Entrepreneurship Ecosystem Analysis and Its Impact on Unemployment Rates in Egypt

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Abstract:

This research was mainly conducted to study the entrepreneurship ecosystem and the impact of entrepreneurship on unemployment rates, with a hypothesis which states that entrepreneurship ecosystem in Egypt helps in creating job opportunities and affect unemployment rates positively. The research also reviewed different definitions for entrepreneurship, the situation of entrepreneurship in Egypt, the meaning of entrepreneurship ecosystem and its determinants and how it is compared and ranked to different countries and to the global average.

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1- Introduction:

Entrepreneurship is a multidimensional concept as the classical and neo-classical theorists have tried to define it but they couldn't. As researchers look at entrepreneurship from different perspectives such as economics, sociology and psychology, that's why there is no final definition for the term. The failure of a single definition of entrepreneurship to emerge reflects and proves that this term is multidimensional.

The OECD (2008) agreed on the definition of the entrepreneurship to be *"the phenomena associated with entrepreneurial activity"*, and defined entrepreneurial activity to be *"The enterprising of human action in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets"*.(OECD, 2008, p.14)

Entrepreneurship helps young men and women to develop new skills and experiences, it stimulate job and wealth creation in an innovative and independent way. Starting a new business is not the exact meaning of entrepreneurship as it denotes a continuing process where individuals become more aware of the opportunities that exist in their societies to enhance and empower themselves. They develop certain ideas, and take responsibilities and initiatives. (Okpara, 2007, p.7)

Before the existence of Global Entrepreneurship Monitor (GEM) it was difficult to measure the entrepreneurial activities among variety of countries and the only available measure was the self-employment measure which was not sufficient to get accurate data about entrepreneurial activities. (Stel, C. & Thurik, R., 2004, pp.1-3)

Egypt is characterized by its challenging economic environment, although there is huge opportunity for entrepreneurs to help in the country's economic recovery as entrepreneurship nowadays is an area of interest for many institutions such as governmental agencies, universities, financial institutions and other stakeholders. Progress has been made in promoting entrepreneurship culture and creating a favorable environment for

entrepreneurs; however, starting a new business in Egypt continues to be a challenging as workforce is highly dependent on governmental or private sector employment rather than entrepreneurship, where early stage entrepreneurs in Egypt are around half the average global rate.

Between 2010 and 2015, more people are becoming interested in starting their own business; where the number of individuals engaged in starting a new business has doubled indicating increased interest in entrepreneurship, reflecting 7.4% of the adult population in Egypt (aged 18-64) are currently either involved in actively setting up a new business or have started a business that is younger than 3.5 years compared to a global average of 13%. 42.4% of early stage entrepreneurs started their business due to the absence of other work alternatives, which is a much higher rate than the global average of 25%.On the other hand TEA rates in Egypt are slightly below the global average rate. (GEM Website, 2017)

2- Research Question:

This research is mainly conducted to study the entrepreneurship ecosystem in Egypt, so the research question could be summarized in whether the entrepreneurship climate is enhanced in Egypt overtime or not? Also the research is concerned by the unemployment and how does entrepreneurship ecosystem in Egypt affects these unemployment rates?

3- Hypothesis:

The research hypothesis is "entrepreneurship ecosystem in Egypt helps in creating job opportunities and affect unemployment rates positively"

4- Methodology:

The study will be using both the deduction and the induction approaches. Where at the beginning a deduction approach will be used to carry out an analytical review to investigate the entrepreneurship ecosystem in Egypt, in this respect, a theoretical background will be presented to review the theories and broad definitions that are concerned by entrepreneurship and its importance to economics, based on this background, a theoretical analysis

can be undertaken to discuss the importance of the topic and its anticipated benefits on the employment in Egypt. After testing the hypothesis and concluding the results of the study an induction approach will be used in order to generalize the results.

5- Early-stage Entrepreneurial Activities in Egypt:

Early-stage entrepreneurial activities means the motivation that is behind starting businesses, GEM divides the entrepreneurial motivations into two types of entrepreneurs the first one is called opportunity-driven entrepreneurs, who seek to gain profits from starting their own business; they see entrepreneurship as an opportunity and not a necessity, versus necessity-driven entrepreneurs, who were directed to entrepreneurship because they cannot find any other job opportunity.

70% of entrepreneurs around the world are opportunity-motivated as they chose to start their business because they see it as an opportunity rather than starting out of necessity.

In Egypt has the highest rate of necessity entrepreneurship among countries of a similar economic development level, as 42.4% of early-stage entrepreneurs started their business due to the absence of other work alternatives; where the global rate of necessity-driven entrepreneurs is 25%.

57.3% of the entrepreneurs in Egypt are driven by Opportunity rather than necessity 42.4% by the end of 2015; however, this figure remains below the global level that records 72%. The opportunity-driven entrepreneurship has increased after the January 25 uprising, going up from 47% to 66%, reflecting an increase in the number of entrepreneurs who identified promising business opportunities as shown in table 1. (Ismail, A., Tolba, A., Barakat, S., 2016, p.29).

6- Egypt's Entrepreneurship Ecosystem:

It refers to the social and economic environment affecting the local or regional entrepreneurship. Businesses located within places serving as

incubators for creativity, innovation, and entrepreneurship have a greater chance of success. (OECD Website, 2018)

6.1 - Finance for Entrepreneurial Activities in Egypt:

Over the past five years, it was also noticed that there is a decline in several areas such as entrepreneurial finance where access to finance is becoming harder. In Egypt experts states that informal investors including both family and friends and angel investors are the most available source of funding for early stage entrepreneurs, where the financing for entrepreneurship index recorded 2.4 by 2010 and then decreased to reach 2.38 by 2012 as this year was post the January 25 uprising, and the increased perception of risks affects early-stage businesses more adversely, then the index continued to decrease and reached 2.14 by 2015 and the index increased to record 2.34 by the end of 2016 as shown in graph 1.1 and table 2, where the entrepreneurial framework ranges from 1 which is highly insufficient to 9 which means highly sufficient. (GEM Database, 2017).

While debt funding is limited, and government support and subsidies for early stage businesses are also scarce, also initial public offerings (IPOs) have also declined and this decline may be attributed to the contraction of the financial markets. (Ismail, A., Tolba, A., Barakat, S., 2016, pp. 40-42)

Graph 1.1:

Source: GEM Database, 2017

6.2- Governmental Policies:

It means to what extent public policies support entrepreneurship as a relevant economic issue, policies include areas such as licensing and permits, taxation, public procurement , market regulation, as well as other legal and regulatory interventions and they have significant influence on businesses. GEM classifies government policies into two main areas; the first one is support and relevance while the other one is taxes and bureaucracy. (GEM Global report, 2017, p.34)

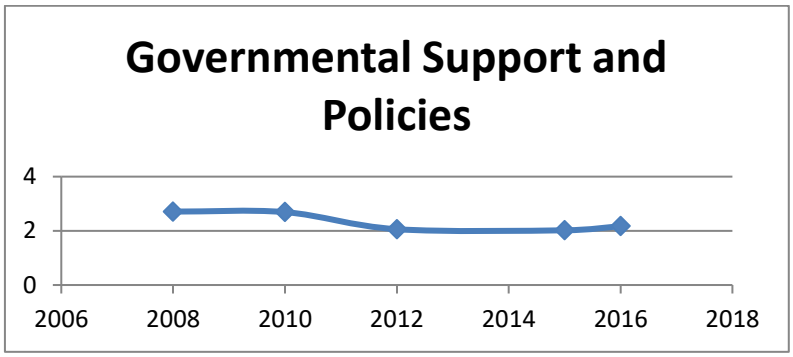
Graph1.2 and table 2 reflects the government's support and policies index that shows a slight increase during the period 2015-2016, although there is an acknowledgement from the government states supporting new and growing firms however, there is no actual practices at the local level to prove this and it is very hard for early stage businesses to get licensing and permits and other bureaucratic requirements easily.

During the period between 2010 and 2015, there was a huge decline in the level of government attention and prioritization for new firms on the national and local levels, as this reflects the government's focus on large and existing firms rather than new firms. (Op.cit, Ismail, A., Tolba, A., Barakat, S., 2016, pp.44-46).

Government bureaucracy and long complex procedures weakens people's entrepreneurial drive and interest to start a business leaving them to continue working in the informal ways.

Another barrier is corruption amongst governmental organizations that makes it hard to access information, also ineffective antitrust laws and regulations keeps out new firms from competition. Added to that the cost of closing a business is also very high for all entrepreneurs and the process is very lengthy, and can go up to one or two years. (The Swedish Trade and Invest Council, 2015, p.11)

Graph 1.2:



Source: GEM Database, 2017

6.3- Basic School Entrepreneurial Education and Training:

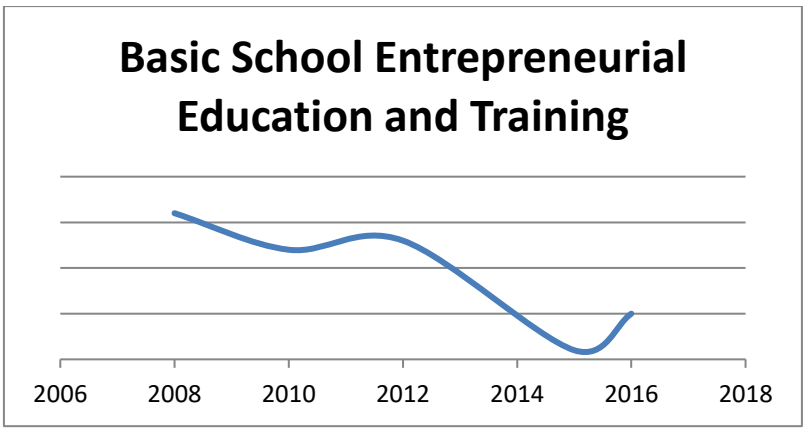
The weakest areas in the Egyptian entrepreneurship ecosystem are education both at school and post-school stages, where the national education system does not provide the knowledge and skills required by entrepreneurs (Op.cit, Ismail, A., Tolba, A., Barakat, S., 2016, p.38).

Egypt faces a huge challenge regarding the quality and reach of education to the citizens as illiteracy rate is slightly high in rural and remote areas, where education influences and is influenced by social and cultural factors that include both skills and academic knowledge to prepare young people to the labor market. (Op.cit, The Swedish Trade and invest Council, 2015, P.6)

It was seen that basic school entrepreneurial education and training index recorded1.3 by 2008 which is the highest value of the index all over the pattern this could be reflected because the initiatives of the Egyptian government to promote small enterprises by producing a law in 2004 which led to focusing a little bit on entrepreneurial education (Masri, M, 2010, P.7). The index recorded 1.28 by the end of 2012 and then decreased to reach 1.16 by 2015 and then slightly increased to be 1.2 by 2016, and these values

reflects low rates as the global average is 3.1 when it comes to education in the school stage.(GEM Global Report, 2017)

Graph 1.3:



Source: GEM Database, 2017.

The overall education system in Egypt is reflected to be very week in the entrepreneurship area where students lake entrepreneurial skills that helps them to start their businesses, also entrepreneurial education is seen very important because it doesn't only affect the entrepreneurial activities but also it affects the quality of the started businesses. This will help young students to develop the required skills to have full knowledge of entrepreneurship and its contribution to the society and basic economic understanding, basic financial concepts, problem solving skills. (Op.cit, The Swedish Trade and invest Council, 2015, p.7)

6.4- Post School Entrepreneurial Education and Training:

Post school entrepreneurial training and education is also below the average global rate where it is not fluctuating during the period 2012 to 2016 as shown in graph 1.4.

One of the main important initiatives to develop and increase the entrepreneurial activities is the incubators; where in Egypt, AUC Venture Lab at the American University in Cairo is the first and only university

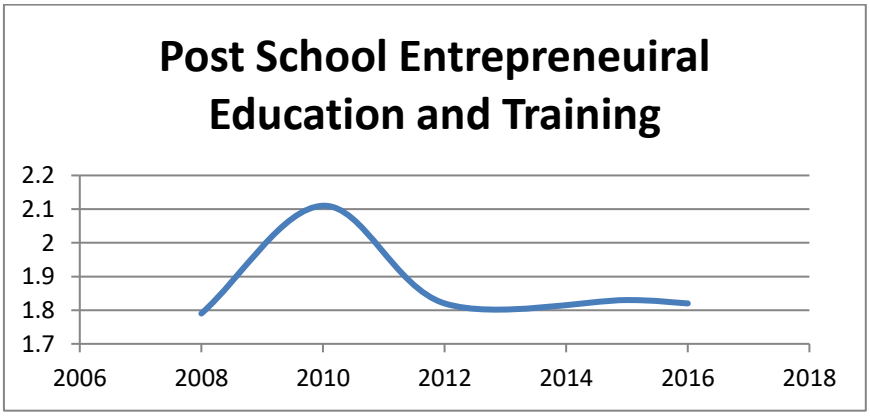
incubator to be launch and that took place in 2013, It incubates early-stage and growth-stage startups that are chosen through a selection process depending on the creativity of the ideas, the potentials for commercialization, as well as the team's commitment to success. The lab offers funding, business trainings, networking events, working place, mentorship.

A number of independent start-up incubators have been stepping into the entrepreneurship scene in Egypt in the last few years apart from the university incubators with the main goal of bringing life to innovative entrepreneurs, such as Nahdet Masr, Flat6LabsStart-up Egypt, Endeavour Egypt, Tamkeen, Intilaaqah Egypt, and the government-run Ayady. (Ibid, P.9)

The decreasing figures in the post school entrepreneurial training and education could be referred to this could be referred to the lack of incubators in the Egyptian universities and to the organizations that should provide technical training to the university students and graduates.

As it has been proved that there is a positive impact between entrepreneurial education and students' perceived desirability of self-employment, where education was found to increase entrepreneurship as a career among Egyptian students. (Hattab, H, 2014, P.14)

Graph 1.4:



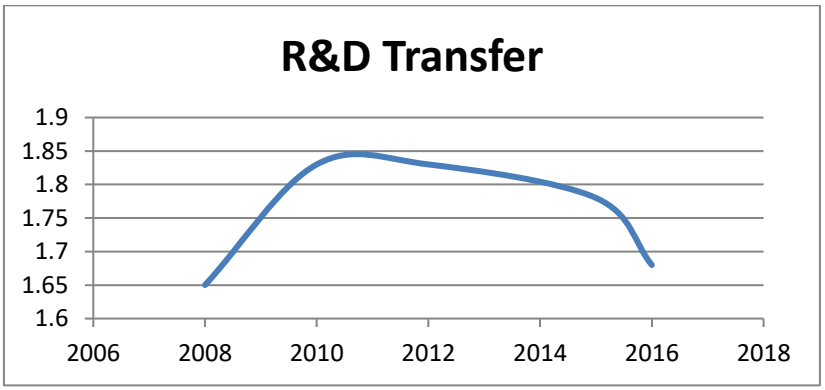
Source: GEM Database, 2017.

6.5- R&D Transfer:

The expert's rating of R&D in Egypt in 2016 reached 2.76 which is ranked as the 59th out of 65 different countries, this number is low if compared to the global average which is 4.4 (GEM Global Report, 2017). According to the GEM Data base, R&D Transfer was 1.83 by 2010, 2012 but this value decreased to reach 1.78 by 2015 and then continued to decrease to reach 1.68 by the end of 2016 (GEM Database, 2017).

The figures may be low due to the inability to link between industry and their research centers with universities, also government support for new firms to get new technology is very limited, this represents a long recognized problem in Egypt since 2010, however there is a positive emerging trend where the firms that were started by engineers and scientists have more access to new technology and can commercialize their ideas recently. (Op.cit, Ismail, A., Tolba, A., Barakat, S., 2016, p.48)

Graph 1.5:



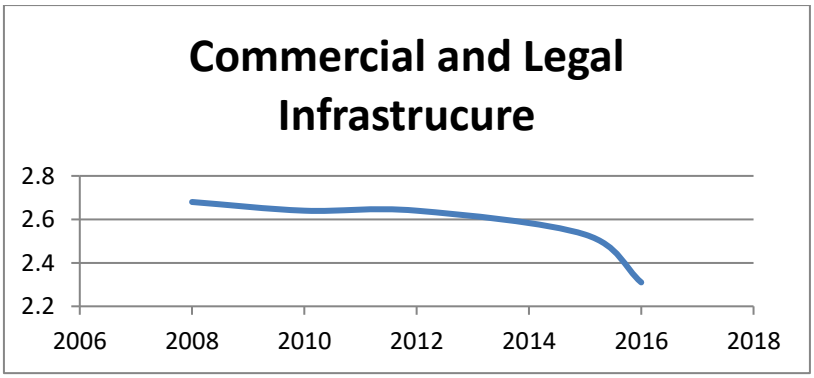
Source: GEM Database, 2017.

6.6- Commercial and Legal Infrastructure:

Commercial and legal infrastructure refers to the ability of newly issued and growing firms to access banking, and banking, consulting. Egypt's score in this index is 3.87 (ranking 63rd), compared to a global average of 5.2(GEM Global Report pp.31, 54). It is noticed that the index is decreasing over the

period 2010-2015; this may be due to the inability of entrepreneurs to access to basic banking services, such as foreign exchange transactions and letters of credit. These limitations have a negative impact on new firms due to their lack of credit history in the market which makes them less attractive clients for service provides. (Ibid, P. 49)

Graph 1.6:



Source GEM Database, 2017.

6.7- Internal Market Dynamics:

When Egypt's entrepreneurship ecosystem is compared with other countries, it was found that internal market dynamics is very strong, as internal market dynamics means the level of change in the market from year to year and this index nowadays is stabilizing, also it affects the ability of the business to enter, grow and compete in a certain economy. This index includes two types the first one is the market dynamics and the second is the internal market burdens and regulations.

The internal market dynamics recorded 5.12 (ranked as 27th) compared to the global average which is 4.9, while the internal market burdens and regulations index scored 4.01 by the end of 2016 (ranked as the 42nd), if compared to the global average which is 4.6. This indicates that the markets

for consumer goods and services, as well as B2B goods and services are changing from year to year in a positive way. (Ibid, P.50)

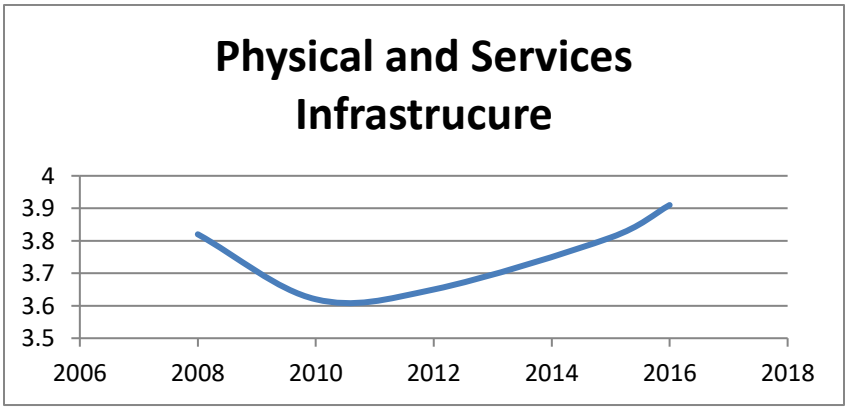
6.8- Physical and Services Infrastructure:

This index describes the ability to access physical resources, such as transportation, ports or land communication and utilities. Overall, Egypt's score in physical infrastructure is 6.51 (ranking 35th), compared to a global average of 6.8. (GEM Global Report PP. 31, 54)

Availability of physical infrastructure is been increasing over the past five years, where entrepreneurs can easily access roads, utilities, water disposal, also newly firms can get good access to utilities such as gas, water, electricity in about a month as shown in graph1.7, where the value of the index was 3.62 by 2010 and it reached 3.91 by the end of 2016.

However, telecommunications services, has been declining between 2010 and 2015, and this affects new firms. (Op.cit, Ismail, A., Tolba, A., Barakat, S., 2016, pp. 50, 51)

Graph 1.7:



Source: GEM Database, 2017.

6.9- Cultural and Social Norms:

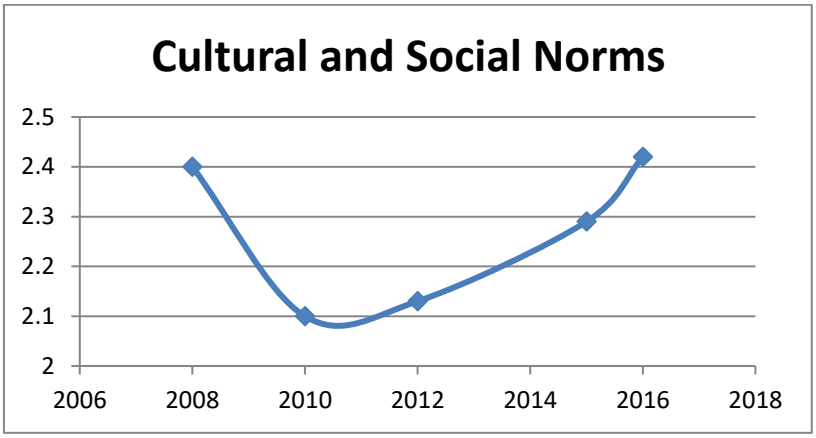
One of the main driving forces in Egypt are culture and social norms, as normally after students graduate they wait until they get employed by the government because it is the most guaranteed and stable job in the labor market, later, mindsets have changed into accepting working for the private sector as it offers higher wages and benefits.

On the other side, starting your own business is not always a socially and culturally accepted idea; the resistance is mainly because the owner of the business will not be able to have a stable income each month, which is not considered as a safe option. (Op.cit, The Swedish Trade and invest Council, 2015, p.12)

It is noticed that the overall score for the social and cultural norms recorded 4.07 in 2016 while the global average score is 4.9, Egypt's rank is the 46 out of 65 countries, where it is seen that 87.1% see entrepreneurs to be in high status, while 83.4% see entrepreneurship as a good career choice. (GEM Global report, 2017, p.54)

The Egyptian culture is not very supportive of individual success achieved through personal efforts, although this has improved in 2016 (scoring 2.42) compared to previous years (scoring 2.1 in 2010 and 2012), this may upraised due to the sense of individual empowerment after the January 25 uprising. (Op.cit, Ismail, A., Tolba, A., Barakat, S., 2016, p. 51)

Graph 1.8:

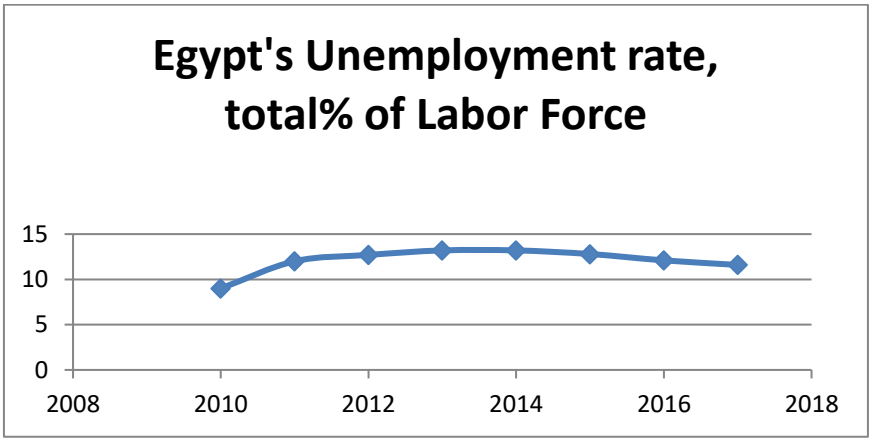


Source: GEM Database, 2017.

7- Unemployment Rates in Egypt and how Entrepreneurship affect these figures:

Graph 1.9 and table 3 shows Egypt's total unemployment rate that reached 11.6% of total labor force by the end of 2017, it is worth noting that the unemployment rate by the end of year 2010 recorded 9% and then started to increase to reach 12% by 2012 and then increased steadily to reach 13.2 by 2014, and this rate started to decrease in 2015 and 2016 to reach 12.8% and then 12.1%, then 11.6% by the end of 2017.

Graph 1.9:



Source: World Bank, WDI, 2017.

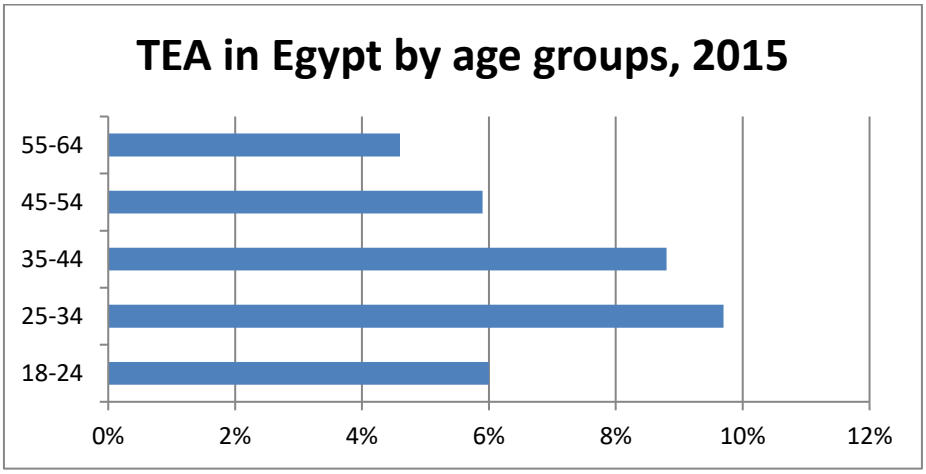
7.1- Entrepreneurship Impact on Unemployment Rates in Egypt:

In Egypt the unemployment rates are decreasing over time and this could be due to the participation of entrepreneurship. When it comes to reducing the unemployment rate, the light should be shed on entrepreneurship as the global age pattern for entrepreneurship shows the highest participation rates among the 25–34 and 35–44 year olds.

Table 4 and graph 1.10 shows total early stage entrepreneurship activities in Egypt by age groups, and it shows that 9.7% of the 25–34 year old and 8.8% of the 35–44 year olds are early stage entrepreneurs by the end of year 2015.

This pattern has similar ratios in 2010 and 2012, where in 2012, 12.8% of the age group 25–34, as this could be due to January 25 motivation, which attracted youth at this age group to start their own businesses and take higher risks (Ismail, A., Ahmed, T., 2016, P.20).

Graph 1.10:

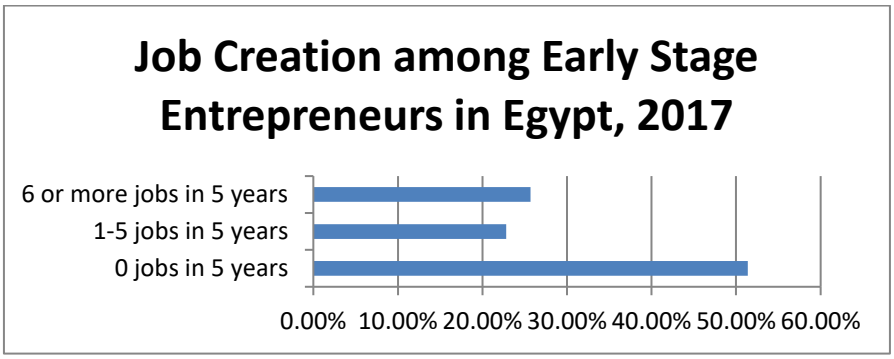


Source: GEM Egypt Report, 2016.

As entrepreneurs start to build and grow their businesses, they employ others so at some point they are considered as job creators, and job creation is considered as a key indicator for the business's growth. 51.4% of Egyptian early stage entrepreneurs do not add any new jobs to their business within 5 years; a figure that is higher than the global average of 42%.

This indicates that Egyptian entrepreneurs are described by being risk averse, also it shows limited growth for entrepreneurial climate, while a quarter of the early stage entrepreneurs are with high growth aspirations as 25.7% of early stage entrepreneurs expect to grow their business by 6 or more jobs within 5 years; a higher figure than the global average of 20% as shown in table 5 and graph 1.11(Ibid, P.34).

Graph 1.11:



Source: GEM, 2017

8- Conclusion:

This research concludes that there is no final definition for the term entrepreneurship, and the failure of a single definition of entrepreneurship to emerge reflects and proves that this term is multidimensional. The OECD (2008) agreed on the definition of the entrepreneurship to be *"the phenomena associated with entrepreneurial activity"*. Also research showed that entrepreneurship helps young men and women to develop new skills and experiences, it stimulate job and wealth creation in an innovative and independent way.

It is important to note that starting a new business is not the exact meaning of entrepreneurship as it denotes a continuing process where individuals become more aware of the opportunities that exist in their societies to enhance and empower themselves. They develop certain ideas, and take responsibilities and initiatives.

Regarding the ecosystem, the weakest areas in the Egyptian entrepreneurship ecosystem are education both at school and post-school stages, where the

national education system does not provide the knowledge and skills required by entrepreneurs. Also R&D figures are decreasing over time as the expert's rating of R&D in Egypt in 2016 reached 2.76 which is ranked as the 59th out of 65 different countries, this number is low if compared to the global average which is 4.4. Commercial and legal infrastructure is also decreasing and this could be due to the inability of accessing basic banking services easily as foreign exchange transactions and letters of credit. It is also seen that governmental policies figures are almost the same over the stated periods of analysis.

When Egypt's entrepreneurship ecosystem is compared with other countries, it was found that internal market dynamics is very strong, as internal market dynamics means the level of change in the market from year to year and this index nowadays is stabilizing. Financing new projects is enhancing over time. Also availability of physical infrastructure is been increasing over the past five years, where entrepreneurs can easily access roads, utilities, water disposal, also newly firms can get good access to utilities such as gas, water, electricity in about a month.

Egypt's total unemployment rate that reached 11.6% of total labor force by the end of 2017, it is worth noting that the unemployment rate by the end of year 2010 recorded 9% and then started to increase to reach 12% by 2012. Figures in Egypt by age groups shows that 9.7% of the 25–34 year old and 8.8% of the 35–44 year olds are early stage entrepreneurs by the end of year 2015. This pattern has similar ratios in 2010 and 2012, where in 2012, 12.8% of the age group 25–34, as this could be due to January 25 motivation, which attracted youth at this age group to start their own businesses and take higher risks.

As entrepreneurs start to build and grow their businesses, they employ others so at some point they are considered as job creators, and job creation is considered as a key indicator for the business's growth. But figure shows

that 51.4% of Egyptian early stage entrepreneurs do not add any new jobs to their business within 5 years; a figure that is higher than the global average of 42%. This indicates that Egyptian entrepreneurs are described by being risk averse, also it shows limited growth for entrepreneurial climate, while a quarter of the early stage entrepreneurs are with high growth aspirations as 25.7% of early stage entrepreneurs expect to grow their business by 6 or more jobs within 5 years; a higher figure than the global average of 20%. This analysis helped us to reject the hypothesis that states that entrepreneurship ecosystem in Egypt helps in creating job opportunities and affect unemployment rates positively. But this does not mean that entrepreneurship is not important, but polices in Egypt should be modified to enhance the entrepreneurial activities as its impact is shown in the long run.

Appendix:

Table 1: Ranking of Societal Values of Entrepreneurship Percentage of Population aged 18-64 years:

	Entrepreneurship. as a good career	High status to entrepreneurs	Media Attention to entrepreneurs
Egypt	83.4	87.1	62.1
Reg. Average in Africa	74.6	76.7	64.9
Reg. Average in Asia	65.2	72.7	68.3

Source: GEM Global Report, 2017

Table 2: Egypt's Entrepreneurship Ecosystem indices:

Year	2008	2010	2012	2015	2016
Financing for entrepreneurship	2.27	2.4	2.38	2.14	2.34
Gov. support and policies	2.71	2.69	2.06	2.02	2.17
Taxes and bur	2.39	2.2	2.03	1.9	1.96
Gove. Programs	2.19	2.12	1.86	2.03	2.02
Basic school	1.31	1.27	1.28	1.16	1.2
Post school	1.79	2.11	1.82	1.83	1.82
R&D Transfer	1.65	1.83	1.83	1.78	1.68
Comm and prof. st	2.68	2.64	2.64	2.53	2.31
Internal market dynamics	3.57	3.36	3.26	3.06	3.05
Int. market openness	2.47	2.21	2.39	2.29	2.39
Physical and service infra st	3.82	3.62	3.65	3.81	3.91
Cultural and social norms	2.4	2.1	2.13	2.29	2.42

Source: GEM Database, 2017.

Table 3: Egypt's Unemployment rate, Total % of Labor Force:

2010	2011	2012	2013	2014	2015	2016	2017	
9	12	12.6	13.1	13.1	12.8	12.1	11.6	

Source: World Bank, 2017.

Table 4: Total early stage entrepreneurship activities in Egypt by age groups:

Age	% in 2015	Global Avg.
18-24	6%	11.1%
25-34	9.7%	16.3%
35-44	8.8%	15.4%
45-54	5.9%	12.7%
55-64	4.6%	8.8%

Source: GEM Egypt Report, 2016.

Table 5: Job Creation among Early Stage Entrepreneurs in Egypt

No. of Jobs	Egypt	Global Average
0 jobs in 5 years	51.40%	41.50%
1-5 jobs in 5 years	22.80%	38.4
6 or more jobs in 5 years	25.70%	20.10%

Source: GEM, 2017.

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