين.	6
	ساعدنا برنامج التسريع على إنشاء شبكة علاقات رسمية/غير رسمية مع أشخاص يعملون في نفس مجالنا.	7
	استفادت شركتنا الناشئة من شبكة العلاقات المهنية التي أتاحتها لنا مسرعة الأعمال.	8

5. كفاءة ومهارات مؤسسي الشركات الناشئة

إختر من 1 إلى 10 (1=أختلف بشدة، 10=أوافق بشدة)	السؤال	
	تطبق مسرعات الأعمال في غزة عملية فحص وتدقيق لقياس مهارات مؤسس الشركة الناشئة.	1
	تعتبر مهارات وكفاءة مؤسس الشركة الناشئة واحدة من أهم العوامل بالنسبة للشركة الناشئة.	2
	تساعد برامج التسريع ريادي الأعمال على تطوير الكفاءات والمهارات الخاصة بهم.	3

4	تعتبر مهارة القيادة أهم المهارات التي يجب أن يمتلكها مؤسس الشركة الناشئة.
6	تعتبر الخبرة التقنية أو الخبرة في مجال الأعمال التي يمتلكها مؤسس الشركة الناشئة مهمة جدا لتلك الشركة.
7	ساعدني برنامج التسريع على تطوير مهاراتي التقنية أو مهاراتي الخاصة بمجال الأعمال (Commercial skills).
8	تمكنت من تطوير وزيادة نمو الشركة الناشئة الخاصة بي باستخدام المهارات التي اكتسبتها/طورتها بمساعدة مسرعة الأعمال.
ب. الاستدامة	
إختر من 1 إلى 10	السؤال
(1=أختلف بشدة، 10=أوافق بشدة)	
1	يساعد وجود الاستثمار ذو القيمة الأكبر على المقدم للشركة الناشئة على بناء عمل مستدام (business Sustainable).
2	ساعدنا الإستثمار المقدم لشركتنا الناشئة من قبل مسرعة الأعمال في الوصول إلى الاستدامة.
3	كون المنتج/الخدمة أو أي من مزاياها فريدا من نوعه ومميزا مقارنة بالمنافسين هو ميزة مهمة تساعد في استدامة الشركات الناشئة.
4	برنامج التسريع ساعد شركتنا الناشئة في عملية التسويق لخلق مشروع مستدام.
5	التسويق هو العمود الفقري للأعمال على المدى الطويل.
6	ساعد برنامج التسريع شركتنا الناشئة على تقوية الجانب التسويقي للوصول إلى الاستدامة.
7	يساعد وجود شبكة العلاقات المهنية على بناء علاقات تساعد استدامة الأعمال.
8	يساعد وجود شبكة العلاقات المهنية والتي يتم تطويرها بمساعدة مسرعات الأعمال على توجيه شركتنا الناشئة للحفاظ على الاستدامة.
9	المهارات والكفاءات الخاصة بمؤسس الشركة تعتبر أساسيات العمل المستدام.
10	ساعدنا برنامج تسريع الأعمال على تحسين وتطوير مهارات مؤسس الشركة مما يؤدي إلى بناء عمل مستدام.

انتهى،،،