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Heba Hassanein

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The American University in Cairo

Graduate School of Education

**Faculty and students' perceptions on the effectiveness of entrepreneurship and
social enterprise education in a higher education institution in Egypt**

By

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A Thesis Submitted to the Department of International and Comparative Education

in Partial Fulfillment of the Requirements for the Degree of

Masters of Arts in Educational Leadership

Under the supervision of Dr. Nagwa Megahed

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Abstract

Entrepreneurship education has been promoted in higher education institutions worldwide, as many nations are adopting more entrepreneurial driven economies, rather than state driven economies. In response to the need for innovative platforms to offer sustainable solutions for many societal problems, entrepreneurship, especially social enterprise, has become popular. Thus, higher education institutions have a major role in raising awareness and offering programs on entrepreneurship and social enterprise, which remains a challenge in the Middle East (Abdou, Fahmy, Greenwald & Nelson, 2010). This study examines the entrepreneurship program offered at a private university, which is the first university to implement such a program in Egypt. It analyzes the perceptions of faculty, students and graduates on the effectiveness of this program in terms of giving students the motivation, knowledge and skills to establish their own startup. Prior to this, a theoretical discussion of the human capital approach vs. the human rights approach to education is presented in relation to entrepreneurship and social enterprise programs and the purpose of higher education. Methodologically, a mixed methods quantitative and qualitative methods, following a “convergent parallel research design” (Creswell, 2012) is employed. A survey was administered, with 106 students enrolled in the entrepreneurship classes. This is in addition to 17 semi-structured individual interviews with faculty, students and graduates of the program. Quantitative findings of the survey show that the correlation between the number of entrepreneurship courses and the overall effectiveness of the program is statistically insignificant, however both quantitative and qualitative findings show that the courses are perceived to have an effect on the intent and motivation of students to have a startup or social enterprise, yet they do not give them the adequate skills and knowledge needed for implementation. This is due to several factors, of which the lack of having realistic practical hands on

experiences is the main concern. The study also sheds light on the challenges facing faculty and presents recommendations on improving the program in the examined university, as well as suggestions for adapting similar programs in Egyptian public universities.

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Chapter 1- Introduction

The purpose of higher education has been an ongoing debate, in terms of how it is articulated in relation to the different theories of human capital and neo-liberalism vs. human rights. Entrepreneurship education has received global attention and most recently it has been connected to community service through social enterprise education. This connection, I argue, reflects the different theoretical perspectives on the purpose of higher education. The purpose of this research is to examine the entrepreneurship program offered by a private university in Egypt, in order to see the perceptions of students and faculty on the extent that this program prepares students to compete in the labor market and become business or social entrepreneurs, thus have the capabilities to create new innovative platforms that offer sustainable solutions to their society. Moreover, the study intends to propose recommendations on improving the program at the examined university, as well as suggestions on implementing such programs in Egyptian public universities.

The research discusses the purpose of entrepreneurship education in relation to the human capital theory that focuses on the productive nature of humans and sees the training of the productive capacity of the human as a capital investment that contributes to economic development (Kubow & Fossum, 2007). Aligned with this perspective, supporting alliances within neoliberals preserves conservative modernization, whereby a vision of students as human capital and future workers is created (Apple, 2005). Hence, it enables students to compete in the labor market. This perspective, that links higher education to the needs of the labor market, supports the initiation and offering of entrepreneurship education in higher education programs. On the contrary, other scholars emphasized the approach of human rights in education, whereby the purpose of education should not only be to serve the labor market, but also to develop human capabilities and

serve the community. With this framework, arose social enterprise education, as it bridges the contradiction between the human capital, neoliberalism and the human rights approaches. This is because social enterprise education aims at enabling students to have the skills needed to build their businesses, while in the meantime offer a social service to support their community.

Looking at the Middle East region, with its high unemployment rates, along with the recent uprising and slow economic growth and development, which consequently affects the job opportunities for youth, there has been a growing interest to promote entrepreneurship and social enterprise education. Across the Middle East, higher educational institutions have begun to support the education of entrepreneurship in their academic programs. Such initiatives are important to promote entrepreneurship in the region, however, it is equally important to include the social component that is in social enterprise education, which is currently lacking (Abdou et. al, 2010).

Similarly in Egypt, there has been a growing need to change the Egyptian education system to encourage students to think and behave more entrepreneurially, at the same time equipping them with the skills to start their own ventures on graduation. Following the growing global trend of social enterprise education, some of the private universities have begun to address the demand to change the Egyptian education system to encourage students to think and behave more entrepreneurially by integrating entrepreneurship and social enterprise education in their curriculum. This is believed to promote a socially aware and more sustainable economy (Sheta, 2011).

Statement of the problem

Little focus has been given on the establishment of businesses that have a social impact or addresses a social issue (whether for profit or non profit). Although this private

university has conducted extensive efforts in entrepreneurship education, there is still a need for new innovative platforms to offer targeted, scalable and sustainable solutions that would tackle the most pressing social problems. According to the European Commission 2008, there is a need in Egypt to create an enterprise culture and education will have an important role to play in this (Kirby & Ibrahim, 2011b). As part of this process it is important that the education system in Egypt to be “charged with young people from being naive and unaware of the people in their country to be really responsible people who see poverty every day and learn to make plans to develop the lives of others” (Kirby & Ibrahim, 2011b, p. 412).

According to a project proposal by Sheta (2011), only 17% of university graduates in Egypt are involved in entrepreneurial activity. Egypt’s most recent report (2016-2017) of the Global Entrepreneurship Monitor (GEM) identified that Egypt ranked the lowest of all 66 countries participating in the GEM report, in Entrepreneurship Education for both school level and post-school in 2016/17, as well as in 2015/16 (Ismail, Tolba & Barakat, 2017). In addition to that, the unemployment rate among Egyptian university graduates is much higher than the national average, and there is a lack of employment opportunities in both the public and formal private sector (Sheta, 2011). Thus, integrating an entrepreneurship curriculum in Egyptian universities will enhance students to develop creative, problem solving, project development, and innovation skills, which will prepare them to develop their own ideas for businesses and social enterprises. There are a growing number of private universities that have started teaching entrepreneurship courses, which include: The American University in Cairo, The British University in Egypt, The German University in Cairo and Nile University (Sheta, 2011).

Research Questions

The study aims at answering the following questions:

1. How do students, graduates and faculty perceive the purpose of entrepreneurship education, in terms of having social impact or having economic and financial benefits?
2. How do students, graduates and faculty perceive the effectiveness of the entrepreneurship education program offered by a private university in Egypt, in terms of giving students the needed skills, knowledge and motivation to establish their own enterprise?
3. What are the recommendations to improve the entrepreneurship program and possible expansion of its offerings at other Egyptian higher education institutions?

Chapter 2- Literature Review

Purpose of Higher Education- Theoretical Grounding

In the last 20 years, there has been an emphasis from government worldwide on the needs of the labor market and that higher education should serve this purpose. Following a neo-liberal approach, investment in education is an investment in the future economic growth, hence the purpose of higher education has been shifted from being for the public good to one that has pure economic value, that “a highly educated populace will stimulate economic growth through innovation and technological advances” (Inglis, 2016, p. 2). This thinking is also aligned with the human capital theory, which considers education as an investment that gives returns to the individual in terms of material advantages and to the society in terms of employment and economic growth (Gillies, 2017). In light of this neo-liberalism in education, academics must demonstrate their contribution to society by competing for students who provide the bulk of funding to the university. Hence, the most significant change contributed to neo-liberalism in the 21st century is the importance of knowledge as capital (Olssen & Peters, 2005). However when looking at different economies, we can see that in a weak economy, well qualified and well educated young people (the human capital) usually travel to more rewarding and developed economies, as they do not find the expected rewards in a weak economy, which the human capital theory promises. Hence, local investment in education in this case may have no local return (Gillies, 2017).

Over the past decade, there has been a growing trend called “Human Rights Education” (HRE), which many ministries of education, educational organizations, human rights groups, teachers and inter-governmental agencies have been discussing. The main idea of HRE is “to strengthen respect for human rights and fundamental freedoms, and to ensure that respect in all societies”(Tibbitts, 2002, p.160). This brings

me to question, the purpose of a university education today. There is a need to define the purpose of higher education as something more than economic. Higher education should be a place that individuals are free to think, develop experience, get exposed, gain practical skills, and construct knowledge. Moreover, higher education institutions should shape the way we educate future generations, by fostering the ability and confidence in their students to challenge and question major issues in the society (Inglis, 2016).

Looking at the notion of human rights education, we find that in developing countries, human rights education is usually linked with economic and community and civil society development, as well as women's rights. Thus, the different examples of human rights education practice raise questions again about the role of education in supporting social change and human development (Tibbitts, 2002). Yet, the language of human rights education is broad and has three main models. The first model is the "Values and Awareness model", which focuses on transmitting knowledge of human rights in order to integrate it in public values, for example through lessons in citizenship, history and social science courses, as well as public awareness campaigns and community events. This model fosters critical thinking among learners. The second model of HRE is the accountability model, whereby learners are already working on guaranteeing human rights, so here they will be focused on training community activists on techniques for monitoring human rights abuses. Social change is necessary in this model, as well as identifying community based national targets for reform. The last model is the transformational model, where education is focused on empowering individuals to prevent abuses of human rights (Tibbitts, 2002).

According to the United Nations, human rights education can be defined as "education, training and information aiming at building a universal culture of human rights through the sharing of knowledge, imparting of skills and molding of attitudes"

(Bajaj, 2011, p. 484). This is directed to: respect of human rights and freedom; the development of personality and dignity; fostering understanding, tolerance and equality; participate in a free and democratic society, building peace, and promoting sustainable development and social justice (Bajaj, 2011). HRE can also be seen as a pedagogical strategy to foster democracy and active citizenship. However different national contexts have different strategies because any global education reform that gets incorporated into national and local theory and practice may be different to the original concept because they get contextualized (Bajaj, 2011). There must be greater understanding to what HRE means in order to ensure that it is practiced properly and adapted to human rights and societal problems, as well as the different learning contexts. It can thus be concluded that the role and purpose of a university education should be to empower individuals to change and develop the world they live in. This transformation should not be measured only economically, but also in their contributions to the well-being and quality of life, as well as their contribution to their community and the different societal issues.

Entrepreneurship and Enterprise Education

It has been agreed worldwide that entrepreneurship is the engine that contributes the most to the economy of most nations. Different stakeholders have different expectations from entrepreneurship, which includes: creating jobs, forming new industries, innovation and renewing the commercial base (Jack & Anderson, 1999). So, what is the role of education to fit these expectations? Universities should focus on developing high level skills, including critical and analytical thinking, which creates reflective practitioners who not only are able to start new businesses, but can also sustain them (Jack & Anderson, 1999). Twenty years ago, the most common and safe bet for students is to work for a multinational corporation upon graduation. Nowadays however, this trend has become outdated, as young graduates mostly seek to establish new startups.

The USA for example, is experiencing a change from a corporate bureaucratic economy to an entrepreneurial-driven economy (Jack & Anderson, 1999). All of the new jobs created in the USA, have come from new and expanding firms, especially from the small business sector. Hence, entrepreneurship provides both social and economic benefits and is therefore encouraged to be taught in educational institutions (Jack & Andersen, 1999). There is an increase in the demand from students to study entrepreneurship as the new trend of having startups is very common now. Yet, on the other hand not all students who take a course in entrepreneurship are able or willing to be entrepreneurs. Previous research has also shown that in teaching entrepreneurship, many students lack good business ideas, which is a reflection of the limited experiences of the students. Hence, to create startups which can contribute to economic growth, students need to be pushed beyond their traditional boundaries (Jack & Andersen, 1999).

Since entrepreneurship involves an action, so it cannot be taught the traditional way. It is usually part of business schools, where they use knowledge attained in accounting, finance, marketing, leadership, management, etc. However, to integrate the functionality of this knowledge into a holistic activity requires certain analytical skills. Entrepreneurship education is a typical example of experiential learning, where students must experience learning by doing. According to Jack & Anderson (1999), “An area which needs to be addressed is tying academic learning to the real world” (p.51). In other words to link pedagogical theories to the actual businesses, which is a trend educational institutions worldwide are focusing on. This is seen as a form of mentoring, which brings us to the notion of self-discovery, which many scholars call an “enterprise” style of learning and that entrepreneurs must have “enterprising” attitudes to want to start a business. Moreover, they need to have the “enterprising” attitudes and competencies that would make them thrive in the business once it started (Jack & Andersen, 1999). This

brings me to look at the differences outlined by scholars between enterprise education and entrepreneurship education. The UK is an example of a country that focused on enterprise education in the last 30 years. It introduced it to the curriculum in different educational phases as a response to the shortfall in employability skills (Jones & Iredale, 2010). The main difference between enterprise and entrepreneurship education, is that “ Enterprise education aims to maximize the opportunities for the development of enterprising skills, behaviors and attributes in young people in the expectation that these will be utilized, deployed and developed at some future point whatever their career choice might be, while entrepreneurship education is aimed more at encouraging people to start a business. (Jones & Iredale, 2010, p.10). Thus enterprise education focuses more on the needs of different stakeholders, including the community, as well as attaining certain personal skills and abilities that individuals can use in different contexts in their life. On the other hand, entrepreneurship education focuses on the needs of the entrepreneur and on starting and managing a business.

The pedagogical approach of enterprise education also differs from that of entrepreneurship education. In addition to experiential learning styles used in enterprise education (which could, but not necessarily also be used in entrepreneurship education by some educational institutions), however in enterprise education there is a greater focus on citizenship and civic responsibilities. Enterprise education also uses more creative and innovative pedagogies that have a much broader scope than entrepreneurship education. The pedagogies in enterprise education are aligned with liberal arts educational models, as well as interdisciplinary approaches as it can be used across different subjects and different phases of education, in contrast to entrepreneurship education which is usually taught in business or economic schools (Jones & Iredale, 2010). An important differentiation between entrepreneurship and enterprise education brings us back to the

discussion about the purpose of education that I previously highlighted and the different theoretical perspectives. Entrepreneurship education is very much aligned with neo-liberalism as it advocates self-employment, giving a message that businesses and individuals are best placed to create wealth and progress in the economy. In contrast, enterprise education pedagogies focus on the freedom of the individual to change, grow, develop, adapt to different opportunities and contexts, which is more aligned to the human rights approach (Jones & Iredale, 2010). Even going back to older concepts of philosophers like John Dewey who stated that enterprise education fosters democratic citizenship and community responsibility (Jones & Iredale, 2010). Thus, enterprise education has a big role to play in community development as well as the business and marketing environment.

Social Enterprise Education

Nowadays the notion of enterprise education has taken a step further by integrating the social dimension to enterprise. Social enterprise or social entrepreneurship has been an activity that is on the rise on a global level. Social entrepreneurship is defined as “an innovative, social value creating activity that can occur within or across the nonprofit, business or government sectors” (Austin & Wei-Skillern, 2006, p. 2). The definition however varies from broad to narrow ones, depending on the type and structure of the organization, however a common aspect is the drive to create social value, rather than personal wealth. There is usually a social problem being addressed. In addition, the activity should be innovative, rather than replicating things that already exist. The creation of social value is not the end goal, as once the value is created, it has to be sustained, which means that social enterprises have to generate enough revenue by modifying well established business models to achieve the desired sustainability (El-Samman, 2017). It is important to understand the nature of social enterprises in order to

evaluate how educational institutions should embed it in their curriculum. Yet, before digging deeper into the nature and different forms of social enterprise, I will reflect on the history of social enterprise in the USA and Europe, where social enterprise started.

Social Enterprise has been a very popular initiative over the past 2 decades in the USA and Europe. However it has been applied in different contexts in both regions, which again is reflected on the different definitions it has attained by different international organizations. The term “social enterprise” was first developed in the 1970s to define the businesses that had a non-profit objective. Those businesses (whom we may call now NGOs), started as a way to create job opportunities for disadvantaged groups (Kerlin, 2006). Starting even before that time, in the 1960s there was “The great society programs”, where the federal government invested billions of dollars in programs tackling different social issues, such as poverty, education, health care, community development, the environment and the arts. Economies then faced decentralization, privatization, and a decrease in government services, which grew unemployment. At this time, new social enterprises were initiated as a response to emerging needs in order to provide solutions for housing problems, child care services, services for the elderly, urban regeneration and employment programs (Kerlin, 2006).

The different types of social enterprises differ in the U.S from Europe. In the U.S, they include profit- oriented businesses that conduct social activities (such as corporate social responsibility or philanthropy) ; dual-purpose businesses that have profit goals as well as social objectives (hybrids) and non-profit organizations that have a social purpose. As for Western Europe, social enterprise has variation within 2 streams of thought. One thought stresses social entrepreneurship in businesses who want to enhance the social impact of their activities. The second thought has to do with corporate social responsibility (Kerlin, 2006). The differences in the definition of social enterprise stems

for the different contexts it operates. Even amongst international organizations, you see a slight variation in the definition. For example social enterprise is defined by the Organization for Economic Cooperation and Development (OECD) as “ any private activity conducted in the public interest, organized with entrepreneurial strategy, but whose main purpose is not the maximization of profit but the attainment of certain economic and social goals, and which has the capacity for bringing innovative solutions to the problems of social exclusion and unemployment”(Kerlin, 2006, p.251). As for the U.S Agency for International Development (USAID) (1997–2002), it defines social enterprise as “a generic term for a non-profit business venture or revenue-generating activity founded to create positive social impact while operating with reference to a financial bottom line” (Kerlin, 2006, p.251). It shows how these international organizations are caught in the middle as they work with both sides, so they choose either the American or European definition, rather than form a synthesis between the two. Hence, the term means different things depending on the context. In Europe (with the exception of the UK, social enterprise generally means a social association formed to provide employment or other special services, while in the United States, it generally means any type of activities that yields income (Kerlin, 2006).

After looking at some of its historical background and how social enterprise is different in regional contexts, I will now discuss the nature and different forms of social enterprise, in order to have a better perspective on how it should be taught in educational institutions. First, there are many variables that should be highlighted that guide the existence of social enterprises. These include: Market failure, as social enterprises usually emerge when there is a social market failure; Mission, the main purpose of social enterprises is having a social value for the public good vs. only creating profits, which is the main mission of commercial entrepreneurship; Resource mobilization, social

entrepreneurs do not venture into the same capital markets as commercial entrepreneurs, which also makes it difficult to pay staff as competitively as commercial entrepreneurs; Performance measurement, it is more challenging to measure the performance of social enterprises than commercial enterprises that rely on tangible measures that can be quantified. However, social enterprises have a big variety of stakeholders that they are accountable to, which makes it difficult to manage (Austin & Wei-Skillern, 2006). While these four variables can distinguish between commercial and social entrepreneurship, the degree can vary depending on four other components, which are the people, the context, the deal and the opportunity- the PCDO framework of entrepreneurship. Looking at how this framework applies to social entrepreneurship, we see the following differences:

- People and Resources: Foster & Bradach (2005) argued that people and resources are quite similar in both commercial and social enterprises as they both have managers, employees, funders, etc. However, the nature of these resources differs in social enterprise in terms of the difficulty in resource mobilization, unlike the commercial entrepreneur who usually has the financial incentives to obtain talent. Some social enterprises also rely on volunteers to work and on family for most of their funding. Commercial entrepreneurs have more institutional breadth and flexibility in changing their business plans, as well as the products and markets served, as they have different channels of funding, while social entrepreneurs do not have this flexibility since funding is tied to the specific problem or need addressed (as cited in Austin & Wei-Skillern, 2006).
- Opportunity: The main difference here is that the focus in commercial entrepreneurship is on economic returns, as well as new needs and innovations while in social entrepreneurship it is on social returns and serving basic long term needs more effectively through innovative approaches. Social entrepreneurs may

be led by the mission of the betterment of the public, so they can invest in a sector level capacity and this could encourage other competitor organizations to further grow this shared social mission (Austin & Wei-Skillern, 2006).

- Context: These are factors affecting the opportunity, but outside the control of management, including taxes, sociopolitical environment, etc. They are equally important in both kinds of enterprises and mainly differ in the impact of the context, due to the way the interaction of the social enterprise's mission influences entrepreneurial behavior (Austin & Wei-Skillern, 2006).
- Deals: These are the contracts, relations and exchange of value with all resource providers. The value transactions differ in social enterprise from commercial entrepreneurship in the type of value, the consumers, the timing, flexibility and how it is measured. Regarding the kind of value, social entrepreneurs must rely on creative ideas to recruit and motivate staff, volunteers etc. in order to compensate the limited financial incentives they provide compared to commercial entrepreneurs. The time frame of the funding is shorter in social enterprises and grants usually made on an annual basis, which puts pressure on social entrepreneurs. The challenge of measuring results in social enterprises is very complex as it does not mainly rely on financial returns. (Austin & Wei-Skillern, 2006).

In light of so many constraints that social enterprises might face as discussed above, it is worth noting that their main mission is to create social value, whether from within or outside the organization's boundaries. Networking is a secret strategy that social entrepreneurs must rely on because social value can either be directly created through the social enterprise or others could facilitate it. After understanding the different forms of social enterprise, which can give us a better perspective on how it should be taught in educational institutions, it is important to highlight an important aspect, which is

students' intent and motivation for becoming social entrepreneurs, in which education amongst other factors plays a major role.

Student's entrepreneurial intentions and motivation to become entrepreneurs was investigated in several researches conducted on students who took entrepreneurial courses compared with those who didn't. One study investigated this intention among Engineering and Business students, and reported that engineering and science students have higher intentions than business students to become entrepreneurs (Solesvik, 2013). Another study in Ukraine and Russia suggested that those who did not take any enterprise education showed a low level of entrepreneurial knowledge and competencies compared with those who had enterprise education. Moreover, other research found that people in developing countries are more likely to want to become entrepreneurs than those in developed countries, in addition entrepreneurial motivation differs from one country to another (Solesvik, 2013). Educators nowadays try to encourage more students to become entrepreneurs upon graduation to create new businesses that would generate wealth, jobs and economic growth. It is recommended however that there should be more studies or activities that would monitor the student enterprise education programs. One study was conducted to monitor such a program found that people who participated in enterprise education programs had higher motivation to start their own businesses. Thus, this motivation that rose from the enterprise education programs, supports in transforming students' intentions into actions (Solesvik, 2013).

Entrepreneurship and social enterprise education may take other forms than formal education. Non-formal and informal activities and programs could foster entrepreneurial characters and values, even from a young age at school. When such characters are instilled from childhood and adolescent years, they gain basic knowledge and a positive attitude about entrepreneurship, which develops a culture of enterprise

within the society that focuses on innovation, competitiveness and creativity (Wing Yan Man & Wai Mui Y, 2007). Any entrepreneurship education programs should be student-centered, whereby students can apply what they learned in enterprise education to other contexts.

Entrepreneurship and Social Enterprise in Developing Countries

Developing countries, which are defined by the World Bank (2010), as “low or middle-income economies” (Nabi & Linan, 2011, p. 326), have a shortage in higher education graduate skills and in entrepreneurship, since many immigrate to the United States or Europe for either a university degree or to work, which results in losing highly skilled human capital. Another reason for this shortage is that many developing countries suffer from informality in business, which hinders the contribution to new ventures because they cannot get finance, thus they miss an opportunity for growth. Informality also causes lack of information on the real situation of business ventures and startups, thus making it difficult to design and implement the venture. Thus, it is more challenging for developing countries compared to developed countries to develop graduate entrepreneurs and environments that would support them and contribute to this growth (Nabi & Linan, 2011). When looking at entrepreneurship intentions, we see that business graduates and students are not as attracted to work for big corporations as before. The main cause for this, is the restructuring of those companies due to intense competition, pressure to cut costs and acquisitions, all which decrease employee loyalty and security. Accordingly more business students have strong intentions and are inclined to have startups and operate their own business as an alternative to becoming an employee in a multinational or big corporation (Nabi & Linan, 2011). Previous research however suggests that even though a significant number of students have strong intentions to have start-ups, yet only a small percentage actually implement and start-up, especially right

after graduation. This has been argued that it's mostly due to the complex processes and contexts in the transition from student to entrepreneur (Nabi & Linan, 2011). As for motivation, previous research showed that students from developing countries have higher intentions and are more likely to envision themselves as becoming entrepreneurs than students from developed European countries, even though motivators for employment and self-employment are the same across the different countries. However, actually implementing entrepreneurship education in higher education institutions in developing countries, falls behind to a large extent compared to developed countries (Nabi & Linan, 2011). It is not possible to copy examples of developed countries because the context and challenges differ in developing countries and every region and country itself, as there is a diverse range of countries.

Entrepreneurship and Social Enterprise in the Middle East and Egypt

Looking at the Middle East specifically, around 25 percent of the active young people are unemployed, whether they graduated from university or vocational training programs, they do not have the skills needed for international competitive jobs. According to the UNDP, youth unemployment is almost double that in the world and Arab countries alone will need around 51 million new jobs by 2020 (Abdou, Fahmy, Greenwald & Nelson, 2010). Many stakeholders in the region, such as government or NGOs have made many efforts to improve opportunities for youth, to overcome this challenge, but the efforts were not enough.

Social entrepreneurship is believed to contribute to solving this issue as it can help create jobs, create development solutions that are innovative and inspire young people to be both economically and socially responsible. Hence, social enterprise “provides a new foundation for socio-economic development in the Middle East” (Abdou, et.al, 2010, p.10). This will contribute to achieving economic growth in the

region to a large extent, as it will include the best of both private business and social development activities for the public. A survey conducted showed that an estimate of 78 social entrepreneurs are operating in the Middle East (Abdou, et.al, 2010). Looking at their personal and professional achievements, it was found that they share seven common characteristics, which are: They are all highly educated, involved in activities and sports when they were young, worked or studied abroad, have a personal experience with the problem they are tackling, went through a systematic change, pioneering new areas, and most of them were from Egypt, Jordan, Lebanon and Morocco (Abdou et. al, 2010).

Higher education institutions across the Middle East have started to support entrepreneurship education through academic programs, incubators and competitions. However, most of these programs do not include a social entrepreneurship element, but focus mainly on having start-ups that have a purely business motive. Higher education institutions could have a major role in raising awareness on social entrepreneurship, as well as develop skills and build social entrepreneurial culture. There are many challenges the Middle East region faces, including the major threat of natural resources in relation to climate change, population growth, pollution, water shortages and desertification, which shows that there is a need to invest in sustainable development for the future generation. Given the huge opportunity the region has due to its young population, social entrepreneurship should focus to a great percentage on organizations and the community vs. individuals and should value the scale of the social impact that it can achieve. Hence, a social entrepreneur's characteristic has been defined as "innovative, resourceful, and results oriented", drawing on "the best thinking in both the business and nonprofit worlds to develop strategies that maximize their social impact" (Abdou, et. al, 2010, p.14)

This new trend and focus on entrepreneurship, is not solely about creating jobs and improving the economy, but it can also play a role in many developmental challenges

in the region. Moreover, social entrepreneurship startups should concentrate on how to best address social needs and provide service and finding greater meaning to their work. An area that showed notable contributions of social enterprise in the Middle East is human capital development. There have been many start-ups in both informal and formal education, skills development and teaching life skills. Other initiatives were in the health sector, community development and civic engagement, as well as empowering rural and agricultural communities (Abdou et. al, 2010).

The Middle East is yet far behind global efforts in social enterprise education, due to the many challenges it faces. Moreover, the region does not encourage innovation nor does it encourage young people to be assertive and creative in these different challenges. Higher education institutions have a huge role to play and they have not fully capitalized on this role to incorporate social enterprise education in their work.

Looking closely at entrepreneurship in Egypt, we find that the global entrepreneurship monitor report (2015) for Egypt identified that education and training is one of the main factors that constrain entrepreneurship development in the country. Moreover, out of 31 countries participating in the National Expert's survey, Egypt was ranked last place in terms of contribution to education and that it needs major reforms in education (Kirby & Ibrahim, 2011a).

Moreover, Egypt's most recent report (2016-2017) of the Global Entrepreneurship Monitor (GEM) identified that Egypt ranked the lowest of all GEM countries in Entrepreneurship Education for both school level and post-school in 2016/17, as well as in 2015/16. Entrepreneurship education at the school level was 1.7, ranking 66th out of 66 countries, compared with a global average of 3.0 and efficiency driven economies average of 2.9. Entrepreneurship education at the post-school level (including colleges,

universities, vocational, professional, and continuing education) also ranked 66th.

However, there has been significant current efforts to include entrepreneurship education in schools, universities and TVET, and it is expected that they appear more in the next years. However, even though entrepreneurship education is at top priority for Egypt, the teaching methods do not reflect the entrepreneurial skills nor behavior that is required, such as creativity, taking initiative, critical and analytical thinking. Moreover the content does not provide the proper information of how to create a business or how a market economy functions (Ismail, Tolba & Barakat, 2017). It has also been highlighted by the GEM Egypt report 2016/2017, that Egypt's score in R&D transfer is 2.8 (ranking 60th), compared to a global average of 3.7, and efficiency-driven economies average of 3.6. Thus, the link between industry and universities and public research centers has been very low. The main constraint has been attributed to low government support for new firms to obtain technology (Ismail, Tolba & Barakat, 2017). Table 1 below highlights entrepreneurial education in Egypt trends and perception (2012-2016).

Table 1. Entrepreneurial education in Egypt trends and perception (2012-2016)

	2016	2015	2012
Teaching in primary and secondary education encourages creativity, self-sufficiency, and personal initiative	1.8	1.8	1.7
Teaching in primary and secondary education provides adequate instruction in market economic principles	1.7	1.6	1.7
Teaching in primary and secondary education provides adequate attention to entrepreneurship and new firm creation	1.5	1.5	1.5
Colleges and universities provide good and adequate preparation for starting up and growing new firms	3.0	2.8	3.0
The level of business and management education provide good and adequate preparation for starting up and growing	3.2	2.2	3.0

new firms			
The vocational and, professional, and continuing education systems provide good and adequate preparation for starting up and growing new firms	3.0	3.0	2.8

Source: (Ismail, Tolba & Barakat, GEM Egypt Report 2017, p.50)

According to this latest GEM Egypt report (2017), it was concluded that there is a general positive trend compared to previous years regarding people's perspectives on entrepreneurship in Egypt. Overall, there is a significant growth in the percentage of people starting new businesses, there is an increase in entrepreneurial intentions, also societal perceptions regarding entrepreneurship are improving, as well as recognizing market opportunities for new businesses (Ismail, Tolba & Barakat, 2017). Regarding entrepreneurial intention, it has been highlighted that 65 % of non entrepreneur Egyptians surveyed are interested to start a business within the next three years. This is the highest score amongst all GEM countries surveyed . Also, there was a significant increase in the percentage of youth who decided to start their own business, especially at the age when they just graduate university. This is assumed to be attributed to higher awareness, intent and motivation to have their own businesses (Ismail, Tolba & Barakat, 2017).

Some private universities have begun to address this, however it is not enough, as according to the European commission (2008), “ the educational processes need to develop entrepreneurial capacities and mindsets and create an entrepreneurial culture in the country” (as cited in Kirby & Ibrahim, 2011a, p.184). The reason for this lies in not having enough awareness of the need of this education amongst the academic community, as well as having a shortage of human resources and funding for it. Moreover, there is a different set of instructional skills that is required for

entrepreneurship education, which is quite different from the traditional approaches to education and learning. It is also costly and involves a lot of labor. Ironically, a previous research conducted on the entrepreneurship tendencies of business administration undergraduate students in the British University in Egypt, compared to British business students in the UK, showed that the Egyptian students were stronger on all GEM measures of entrepreneurial activity, including drive, determination and creativity (Kirby & Ibrahim, 2011a).

When it comes to social entrepreneurship in Egypt, it has been highlighted that there has been many attempts to promote a social enterprise culture. Previous research conducted amongst Egyptian students, to explore the level of understanding they had of social entrepreneurship, also to see how the education system needs to be adapted to cater for this concept, found that the students tested were not aware of the concept and did not understand it, nor were they aware of any Egyptian social entrepreneurs (Kirby & Ibrahim, 2011b). Moreover, most people are starting businesses in Egypt without any formal knowledge about the entrepreneurial process or know-how (Sheta, 2011). This shows that for Egypt to boost a sustainable economy, it must focus on developing an entrepreneurial curriculum to develop the entrepreneurial skills and knowledge of students and better prepare them to have their own startups or secure jobs in organizations that support the community. In addition to this, developing an entrepreneurial curriculum will improve the quality, as well as the purpose and process of education.

Sheta (2011) explores the implementation of a five-year initiative (from 2011-2015) that was piloted in three Egyptian universities (Cairo, Alexandria and Helwan universities). It had a total enrollment of 500,000 students from the three governorates. The program involved 5 faculties from each university and it was delivered in 3 phases.

In the first phase, they delivered to senior students an entrepreneurship and a small business management course. In the second phase, a critical thinking course was introduced for first year students and an innovation course for third year students, who are considered as core courses or pre-requisites for other courses taught in the university. In the third phase, they will focus on integrating inter-disciplinary entrepreneurship courses across the campus. Moreover post-graduates degrees were offered in business schools with specialization in entrepreneurship, in addition to an entrepreneurship center that has cases studies and best practices of Egyptian SMEs and entrepreneurs (Sheta, 2011).

Previous research studies in Egypt showed that in order to promote a more socially aware, sustainable economy, Egyptian support organizations need to work with the country's universities to change the curriculum and the way students are taught (Kirby & Ibrahim, 2011b). In social enterprises, entrepreneurs apply their skills to the problems in the country, such as education, health, personal safety and security, poverty, social advancement, environmental

sustainability, etc. The difference between entrepreneurship and social entrepreneurship is that startups concentrate on how to effectively address social needs, provide basic services, and achieve equitable and sustainable development (Abdou, Fahmy, Greenwald & Nelson, 2010).

Support for Social Enterprises in Egypt

Looking at the general trends of social enterprise in Egypt, studies showed that over the past decade, there has been a growing interest, awareness and number of support organizations for social enterprises, such as Nahdet El Mahrousa (Abdou & El-Ebrashi, 2015). It has also been highlighted that many startups that are mainly focused on business

entrepreneurship have started to adapt and support social enterprise. Examples include: Injaz, Flat6Labs and the Start with Google competition (Abdou & El-Ebrashi, 2015). This shows that many youth have the passion, commitment and ideas for social entrepreneurship (Abdou and Kharas, 2012), but it is the role of educators and practitioners to provide support to social enterprises due to the important role they play. The studies conducted on social enterprise are not many, however the few studies available have been focusing on larger more established models of Egyptian social enterprises, such as ‘Sekem’ which is a successful example of a modern business model that combines profitability along with social and cultural roles , while at the same time preserving the environment (Abdou & El-Ebrashi, 2015). Social enterprise startups have been given little attention, mostly due to sustainability challenges. The study conducted by Abdou & El-Ebrashi (2015) to further understand the state of social enterprise in Egypt, given the socio economic and political environment they operate in, focused on 4 social enterprise case studies. The study concluded that for social enterprises to prosper in Egypt , they basically need more support from both the government for policy reforms and from intermediary support organizations (ISOs). Egypt needs to have a new model for development and focus more on transparent collaborations, by decreasing restrictions on funding and legalities for social enterprises to enter the market or expand their work (Abdou & El-Ebrashi, 2015). Moreover, the study shows that people’s awareness nowadays of the importance of social responsibility and civic engagement is high, which could be attributed to the 2011 revolution. The other factor that is important for social enterprises to sustain their work, is that there should be more support from ISOs, whether technical and financial support, or support in building awareness and networking among the social enterprises (Abdou & El-Ebrashi, 2015).

Regarding Intermediary Support Organizations (ISOs), a policy paper developed

by Kharas & Abdou (2012) argues that Egypt needs a new economic growth model that would encourage inclusive businesses, which is a global trend that is defined as “an entity with a sustainable business model, oriented towards providing affordable and quality goods and services to base of the pyramid (BOP) populations” (Kharas & Abdou, 2012, p. 2). Unfortunately Egypt is not taking much advantage of this due to many constraints. A survey was conducted by the Brookings Institution and the Gates Foundation in 2012, which analyzed 69 Egyptian social enterprises, found that only 9 of them had the potential to expand and scale up and all the social enterprises surveyed highlighted that they face problems due to bureaucracy and the legal system in the country (Kharas & Abdou, 2012). The policy paper by Karas & Abdou (2012) suggests that there needs to be many reforms to allow for inclusive businesses to operate and to have stronger ISOs. Moreover, many stakeholders, such as civil society, the media and education in business schools play an important role in creating the awareness needed for inclusive businesses (Kharas & Abdou, 2012). In Egypt, IBs take many legal forms, including: cooperatives, companies, NGOs, ISOs and hybrid organizations that support small enterprises, including social enterprises, however the Egyptian law has a lot of restrictions for each form and that is why this sector is underdeveloped (Kharas & Abdou, 2012).

A positive phenomenon in Egypt is that there is a growing trend and belief in entrepreneurship; simultaneously there is strong dissatisfaction amongst youth with the lifestyle and the availability of affordable housing, goods, transportation, thus there is a change in the attitudes of youth, which seemed more evident after the recent uprising in 2011. This will increase the emergence of social entrepreneurs in the region (Kharas & Abdou, 2012).

Characteristics and Motivation of Egyptian Social Entrepreneurs

As previously established, the main difference between a traditional entrepreneur and a social entrepreneur is that the former is driven by money and the latter is driven by philanthropy. The motivation to create value for society, rather than gain value is the main difference between traditional entrepreneurs and social entrepreneurs (Ghalwash, Tolba & Ismail, 2017). However the context in developing countries differs from developed countries, as they face different issues such as poverty, illiteracy, lack of political will, poor education, corruption, etc. Hence, it needs certain characteristics for people in developing countries to be motivated to establish social enterprise ventures with all the issues and challenges they are facing. Through an exploratory qualitative study that was done by Ghalwash, Tolba & Ismail (2017), the characteristics and motivations of social entrepreneurs across five different social ventures from different sectors in Egypt were examined. Those five social entrepreneurs were selected from another 20 social entrepreneurs who have the following criteria:

- Innovative organizations that are tackling certain social problems that have not been tackled before and have achieved social and economic impact;
- The founders of the social ventures show high leadership and creativity;
- The founders recognized an opportunity and took action to start a new social venture;
- The founders addressed challenging problems, such as poverty.

Regarding the characteristic of social entrepreneurs, the study identified five key concepts that describe social entrepreneurs' characteristics, which are: entrepreneurial mindset, compassion & humanitarian aspects, innovation, risk taking, perseverance.

1. Entrepreneurial mindset: They use their entrepreneurial skills to find social problems and create innovative solutions to address them. They provide new business techniques and models to create social value. Discovering social opportunities is usually triggered by past experiences. All of them faced personal social issues their enterprises addressed.
2. Compassion & Humanitarian aspects: This is an important aspect as it explains social entrepreneurs' drive towards social change rather than profit. They create sustainability by empowering their communities. They are compassionate, empathetic and understanding and get their reward or compensation by benefiting others. Their social responsibility is their main motive. It is suggested that this social intelligence is deeply embedded, thus they are born with these talents and they allow them to grow through the different stages of their lives.
3. Innovation: Egyptian social entrepreneurs create new products and services, business models and processes. All those interviewed showed that they initiated new ideas that address a social issue.
4. Risk taking: More risks in developing countries especially in the social sector and also without an incentive of a profit reward. People are also resistant to change. The power of youth is underestimated in Egypt, especially when it is about big projects that want to have big changes in the community or social life and traditions, etc. Those interviewed took the risk and challenged social norms and family restrictions and solved their problems without assistance from the government.
5. Perseverance: They persisted regardless of the difficulties and challenges- like bureaucracy, corruption, etc.

As for the motivation to start a social enterprise in Egypt, the study clustered the different points that motivate social entrepreneurs into two main aspects which are: taking the initiative to start and having the persistence to continue.

1. Taking the initiative to start

The current social problems and challenges is a major factor that affects the motivation to start a social venture in Egypt. The social entrepreneur must have the desire to solve unmet social needs and the desire to change society, and thus this will lead them to identify opportunities and find innovative solutions. “ The main driver for social entrepreneurship is the social problems being addressed” (Ghalwash, Tolba & Ismail , 2017, p.285). Another factor that affects social entrepreneurs to take the initiative to start is their inspiration, which is affected by their exposure to different experiences. Philanthropy plays an important role in Egypt, as it is assumed that it could be related to religion and wanting to help others. Finally, personal experience is believed to be a strong motive that affects social entrepreneurs to take the initiative to start. For example, someone who was forced into a certain college by his parents that he was not passionate about (such as Engineering) decides after graduation to have a social venture in education, to educate secondary students on social-emotional intelligence and discovering their identity and passion from a young age. This was actually a cause of his own personal experience.

2. Having the persistence to continue: The study shows that the person’s social networks and relations, in terms of support from their friends, colleagues and family is a huge reinforcement in driving their persistence to continue. Such reinforcement comes from encouragement, emotional and physical support and their access to finance (Ghalwash, Tolba & Ismail, 2017).

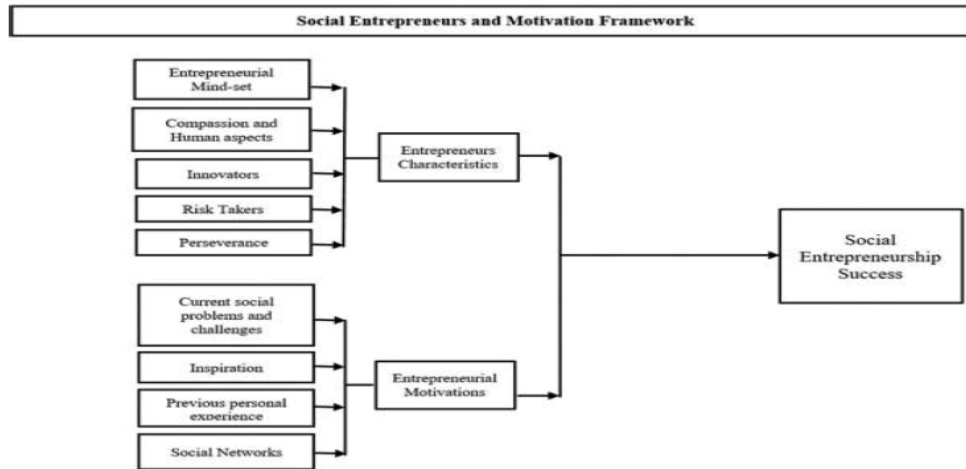


Figure 1. The conceptual model or framework for social entrepreneurs and their motivations.

Source: (Ghalwash, Tolba & Ismail, 2017, p.290)

It has been established that all social entrepreneurs have the same characteristics, but there could be additional character traits of social entrepreneurs who serve social needs in developing countries that have poor transportation and financial infrastructure, bureaucracy, a weak regulatory environment etc. Perserverance is also a key fundamental characteristic.

This study on the charactersitics and motivation of social entrepreneurs in Egypt is very critical for my current study as it presents a base of the material that is needed to have effective social enterprise education. The charctersitics of students we are seeking to develop who can become social entrepreneurs upon graduation and thus the curriculum and the material to be developed would be tailored to develop such characterisitics. Moreover, certain aspects will be capatilized upon to create the motivation for students to start a social venture. Giving them certain oppourtunities to capitalize on their past experiences, understanding in depth the current social problems present , the challenges they can face in the environment and local context, and then giving them the learning

environment that would enable them to use their developed skills, talents and characteristics to think of innovative solutions to such social problems and utilize their social networks. Educators should focus on the important social issues in the country that are top priority. I believe that the study by Ghalwash, Tolba & Ismail (2017) was a good model to set the foundation for future studies on social entrepreneurship education and how to train and encourage students to become social entrepreneurs.

There have been an increase in the awareness of the importance of entrepreneurship education among higher education institutions, although most of them are focusing on business entrepreneurship, rather than social entrepreneurship. From 23 private universities in Egypt, initiatives include the launch of the American University in Cairo's (AUC) Venture Lab , the recent transformation of AUC's old campus to a hub for technology start-ups, in addition to the entrepreneurship courses that AUC is currently offering. There are also entrepreneurship programs in the British University in Egypt (BUE) , The German University in Cairo (GUC) and Nile University (NU). These universities also have student-run entrepreneurship clubs, business and entrepreneurship competitions, and boot camps. Other western universities, such as the Massachusetts Institute of Technology (MIT) have also initiated some programs for the Middle East region, such as: *Enterprises Forum Pan Arab start-up competition* (Abdou & El-Ebrashi, 2015). These are all great initiatives to increase the awareness on both entrepreneurship and social entrepreneurship amongst Egyptian youth, which will affect the growth of social enterprises in Egypt.

Universities have a role in providing a theoretical understanding of the subject, which seems that it deals mostly with action. So, what is the most important aspect of entrepreneurship, the action or the process that it occurs? I believe it should be a mixture of both and it is the role of the university to provide both theoretical knowledge as well as

opportunities for practical applications, for example by having students work with entrepreneurs or people that are initially establishing a new start-up.

Chapter 3- Research Methods

In this chapter, the research methods employed in this study are explained, as well as the context, population and sampling of the study. Moreover, a detailed explanation of the research design, the instruments and tools developed as well as the data collection steps and analysis techniques will be discussed.

Research Design

The research employed a mixed methods “Convergent Parallel design” to collect both quantitative and qualitative data. According to Creswell (2012), “a mixed methods research design is a procedure for collecting, analyzing, and mixing both quantitative and qualitative methods in a single study or a series of studies to understand a research problem” (p. 535). It assumes that using both quantitative and qualitative methods provides a better and more in-depth understanding of the research problem and questions. Following a convergent parallel design, quantitative and qualitative data were collected simultaneously, using a newly developed survey for students enrolled in the entrepreneurship courses, as well as three newly developed interview protocols for faculty, students and graduates. Both data sets were then analyzed separately and findings were compared to see the similarities and differences. “A basic rationale for this design is that one data collection form supplies strengths to offset the weaknesses of the other form, and that a more complete understanding of a research problem results from collecting both quantitative and qualitative data”(Creswell, 2012, p.540). Using quantitative and qualitative approaches, plus including faculty, students and graduates

would enable the triangulation of data, thus the validation of its findings (Creswell, 2012).

The Context and Research Setting

This research focused on undergraduate students taking entrepreneurship courses, faculty members teaching these courses and graduates who had previously taken the entrepreneurship courses, in a private university in Egypt. The School of Business has been giving entrepreneurship courses for the past four years since 2014. There are six entrepreneurship courses offered for business major students who are specializing in Entrepreneurship and five courses for students majoring in other disciplines who wish to minor in entrepreneurship. The Social Entrepreneurship course is a requirement for those concentrating in entrepreneurship but one of the options to choose from for those minoring in the discipline. Moreover, there are other entrepreneurship initiatives such as the Center of Entrepreneurship, Venture Lab and Entrepreneurs' Society. These are part of the formal education, as they are practical applications of the subject. Figure 2 summarizes the requirements for business students who wish to major/ concentrate in entrepreneurship and students majoring in other disciplines who wish to minor in entrepreneurship.

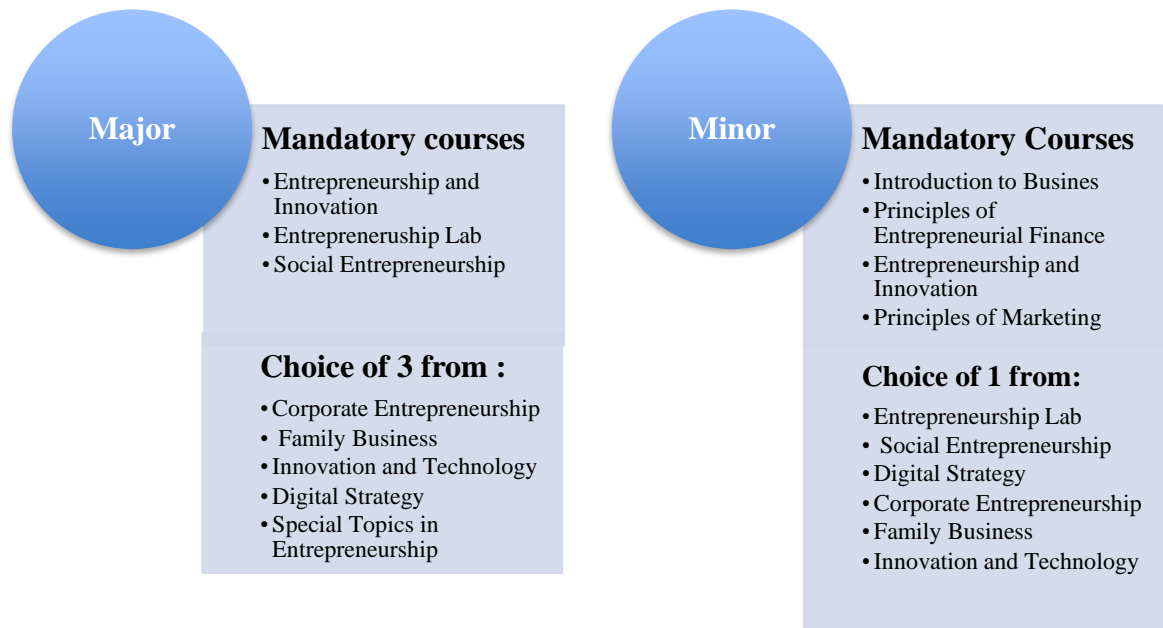


Figure 2. Entrepreneurship major and minor requirements

Based on the analysis of the program's offerings from the university's catalogue, a brief description of all the entrepreneurship courses offered is illustrated in figure 3. As there was no access to the full syllabus of all the courses, thus the analysis of the learning outcomes of the courses was dependent mostly on the program's offerings on its website. In addition, the director of the entrepreneurship unit in the school of business, who is also a professor of entrepreneurship and strategy agreed to be included in this study as a key informant. He informed me about the different entrepreneurship programs present in the university, which enabled me to better understand the context and be accurate in designing the tools.

Entrepreneurship and Innovation

A core requirement for all business majors. Prepares students with basic entrepreneurial skills for startups or corporate work. Focuses on stages of business formation, feasibility studies, problems entrepreneurs face in the Middle East.

Social Entrepreneurship

To develop a business model around a societal challenge, raise capital & apply design thinking for a social venture. Expose students to social entrepreneurs who address social problems.

Entrepreneurship Lab: Developing and launching a new venture

A “hands-on” process to put together a business plan for a start-up venture. It concentrates on the mechanics of constructing business plans for a new concept that student teams developed.

Family Business

The challenges facing family businesses. Case studies of successful family business as well as failures. Will look into organizational behavior issues and its effect on business sustainability.

Principles of Entrepreneurial Finance

Learning how to finance new entrepreneurial ventures. Looking at perspectives of the entrepreneur and investor with special emphasis on the venture capital process.

Corporate Entrepreneurship

Understanding what are renowned corporates and why there is a need for developing corporate venturing and how to sustain competitive advantage within the business world.

Innovation and Technology

The role of innovation and technology in entrepreneurial organizations. The different types of innovation, the concept of intellectual property rights and new product/service development.

Digital Strategy

The course will expose students to digital tools and tactics for creating effective digital innovations & build digital platforms that will boost customer engagement.

Figure 3. Entrepreneurship courses offered in the examined university¹

¹ The source of this information is from the 2018 website of the private institution.

Location of the Researcher

As a graduate of the researched university, where the researcher obtained her Bachelor's degree from the school of business, thus knew some of the faculty and is familiar with the system of the school, this may influence the bias in the research. However, to mitigate the bias, the sample of students and faculty were those enrolled in the entrepreneurship program, which is a new program that the researcher was not familiar with. Moreover, the faculty interviewed were not teaching at the time the researcher was a student at the researched university.

Population and Sampling

A total of 106 students completed the survey, which includes 27 students from the pilot test. In addition to 4 faculty members teaching the entrepreneurship courses, 1 key informant, 7 students and 5 graduates who took the entrepreneurship courses participated in individual interviews. Convenience sampling was used in the closed ended survey. As for interviews with faculty, graduates and students, the research used one-on-one, semi-structured interviews. Purposeful sampling was used to select the sample of faculty, students and graduates for the interviews. Students were selected from those in business majors who are specializing in entrepreneurship and those majoring in other disciplines, with a minor in entrepreneurship. There were 3 different entrepreneurship courses offered during this semester, with one of them having 5 different sections, resulting in a total population of 200 students enrolled in the 7 courses, bearing in mind that some students may be taking 2 different entrepreneurship courses during the same semester.

Process of Data Collection

For the quantitative data, consent was taken from the professors to take 10 minutes at the beginning of the class to inform students the basis of the study and the anonymity that it entailed. They were then asked if they were willing to participate by

filling a 5-7 minute online survey. Students were given an online link for the survey on Google forms, which also included the consent form as a requirement to check before proceeding with the survey.

As for the qualitative data, a total of 40 emails were sent to students and graduates whom were enrolled in the previous semesters, in which 7 students and 5 graduates agreed to conduct the individual interviews. Students' and graduates' emails were obtained from the administrative office in the school of business. For the faculty, emails were sent to the 5 professors teaching the entrepreneurship courses this semester, of which 4 agreed to conduct the interview, as well as administer the survey for their students at the beginning of their class.

Table 2 and table 3 highlight the number, demographics and distribution of the participants in both the quantitative and qualitative studies.

Table 2. Number and demographics of participants in the quantitative survey

Gender (n=106)		Class (n=106)		
Female	Male	Sophomore	Junior	Senior
67	39	12	47	47

Table 3. Distribution of participants in the qualitative interviews

Category	Gender	
	Female	Male
Faculty (including director of unit as a key informant)	1	4
Students	2	5
Graduates	2	3
Total	17	

The quantitative data from the survey was also divided into different majors as shown in table 4 below:

Table 4. Distribution of participants by schools in the quantitative survey (n=106)

Major	Frequency
Business	43
Entrepreneurship	5
Marketing	6
Finance	15
Accounting	6
Engineering (Architectural, Construction, Electronics, Mechanical)	9
Computer Science	2
Economics	3

Graphic Design	5
Integrated Marketing Communication	12
Management of Information Technology	3
Political Science	2
Psychology	2

As for the reasons for taking the entrepreneurship courses, responses of the participants were summarized in figure 4 below. The majority of the participants in the survey were taking the entrepreneurship course as core for business majors or a capstone requirement for other majors. Only 29.3% from the total sample were either majoring or minoring in entrepreneurship.

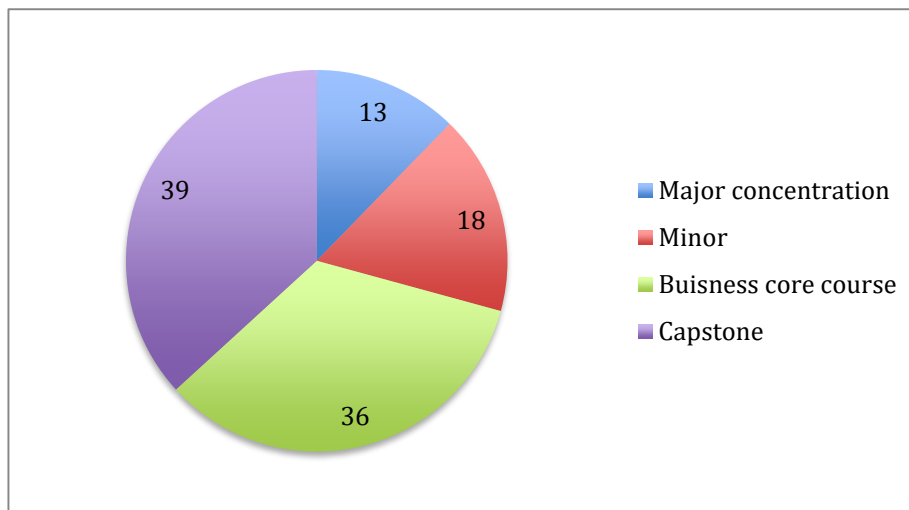


Figure 4. Reasons for taking the entrepreneurship courses (total n=106)

Quantitative Data Collection

Instrument.

The quantitative tool, EEPS (Entrepreneurship Education Perception Scale) developed had two sections. Section 1 asked students to respond to a few demographic items (gender, class, major, reasons for taking the entrepreneurship courses, the number of entrepreneurship courses previously taken and currently enrolled in). Section 2 was a Likert scale, which included a 21-items measure. Since students' perceptions of the entrepreneurship courses can vary depending on their purpose of higher education, their entrepreneurship intent and motivation, experience, the courses they took and how they were taught, involvement in activities related to entrepreneurship as well as practical applications, these 21-items were divided into 5 sub scales/themes as follows:

1. Purpose of higher education;
2. Student intent, motivation and skills;
3. Students' perceptions of program offering;
4. Social dimension of entrepreneurship education;
5. Activities

Students in this section were asked to rate the extent to which they agreed or disagreed with the 21 statements with a 6-point response format (1-Strongly Disagree, 6-Strongly Agree) (*see Appendix D*). The survey was developed based on the research questions and the 5 different themes. For validation, the thesis supervisor and review committee reviewed it. Moreover, a pilot test was conducted to establish preliminary validity of the scale. The survey was named Entrepreneurship Education Perception Scale (EEPS).

Pilot Test.

The first step was conducting a pilot test of the developed survey after receiving approval from the Institutional Review Board (IRB). The purpose of the IRB is to ensure that the research project involves no risks to human subjects and has the adequate provisions made for obtaining informed consent and ensuring confidentiality. The purpose of the pilot test was to establish preliminary evidence of the reliability and validity of the scale. The pilot study was conducted in one of the entrepreneurship classes (n=27). The process of data collection was the same as the modified survey mentioned in the process of data collection section above. After administering the pilot test, there were slight modifications to address the concerns of some students, whom were unable to effectively answer some of the questions as this was their first entrepreneurship course and it was administered during the first half of the semester. A question was thus added after the second and third subscales or themes, asking if they were able or unable to answer the previous section accurately, taking into account the number of courses they took and the time of the semester the survey was conducted in. Another multiple choice question was added after the second and third subscales as well, asking for the factors that affected their answers, such as the number of entrepreneurship courses taken, extra curricular activities, other courses taken, individual initiatives. Thus, responses of participants to these two additional questions after sub section 2 and sub section 3 were a total number of 79 respondents not 106 as they were added after the pilot test, so did not take into consideration the 27 respondents in the pilot test. Moreover, the question in the pilot survey in section 1 that asked about the number of entrepreneurship courses they took did not differentiate between the courses they previously took and the courses they are currently enrolled in. This was modified and divided into 2 questions, to take into account this differentiation. At the end of the survey an optional, open -ended question was added to ask students if they had any comments that they would like to share, that the survey did

not address or any other observation they might have.

The modified developed survey was administered with students in the other entrepreneurship classes. Numeric analysis was then conducted using SPSS. Data collected from the pilot test was included in the results of this study, as there were no changes in the 21-item Entrepreneurship Education Perception Scale (EEPS) questions themselves.

Qualitative Data Collection

For the qualitative study, three semi- structured, open- ended interview protocols for students, faculty and graduates were developed (*See Appendices E,F,G*). A total of 17 interviews were conducted, 4 with faculty, 1 key informant before designing the tools, 7 with students and 5 with graduates, in order to obtain in-depth information about their perception of the effectiveness of the entrepreneurship courses, in light of the research questions. Interviews were transcribed, coded and sorted out into themes relevant to the research questions. Out of the 7 students interviewed, 3 were minoring in entrepreneurship and majoring in different disciplines (Economics, Computer Science and Architectural Engineering), 2 were Business majors concentrating in Entrepreneurship and 2 took one entrepreneurship course as a core requirement but were not minoring nor majoring in it. As for the 5 graduates interviewed, 2 had obtained a degree in business, concentrating in entrepreneurship, 2 minored in entrepreneurship and one was a finance major who took one course in entrepreneurship as a core requirement. A thematic analysis was then conducted to extract the most relevant data.

Analyzing the collected data was built upon the research questions, whereby each research question was divided into three main themes, that were then matched to the different categories (faculty, students and graduates) as shown in figure 5 below:

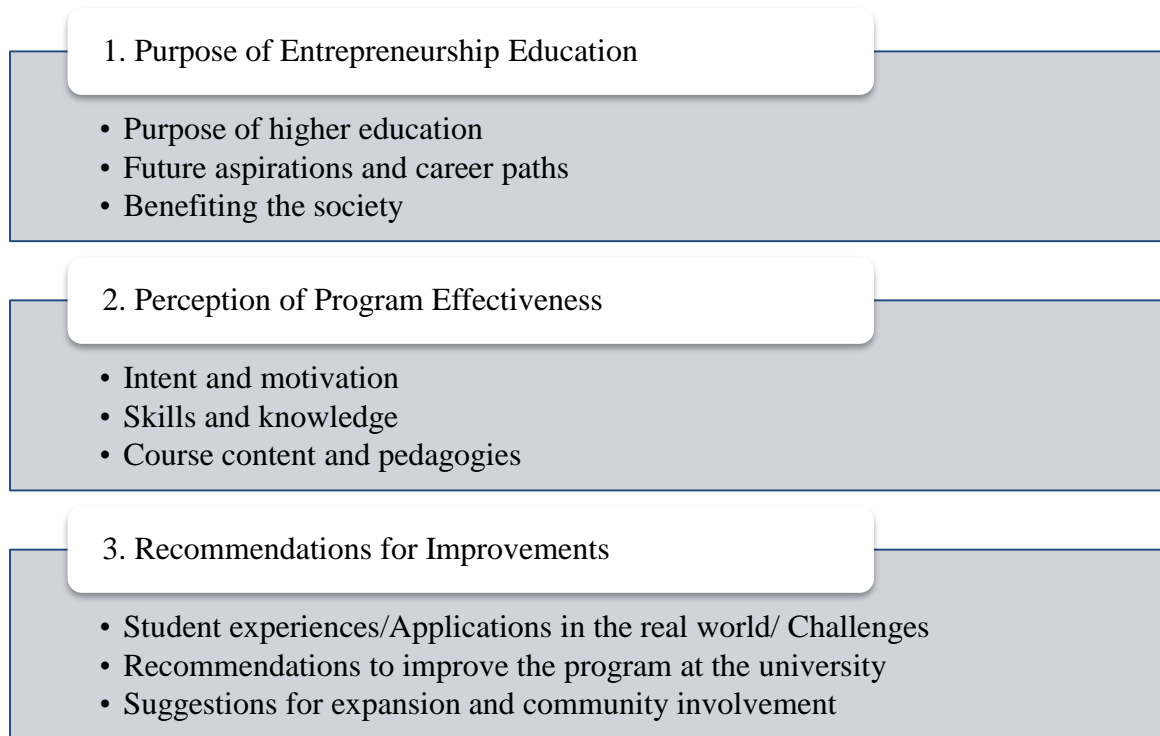


Figure 5. Thematic analysis in relation to the research questions

Key for the codes of the interview participants.

To maintain confidentiality of the participants in the interview, the following codes were used for citations of the participant's quotes. (*See Appendix H for the profiles of the participants*).

F1= Faculty1, F2=Faculty 2, F3=Faculty 3, F4= Faculty 4

G1= Graduate 1, G2=Graduate 2, G3=Graduate 3, G4=Graduate 4, G5=Graduate 5

S1=Student 1, S2=Student 2, S3=Student 3, S4= Student 4, S5= Student 5, S6= Student 6, S7= Student 7.

Chapter 4: Findings and Analysis

Quantitative Findings and Analysis

The participants (n= 106) were students enrolled in the entrepreneurship courses during the Spring semester. The Cronbach's alpha of the EEPs scale was 0.876, which indicates a high internal reliability in the survey. All 106 respondents were computed in the internal reliability test. As for the validity of the survey, it was established by the pilot test that was conducted in one of the entrepreneurship classes (n=27), whereby the survey was slightly modified to address the students' concerns. Moreover, as the survey (EEPS) was part of the proposal, a review committee, composed of my thesis supervisor and two other members reviewed it, which further ensured the validity. In addition, the triangulation of data, using mixed methods in addition to three different sectors in the participants (faculty, students and graduates) validates its findings.

When assessing the correlation between the number of entrepreneurship courses taken by the students (n=106) and the students' perception of the overall effectiveness of the entrepreneurship courses, the results were statistically insignificant ($P= 0.870$). It is important to note, however, that a large number of students reported taking only 1 course in total.

The data was also divided into all of the subscales and the correlation between the number of entrepreneurship courses taken by the students and each question in the scale of the different sections of the survey was measured. The only statistically significant correlation was in the intent on establishing a startup upon graduation ($p=0.001$) and setting a detailed business plan on their intended startup company ($p=0.013$). On the other hand, the skills and knowledge needed to establish their own enterprise and the skills and knowledge needed for employment, both had a statistically insignificant

correlation with the number of entrepreneurship courses taken ($p=0.465$ & $p=0.410$). It is important to note that 50.9% of the sample took only 1 entrepreneurship course. Figure 6 below shows the number of entrepreneurship courses students took.

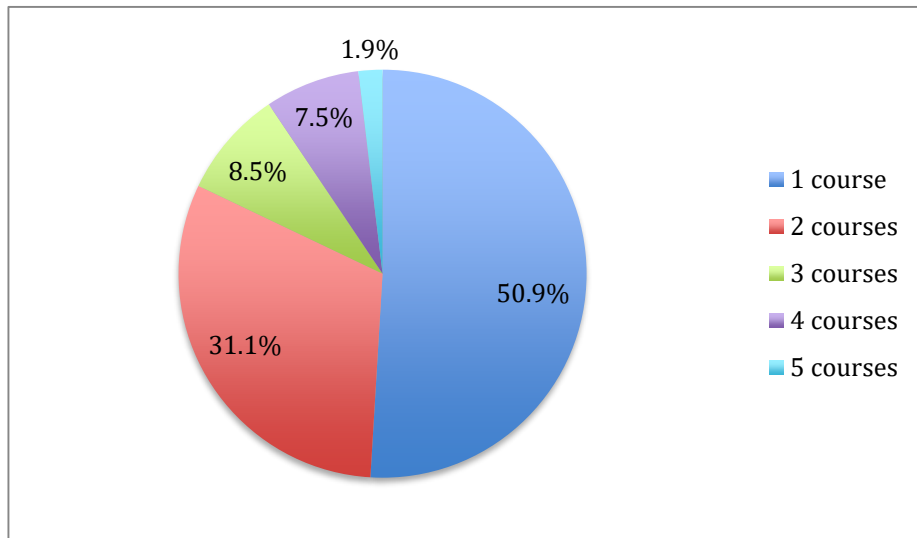


Figure 6. Total number of entrepreneurship courses students have taken

When analyzing the participants' answers to the questions in section 2 of the survey, all the questions asked how the entrepreneurship courses affected their perception on the five themes or subscales. Figures 7,8,9,10 and 11 show the percentages of student responses to the 5 themes related questions: Purpose of higher education; Student intent, motivation and skills; Students' perception to program offering; Social dimension to entrepreneurship education and Extra curricular activities.

1. Purpose of Higher Education.

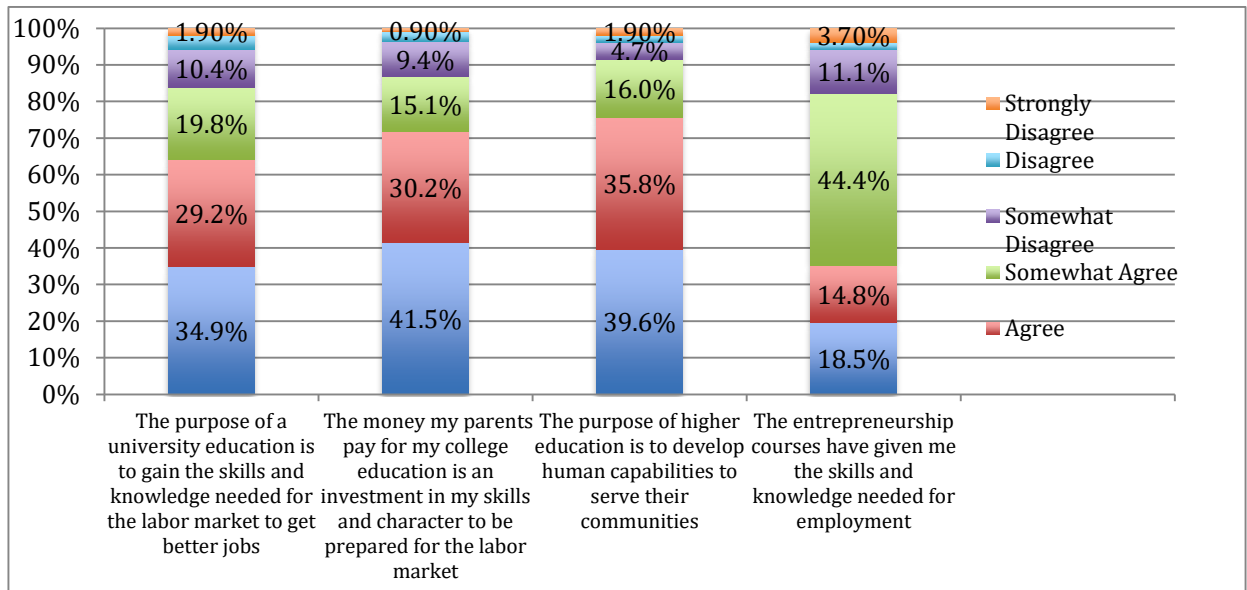


Figure 7. Students' perception on the purpose of higher education

2. Student Intent, Motivation and Skills.

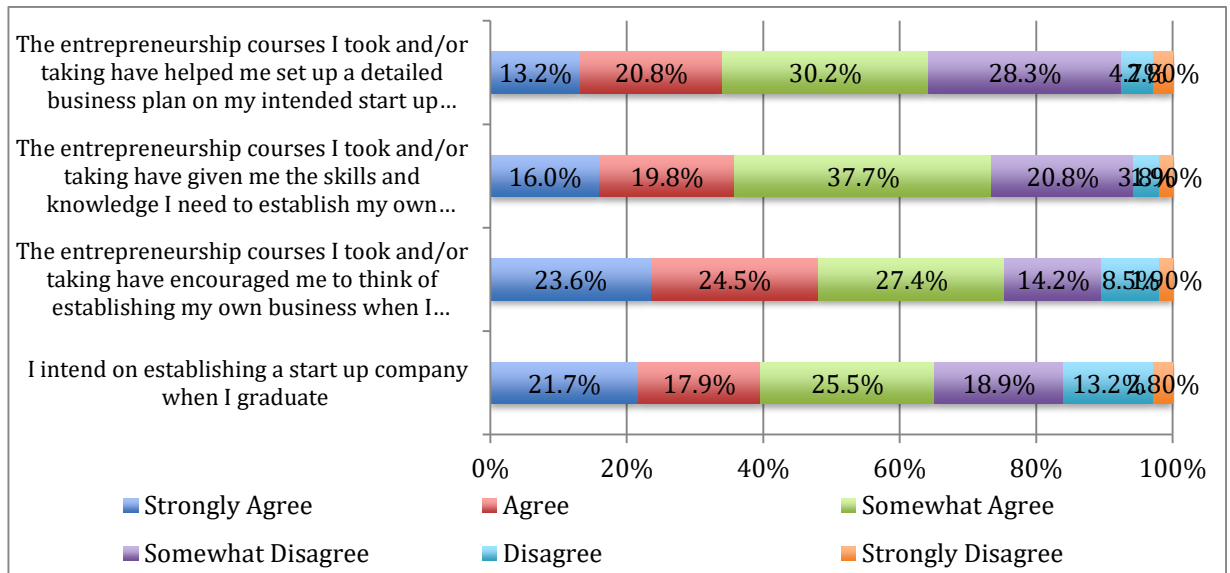


Figure 8. Students' perceptions on the level of intent, motivation and skills

It is worth noting that in the modified survey after the pilot test, two questions were added after this section - Student Intent, Motivation and Skills, one asked about the ability of the students to accurately answer the questions in this section depending on the number of entrepreneurship courses they have taken and being in the first half of the semester. The other question asked students about the factors that influenced their responses to questions in this section. There were 79 responses to the first question as the number of students in the pilot test were not included and it showed that the 63.9% said that they were unable to accurately answer or decide on the answers to questions in this section as it was the beginning of the semester and it was their first entrepreneurship course. As for the factors affecting their answers, table 5 below shows the different factors of 79 respondents. Almost half of the respondents emphasized that individual

initiatives or their personal background was the main factor that affected their answers on their intent, motivation and skills to have a startup upon graduation.

Table 5. Factors affecting students' perception on the level of intent, motivation & skills

Factors affecting answers in sub-scale 2 questions	Percentage of respondents (n=79)
The no. of entrepreneurship courses taken	28.6%
Extra Curricular activities	20.8%
Individual Initiatives or Personal Background	48.1%
Other non-entrepreneurship courses taken	13.0%
Professor	1.3%
The entrepreneurship course currently enrolled in	1.3%

3. Students' Perceptions of Program Offering.

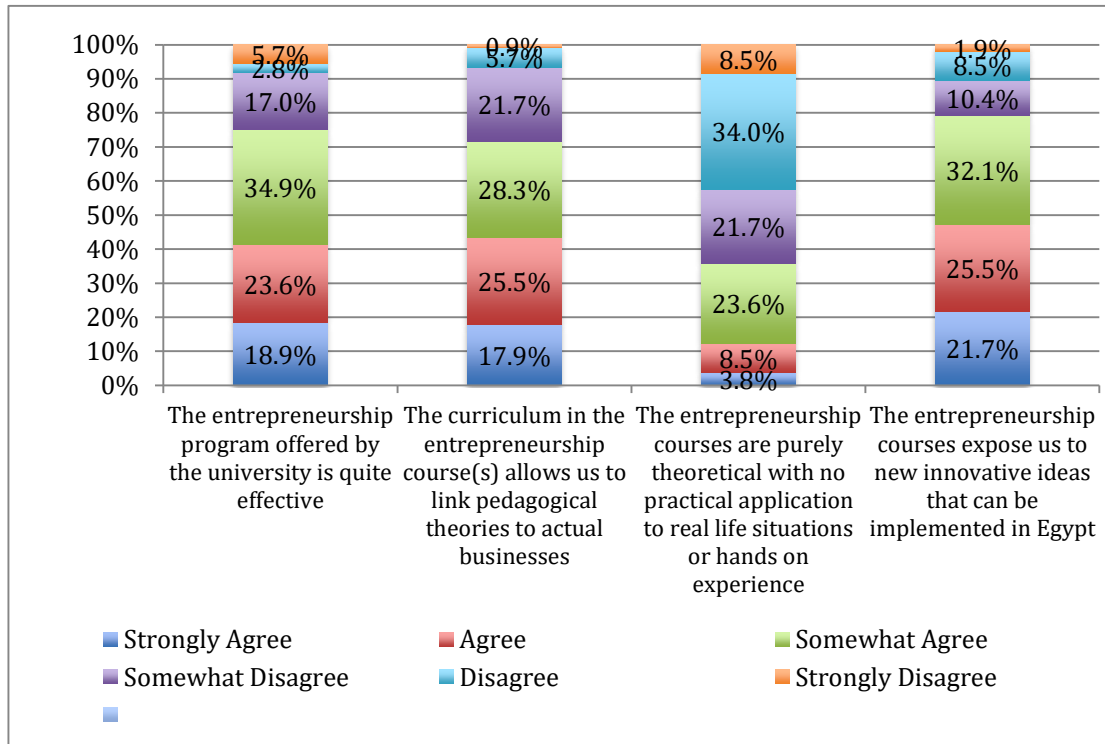


Figure 9. Students' perception of program offering

Similarly, the same two questions were added after this section as well –Perceptions of program offerings. Out of the 79 respondents, 55.2% said that they were unable to accurately answer or decide on the answers to questions in this section as it was the beginning of the semester and it was their first entrepreneurship course. As for the factors affecting their answers, table 6 below shows the different factors of 79 respondents.

Table 6. Factors affecting students' perception of program offering

Factors affecting answers in sub-scale 3 questions	Percentage of respondents (n=79)
The no. of entrepreneurship courses taken	40.3%
Extra Curricular activities	16.7%
Individual Initiatives or Personal Background	37.5%
Other non-entrepreneurship courses taken	12.5%
The entrepreneurship course currently enrolled in	1.4%

4. Social Dimension of Entrepreneurship Education.

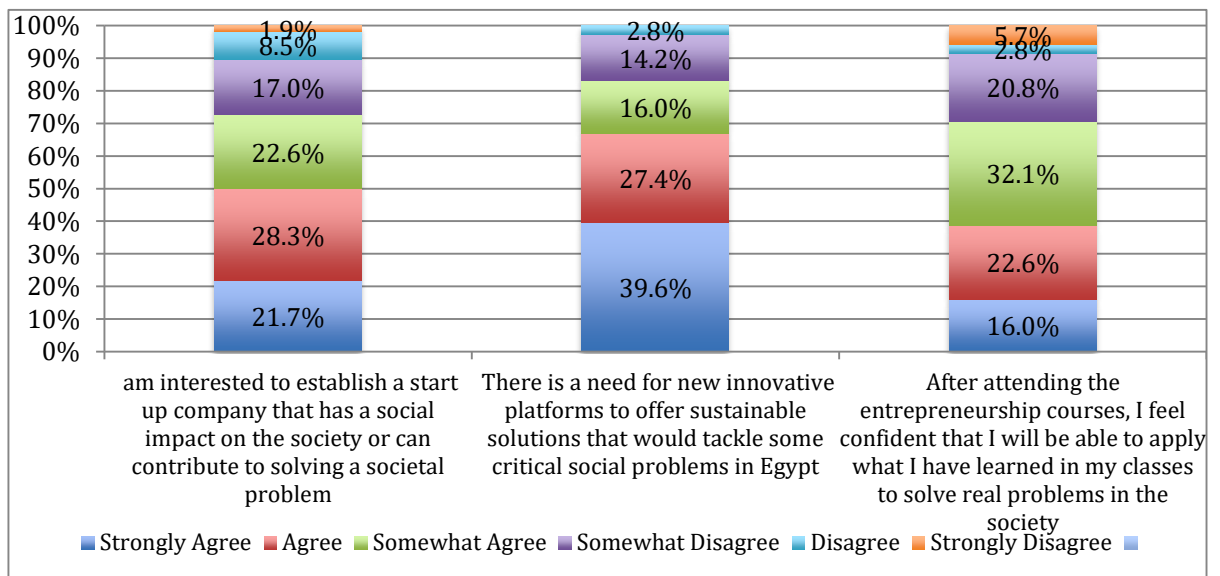


Figure 10. Students' perception on the social dimension of entrepreneurship education

5. Extra Curricular Activities.

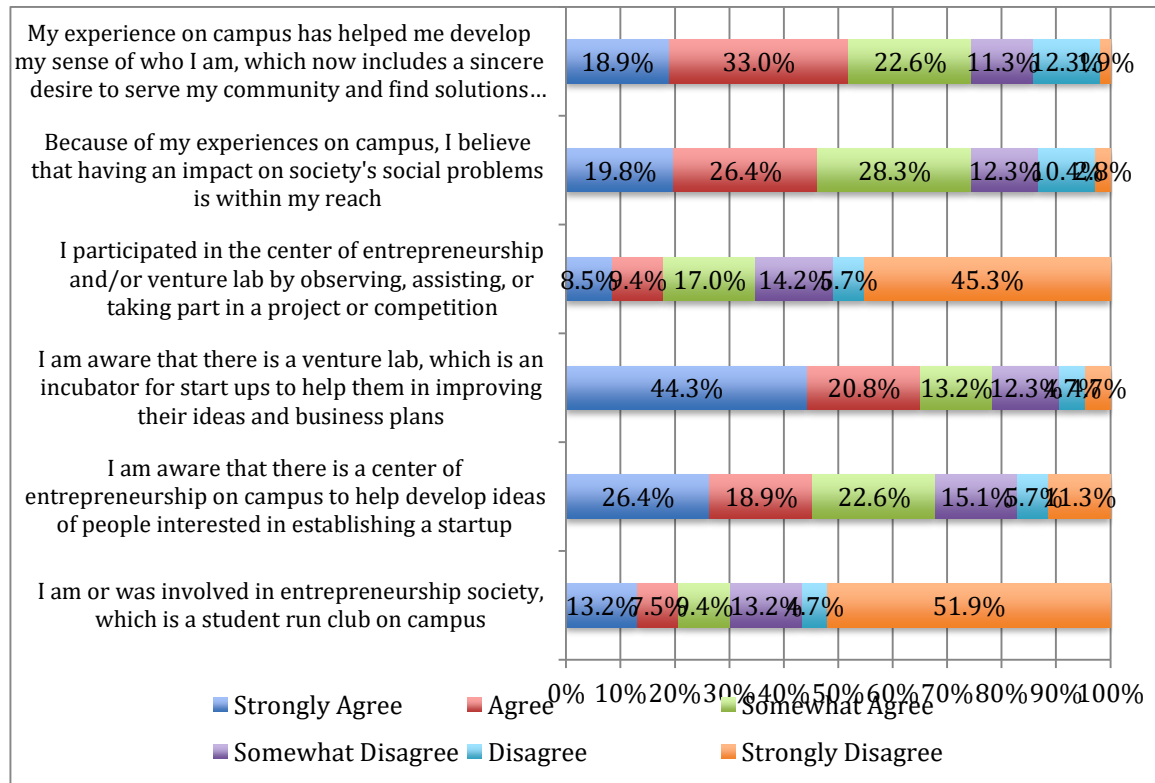


Figure 11. Students' perception on the extra curricular activities

To summarize the quantitative part of this study, it could be concluded that while the entrepreneurship courses taken could influence students' intent and motivation for starting an enterprise, as well as setting a detailed business plan on their intended startup, since these were the only statistically significant factors in correlation with the number of courses students took, however it does not give them enough skills and knowledge to do so realistically. This requires practical experience. To support this statement, a few students provided qualitative feedback in the open -ended question that was added at the end of the survey which highlighted the following quotes:

It is not only the content of the entrepreneurship courses that helped built my character, but the interactions between the student -professor and student-student has greatly aided the process.

Until now the entrepreneurship courses I took did not offer the edge of knowledge I am looking for to cover the lack of experience and knowledge about the real world. The lack of knowledge of what steps to take in the real world is what is preventing me from executing the business ideas I have. I have fear of failure because of lack of knowledge and experience and the inability to make studied predictions. Also, we need a course of networking because it is one of the major factors of success in this entrepreneurial world.

The entrepreneurship courses offered are thorough for an undergraduate program, however I am left feeling more comfortable pursuing a Masters degree than just holding an undergraduate degree, so classes are thorough however tend to leave me wanting/needing more.

I believe that entrepreneurship is a god given skill that can't be taught. It can be refined and improved, but not physically taught except through real life experience, which is what the program should be more focused on (as opposed to the theoretical).

Qualitative Findings and Analysis

The findings show the different as well as similar perspectives of faculty, students and graduates regarding the purpose of higher education and whether these perspectives are aligned with the human capital approach or the human rights approach, which would further explain their intent from their college degree, their reasons for taking the entrepreneurship courses, their future aspirations and career paths. Findings also show the extent to which these perspectives inform their perceptions on the entrepreneurship and social enterprise program in the university in terms of giving them the motivation and skills to establish their own enterprise and/ or the entrepreneurial skills needed for the labor market. Also, the extent to which they are interested in having a social enterprise

that would tackle a societal problem compared to a business enterprise, whose only aim is profit. Finally, the challenges of the program will be discussed, in addition to recommendations on how to further improve it, as well as ways of practically applying these courses in the community and Egyptian universities.

Findings are displayed for each research question and the different themes under it for the three different categories in this study. Regarding the first research question which attempts to understand the purpose of entrepreneurship education in light of the different themes highlighted in figure 12 below, shows the perceptions of participants in regards to their purpose of higher education, their future aspirations and career paths, as well as how their education can benefit society.

Question 1: The purpose of entrepreneurship education.

Figure 12 summarizes how the three different themes in question 1 have been articulated by faculty, students and graduates. Looking further into the first theme, which is their purpose of higher education, the different perspectives of faculty, students and graduates are highlighted in figure 13 below. All faculty had similar perspectives regarding how they perceive the purpose of higher education, which was inclined more towards self development, discovering identity, exposure and engagement with society. All their responses reinforced that their perception was more towards the human rights approach in education, whereby the purpose of education should not only be to serve the labor market, but also to develop human capabilities and serve the community.

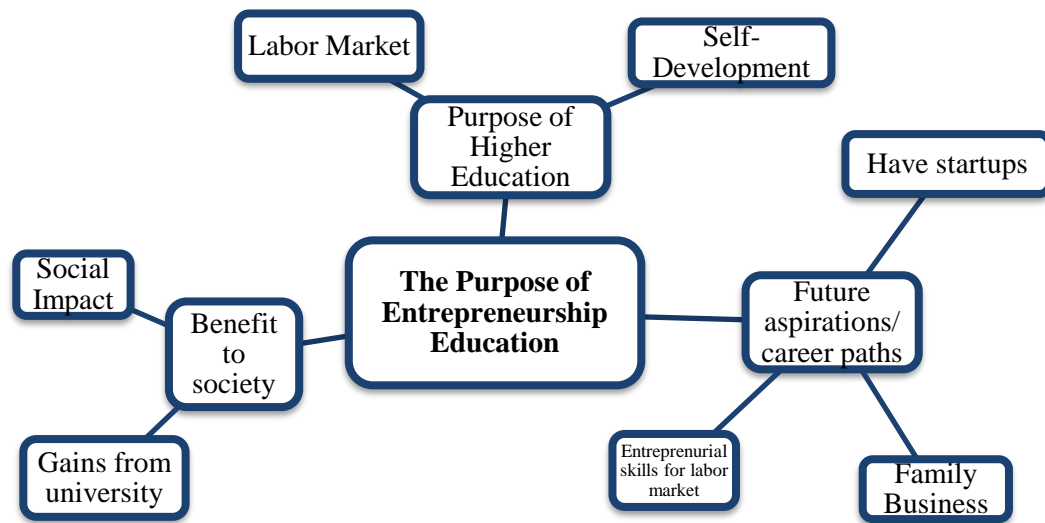


Figure 12. Map of the perception of faculty, students and graduates on the purpose of entrepreneurship education

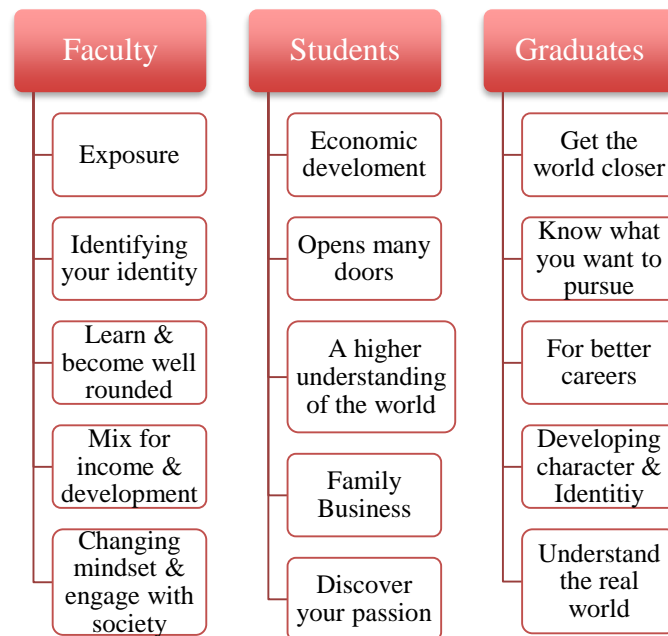


Figure13.Purpose of higher education for faculty, students and graduates

As was mentioned by several faculty members, that higher education widens the scope and a process of identifying one's self, as stated by F1:

It gives them exposure and helps them to develop their skills and it allows the individual to understand oneself. It gives an exposure to all the different opportunities and the challenges that people face, besides it provides the different know how on specific areas of specializations (F1).

This perception of faculty influences the entrepreneurship courses they teach, as not only do they explain the meaning and forms of entrepreneurship and the tools for developing an enterprise, but most importantly they facilitate and mentor students in exploring whether or not entrepreneurship is right for them, to understand their own capabilities and interests, hence discover the skills they need to develop themselves.

The human rights point of view it gives freedom to the students to express what they feel, what they want to know, what could be the learning

outcomes from the course. At the beginning of each course, I do a short exercise and ask them their expectations of the course. Because my perception could be different from theirs and different from the department's point of view, so it is also a human rights point of view that we design the course customized, putting into consideration that it does not violate the theories of education and taking into consideration also what is happening in education nowadays. The educator's role nowadays is a coach or mentor, it's the idea of facilitating especially that the information is available everywhere (F3).

Most of the students interviewed had a similar perspective to the purpose of higher education, where they expressed that the purpose of higher education is to understand the real world and discover their passion, however a few were more inclined towards the human capital theory which was that it opened doors for work opportunities. Graduates' perception was also mixed and influenced mainly by what they have seen in the real world after graduation, as stated by G3 and G2:

My degree is not about adding knowledge, it is about adding character and a way of seeking knowledge. I have been transformed in university, not just educated (G3).

A college degree is definitely an advantage in career life given the market (G2).

As for the future aspirations of students and graduates, which is the second theme that reflects their purpose of entrepreneurship education, it is divided into 3 main sub themes, which are: students' intentions from a college degree, graduates' career paths after graduation and reasons for minoring or majoring in entrepreneurship as highlighted in figure 14 below:

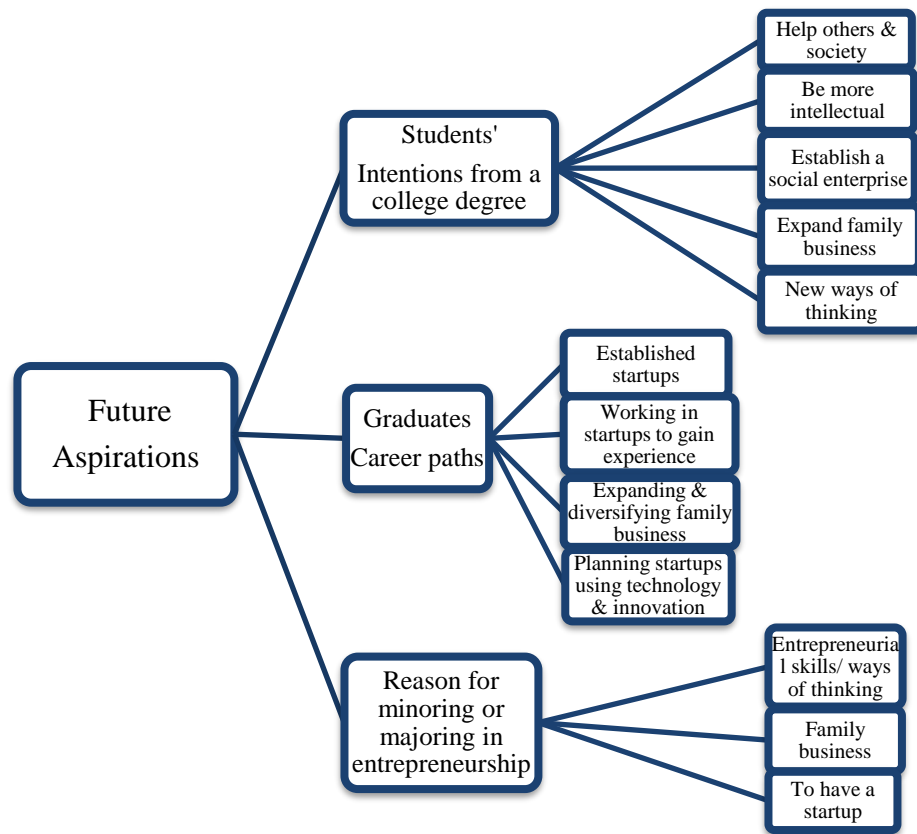


Figure 14. Future aspirations of students and graduates

Some of the interesting statements by students revolved around the practicality of entrepreneurship education, rather than only depending on courses in a classroom, which is emphasized by S3, a student who actually made a calculated decision on not to minor nor major in entrepreneurship, however has a clear vision of a social enterprise he plans to start upon graduation.

I believe that entrepreneurship is not something that you teach in a classroom. The setting of a classroom does not allow an entrepreneur to be created. The classroom can just be a way to inspire and open your eyes

about this field and then you can go outside to the real world where actual entrepreneurship happens and experience it (S3)

I would rather focus on something I can use like finance or marketing I can use concretely in something, rather than something as broad as entrepreneurship classes. To minor or major in entrepreneurship I don't think this is a degree, it's a waste of potential because only 3 courses are offered and these are things I can learn outside of the classroom and major in something concrete I can only learn in class (S3).

On the other hand, a few graduates thought otherwise, that actually the entrepreneurship courses they have taken in their degree helped them establish their own enterprises or in their work after graduation.

The knowledge I acquired from my college degree is what aided me to start a business in the best possible way (G5)

The last theme related to students' and graduates' perception towards entrepreneurship education is how they think their college degree could benefit society. This perception is summarized in figure 15:

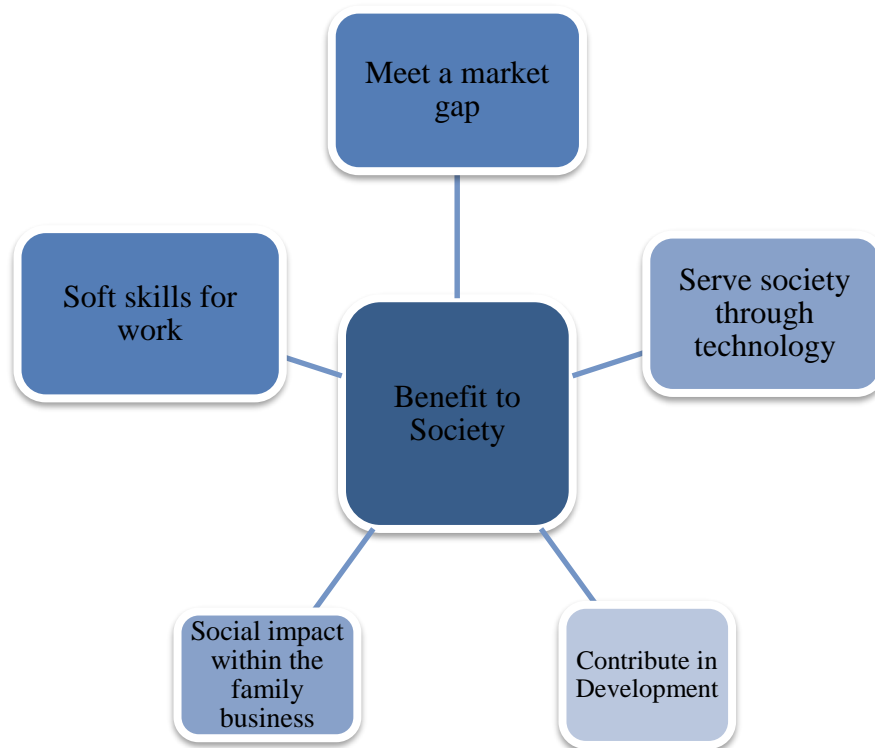


Figure 15. How students and graduates perceive their college degree benefits society

Some of the graduates have established startups after graduation, others are working in their family businesses, seeking ways to expand and diversify them, while others are still planning for their startups. When asked about the social impact they could have through their enterprises, a few have the wrong understanding of what a social enterprise entails, which is reflected by the following statement:

It's always hard to have this intersection between entrepreneurship and social entrepreneurship, since one you have to have an income to develop and be successful and at the same time, you want a social impact. So I feel you have to prioritize one over the other. I am thinking now of starting a

business, so I am thinking to have the income priority first, then the influence on society second| (G3).

It is clear that in order to say such a statement, either the person is unaware of the proper definition of social entrepreneurship, possibly did not take the social entrepreneurship course or has not grasped the concept, which is that the main objective of a social enterprise is the social impact it has in solving a societal problem, then the income and profit part is important to be able to sustain the business. Hence, starting a social enterprise should be for solving a social problem, rather than finding a way to make an existing (non-social) business have a social impact.

Question 2: Perception of program effectiveness.

Research question 2 attempts to understand how faculty, students and graduates perceive the effectiveness of the entrepreneurship education program in terms of giving them the needed skills, knowledge and motivation to establish their own enterprise. Thus, the three themes related to this question are: Intent and motivation; Skills and knowledge; and Course content and pedagogies. Table 7 highlights the different perspectives of faculty, students and graduates in these three themes.

Table 7. Faculty, students' and graduates' perception of the effectiveness of the entrepreneurship program

Theme	Faculty	Students	Graduates
Intent & Motivation	<ul style="list-style-type: none"> - Its a general trend nowadays amongst students to have a start up upon graduation, rather than work in a corporation. - The character of 	<ul style="list-style-type: none"> - 6 out of 7 intend to establish a startup, 2 of the 6 want to have a social enterprise. 1 of them wants to use entrepreneurial skills in developing an entity that exists. 	<ul style="list-style-type: none"> - 2 out of 5 had the motive to establish a startup before entering university, 2 had family businesses which they wanted to work in and expand after they graduate and 1

	<p>the facilitator/professor affects the motivation of the students to become an entrepreneur.</p>	<p>- All those who took the social entrepreneurship courses were extremely motivated to have some kind of social impact and the details of the course stuck in their head, because the professor depended on real life experiences, like bringing in social entrepreneurs from real life to speak with the students.</p>	<p>had the motive of having an innovative and unique model using technology, not just to have a business startup.</p> <p>-All agreed that the courses motivated them to have startups and think of innovative solutions. They perceived that the courses helped them to think of creating ideas and how to start a business.</p>
Skills & Knowledge	<p>- They are exposed to specific skills and concepts they have to be aware of and have to develop, like writing a business plan, working in a team, how to network, how to search for funding, what are the new ecosystem mechanisms available like incubators, venture capital and angel investors.</p> <p>- Its not enough through one course,</p>	<p>-Gives a good base of how to think and steps in starting a business.</p> <p>-Gives the skills to be analytical thinkers, how to evaluate opportunities.</p>	<p>-They perceive that the courses developed their way of thinking in a more entrepreneurial way.</p> <p>-There weren't enough courses. The requirements were 5 for the minor and 6 for the major and most of them complained that only 3 were offered in total and the others weren't offered. To fulfill the requirement, they ended up taking other courses or an</p>

	it should be so many other activities across the university.		independent study that they perceived to be irrelevant. -Others perceived that the courses gave them knowledge and basics, however it wasn't useful in using this knowledge in real life examples. All the graduates agreed that the courses were an eye opener, what not to do and what to do, however did not provide real skills, this needs experience.
Course Content & Pedagogies	<p>- Exposure to entrepreneurs, whether guest speakers or from the venture lab where they do an interview with entrepreneurs.</p> <p>-Projects to develop a full business plan, simulations; research in the library on specific industries, role plays, debates, field visits; they pitch their ideas at the end of the course in front of a panel of</p>	Doing a business model, case studies, having guest speakers, readings, simulation.	- Each course was different from the other and each professor has a different approach of teaching methodology from the other. For example, regarding the first course that is also required in the core requirements for business students, which is entrepreneurship and innovation, one graduate's

judges.	experience in it was that it was purely theoretical and depended on textbooks.
-They learn the business canvas, pivoting, the business model.	
-In the social entrepreneurship course, they need to have impact with minimum resources	- Others perceived that this same course is the base of all the other courses as it taught them how to do a business plan and find a market gap. This helped them think of new ideas.

Most faculty stated that it is difficult to measure students' intent and motivation on having a startup upon graduation, as well as whether the courses provide them with adequate skills to establish their startup, however they all agreed that it provides them with opportunities to do things innovatively and coaches them on how to think in an entrepreneurial way, in any venture they decide to pursue. Some of the most powerful statements by faculty were:

I can't say how much it does because I can't measure it, but it definitely has a positive impact on them, whether it is creativity, the entrepreneurial thinking, their motivation and intent, whether or not they do execute the startup or not (F2).

I was originally an entrepreneur for 31 years of my life, it would have saved me a lot of time to take these courses. It gives you the skills but it cannot provide the willingness. The idea of being willing to be an entrepreneur is something different. It is more or less contextual (F3).

When we are talking about entrepreneurship, it's not only about having a startup, we are talking about being entrepreneurial even if you are working in a large organization (F1).

It's not just about startups, it's about opportunity recognition, its about innovative methods and ways of doing things, in looking at problems and seeing them as opportunities, trying to find solutions out of the box. So this is one thing that we try to make it clear with our students. We provide them with opportunities to work in any industry (F1).

Most students did not yet see the impact the entrepreneurship courses had on them, regarding giving them the motivation and skills to establish a startup. This could be due to the fact that not all of them had yet completed all the requirements or courses in the entrepreneurship minor or major. Many of them already had the mindset of establishing a startup even before they entered university, while others believed that their engagement in extra curricular activities outside the classroom is what gave them the motivation and intent on establishing a startup, especially those who are motivated to establish a social enterprise. Graduates on the other hand, are aligned with the faculty's perception of the effectiveness of the entrepreneurship courses, as many of them see that the courses gave them the motivation to start their businesses, as well as helped them to think in an innovative way, as stated by 4 different graduates:

I feel my mind is more entrepreneurial because of the entrepreneurship courses I took. The university also made me up to date on the business models, it shows you that you have to go out there as usual (G1).

It motivated me and helped me to think of creating ideas and how to start a business. For example, I tend now after the courses I took to look at different market gaps and think of innovative solutions (G3).

Entrepreneurship classes were definitely a motivation because they put you in, 'I want to start my own business and not be a part of the system' mindset (G5).

Experience and connections are more important and having talks in class with real life entrepreneurs. The independent study though that was only research with the professor, was not effective (G2).

Question 3: Recommendations for improvements.

Research question 3 attempts to look at ways of improving the entrepreneurship program to further meet its learning objectives, as well as possible expansion opportunities of its offerings at other Egyptian higher education institutions. In doing so, the different themes here look at the challenges faced by faculty in offering the entrepreneurship courses, the holistic overall experiences of students and how graduates perceive the practicality of these courses in the real world after graduation; in addition to recommendations from each group for improving the program in the university, as well as practical application in the community and in other Egyptian universities. Figures 16, 17 and 18 show the perceptions of each group on the different themes.

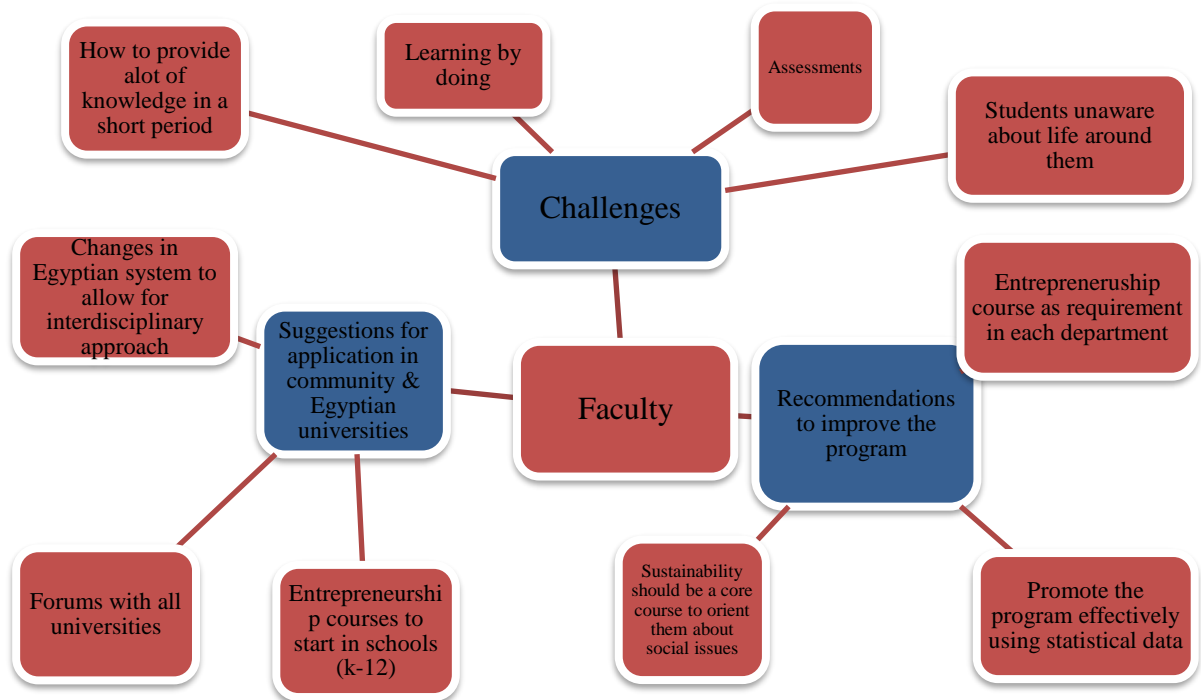


Figure 16. Faculty recommendations to improve entrepreneurship education

Most of the faculty shared similar challenges, which could be concluded that it is quite difficult to have effective entrepreneurship education in just a few courses with a limited time frame, since entrepreneurship is mainly about learning by doing and going through the experience in the real environment. However, many of the faculty are trying to compensate this through simulations and inviting real entrepreneurs and social entrepreneurs as guest speakers and that is why assessing students in these courses specifically is also challenging. Another striking challenge is how many professors expressed the ignorance of business students in areas beyond what they are studying, such as politics, global affairs, current trends, history and geography. This is a shame

because entrepreneurship education is multi-disciplinary and thus learning about different disciplines and aspects of life is encouraged to become successful entrepreneurs.

I think there must be in each department the requirement for a course on entrepreneurship. This will change things tremendously in the university because it will allow the students to be exposed into their own discipline, which could be developed into an enterprise (F1).

The best way of learning is by doing and when you teach entrepreneurship it's very difficult. Talking about entrepreneurship is very different than going through a journey (F3).

Our students who graduate from the school of business do not have any idea about life in anything around them, neither history nor politics and have no sense of geography or anything. I would imagine a business student should be aware about different things around him, at least what are the current trends, political trends, who is doing what, where certain commodities are produced and so on...they don't even know what is Egypt 2030! (F4)

The recommendations that the faculty suggested to improve the program at the university are all realistic and address the challenges that students face. Suggestions such as having both an entrepreneurship and sustainability course as a core requirement for all students is a must to orient students on the subject, as the possibility of establishing a business or social enterprise in any discipline, whether engineering, art, technology, business, education, etc. is probable. Moreover, all groups agreed that the program lacks awareness amongst students, which is the main reason for the low number of students attending the classes, as well as low number of courses being offered per semester. As for having an impact on the community, it was suggested that entrepreneurship education should start in schools, to embed in them certain skills at a very young age, to learn to become creative and innovative and have a sense of responsibility towards their community. To apply such programs in other Egyptian universities, it is important to create a platform for

all educators in Egypt to share experiences, pedagogies, latest trends in education, hence the suggestion of having educational forums arose.

Entrepreneurship by nature is multidisciplinary, whereas the Egyptian education is very isolated. There needs to be bridges and there needs to be changes in system that allows the interdisciplinary approach (F2).

We developed a group of faculty from different universities who used to come and talk about entrepreneurship education, but this again takes time, takes effort and needs incentive. Without incentive then you have individual initiatives that come and go. An ongoing mechanism that is sustainable through incentives could work (F1).

Looking at the students' perspectives, some similarities with the recommendations from the faculty have been noticed although it is articulated differently. Figure 17 first shows the different experiences that students had, which shaped their future intentions and perception of the effectiveness of the entrepreneurship program. All students agreed on the fact that the choice of professors and the method of teaching or mentorship they receive affected their university experience, which affected their future aspirations.

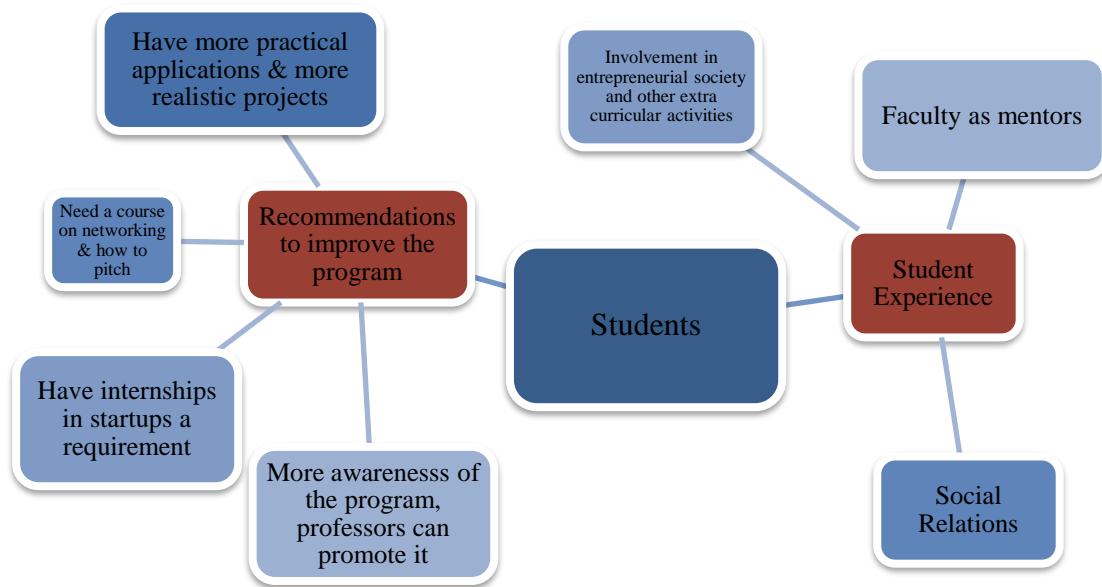


Figure 17. Students' recommendations to improve entrepreneurship education

Moreover, students' engagements in extra curricular activities and the social relationships they form through these engagements highly affects what they want to do after they graduate and their beliefs and values. Figure 17 also shows the different recommendations that students suggested to improve the entrepreneurship program at the university, where they focused more on having practical applications, such as internships in startups as a requirement. Moreover, similar to the faculty, they suggested to create more awareness amongst students about the entrepreneurship program through professors and other popular student channels, as many of them learned about the program by coincidence.

Some professors do not encourage outside of the classroom activities, which is I how I see I can learn these skills best, as I apply them in a practical way (S3).

The exposure I got about the major was not from the university, it was from my friends- word of mouth. I recommend that professors themselves promote this program (S5).

Having more practical applications. To bring people, for example to bring people from different disciplines. Or getting guest speakers from different industries to trigger students' interests. (S7).

Finally, when graduates were asked about their overall perception of the entrepreneurship program after working in the real world, most of the emphasized that the entrepreneurial and soft skills it gave them helped them, while some specifically pinpointed the usefulness of the family business course to the majority of students as many of them have family businesses.

Everyone is applying entrepreneurship in their daily life whether it is your own business or a corporate company. You need the entrepreneurial skills to grow and think outside of the box and come up with solutions and deal like a leader (G4).

Figure 18 shows the different recommendations that graduates suggested to improve the program at the university, which were similar to those of the students and faculty, namely the suggestions to have internships in startups as a requirement, as well as to increase the awareness of the programs amongst students, in addition to having a larger pool of qualified professors teaching such courses.

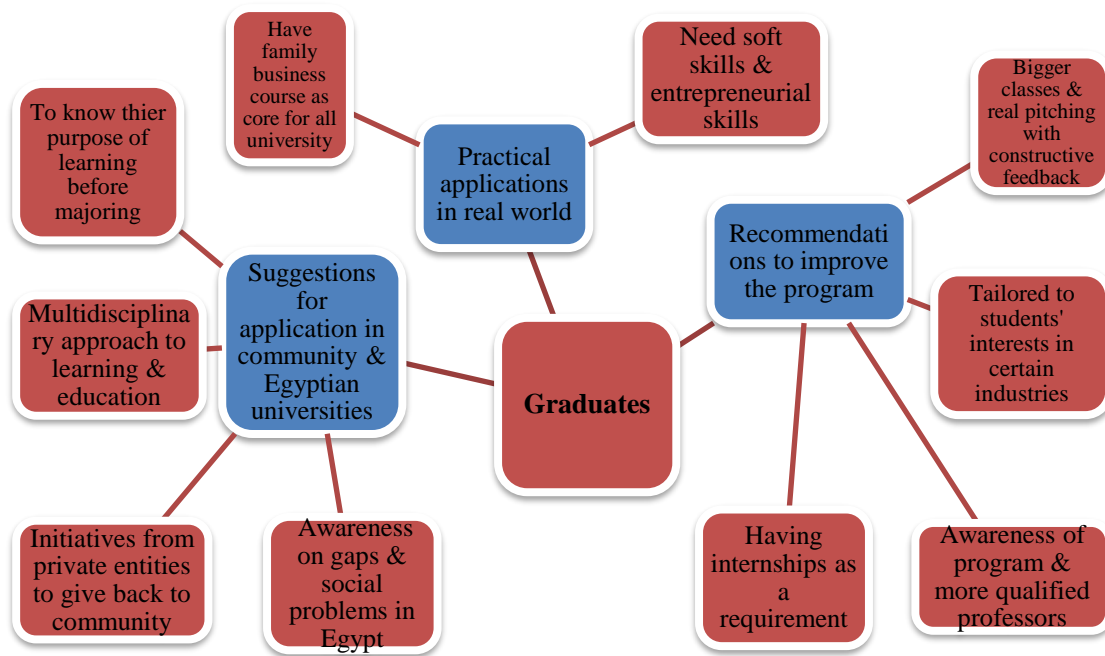


Figure 18. Graduates' recommendations to improve entrepreneurship education

Graduates also shared some similar ideologies with faculty regarding practical application in the community and Egyptian universities, one of which is a living example of the outcome of having a multidisciplinary approach to education, as stated by G5 below:

Giving back should be from private entities, they can do it in a profitable way and they can give back to society. Otherwise it's hard to change the professors or system in these public universities (G1).

I wouldn't have been able to launch the business if it was me by myself. We are a team of 3 individuals. The 3 of us come from diverse educational backgrounds but blend perfectly for the best interests of the business. Not one of us could have done it alone. Team work is essential to where we are today. We complete each other's weaknesses and learn from each other's

strengths. Having a team with diverse backgrounds improves the chances of success (G5).

All these findings and recommendations from participants to improve the program are aligned with previous research studies on entrepreneurship and social enterprise in Egypt, which will be further discussed in the following chapter, whereby it will be highlighted how to effectively implement such programs in a practical matter to have more sustainable results.

Chapter 5: Discussion and Conclusion

Discussion

It is quite interesting to see how many different concepts that were highlighted and researched in previous studies in the literature are aligned with reality in this current study. Starting with the theoretical framework, which the purpose of higher education is built on, this research showed that the perspectives of faculty is more aligned with the human rights approach to education, whereby the purpose of education should not only be to serve the labor market, but also to develop human capabilities and serve the community. On the other hand many students and graduates were mostly inclined towards the human capital theory, which could be sensed in their responses in both the survey or one-to-one interviews that higher education was more of a source to open doors for work opportunities. Similarly students' responses in the survey to the questions related to the purpose of higher education, scored highest in agreeing that the purpose of higher education is to develop skills and knowledge for the labor market, to get better jobs.

This finding supports the reason why this private university as well as many others in Egypt and the region are focusing their efforts on entrepreneurship education

and equipping their students with entrepreneurial skills, yet there is not much focus on the social component in social enterprise education. Many of the literature emphasizes that the role of universities is to empower students to change the world they live in and contribute to their community and societal issues, which is a human rights way of thinking, that most of the faculty interviewed seem to be inclined towards as well.

It has been emphasized in the literature that entrepreneurship cannot be taught the traditional way, as it is an example of experiential learning, where students must learn by doing. However, certain analytical and critical thinking skills are needed to integrate the knowledge attained in the entrepreneurship courses into a holistic activity (Jack & Anderson, 1999). Learning by doing is the challenge that most professors are facing as well as a main concern for students. One of the professors specifically stated that it is very difficult to teach entrepreneurship because to learn it, they must do it and go through the journey. Similarly, both students and graduates interviewed, recommended to have more practical applications in the courses and realistic projects. However, quantitative findings amongst students showed that 34% of the students who filled the survey did not see that the course was purely theoretical and lacked practical application to real life situations. Yet, only 25% agreed that the courses were overall effective and linked pedagogical theories to actual businesses.

Another interesting point mentioned in the literature, which all of the faculty highlighted as well is when comparing entrepreneurship to enterprise education, it has been emphasized that enterprise education is aligned with interdisciplinary approaches, as it can be used across different subjects and phases of education, in contrast to entrepreneurship education which is usually taught in business or economic schools (Jones & Iredale, 2010). In this private university, there seems to be an unclear differentiation between entrepreneurship and enterprise education. It is part of the

business school, but faculty see that entrepreneurship is by nature multi-disciplinary and some suggested to have entrepreneurship as a requirement in each discipline and department in the university, so students can be exposed to their own discipline and focus on having a startup in their own discipline. This differentiation is not clear here as a lot of the literature highlights that enterprise education focuses more on citizenship and uses more innovative pedagogies with a much broader scope than entrepreneurship education. I find faculty's perspectives are quite contradicting with the exception of the professor teaching the social entrepreneurship course as his vision is totally aligned with such pedagogies of enterprise education. However, other professors teaching the other entrepreneurship courses portray their belief and perception of entrepreneurship education similar to that of enterprise education discussed in the literature.

Regarding the definition of social entrepreneurship that varies in the literature but shares a common understanding, which is an enterprise that creates social value and addresses a social problem in an innovative way. I believe that many students and graduates of the entrepreneurship program are somewhat confused about this definition as several participants in the interviews stated that they are interested to find ways of making their family business or startup that is already established or idea for a startup into a social enterprise, which shows they are not fully aware of the concept and that it should be the other way around, which is having a social enterprise to solve a societal problem, then they could find ways to make it sustainable. Quantitative findings of the study show similar perspectives as almost 40% of respondents see a need for new innovative platforms that offer sustainable solutions to tackle critical problems in Egypt, but only 22% strongly agree that they are interested to establish a social enterprise and 16% strongly agree that they feel confident to apply what they learned to solve a problem in society.

Some literature mentioned that networking is a secret strategy that social entrepreneurs rely on and it has been suggested in the interviews with students and graduates that there is a need for a course on networking as they see this would be very useful to know how to apply theoretical knowledge in real life.

Regarding student intent and motivation which has been the main focus of the few studies conducted on entrepreneurship education, it has been linked to whether students have taken entrepreneurship courses or not and the quantity of the courses they took. Previous research in the literature shows that those who participated in entrepreneurship courses had more motivation to start their own business. Similarly, both quantitative and qualitative findings of this research confirm this hypothesis. Quantitative findings show that the correlation between the number of entrepreneurship courses students have taken and their intent to have a start up is statistically significant. Almost 50% of the respondents strongly agree and agree that the entrepreneurship courses have encouraged them to think of establishing their business upon graduation. Similarly, qualitative data shows that all graduates interviewed agreed that the courses motivated them to have startups and think of innovative solutions. Moreover, 6 out of 7 of the students interviewed intend on establishing a startup upon graduation. All faculty also agreed that the general trend nowadays amongst students is to have a startup upon graduation, rather than work in a corporation.

One of the suggestions from a faculty member is that entrepreneurship education should start from schools, as children should be trained from a very young age to develop a culture that focuses on innovation and creativity. This is very much aligned with the literature about other forms of entrepreneurship education that is not part of the formal education. What is interesting in starting entrepreneurship education from a very young age, is that it facilitates the implementation process, which is a challenge that many

people have, since as previously emphasized that students show high intent and motivation to establish a startup, however very few implement. One of the comments from a student in the open ended question in the survey was that there is fear of failure due to the lack of knowledge and experience to make calculated predictions and this lack of knowledge of the real world is what is preventing the implementation of the ideas he has.

A big part of the literature was about social enterprise in Egypt and the Middle East, which shows that higher education institutions have started to support entrepreneurship education through courses, incubators and competitions, but there has been little focus on the social enterprise dimension. Some of the faculty interviewed see that the university has a huge role to play in this respect and that as a university and as a school, they are not doing their part. This professor's input is aligned with what the literature says about how higher education institutions in the region are not fully capitalizing on their role, especially private universities as they have more resources and opportunities to do so. On the other hand, previous studies have also showed that the shortage of specialized human resources and funding are the main reasons that higher education institutions are not utilizing this role. This is aligned to the feedback obtained in the interviews from students and graduates, that there is a lack of qualified professors who have special talents in teaching entrepreneurship courses in an effective way to be able to meet the practicality part of the discipline.

Much of the literature also discussed the importance of support organizations to promote entrepreneurship and social entrepreneurship education, by working with universities to change the curriculum and how students are taught. This is aligned with the recommendation of faculty and graduates in the interviews, that in order to have changes in the Egyptian educational system, there has to be initiatives from private

entities who can support with this.

Finally, the characteristics of social entrepreneurs in Egypt has been studied in some previous research, which is vital for this research study in order to understand the base for the material needed to have an effective social entrepreneurship education program. What was lacking in the literature and what several students and graduates mainly discussed are the detailed pedagogies on how to teach such entrepreneurship and social entrepreneurship courses, to fulfill the experiential learning experience. For example, one of the practical recommendations students as well as graduates mentioned was to have internships in a startup or social enterprise as a requirement to complete the program.

Conclusion and Recommendations

It could be concluded that students and graduates who are minoring/minored or majoring/majored in entrepreneurship, as well as faculty teaching the courses perceive the program to have good potential, but it is not quite effective yet. There are many aspects in the program that can be improved to make it more effective, since the main effect the entrepreneurship courses had was on the students' and graduates intent and motivation for starting an enterprise, as well as setting a detailed business plan on their intended startup, however it did not give them enough skills and knowledge to do so realistically and follow it through in implementation.

Many of the entrepreneurship programs at universities are newly introduced, thus it is still too early to measure and observe the effectiveness of these programs amongst students and recent graduates in the market. However, one is optimistic towards the upcoming reform in education. Entrepreneurship education is needed and having entrepreneurship curricula integrated in all schools and universities is important to

promote the culture of entrepreneurship and innovation. The curricula should be designed in a practical way and should promote certain characteristics, skills and behavior such as, creativity, collaboration, risk taking, analytical and critical thinking. To have such programs on a large scale requires sustainability and a well developed training and incentive plan for teachers and professors on both school and post-school levels .

The core of entrepreneurship education that has been established by all groups of participants in this study is learning by doing and practical hands on experience. Thus outside of the classroom activities, such as engagement in extra curricular activities, student organizations, internships, competitions and other high impact practices is what fosters these entrepreneurial skills, as well as social entrepreneurship values as the students learn to develop and have an impact on others, not only themselves.

Another critical challenge is that the entrepreneurship courses are taught in a technical manner in the school of business, whereby graduates of the program discovered that it is not that technical in the real world and there are many factors that were not taken into consideration when teaching the courses, which would make it closer to reality. An important dimension to consider here is the differences in pedagogies between entrepreneurship education and social enterprise education, which follows more an enterprising way of teaching as highlighted in the literature. The students who enroll in an entrepreneurship program within the schools of business have different objectives from those enrolling in a social enterprise program, which brings me to suggest having a social enterprise education program separate from the School of Business, as a multidisciplinary program in itself.

The social entrepreneurship course is not mandatory in the entrepreneurship minor requirements. Students get to choose to either take the social entrepreneurship or the

family business course and since many students have family businesses, which they intend to work in after graduation, so they opt for taking that course. It is highly recommended that the social entrepreneurship course must become a requirement in the minor and major for students to have proper exposure and understanding to the concept, especially that all those who took or are taking the course perceive that it is highly effective in terms of giving them the motivation of establishing a social enterprise.

Finally, there needs to be a powerful awareness campaign about the program amongst students, as many students knew about the major or minor by pure coincidence. Before doing so, the university should guarantee having enough qualified professors to teach all of the program offerings, as many of the courses listed in the university's catalogue were not offered since the program started in 2014. The idea one of the faculty members suggested about having periodical forums on entrepreneurship amongst all universities in Egypt to share ideas, pedagogies and experiences would be useful to further develop the program, as well as increase awareness on its importance.

Limitations of the study

1. The study was conducted at one private university.
2. The fieldwork was conducted over 1 semester and the survey was filled during the first half of the semester, so responses were not based on full understanding or a complete experience of the course. It is recommended for further studies to administer the survey for the 2nd time towards the end of the semester to compare responses.
3. The study included students at different stages, as there were students who just started the minor or major and took only one course, while others were at the end of the program and thus have taken more than 3 courses. Also, there were those who were only taking one entrepreneurship course as a core requirement for business majors or for capstone

requirement.

However, the study provided evidence based quantitative and qualitative findings that support the need for future and longitudinal studies.

Future Research

Future research on similar studies analyzing the effectiveness of entrepreneurship education programs in higher education institutions, may comparatively analyze the beginning and the end of the program. Thus a longitudinal study is recommended, which could be conducted over 4 semesters, when students first start their first course, and administered once at the end of the program, when students have taken their last course in the program. This would be more effective as students would be able to better evaluate the whole program and their perceptions would be more accurate.

Another factor to take into consideration in future research is that the sample should be limited to students who are either majoring or minoring in entrepreneurship only.

Another dimension would be to look deeper into the pedagogies used in the entrepreneurship courses compared to what has been stated in the literature and critically analyze if the methods of teaching such courses are aligned to experiential learning techniques. The learning outcomes of the courses could then be revised, then compared that to what has been actualized at the end of the program. Furthermore, the effectiveness of the program could be measured by tracking the career paths of all graduates of the program to analyze whether or not the learning outcomes were achieved.

It would also be interesting to conduct a longitudinal study on students in Egyptian public universities, who do not have the same opportunities nor connections that students in private universities have. The data in this study is coming from a private university that is very different from a society that has many challenges. Thus, it would

be insightful to look at the perceptions of different levels and different backgrounds of students in the Egyptian society on similar entrepreneurship programs.

To conclude, this study has been an eye opener to the importance of having effective entrepreneurship and social enterprise programs in all universities and schools in Egypt. It is important to understand how to effectively train and encourage students to become entrepreneurs, especially when looking at the characteristics of the students we are seeking to develop to become social entrepreneurs. Educators should start by focusing on the important social issues in the country, allowing students to understand the current social problems, the challenges they can face and how to utilize their social networks.

To promote a socially aware and sustainable economy and minimize the challenges we have in the Egyptian economy, the education system in the country needs to encourage students to think and behave more entrepreneurially by following an ‘enterprising’ learning approach. Thus, first differentiating between an entrepreneurship education program, which is offered in schools of business, where the curriculum is very technical and focuses mainly on the business aspect of establishing and managing a business and the needs of the entrepreneur; compared to a social enterprise education program, which focuses more on developing enterprising skills and attitudes of young people and the needs of the different stakeholders, including the community. There should be a separate enterprise education program (which social enterprise would be a part of) offered in universities, that is separate from schools of business, as an interdisciplinary program. Yet, while designing the curriculum of either program, it is important to take into consideration the challenges and weaknesses in the established programs, as well as the recommendations given by the different stakeholders in this study to effectively implement such programs.

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Appendix A: IRB Approval

CASE #2017-2018-072



To: Heba Hassamein
Cc: Salma Serry & Dena Riad
From: Atta Gebril, Chair of the IRB
Date: Jan 4, 2018
Re: Approval of study

This is to inform you that I reviewed your revised research proposal entitled "Faculty and students' perceptions on the effectiveness of entrepreneurship and social enterprise education in a higher education institution in Egypt" and determined that it required consultation with the IRB under the "expedited" category. As you are aware, the members of the IRB suggested certain revisions to the original proposal, but your new version addresses these concerns successfully. The revised proposal used appropriate procedures to minimize risks to human subjects and that adequate provision was made for confidentiality and data anonymity of participants in any published record. I believe you will also make adequate provision for obtaining informed consent of the participants.

This approval letter was issued under the assumption that you have not started data collection for your research project. Any data collected before receiving this letter could not be used since this is a violation of the IRB policy.

Please note that IRB approval does not automatically ensure approval by CAPMAS, an Egyptian government agency responsible for approving some types of off-campus research. CAPMAS issues are handled at AUC by the office of the University Counsellor, Dr. Ashraf Hatem. The IRB is not in a position to offer any opinion on CAPMAS issues, and takes no responsibility for obtaining CAPMAS approval.

This approval is valid for only one year. In case you have not finished data collection within a year, you need to apply for an extension.

Thank you and good luck.

A handwritten signature in black ink, appearing to read 'Atta Gebril'.

Dr. Atta Gebril
IRB chair, The American University in Cairo
2046 HUSS Building
T: 02-26151919
Email: agebril@aucegypt.edu

Institutional Review Board
The American University in Cairo
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Appendix B: Survey Consent Form



Documentation of Informed Consent for Participation in Research Study

Project Title: [Faculty and Students' Perceptions of Entrepreneurship and Social Enterprise Education at a Higher Education Institution in Egypt]

Principal Investigator: [Heba Hassanein – hebafadeel77@aucegypt.edu - 01006069463]

You are being asked to participate in a research study. The purpose of the research is to see the overall perception of students enrolled in entrepreneurship courses.

The findings may be published and presented. The expected duration of your participation will be 7-10 minutes.

The procedures of the research will be as follows: Respond to a survey with close-ended questions.

There will not be certain risks or discomforts associated with this research.

There will not be direct benefits to you from this research. However, contribution will help understand the effectiveness of the entrepreneurship and social enterprise education programs at the university.

The information you provide for purposes of this research is confidential.

Questions about the research, my rights, or research-related matters should be directed to (Heba Hassanein) at (01006069463).

Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

Signature _____

Printed Name _____

Appendix C: Interviews Consent Form



Documentation of Informed Consent for Participation in Research Study

Project Title: Faculty and students' perceptions on the effectiveness of entrepreneurship and social enterprise education in a higher education institution in Egypt

Principal Investigator: Heba Abdel-Fadeel Hassanein –
hebafadeel77@aucegypt.edu - 01006069463

*You are being asked to participate in a research study. The purpose of the research is to explore the perceptions of faculty, students and graduates on the extent that entrepreneurship and social enterprise education programs provided at a private university in Egypt promotes students' self development, prepares them for the labor market and initiating their own business or social enterprise.

*The findings may be published, presented or both. The expected duration of your participation is 30-45 minutes.

*The procedures of the research will include your participation in an individual interview, which will be recorded.

*There will not be certain risks or discomforts associated with this research.

*There will not be direct benefits to you from this research. However, your contribution will help in addressing your perception on the effectiveness of the entrepreneurship and social enterprise education programs at the university.

*The information you provide for purposes of this research is confidential.

* *Questions about the research, my rights, or research related matters should be directed to Heba Hassanein at 01006069463.*

*Participation in this study is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may discontinue participation at any time without penalty or the loss of benefits to which you are otherwise entitled.

Signature _____

Printed Name _____

Date _____

Appendix D: EEPS (Entrepreneurship Education Perception Scale)

Thank you for your willingness to answer this questionnaire. Please answer the following questions and provide feedback when necessary on the questions themselves regarding clarity of wording, relevance, missing concepts, etc.

SECTION I: First, please answer a few general questions about yourself.

1. Sex:

☐ Male

☐ Female

2. College class:

☐ Freshman

☐ Sophomore

☐ Junior

☐ Senior

What is your Major?

What is your Minor?

Please specify the reason for taking this course

☐ Specializing in Entrepreneurship

☐ Minor in Entrepreneurship

☐ Capstone

☐ Other _____

Please specify the number of entrepreneurship courses you had previously taken _____

Please specify the number of entrepreneurship courses you are currently enrolled
in _____

SECTION II: Please indicate whether you agree or disagree with the following statements by circling the appropriate number.

1= Strongly Disagree, 2= Disagree, 3= Somewhat disagree 4 = Somewhat Agree, 5= Agree, 6=Strongly Agree

Purpose of Higher Education	1	2	3	4	5	6
1.The purpose of a university education is to gain the skills and knowledge needed for the labor market to get better jobs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. The money my parents pay for my college education is an investment in my skills and character to be prepared for the labor market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. The purpose of higher education is to develop human capabilities to serve their communities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. The entrepreneurship courses have given me the skills and knowledge needed for employment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Student Intent, Motivation and Skills	1	2	3	4	5	6
5. I intend on establishing a start-up company when I graduate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. The entrepreneurship courses have encouraged me to think of establishing my own business when I graduate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. The entrepreneurship courses have given me the skills and knowledge I need to establish my own start-up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. The entrepreneurship courses have helped me set up a detailed business plan on my intended start-up company	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Please check the following if applicable						

☐ I am unable to decide on the answer for the previous set of questions as we are at the beginning of the semester and I have not taken any previous entrepreneurship courses

☐ I am able to answer the previous set of questions accurately as I took more than 1 entrepreneurship courses

Please specify what factors affected your answers in the previous sub section:

☐ The number of entrepreneurship courses taken

☐ Extra curricular activities

☐ Individual initiatives or personal background

☐ Other courses taken (not in entrepreneurship)

☐ Other

Perception of program offering

1 2 3 4 5 6

9. The entrepreneurship program offered by the university is quite effective

☐ ☐ ☐ ☐ ☐ ☐

10. The curriculum in the entrepreneurship course(s) allows us to link pedagogical theories to actual businesses

11. The entrepreneurship courses are purely theoretical with no practical application to real life situations or hands on experience

☐ ☐ ☐ ☐ ☐ ☐

12. The entrepreneurship courses expose us to new innovative ideas that can be implemented in Egypt

☐ ☐ ☐ ☐ ☐ ☐

Please check the following if applicable

☐ I am unable to decide on the answer for the previous set of questions as we are at the beginning of the semester and I have not taken any previous entrepreneurship courses

☐ I am able to answer the previous set of questions accurately as I took more than 1 entrepreneurship courses

Please specify what factors affected your answers in the previous sub section:

- ☐ The number of entrepreneurship courses taken
- ☐ Extra curricular activities
- ☐ Individual initiatives or personal background
- ☐ Other courses taken (not in entrepreneurship)
- ☐ Other

Social dimension in entrepreneurship education

1 2 3 4 5 6

13. I am interested to establish a start-up company that has a social impact on the society or can contribute to solving a societal problem

☐ ☐ ☐ ☐ ☐ ☐

14. There is a need for new innovative platforms to offer sustainable solutions that would tackle some critical social problems in Egypt

☐ ☐ ☐ ☐ ☐ ☐

15. After attending the entrepreneurship courses, I feel confident that I will be able to apply what I have learned in my classes to solve real problems in society

☐ ☐ ☐ ☐ ☐ ☐

Please specify if you have previously taken or currently taking the social entrepreneurship course ☐ Yes ☐ No

Extra curricular activities

1 2 3 4 5 6

16. I am or was involved in the entrepreneurship society, which is a student run club on campus.

☐ ☐ ☐ ☐ ☐ ☐

17. I am aware that there is a center of entrepreneurship on campus to

help develop ideas of people interested in establishing a start-up	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. I am aware that there is a venture lab, which is an incubator for start-ups to help them in improving their ideas and business plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. I participated in the center of entrepreneurship and/or venture lab by observing, assisting, or taking part in a project or competition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please indicate whether you agree or disagree with the following statements by circling the appropriate number.

Appendix E: Interview Questions for Faculty

I. The Purpose of Higher Education: The purpose of higher education has been an ongoing debate, in terms of how it is articulated in relation to the different theories of human capital and neo-liberalism vs. human rights.

1. What do you think is the purpose of higher education?
2. [The human capital theory considers education as an investment that gives returns to the individual in terms of material advantages and to the society in terms of employment and economic growth, while the human rights approach considers higher education as a place that individuals are free to think, develop experience, get exposed, gain practical skills, and construct knowledge, in order to foster their ability to challenge major issues in society]

Which approach in education do you agree with more and why?

3. How does your perception influence the entrepreneurship courses you teach?

II. Entrepreneurship and Social Enterprise Intent, Motivation and Skills

1. What is your perception of the content of the entrepreneurship courses?
2. Is there a practical aspect in the content of the courses or is it purely theoretical?
3. What is the status of social entrepreneurship within the content of the courses?
4. To what extent do the entrepreneurship courses develop students' intent and motivation to establish a start-up upon graduation?

5. To what extent do the entrepreneurship courses provide the skills , attitude and knowledge that would prepare students to establish their own business upon graduation
6. Are students keen on social entrepreneurship and establishing a social enterprise that would solve a societal problem?

III. Employability Skills and Competing in the Labor Market

1. What pedagogies do you employ in the entrepreneurship courses you teach?
2. To what extent do the entrepreneurship courses prepare students for the labor market?
3. To what extent do the entrepreneurship courses provide employability skills and experience required by employers?
4. What are the challenges you faced while teaching these entrepreneurship courses?

IV. Recommendations for policy reforms and changes in Egyptian Higher Education

1. What are your suggestions or recommendations to improve these entrepreneurship courses?
2. How can these entrepreneurship courses be more effective for the community?
3. How do you perceive the possibility of applying these entrepreneurship courses in other universities in Egypt?
4. What are your recommendations for policy and practice reforms and changes in the Egyptian higher education?

Do you have any additional comments you would like to add?

Appendix F: Interview Questions for Students

I. Purpose of Higher Education

1. Why do you think you need a college degree?
2. What do you intend to do with your college degree?
3. What are your future aspirations or ambitions?
4. How can your college degree benefit your society?

II. Students' Intent, Motivation and Skills for Entrepreneurship and Social Enterprise

1. Why are you concentrating or minoring in entrepreneurship?
2. Do you plan on establishing your own business? When?
3. Do you have an idea for a start-up that you want to implement upon graduation? If yes, please provide a brief of the idea
4. Do you think the entrepreneurship course(s) you have taken give you the needed skills and knowledge to have a start-up?
5. What are the components and material you take in the entrepreneurship courses?
6. Is there any practical applications in the courses? Please elaborate
7. Do you know what is a social enterprise? Please explain
8. In your entrepreneurship courses, is the social aspect emphasized?

III. Employability Skills and Extra Curricular activities in Entrepreneurship

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1. What do you think are the main skills that employers seek in recent graduates?
2. How do you think the entrepreneurship courses helped you to develop these skills and characteristics, if any?
3. How do you describe your overall experience with the entrepreneurship courses you have taken, in terms of content and practical applications?
4. How are the entrepreneurship courses different from any other courses you have taken?
5. Are you involved in any extra-curricular activities on campus that enhance entrepreneurship? Please elaborate
6. What part of your experience in the university has helped shaped what you want to do when you graduate and how?

IV. Recommendations for changes in the Entrepreneurship courses and programs

1. What do you consider as the most positive experiences from the entrepreneurship courses?
2. What do you consider as negative experiences and challenges from the entrepreneurship courses?
3. What do you consider is the most added value from the entrepreneurship courses?
4. What would you suggest to improve the entrepreneurship courses at the university?

Appendix G: Interview Questions for Graduates

I. Purpose of Higher Education

1. Why do you think you needed a college degree?
2. What did you gain from your university years, in terms of skills, knowledge, characteristics, behavior, experience?
3. What did you do with your college degree?
4. What are your future career aspirations or ambitions?
5. How do you think your college degree benefited your society?

II. Graduates Intent, Motivation and Skills for Entrepreneurship and Social Enterprise

1. Why did you enroll in the entrepreneurship courses?
2. Do you own your own enterprise or self employed? If yes, please elaborate on the field and activities of your enterprise.
3. Do you consider your enterprise to be a social enterprise, i.e. have a social purpose or impact on the society?
4. Do you plan on establishing a start-up? What phase are you in?
5. Do you think the entrepreneurship course(s) you have taken in your senior years have given you needed skills and knowledge to have a start-up?
6. Do you think the entrepreneurship course(s) you have taken in your senior years have motivated you to have a start-up?

7. What was the main motive in starting your own business?
8. What are the components and material you took in the entrepreneurship courses?
6. Was there any practical applications in the courses? Please elaborate
7. To what extent was the social aspect (the importance of the start-up to have a social purpose or impact) was emphasized in the entrepreneurship courses you took?

III. Employability Skills and Competing in the Labor Market

1. What do you think are the main skills that employers seek in recent graduates?
2. How do you think the entrepreneurship courses helped you to develop these skills and characteristics, if any?
3. After graduating and working in the real world, what is your overall perception of the entrepreneurship courses you have taken, in terms of content and practical applications?
4. How are the entrepreneurship courses different from any other courses you have taken?
5. What part of your experience in the university has helped shape what you wanted to do and what you actually did when you graduated and how?

IV. Recommendations for policy reforms and changes in Egyptian Higher Education

1. What do you consider as the most added value from taking the entrepreneurship courses?
2. After working in the real world, what are your suggestions or recommendations to improve these entrepreneurship courses to make them more relevant to reality?

3. How can these entrepreneurship courses be more effective for the community?
4. What do you think are the challenges that faces higher education in Egypt?
5. What are your recommendations for policy and practice reforms and changes in the Egyptian higher education?

Do you have any additional comments you would like to add?

Appendix H: Profiles of the participants in the interviews

F= Faculty

S= Student

G=Graduate

F1	Male; Professor of Strategic Management & Entrepreneurship & Director of the Entrepreneurship unit in the School of Business
F2	Female; Assistant Professor of Organizational Studies, International Business & Entrepreneurship
F3	Male; Assistant Professor of Entrepreneurship, Management and Innovation
F4	Male; Professor of Practice at the School of Business and Social Entrepreneurship. Director of the Gerhart Center
S1	Female; Economics Major, Entrepreneurship Minor; Senior.
S2	Female; Integrated Marketing Communications Major, Double minor in Entrepreneurship and Digital Media. Junior.
S3	Male; Finance major, Economics minor. Junior. (Wants to be a social entrepreneur)
S4	Male; Entrepreneurship major. Senior
S5	Male; Entrepreneurship major. Senior.
S6	Male; Electronics Engineering major, Entrepreneurship minor. Graduating senior
S7	Female; Architectural Engineering major, triple minor in Economics, Entrepreneurship and Digital Media. Graduating Senior.
G1	Female; Business Administration major, with a concentration in Entrepreneurship. Minor in Maths. Graduated December 2017. Working in a startup, to eventually open her own in the same industry.

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G2	Male; Business Administration major, with a concentration in Entrepreneurship. Graduated December 2017. Has a family business
G3	Male; Electronics Engineering major, minor in Entrepreneurship. Graduated June 2017. Planning a startup
G4	Female. Integrated Marketing Communications major, Double minor in Entrepreneurship and Art. Graduated June 2014. Has a startup.
G5	Male. Double major in Business Administration and Economics. Graduated in 2016. Has a startup