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The Impact of Higher Education Programs on Students' Entrepreneurship Knowledge, Skills And Attitudes

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Abstract: This paper aims to explore and analyses the impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes in Palestine. It investigates the relationships between education and entrepreneurship using a case study research approach.

Design/methodology/approach – During the academic year 2014-2015, a questionnaire survey was distributed to a sample of 380 final-year students and graduates of business, engineering and IT in Palestine. Furthermore a series of in-depth and semi-structured interviews was conducted with experts in order to capture the integral aspects of the phenomena under investigation (i.e. a more comprehensive understanding of the students' adverse intentions towards entrepreneurship).

Findings: The findings suggest that students' entrepreneurial knowledge and skills in Palestine are moderate. University curriculum is weak in teaching students on identifying business opportunities, environmental analysis and innovation. Also weak in improving students skills in negotiations, taking a calculated risk, managerial skills in planning, organizing, leading and delegating, team work, monitoring and evaluation. In addition, a moderate level of motivations were found among students and graduates to launch their businesses. They were hardly received technical or managerial advices to establish or run their businesses.

Keywords: Entrepreneurship education, Entrepreneurship, Higher education institutes, Students and graduates, Palestine, Gaza Strip.

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Introduction

There is a worldwide agreement among writers on the important role of entrepreneurs in countries' economic development (UNDP, 1999, p. 1). In developing areas like Palestine, the prime barrier to economic growth is often not the scarcity of capital, labor or land but the scarcity of the dynamic entrepreneurs that can seize opportunities and bring all necessary resources together to transform a business concept into a new success venture (UNDP, 1999, p. 1). Thus, promoting entrepreneurship is widely perceived to be a crucial policy to increase employment, economic development and reduce poverty. In addition developing countries need to pay attention to the role of labor policies that aim to improve skills among young generations, students and graduates in order to enhance start-ups initiative to improve the potential of success among self-employed and small-scale entrepreneurs (Cho and Maddalena, 2013, p. 2).

Entrepreneurship education seeks to prepare people to be responsible, enterprising individuals who have the knowledge, skills and attitudes necessary to achieve their goals (EC, 2012, p. 8). Worldwide higher education institutions play an important role in promoting entrepreneurship. They need to produce entrepreneurial graduates (Herrmann et al., 2008). This can be achieved by bringing together the providers of academic theory and entrepreneurs (Chang and Rieple, 2013, p. 225). The combination between theory and practice can promote the competencies of universities' graduates and therefore likely to result in economic growth (Richardson and Hynes, 2008). The importance of entrepreneurship education emerged as a result of a belief that entrepreneurship can be taught (Henry et al., 2005). A considerable evidence support the positive effect of entrepreneurship education on establishing new ventures (Cruz et al., 2009; Chang and Rieple, 2013). However, learning methods are varied, including action learning, internships, case studies, workshops, lectures and class-discussions and business simulations (Gibb, 2002; Matlay, 2008). Learning by doing is the best way to be an entrepreneur (Politis, 2005; Chang and Rieple, 2013).

Ashour and El-Farra (2002) revealed that Gazans were reluctant to take up opportunities for self-employment and entrepreneurial activities. This may be attributed to high failure rates among business initiatives and the dominant preference among Gaza's citizens especially graduates was seeking jobs in public or private sectors. This is to a certain extent similar to EU countries, where only 45% of European citizens would like to be self-employed. In the United States these figures are different; 55% of the population would like to be self-employed (EC, 2012, p. 21).

This study aims to explore and analyze the impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes in Palestine. Also it aims to suggest a relevant entrepreneurial education strategy to Palestine.

Research variables, Questions and Hypothesis

The research variables were developed based on the studies of (Stefanovic, et al., 2013, pp. 24-29; EC, 2012, p. 43; GEM, 2012; Heinonen & Poikkijoki, 2006). These variables are the following:

First: Research Variables:

Dependent variable: Entrepreneurship Knowledge, Skills and Attitudes

Independent variables:

1. Palestinian Socio-cultural Economic Political and Legal context:
   Satisfactory support from family, friends, government and others, Entrepreneurship of university education, population attitudes to towards entrepreneurship, Entrepreneur social image in Palestine, Motivational factors for starting business.
2. The impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes in Palestine**.**

Second: Research Questions

Question (1): What is the impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes in Palestine?
Question (2): What are the Perceptions and population attitudes toward having business/ entrepreneurship?
Question (3): What are the Motivational factors for starting business?
Questions (4): Did students & graduates receive advices regarding entrepreneurship?

Third: Research Hypothesis

The main hypothesis: There is a significant difference at @ 5% related to the impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes in Palestine, attributed to some personal traits (age, family income and field of education).

Study Importance

This study concerns with a very important phenomena, which is the impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes in Palestine. The importance of the study is supported by recent figures from the Palestinian statistics in year 2014, which indicated high unemployment (43.9%) in the Gaza Strip (PCBS, 2015, p. 8). Improving entrepreneurship may help in more start-up enterprises and developing the existing ones, which would help in overcoming unemployment and poverty in Palestine.

This is a practical and empirical study. It may fill the gap in entrepreneurial higher education in Palestine. To the researcher knowledge, this is the first study to tackle the subject in Palestine. This may improve the combination between theory and practice and promote entrepreneurial competencies in Palestine.

Methodology

This study adopted a qualitative and quantitative, case study research methodology approach. Both primary and secondary data sources were used. The data collection was done in the following manner:

Secondary data sources: using academic work on the subject such as books, articles, reports and other library-housed materials were collected through library research and through the internet. Overall, this study relied on a variety of sources and used a selective method in gathering the relevant information from each source in order to benefit fully from all available sources.

Primary data sources: a questionnaire was used to collect the primary data. It was specifically designed for this study. The questionnaire was distributed and analyzed by using SPSS statistical package.

Many researchers has emphasized on huge gaps in the field of entrepreneurship and education (Panagiotis, 2012). This study adopted a qualitative, case study research approach. According to Amaratunga et al. (2002), qualitative data provide rich descriptions, reveal complexity, and have inherent the characteristic that they are collected over periods of time, which makes them valuable for researching "processes" (Amaratunga et al., 2002). Meredith (1998), and Eisenhardt (1989) propose a number of additional advantages which the case study research approach provide, including, the richness of explanations, understanding, exploratory depth, empirical validity, and generation and testing of theories. Hence, this research adopted the case study methodology to provide a holistic understanding of the impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes. Using such a sampling frame implies that the findings of this research need to be generalized in an analytical rather than statistical sense to similar contexts (Eisenhardt, 1989). In a case study research, we do not measure variables on the sample and statistically infer relationships, but rather, we directly "witness" the processes and use logic to deduce or infer relationships (Panagiotis, 2012).

To test my research questions and hypothesis and add to the theory of entrepreneurship education, I selected a less developed area in the Middle east, namely Gaza Strip as part of Palestine. The major higher education institutes in Palestine are public in nature and are governed by the same rules and regulations, have the same structures and operate within the same social culture. Thus, selecting Gaza Strip area, can achieve both explicability and generalizability for the region, as well as for other regions, or even the nation as Panagiotis (2012) advocates.

The research population was universities' Students and graduates in Gaza Strip. They were selected from the fields of commerce, engineering and IT. Those who affiliated to these areas of studies are potentially entrepreneurs, since they study the basics of initiating and managing businesses (EC, 2012). In addition, the incubated projects at Islamic University of Gaza (IUG) are initiated by graduates from the fields of IT , business and engineering (Skaik, 2015: Interview).

Table (1) Total Number of enrolled students in the final year of study (2014/2015) and total graduates from faculties of Engineering, Commerce and IT from Gaza's universities.

Total number of enrolled in final years and graduates	Number	enrolled students in final years	Number	Sample %	Sample size
Number of enrolled and graduates in Commerce	10000	Enrolled in Commerce	1000	44	167
Number of enrolled and graduates in Engineering	7500	Enrolled in Engineering	1000	44	167
Number of enrolled and graduates in IT	3280	Enrolled in IT	280	12	46
Total	20780		**2280**	100%	380

Sources: These figures were estimated by the researcher based on the IUG published reports: Quality & Development Deanery (2015) Graduate Students Report 2013/2014, IUG; Quality & Development Deanery (2014) Enrolled Students 2013/2014, IUG; Admission & Registration Deanery (2015) Unpublished statistics, IUG.

Table (1) revealed that the total number of enrolled students in Gaza's universities in the three specializations, in the final year of study were estimated 2280 students in

year 2014/2015. However, the total number of graduates from Gaza's universities in the mentioned three fields during the past years were estimated 18500. Overall the total population size of students and graduates was 20780 persons. A cluster random sample was used. The sample included equally the Graduates and enrolled students. The sample size was 380 persons. Faculties were represented in the sample according to their relative population size. It was calculated through the survey system on the web.

During the academic year 2014-2015, a questionnaire survey was distributed to a sample of graduates and final year students studying business, engineering and IT at Gaza's major universities. The questionnaire was administered during lectures between January and February 2015 for the final-year students and March 2015 for graduates by visiting their Unions and collages. From the 380 questionnaires returned, 244 were fully answered and usable by the researcher (as shown in Table 1).

Research instrument

The research adopted self-administered, delivery, and collection questionnaire as a research instrument. Students and graduates were asked about some of their personal traits such as, age, level of family income and field of education. The second part was prepared to assess the impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes in Palestine. Students and graduates were asked to indicate their agreement with a particular item by using a ten-point scale ranging from strongly disagree (1) to strongly agree (10).

Some scales of variables were adapted from measures in prior studies to ensure content validity (Stefanovic, et al., 2013, pp. 24-29; EC, 2012, p. 43; GEM, 2012; Heinonen & Poikkijoki, 2006). Appropriate modifications were introduced to fit the current study. The original English language version of the questionnaire was translated into Arabic through a back-translation procedure. The questionnaire was reviewed by board of referees to assure the content validity. Responses validated the design of the questionnaire. Moreover, pilot study was conducted with a sample of 50 persons to ensure the internal validity, structure validity, and the reliability of the questionnaire. After all, the questionnaire was found to be valid and reliable for conducting the survey.

Theoretical Background

The concept of entrepreneurship was first recognized in the 1700s, and the meaning has developed ever since. Many simply associate entrepreneurship with starting one's own business, but it is more than that (Bharat, 2014, pp.210-211). According to the key players in societies, including policymakers, academics and entrepreneurs themselves, entrepreneurship tends to be associated with economic development and well-being of society (GEM, 2014, p. 16). This believe is "aligned with the "Schumpeterian" view that entrepreneurs are ambitious and spur innovation, speed up structural changes in the economy, introduce new competition and contribute to productivity, job creation and national competitiveness" GEM, 2014, p. 16). Entrepreneurs discover opportunities, transform ideas into viable business plan and provide new products and services to the society by bringing together and combining various factors of production.

The Global Entrepreneurship Monitor (GEM) defined entrepreneurship as "the individual or collective initiatives that produce goods and services for the purpose of making a profit" (MAS, 2014b, p. 1). The GEM project (2014, p. 19) has focused on entrepreneurship as a

process comprising different phases, from intending to start, to just starting, to running new or established enterprises and even discontinuing a business. While Ebert (2012, p. 88) defined entrepreneurship as "the process of identifying an opportunity in the marketplace and accessing the resources needed to capitalize on that opportunity". An entrepreneur is a person who establishes and manages a business by taking risks regardless of the size and in/formal status of the project (MAS, 2014b, p. 1). In addition, entrepreneurship may be defined as "the resource, process and state of being through and in which individuals utilize positive opportunities in the market by creating and growing new business firms" (Gries and Naude, 2011, 217). Entrepreneurship can be viewed as the formation of a new firm that uses innovation to enter existing markets or to create new ones and grow by making new demand (Stefanovic, et al., 2013, p. 16). Entrepreneur is someone who independently owns and actively manages a small business. Additionally, entrepreneur is someone who introduces new ideas and changes the rate at which the wheels of an enterprise go around (Stefanovic, et al., 2013, p. 16).

Furthermore, the field of entrepreneurship generally studies the why, when and how of opportunity creation, recognition and utilization for providing goods and services through the creation of new firms (start-ups) and within existing firms for both profit and non-profit purposes (Naudé et al., 2011, p. 1; EC, 2012, p. 7). Entrepreneurship includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. "Entrepreneurship can be defined as the process of using private initiative to transform a business concept into a new venture or to grow and diversify an existing venture or enterprise with high growth potential" (UNDP, 1999, p. 1). Entrepreneurship is often synonymous with self-employment. It has been modeled as an occupational choice between self-employment and wage-employment. People will become an entrepreneur if financial and non-financial benefits from self-employment exceed wage income plus additional benefits from being in wage employment (Naude, 2013, p. 6). In addition, entrepreneurs are classified as either necessity-driven or opportunity-driven. The first are those who are driven to start their own business out of necessity or economic need. The second ones are those who start their business to benefit from a unique opportunity so as to enjoy increased incomes, independence and better working conditions (MAS, 2014b, p. 1).

Additionally, McClelland (1961), emphasized on some traits to explain entrepreneurial behavior. These traits were risk-taking inclination, high need for achievement, preference for energetic and/or novel activity, and assuming personal responsibility for successes or failure. While, Brockhaus (1982) mentioned three traits associated with entrepreneurial

behavior: need for achievement, internal locus of control, and a risk-taking tendency. Moreover, Bygrave (1989) highlighted a model that comprises internal locus of control, need for achievement, risk-taking propensity and tolerance for ambiguity and as important components of entrepreneurial behavior. Additionally, Koh (1996) proposed that entrepreneurs have greater need for achievement, higher inclination to take risk, greater tolerance for ambiguity, more internal locus of control, more self-confidence and greater innovativeness.

Based on the previous definitions, this study will adopt the following definition of the entrepreneurship:

A dynamic process of mobilizing resources, spotting profitable opportunity, innovative and taking risk through the action of individuals or groups to achieve personal satisfaction.

While entrepreneur is defined as : *someone who facilitates adjustment to change by spotting profitable opportunities, innovation, taking risk, mobilizing resources, able to work independently and willing to grow.*

Motivational factors to entrepreneurs

A number of studies was conducted on many countries to determine the motivational factors to entrepreneurs. these studies revealed that the importance of motivational factors are varied a cross countries (Stefanovic, et al., 2013, p. 17). However the most important motivational factors can be grouped as follows (Stefanovic, et al., 2013, p. 16; Hojjati, 2012, p. 63):

1. Self-employment, offering more job satisfaction and flexibility.
2. High personal financial gain.
3. Job creation to overcome unemployment and economic growth.
4. Income and job security for themselves and their families.
5. Development of new markets locally and internationally.
6. Challenge and achievement of developing a success business.
7. Progress of entrepreneurial skills and attitudes.

Entrepreneurship programs at higher education Institutes

Entrepreneurship higher education aims to equip people with an entrepreneurial attitude, skills and knowledge necessary to achieve the goals they set for themselves to live a fulfilled life. Entrepreneurship education stimulates the intentions of individuals

to become an entrepreneur (EC, 2012, p. 8). Based on the experiences of developed and developing countries, entrepreneurship education policy needs to be closely interlinked with overall entrepreneurship policy as well as economic and social development objectives (UNCTAD, 2011, p. 4). It should be reflected in a country's national economic and social development plans. In addition, entrepreneurship should be considered as lifelong learning process, starting from elementary school and continuing through all levels of education, including adult education. It should build positive attitudes towards business and develop entrepreneurial competencies. Successful implementation of an effective entrepreneurship education, both top down and bottom up approaches are necessary. Top down approach requires the commitment of the most senior policymakers. Bottom up approach necessitates entrepreneurs at the local or regional level who can help drive initiatives on the ground (UNCTAD, 2011, p. 4).

In addition, developing entrepreneurship requires, developing countries to design a national strategy for entrepreneurship education that should call for all relevant stakeholders including, private and public sectors, universities, experts and NGOs to participate in designing the strategy. Furthermore, developing countries need to integrate entrepreneurship education into the overall poverty reduction strategy (UNCTAD, 2011, p. 5; Prahalad, 2005, p. 65; Suresh and Ramraj, 2012, pp.96-97) . Entrepreneurship needs to be integrated into the formal educational system at all levels, schools and universities. This requires a strong commitment from the government in terms of policy and resources. Students should be exposed early to business and entrepreneurship. Perceptions and

attitudes about entrepreneurship start at a young age. Moreover, entrepreneurial learning should be integrated into the curriculum, rather than only being offered as standalone courses, in order to change the mindset among students (UNCTAD, 2011, p. 8). In addition, curriculums should be tailored to the local environment, by leveraging existing resources and by creating new local materials, case studies and examples of role models that entrepreneurs can relate to (UNCTAD, 2011, p. 9). Besides, there is a need to increase the number of entrepreneurship teachers, by providing training, particularly in interactive teaching methods (UNCTAD, 2011, p. 10).

The findings of entrepreneurship education in Europe revealed the following (EC, 2012, pp. 12-17):

1. Entrepreneurship education have a positive effect on the employability in terms of job experience, creativity in the current job and annual income earned.
2. A more entrepreneurial role were played by individuals in the economy and society, due to entrepreneurship education.
3. Development of the entrepreneurial competence leads to more innovative behavior by individuals and consequently this would mean that the enterprises which were established are more innovative than other enterprises.
4. Entrepreneurs who have attended entrepreneurship education are more *ambitious* regarding the growth of the enterprises.
5. Most of entrepreneurs were graduated from management, engineering and economics.

Entrepreneurship Development in Developing Countries

Development economists indicate that the majority of entrepreneurs in developing countries are involved in micro and small scale enterprises (MSE), often informal and contributing little to poverty easing and growth. Furthermore, only a few new start-up firms survive for a long time and the majority fail within the first two years (Naude, 2010, p. 1). However, employment growth in the SMEs sector in developing countries is often significant. Further, income generations, from self-employment are often better than in the formal wage sector in many developing countries (Naude, 2010, p. 3).

Most countries adopt entrepreneurship development programs. These programs are managed by governments, universities, private sectors and incubators. In Palestine many entrepreneurial development initiatives were launched by local universities through incubators, UNRWA and NGOs initiatives. However these roles are still in there early stages (Skaik, 2015: Interview). Entrepreneurship promotion programs in developing countries are largely varied by objectives, target groups, and implementation arrangements. The promotion programs are differed depending on the constraints to entrepreneurial activities that each program aims to address (Cho and Honorati, 2013, p. 2; Suresh and Ramraj, 2012, pp.96). However, most of entrepreneurship promotion programs provide individuals in the labor market with the opportunities of training, counseling, and access to finance. Frequently used interventions include technical, managerial, financial skills training, financing support such as microcredit loans and grants, and counseling ranging from mentoring and advisory services to post-program consulting (Cho and Honorati, 2013, p. 3). Some promotion programs in developing countries target potential entrepreneurs (the unemployed, school drop-outs, or graduating individuals) to foster self-employment and new business creation; others target existing micro-entrepreneurs to increase their productivity.

Economic Characteristics in Palestine

In Palestine, because of political instability, peace process failure and Gaza Strip siege and closures, unemployment increased and poverty rate escalated. In 2013, unemployment rate in Palestine reached 23.4 per cent (16.8 per cent in the West Bank and 32.6 per cent in the Gaza Strip) (MAS, 2014a, p. 20). In addition, unemployment rate in Palestine in 2013 was higher among young people, where it reached 41 per cent for the age group 15-24 years (64.7 per cent for females and 36.9 per cent for males). Furthermore, unemployment among individuals with intermediate diploma or higher was 30.2 per cent (MAS, 2014a, p. 21). Besides, in the years 2014 and 2015 the situation in Gaza Strip even worse. For example the official statistics of unemployment rate in Gaza reached 43.9% compared with 17.7% in the West Bank (palestinian average unemployment rate 26.9%) (PCBS, 2015, p. 8). The situation in Gaza has been deteriorated after the 2014war, which was waged on Gaza. Additionally, there is a significant difference in the level of per capita income in the West Bank and Gaza Strip, where it was $3650 and $1700 respectively in year 2013 (MAS, 2014a, p. 10). The differences in the two territories reflect a significant gap in the income per capita, level of employment and as a result level of poverty which all came in favor of West Bank.

Empirical Study: Data analysis and discussions

Students and Graduates Profile

Table (2) revealed that, more than two third of the sample (71.6%) their monthly family income were less than ($1000). Graduates only accounted 36.8% of respondents and the rest were students. 87.3% of the respondents were younger than 26. Regarding the field of education, (45.9%) of the respondents belong to business field and 35.2% to engineering (see Table 3). The total number of respondents from students and graduates was 244 persons. This sample is a representative sample to research population. It also reflect the response rate according to the field of education.

Table (2) The relation between level of family income and stages of establishments, Students viewpoints.

Item		Level of family income		
		Less than 1000	1000-1999	2000 or more
Involved in Total early-stage Entrepreneurial Activity (planning stage)	N	97	24	13
	%	65.5%	16%	9%
Actively involved in start-up effort, owner, no wages yet (Nascent/emerging rate)	N	5	5	-
	%	3.4%	3.4%	-
Manages and owns a business that is up to 42 months old (Baby business ownership rate)	N	4	-	-
	%	2.7%	-	-
Manages and owns a business that is older than 42 months (Established business ownership rate)	N	-	-	-
	%	-	-	-

The low family income of students and graduates reflects the financial limitations of the majority to find sufficient fund to support their entrepreneurship initiatives, since personal and family financial resources were the main source of fund for SMEs in Palestine and globally, especially in developing countries (Ashour & El-Farra, 2002; Stefanovic, et al., 2013; Cho and Honorati, 2013, p. 3; Lingelbach, et al, 2006, pp.3-7). In addition, the established business rate in Palestine in 2012 marked 2.4 % points below the MENA average. Furthermore, Palestine was ranked 38th out of 67 countries and 58th in terms of established businesses in the MENA region (MAS, 2014b, p. 2).

Table (3) Students and Graduates Profile

Students & graduates Age	Number	%	Education level	Frequency	%
Younger than 26	213	87.3	Third Year	43	18.0
26 - Less than 30	20	8.2	Fourth Year	63	26.4
30- Less than 35	6	2.5	Fifth Year	45	18.8
35 and older	5	2.0	Graduate	88	36.8
Total	**244**	**100.0**	**Total**	**239**	**100.0**
-	-	-	**Field of education**	**Frequency**	**%**
-	-	-	Business	112	45.9
-	-	-	IT	44	18.0
-	-	-	Engineering	86	35.2
-	-	-	Other	2	0.8
-	-	-	**Total**	**244**	**100.0**

Furthermore, Table (2) showed that 80.5% of students and graduates were in the entrepreneurial planning stage, and only 2.7% of them have a baby business with less than 42 months old. Moreover, the majority of students and graduates (71.6%) belong to family income less than $1000, which may emphasis the necessity driven entrepreneurship. Besides, MAS report (2014b, p.5) revealed a negative relationship between Palestinian family income and entrepreneurship activity. Further, the results of Ashour and El-Farra (2002, p. 4) study revealed that 62.5% of Gaza's industrial establishments left the market within 12 years of formation. Also, 94.5% of Gaza's establishments were classified family businesses in year 2012; 50% of them their capital less than $50000 only and 50% their age 10 years or less (El-Farra and Elhayk, 2014). However, the current situation in Gaza would be even worse, because of closure, siege and high unemployment rate (see PCBS, 2015, p. 8).

Students and Graduates opinions toward bargaining and volunteering

Table (4) shows that the total mean value of bargaining and volunteering equals (65.0%), T-Test value=4.0, and P-value = 0.000. We conclude that the respondents agreed to field of "Background of the sample ". The results reflect average entrepreneurial attitude toward bargaining when buying something (mean value 65%) and low attitude toward volunteering to organizations or clubs they affiliate to (58.2%). This result correspond with the fact that 90.5% of students and graduates have no businesses and they are in the thinking and planning stage (Table 2). In addition, Global Entrepreneurship Network (2015, p. 15) revealed a great differences in entrepreneurship levels between developed and developing countries in favor of developed ones. Furthermore, Table (6) revealed low entrepreneurship skills (mean value 58.8%) among students and graduates (see details below).

Table (4): Sample opinions toward bargaining and volunteering

No	Variables	Mean (%)	T -Test	P-value
1	I sometimes insist on a discount on already low priced goods when in a shop	65.0	2.9	0.002*
2	I make sure that I know the latest developments in the fields of my interest.	71.6	7.9	0.000*
3	I contribute to organizational activities when I am a member of a club	58.2	-1.1	0.128
	The total of bargaining and volunteering	**65.0**	**4.0**	**0.000***

Discussion

Question (1): What is the impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes in Palestine?

To answer this question, three dimensions will be considered: 1) entrepreneurship knowledge, 2) entrepreneurship skills and 3) entrepreneurship attitudes.

First: Impact of higher education on students' entrepreneurship Knowledge

Table (5): Characteristics of Entrepreneurship Knowledge Gaza's universities provide to students and graduates

No	Variables	Mean (%)	T- Test	P-value
1	On how to identify opportunities	59.1	-0.6	0.284
2	About the 'bigger picture' issues that provide	61.5	1.0	0.153
3	Understanding the context in which people live and work	61.7	1.1	0.131
4	Understanding of the economy how it works	60.9	0.6	0.267
5	Ethical position of enterprises	68.2	5.4	0.000*
6	On the processes of innovation & creativity	62.3	1.4	0.080
7	Provide special course & seminars on Entrepreneurship.	59.9	-0.1	0.472
	Entrepreneurship Knowledge	**61.9**	**1.6**	**0.057**

Table (5) showed that the total mean value of entrepreneurship knowledge equals (61.9%), T-Test value=1.6, and P-value =0.057 . We conclude that the respondents "neutral" toward entrepreneurship knowledge universities provide to students and graduates in Palestine. This result revealed that university curriculum need to include how to understand and analyze industrial and societal environment in order to identify opportunities and threats to business. In addition, courses in entrepreneurship innovation should be considered to choose viable and competitive business ventures. Furthermore, universities need to adopt the action-based pedagogy by bridging the gap between theory and practice. This idea was initiated in 1997 by a Key faculty at Chalmers University of Technology in Sweden. It was centered on an advanced form of role-play between student teams and a comprehensive tailored environment. The first year is preparatory and interdisciplinary together with engineering, business, law and medicine students. In the second year, students were encouraged to establish their businesses and get technical, managerial and financial assistances (EC, 2012, p. 32). Moreover, universities in Palestine may benefit from the experience of Dublin Institute of Technology by adopting a proactive approach to building successful links with industry, through training, collaborative and commissioned research, consultancy and support the development of campus and non-campus businesses (EC,

2012, p. 32). Furthermore, UNCTAD (2011, p. 5) advised that advancing entrepreneurship in developing countries requires a national strategy for entrepreneurship education that should call for all relevant stakeholders to participate in designing the strategy.

Additionally, MAS (2014b, p. 3) recommended a comprehensive review of the curriculum of the Palestinian educational system in order to account for the knowledge and skills necessary for the development of entrepreneurs as well as to gradually instill entrepreneurial spirit, critical thinking, and risk management skills of students. Also, universities should create new local materials, case studies and examples of role models that entrepreneurs can relate to (UNCTAD, 2011, p. 9).

The analysis of the curriculums of the main universities in Gaza in the fields of business, engineering and IT, revealed a clear neglect of entrepreneurship. Though there is a course delivered in feasibility study in business field, this course was not designed in a way that lead students to establish their businesses (IUG; Al-Azhar; Al-Aqsa, 2015; El-Farra, 2012). In addition, the findings of a workshop which was conducted with a sample of business students in 2015, revealed their complain about the gap between theory and practice and they lack managerial competencies (Faculty of Commerce, workshop: 2015).

Second: Impact of higher education on students' entrepreneurship skills

Table (6) indicated that the total mean value of entrepreneurship skills equals (58.8%), T-Test value=1.9, and P-value =0.171 . This indicates that the students and graduates were "neutral" toward entrepreneurship skills Palestinian universities provide. It is obvious from table (6) that Palestinian universities weak in improving students and graduates skills in negotiations, taking a calculated risk, team work, monitoring and evaluation, and analysis skills. In addition, Managerial skills in planning, organizing, leading and delegating need to be further improved. These results were supported by the recent policy which was recommended by European Commission on entrepreneurship education at schools (MAS, 2012, p. 9). These policies include:

- Improving students attitudes by enhancing self-awareness and self-confidence and taking the initiative, risk taking, critical thinking, creativity and problem solving.
- Enhancing Knowledge of career opportunities and the world of work; economic and financial literacy; and knowledge of business organization and processes.
- Developing Skills in communication, presentation, planning, team work, and practical exploration of entrepreneurial opportunities includes the various stages of the business set up process, including designing and implementing a business plan.

Table (6): Characteristics of Entrepreneurship Skills Gaza's universities provide to students and graduates

No	Variables	Mean (%)	T-Test value	P-value
1	Managerial skills: Plan; Organize; Manage; Lead & delegate	64.1	2.7	0.003*
2	Analyzing skills	61.1	0.8	0.214
3	Communicating skills	62.2	1.5	0.067
4	Monitoring and Evaluating skills	61.0	0.6	0.260
5	Effective representation & negotiation skills	58.5	-0.9	0.182
6	Work as an independent Individual skills	59.9	-0.1	0.469
7	Work in teams skills	62.4	1.4	0.080
8	Judge & identify one's strengths and weaknesses	60.0	0.0	0.490
9	Assess and take risks	57.9	-1.3	0.105
10	Entrepreneurial activity (Business simulation, Entrepreneurs club, Business Plans competitions).	57.0	-1.9	0.033*
11	Entrepreneurs rewards.	55.2	-3.0	0.002*
12	Entrepreneurship guidance for graduate student.	54.2	-3.6	0.000*
13	Access to recourses (financial, technology, network, knowledge)	51.3	-5.1	0.000*
	Total Entrepreneurship Skills	**58.8**	**-1.0**	**0.171**

Furthermore, UNCTAD (2011, p. 8) emphasized that entrepreneurial learning should be integrated in the curricula and should be tailored to local environment. Further, a suitable entrepreneurial ecosystem should be designed (Surresh and Ramraj, 2012, p. 96).

Third: Impact of higher education on students' entrepreneurship attitudes.

Table (7) specified that the total mean of entrepreneurship attitudes equals (71%), T-Test value=10.5, and P-value =0.00 . This result designates that the respondents agreed toward entrepreneurship attitudes higher education provide to students and graduates in Palestine. Table (7) showed a positive entrepreneurial attitudes in self-belief, self-efficacy, self-awareness, social confidence, determination and commitment, ambition, determination to meet objectives, make some new initiatives and risk tendency**.**

It seems that entrepreneurship attitudes was much better in comparison to knowledge and skills (71%, 61.9% and 58.8% respectively). However, attitudes depend more on people personality, emotion and experience.

Table (7): Characteristics of Entrepreneurship Attitudes Gaza's universities provide to students and graduates

No	Variables	Mean (%)	T-Test value	P-value
1	Always Initiate something new.	63.8	2.5	0.007*
2	Always positive towards Independence & innovation in all aspects of life	68.0	6.1	0.000*
3	Highly Motivated	69.2	6.9	0.000*
4	Determination to meet objectives	72.5	8.8	0.000*
5	Risk tendency	67.5	5.4	0.000*
6	Ambition/drive	73.1	9.2	0.000*
7	Determination & commitment	72.5	8.9	0.000*
8	Self-belief	73.7	9.5	0.000*
9	Self-efficacy	73.5	9.6	0.000*
10	Self-awareness	72.2	8.3	0.000*
11	Feeling of empowerment	71.4	8.1	0.000*
12	Social confidence	72.5	8.9	0.000*
13	Creativity & imagination	72.6	9.2	0.000*
14	Curiosity	71.3	7.6	0.000*
15	Tolerance to failure	71.2	7.7	0.000*
Total Entrepreneurship Attitudes		**71.0**	**10.5**	**0.000***

The findings of the G20 SME conference emphasized that, entrepreneurship should become a subject taught within schools and universities and to be encouraged as a post-education employment method (Mazzarol, 2014, pp. 4). In addition, Palestine needs to design a suitable entrepreneurship education, that able to equip people with an entrepreneurial attitude, skills and knowledge necessary to qualify and stimulate the intentions of individuals to become an entrepreneur. (MAS, 2012). Moreover, the experiences of developed and developing countries in entrepreneurship education, emphasized that entrepreneurship education program needs to build positive attitudes towards business and develop entrepreneurial competencies (UNCTAD, 2011, p. 4). Furthermore, developing students' entrepreneurial capabilities becomes not a luxury, but a complete necessity (MAS, 2012, p. 3). The educational system in Palestine has given limited attention to entrepreneurship. A very limited number of modest initiatives were implemented to introduce entrepreneurship education in Palestine (MAS, 2012, p. 3). Additionally, examination of the Palestinian Ministry of Education and Higher Education latest strategic plan for 2014-2019 (MoEHE, 2014) reveals that there is no concern of the importance of entrepreneurial education and no plans to introduce it at the school or university levels. In addition, the recommendations of recent conference on entrepreneurship development in Palestine emphasized on the following (Faculty of Commerce, 2015):

- Reconsidering the palestinian education at schools and universities' levels to enhance entrepreneurship culture among students, graduates and society in large.
- Supporting and enhancing universities' graduates by using a practical methods which enhance entrepreneurial behavior among graduates.
- Universities need to give further attentions to conduct research on success stories in entrepreneurship that suitable to palestinian environment.

Testing of the main Hypothesis:

The main hypothesis: There is a significant difference at @ 5% related to the impact of higher education programs on students' entrepreneurship knowledge, skills and attitudes in Palestine, attributed to some personal traits (age, family income and field of education).

1) Differences attributed to Age:

According to Table (8) insignificant difference was found in the characteristics of entrepreneurship education attributed to age (p-value 0.916). This is attributed to the fact that the great majority of respondents (87.3%) less than 26 years (Table 3). This means that, they are homogenous in terms of age and probably experience.

Table (8) the difference in the elements of entrepreneurship education attributed to Age, from students and graduates viewpoints.

Items	Means			F-Test	P-value
	Younger than 26	26 - Less than 30	30- and order		
KNOWLEDGE	6.26	5.64	5.81	1.185	0.307
SKILLS	5.93	5.61	5.20	0.994	0.372
ATTITUDES	7.04	7.26	7.84	1.387	0.252
The elements in entrepreneurship education	6.46	6.32	6.46	0.088	0.916

2) Differences attributed to Level of family income:

Table (9) the difference in the elements of entrepreneurship education attributed to Level of family income, from students and graduates viewpoints.

Items	Means			F-Test	P-value
	Less than 1000	1000-1999	2000 or more		
KNOWLEDGE	6.15	6.08	6.14	0.026	0.975
SKILLS	5.81	5.96	5.36	0.766	0.466
ATTITUDES	7.02	7.09	7.42	0.587	0.557
The elements in entrepreneurship education	6.41	6.41	6.38	0.004	0.996

Table (9) revealed insignificant difference in the characteristics of entrepreneurship education, attributed to family income (p-value 0.996). This may indicate that family income does not affect students and graduates entrepreneurship. However, most of Palestinian entrepreneurs specially Gazans were necessity driven, because of high unemployment, high poverty rate and limited job opportunities (MAS, 2014b). In addition, Table (2) showed that 81.5% of students and graduates were in the entrepreneurial planning stage, and most of them their monthly family income less than $1000.

3) Difference attributed to field of education

According to Table (10) only significant differences were found in the skills element, attributed to the field of education in favor of IT, with p-value 0.03. However, insignificant difference was found in overall elements of entrepreneurship education (p-value 0.056). Nevertheless, the total means values of IT, Business and Engineering were 68%, 65% and 61.8% respectively which is in favor of IT. This would indicate that IT university entrepreneurship education is more practical and enhance relatively better students and

graduates entrepreneurial knowledge, skills and attitudes compared to business and engineering fields. However, further attention should be given to all higher education disciplines in Palestine.

Table (10) the difference in the elements of entrepreneurship education attributed to field of education, from students and graduates viewpoints.

Items	Means			F-Test	P-value
	Business	IT	Engineering		
Knowledge	6.33	6.46	5.84	2.226	0.110
Skills	5.81	6.52	5.59	3.570	0.030*
Attitudes	7.16	7.39	6.83	1.992	0.139
Overall elements of entrepreneurship education	6.50	6.80	6.18	2.915	0.056
Mean value	65%	68%	61.8%		

Question (2): What are the Perceptions and population attitudes toward having business/ entrepreneurship?

The entrepreneurship is a complex process strongly affected by cultural context and societal attitudes (GEM, 2012, p. 7). Table (11) shows that the mean of the field "Perceptions and population attitudes towards having business" equals (61.5%), T-Test value=1.4, and P-value =0.088. We conclude that the respondents "neutral" to the field. Table (11) reveals middling levels of population attitudes towards three points: 1) starting a new business is considered as a good career choice**,** 2) successful business start-ups have high and respectful status, and 3) people prefer to be independent and self-employed. In addition, few of students and graduates have relatives or friends as entrepreneurs. This probably reflect negatively on them in initiating their businesses and become entrepreneurs. In the Gaza Strip, there is a need to promote entrepreneurship initiatives, because of higher unemployment rate among young people in Palestine, where it reached 43.9 per cent (PCBS, 2015, p. 8). In addition, unemployment among individuals with intermediate diploma or higher was 30.2 per cent in 2013 (expect to exceed more than 50 per cent in 2015) (MAS, 2014a, p. 21). Furthermore, students and graduates have a weak opportunities to start a new ventures in the next 6 months (with mean value 53.7%, Table 8). Partly, this faintness is attributed to the limitation in the knowledge university provide in identifying success business opportunities (see Table 5).

Table (11): Means and Test values for "Perceptions and population attitudes toward having business"

No	Variables	Mean (%)	T-Test value	P-value
1	Expect to start a business in the next 3 years	65.8	3.5	0.000*
2	Good opportunities to start a new business in the next 6 months	53.7	-3.7	0.000*
3	Starting a new business is considered as a good career choice	66.7	4.6	0.000*
4	Successful people business start-ups have high and respectful status	68.0	6.1	0.000*
5	Successful stories coverage in public media	62.8	2.0	0.025*
6	I prefer to be independent and self-employed.	67.0	4.9	0.000*
7	My father or mother is an entrepreneur	53.6	-3.6	0.000*
8	There are entrepreneurs in my family	55.8	-2.4	0.009*
9	I have friends who are entrepreneurs	59.8	-0.1	0.451
	Perceptions and population attitudes toward having business	**61.5**	**1.4**	**0.088**

Suresh and Ramraj (2012, p. 98) advised moral support from parents, friends and society at large to entrepreneurs to prosper. In addition, G20 SME conference emphasized on the awareness at society level to promote entrepreneurship as part of national comprehensive policy (Mazzarol, 2014, p. 4). Moreover, entrepreneurship education should be obligatory in most study disciplines (EC, 2012, p. 18).

Question (3): What are the Motivational factors for starting business?
Table (12) shows that the mean of the field "Motivational factors for students and graduates to start their own businesses" equals (68.8%), T-Test value=7.1, and P-value =0.00. We conclude that the respondents "agree" to the field. However, the level of motivations need to be improved among students and graduates through adopting awareness programs by universities, government, private sector and NGOs. The awareness programs should highlight the benefits of being a business owner and not just waiting for jobs in public or private sectors, which is very difficult to find (Faculty of Commerce, 2015). In addition, the results of MAS report (2014b, pp. 1-5) indicated that 46% of youth projects in Palestine were necessity driven, compared by MENA average 36%. In Gaza it would be more necessity-driven initiatives because of higher unemployment rate. Furthermore, the study of Global Entrepreneurship Network (2015, pp. 5-6) ranked most of Arab Countries in a low entrepreneurship level, e.g., the rank of Jordan and Egypt 65 & 91 respectively, while Palestine was excluded. However, the results of EC study (2012, p. 11) revealed that the major incentives for European Universities' students and graduates to become entrepreneurs were, to be independent, freedom of choosing time and place of work and realization of business opportunity. The difference between EU countries and Palestine is attributed to the differences in socio-economic and political context.

Table (12): The Motivational factors for students and graduates to start their own businesses.

No	Variables	Mean (%)	T-Test value	P-value
1	To be my own boss	70.2	6.4	0.000*
2	To be able to use my past experience and training	67.1	4.4	0.000*
3	To prove I can do it	68.1	5.4	0.000*
4	To increase my income	70.0	6.6	0.000*
5	To provide jobs to family members	67.8	4.8	0.000*
6	For my own satisfaction and growth	70.8	6.9	0.000*
7	So I will always have job security	70.7	6.9	0.000*
8	To build a business to pass on	68.7	5.5	0.000*
9	To be closer to my family	67.0	4.3	0.000*
	Motivational factors for starting business	**68.8**	**7.1**	**0.000***

Questions (4): Did students & graduates receive advices regarding entrepreneurship? Table (13) shows the viewpoints of students and graduates regarding advice on business they may be received. The mean of the field "receiving advice regarding entrepreneurship" equals (55.9%), T-Test value =-3.0, and P-value =0.00. We conclude that the students and graduates were rarely received technical or managerial advices to establish or run their businesses efficiently. It is obvious that the professional network and other private network environment have weak contribution in supporting entrepreneurship in Palestine. This reflects the need of a strategic national plan to promote entrepreneurship practices, knowledge and skills in Palestine by designing a suitable entrepreneurship ecosystem, that all stakeholders including, private, public, universities, NGOs and professional networks should participate in developing and supporting entrepreneurship in Palestine. Entrepreneurial development is a collection vision of all parties to be committed to the promotion of entrepreneurship (Suresh and Ramraj, 2012, pp. 96-97; Faculty of Commerce, 2015; MAS, 2014b).

Table (13): Whether students and graduates received advice regarding entrepreneurship in the field of starting or running their businesses.

No	Variables	Mean, students and graduates (%)	T-Test value	p-value
1	Private network environment which includes spouse, parents, other family, and friends.	58.4	-0.9	0.179
2	Work environment which includes anyone who has started a project, and anyone with experience in business.	56.5	-2.1	0.019*
3	The international network environment includes anyone who has just come from abroad or anyone living abroad.	52.0	-4.8	0.000*
4	The professional network environment includes any of the following: researchers, lawyers, accountants, investors, banks, and business service providers.	52.6	-4.4	0.000*
5	The market environment includes a competitors, and partners, e.g. a supplier, or a customer.	60.0	0.0	0.500
	Receiving advice	**55.9**	**-3.0**	**0.002***

Conclusions

Entrepreneurship is a dynamic process of mobilizing resources, spotting profitable opportunity and taking risk to achieve personal satisfaction. Most countries adopt entrepreneurship development programs. These programs are managed by governments, universities, private sectors and incubators.

Palestine suffers of political and economic instability. It has high unemployment rate specially among young age and graduates. The majority of students and graduates have a low family income. They were in entrepreneurial planning stage and few of them have started their small businesses.

The impact of higher education on entrepreneurial knowledge and skills are moderate. University curriculum is weak in improving students competences on identifying business opportunities, environmental analysis and innovation. Also weak in improving their skills in negotiations, taking a calculated risk, managerial skills in planning, organizing, leading and delegating, team work, monitoring and evaluation.

Palestinian higher education has a positive impact on entrepreneurship attitudes of students and graduates. Students are good in self-belief, self-efficacy, self-awareness, social confidence, determination and commitment, ambition, determination to meet objectives, make some new initiatives and risk tendency.

A moderate level of motivations were found among students and graduates to launch their businesses. They were hardly received technical or managerial advices to establish or run their businesses. Limited government support, limited NGOs and private sector support.

Implications for policy and practice

Palestine needs to design a national strategy for entrepreneurship education that should call for all relevant stakeholders including, private and public sectors, universities, experts and NGOs to participate in designing the strategy. This strategy should be integrated into the overall unemployment and poverty reduction strategy. In addition, entrepreneurship education should be designed to provide students and graduates with an entrepreneurial attitude, skills and knowledge necessary to be a success entrepreneurs, as well as to gradually instill entrepreneurial spirit, critical thinking, management and marketing skills of students. Furthermore, entrepreneurial learning should be integrated into the curriculum, rather than only being offered as standalone courses, in order to change the mindset among students. Additionally, universities need to adopt the action-based pedagogy by bridging the gap between theory and practice. Universities may adopt a proactive approach to building successful links with industry, through training, collaborative research, consultancy and counseling. Also, universities should create new local materials, case studies and examples of role models that entrepreneurs can refer to.

Besides, there is a need to improve the number, skills and knowledge of entrepreneurship teachers, by providing training, particularly in interactive teaching methods and in understanding the societal and industrial environment with its dimensions.

Young entrepreneurs should be given access to finance buy setting a special fund to support small businesses, and provide loan guarantees for young entrepreneurs in order to encourage banks to grant small loans and appropriate credit channels to entrepreneurs.

Counseling, moral support, social support and technology support should be delivered to young graduates specially students and graduates in order to flourish entrepreneurship in Palestine.

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