

Developing an Entrepreneurship Curriculum in Egypt: The Road Ahead

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This project addresses the need for an institutional program for entrepreneurship education in Egyptian universities. The vision is to foster an entrepreneurial and innovative culture through a world-class curriculum, delivered to the highest standards, in all Egyptian public universities by the year 2014.

INTRODUCTION

The comprehensive endeavor will focus on development and cross-disciplinary integration of entrepreneurship courses, which is the ultimate product, but also emphasize the teaching of critical thinking and innovation as foundation pillars of a developed society and economy. The proposal is developed within the context that entrepreneurship education should be a critical component of any economic development strategy. This is advocated by many international organizations, such as the Organization for Economic Co-operation and Development (OECD), the World Economic Forum (WEF), the United Nations Educational, Social and Cultural Organization (UNESCO) and the European Commission, as a policy imperative.

At the country level, although almost 17% of university graduates in Egypt are involved in entrepreneurial activity, Egypt has one of the lowest penetrations of entrepreneurship education in the formal education system among 31 countries participating in the Global Entrepreneurship Monitor (GEM) study in 2008. Most of the people starting businesses in Egypt are doing this without any formal orientation about the entrepreneurial process or know-how on how to start a business. At the same time, the unemployment rate among Egyptian youth, and particularly so among university graduates, is much higher than the national average, and there is a lack of employment opportunities in the public and formal private sector to absorb the more than 700,000 new university graduates annually. Integrating entrepreneurship education in Egyptian universities will develop the entrepreneurial skills and knowledge of students and better prepare them to develop their own ideas for businesses (including social enterprises) or to secure positions in organizations that provide support to the community of entrepreneurs. Either way, exposure to entrepreneurship curriculum will develop their creative, problem-solving, project development, and innovation competencies.

The initiative is in total alignment with the overall framework for entrepreneurship education previously agreed to between the Minister of Higher Education (MOHE) and the Middle East Council for Small Business and Entrepreneurship (MCSBE). (See Appendix 1 for a copy of the memorandum of cooperation between the MOHE and the MCSBE that was signed in July 2010). The overall framework for development of entrepreneurial skills through the education system targets different educational levels, starting with elementary schools all the way through preparatory, vocational, secondary,

undergraduate and post-graduate education (see Appendix 2). However, the current project concerns itself with the university education system.

Several challenges residing in the educational system will need to be tackled while implementing the initiative: the current pedagogical approach to teaching and learning; the number of students; the prevailing misunderstanding about the role of the university in community development; and the gap between education outputs and market needs.

The specific objectives of the project are to:

1. Develop three courses to be initially offered to students in 3 pilot universities: a) Entrepreneurship and Small Business Management; b) Logic and Critical Thinking; and c) Innovation.
2. Over the 5 years of the pilot project, enroll over 100,000 university students in these courses.
3. By the end of the project, introduce the three courses, in a number of faculties, in all 19 public universities (any new ones that are established in the meantime).
4. Provide orientation to faculty members/professors on methodologies for the teaching of entrepreneurship-related courses, including the case-teaching approach.
5. Provide platform for the sharing of entrepreneurship teaching and learning materials, resource materials, entrepreneurship cases, etc., that can be used as foundation for developing additional courses that can form an entrepreneurship track in undergraduate and MBA degree programs.
6. Strengthen linkages between the university and the community of entrepreneurs and entrepreneurship support organizations.

To address the current challenges, achieve the outlined objectives, and provide a framework for future expansion and sustainability, the initiative is built on four pillars:

1. Building awareness (orientation events, workshops, marketing and promotion activity)
2. Capacity building for academia (curriculum development, teaching methodologies, resource materials, case writing and teaching workshops, etc.)
3. Networking and knowledge transfer (exposure to international good practices and expertise, study tours, conferences, workshops, etc.)
4. Feedback mechanisms (assessment of progress and project evaluation).

The implementation of this five-year initiative, running from 2011-15, will be piloted in three of the top universities in Egypt, Cairo University, Alexandria University and Helwan University, universities with a total enrolment of around 500,000 students selected from three governorates. It will involve five faculties from each university (commerce, engineering, economics and political science, agriculture, and science). As the project progresses, more public universities will join the project.

The project will be delivered in three phases. In the first phase (academic year 2011-12), an entrepreneurship and small business management course will be introduced for senior students in their final year. In the second phase during the 2012-13 academic years, a critical thinking course will be introduced for first year students and an innovation course for third year students. These courses will serve as foundations for all other courses taught at the university level. In the third phase (academic years 2013-14), the project will focus on integrating cross-campus and cross-disciplinary entrepreneurship courses, including faculties from the social sciences (e.g. literature and law), and expand to all 19 public universities by 2014. In parallel, a post-graduate degree will be established inside business schools together with specialized entrepreneurship diplomas and certificates.

The curriculum development process will be a suitable venue for challenging the existing norms, especially with the serious initiatives for reform established by the MOHE (e.g. compensation improvements, students finance, standardization, and quality inclusion).

The project also incorporates a large emphasis on capacity building of academicians and professors, through expert workshops, conferences, communities of practice, study tours, instruction in case writing and teaching (a standard form of teaching in the entrepreneurship discipline), etc. In addition, it includes development of an entrepreneurship education portal for sharing of teaching and resource materials, course syllabi, good practice examples, and success stories; establishment of an Entrepreneurship Case Centre that will collect and disseminate case studies based on the examples of Egyptian SMEs and entrepreneurial companies; and linkages with entrepreneurship education expertise in other parts of the world.

The management of the project will be coordinated by a small staff at the MCSBE, working in partnership with the MOHE and the participating pilot universities. Oversight on implementation of the project will be provided by a National Committee represented by senior officials of the partnering institutions. This Committee will meet on a regular basis. Each of the pilot and participating universities will assign a focal point or project champion for the project, and they will be supported by working groups/committees established to carry out different components of the project.

The ICSB and members in its network of global affiliates (in the US, Europe, Canada, Australia and New Zealand, Korea, Japan, Argentina, Brazil, South Africa, Puerto Rico and the Caribbean, Taiwan, and China) will be the major source of external expertise and identification of good practices in entrepreneurship education (curriculum, teaching resources, faculty development, and case preparation) that can be replicated and/or adapted to the Egyptian context. The European Training Foundation (ETF), an agency of the European Union with a presence in Egypt, will also be a valuable resource.

By the end of the pilot project, over 100,000 university students will have taken at least one entrepreneurship-related course as part of their degree program; at least 90 professors will have participated in professional development activities related to the teaching of entrepreneurship, development of entrepreneurship curricula, and preparation of teaching cases in entrepreneurship and other resource materials; entrepreneurship-related courses will form part of the curriculum of the 19 public universities; and Entrepreneurship tracks will be offered to students in a number of faculties, as well as graduate degrees in Entrepreneurship. The success of the project will be measured against a number of key performance indicators (KPIs). An independent consultant will be contracted to carry out an evaluation of the project's success against the identified KPIs.

The novelty of the project lies in the fact that it is the first time there is an effort to establish a comprehensive framework for entrepreneurship education in the Middle East region which surely needs to enhance entrepreneurship and innovation culture. This can also be a pilot project for drastic improvements in the educational system, as well as being a model PPP between the MOHE and the MCSBE.

Rationale

The concept of entrepreneurship is not novel to the economic discipline; in fact, its role in economic development has been recognized since the early works of Adam Smith and Joseph Schumpeter. It has, of late, reached great importance at the national level in Egypt for several reasons: individuals aged 18-29 number 19.8 million (nearly 25% of the total population); 700,000 new graduates enter the labor market each year; the public sector is no longer hiring large numbers of new graduates; and the formal private sector is not large enough and growing fast enough to provide employment to these graduates; and the rate of unemployment in Egypt has reached 9.7%. The employment rate for 15-24 year-olds is just over half of the rate for the general labour force-aged population. The unemployment rates for Egyptian youth are significantly higher than the national average, and according to the 2006 Egyptian labour market panel survey, young people with university degrees are the hardest hit. Due to the lack of job opportunities, many of the new graduates will join the ranks of the unemployed or become underemployed in the informal sector or as unpaid workers in family enterprises.

Increasing the supply of entrepreneurs in the country and, specifically the quality of entrepreneurial ability, is important to Egypt's imperatives of job creation and economic development. Promoting entrepreneurship among university graduates offers them an employment option, and can serve as a

vehicle for developing their ideas into businesses to meet consumer needs, as well as to address social, economic and environmental problems.

There is also growing international attention to entrepreneurship as an efficient and effective solution for fundamentalism and terrorist activity, as highlighted in US President Barack Obama's speech at Cairo University in May 2008, where he addressed the Islamic world. In his speech, President Obama stressed the need for educational improvements, emphasizing entrepreneurship, innovation and critical thinking as key pillars for the world of the future.

The increasing level of participation of university students in Global Entrepreneurship Week-Egypt activities over the past three years suggests a growing interest in learning more about entrepreneurship, but there are limited opportunities for these youth to gain knowledge about the entrepreneurial process in their formal university education experience. A further measure of the interest in entrepreneurship among university graduates is indicated in the results of the 2008 study of entrepreneurial activity levels in Egypt (Hattab 2008). The Egypt Entrepreneurship Report 2008, based on the Global Entrepreneurship Monitor (GEM) methodology, revealed that the 18-24 and 25-34 age groups have the highest early-stage entrepreneurial activity rates, at 12.3% and 15% respectively. The large proportion of young people in Egypt's population thus gives it a strong "entrepreneurial advantage." Furthermore, 16.5% of adults with a university degree were either actively involved in starting a new business in 2008 or already owned a young business of less than 42 months old. However, only 7.5% of the adult population had ever received any sort of official entrepreneurship education. According to the expert's survey, conducted as part of the GEM-Egypt 2008 report, 80% of national experts agreed that the education system is one of the top three areas constraining the development of entrepreneurship in Egypt. Compared to 43 other countries in the 2008 GEM study, Egypt ranked 11th in the level of early-stage entrepreneurial activity and last among 31 countries on the entrepreneurial framework condition of "entrepreneurship education." The implication of these GEM results is an urgent need for an institutionalized entrepreneurship education initiative. The reasons are not limited only to being reactive to the factors of unemployment or the necessity to start a business, but also to help eligible youth to learn in a more creative and freer way. In fact, entrepreneurship education in Egypt is a necessity for moving from a factor-driven to an innovation-driven economy, and also to enhance competitiveness at the macro level, leading to the bottom line effect of improving living conditions.

The rationale behind entrepreneurship education efforts is that entrepreneurship is a learned way of thinking, behaviour and set of skills. Education for entrepreneurship is expected to enhance the supply of entrepreneurs through three mechanisms: it has a cultural effect on student's attitudes and behavioural dispositions (e.g. mindset aspects); it enhances cognitive abilities to recognize and assess opportunities; and it helps students learn the skills required to start and grow a business (Levie and Autio 2008). Although there is evidence that students who take entrepreneurship courses are more likely to become future entrepreneurs, even if they do not start businesses, they are better prepared for all forms of work.

According to the European Commission, entrepreneurship education is a key competence for all young people. By taking part in entrepreneurship program and activities, "students become more willing to take responsibility and to use their initiative, better at developing their own ideas and at channeling their creativity. Therefore entrepreneurship helps young people to be more creative and self-confident in whatever they undertake. It relates to managing one's own life; to being creative in any working activity; and to establishing and expanding a business successfully."

The World Economic Forum (WEF 2009), the OECD (OECD 2008, 2009), the United Nations Educational, Social and Cultural Organization (UNESCO) (Masri et al. 2010), and the European Commission (2006), as well as other international and regional organizations, are advocating for the integration of entrepreneurship across all formal levels of the education system.

This project to develop entrepreneurship curriculum and pilot entrepreneurship education approaches in Egyptian universities is consistent with policy prescriptions of these established and highly credible bodies and is very timely.

Project Objectives

1. Develop three courses to be initially offered to students in 3 pilot universities: a) Entrepreneurship and Small Business Management; b) Logic and Critical Thinking; and c) Innovation.
2. Over the 5 years of the pilot project, enroll over 100,000 university students in these courses.
3. By the end of the project, introduce the three courses, in a number of faculties, in all 19 public universities (any new ones that are established in the meantime).
4. Provide orientation to faculty members/professors on methodologies for the teaching of entrepreneurship-related courses, including the case-teaching approach.
5. Provide platform for the sharing of entrepreneurship teaching and learning materials, resource materials, entrepreneurship cases, etc., that can be used as foundation for developing additional courses that can form an entrepreneurship track in undergraduate and MBA degree programs.
6. Strengthen linkages between the university and the community of entrepreneurs and entrepreneurship support organizations.

CURRENT SITUATION

The vision of the ‘Developing Entrepreneurship Curriculum for Higher Education in Egypt’ project is to foster an entrepreneurial and innovative culture through a world-class curriculum, delivered to the highest standards, in all Egyptian public universities by the year 2014.

Local Context

The development of this entrepreneurship education project must take into consideration the existing constraints within Egyptian educational entities, specifically, the financial strategic choice of offering free tuition (creating a large demand for university education); the large number of students (e.g. 235,000 at Cairo University, 175,000 at Alexandria University); and teaching methodologies dependent on memorization and dictation.

The current situation in Egypt is characterized by:

- An overburdened financial system due to limited resources relative to the exponential increase in the number of students
- Hyper-competition due to the existence of privately-owned universities
- Degradation of the ranking of Egyptian universities in the international rankings
- A quest for quality, initiated by MOHE in 2004
- Continuous improvement programs adopted by the MOHE in 2004.

Implementation of the project will face some obstacles, related to:

1. The number of students in each intake (e.g. 5,000 in the Faculty of Commerce)
2. Available venues for lecturing
3. Assessment methodologies followed
4. Overly theoretical background of the teaching staff (with little practical experience in the domain of entrepreneurship).

These obstacles are exacerbated by:

1. The absence of fair and efficient evaluation for staff and students
2. Work-overload and job burnout among staff
3. Low compensation packages
4. The absence of critical-thinking, problem-solving, and innovation skills
5. Weak linkages between academia and the business environment.

The curriculum development process proposed in this project will be a suitable venue for challenging existing norms, especially with the serious initiatives for reform established by the MOHE (e.g. compensation improvements, students' finance, standardization, and quality inclusion).

In reference to the above-mentioned situation, there is a compelling need to:

- Change the teaching and evaluation methodology for both students and academia into a more objective one in order to comply with accreditation and ranking requirements;
- Strengthen the ties between the university and the business environment through curriculum development and cooperative programs; and
- Broaden the scope of university services to integrate the community with education modules.

There are a growing number of private universities out of the 23 currently existing in Egypt that have started teaching entrepreneurship courses:

- Three courses at the American University in Cairo (AUC) (two for undergraduates, one for MBAs).
- Two courses at the German University in Cairo (GUC) (one for undergraduates, the other for MBAs).
- One course at the British University in Egypt (BUE) for undergraduate students.
- Four courses at the Nile University (NU) (two for undergraduates, the other two for MBAs).

There are also some small business management courses taught at other private universities and English sections at public universities; but the conjecture that the teaching methodologies used for these courses drift them from their original purpose is valid to a great extent.

The number of courses available does not reflect the importance of the topic for real economic development, also there is no available data on the number of Egyptian master's thesis or doctoral dissertations covering the entrepreneurship topic.

International Context

The mostly advanced entrepreneurship curriculum constituents exist in the US, which has a long history in entrepreneurship education at the tertiary level of education. The first course started at Harvard University in 1948. The American culture is also based on solid foundations for an entrepreneurial mindset.

The George Washington University (GWU) School of Business and Public Management conducted the 1999-2000 National Survey of Entrepreneurship Education in the US, covering content and learning pedagogies using a methodology that identified future methods of teaching to cover the discipline of entrepreneurship (Solomon et al. 2002). Solomon et al. (2002) reported that 1,600 American universities and colleges were offering 2,200 entrepreneurship courses. In addition, there are more than 200 university-based entrepreneurship centers in the US. By 2006, the Kauffman Foundation reported that 5,000 entrepreneurship courses were being taught at 2- and 4-year colleges and universities in the US. However, entrepreneurship education is becoming a global trend. In Europe, universities are collectively offering more than 1,000 courses, but mostly as electives. In Malaysia, 18 universities and colleges in offer Undergraduate Entrepreneurship courses, and universities in China and India are aggressively pursuing entrepreneurship content in their degree programs.

Since 2006, the European Commission has been implementing a major policy initiative to "foster entrepreneurial mindsets through education and learning". The Recommendation of the European Parliament and the Council of 18 December 2006 on Key Competences for Lifelong Learning identifies the "sense of initiative and entrepreneurship" as one of eight key competences that should be emphasized across at all stages of education and training. Following the European Conference on Entrepreneurship Education in Oslo in October 2006, which presented a wealth of good practice examples, the Commission published the "Oslo Agenda for Entrepreneurship Education in Europe." The idea was to set out a menu

from which all stakeholders could select items and actions for the appropriate level of education (OECD 2008).

International organizations continue to promote the advancement of entrepreneurship education to address youth employment and economic development issues. This includes the Education Initiative of the World Economic Forum (WEF), which is promoting the importance of entrepreneurship education (WEF 2009); integration of entrepreneurship education outcomes in the enterprise policy framework of the Euro-Mediterranean Charter for Enterprise (European Communities and OECD 2008); best practice and sharing initiatives of the OECD (OECD 2008, 2009); and the UNESCO launch of an Entrepreneurship Education Project in the Arab States 2009-2012, which stresses the importance of adopting entrepreneurship education in the education systems of Arab countries, with a focus on policy and coordination, curriculum development, teacher education and training, equipment and teaching infrastructure, and networking and connectivity (Masri et al. 2010).

Even with these developments, currently, the teaching of entrepreneurship is not yet sufficiently integrated in the curricula of higher education institutions. Available data show that the majority of entrepreneurship courses are offered in business and economic studies, although there is evidence of vastly increasing efforts to introduce entrepreneurship across disciplines (e.g. schools of engineering, architecture, pharmacy, music; faculties of arts and science). Universities in Europe and Asia have, in general, adopted entrepreneurship courses as elective courses at the undergraduate level and rarely offer entrepreneurship as a complete track in post-graduate studies (OECD 2008). The diffusion of entrepreneurship is particularly weak in some of the member states that joined the European Union during and after 2004 (Wilson 2008).

Reviewing international efforts it is clear that entrepreneurship education is still, to a large extent, in its initial phases, except in the US. The challenges faced internationally are very similar to those in the local Egyptian arena. However, the development of entrepreneurship education is evolving exponentially worldwide. The number of courses on the international level is increasing. Also gaining ground is the belief that entrepreneurial economics can be a suitable and effective solution for recurring financial disasters.

Pillars of Activities

Building Awareness

Due to the novelty of the concept of entrepreneurship education in the Egyptian context, several prerequisites will be needed: 1) consensus among different stakeholders about the importance of entrepreneurship education, 2) awareness about successful entrepreneurs in the Egyptian context, 3) knowledge about available opportunities for institutionalized education, 4) knowledge about extracurricular activities fostering an entrepreneurship culture on campus, and 5) knowledge about available entrepreneurial opportunities, as well as funding and capacity building bodies.

Capacity Building

The absence of a profound entrepreneurial culture in higher education has presented the challenge of not having the necessary critical mass of faculty members to teach entrepreneurship courses. Also, the prevailing teaching methodologies hinder creative thinking and individual initiatives, and the binding laws and regulations of universities prevent practitioners from teaching practical courses. These factors have all contributed to the degrading status of entrepreneurship education.

Activities to address these deficiencies will rest on several foundations: 1) designing special programs for capacity building of academics in the field of entrepreneurship, 2) addressing different international schools of thought on entrepreneurship education, 3) facilitating understanding of the different entrepreneurship education specialties, which will be taught at different faculties, e.g. techno-, bio-, and social entrepreneurship, and 4) developing new teaching skills related to the use of case studies and e-learning.

Capacity building workshops will cover the following activities, customized for entrepreneurship, innovation, and critical thinking:

- Application of technology in teaching
- Examination and evaluation systems
- Quality standards
- International publishing of scientific research
- Case writing, teaching and solving
- Competing for research funds
- Effective presentation skills
- Designing an e-curriculum
- Communication skills with NGO"s, business associations and private companies
- Curriculum design, program and course specifications and report
- Academic advising and support in higher education.

Networking & Knowledge Transfer

It is important to provide mechanisms and tools that will secure sustainability for the initiative as well as spreading the concept regionally. This will be done by: 1) arranging periodic meetings for communities of practice at the local, regional and international level, 2) creating an electronic tool for knowledge-sharing and archiving, 3) providing learning opportunities for academia, whether on the local or international level, 4) providing tools for students to share knowledge about successful experiences, and 5) providing hubs for stakeholders working in entrepreneurship.

Feedback Tools

It is very important to assess the development of the project on a periodic basis. This will be done by: 1) hiring a third party to monitor the milestones intended for the project, and 2) providing documents for major stakeholders about the implementation successes or failures in order to adjust actions.

Rationale for Categorization of Project Pillars

The format and categorization of project activities, as outlined above, is extremely important to assure the success of the project. The rationale for the four pillars of the project is based on the following factors:

1. The concept of entrepreneurship in an institutionalized format is novel to Egyptian stakeholders, resulting in the need for extensive awareness campaigns.
2. Activity details will act as a foundation for involvement of different partners, whether locally or internationally.
3. The activities will serve as a hub for all the organizations working in the field of entrepreneurship, to avoid redundant efforts and to provide a platform for sharing knowledge and best practices.
4. Obtaining feedback on the success of the project and its implementation is essential to monitoring the alignment of results with the strategic key success factors (to be secured through a third party evaluation mechanism).
5. Activities will seek continuous improvement, quality and accreditation compliance through international networking and capacity building events.
6. Challenging the existing norm of teaching methodologies requires extensive capacity building activities for academics.
7. Activities will act as a strategic initiative to secure consensus among different stakeholders about the importance of having entrepreneurship as a cornerstone for better life conditions through a bottom-up approach.

Some of the activities will benefit from the promotion efforts of the Entrepreneurship Centers project, creating an efficient and synergistic strategic alliance.

Stages of Development

Development and implementation of the project will take place over the five-year period 2011-15, with development work beginning early in 2011. The implementation of curriculum components, knowledge-development and international best practice linkages, logistics, and benchmarking will be carried out over three phases:

- Phase one 2011-2012 and 2012-2013 (Inception phase)
- Phase two 2012-2013 (Spreading phase)
- Phase three 2013-2015 (Cross-disciplinary and institutional implementation and completion phase).

The progression of the curriculum development components of the project through these three phases is outlined in the table below.

**TABLE 1
PHASES OF IMPLEMENTATION**

Descriptors	Phase One: Inception phase	Phase Two: Spreading phase	Phase Three: Cross-disciplinary/ university implementation and completion phase
Duration	Academic year 2011-12 and 2012-13 (giving enough time to do an assessment of necessary improvements and to demonstrate short-term success stories to motivate other universities to join the project)	Academic years 2012-13 (giving enough time to do an assessment for the pilot project, as well as creating awareness of the basic topic)	Academic years 2013-15
Target universities	Cairo, Alexandria and Helwan as the 3 pilot universities selected from three different governorates. They have high number of students and faculties, have taken initiatives to promote entrepreneurial activities, and thus have the potential for greatest impact.	The 3 pilot universities plus universities who show interest in introducing the topic to their students (expected 5 more)	The 19 existing public universities, plus any newly established ones
Target faculties	Commerce, Engineering, Economics and Political Science, Agriculture, Science. These entities vary in interest. Some of them are business-oriented and have been advocating the concept of entrepreneurship culture for some time.	Engineering, Commerce, Economics, Science, Agriculture plus a Social Sciences faculty (e.g. Law)	All faculties

	<p>These are mostly related to service industries (commerce, economics). The topic may also be addressed from a specialty perspective, e.g. economics. Others (engineering, agriculture, science) are more practical and technologically-oriented, thus will be more oriented towards technology and bio-entrepreneurship.</p>		
Target students	<p>Graduating seniors (last year). This will encourage students to do a final project that might be applied as a business idea shortly after graduation. The pool of projects, using business idea and business plan competition-oriented formats, will be very useful through close coordination with NGO"s working in the field of entrepreneurship (e.g. Nahdet El Mahrousa, EJB, INJAZ, etc.).</p>	<p>Graduating seniors for the "Entrepreneurship and Small Business Management" course; first year students for the "Logic and Critical Thinking "course; and third year students for the "Innovation" course</p>	<p>Undergraduate and graduate students from all faculties</p>
Curriculum components	<p>The course "Entrepreneurship and Small Business Management" will be developed and offered. The introduction of this one course will be the main pillar for the future phases and a good test of the challenges of changing the mindsets and teaching practices of professors and the reaction of students.</p>	<p>The new course, "Innovation" will tackle the topic according to the faculty specialty. This will help to build a strong entrepreneurial character, and also complement other courses, as well as the core entrepreneurship course. For practical- oriented faculties the course name will be "Innovation and New Product Development" to enhance technological innovation.</p>	<p>Business oriented faculties (e.g. Commerce) will offer a new core track for entrepreneurship (together with the traditional ones like Business Administration and Accounting)</p>

PROJECT OUTCOMES AND KEY SUCCESS FACTORS

Project Outcomes

1. An estimated 103,500 university students from five faculties at the three pilot universities will take at least one entrepreneurship-related course by 2014.
2. By 2014, an estimated 90 Egyptian university professors will have participated in faculty development activities in the construction and teaching of entrepreneurship-related curriculum (study tours, expert seminars and workshops, etc.), including in the writing and teaching of entrepreneurship case studies.
3. By 2015, an inventory of 150 teaching cases based on Egyptian and Arab region SME and entrepreneurial ventures will be available for use from the Entrepreneurship Case Center.
4. Undergraduate and MBA programs will offer an entrepreneurship track, and graduate students will be able to do a PhD in entrepreneurship from Egyptian universities.

A network of community entrepreneurs and entrepreneurship-support organizations will be built to cooperate with the universities in providing guest lecturers to students (and possibly acting as adjunct professors of entrepreneurship).

The success of the project will be measured against a number of key performance indicators (KPIs). Among the major KPIs to assess the internal and external success of the project are the following:

Key Success Factors

- Internal success factors
- Number of cooperation agreements with international universities for best practices on delivery
- Number of professors delivering curriculum across various governmental universities in the initial phase
- Establishment of an Arabic/ English web portal for educational resources
- Number of students enrolled in entrepreneurship-related courses (at the undergraduate and graduate levels)
- Number of research papers published annually in the entrepreneurship domain by Egyptian professors

External Success Factors

- Number of students graduating annually with an entrepreneurship degree
- Percentage growth in the number of businesses established by university graduates nationwide
- Percentage growth in the number of successful businesses
- Percentage growth in the number of patents.

PROJECT MANAGEMENT, DETAILED ACTIVITIES

Project Management

The management of the project will be coordinated by the Middle East Council for Small Business and Entrepreneurship working in partnership with the Ministry of Higher Education and the participating pilot universities. Oversight on implementation of the project will be provided by a National Committee represented by senior officials of the partnering institutions. This Committee will meet on a regular basis. Each of the pilot and participating universities will assign a focal point or project champion for the project, and they will be supported by working groups/committees established to carry out different components of the project. An international consultant(s), with competency in the area, will be contracted to provide technical expertise, advice, and support to the MCSBE and the MOHE in the development and management of the project during the first two years of the project.

The ICSB and members in its network of global affiliates (in the US, Europe, Canada, Australia and New Zealand, Korea, Japan, Argentina, Brazil, South Africa, Puerto Rica and the Caribbean, Taiwan, and China) will be the major source of external expertise and identification of good practices in entrepreneurship education (curriculum, teaching resources, faculty development, and case preparation) that can be replicated and/or adapted to the Egyptian context. The European Training Foundation (ETF), an agency of the European Union with a presence in Egypt, will also be a valuable resource.

Project Activities

Project activities are divided into Supporting Activities, and Primary Activities.

Supporting Activities

Covering across-the-board activities for the complete duration of the project, including administrative and marketing requirements. Some activities will include shared expenses with the intended project to establish a network of university-based Entrepreneurship Centers (separate proposal being developed).

A portion of the budget will be allocated to the MCSBE for management and knowledge transfer responsibilities to cover the costs of:

1. Project salaries for the Executive Director and staff
2. Establishment of a project liaison office
3. Marketing material
4. National Committee compensation scheme
5. MCSBE administration, management and travel expenses
6. International consultant(s) contract (to provide technical expertise/support to project development and management during the first two years)

Primary Activities

Covering all aspects related to the main pillars of the project, and implementation from the pilot phase to expansion and sustainability of the project. These include:

1. Entrepreneurship education knowledge portal
2. Study tours covering entrepreneurship education conferences
3. Establishment of an Entrepreneurship Case Center
4. Annual entrepreneurship education orientation workshops
5. Annual press conference to cover entrepreneurship education activities and developments
6. Local community of practice annual event
7. Regional conference for entrepreneurship education
8. Annual conference for local stakeholders in entrepreneurship education including NGOs, financing bodies and academia
9. Annual workshops done by prominent thinkers in the field of entrepreneurship
10. Annual workshops done by prominent thinkers in the field of innovation
11. Annual workshops done by prominent thinkers in the field of critical thinking
12. A series of workshops ,to be organized in collaboration with the National Center for Faculty and Leadership Development (NCFLD), the focus of which will be the specialized areas of entrepreneurship, innovation, and critical thinking
13. An annual conference for entrepreneurship and innovation education and research
14. Contract with a consulting agency to assess the outcomes of the entrepreneurship education according to key success factors.

PARTNERS

The main participating partners in this initiative are the MOHE, the MCSBE, and the ICSB.

Ministry of Higher Education (MOHE)

Ministry of Higher Education (MOHE) Will Be Represented by Dr. Mohsen Elmahdy Said

Dr. Mohsen Elmahdy Said is a Professor of Mechanical Design and Production, Cairo University, Egypt and an Advisor to the Minister of Higher Education for International Cooperation, Egypt. He was also the former Executive Director and Chairman of the Board, Projects Management Unit at the Ministry of Higher Education, which is implementing Egypt's Higher Education Reform Strategy.

Dr. Said has held a variety of key positions including: Chairman of the National QAA Committee, President of the Arab Society for QA in Education (ASQAE), member of the UNESCO Expert Group to develop the guidelines for Quality Provision in Cross-Border Higher Education, member of the Fulbright New Century Scholars Program, Executive Director of the USAID-funded Energy Conservation & Efficiency Project, as well as successfully directing the implementation of a number of National projects in the reform of higher education.

Dr. Said is one of the main international Leaders of Quality Assurance and Accreditation in Majority Muslim countries and the Arab region, and has made immense contributions in areas such as strategic reform planning, restructuring of higher education, quality assurance and accreditation, financing of higher education, internationalization and student mobility, cross-border delivery, human resources capacity building, e-learning, distance education, and other related areas.

Middle East Council for Small Business and Entrepreneurship (MCSBE)

MCSBE is the outcome of the aspirations of a group of entrepreneurs dedicated to the vision of advancing entrepreneurship and SMEs in Egypt and the Middle East. MCSBE is an affiliate of the International Council for Small Business (ICSB) covering Egypt, Jordan, Saudi Arabia and Morocco. The members of the MCSBE include representatives from government bodies, universities, business associations, banks, venture capital companies, donors, consulting companies, large corporations and entrepreneurial companies. Its mission is to advance entrepreneurship and SME development throughout the Middle East and North Africa region. The four theme pillars of the MCSBE are: 1) awareness and culture building; 2) know-how development (including entrepreneurship education and learning); 3) entrepreneur/SME financing; and 4) policy/strategy influence. The MCSBE is the official country host for Global Entrepreneurship-Egypt, working with a large number of country partners to deliver a week-long series of events and initiatives to promote entrepreneurship among Egyptian youth and expose them to entrepreneurial skills and thinking. It is also a partner in the Global Entrepreneurship Monitor-Egypt research project.

The MCSBE Will Be Represented in This Project by Dr. Ashraf Sheta

GM of Shetatex Company for weaving since 1990. With more than 20 years of experience in the field of textiles, he was the former president of textile committee at the Egyptian junior business association (EJB), focusing on the challenges facing SME, s. He is also a founder of the Egyptian textiles technology center, and member of the textile trade center steering committee.

As a board member of the EJB, he served as the head of business environment council coordinating 13 different committees from service and manufacturing industries, also publishing the Egyptian national business agenda in collaboration with center for international private enterprises, also participated in the task force of corporate governance (CG) awareness campaign and issuance of CG code for family business in Egypt. He was a member of the advisory council for transparency and anti-corruption. He served as vice chairman of the EJB till January 2010, and he is adopting an initiative for educational reforms from a business perspective on the national level, Dr Sheta is a board member of the middle east council for small business and entrepreneurship since 2010, he is heading the committee responsible for developing an entrepreneurship curriculum for Egyptian universities, he is also a consultant for the expert in residence initiative EIR at the women entrepreneurship and leadership program WEL developed by Wharton school of business and Goldman Sachs at the American university in Cairo, member of the advisory board for Khazindar case center KCC at the AUC.

On the educational dimension, Dr Sheta has a bachelor degree of civil engineering 1990, an MBA with marketing major 2003, and doctorate of business administration DBA 2008, with specialization in learning organizations, knowledge and performance management.

He was also adjunct professor of management for undergraduate students as well as organizational behavior, performance management systems and contemporary management for MBA students at the Arab academy for science and maritime technology in Alexandria and Cairo. Lecturer of advanced strategic, seminar and thesis courses for undergraduate students and strategic management for MBA students at the German university in Cairo, and is currently adjunct faculty of entrepreneurship for undergraduate and strategic management of innovation for MBA students at the American university in Cairo.

He has started a course for knowledge management for the first time in Egypt at the Nile University's MOT program on June 2010, where he is also teaching strategic management of technology and small business management. He is advocating enlisting innovation and critical thinking as part of the official curriculum at Egyptian universities, also ethics education on the school and university level.

Dr Sheta is advocating for the fields of innovation management, managing intellectual capital, critical thinking, entrepreneurial economics, organizational learning and learning organization for post graduate studies.

Dr Sheta is certified practitioner of systems thinking from Auckland University, high impact presentation certificate from Dale Carnegie. He is a member of the Arab management association. He is a founding member of the Middle East council for small business and entrepreneurship (MCSBE) an affiliate of the international council for small business (ICSB) in Washington. Certified attendant of international visitor leadership program (IVLP) with specialization in entrepreneurship and small business development program organized by US state department.

Dr Sheta is also an alumnus of Freidrich Nauman institute advocating for liberal thinking, with profound knowledge in lean government and property rights.

International Council for Small Business (ICSB)

ICSB Will Be Represented by Dr. Ayman El Tarabishy

Dr. El Tarabishy is the Executive Director of the International Council for Small Business (ICSB). Dr. El Tarabishy is currently a research professor in management at the George Washington University's School of Business, where he teaches leadership in the full-time, part-time, and executive MBA programs and leads the primary entrepreneurship and case study methods course for the GW Healthcare MBA program. Dr. El Tarabishy has worked at the World Bank in the Corporate Strategy Group. He helped to develop and manage their technology strategy for the Development Marketplace Program. To date, the Global Development Marketplace competition has disbursed over US \$50 million in awards to 300 winning proposals.

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APPENDIX A

LIST OF ACRONYMS

AUC	American University in Cairo
BUE	British University in Egypt
CG	Corporate governance
EJB	Egyptian Junior Business Association
ETF	European Training Foundation
NCFLD	National Center for Faculty and Leadership Development
GEM	Global Entrepreneurship Monitor
GUC	German University in Cairo
GWU	George Washington University
ICSB	International Council for Small Business
ILO	International Labor Organization
KPI	Key performance indicator
MBA	Master of Business Administration
MCSBE	Middle East Council for Small Business and Entrepreneurship
MOHE	Ministry of Higher Education
MOE	Ministry of Education
NGO	Non-governmental organization
NU	Nile University
OECD	Organization for Economic Cooperation and Development
PPP	Public Private Partnership
UNESCO	United Nations Educational, Scientific and Cultural Organization
WEL	Women Entrepreneurship and Leadership (program)