

# **Exploring Factors Determine Success of ICT Small Enterprises in Egypt**

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## ABSTRACT

Egypt has many micro and small but only a very few medium-sized and large enterprises in ICT sector. Micro and small firms seem to have difficulties to achieve success and become medium-sized companies. This is a problem because medium-sized companies are mostly the main creators of high quality products/services, better-paid employment, sources of innovation, catalysts for economic improvement, and future exporters.

Enterprises success are caused due to internal factors related to entrepreneurs, and external factors related to environment. This study aims to determine the major factors that impact success of ICT small companies in Egypt, then takes further step to know what are the factors that entrepreneurs can control, what are the factors entrepreneurs can influence without full control and finally what are the factors that are beyond their control?

Large numbers of literatures discussed the factors that favor or hamper the success of small and medium-sized enterprises (SMEs): entrepreneurial factors (education, age, skills, etc.), eco-system factors (finance, incubators, partners, etc.), market (customers or demography) and the business environment (political stability, regulations, legal environment, etc.). However, only a few studies provide empirical evidence for determining the most important factors for ICT companies' success in Egypt.

This research is meant to fill this gap. It is conducted through, 1<sup>st</sup> stage interviews with 4 interviewees (2 experts and 2 entrepreneurs), 2<sup>nd</sup> stage interviews with 10 interviewees (5 experts and 5 entrepreneurs) and questionnaire distributed among 38 entrepreneurs and experts

The research resulted in three main conclusions:

- In Egypt the major determinants for success can be summarized as the entrepreneur's (i) Ability to have: business skills, soft skills, ethical behavior and networking & social skills, (ii) Ability of entrepreneur to: access to finance, catch and train qualified employees and find opportunities within risky but growing Egyptian market) (iii) Ability of entrepreneur to deal and cope with: political and economic instability, legal environment and insufficient internet services.

- ICT success in Egypt can be enhanced by cofactors: Applying Focus strategy, acquiring leadership skills and higher qualifications of education and industry experience. However, intermediate constraints are represented in governmental regulations and infrastructure.
- The success of an ICT small companies in Egypt is largely depends on the entrepreneur's capabilities. They are constrained by uncontrolled factors such as political instability, availability of adequate financing agencies, risky market with little market information and difficult legal environment. However, a few entrepreneurs manage to overcome these obstacles.

To enable more ICT entrepreneurs to succeed, the Egyptian government should improve political and economic stability conditions, its educational and training systems, help entrepreneurs catch qualified employees through human resources development, provide market information, ease entrepreneurs' access to finance and improve legal environment and governmental regulations.

However, entrepreneurs should build what they lack in the business, soft and social skills, ethical behaviors, and enhance their networking relations. In addition, they should overcome lack of market information by market research, financing difficulties by engagement to little available financing agencies or angel donors. Lastly, they should know the best way of dealing and coping with political instability, difficult legal environment and regulations, and insufficient expensive internet services.

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## List of Abbreviation

ICT: Information and Communication Technology

MCIT: Ministry of Communications and Information Technology

ITIDA: Information Technology Industry Development Agency

CAPMAS: Central Agency for Public Mobilization And Statistics

UNDP: United Nations Development Programme

UNCTAD: United Nations Conference on Trade and Development

PMS: Performance Measurement Systems

VC: Venture Capital

R&D: Research and Development

MOF: Ministry of Finance

# 1 Chapter One: Introduction

## 1.1 Industry Overview

The internet is pushing economic growth and job creation. Recently, the Boston Consulting Group ranked the internet economy in the top 20 global economies to determine how online business drives economic activity. By 2016, there will be 3 billion internet users globally - almost half the world's population. The internet economy will reach \$4.2 trillion in the G-20 economies. The internet is contributing up to 8 percent of GDP in some economies, powering growth, and creating jobs. (Dean et al. 2012) Today's most valuable global brands are technology firms. The top 5 of Millward Brown's index of most valuable global brands consists of 4 technology firms, namely Apple (1), IBM (2), Google (3), and Microsoft (4). Technology and telecom brands together comprised about 44 percent of the value of the list, whereas they accounted for about one-third of the value in 2006. An upward trend can be noted. Internet firms like Google, Amazon.com, Facebook, Baidu, and eBay are prominently present in Millward Brown's index of most valuable global brands. (Campbell 2012).

Although failure rates are still high (82.9 percent), Silicon Valley research shows us that the technology industry is still growing, but it has some year-specific and industry-mix effects (Luo and Mann 2011). Given the fact that most startup fails, it doesn't stop (internet) entrepreneurs from trying. This is because of the easiness and low cost to start a business,. The only thing you should do is an innovative idea and soon you can enter or create a market.

In Egypt in late 2001, the ministry of information and communication technology started many initiatives to promote the ICT within the country, within 4 years of the initiative the market was full of qualified technical resources in the field of ICT.

The government and specially the ministry of information and communication technology started the startup echo system through ITIDA. ITIDA provided many initiatives that support the entrepreneurship mindset within the ICT

industry and is now considered one of the main stakeholder of the startup ecosystem in Egypt.

In 2011, the Egyptian revolution created a motive and a new mindset for youth to start their own business, also a lot of successful business men came from silicon valley and the American universities come back to start their own incubators, accelerators and VC, but they found the startup concept and environment are still immature in Egypt, a lot of challenges are existent.

In this study, the researcher is trying to explore the real causes that form the challenges facing ICT entrepreneurs in Egypt

## **1.2 Purpose of the Study**

The researcher is an entrepreneur; he could recognize easily the difficulty that face small enterprises in Egypt which lead them to failure and involuntary exit from market, or struggling just to survive without achieving reasonable profit to cover the owners' life expenses. Very few startups could transfer from small enterprise to medium enterprise, even though for who could do this, they could not sustain in medium level and was compulsorily returned to small size. However, few entrepreneurs could grow in Egypt, it seemed that they had better starting conditions than others, like availability for finance, better education, international exposure or found support from their families who have industry experience.

The researcher was eager and curious to know whether success for small enterprises is possible or not in Egypt? , what are the internal factors related to entrepreneurs and external factors related to Egypt environment, that affect success of entrepreneurs either positively or negatively?, how can entrepreneur exploit from positive factors to push his enterprise for success? , are the negative factors that affect entrepreneurs in Egypt can be overcome or not?, what should entrepreneurs do in order to succeed in Egypt, or they should transfer their business to other environment?.

The researcher was motivated to find answers for these questions, he chose the ICT sector to be the field of his study, because it is one of the sectors that

attracts many entrepreneurs due to little cost of starting, in addition, it is a field that needs continuous innovation to avoid the risk of disruptive technologies which are appearing day after day.

### **1.3 Research Problem**

More than 90 per cent of all ICT in Egypt firms are small enterprises, while the share of large and medium-sized companies has grown during the last decade but remains very low (Loewe 2013, CAMPAS 2009).

Furthermore, most small firms are necessity-driven and do not provide satisfying income for their owners, let alone the employees (El-Megharbel 2008, 1). SMEs face a financing gap that causes undercapitalization and represents an obstacle that hinders SMEs from growth (Nabil 2011).

In addition, Egypt suffers from high unemployment, low levels of total factor productivity, and a low degree of economic diversification. A greater number of medium-sized enterprises could help solve some of these problems, and considering the sharp economic downturn that followed Egypt's revolution, the need is great and urgent (Loewe 2013).

Egypt hosts some large companies, which are able to compete on world markets and generate a considerable portion of gross domestic product (GDP). But most of these are not linked to smaller companies in the country. Medium size companies are supposed to be able to sell their products\services in the near future to the open market worldwide, or become suppliers for larger firms and integrated into global value chains (GVCs). Most workers in Egypt are employed in comparatively low-productivity and low-income jobs in micro and small firms (Loewe 2013).

Many medium-sized and large companies were born that size by foreign investors or a handful of affluent natives; very few large companies started small and grew over time. Apparently it is difficult for small firms to transform into medium-sized enterprises.

Medium-sized enterprises are the main providers for quality employment. Most people in low- and middle-income countries work in micro and small enterprises

are underemployed and poorly paid. Since medium-sized enterprises typically offer better-paid, more secure jobs for better-trained people who also receive social security benefits, a country's average wage tends to correlate positively with its share of medium-sized enterprises (Altenburg / Eckhardt 2006, 7). Medium-sized enterprises are better able than small ones to produce products and services that can compete in world markets. A country's total factor productivity is correlated with its share of medium-sized and large companies. These tend to be more productive than smaller firms because they have the financial and personal means to invest in research and development (R&D), new products, new methods of production, new organizational forms and divisions of labors, new ways of marketing and the like (Mead / Liedholm 1998, 64).

Egypt is one of the countries characterized by the missing middle syndrome. Egyptian manufacturing enterprises employing 10 – 499 employees have a significantly low share of employment. Seventy-five percent of employment is generated by enterprises with either less than 10 workers, (MOF 2004). Despite the large number of SMEs in Egypt, their contribution to exports is very low and does not reach 1% of GDP, amounting to less than 0.5% of exports (MOF 2005). Small and medium enterprises (SMEs) in Egypt represent almost 90% of the enterprises and provide the main bulk of private sector employment, however their share in value-added is disproportional, as the share of manufacturing SMEs in net private manufacturing value-added is only about 7.5% (CAMPAS 2001). This implies that there are some factors that prevent them to reach their full potential (Nabil 2011)

It is well known the complexity and numbers of public policies, even some of those intending to favor SMEs, tend to place small enterprises at a disadvantage. These may include taxes and their administration, as well as several other aspects of the legal and regulatory framework that disproportionately increase the transaction cost for SMEs, thus hampering their growth and/or providing strong incentives for them to stay small and/or informal. For example, poorly calculated and planned tax incentives can lead to the proliferation of units below the taxable size (MOF 2004), and this is a major cause that 84 per cent of small and medium enterprises are informal (Nowar, 2012)



The missing middle syndrome has many disadvantages such as lack of linkages between SMEs and large enterprises, lack of flexibility and competitiveness of large enterprises, underdevelopment of core competences of large enterprises, high import content of production, and high susceptibility of the economy to economic downturns threatening to result in major job losses and loss of productive capacity (MOF 2004).

## 1.4 Research Objectives

In order to achieve the purpose of this study, the researcher has worked to explore the answer of the major question:

### ***Which factors determine success of ICT small enterprises in Egypt?***

The major question has two sub questions needs to be answered:

- Which factors explain why success seems to be especially difficult in Egypt?
- Which factors explain why some ICT entrepreneurs manage to succeed better than others- despite the general difficulties in Egypt?

The output expected from this research is a model (see Figure 1.1) that contains the major factors impacting success in Egypt. Some factors if available, they will impact success positively, while if not available they will impact success negatively (ex; availability of finance will impact success positively whereas lack of finance will impact success negatively). Other factors when exist they will impact success negatively, while if not exist they will impact success positively (ex; Difficulty of legal environment in Egypt when exist will impact success negatively and vice versa).

Hence, a list of negative factors will answer the first sub question: "Which factors explain why success seems to be especially difficult in Egypt?", while a list of positive factors will answer the second sub question: "Which factors explain why some ICT entrepreneurs manage to succeed better than others- despite the general difficulties in Egypt?" (See Table 5.1)

The model that answer the major research question, besides the table that answer the two sub questions, will help ICT entrepreneurs in Egypt to benefit from this research as follows: entrepreneurs can work on acquiring and exploiting the major positive factors pushing to success, at the same time, entrepreneurs should be alert to avoid bad impact of negative factors on success. On another hand, the research is helping entrepreneurs to differentiate between two types of external factors; external factors that the entrepreneur can influence, and external factors the entrepreneur cannot influence. This is to motivate entrepreneurs to fight and innovate in the areas they can influence.

Another model for intermediate factors impacting success was also made by the researcher, to show the co factors that impact success (see Figure 5.2), this is for additional care from entrepreneurs for intermediate factors impacting their success.

Factors map was designed to illustrate the whole picture of factors that were examined in this research; the major, intermediate, slight and neutral factors that impact success (Figure 5.3).

Lastly, to help better understanding for each factor, the researcher made deep insight for each examined factor, through analysis for respondents' answers to questionnaire and interviewees' comments discussion. (see Table 4.6).

## **1.5 Importance of the Study**

This study is considered unique as it studies many factors (27 factors) and their impacts on success of ICT sector. Little researches had studied such large number of factor, one of those that made empirical research on three sectors of SMEs in Egypt but not totally focused on ICT sector in specific. So,

This study used qualitative and quantitative approaches, as researcher made two stages of interviews (4 interviews in 1<sup>st</sup> stage and 10 interviews in 2<sup>nd</sup> stage) together with questionnaire that was distributed to 38 respondents of ICT small

companies' owners. In addition, data analysis used both qualitative and quantitative techniques.

The research is trying to make an added value by finding wide answers to: what exactly do small companies need to be able to succeed? What do most of them lack?

Large numbers of literatures discussed the factors that are required for SMEs success and offered some explanations. But most studies analyses only individual or specific sets of factors that are affecting success. It is possible that each of these factors plays a role; however, we need to know the most significant factors., only a very few empirical studies have been covered ICT sector in Egypt from this point of view, this study helps fill the gap.

## **1.6 Initial Propositions**

Based on literature review and experts recommendations, the researcher proposed factors to be explored, based on how common they are in literature to affect ICT small enterprises.

Since the various literatures suggested so many factors for small companies' success in general and ICT companies in specific, the researcher came up a large number of factors. Rather than listing all of them, the researcher grouped the factors into four main bundles, each bundle contains related factors: (1) Entrepreneur, (2) Ecosystem, (3) Market and (4) Business Environment. Under each Main bundle there are group of factors.

### **1. Entrepreneur:**

- Leadership Skills
- Focus Strategy
- Qualifications (Education, Industry experience and general work Experience)
- Interdisciplinary founding team

- Business Skills (Recognize Opportunities, Risk Willingness and Making Money Orientation)
- Soft skills (Innovation, Ambition, Optimism, Flexibility and adaptability)
- Ethics: (Humanity, Honesty and Commitment)
- Networking and Social Skills
- Luck

## **2. Ecosystem:**

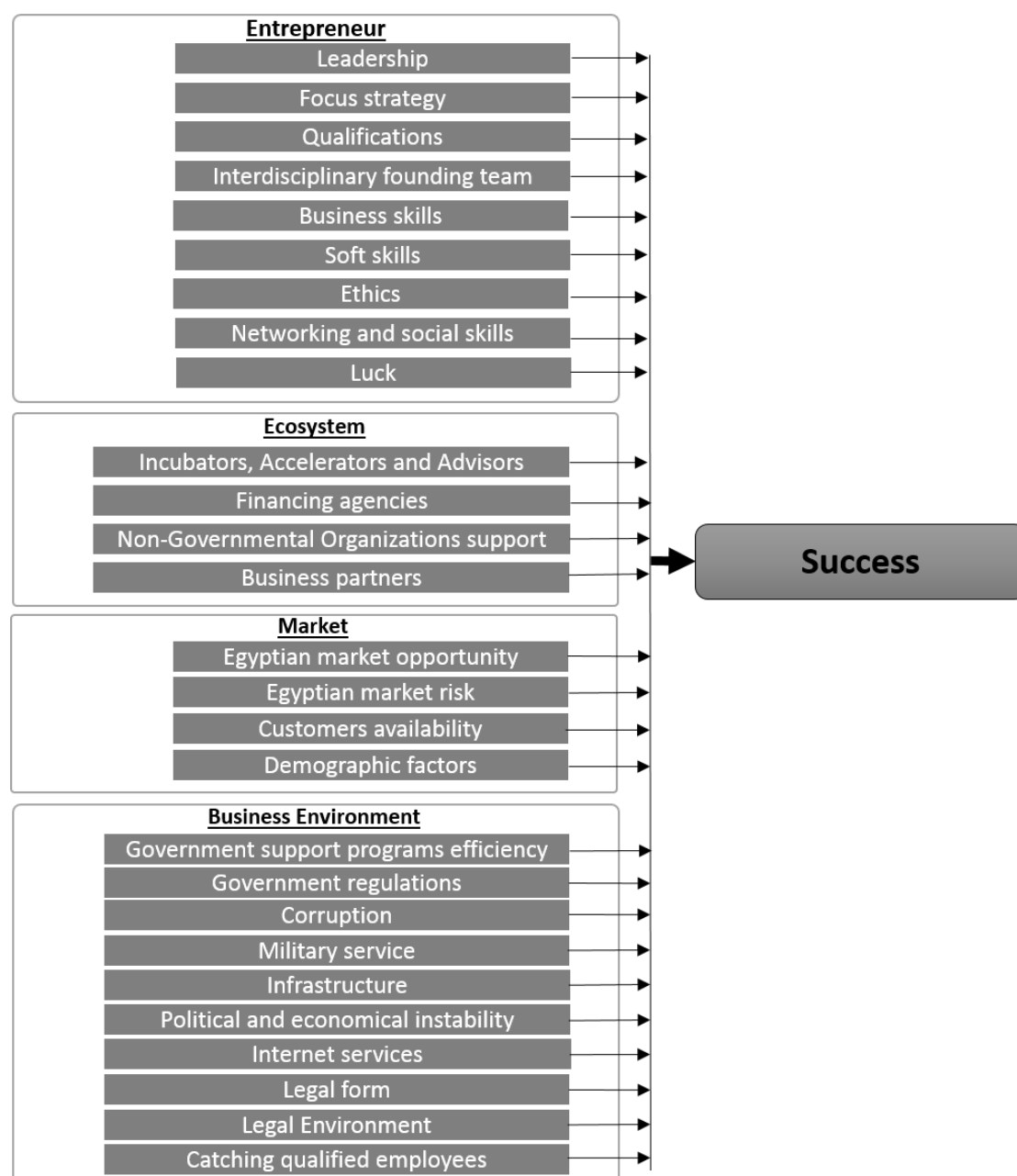
- Availability of Incubators, Accelerators and Advisors
- Availability of Financing Agencies (Angel or Venture Capital)
- Non-Governmental Organizations Support
- Availability of Business Partners

## **3. Market:**

- Egyptian Market Opportunity
- Egyptian Market Risk
- Customers availability
- Demographic factors

## **4. Business Environment:**

- Government Support Program Efficiency
- Governmental Regulations
- Corruption
- Military Service
- Infrastructure
- Political and Economic instability
- Internet Services
- Legal Form
- Legal Environment
- Availability of qualified employees



**Figure 1.1 Factors to be Explored its Impacts on Success**

### 1.6.1 Factors Descriptions

**Success:** In this research, Success is described by; the longer the entrepreneur can survive and prevent involuntary exit, the more successful he is (C. Mirjam van Praag)

**Leadership Skills:** In this research, leadership Skills is described by entrepreneur motivational attitude to motivate the employees to achieve the company vision and strategic objectives and goals (Hart & Quinn 1993)

**Focus Strategy:** In this research, focus Strategy is described by entrepreneur motivational attitude to achieve focusing on a few target markets who are distinct groups with specialized needs (Porter 1980).

**Entrepreneur Qualifications:** In this research, entrepreneur qualifications are described by the effect of education, general experience and industry experience on all the business aspects (Nielsen et al. 2009).

**Interdisciplinary of the founding team:** In this research, interdisciplinary of the founding team is described by the founding team diversity in experiences, education, culture and even nationality (Nielsen et al. 2009).

**Business Skills:** In this research, Business Skills are described by entrepreneur skills for recognizing opportunities and the entrepreneur's willingness to take risk (Kumar et al. 2010) and their orientation to make money.

**Soft Skills:** In this research, entrepreneur Soft Skills are described by the characters and capabilities of attitude and behavior instead of knowledge or technical ability (John 2009), Innovation, ambition, optimism, flexibility and adaptability (Kumar et al. 2010).

**Ethical Behavior:** In this research, ethical entrepreneur is committed to achieve business success, without contradicting with personal ethics and values (Bello 2012), his/her humanity and honesty are motives against unethical business temptation.

**Networking and Social Skills:** In this research, networking and social skills of entrepreneur: are described by the strong relationships with potential customers, business partners and government bodies (Loewe et al. 2013)

**Luck:** In this research, entrepreneur's luck is described by the force that causes things, especially good things, to happen to entrepreneur by chance and not as a result of his own efforts or abilities (Cambridge Dictionary)

**Availability of Incubators, Accelerators and Advisors:** Availability of entities that provide knowhow for the new business entrepreneurs, such incubators act

as business accelerators for the ICT startups, also they provide advisors and consultants in various fields like legal and marketing advisors (ITIDA 2015).

**Availability of Financing Agencies:** In this research, financing agencies are availability of Venture Capitals or Angel donors who have intentions to provide fund for small and medium enterprises (Ramadani 2014).

**Non-Governmental Organizations Support:** In this research, Non-Governmental Organizations Support is described by the efforts done by NGOs aiming for social and economic change which eventually helps the private business sector especially SMEs (Blackwood 2012).

**Availability of Business Partners:** In this research, **business partners** are described by all partners that provide entrepreneur with important activities necessary for his success (Loewe et al. 2013).

**Egyptian Market Opportunity:** In this research, **Egyptian market opportunity** is described by the presence of business need in the market to develop new products and services which are not fully supplied in the Egyptian market (MCIT indicators 2015).

**Egyptian Market Risk:** In this research, **Egyptian market risk** is described by **the sum factors that make working in Egyptian market is risky** (Seruma 2011).

**Customers' availability:** In this research, customers' availability **is** described by the potential for the market current customers to purchase the product/service to generate profit (MCIT indicators 2015).

**Demographic Factors:** In this research, demographic factors **are** described by unemployment, poverty, high dependency ratio, and illiteracy **rates** (Abdul Rahman 2011).

**Government Support Program Efficiency:** In this research, government support program efficiency is described by the measure of how efficient the government support programs to provide financial, technical and non-technical support for ICT companies (ITIDA 2015).

**Governmental Regulations:** In this research, governmental regulations are described by the governmental laws, rules and policies that affect the ICT industry either directly or indirectly (Abdul Rahman 2011).

**Corruption:** In this research, corruption is described by the misuse or the abuse of public office for private gain (WorldBank, 1997, UNDP, 1999)

**Military Service:** In this research, military service is described by the compulsory service in Egypt for males, from 14 months to 36 months based on the age and education level (United Nations High Commissioner 1997).

**Infrastructure:** In this research, Infrastructure is described by the basic physical and organizational structures and facilities (e.g. power supplies, buildings, roads,) needed for the operations of ICT enterprises ([Dictionary.reference.com](http://Dictionary.reference.com))

**Political and Economic instability:** In this research, political and economic instability is described by the tendency of a government to collapse (US Department of the state 2012)

**Internet Services:** In this research, internet services are described by the availability of different technologies internet which are efficient with reasonable prices, required for ICT companies in Egypt, (MCIT indicators 2015)

**Legal Form:** In this research, legal form is described by how the business entity is formed as per the local commercial law In Egypt (Loewe et al. 2013).

**Legal Environment:** In this research, legal environment is described by the power of law enforcement represented in laws' entities, procedures and environment that protect rights and provide justice for ICT small business in Egypt (Loewe et al. 2013).

**Availability of Qualified Employees:** In this research, availability of qualified employees is described by the ability to headhunt qualified and talented employees (Tamkin 2005)



## **1.6.2 Research Limitations**

In accordance with qualitative researches, this study is not representing the total population of ICT Small Companies. Future researches with quantitative approaches are needed to cover representative sample for all ICT small companies in Egypt. In addition, the study sample concentrated mainly on IT System Services enterprises and did not include communication enterprises.

The researcher did not classify sample for successful or non-successful companies, he rather considered the current existence of the company and operating in Egypt is enough to compose in the sample. In the future, separating successful companies from non-successful will give the chance of differentiating between both opinions about the most important factors.

The chosen 27 factors for examining in the research did not include all factors found in literature review, the researcher selected factors depending on combination between expert recommendations and common factors in literatures. Future work is recommended to examine other factors that were not examined; however, the most likely important factors are included in the 27 factors.

The researcher examined large number of factors, some of which are subdivided to sub factors, so future work is needed to examine each individual sub factors. Also it would be beneficial in future to study smaller numbers of factors.

Relations between factors were not targeted during this research, future studies are recommended to determine mediator factors, complimenting factors, interdependent factors and substituting factors.

## **1.6.3 Research Questions**

### **1.6.3.1 Major Research Questions**

MajRQ1: Which factors determine success of ICT small enterprises in Egypt?

MajRQ2: Which factors explain why success seems to be especially difficult in Egypt?

**MajRQ3:** Which factors explain why some ICT entrepreneurs manage to succeed better than others- despite the general difficulties in Egypt?

#### **1.6.3.2 Minor Research Questions:**

MinRQ1: What is the effect of leadership skills of entrepreneurs on success of ICT small companies in Egypt?

MinRQ2: What is the effect of applying focus strategy on success of ICT small companies in Egypt?

MinRQ3: What is the effect of entrepreneur qualifications on success of ICT small companies in Egypt?

MinRQ4: What is the effect of interdisciplinary founding team on success of ICT small companies in Egypt?

MinRQ5: What is the effect of entrepreneur business skills on success of ICT small companies in Egypt?

MinRQ6: What is the effect of entrepreneur soft skills on success of ICT small companies in Egypt?

MinRQ7: What is the effect of entrepreneur ethics on success of ICT small companies in Egypt?

MinRQ8: What is the effect of networking and social skills of entrepreneur on success of ICT small companies in Egypt?

MinRQ9: What is the effect of luck of entrepreneur on success of ICT small companies in Egypt?

MinRQ10: What is the effect of availability of incubators, accelerators, and advisors on success of ICT small companies in Egypt?

MinRQ11: What is the effect of financial agencies availability on success of ICT small companies in Egypt?

MinRQ12: What is the effect of Non-Governmental Organizations support on success of ICT small companies in Egypt?

MinRQ13: What is the effect of business partners' availability on success of ICT small companies in Egypt?

MinRQ14: What is the effect of Egyptian market opportunity on success of ICT small companies in Egypt?

MinRQ15: What is the effect of Egyptian market risk on success of ICT small companies in Egypt?

MinRQ16: What is the effect of customers' availability on success of ICT small companies in Egypt?

MinRQ17: What is the effect of Egypt's demographic factors on success of ICT small companies in Egypt?

MinRQ18: What is the effect of government support program efficiency on success of ICT small companies in Egypt?

MinRQ19: What is the effect of government regulations on success of ICT small companies in Egypt?

MinRQ20: What is the effect of corruption on success of ICT small companies in Egypt?

MinRQ21: What is the effect of military service on success of ICT small companies in Egypt?

MinRQ22: What is the effect of infrastructure on success of ICT small companies in Egypt?

MinRQ23: What is the effect of political and economic instability on success of ICT small companies in Egypt?

MinRQ24: What is the effect of Internet services on success of ICT small companies in Egypt?

MinRQ25: What is the effect of legal form on success of ICT small companies in Egypt?

MinRQ26: What is the effect of legal environment on success of ICT small companies in Egypt?

MinRQ27: What is the effect of availability of qualified employees on success of ICT small companies in Egypt?

## **1.7 Research Structure Overview**

The study consists of five chapters closely related and each chapter is dependent on the previous one, so that finally we will be able to answer the main research questions.

### **1.7.1 Chapter One Overview: Introduction**

It includes: industry overview, purpose of the study, research problem, research objectives, importance of the study, initial propositions and finally the structure of the study.

Industry overview showed the positive impacts for ICT and internet business on world economies by pushing economic growth and job creation, in addition, quick look for ICT sector history in Egypt.

Purpose of the study concentrated on the motive of the researcher to explore the difficulty that faces small enterprises in Egypt, which leads them to failure and involuntary exit from market, or struggling just to survive without achieving reasonable profit to cover the owners' life expenses. In addition, the researcher was curious to know why few startups could succeed and grow in the same environment.

In the research problem part, it was stressed on the huge gap between numbers of small enterprises compared to medium sized enterprises, which shows the inability for smaller firms to become a medium firm. This "Missing Middle" phenomena has negative impacts on Egyptian economy, since the medium sized typically offer higher quality products, better-paid, more secure jobs for better-trained people who also receive social security benefits, a country's average wage tends to correlate positively with its share of medium-sized enterprises.

The research objectives are definitely ambitious, the researcher wanted not only to know: *Which factors determine success of ICT small enterprises in Egypt?* But in addition, he wanted to know: *Which factors explain why success seems to be especially difficult in Egypt? And: Which factors explain why some ICT entrepreneurs manage to succeed better than others- despite the general difficulties in Egypt?*

Importance of the study is originating from its uniqueness in studying many factors (27 factors) focused on ICT sector in Egypt, most studies analyses only individual or specific sets of factors that are affecting success, only very few empirical studies have been covered ICT sector in Egypt from this point of view. In addition, researcher used qualitative and quantitative approaches; he made total 14 interviews together with questionnaire that was answered by 38 respondents.

In initial propositions, the researcher grouped the factors into four main bundles containing the propositions that are related to: (1) Entrepreneur, (2) Ecosystem, (3) Market and (4) Business Environment. Under each Main bundle there are a group of factors. A specific description was made for each variable in the study, and the research limitations were discussed. Mapping for minor questions in link to propositions and variables, were made at the end of the chapter

### **1.7.2 Chapter Two Overview: Literature Review**

Chapter two includes worldwide ICT introduction, ICT Companies in Egypt, previous empirical studies related to ICT sector in Egypt, companies success definitions, Factors impacting ICT companies success; Entrepreneur factors, Ecosystem factors, Market factors and Business environment factors. Statistical review for Egyptian ICT and lastly Literature review summary.

ICT sector introduction pointed to the rapid developed for ICT worldwide in the recent years in the fields of: Hardware; Software; Internet; Support Service; and, Telephony. It stressed on how ICT companies are catalyst to economy growth and development, and how this reflects on direct and indirect profits. The introduction detailed on some added values for ICT.

ICT Companies in Egypt part passed through the ICT revenues outcome and investments installed in ICT sector, with general look for geographic distribution and types of ICT companies; Communications, Information Technology or IT Systems Services.

Review for some previous empirical studies on ICT sector in Egypt was summarized, followed by defining the companies' success.

In the next step, detailed reviewing for factors impacting success of ICT companies starting from entrepreneur factor, followed by ecosystem factors, passing through Market factors, and ended by Business environment factor.

Statistical review for Egyptian ICT was the next step, and lastly, summary for literature review was illustrated.

### **1.7.3 Chapter Three Overview: Research Propositions and Methodology**

In additions to the propositions that were mentioned in chapter one; chapter three explained the methodology mechanism, it includes; research type, methodology tools, research time schedule, design of data collection, sampling and data analysis methods.

The research type is mainly: exploratory, inductive, applied and qualitative research; however some simple quantitative techniques were used. The researcher moderately interfered in research; he played the role of leading questions in the 1st and 2nd stages interviews. The research was done within 10 weeks period (From 1<sup>st</sup> of March till 10<sup>th</sup> of May 2015).

Methodology tools are: 1) 1<sup>st</sup> stage of in depth interviews with 4 individuals related to ICT small business {2 experts and 2 entrepreneur}, to explore whether there are special factors with high expected impact within Egypt ICT specific environment, to be reviewed once more in literature, 2) 2<sup>nd</sup> stage of in depth interviews with two groups: {5 Experts and five ICT Entrepreneurs}, to explore the most important factors from their perspectives that affect ICT small companies success and 3) A mixed qualitative and quantitative questionnaire was distributed for ICT Entrepreneurs and Experts with 38 responses received,

to specify the degree of effect of each factor on success either positively or negatively.

Design and data collection will be detailed within the chapter. Sampling is different according to each one of three tools that were used to collect data for this research.

#### **1.7.4 Chapter Four Overview: Data Analysis and Findings**

In general, researcher followed four major steps in research data analysis, they are summarized as follows:

Step 1: Identifying Factors to be examined (Qualitative Analysis for 1<sup>st</sup> Stage Interviews)

Step 2: Identifying important Factors impacting Success (Qualitative Analysis for open question about the critical factors impacting success, answered by 2<sup>nd</sup> stage interviewees and questionnaire's respondents)

Step 3: Determining Positive, Negative, Slight and Neutral factors (Quantitative Analysis for closed questions of 27 factors)

Step 4: Formulating Better understanding for Each Factor (Respondents' Comments and Discussion)

Each step has several procedures that were followed to reach to the results.

Final findings were according to the sum of triangulation analysis of all mentioned steps, according to Result 2, Result 3A and Result 3B, it can be noted that they are greatly identical. Thus, the results are confirming each other.

#### **1.7.5 Chapter Five Overview: Conclusions and Recommendations**

Chapter 5 contains findings and conclusions to: Major factors, Intermediate factors, Slight factor and Neutral factors. In addition to eight recommendations that needs working together from: Government, entrepreneurs, community and home.

The major findings showed that the major factors can be classified to: *Entrepreneurial Factors* (Factors related to the entrepreneur himself): 1)

Business skills (Recognize Opportunities, Risk Willingness and Making Money Orientation), 2) Soft skills (Innovation, Ambition, Optimism, Flexibility and adaptability), 3) Ethical behavior (Humanity, Honesty and Commitment) and 4) Networking and Social skills. *External Factors Entrepreneur can influence:* 5) Access to Finance, 6) Catching Qualified Employees and 7) Minimize Market Risk. *External Factors Entrepreneur cannot influence:* 8) Political and Economic Stability, 9) Legal environment and 10) Internet services

The intermediate findings showed that the intermediate factors can be classified to: *Entrepreneurial Factors* (Factors related to the entrepreneur himself): 1) qualifications (Education, Industry experience and general work experience), 2) Leadership skills (Building team spirit and harmony), 3) Applying Focus strategy. *External Factors Entrepreneur can influence:* 4) Exploit Market opportunity. *External Factors Entrepreneur cannot influence:* 5) Governmental regulations, 6) Infrastructure.

The slight findings showed that the slight factors are: 1) Interdisciplinary founding team, 2) Availability of incubators, accelerators, and advisors, 3) Non-Governmental organizations support. 4) Availability of Business partners. 5) Customers availability, 6) Demographic factors, 7) Government support program efficiency and 8) Corruption.

The neutral findings showed that the neutral factors are: 1) Legal form, 2) Military service and 3) Luck

Conclusion about each factor is detailed in chapter five.

There are 8 recommendations detailed in chapter five: 1) Building entrepreneurs, 2) Developing Human Resources capital, 3.) Market Research and strategies, 4) Enterprises networking and partnerships, 5) Building mature ecosystem, 6) Improving infrastructure and internet services, 7) Updating legal and litigation system and 8) Provide political and economic stability.



## **2 Chapter Two: Literature Review**

### **2.1 Introduction**

Companies work hard to achieve success and maintain sustainability, however success differ from company to another and from industry to another, in this chapter the researcher will highlight on ICT industry and the factors affect companies' success in such industry in Egypt.

The information and communication technology (ICT) sector plays a crucial role in fulfilling the needs of developing countries, it play a significant role in improving the economy for those developing countries (Kramer et al. 2007).

### **2.2 Information and Communication Technology (ICT) Companies**

The information and communication technology (ICT) sector has developed rapidly in the recent years, it includes Hardware; Software; Internet; Support Service; and, Telephony (Kramer et al. 2007), ICT companies are catalyst to economy growth and development, The part of ICT in nationwide expansion cannot be denied, The United Nations Development Programme (UNDP) defines ICT as a influential enabler of growth due to its part in the society and domestic development (Fadun 2013).

the economic profits of ICT can be direct and/or indirect, it can be direct by the increases of employment vacancies and demand or it can be indirect by social returns, nevertheless, operational ICT sector delivers essential information need for the national and international economy improvement in terms of: industry; commerce; agriculture; and, services (Fadun 2013), the information and communication technology (ICT) sector plays a crucial role in fulfilling the needs of developing countries, it play a significant role in improving the

economy for those developing countries , the main role of the ICT companies in serving the economics are :

- Reduce the cost of any transaction
- Provide immediate connectivity
- Reduce the need for physical travel
- Provide a mean for new goods and services
- Increase the market range by reaching further markets (Kramer et al. 2007).

In the report published by United Nations Conference on Trade and Development (UNCTAD) in 2008 titled “Measuring the impact of ICT use in business: the case of manufacturing in Thailand” showed that the vibrant development of new firms is a foundation of economic growth and employment and that new companies also participate expressively to the diffusion of e-business applications in Europe (UNCTAD 2008).

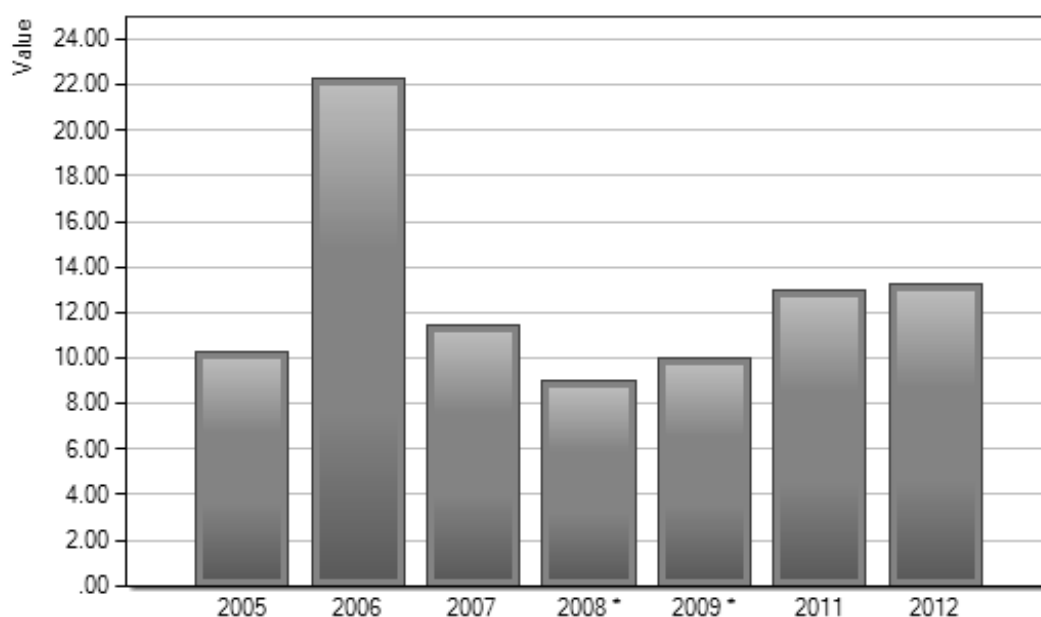
Before the ICT era, the economics faced a lot of barriers to growth and realizing the full potential, thanks to ICT industry help the following barriers were overcame:

- Geographic Isolation
- Lack of competition and high prices for consumers
- Lack of information and low price for producers
- Legal exclusion
- Political voice
- Social capital (Kramer et al. 2007).

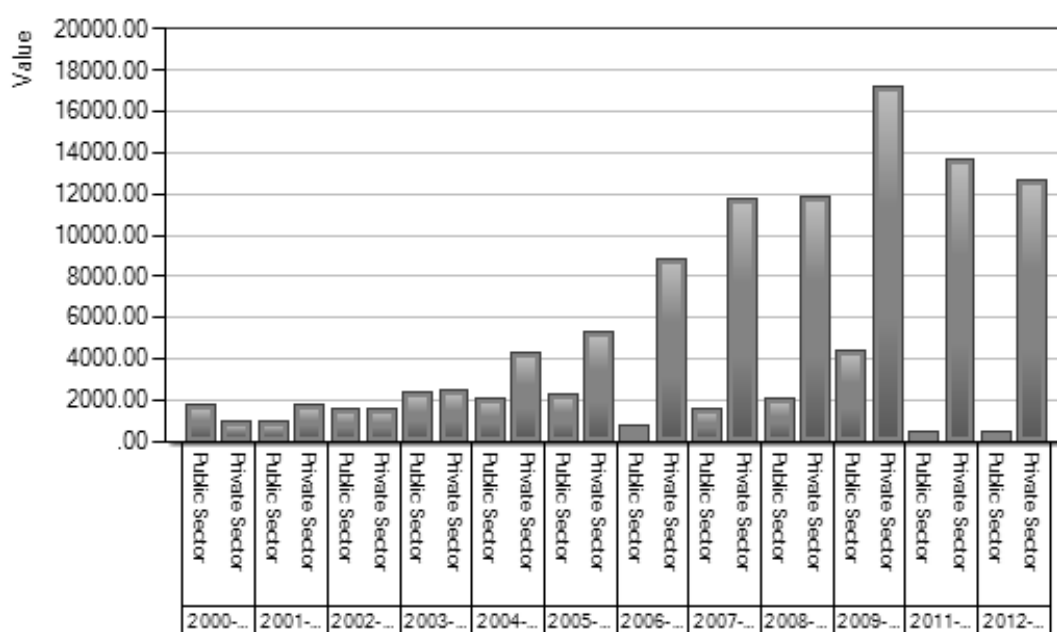
## **2.3 ICT Companies in Egypt**

Egypt has a diverse economy where the tourism, agriculture, industry and service sectors participate in nearly equal shares to national production, Therefore, the economy is emerging at an growing rate, founded on a business-friendly environment that appeals investments due to appropriate legislation, suitable policy, inner stability, as well as trade and market liberalization.,

nevertheless, Egypt keeps a good infrastructure related to transportation, communication, energy sources, manpower, modern industrial communities, the banking system and the stock market (UNCTAD 2011), Figure 2.1: Egyptian ICT companies revenue (MCIT indicators), Figure 2.2: Egyptian ICT GDP at Current Prices in Billions (MCIT indicators).

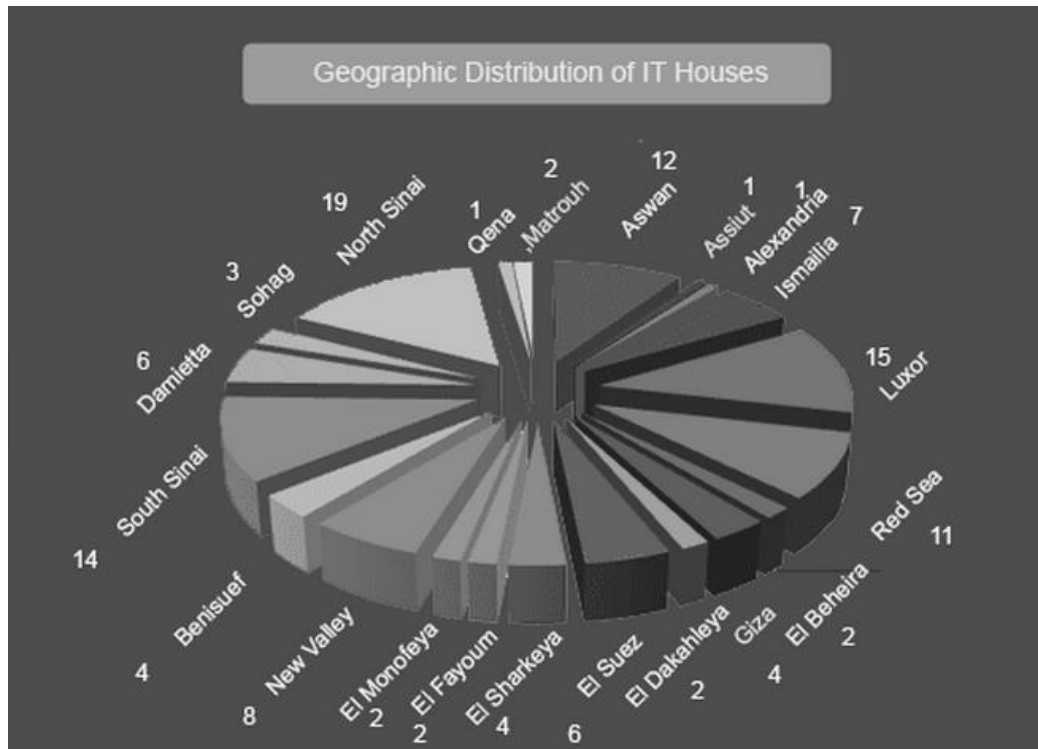


**Figure 2.1: Egyptian ICT Contribution to the National Treasury in Billions (MCIT Indicators)**



**Figure 2.2: Egyptian ICT Investment in Millions (MCIT Indicators)**

The geographic distribution of ICT houses in Egypt shows a significant concentration in North Sinai, South Sinai , Aswan and the red sea, while in upper Egypt there was only 1 or 2 IT houses in cities like Qena and Assuit , Figure 2.3: Geographic Distribution of IT Houses in Egypt (MCIT indicators 2015).

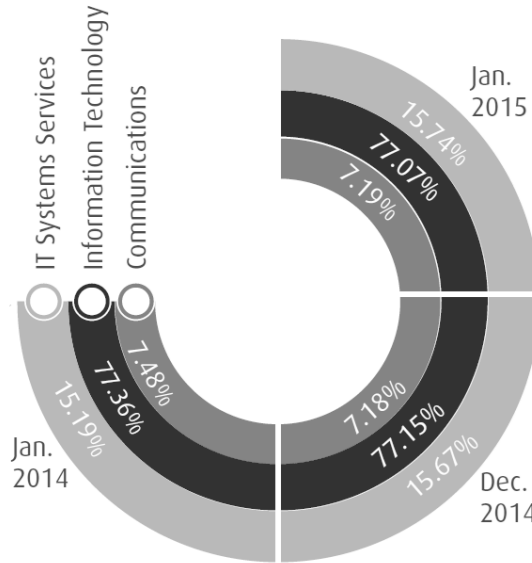


**Figure 2.3: Geographic Distribution of IT Houses in Egypt (MCIT Indicators 2015).**

ICT companies in Egypt can be categorized into: Information Technology Companies; Communications Companies; and, IT Systems services Companies from January 2014 till January 2015 there was no significant change in percentage of ICT companies in Egypt, Information Technology Companies are 77.07 %; Communications Companies are 7.19 %; and, IT Systems services Companies 15.74%, Figure 2.4: ICT companies in Egypt (ICT Indicators 2015).

Distribution of ICT Companies According to Activities

- Communications
- Information Technology
- IT Systems Services



**Figure 2.4: ICT Companies Distribution in Egypt (ICT Indicators 2015)**

Different ICT activities has different capital which didn't change significantly from January 2014 to January 2015, for instance , Information Technology Companies had a capital of 18.33 ; Communications Companies had a capital of 77.88 ; and, IT Systems services Companies 3.79.

## 2.4 Previous Empirical Studies Related to Egyptian ICT

In early 2012, a study was published studying 102 small and medium size enterprises (SMEs), 15 companies of these enterprises were ICT companies, the study illustrated there are five main results: there is a big challenge that face SMEs, not only a challenge to grow from medium to large size, but even to sustain their existence; the entrepreneur's in terms of qualification (Nielsen et al. 2009), motivation and risk attitude, fund availability; the business environment affect the SMEs in Egypt in terms of licensing, taxation, inspections and competition control, such points are enforced by weak and inefficient law enforcement; the excessive unwillingness of Egyptian entrepreneurs to co-operate with each other because of the lack of awareness for the benefits of horizontal business linkages and partnership; and, last but not least, the owners qualification as well as the employees qualification in terms of education and experiences, that's why the Egyptian government

should pay close attention to the education and vocation training system as well as developing such systems in addition to law enforcement (Loewe et al. 2013).

In 2013, a study published by Victoria University illustrated that the HR practices and the top management relationship with the rest of the employees affects the employees commitment which eventually impact the business success in the ICT sector in Egypt, the most significant factors resulted from the research are: Assurance of the HR functional area; direct managers response towards HR practices; and, the Leadership behavior (Khalil 2013).

In most of developing countries there is no domestic high-technology industries and sectors, Notwithstanding, the severe increase in need of innovative policies and laws to support such sector, that's why there is a high need for accelerated economic growth which should be based on cooperation between the 3 main related players: Business Companies, government, and economic institutions, for Egyptian business market, a high demand for new and out of the box development strategies that are custom-made specifically to the country (Brach 2010).

## **2.5 Companies Success**

Success by definition is: the fact of getting or achieving wealth, respect, or fame; the correct or desired result of an attempt; and, someone or something that is successful: a person or thing that succeeds (Merriam Webster 2015).

Before 1980s, business success was defined as pure financial measures; during the period from 1980s to 1990s empirical studies emphasized the shortages of those performance measurement systems in modern business (Martinez 2005).

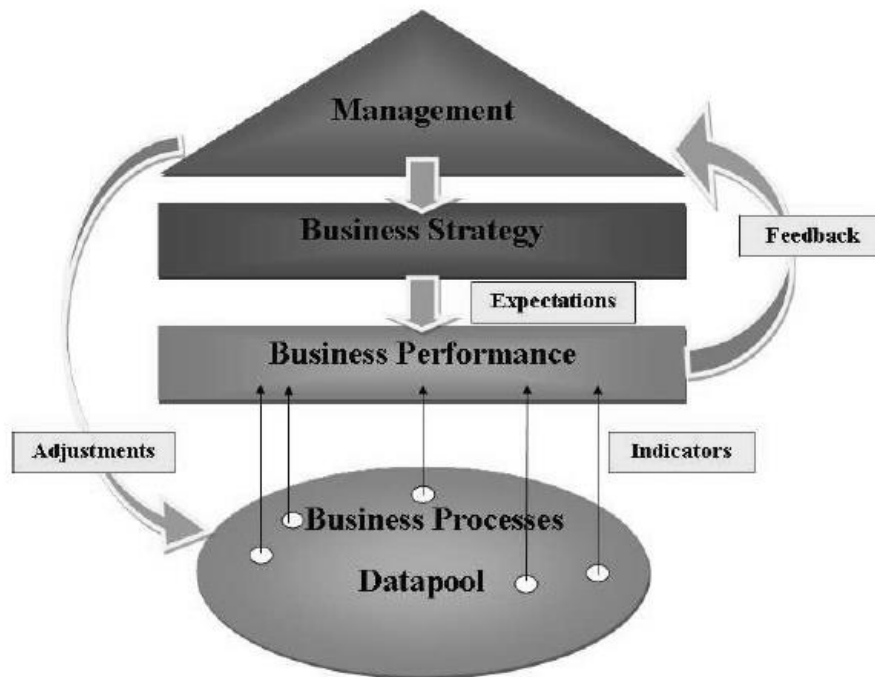
Business success can be measured by many factors for instant it can be measured by the Revenue, Market Share, Profit, Growth, productivity, debt ratios and stock prices, overall Success can be classified into financial and non-financial success, so it mainly depend on the perspective on the business owners and how they see success which might differ or match with the

employees perspective for success (Koellinger 2006), business success can be defined as the financial business success (Hurst et al. 2013).

Business success was conventionally a subject that managers and business owners of large companies paid a good attention to, since it gives dynamic information about the state of the company, development and future outlook, even though for large companies it is predictable to adapt some Business Performance Measurement Systems(PMS), which are typically maintained by Information Technology like Data Mining or Data Warehouse, on the other hand, Small and Medium Sized companies traditionally don't pay close attention to such performance measure systems (Kaufmann and Olaru 2012).

To overcome the deficiencies of the financial perspective of business success researchers developed new balanced measurement systems containing financial and nonfinancial measures to illustrate multidimensional perspectives of business success. The balanced scorecard developed by Kaplan and Norton in 1992 and the Prism developed by Neely et al in 2002 and the performance pyramid developed by Lynch and Cross in 1991 are the most popular frameworks to evaluate business performance, that's why many companies use performance measurement systems to measure their business success (Martinez 2005).

Every business processes ultimately rotate around the goal of contributing to the success of the firm in one way or another, although, the business success describes the positive effective complete turnout of a firm's activities, the term Business Performance in itself is a unbiased expressive concept for the effectiveness and the efficiency of the company's actions from overall aspects, Business success can be characterized with features, for instance it can be described as poor or good success based on the outlooks of the employee analyzing the data driven form the top management and business owner perspectives and their own definition for business success, Business success is a result for the business strategy implemented by management and is affected by the business processes, Figure 2.5: Business Performance in the Business architecture (Kaufmann and Olaru 2012).



**Figure 2.5: Business Performance in the Business Architecture (Kaufmann and Olaru 2012).**

Merriam-Webster defines it as "the fact of getting or achieving wealth, respect, or fame," (Businessinsider.com article). Billionaire Richard Branson believes success is about engagement. Though Sir Richard Branson is worth some \$5 billion, the Virgin founder equates success with being fully immersed in your work. "My definition of success?" he asked himself on Virgin's blog. "The more you're actively and practically engaged, the more successful you will feel."

(Businessdictionary.com) has some success definitions, one of those is "Achievement of an action within a specified period of time or within a specified parameter". Success can also mean "completing an objective or reaching a goal". Success can be expanded to encompass an entire project or be restricted to a single component of a project or task. It can be achieved within the workplace, or in an individual's personal life.

One simple definition however it has deep meanings is that was introduced by (C. Mirjam van Praag) "The longer one can survive and prevent involuntary exit, the more successful one is". Success in self-employment has no unique definition or measure. It has been measured in empirical (business) economics,<sup>4</sup> psychology, and sociology. Performance measures have been defined in terms of observed self-employment earnings (see for instance



Schiller and Crewson, 1997),<sup>5</sup> as firm size, as firm growth, and moreover as the probability that one has remained self-employed for a certain while (see Bates, 1990; Cooper et al., 1994; Schiller and Crewson, 1997; and Brüderl et al., 1998). Acceptance for the (growth in the) number of employees as a measure of business success was only recently developed (Cooper et al., 1994; Van Praag, 1996; Van Praag and Cramer, 2001; Sapienza and Grimm, 1997; Brüderl et al., 1998). The same goes for subjective empirical measures of individual business success (Luk, 1996; Sapienza and Grimm, 1997). Brüderl et al. (1992) and Pennings et al. (1998) define success as duration in business. The researcher has adopted the last definition that is summarized in ability to survive and prevent involuntary exit.

## **2.6 Factors Impacting ICT Companies Success**

There are many factors that contribute in companies' success, those factors are too many to cover in one thesis that's why the researcher will focus on the main factors that affect the ICT companies in Egypt, and those factors can be classified under four main groups as following: Entrepreneurial Factors, Ecosystem Factors, Market Factors and Business Environmental Factors.

### **2.6.1 Entrepreneurial Factors**

The entrepreneur play a crucial role for the ICT company success because the skills of the founder or even the cofounders of the company is important for sustainability with good business performance, those skills are extrinsic and intrinsic, the extrinsic factors are: Age, School and Education, Family Background, Experiences, Single / multiple founders, and Domain Knowledge, while on the other hand the intrinsic factors are: Passion, Intelligence Quotient, Intellectual Honesty, Risk Tolerance, Purpose, Ability to attract talent, Authenticity, Leadership, Self-awareness, optimism, and Humility (Gursel 2013), among the Entrepreneurial factors that the researcher will focus on are Leadership; Focus Strategy; Qualifications like Education and Industry work Experience; Interdisciplinary founding team; Business Skills like Recognize Opportunities, Risk Willingness and Making Money Orientation; Soft skills like

Innovation, Ambition, Optimism, Flexibility and adaptability; Ethics like Humanity, Honesty and Commitment Networking and Social Skills; and, Luck.

### **2.6.1.1 Leadership Skills**

Leadership theories evolved from the begging of 20<sup>th</sup>, those theories were established in 1900, which are identified as “Great Man theories” at which leadership is a characteristic ability that is to say the leaders are born, however, in 1930 the “Group theory” was suggested which definite that how leadership appears and develops in small groups, that is to say, leaders are developed not born, on the other hand, the” Trait theory” was established during the forties, it states that there are general traits shared among all leaders, while in the fifties the “Behavior theory” was developed it highlights on key behavioral patterns result in leadership (Karamat 2013) (Khalil 2013).

CEOs play four roles to achieve desired organizational performance and business success, the four crucial roles are setting the organization vision, that motivate the employees, they analyze the company status, and taskmaster, each role contains sub duties as following:

- The vision setter explains and formulates the company elementary purpose and future direction with close attention to the developing social, economic, and technological trends.
- The motivator role is based on the leader motivational attitude to motivate the employees to achieve the company vision and strategic objectives and goals.
- The analyzer concentrates on the management systems and the operation of the company.
- The taskmaster pay close attention to the business success and the company performance in general, particularly to the crucial decisions and resources allocation to grantee business success (Hart & Quinn 1993)

Leaders in business have different types, they can be:

- Strong autocratic leaders: this is the type of leaders who develop the company vision, goals and objectives without paying attention to the rest

of the employees, they consider the rest of the employees as just followers.

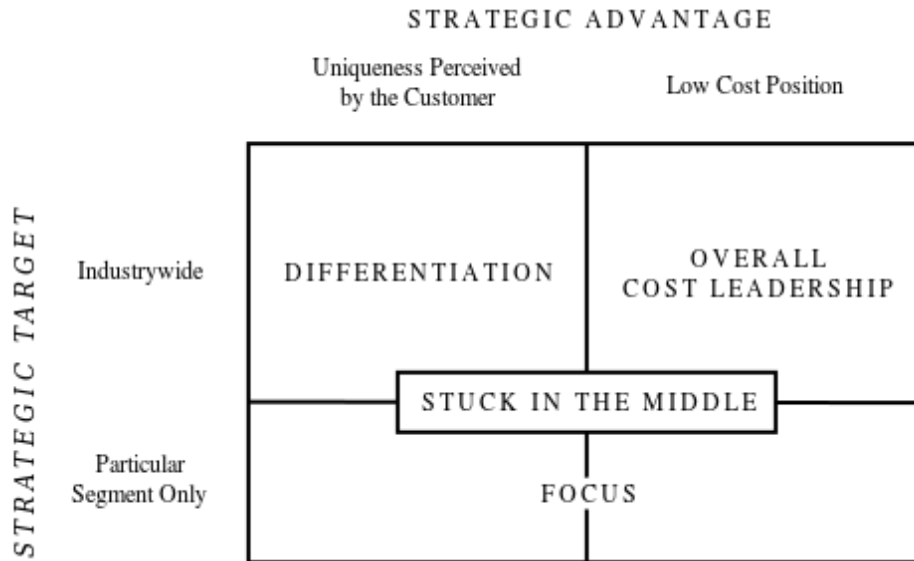
- Consultative leaders: these types of leaders pay close attention to the rest of the employees and their opinion toward the plans and the overall business objectives.
- Democratic leaders: these types of leaders not only consult the employees but also they use democracy before making business decision.
- Charismatic leaders: This type uses his charisma to influence the rest of the employees.
- Laissez-faire leaders: these leaders allow the rest of the employees to make decisions and act freely to achieve business success (Karamat 2013).

The researcher concentrated in the research on one main role for leader which is motivating team by creating team spirit and harmonization.

#### **2.6.1.2 Focus Strategy**

Focus strategy is definitely appropriate for small companies especially for those wanting to avoid competition with big ones (Porter 1980).

Porter added that; in adopting a narrow focus, the company ideally focuses on a few target markets who are distinct groups with specialized needs. The choice of offering low prices or differentiated products/services should depend on the customers' needs and the resources and capabilities of the firm. It is hoped that by focusing marketing efforts on one or two narrow market segments and tailoring your marketing mix to these specialized markets, company can better meet the needs of that target market.



**Figure 2.6 A Diagram of Michail Porter's Three Generic Strategies Based on an Image from Porter M. E., Competitive Strategy: Techniques for Analyzing Industries and Competitors, 1980**

Smaller companies that have little employees may have potential to apply focused strategy to reach success, in contrast to large companies that tend to widen their products or services to spread more in the market (Siegel and MacMillan 1993).

### 2.6.1.3 Qualifications

The qualifications of the top management plays a significant role in the company performance regardless of the leadership style they use, their education and general experiences is crucial for effective decisions that affect all the business aspects, nevertheless, the industry experiences allow the manager to develop better strategies and understand the specific environmental factors for such industry. Executives, who have accumulated knowledge and business experiences, are better able to cope with different business uncertainty (Nielsen et al. 2009).

There is significant positive indication linking educational accomplishment to organizational performance, for instance, the greatest productive companies have a habit of having highly educated employees than the smallest productive companies (Tamkin 2005).

#### **2.6.1.4 Interdisciplinary of the founding team**

The founding team diversity in experiences, education, culture and even nationality is important for business success, for instance cross-cultural literature proposes that national origin influences values as well as perceptions, these Cross-cultural qualities, impact manager's behavior; For example, cultural values significantly affect managers frankness toward alteration in the organizational status quo (Nielsen et al. 2009).

#### **2.6.1.5 Business Skills**

There are many business skills for the company managers that affect the overall business performance and success, the researcher focus on the skills for recognizing opportunities and the manager's willingness to take risk (Kumar et al. 2010) and their orientation to make money. Many previous empirical research projects intensely showed a connection between business skills and business productivity, that's why the Egyptian government should pay close attention to the education and vocation training system as well as developing such systems (Loewe et al. 2013). A significant impact of skills on productivity which eventually affect the business success, there is a strong linking between higher skills and higher productivity, many of the previous empirical studies showed that the higher average levels of labor productivity were carefully connected to the superior skills and knowledge of their employees including top management and their business skills (Tamkin 2005).

#### **2.6.1.6 Soft skills**

Soft skills are fundamentally people's skills or personality precise skills, they are non-technical, intangible skills, such skills governs the leader own strength, such soft skills decides whether this leader is a good listener, negotiator or even conflict mediator, Soft skills are the characters and capabilities of attitude and behavior instead of knowledge or technical ability (John 2009), the leader ability to innovate and encourage innovation help the company to overcome business challenges effectively, while ambition and optimism formulates the company future goals and how to achieve them, soft skills is one of the factors that differentiate between leaders and managers such skills include the ability to take initiative, self-confidence, flexibility ,perseverance, resourcefulness,

adaptability, independence, persuasiveness, tolerance for uncertainty and (Kumar et al. 2010).

#### **2.6.1.7 Ethics**

The ethical leader can established the example for the rest of the employees and resist any temptations that take place in business, the significance of good charisma and the right values, and the ethical leadership is far more complex, the ethical leader is the employer who possess the right values and the strong character, that set examples for the rest of employees and fight unethical business temptation, their humanity and honesty is crucial for the fight against unethical business temptation, while the Ethical leaders are committed to achieve business success, goals and objectives without contradicting with personal ethics and values (Bello 2012).

#### **2.6.1.8 Networking and Social Skills**

Successful business is based on relationship and networking that's why networking and social skills are essential for potential business deals and partnership, no company provide everything, that's why companies need strong relationship with potential customers, decision makers, business partners and government bodies, however, the excessive unwillingness of Egyptian entrepreneurs to work with each other which lead to losing the great benefits from the rewards of vertical or horizontal business partnership (Loewe et al. 2013).

#### **2.6.1.9 Luck**

Luck is a factor that is important for the company success because management decision needs matching environmental factors to grantee business success, here, luck plays a crucial role for better and successful operation, it is not a rational scientific factor but should not be neglected too, and based on previous studies , the beginner's luck was crucial factor for business success (Fuchs 2013).

## **2.6.2 Ecosystem Factors**

Business networking has been for hundreds of years, It begun as a lightly linked network of many organizations and companies, while, in the second half of the 20th century, many business challenges have evolved due to the enlargement of social, economic, political, and technological systems, at this level the idea of the business ecosystem was presented by James F. Moore in 1993 with a definition as an economic community reinforced by a base of networking organizations and individuals, this economic organizations produces goods and services of importance to customers, who are themselves associates of the ecosystem, nevertheless, the member organizations also contain suppliers, lead producers, competitors, and other stakeholders as time goes by, from the second half of the 20<sup>th</sup> century to present, Business ecosystems are analogous with biological ecosystems (Karhiniemi 2009), the researcher will focus on Incubators, Accelerators and Advisors; Financing Agencies: Angel or Venture Capital; Non-Governmental Organizations Support; and, Business Partners.

### **2.6.2.1 Incubators, Accelerators and Advisors**

One of the factors that affect business success specially for SMEs and startups is the presence of startup incubators who provide knowhow for the new business entrepreneurs, such incubators act as business accelerators for the ICT startups also they provide advisors and consultants in varies fields like legal and marketing advisors, one of the biggest entities is located in Smart Village, in the capital of Egypt , the Information Technology Industry Development Agency( ITIDA ), it was established in 2004 as an IT arm of the Ministry Of Communications and Information Technology (MCIT) to lead the method of developing the Egyptian IT industry, ITIDA aims to build momentum in the IT industry, by supporting the ICT industry with the precise tools (ITIDA 2015).

### **2.6.2.2 Financing Agencies: Angel or Venture Capital**

the financing institutes plays the main role for funding business companies, simply because the, business ideas without the proper finance will not be implemented, the Venture capital (VC) symbolizes the financial funds, typically in equity form as well as know-how knowledge and experiences, such VCs

collect investment from individuals and institutions and provide fund for small and medium enterprises, most of the time, venture capital are involved with high risk new companies and new technologies which is usually related to ICT sector (Ramadani 2014).

### **2.6.2.3 Non-Governmental Organizations Support**

It is the efforts done by NGOs aiming for social and economic change which eventually helps the private business sector, after the revolution, many social and economic initiatives took place aiming for social and economic change, nevertheless, the mainstream of these initiatives didn't succeeded because they were created by people who didn't possess skills like basic training, experiences, market understanding and funding, thus such initiatives failed to become viable business models, There is a weak connection between many social enterprise and business sector which eventually led to lack of support from Non-Governmental Organization (NGO) to business sector (Blackwood 2012).

### **2.6.2.4 Business Partners**

Business partners are essential for business success, in the end of the day, no company provide everything, that's why forward or backward integration into value chains and clusters help ICT companies in business success, however, the excessive unwillingness of Egyptian entrepreneurs to work with each other which lead to losing the great benefits from the rewards of vertical or horizontal business partnership (Loewe et al. 2013).

## **2.6.3 Market Factors**

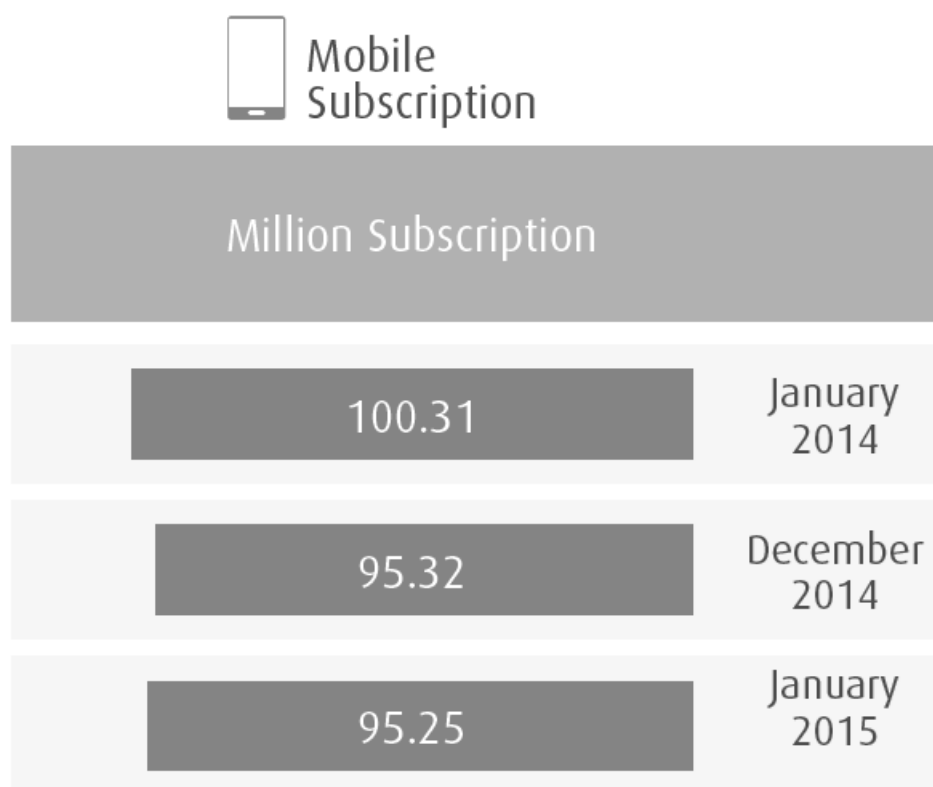
The researcher will focus on the Egyptian market opportunities for ICT companies with respect to the Market Risk and Customer Availability; this is studied in regards to the Demographic Factors.

### **2.6.3.1 Egyptian Market Opportunity**

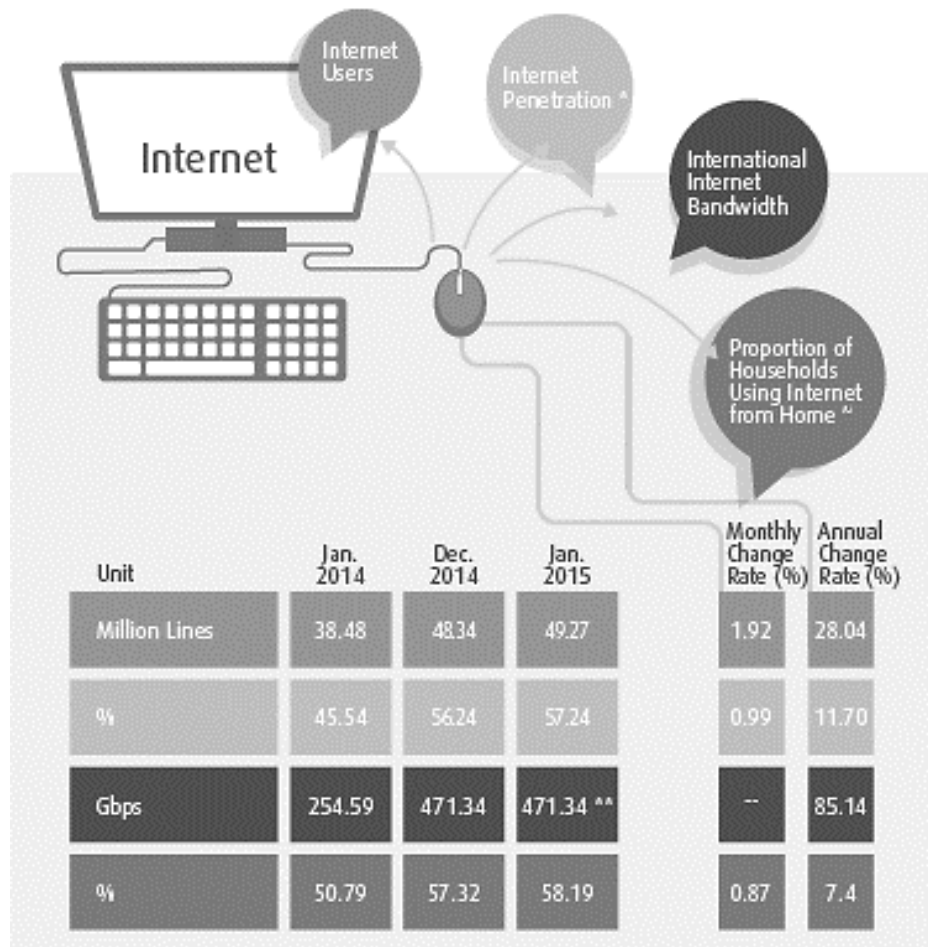
It is the presence of business need in the market to develop new products and services which are not fully supplied in the Egyptian market, there are numerous and diverse business opportunities in Egyptian Market, based on the



Ministry of Communication and Information Technology 2015, ICT Indicators in Brief there are 95.25 million mobile subscriptions which represents a high potential for ICT sector, Figure 2.6: Egyptian Mobile Subscription (MCIT indicators 2015).



**Figure 2.7: Egyptian Mobile Subscription (MCIT Indicators 2015).** Nevertheless, there is a numerous opportunities in digital data market too, for instance, in 2015, the internet usage reached 49.27million lines with international internet bandwidth 471.34 Gbps, Figure 2.7: Egyptian digital data Subscription (MCIT indicators 2015).



**Figure 2.8: Egyptian Digital Data Subscription (MCIT Indicators 2015).** Such huge numbers represent high potential for business opportunities in the ICT sector.

### 2.6.3.2 Egyptian Market Risk

The current political turmoil in North Africa and the Arab world has emphasized anxiety over emerging market political risk which eventually increased the worry among investors wondering if the unstable political and economic status quo affects the potential investment opportunities, however, significant opportunities still occur for investments in Egypt, but we can't deny that the risk exist and it include probable loss of fund, because such fund depends on the economy and the financial prospects of specific African companies (Seruma 2011).

### 2.6.3.3 Customers availability

It is the potential for the market (Current Customers) to purchase the product/service to generate profit, based on the Ministry of Communication and Information Technology 2015, ICT Indicators in Brief there are 95.25 million mobile subscriptions which represents a high potential for ICT sector, also, there is a numerous opportunities in digital data market too, for instance, in 2015, the internet usage reached 49.27million lines with international internet bandwidth 471.34 Gbps, Figure 2.8: Egyptian digital data Subscription (MCIT indicators 2015).

	Jan. 2014	Dec. 2014	Jan. 2015	Unit	Monthly Change Rate (%)	Annual Change Rate (%)
ADSL Subscription	2.65	3.03	3.08	Million Subscription	1.54	16.10
Mobile internet users	14.07	14.12	21.77	Million Subscription	2.90	58.72
Proportion of mobile internet users of total mobile subscription *	14.07	22.84	23.52	%	0.68	9.45
Proportion of mobile internet users of total internet users *	36.68	45.09	45.52	%	0.43	8.84
USB Modem subscription	3.92	4.05	4.09	Million Subscription	1.12	4.45

**Figure 2.9: Egyptian Digital Data Subscription (MCIT Indicators 2015).**

### 2.6.3.4 Demographic Factors

Socio demographic features in Egypt symbolize threats and challenges as it form delaying factors for implementation of ICT that's to say it affect mostly the ICT penetration rates and nature of usage, such demographic factors are : high population; Unemployment; poverty, high dependency ratio; income level and illiteracy (Abdul Rahman 2011).

### 2.6.4 Business Environment Factors

Business environmental factors are very important for business success because the business can't survive without a good and supportive business environment, that's why the researcher is paying very close attention to 10

environmental factors affecting companies success , those factors vary from Government Support Program Efficiency; Governmental Regulations; Corruption; Military Service; Infrastructure; Political and Economic instability; Internet Services; Legal Form; Legal Environment; and Catching qualified employees, the business environment affect the business in Egypt in terms of licensing, taxation, inspections and competition control, such points are resulted from weak and inefficient law enforcement (Loewe et al. 2013).

#### **2.6.4.1 Government Support Program Efficiency**

This is the measure of how efficient the government support program provide financial, technical and non-technical support for ICT companies, there are many government support program for different industries in Egypt, one of the biggest entities is located in Smart Village, in capital of Egypt , the Information Technology Industry Development Agency( ITIDA ), it was established in 2004 as an IT arm of the Ministry Of Communications and Information Technology (MCIT) to lead the method of developing the Egyptian IT industry, ITIDA aims to build momentum in the IT industry, by supporting the ICT industry with the precise tools to increase exports, nevertheless, It similarly the branding of Local ICT companies (ITIDA 2015).

#### **2.6.4.2 Governmental Regulations**

These are the governmental laws, rules and policies that affect the ICT industry either directly or indirectly, there are Government regulations that act as barriers to the success of Egyptian ICT companies for example there is no sufficient regulations for E-commerce which is delaying its improvement (Abdul Rahman 2011).

#### **2.6.4.3 Corruption**

Corruption, containing bribery, increases the costs and risks of doing business, nevertheless, corruption has a corrosive influence on market opportunities and It similarly discourages international business, suppresses economic growth and development, twists prices, and weakens the rule of law, Table 2.1: TI corruption Index (US Department of the state 2012).

<b>Table 2.1: TI Corruption Index (US Department of the State 2012).</b>		
<b>Measure</b>	<b>Year</b>	<b>Index/Ranking</b>
TI Corruption Index	2011	2.9 (112/182)

(Philippine Institute for Development Studies 2006) defined Corruption as the misuse or the abuse of public office for private gain (World Bank, 1997, UNDP, 1999). It can come in various forms and a wide array of illicit behavior, such as bribery, extortion, fraud, nepotism, graft, speed money, pilferage, theft, embezzlement, falsification of records, kickbacks, influence peddling, and campaign contributions (Klitgaard)<sup>5</sup>. While corruption is commonly attributed to the public sector, it also exists in other aspects of governance, such as political parties, private business sector, and NGO (USAID, Anticorruption Strategy, 2005).

#### **2.6.4.4 Military Service**

Military service is compulsory in Egypt for males, the duration of the military service varies from 14 months to 36 months based on the age and education level, such services has a significant impact on the labor market because it affect their experiences and the average age for the labor market in general particularly ICT sector (United Nations High Commissioner 1997).

#### **2.6.4.5 Infrastructure**

Infrastructure states the essential facilities and systems serving a country, including the services and facilities necessary for its economy to function like power generation and transportation (Sullivan et al. 2003), Over the last five decades, infrastructure in Egypt has practiced an extraordinary improvement, this has certainly reinforced the moderately strong economic growth performance of the country before 2011 revolution, also it added to the development in social and economic welfare of the Egyptian citizens, Notwithstanding, in the last years there has been a drop in particular areas of infrastructure, mainly power generation and transportation accompanied with low level of infrastructure investment (Loayza et al. 2010).

#### **2.6.4.6 Political and Economic instability**

Political instability is the tendency of a government to collapse (Alesina et al. 1992), In January and February 2011, Egypt observed countrywide protests and clashes among activists and police, which finally brought an end to the Mubarak regime, subsequently, there have been irregular marches and protests that irregularly degenerate into violence, however, police have gradually returned to the streets, aiming to retrieve security and political stability (US Department of the state 2012), such instability affect the business market and the overall business success.

#### **2.6.4.7 Internet Services**

The presence of internet access using different technologies like Dial-Up, LAN, Broadband and wireless Broadband, in 2015, the internet usage reached 49.27million lines with international internet bandwidth 471.34 Gbps, there is 3.08 million ADSL subscription and 22.4 million mobile internet users last but not least, there is 4.09 million USB modem Subscription (MCIT indicators 2015).

#### **2.6.4.8 Legal Form**

Is how the business entity is formed as per the local commercial law, in Egypt, there are many legal forms for companies like; Limited Liability Company; general partnership; Limited partnership, the legal form for the business firms specially the startups and SMEs is suitability challenges for those companies in terms of licensing, taxation, inspections and competition control (Loewe et al. 2013), notwithstanding, the severe increase in need of innovative policies and laws to support ICT sector (Brach 2010).

#### **2.6.4.9 Legal Environment**

The presences of Law and order for the business sector and the level of law enforcement, The main problem with legal environment in Egypt business sector is not related to the lack of legal rules rather than the weak and delayed law enforcement, that's why the Egyptian government should pay close attention to law enforcement effectively (Loewe et al. 2013).

#### **2.6.4.10 Catching qualified employees**

Business doesn't survive without skilled labor, there is a strong linking between higher skills and higher productivity, many of the previous empirical studies showed that the higher average levels of labor productivity were carefully connected to the superior skills and knowledge of their employees including top management and their business skills (Tamkin 2005), that's why the ability to headhunt qualified and talented employees is mandatory for business success.

## **2.7 Statistical Review of Egyptian ICT**

In 1999, The Ministry of Communication and Information Technology (MCIT) was established, leading eventually to the inclusion of Egypt into a more informational society (Khalil 2013)

In 2000, Egypt has made main improvements such as containing ICT supportive legal environment and operative regulation for the ICT sector (Khalil 2013).

In 2011 , UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT with consultations from the Egyptian Ministry of Communication and Information Technology (MCIT), it was decided that the ICT Policy Review of Egypt would concentrate on five areas:

- Development of Infrastructure
- Development of Human Resources needed for ICT industry
- Development of ICT in education
- Development of local content in key ICT application
- Promotion of an export oriented ICT sector (UNCTAD 2011).

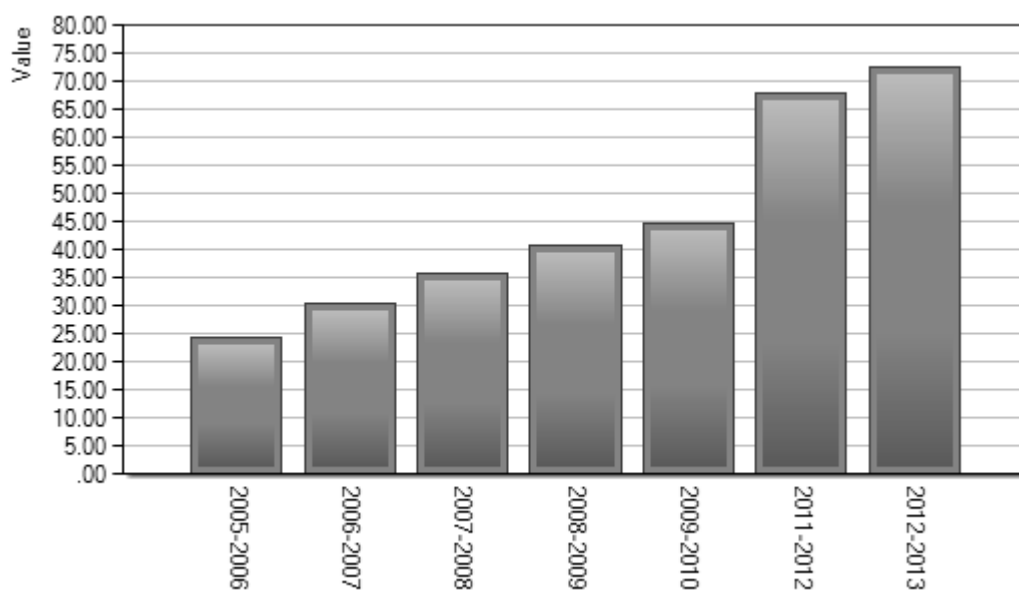
In 2010, the total figure of registered ICT companies in Egypt was 3,470, of which 460 13 % were operating in the "ICT-enabled services" sector, this was published in a survey conducted by UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT, about 53 % of them have less than 100 employees, furthermore, 34 % of 115 respondents have an yearly turnover in the Egyptian market of less than US\$1 million, though 67 % generate fewer

than US\$ 5 million, Only 5 companies breed incomes more than US\$ 100 million (UNCTAD 2011).

The mainstream of the ICT companies owned by Egyptians either as individuals or entities and 84% of the companies head office is situated in Egypt. Similarly, 86% of the ICT companies are privately held (UNCTAD 2011).

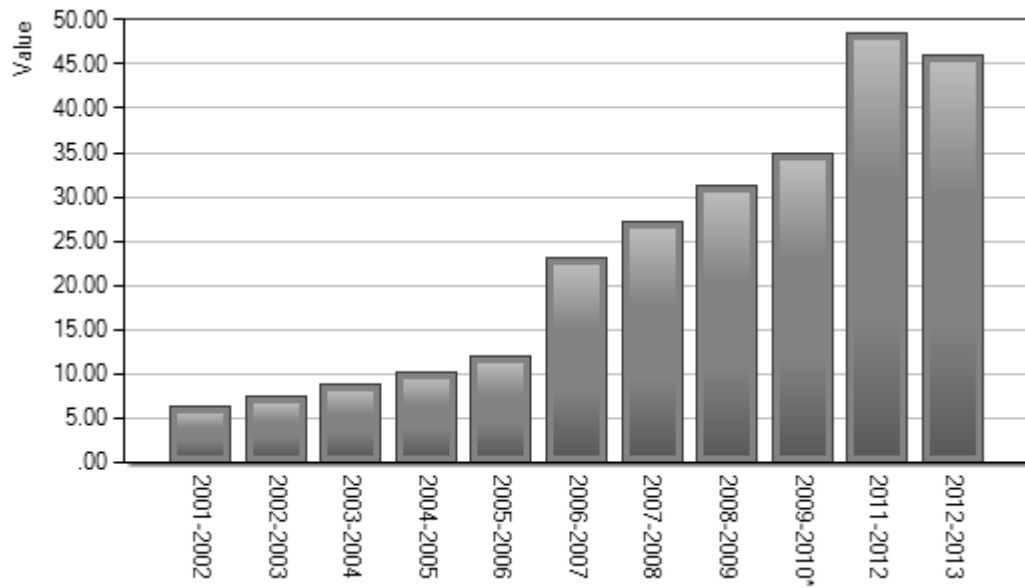
In 2012, there were a total of 4,795 companies in ICT with 215,000 employees as per the ICT Indicators in Brief, issued by the Egyptian Ministry of Communications and Information Technology.

In the recent years, Egypt has perceived a gigantic growth in the Information and Communication Technology sector (ICT) becoming a backbone for the Egyptian economy (Khalil 2013), Figure 2.9: Egyptian ICT companies revenue (MCIT indicators), Figure 2.10: Egyptian ICT GDP at Current Prices in Billions (MCIT indicators), Figure 2.11: Egyptian ICT Contribution to the national Treasury in Billions (MCIT indicators) and Figure 2.12 : Egyptian ICT Investment in millions (MCIT indicators).

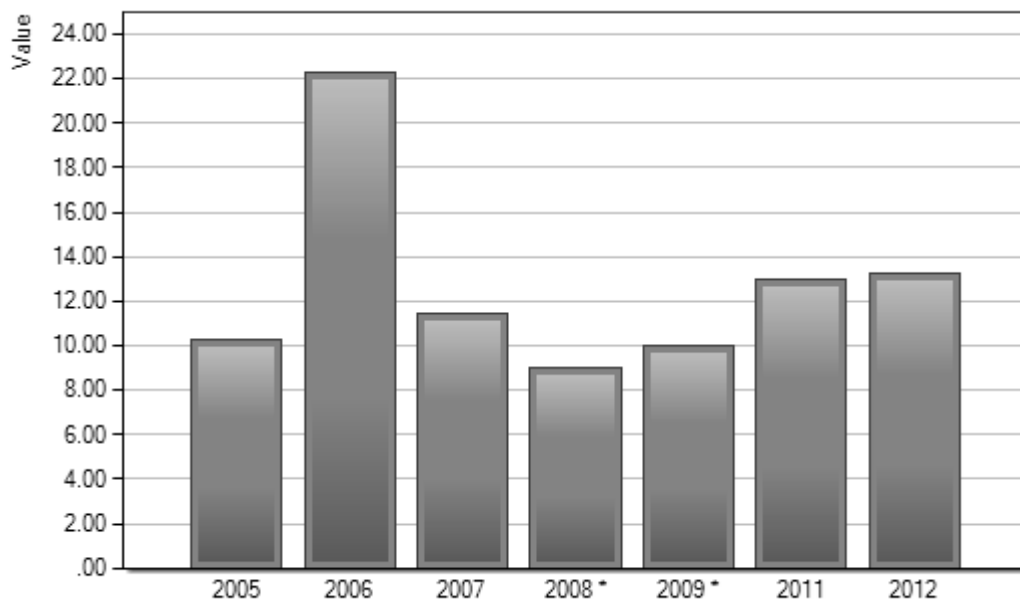


**Figure 2.10: Egyptian ICT Companies Revenue (MCIT Indicators)**

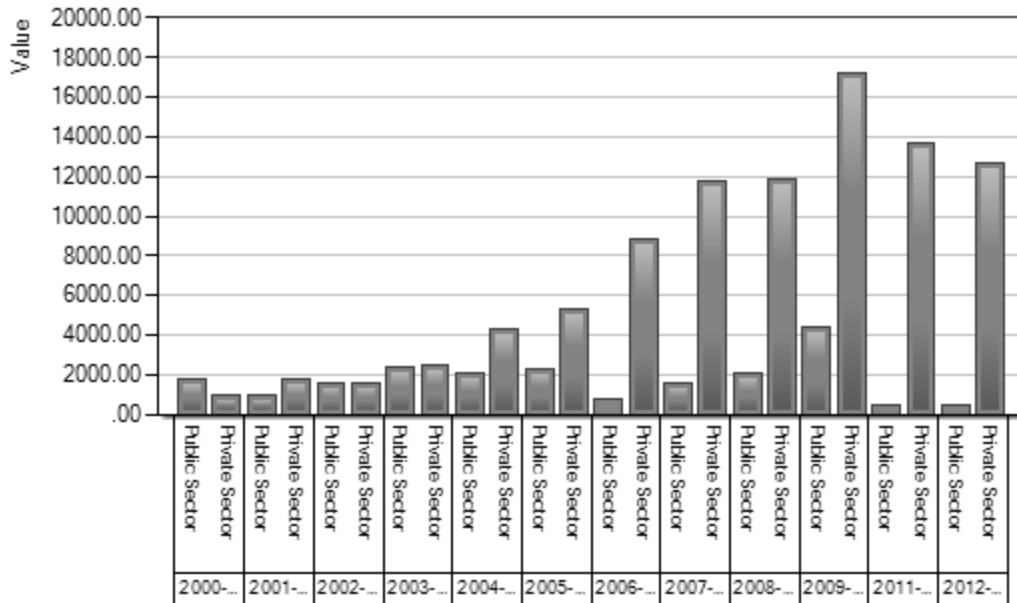




**Figure 2.11: Egyptian ICT GDP at Current Prices in Billions (MCIT Indicators).**



**Figure 2.12: Egyptian ICT Contribution to the National Treasury in Billions (MCIT Indicators).**



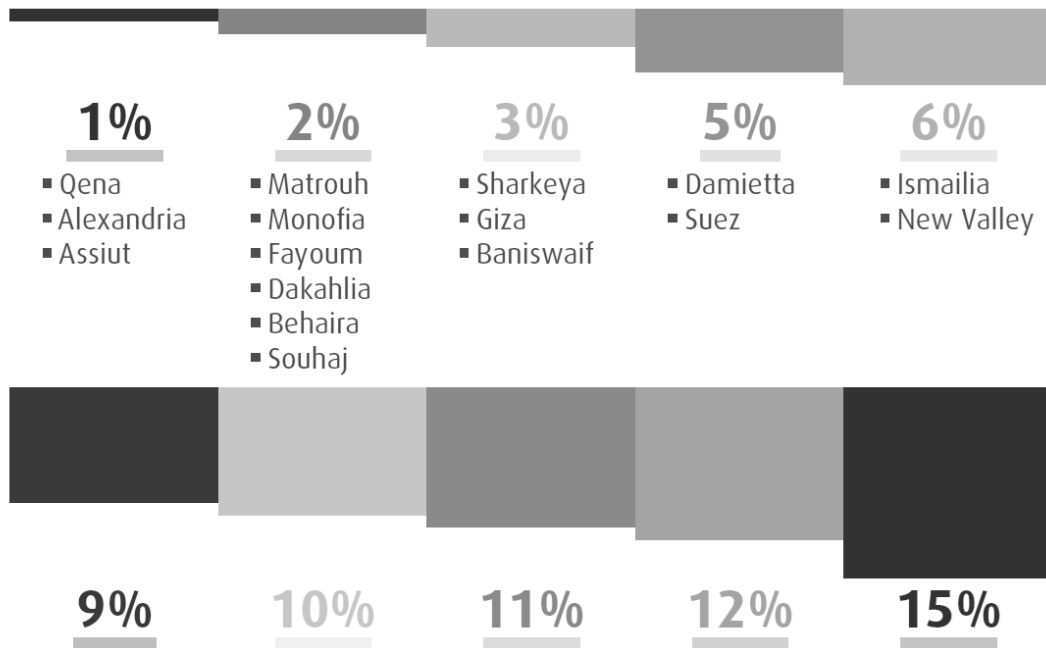
**Figure 2.12: Egyptian ICT Investment in Millions (MCIT Indicators).**

ICT companies in Egypt can be categorized into: Information Technology Companies; Communications Companies; and, IT Systems services Companies from January 2014 till January 2015 there was no significant change in percentage of ICT companies in Egypt , Information Technology Companies are 77.07 % ; Communications Companies are 7.19 %; and, IT Systems services Companies 15.74%, Different ICT activities has different capital which didn't change significantly from January 2014 to January 2015, for instance, Information Technology Companies had a capital of 18.33; Communications Companies had a capital of 77.88 ; and, IT Systems services Companies 3.79 , Figure 2.13: ICT companies issued capital in Egypt (ICT Indicators 2015).

Unit		Jan. 2014	Dec. 2014	Jan. 2015	Monthly Change Rate (%)	Annual Change Rate (%)
ICT companies	Information Technology	77.34	77.15	77.07	-0.08	-0.27
	Communications	7.48	7.18	7.19	0.01	-0.29
	IT Systems Services	15.19	15.67	15.74	0.07	0.56
ICT Issued capital	Information Technology	18.01	18.33	18.33	0.00	0.32
	Communications	78.44	77.93	77.88	-0.05	-0.56
	IT Systems Services	3.55	3.73	3.79	0.05	0.24

**Figure 2.13: ICT Companies Issued Capital in Egypt (ICT Indicators 2015)**

The distribution of ICT companies in Egypt varies from governorate to another the highest is in North Sinai with 19, Luxor 15, South Sinai 14, Aswan 12, Red Sea 11, New valley 8, Ismailia 7, Damietta 6, Suez 6, Giza 4, Benisuef 4, El Sharkaya 4, Sohag 3, Elfayoum 2, Elmonofeya 2, Elbehera 2, Eldakahlaya 2, Matrouh 2, Qena 1, Assiut 1 and Alexandria 1 (MCIT indicators 2015).



**Figure 2.14: Egyptian Tele Centers Distribution (ICT Indicators 2015)**

## 2.8 Summary of Literature Review

Table 2.2 Summary of Literature Review				
#	Study	Author - Date	Studied Variables	Summary
1	Impact of Leadership on Organizational Performance, a case study of D&R cambric communication	(Karamat 2013)	Leadership	<p>Strong autocratic leaders: this is the type of leaders who develop the company vision, goals and objectives without paying attention to the rest of the employees, they consider the rest of the employees as just followers.</p> <p>Consultative leaders: these types of leaders pay close attention to the rest of the employees and their opinion toward the plans and the overall business objectives.</p> <p>Democratic leaders: these types of leaders not only consult the employees but also they use democracy before making business decision.</p> <p>Charismatic leaders: This type uses his charisma to influence the rest of the employees.</p>

				Laissez-faire leaders: these leaders allow the rest of the employees to make decisions and act freely to achieve business success
	The impact of human resources department and line managers on employees' affective commitment in ICT Sector in EGYPT	(Khalil 2013)		
2	Competitive Strategy	(Porter 1980)	Focus Strategy	This is a type of strategy at which the company focuses on a small number of target markets, by focusing the company marketing energies on couple of fine market segments and adapting the marketing mix to these narrow markets to meet the needs of that narrow market
3	The Impact of Top Management Team Nationality Diversity	(Nielsen et al. 2009)	Qualifications	

	and International Experience on Foreign Entry Mode			Executives, who have accumulated knowledge and business experiences are better able to cope with different business uncertainty
	Measuring the Contribution of Skills to Business Performance A Summary for Employers	(Tamkin 2005)		
4	The Impact of Top Management Team Nationality Diversity and International Experience on Foreign Entry Mode	(Nielsen et al. 2009)	Interdisciplinary of the founding team	The founding team diversity in experiences, education, culture and even nationality.
5	Survival skills of business management graduates: a study with	(Kumar et al. 2010)	Business Skills	

	reference to retail and banking			
	Which factors determine the upgrading of small and medium-sized enterprises (SMEs)?, The case of Egypt	(Loewe et al. 2013)		The skills for recognizing opportunities and the manager’s willingness to take risk and their orientation to make money.
	Measuring the Contribution of Skills to Business Performance A Summary for Employers	(Tamkin 2005)		
6	Study on the Nature of Impact of Soft Skills Training Programs on the Soft Skills	(John 2009)	Soft skills	

	Development of Management Students			strength, such soft skills decides whether this leader is a good listener, negotiator or even conflict mediator
	Survival skills of business management graduates: a study with reference to retail and banking	(Kumar et al. 2010)		
7	Impact of Ethical Leadership on Employee Job Performance	(Bello 2012).	Ethics	The ethical leader is the employer who possess the right values and the strong character, that set examples for the rest of employees and fight unethical business temptation, their humanity and honesty is crucial for the fight against unethical business temptation,
8	Which factors determine the upgrading of small and medium-sized enterprises (SMEs)?, The case of Egypt	(Loewe et al. 2013)	Networking and Social Skills	The strong relationships with potential customers, decision makers, business partners and government bodies.



9	Investigation of factors, which influence the likelihood of fast growth in Swiss technology start-ups	(Fuchs 2013)	Luck	Luck is a factor that is important for the company success because management decision needs matching environmental factors to grantee business success, here, luck plays a crucial role for better and successful operation, it is not a rational scientific factor but should not be neglected too, and based on previous studies , the beginner’s luck was vital factor for business success
10	The Information Technology Industry Development Agency, official website	(ITIDA 2015)	Incubators, Accelerators and Advisors	Entities who provide knowhow for the new business entrepreneurs, such incubators act as business accelerators for the ICT startups also they provide advisors and consultants in varies fields like legal and marketing advisors
11	Venture capital financing in the republic of Macedonia:	(Ramadani 2014)	Financing Agencies	The Venture capital (VC) symbolizes the financial funds, typically in equity form as well as know-how knowledge and experiences, such VCs collect

	what is done and what should be done?			investment from individuals and institutions and provide fund for small and medium enterprises
12	Social entrepreneurship in Egypt, turning revolutionary ambition into tangible results	(Blackwood 2012)	Non-Governmental Organizations Support	It is the efforts done by NGOs aiming for social and economic change which eventually helps the private business sector especially SMEs.
13	Which factors determine the upgrading of small and medium-sized enterprises (SMEs)?, The case of Egypt	(Loewe et al. 2013)	Business Partners	All partners that help entrepreneur in doing activities necessary for success, like partnership with the forward or backward integration into value chains and clusters to help ICT companies in business success.
14	Ministry of Communication and Information Technology 2015, ICT Indicators in Brief	(MCIT indicators 2015)	Egyptian Market Opportunity	It is the presence of business need in the market to develop new products and services which are not fully supplied in the Egyptian market

15	Egyptian Turmoil and Africa Investment Opportunities	(Seruma 2011)	Egyptian Market Risk	The unstable political and economic status quo which affects the potential market opportunities
16	Ministry of Communication and Information Technology 2015, ICT Indicators in Brief	(MCIT indicators 2015)	Customers availability	The potential for the market (Current Customers) to purchase the product/service to generate profit.
17	Analysis of ICT Diffusion in Egypt	(Abdul Rahman 2011)	Demographic Factors	Demographic factors are: high population; Unemployment; poverty, high dependency ratio; income level and illiteracy rate.
18	The Information Technology Industry Development Agency, official website	(ITIDA 2015)	Government Support Program Efficiency	This is the measure of how efficient the government support program provide financial, technical and non-technical support for ICT companies
19	Analysis of ICT Diffusion in Egypt	(Abdul Rahman 2011)	Governmental Regulations	These are the governmental laws, rules and policies that affect the ICT industry either directly or indirectly

20	Egypt Investment Climate 2012	(US Department of the state 2012)	Corruption	Corruption, containing bribery, is the corrosive influence on market opportunities which discourages international business, suppresses economic growth, twists prices, and weakens the rule of law
21	Military Conscription: Countries Compared	(United Nations High Commissioner 1997)	Military Service	It is the compulsory service in Egypt for males, the duration of the military service varies from 14 months to 36 months based on the age and education level
22	Infrastructure and Economic Growth in Egypt	(Loayza et al. 2010)	Infrastructure	the basic physical and organizational structures and facilities (e.g. buildings, roads, power supplies) needed for the operations of ICT enterprises
23	Egypt Investment Climate 2012	(US Department of the state 2012)	Political and Economic instability	It is the tendency of a government to collapse.
	POLITICAL INSTABILITY AND ECONOMIC GROWTH	(Alesina et al. 1992)		

24	Ministry of Communication and Information Technology 2015, ICT Indicators in Brief	(MCIT indicators 2015)	Internet Services	The availability of efficient internet required for ICT companies in Egypt, using different technologies.
25	Which factors determine the upgrading of small and medium-sized enterprises (SMEs)?, The case of Egypt	(Loewe et al. 2013)	Legal Form	Is how the business entity is formed as per the local commercial law, In Egypt, there are many legal forms for companies like; Limited Liability Company; General partnership; Limited partnership,
	Socio-Economic Challenges in the Context of Globalization, Technological Readiness in the Middle East and North	(Brach 2010)		

	Africa, Implications for Egypt			
26	Which factors determine the upgrading of small and medium-sized enterprises (SMEs)?, The case of Egypt	(Loewe et al. 2013)	Legal Environment	The power of law enforcement represented in laws' entities , procedures and environment that protect rights and provide justice for ICT small business in Egypt.
27	Measuring the Contribution of Skills to Business Performance A Summary for Employers	(Tamkin 2005)	Catching qualified employees	The ability to headhunt qualified and talented employees

# 4 Chapter Three: Research Propositions and Methodology

## 4.1 Introduction

The research objective main objective is to explore: Which factors determine success of ICT small enterprises in Egypt?

Moreover, the researcher wanted to discover

- Which factors explain why success seems to be especially difficult in Egypt?
- Which factors explain why some ICT entrepreneurs manage to succeed better than others- despite the general difficulties in Egypt?

This research has multipurpose, it tries to investigate: Why are limited numbers of ICT startups are able to succeed in Egypt? And what are those factors that limit success in Egypt? Moreover; why are some ICT Small companies can succeed within Egypt Environment while others cannot?

In other words, the researcher worked on two dimensions: 1<sup>st</sup> dimension to answer; what are the external factors that make success difficult for small ICT Companies in Egypt? The 2<sup>nd</sup> dimension is to answer: What are internal factors that help some small ICT companies to succeed - Despite the external challenges?

In addition, the research aims to take further step to differentiate between external factors in such a way to know: What are external factors that the entrepreneur can influence without full control, and what are external factor beyond entrepreneurs control?

Previous literatures in Egypt concluded a correlation between some factors and SMEs success, however, little concentrated on prioritization of large groups of factors, with special focus on ICT companies in specific. This research is trying to contribute in filling this gap. In addition, conducted literature focused on either

the importance of external factors or importance of internal factors, while this research works on both external and internal bundles of factors.

In the light of this, the research adopted different approaches which are new at least in researches related to ICT sector in Egypt. Researcher made gradual multistep to achieve the research objectives, using combination between qualitative and quantitative tools: 1) 1<sup>st</sup> stage of in depth interviews with ICT small business experts and entrepreneurs, to explore if there are specific factors with a special priority in Egyptian environment, 2) 2<sup>nd</sup> stage of in depth interviews with two groups: Experts and ICT Entrepreneurs to discover what are the most significant and important factors and 3) A mixed qualitative and quantitative questionnaire to determine the degree of impacting of each factor either positively or negatively on success of ICT Companies in Egypt.

The researcher targeted mainly IT Systems Services companies with different types, like software development, training services in software engineering, companies that provide integrated solutions and embedded systems.

## **4.2 Research Propositions**

Researcher formulated a number of research propositions arises mainly from literature review, considering factors recommended from 1<sup>st</sup> stage of in-depth interviews. Selecting factors are based on impacting success of SMEs in general and ICT companies in specific. Each propositions refers to one factor that could influence ICT small companies either positively so helping to achieve success, or negatively so leading to failure.

However, since the various literatures suggested so many factors affecting success of small companies, researcher came up a large number of propositions, each referring to one factor. Rather than listing all of them, the researcher grouped the propositions into four main bundles containing the propositions that are related to: (i) Entrepreneur, (ii) Ecosystem, (iii) Market and (iv) Business Environment. Under each Main bundle there group of factors.



### 4.2.1 Initial Propositions Factors

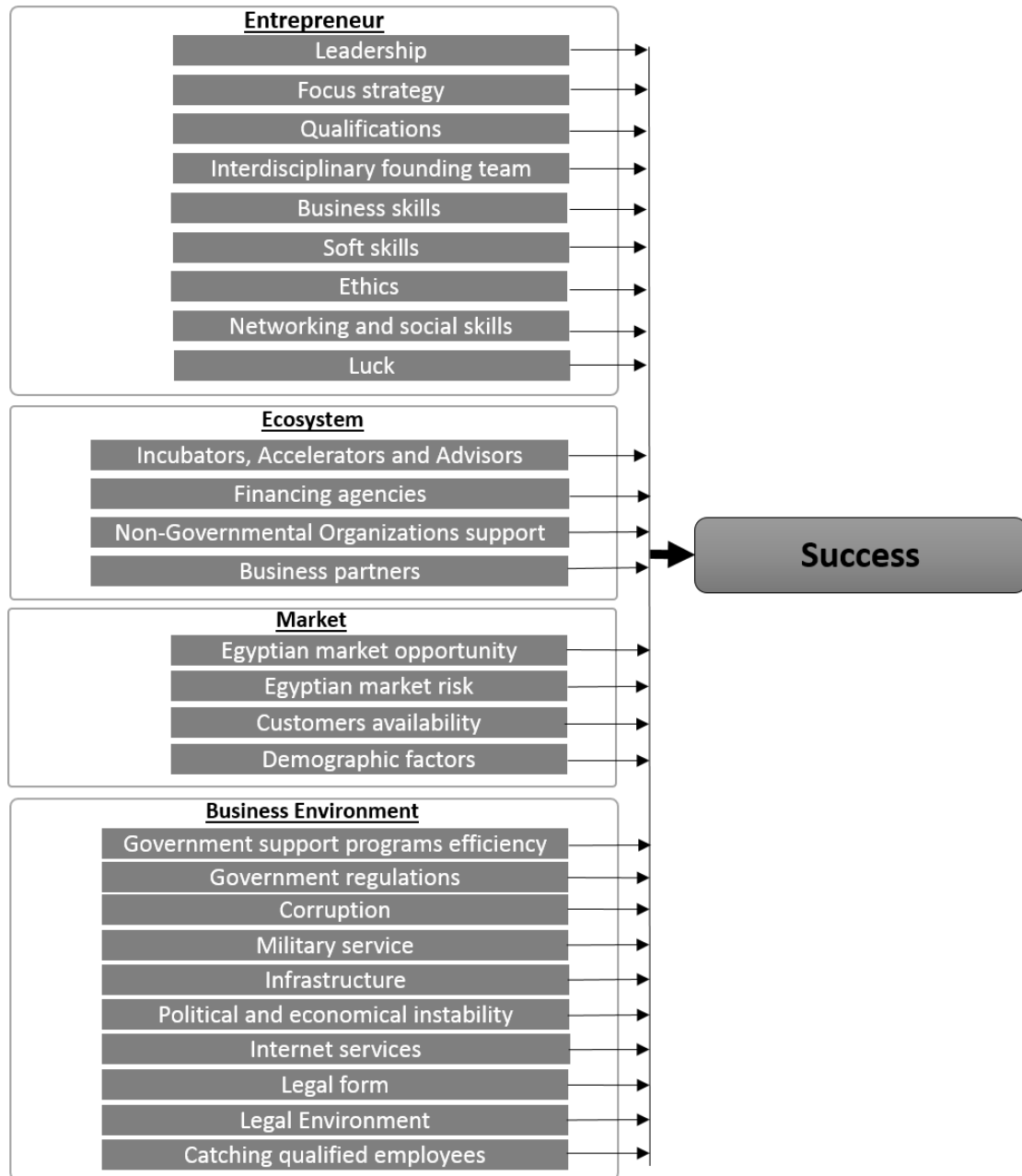


Figure 3.1 The Framework

### 4.2.2 Factors Descriptions

**Success:** In this research, Success is described by; the longer the entrepreneur can survive and prevent involuntary exit, the more successful he is (C. Mirjam van Praag)

**Leadership Skills:** In this research, leadership Skills is described by entrepreneur motivational attitude to motivate the employees to achieve the company vision and strategic objectives and goals (Hart & Quinn 1993)

**Focus Strategy:** In this research, focus Strategy is described by entrepreneur motivational attitude to achieve focusing on a few target markets who are distinct groups with specialized needs (Porter 1980).

**Entrepreneur Qualifications:** In this research, entrepreneur qualifications are described by the effect of education, general experience and industry experience on all the business aspects (Nielsen et al. 2009).

**Interdisciplinary of the founding team:** In this research, interdisciplinary of the founding team is described by the founding team diversity in experiences, education, culture and even nationality (Nielsen et al. 2009).

**Business Skills:** In this research, Business Skills are described by entrepreneur skills for recognizing opportunities and the entrepreneur's willingness to take risk (Kumar et al. 2010) and their orientation to make money.

**Soft Skills:** In this research, entrepreneur Soft Skills are described by the characters and capabilities of attitude and behavior instead of knowledge or technical ability (John 2009), Innovation, ambition, optimism, flexibility and adaptability (Kumar et al. 2010).

**Ethical Behavior:** In this research, ethical entrepreneur is committed to achieve business success, without contradicting with personal ethics and values (Bello 2012), his/her humanity and honesty are motives against unethical business temptation.

**Networking and Social Skills:** In this research, networking and social skills of entrepreneur: are described by the strong relationships with potential customers, business partners and government bodies (Loewe et al. 2013)

**Luck:** In this research, entrepreneur's luck is described by the force that causes things, especially good things, to happen to entrepreneur by chance and not as a result of his own efforts or abilities (Cambridge Dictionary)

**Availability of Incubators, Accelerators and Advisors:** Availability of entities that provide knowhow for the new business entrepreneurs, such incubators act

as business accelerators for the ICT startups, also they provide advisors and consultants in various fields like legal and marketing advisors (ITIDA 2015).

**Availability of Financing Agencies:** In this research, financing agencies are availability of Venture Capitals or Angel donors who have intentions to provide fund for small and medium enterprises (Ramadani 2014).

**Non-Governmental Organizations Support:** In this research, Non-Governmental Organizations Support is described by the efforts done by NGOs aiming for social and economic change which eventually helps the private business sector especially SMEs (Blackwood 2012).

**Availability of Business Partners:** In this research, business partners are described by all partners that provide entrepreneur with important activities necessary for his success (Loewe et al. 2013).

**Egyptian Market Opportunity:** In this research, Egyptian market opportunity is described by the presence of business need in the market to develop new products and services which are not fully supplied in the Egyptian market (MCIT indicators 2015).

**Egyptian Market Risk:** In this research, Egyptian market risk is described by the sum factors that make working in Egyptian market is risky (Seruma 2011).

**Customers' availability:** In this research, customers' availability is described by the potential for the market current customers to purchase the product/service to generate profit (MCIT indicators 2015).

**Demographic Factors:** In this research, demographic factors are described by unemployment, poverty, high dependency ratio, and illiteracy rates (Abdul Rahman 2011).

**Government Support Program Efficiency:** In this research, government support program efficiency is described by the measure of how efficient the government support programs to provide financial, technical and non-technical support for ICT companies (ITIDA 2015).

**Governmental Regulations:** In this research, governmental regulations are described by the governmental laws, rules and policies that affect the ICT industry either directly or indirectly (Abdul Rahman 2011).

**Corruption:** In this research, corruption is described by the misuse or the abuse of public office for private gain (World Bank, 1997, UNDP, 1999)

**Military Service:** In this research, military service is described by the compulsory service in Egypt for males, from 14 months to 36 months based on the age and education level (United Nations High Commissioner 1997).

**Infrastructure:** In this research, Infrastructure is described by the basic physical and organizational structures and facilities (e.g. power supplies, buildings, roads,) needed for the operations of ICT enterprises ([Dictionary.reference.com](http://Dictionary.reference.com))

**Political and Economic instability:** In this research, political and economic instability is described by the tendency of a government to collapse (US Department of the state 2012)

**Internet Services:** In this research, internet services are described by the availability of different technologies internet which are efficient with reasonable prices, required for ICT companies in Egypt, (MCIT indicators 2015)

**Legal Form:** In this research, legal form is described by how the business entity is formed as per the local commercial law In Egypt (Loewe et al. 2013).

**Legal Environment:** In this research, legal environment is described by the power of law enforcement represented in laws' entities, procedures and environment that protect rights and provide justice for ICT small business in Egypt (Loewe et al. 2013).

**Availability of Qualified Employees:** In this research, availability of qualified employees is described by the ability to headhunt qualified and talented employees (Tamkin 2005)

### 4.2.3 Research limitations

In accordance with qualitative researches, this study is not representing the total population of ICT Small Companies. Future researches with quantitative approaches are needed to cover representative sample for all ICT small companies in Egypt. In addition, the study sample concentrated mainly on IT System Services enterprises and did not include communication enterprises.

The researcher did not classify sample for successful or non-successful companies, he rather considered the current existence of the company and operating in Egypt is enough to compose in the sample. In the future, separating successful companies from non-successful will give the chance of differentiating between both opinions about the most important factors.

The chosen 27 factors for examining in the research did not include all factors found in literature review, the researcher selected factors depending on combination between expert recommendations and common factors in literatures. Future work is recommended to examine other factors that were not examined; however, the most likely important factors are included in the 27 factors.

The researcher examined large number of factors, some of which are subdivided to sub factors, so future work is needed to examine each individual sub factors. Also it would be beneficial in future to study smaller numbers of factors.

Relations between factors were not targeted during this research, future studies are recommended to determine mediator factors, complimenting factors, interdependent factors and substituting factors.

### 4.2.4 Research Questions

#### 4.2.4.1 Major Research Questions

**MajRQ1:** *Which factors determine success of ICT small enterprises in Egypt?*

**MajRQ2:** Which factors explain why success seems to be especially difficult in Egypt?

**MajRQ3:** Which factors explain why some ICT entrepreneurs manage to succeed better than others- despite the general difficulties in Egypt?

**4.2.4.2 Minor Research Questions:**

MinRQ1: What is the effect of leadership skills of entrepreneurs on success of ICT small companies in Egypt?

MinRQ2: What is the effect of applying focus strategy on success of ICT small companies in Egypt?

MinRQ3: What is the effect of entrepreneur qualifications on success of ICT small companies in Egypt?

MinRQ4: What is the effect of interdisciplinary founding team on success of ICT small companies in Egypt?

MinRQ5: What is the effect of entrepreneur business skills on success of ICT small companies in Egypt?

MinRQ6: What is the effect of entrepreneur soft skills on success of ICT small companies in Egypt?

MinRQ7: What is the effect of entrepreneur ethics on success of ICT small companies in Egypt?

MinRQ8: What is the effect of networking and social skills of entrepreneur on success of ICT small companies in Egypt?

MinRQ9: What is the effect of luck of entrepreneur on success of ICT small companies in Egypt?

MinRQ10: What is the effect of availability of incubators, accelerators, and advisors on success of ICT small companies in Egypt?

MinRQ11: What is the effect of financial agencies availability on success of ICT small companies in Egypt?

MinRQ12: What is the effect of Non-Governmental Organizations support on success of ICT small companies in Egypt?

MinRQ13: What is the effect of business partners' availability on success of ICT small companies in Egypt?

MinRQ14: What is the effect of Egyptian market opportunity on success of ICT small companies in Egypt?

MinRQ15: What is the effect of Egyptian market risk on success of ICT small companies in Egypt?

MinRQ16: What is the effect of customers' availability on success of ICT small companies in Egypt?

MinRQ17: What is the effect of Egypt's demographic factors on success of ICT small companies in Egypt?

MinRQ18: What is the effect of government support program efficiency on success of ICT small companies in Egypt?

MinRQ19: What is the effect of government regulations on success of ICT small companies in Egypt?

MinRQ20: What is the effect of corruption on success of ICT small companies in Egypt?

MinRQ21: What is the effect of military service on success of ICT small companies in Egypt?

MinRQ22: What is the effect of infrastructure on success of ICT small companies in Egypt?

MinRQ23: What is the effect of political and economic instability on success of ICT small companies in Egypt?

MinRQ24: What is the effect of Internet services on success of ICT small companies in Egypt?

MinRQ25: What is the effect of legal form on success of ICT small companies in Egypt?

MinRQ26: What is the effect of legal environment on success of ICT small companies in Egypt?

MinRQ27: What is the effect of availability of qualified employees on success of ICT small companies in Egypt?

#### **4.2.5 Assumptions**

H1: F.1 Leadership skills of entrepreneur: is a determinant for success of ICT companies in EGYPT

H2: F.2 Applying focus strategy: is a determinant for success of ICT companies in EGYPT

H3: F.3 Entrepreneur qualification: is determinant for success of ICT companies in EGYPT

H4: F.4 Interdisciplinary founding team: is a determinant for success of ICT companies in EGYPT

H5: F.5 Business skills of entrepreneur: is a determinant for success of ICT companies in EGYPT

H6: F.6 Soft skills of entrepreneur: is a determinant for success of ICT companies in EGYPT

H7: F.7 entrepreneur's ethics: is a determinant for success of ICT companies in EGYPT

H8: F.8 Networking and social skills of entrepreneur: is a determinant for success of ICT companies in EGYPT

H9: F.9 Luck of entrepreneur: is a determinant for success of ICT companies in EGYPT

H10: F.10 Availability of incubators, accelerators, and advisors: is a determinant for success of ICT companies in EGYPT

H11: F.11 Financial agencies' availability: is a determinant for success of ICT companies in EGYPT

H12: F.12 Non-Governmental organizations support: is a determinant for success of ICT companies in EGYPT

H13: F.13 Business partners' availability: is a determinant for success of ICT companies in EGYPT

H14: F.14 Egyptian market opportunity: is a determinant for success of ICT companies in EGYPT



H15: F.15 Egyptian market risk: is a determinant for success of ICT companies in EGYPT

H16: F.16 Customers' availability: is a determinant for success of ICT companies in EGYPT

H17: F.17 Demographic factors of Egypt: is a determinant for success of ICT companies in EGYPT

H18: F.18 Government support program efficiency: is a determinant for success of ICT companies in EGYPT

H19: F.19 Government regulations: is a determinant for success of ICT companies in EGYPT

H20: F.20 Corruption: is a determinant for success of ICT companies in EGYPT

H21: F.21 Military service: is a determinant for success of ICT companies in EGYPT

H22: F.22 Infrastructure: is a determinant for success of ICT companies in EGYPT

H23: F.23 Political and economic instability: is a determinant for success of ICT companies in EGYPT

H24: F.24 Internet services: is a determinant for success of ICT companies in EGYPT

H25: F.25 Legal form: is a determinant for success of ICT companies in EGYPT

H26: F.26 Legal environment: is a determinant for success of ICT companies in EGYPT

H27: F.27 Availability of qualified employees: is a determinant for success of ICT companies in EGYPT

## **4.3 Research Methodology**

### **4.3.1 Research Type**

This research is exploratory since it attempts to reach to the major external and internal factors that affect success of small ICT companies in Egypt. This research is inductive since it aims to output a model contains the major and co factors that affect positively or negatively success of ICT Companies in Egypt. The research is an applied research that is hopefully benefits the ICT Entrepreneurs, decision makers in Egypt and whom it may concern. The method used to make this research is mainly qualitative; however simple quantitative analysis was also used. This research is mainly cross sectional with only one longitudinal interview.

The researcher moderately interfered in research; he played the role of leading questions in the 1<sup>st</sup> and 2<sup>nd</sup> stages interviews, in addition, researcher worked sometimes on interpreting the respondents' semi-clear words or sentences to link them to the examined factors. Researcher also removed unclear words and sentences; however, this has rarely occurred.

The research was done within 10 weeks period (From 1<sup>st</sup> of March till 10<sup>th</sup> of May 2015).

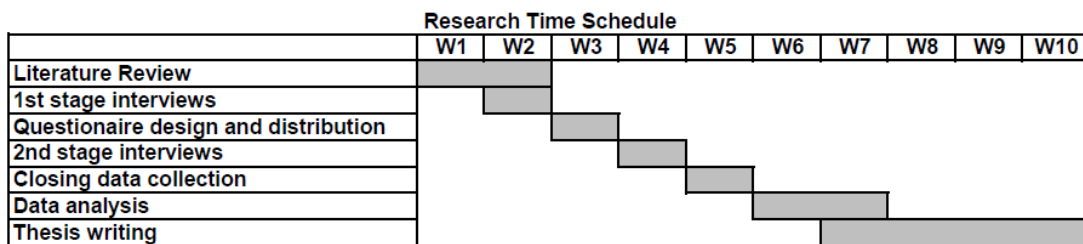
### **4.3.2 Methodology tools**

Methodology tools are: 1) 1<sup>st</sup> stage of in depth interviews with 4 individuals related to ICT small business (2 experts and 2 entrepreneurs), to explore whether there are special factors with high expected impact within Egypt ICT specific environment, to be reviewed once more in literature, 2) 2<sup>nd</sup> stage of in depth interviews with two groups: (5 Experts and five ICT Entrepreneurs), to explore the most important factors from their perspectives that affect ICT small companies success and 3) A mixed qualitative and quantitative questionnaire was distributed for ICT Entrepreneurs and Experts with 38 responses received, to specify the degree of effect of each factor on success either positively or negatively.

The aim of choosing mainly qualitative approach is to discuss specific Egyptian environment factors combined to common factors found in literature review.

Positive aspects of combination between 1st stage interviews followed by 2<sup>nd</sup> stage interviews and thirdly mixed qualitative and quantitative questionnaire; are making triangle research that confirm results from more than one way. Besides, interviews are giving enough space for respondents to clarify their opinions and justifications so we can understand more about causalities, and from the other side, to highlight to respondents the important factors found in literature that they may not remember in open questions only. Another advantage is to allow respondents concentrating on their personal experiments rather than giving general theoretical opinions.

### 4.3.3 Research Time Schedule

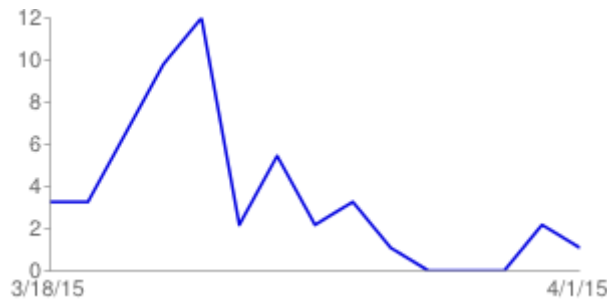


**Figure 3.2 Gantt Chart of Research Time Schedule**

The Research total period was 10 weeks (70 days) started from 1st of March and lasted to 10<sup>th</sup> of May 2015.

During week I the researcher decided the research topic and started literature review. Literature review ended with week II. During week II the researcher conducted the 1<sup>st</sup> stage of interviews. Questionnaire design was made through week III, and at the same week distributing questionnaire on internet groups with encouraging tools to make them respond. The researcher made 2<sup>nd</sup> stage of interviews through week IV. The researcher closed data collection through questionnaire or interviews at 1<sup>st</sup> of April during week V. In the same week the researcher started data analysis in parallel with thesis writing that was finished during week X. Figure 3.2 is showing stages of schedule of making research.

The research was submitted to Brilliance Business School on 10<sup>th</sup> of May 2015. Number of daily responses to questionnaire since start-to-finish date of data collection (Google Form Curve)



**Figure 3.3 Responses Progress to the Questionnaire Published Online**

#### 4.3.4 Design of Data Collection

First: 1<sup>st</sup> stage interviews were done with 2 experts and 2 junior entrepreneurs as will be described later in sampling selection section of this chapter. Simple and wide open questions were asked to interviewees about their practical experiments and main obstacles or enhancers that affect ICT companies in Egypt (The Discussion Guide of 1<sup>st</sup> stage interviews is attached in appendices).

Second: 2<sup>nd</sup> stage interviews were conducted with 5 experts and 5 ICT entrepreneurs through semi-structured interview as a main guide, as will be described later in sampling section in this chapter. The design of 2<sup>nd</sup> stage interview is different than 1<sup>st</sup> stage interviews but very similar in objectives and design to the questionnaire. The aim from similarity is to fill the same two areas that the questionnaire is targeting, but with an added advantage from interviews to know the reasons and practical experiments that were behind their answers and comments. Each interview was formed of introduction that the researcher explains the research objectives and what he is trying to explore, the second part was reviewing the effect and commenting on the 27 factors collected by researcher that affect ICT small companies success, while the third part was open discussion about the most critical four factors that affect success from interviewee perspectives. (The Discussion Guide of 2nd stage interviews is attached in appendices).

Third: The aim of mixed qualitative and quantitative questionnaire design is to fill two areas: (1) to explore the degree of effect of 27 examined factors. A space for comment on each question of questionnaire was available to respondents, with an introduction that encourages them to contribute with their comments, (2) to explore the most critical factors that affect success of ICT small

companies from respondents' perspectives. This was through a general question that asks about the most four critical factors that each respondent consider them critical for success (The questionnaire template is attached in Appendices).

### **4.3.5 Sampling**

Sampling is different according to each one of three tools that were used to collect data for this research.

#### *1<sup>st</sup> Stage Interviews:*

1<sup>st</sup> Stage Interviews sampling was judgmental quota, consisted of 2 experts and 2 junior entrepreneurs. Selection of interviewees in 1<sup>st</sup> stage was based on number of years of experience; 2 interviewees were selected to be having more than 10 years' experience and other 2 to be having less than 5 years' experience. The 2 junior entrepreneurs were selected from Gesr Incubation located in Greek Campus at Tahrir Square, which belong to Masr El Kheir Non-Governmental Organization. The reason for choosing this NGO is that it makes several filtration methods before deciding to incubate an entrepreneur, which means that they should be qualified to certain success criteria.

The reason not to choose all sample from experts is because many rapid changes has occurred in Egypt in the last four years after the revolution of 25<sup>th</sup> January, the researcher wanted to explore if there are specific factors that recently arisen affecting small ICT companies, which the experts of old experience cannot recognize, in contrast to junior entrepreneurs who might be affected with these recent factors (For example, it was highlighted from junior entrepreneurs that military service is one factor impacting them in contrast to older experts).

#### *2<sup>nd</sup> stage interviews:*

2<sup>nd</sup> stage interviews sampling was also judgmental quota, main criterion was minimal 5 years' experience for interviewee in ICT small business, this is for the two groups 5 entrepreneurs and 5 experts. In general, high qualifications were targeted, such as education and multi experiments (The biography of each interviewee in 2<sup>nd</sup> stage is attached in Appendices). The researcher could reach

the sample through networking relations and experts recommendations. Interviews were recorded according to interviewees' allowance.

*Mixed Qualitative & Quantitative Questionnaire:*

The questionnaire sampling was simple random through inviting ICT entrepreneurs and experts on the internet to fill the questionnaire. 38 respondents were reached through internet groups or individuals on Facebook, LinkedIn and also through emails invitations. The main selecting criterion is to be a founder or partner of one of ICT Companies in Egypt, or to be an expert as being a part of ecosystem in Egypt. This is one reason for excluding 5 responses which did not match the criterion, and work on analysis of sum total 33 responses.

The 33 responses to questionnaire were mostly IT Systems Services Companies; like software development, companies that provide training services in software engineering, companies that provide integrated solutions, companies that sell software. Few respondents did not specify their companies' specialties.

#### **4.3.6 Data Analysis Methods**

Researcher analyzed data that gathered in interviews and questionnaires using qualitative and quantitative techniques.

The qualitative analysis aimed mainly to explore: what are the important factors that affect success of ICT Companies in Egypt? Besides, qualitative analysis helps in better understanding of how and why each factor affects success. While quantitative analysis aimed to determine to which degree each factor can impact success either positively or negatively, to determine final model that include: Major determinants, intermediate determinants, slight factors and neutral factors.

Separate analysis was made for answers to the open and closed questions. Qualitative analysis was made to the most important four factors from respondents' perspectives, while quantitative analysis was made to the 27 factors examined by the questionnaire and 2<sup>nd</sup> stage interviews.

In general, researcher followed **four major steps** in research data analysis, they are summarized as follows:

**Step 1: Identifying Factors to be examined** (Qualitative Analysis for 1<sup>st</sup> Stage Interviews)

**Step 2: Identifying important Factors impacting Success** (Qualitative Analysis for open question about the critical factors impacting success, answered by 2<sup>nd</sup> stage interviewees and questionnaire's respondents)

**Step 3: Determining Positive, Negative, Slight and Neutral factors** (Quantitative Analysis for closed questions of 27 factors)

**Step 4: Formulating Better Understanding for Each Factor** (Respondents' Comments and Discussion)

### **Step 1: Identifying Factors to be examined**

Researcher has made 3 procedures to specify the factors to be examined: 1) Determining Factors from Literature, 2) Highlighting Factors from 1<sup>st</sup> Stage Interviews through qualitative analysis and 3) Identifying Final Factors to be examined after reviewing, in literature, factors highlighted by 1<sup>st</sup> stage interviewees

Literature review and 1<sup>st</sup> stage interviews resulted in deciding the factors to be examined in 2<sup>nd</sup> stage interviews and questionnaire. Mostly all the factors were already found in literature, but the highlighting from interviewees gave them priority for examination. Results of 1<sup>st</sup> stage qualitative analysis (Results 1) will be illustrated in chapter 4.

**Step 2: Identifying important Factors impacting Success** (Qualitative Analysis for open question about the critical factors impacting success, answered by 2<sup>nd</sup> stage interviewee and questionnaire's respondents)

Since the design of 2<sup>nd</sup> stage interviews was similar in structure with the questionnaire design and for the same objectives, researcher merged the data resulted from both to be analyzed together, that's why the total responses to

questionnaire are 48 registered at Google Form rather than 38 responses. This merging has a major advantage to enable the researcher for analyzing separately; 1) the important factors from respondents' perspective 2) total 27 factors that are examined by the researcher and 3) the comments that were accompanied to answers of all respondents.

To identify important factors impacting success, researcher conducted qualitative analysis for answers of the following open question: *In your opinion, what are the most critical four factors that affect success or failure of ICT companies in Egypt?* This question was answered by 2<sup>nd</sup> stage interviewees and questionnaire's respondents.

The main output resulted from four factors qualitative analysis is a list of important factors, which were arranged from high to low according to the more mentioned factor by respondents. Chapter 4 will include the results (Results 2) of this qualitative analysis.

**Step 3: Determining Degree of impacting for Each Factor: Major, Intermediate, Slight and Neutral factors** (Quantitative Analysis for closed questions of 27 factors)

The researcher made three procedures to determine degree of impacting for each factor: Major, Intermediate, Slight and Neutral factors: 1) Single Analysis for each degree of impacting "Greatly Negative, Greatly Positive, Moderately Negative, Moderately Positive, Slightly Negative, Slightly Positive and Neutral", 2) Quantitative analysis to determine degree of impacting of each factor on success either positively or negatively, using simple weighting method and 3) Concluding degree of impacting based on procedure 1 and 2.

First, researcher started with "single analysis for "greatly negative, greatly positive, moderately negative, moderately positive, slightly negative, slightly positive and finally neutral factors". The method used to do so, is a simple counting for sum answers of each degree. Lists of ordered factors were resulted that ranged from 'significant at a high level' to 'significant at a lower level' and from 'very important' to 'less important'. Researcher had to set a cut-off somewhere in order to ascertain what a main determinant is and what is not. Chapter 4 includes 7 figures that represent this comparison (Result 3A).



Second, researcher used quantitative analysis to determine degree of impacting of each factor on success either positively or negatively. Simple weighting method was used to do so, simply by giving a weight for each positive or negative effect, and multiplying result as follows: Greatly Negative or Positive multiplied by 3 (\*3), while Moderately Negative or Positive multiplied by 2 (\*2) and lastly Slightly Positive or Negative multiplied by 1 (\*1). This simple analysis gives clear picture of the strength of impacting of each factor. Accordingly, the researcher could determine the Major negative or positive factors, intermediate negative or positive factors, slight factors and lastly neutral factors (Result 3B).

**Step 4: Formulating Better understanding for Each Factor** (Respondents' Comments and Discussion)

Last step, researcher made Factor Box for each factor that contains: respondents' comments, findings, questionnaire question and factor description, this could help in understanding more about how respondents see each factor affects success.

## 5 Chapter Four: Data Analysis and Findings

### 5.1 Introduction

In general, researcher followed **four major steps** in research data analysis, they are summarized as follows:

**Step 1: Identifying Factors to be examined** (Qualitative Analysis for 1<sup>st</sup> Stage Interviews)

**Step 2: Identifying important Factors impacting Success** (Qualitative Analysis for open question about the critical factors impacting success, answered by 2<sup>nd</sup> stage interviewees and questionnaire's respondents)

**Step 3: Determining Positive, Negative, Slight and Neutral factors** (Quantitative Analysis for closed questions of 27 factors)

**Step 4: Formulating Better understanding for Each Factor** (Respondents' Comments and Discussion)

### 5.2 Identifying Factors to be examined (Qualitative Analysis for 1st Stage Interviews)

#### 5.2.1 Identifying Factors from Literature

*First*, researcher reviewed factors affecting ICT small companies' success in literature (See Chapter 2).

### 5.2.2 Identifying Factors from 1<sup>st</sup> Stage Interviews (Result 1)

Second, researcher conducted 1<sup>st</sup> stage of in depth interviews with 4 individuals related to ICT small business (2 experts and 2 entrepreneurs), to explore whether there are special factors with high expected impact within Egypt ICT specific environment, to be reviewed once more in literature

As explained earlier, the researcher has conducted four interviews in 1<sup>st</sup> stage interview with specific sampling criteria and methodology tools (review Chapter 3, and Discussion Guide and Interviewees Biography in Appendices).

The following table is summarizing the factors highlighted by answers of the four Interviewees

<b>Factor</b>	<b>Hesham M. Eladawy</b>	<b>Sally Metwaly</b>	<b>Kareem Dawood</b>	<b>Ahmed Adel</b>
<b>F.15: Egyptian Market Risk</b>	The Political and economic instability especially after the revolution of 2011, corruption was one reason for revolution. You cannot rely on the legal system in Egypt. Both corruption and legal	The main challenge is the market. The market in Egypt is small and still not fully aware of the importance of the ICT in business management.		The purchasing power of individuals in Egypt is very low

<p><b>F.20: Corruption</b></p>	<p>environment resulted in high market risk, and market is getting smaller every day.</p>			
<p><b>F.23: Political and economic instability</b></p>				
<p><b>F.26: Legal environment</b></p>	<p>The entrepreneurs are of great doubt that they can return their rights through courts with the power of law, this makes them hesitant about making business partnerships.</p>			
<p><b>F.18: Government support</b></p>	<p>I got a lot of government support programs. All programs are missing a good</p>	<p>- Government has to support the market, by making initiatives to raise awareness and encourage</p>		

<p><b>program efficiency</b></p> <p><b>F.10: Availability of Incubators, Accelerators, and Advisors</b></p>	<p>management and follow up. Moreover, they are not sufficient.</p>	<p>the government and private sector to support small business by using and purchasing their products and services</p> <p>- Incubation programs should be available everywhere in Egypt especially, where universities and higher education can be found. Almost all of the incubation programs are in Cairo only even the governmental one. If the incubation programs are costly, government and others can make a virtual incubation programs where startups can work from anywhere.</p>		
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		- Also incubation programs don't provide salaries for startup owners, which is very critical, as a result, startup owners are not fully dedicated to their project, they have to be away to provide a salary while keeping their commitments to the project.		
<b>F.19: Governmental regulations</b>			we succeeded to fulfill the requirement of a government fund one year ago, and till now we can't cash it due to long procedures and complex regulations	I once imported some equipment from china, and I was not able to get it out of customs for more than 7 months due to regulations
<b>F.21: Military service</b>	On the personal level I did not have a big conflict with		Our startup project has been frozen for a	When i was student, i had a chance to

	<p>military service, although, we all know that till you reach 30 years old you have to take permissions before you travel abroad. But I have mentored two entrepreneurs who had big conflicts with it</p>		<p>whole year because one of our core founding team was in the military service</p>	<p>share in an international competition outside Egypt, and I was not able to travel because of the military service</p>
<p><b>F.22: Infrastructure</b> <b>F.24: Internet services</b></p>	<p>Most of infrastructure facilities are in bad conditions, internet is slow and very expensive</p>			

### **Results 1:**

10 factors were identified to be examined and reviewed in literature, as per highlighting from 1<sup>st</sup> stage interviewees:

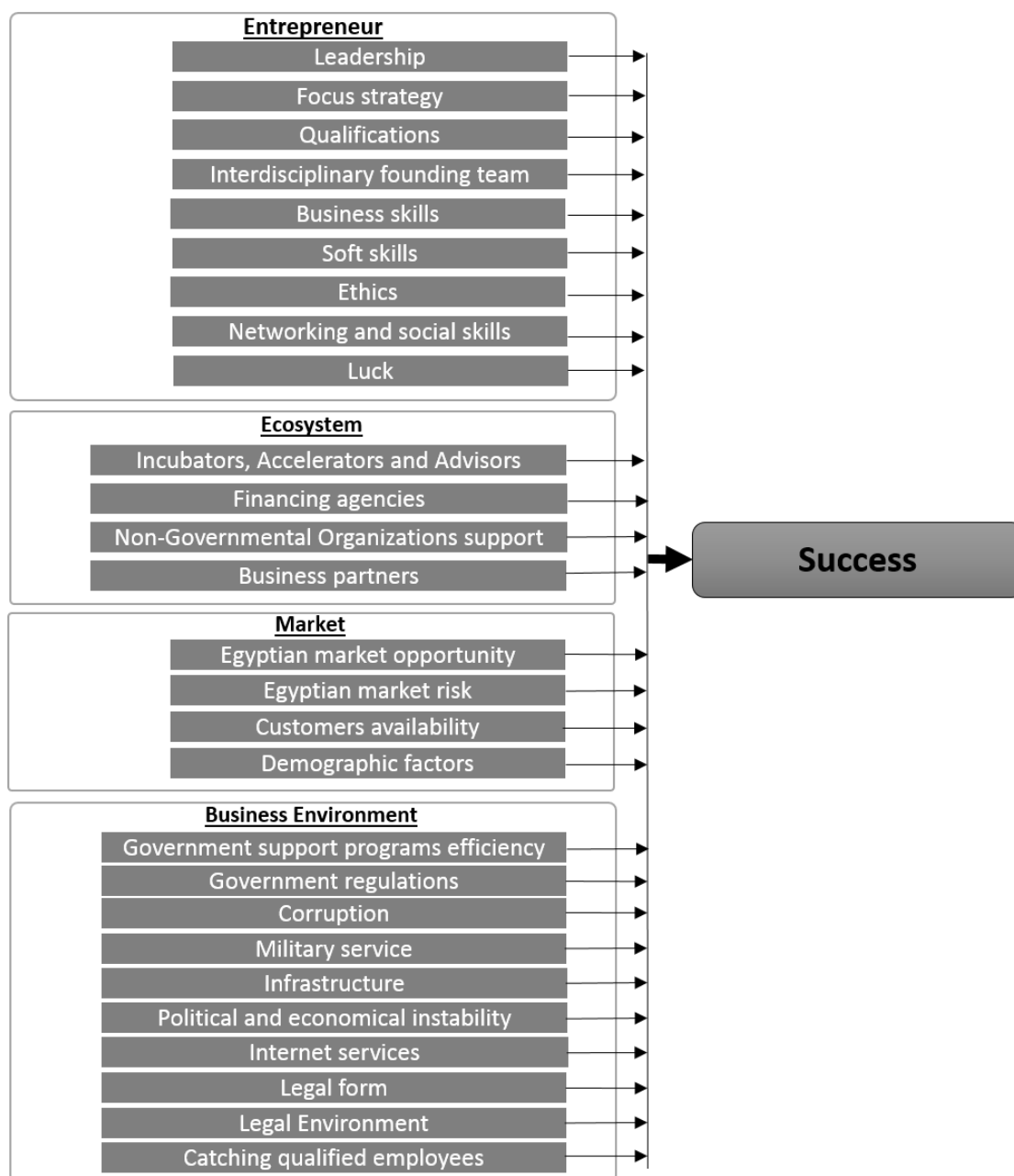
- F.10: Availability of Incubators, Accelerators, and Advisors
- F.15: Egyptian market risk
- F.18: Government support program efficiency
- F.19: Governmental regulations
- F.20: Corruption
- F.21: Military service
- F.22: Infrastructure
- F.23: Political and economic instability
- F.24: Internet services
- F.26: Legal Environment

### **5.2.3 Identifying Final Factors to be examined:**

Based on *Literature review* in parallel with *Results 1* "factors highlighted by 1<sup>st</sup> stage interviewees", the researcher decided to explore the following factors assuming each factor is a main determinant for success:

The grouping of factors has been discussed earlier (See Chapter 1 and 3)





**Figure 4.1: Initial Propositions Factors**

## 5.3 Step 2: Identifying Factors Impacting Success (Result 2)

(Qualitative Analysis for open question about the critical factors impacting success, answered by 2<sup>nd</sup> stage interviewees and questionnaire's respondents)

To identify important factors impacting success, researcher conducted qualitative analysis for answers of the following open question: *In your opinion, what are the most critical four factors that affect success or failure of ICT companies in Egypt?* This question was answered by 2<sup>nd</sup> stage interviewees and questionnaire's respondents (Total 43 respondents).

The main output resulted from four factors qualitative analysis is a list of important factors, which were arranged from high to low according to the more mentioned factor by respondents.

The following table is containing the answers of the question by each respondent, and linking each answer to the correspondent factor.

<b>Table 4.2 Respondents' Answers About the Most Important Four Factors for Success</b>		
<b>Respondent's No.</b>	<b>Important Factors mentioned by Respondents</b>	<b>Correspondent examined Factor</b>
1	Relation	Networking and social skills (8)
	Luck	Luck (9)
	Money	Availability of Financing Agencies (11)
	Study	Qualifications (3)
2	1. Working in Egyptian environment is one of the most important failure reasons on start-	Business Environment

	ups.	
	2. Working through big business name is a very good way for your products to be successful.	Availability of Business partners (13)
3	lack of transparent synergy between authority and majority of entrepreneurs	Government support programs efficiency (18)
	lack of confidence in governmental procedures	Government regulations (19)
	Fear of Corruption and injustice	Corruption (20)
		Legal Environment (26)
Entrepreneurs do not pay attention to develop an agile marketing strategy for their products.	Business skills (5)	
4	Education	Education
	Growth Financing	Availability of Financing Agencies (11)
	Start up Financing	Availability of Financing Agencies (11)
	Infrastructure	Infrastructure (22)
5	HR	Availability of qualified employees (27)
	infrastructure	Infrastructure (22)
	media	Business skills (5)
6	To find investment	Availability of Financing Agencies (11)
	To find the qualified team	Availability of qualified employees (27)
	To find the costumer	Customers availability (16)
7	1.your start-up is more than business it's your dream.	Soft skills (6)
	2. Write down all your plans and your thoughts and don't accept but written ones.	Business skills (5)

	3. Choose your partners very carefully.	Availability of Business partners (13)
	4. You may ask specialists for help.	Availability of Incubators, Accelerators and Advisors (10)
8	Money	Availability of Financing Agencies (11)
	political support	Political and economic instability (23)
	Legal license	Legal form (25)
	Banking services (especially payment systems)	Banking system
9	Financial support	Availability of Financing Agencies (11)
10	1. Hard Work and believe in success	Soft skills (6)
	2. Business knowledge (Business administration and management Tracks)	Business skills (5)
	3. Political stability.	Political and economic instability (23)
	4. Infrastructure availability (electricity and internet)	Infrastructure (22)
		Internet services (24)
11	1- reaching customers with a need for the product/service	Customers availability (16)
	2- finding the right team	Availability of qualified employees (27)
	3- get continues and sufficient cache flow	Availability of Financing Agencies (11)
	4- maintaining growth	Business skills (5)
12	almost the same factors are for success and failure Business idea (added value to business),	Idea
	staff	Availability of qualified employees (27)
	commitment	Ethical behavior (7)
	unique quality	Quality

13	Innovation	Soft skills (6)
	Market and business regulations understanding	Business skills (5)
	Strategy	Business skills (5)
	Hiring good caliber	Availability of qualified employees (27)
14	- Useful Products	Customer need
	- Good Marketing	Business skills (5)
	- Good social relations	Networking and social skills (8)
	- Strong Finance	Availability of Financing Agencies (11)
15	Financial issues	Availability of Financing Agencies (11)
	National Security	Political and economic instability (23)
	Product Proposition	Customer Need
	Market Research	Business skills (5)
16	GDP of Egypt	Political and economic instability (23)
	Political stability	Political and economic instability (23)
	Egyptian pound versus foreign currency	Political and economic instability (23)
	Amount of foreign investment per year	Political and economic instability (23)
	Local government investment in yearly budget	Government support programs efficiency (18)
17	1- clear competitive advantage	Competition
	2- feasibility study financial	Business skills (5)
	3-cash in hand (financing)	Availability of Financing Agencies (11)
	4- sales and marketing skills	Business skills (5)
	5- general management skill	Business skills (5)
18	Money	Availability of Financing Agencies (11)

	personal relationships	Networking and social skills (8)
	power	Power
19	The lack of laws and justice	Legal Environment (26)
	Labor market	Availability of qualified employees (27)
	Infrastructure	Infrastructure (22)
	owners vision & goals	Business skills (5)
20	-political turmoil	Political and economic instability (23)
	-corruption	Corruption (20)
	-slow and difficult legal system	Legal Environment (26)
	-education issues	Education
21	communication channels with Governmental organizations	Networking and social skills (8)
	Human Resources	Availability of qualified employees (27)
	Financing	Availability of Financing Agencies (11)
22	Corruption	Corruption (20)
	Weak infrastructure	Infrastructure (22)
	competition from big cooperation	competition
	possibility of lake of commitment from skilled resources	Availability of qualified employees (27)
	high risk	Business Environment
23	- Technology awareness	Technology awareness
	- Financial issues	Availability of Financing Agencies (11)
	- Market needs	Egyptian market opportunity (14)
	- Qualified team	Availability of qualified employees (27)
		Qualifications (3)

24	Nature of business	Nature of business
	Is it really innovative	Idea
	competition	Competition
	good service and after sale support	Customer service
	customer willingness	Customer needs
25	Stability	Political and economic instability (23)
	Economy	Political and economic instability (23)
	Legality	Legal Environment (26)
26	Team	Availability of qualified employees (27)
	Funding	Availability of Financing Agencies (11)
	Experience	Qualifications (3)
	Mentors	Availability of Incubators, Accelerators and Advisors (10)
27	Social skills and relationships	Networking and social skills (8)
	innovative idea	Idea
	availability of resources for a good marketing campaign	Availability of qualified employees (27)
	cost	Availability of Financing Agencies (11)
28	Entrepreneurs	Soft skills (6)
	EQ	Soft skills (6)
	capacity	Capacity

	regulations	Government regulations (19)
29	talented team	Availability of qualified employees (27)
		Qualifications (3)
	team management	Business skills (5)
	market need	Egyptian market opportunity (14)
	funding	Availability of Financing Agencies (11)
30	A good different idea	Idea
	profitable business model	Business skills (5)
	Continuous innovation to lead the market & face competition	Idea
	Good team ( <b>partners</b> /staff) that you can rely on	Qualifications (3)
	Good team (partners/ <b>staff</b> ) that you can rely on	Availability of qualified employees (27)
	Understanding the market needs	Business skills (5)
31	Believe in your idea.	Soft skills (6)
	Vision and objectives must be defined, do not look for fast return, anything takes time.	Business skills (5)
	financial stability	Business skills (5)
	market stability	Political and economic instability (23)
	get use of your failure lessons	Business skills (5)
32	Political	Political and economic instability (23)

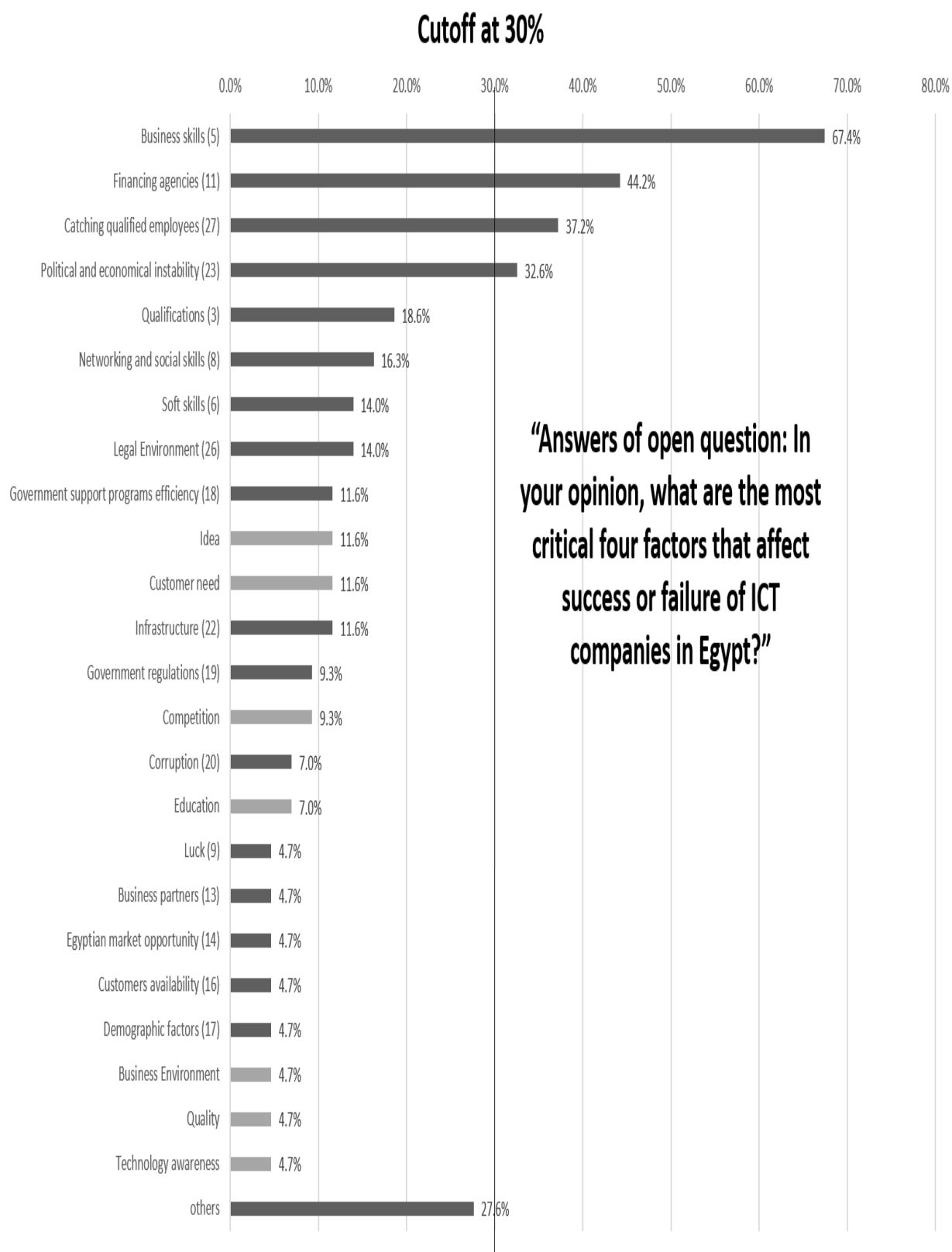


33	Connections	Networking and social skills (8)
	price competition	competition
	commercial engine	Commercial engine
	quality	Quality
34	Business people awareness of IT.	Technology awareness
	Economic Situation	Political and economic instability (23)
	Proper Marketing	Business skills (5)
	IT Co. Qualifications and Experiences.	Qualifications (3)
35	1) Government support of new Technology trends is a key success (e.g. THANAWEYA 3AMA TANSEK online is a role model of when government pushed it to be a MUST.. it was adopted by masses)	Government support programs efficiency (18)
	2) Availability of local skilled staff, ambitious and willing to work hard is a key success factor.	Availability of qualified employees (27)
	3) Ignorance and poverty are key factors for the 90 million citizens' country NOT to have a high purchasing power; in fact, people are after cheaper products and services regardless of quality..	Demographic factors (17)
36	Knowledge	Qualifications (3)
	Business skills & sales experience	Business skills (5)

	Investment capital	Availability of Financing Agencies (11)
	Cultural usage	Demographic factors (17)
37	Selecting the right product or service to develop.	Idea
	Business knowledge to offer solutions rather than technologies.	Business skills (5)
	Human resources needed to build what you're looking for.	Availability of qualified employees (27)
	Stop importing or being agents to international brands, and let's build our own local solutions and technologies that can be later on exported as well.	Government regulations (19)
38	Big upfront planning	Business skills (5)
	working in local market only	Market Diversification
	little value add for customers	Customer need
39	Team Experience	Qualifications (3)
	flexibility for iteration process	Business skills (5)
	Idea with market need & availability for implementation	Customer need
40	Your financial resources.	Availability of Financing Agencies (11)
	Your Market research & Study.	Business skills (5)
	Business connection.	Networking and social skills (8)

	Luck.	Luck (9)
41	No clear sustainability plan	Business skills (5)
	No vision	Business skills (5)
	Fast launching	Business skills (5)
	Resources stability problems in startups	Availability of qualified employees (27)
42	Team harmony	Leadership (1)
	Idea that the market needs	Customer need
	Fund	Availability of Financing Agencies (11)
	legislation	Legal Environment (26)
43	1- Economic stability.	Political and economic instability (23)
	2- legal environment reform	Legal Environment (26)
	3- country vision to support small and medium enterprises	Government support programs efficiency (18)
	4- supportive regulations for foreign investment	Government regulations (19)
	5- Higher education reform.	Education reform
	6- well-structured and well managed government support programs	Government support programs efficiency (18)

<b>Table 4.3 Determining the Most Mentioned Factors by Respondents</b>		
<b>Factor Name</b>	<b>Factors counting</b>	<b>%</b>
Business skills (5)	29	67.4%
Availability of Financing Agencies (11)	19	44.2%
Availability of qualified employees (27)	16	37.2%
Political and economic instability (23)	14	32.6%
Qualifications (3)	8	18.6%
Networking and social skills (8)	7	16.3%
Soft skills (6)	6	14.0%
Legal Environment (26)	6	14.0%
Government support programs efficiency (18)	5	11.6%
Idea	5	11.6%
Customer need	5	11.6%
Infrastructure (22)	5	11.6%
Government regulations (19)	4	9.3%
Competition	4	9.3%
Corruption (20)	3	7.0%
Education	3	7.0%
Luck (9)	2	4.7%
Business partners (13)	2	4.7%
Egyptian market opportunity (14)	2	4.7%
Customers availability (16)	2	4.7%
Demographic factors (17)	2	4.7%
Business Environment	2	4.7%
Quality	2	4.7%
Technology awareness	2	4.7%
Others	12	27.6%



**Figure 4.2 Four Factors Analysis**

## **Result 2:**

In response to open question; the most important four factors from respondents' perspective, are the following:

1. Business Skills 67%
2. Availability of Financing Agencies 44%
3. Availability of Qualifies Employees 37%
4. Political and economic stability 33%

Note: Percentage is calculated through dividing number of mentioning factors by the total respondents (43).

## **5.4 Step 3: Determining Degree of impacting for Each Factor: Major, Intermediate, Slight and Neutral factors**

(Quantitative Analysis for closed questions of 27 factors)

The researcher made three procedures to determine degree of impacting for each factor: Major, Intermediate, Slight and Neutral factors: 1) Single Analysis for each degree of impacting "Greatly Negative, Greatly Positive, Moderately Negative, Moderately Positive, Slightly Negative, Slightly Positive and Neutral", 2) Quantitative analysis to determine degree of impacting of each factor on success either positively or negatively, using simple weighting method and 3) Concluding degree of impacting based on procedure 1 and 2.

*First*, researcher started with "single analysis for "greatly negative, greatly positive, moderately negative, moderately positive, slightly negative, slightly positive and finally neutral factors". The method used to do so, is a simple counting for sum answers of each degree. Lists of ordered factors were resulted that ranged from 'significant at a high level' to 'significant at a lower level' and from 'very important' to 'less important'. Researcher had to set a cut-off somewhere in order to ascertain what a main determinant is and what is not. There are 7 figures that represent this comparison (Result 3A).

*Second*, researcher used quantitative analysis to determine degree of impacting of each factor on success either positively or negatively. Simple

weighting method was used to do so, simply by giving a weight for each positive or negative effect, and multiplying result as follows: Greatly Negative or Positive multiplied by 3 (\*3), while Moderately Negative or Positive multiplied by 2 (\*2) and lastly Slightly Positive or Negative multiplied by 1 (\*1). This simple analysis gives clear picture of the strength of impacting of each factor. Accordingly, the researcher could determine the Major negative or positive factors, intermediate negative or positive factors, slight factors and lastly neutral factors (Result 3B).

#### **5.4.1 General Overview on Factors Strengths**

It was good to analyze the factors strength, to know to which limit each factor represent consensus between respondent.

To do so, all degrees of positive influence (Greatly, Moderately and Slightly) were added together, and the same done for the negative factors. The total result was divided by total respondents (43).

As shown in figure 4.3 and table 4.4, it is clear that the positive factors are stronger than negative factors, which may indicate that the entrepreneurs can overcome negative impact of negative factors through strengthening him/herself by positive factors.

In addition, it was surprising that some factors represented consensus with more than 97% of population.

The strength diagram will be useful to select the most powerful positive factors to work on having them, in the same time to work to avoid the most powerful negative factors.

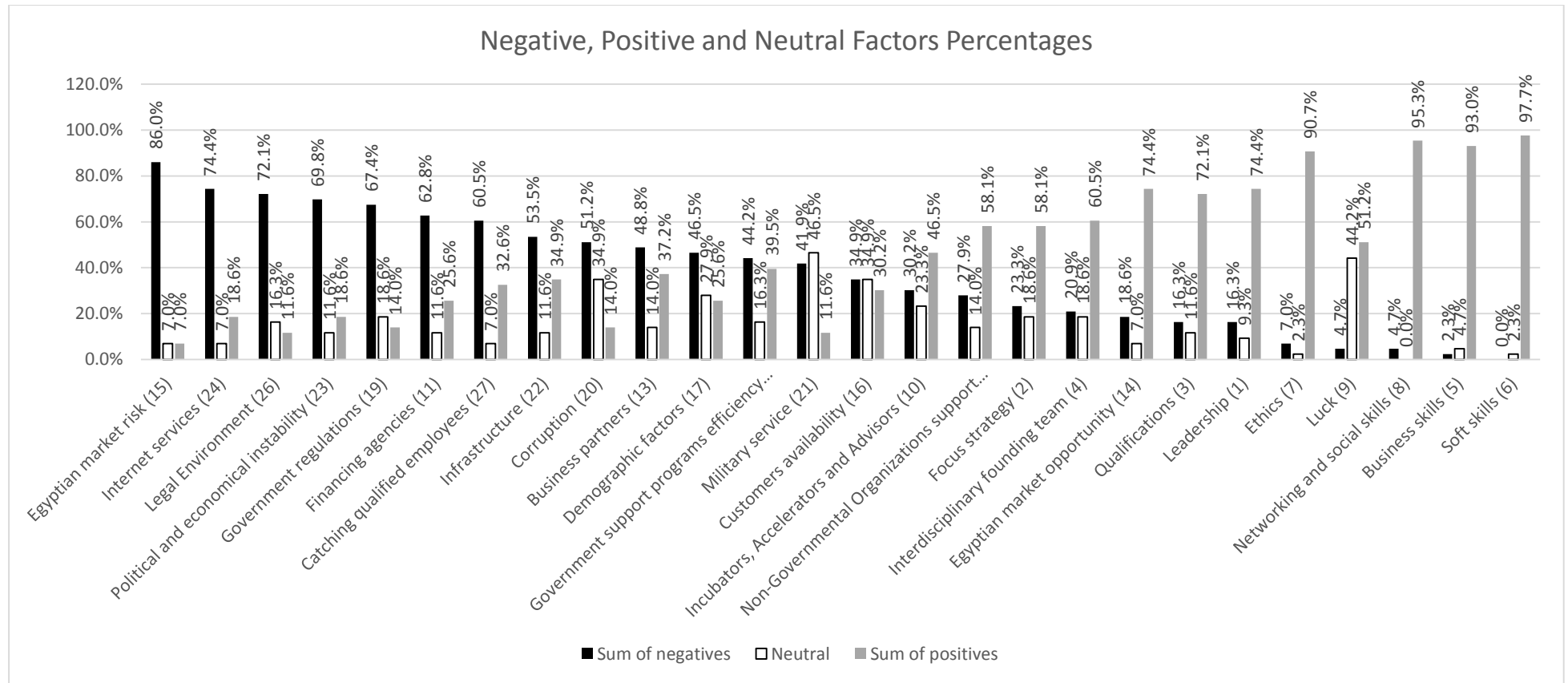
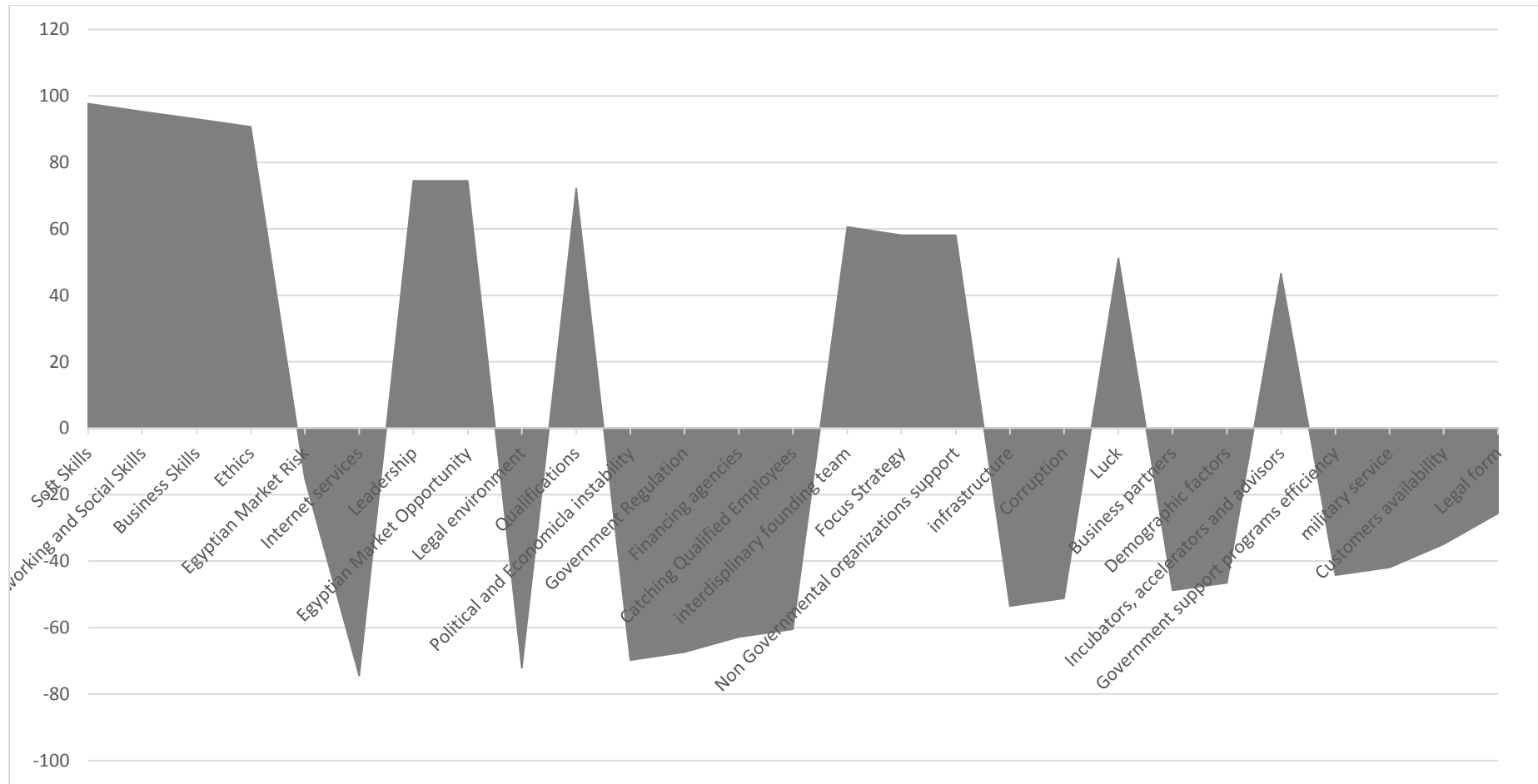


Figure 4.3 Comparison Between Strengths of Positive and Negative Factors by Normal Percentage Method



<b>Table 4.4 Factors Strengths and Nature According to Normal Percentage Method</b>			
Factor Number	Factor Name	Strength %	Nature
6	Soft Skills	97.7	Positive
8	Networking and Social Skills	95.3	Positive
5	Business Skills	93	Positive
7	Ethics	90.7	Positive
15	Egyptian Market Risk	15	Negative
24	Internet services	74.4	Negative
1	Leadership	74.4	Positive
14	Egyptian Market Opportunity	74.4	Positive
26	Legal environment	72.1	Negative
3	Qualifications	72.1	Positive
23	Political and Economic instability	69.8	Negative
19	Government Regulation	67.4	Negative
11	Financing agencies	62.8	Negative
27	Catching Qualified Employees	60.5	Negative
4	interdisciplinary founding team	60.6	Positive
2	Focus Strategy	58.1	Positive
12	Non-Governmental organizations support	58.1	Positive
22	infrastructure	53.5	Negative
20	Corruption	51.2	Negative
9	Luck	51.2	Positive
13	Business partners	48.8	Negative
17	Demographic factors	46.5	Negative
10	Incubators, accelerators and advisors	46.5	Positive
18	Government support programs efficiency	44.2	Negative
21	military service	41.9	Negative
16	Customers availability	34.9	Negative
25	Legal form	25.6	Negative



**Figure 4.4 Chart Comparing Strengths of Positive and Negative Factors by Normal Percentage Method**

## 5.4.2 Single Analysis for Each Degree of Impacting

Researcher started with "single analysis for "greatly negative, greatly positive, moderately negative, moderately positive, slightly negative, slightly positive and finally neutral factors". The method used to do so, is a simple counting for sum answers of each degree. Lists of ordered factors were resulted that ranged from 'significant at a high level' to 'significant at a lower level' and from 'very important' to 'less important'. Researcher had to set a cut-off somewhere in order to ascertain what a main determinant is and what is not. There are 7 figures that led to determine factors in (Result 3A).

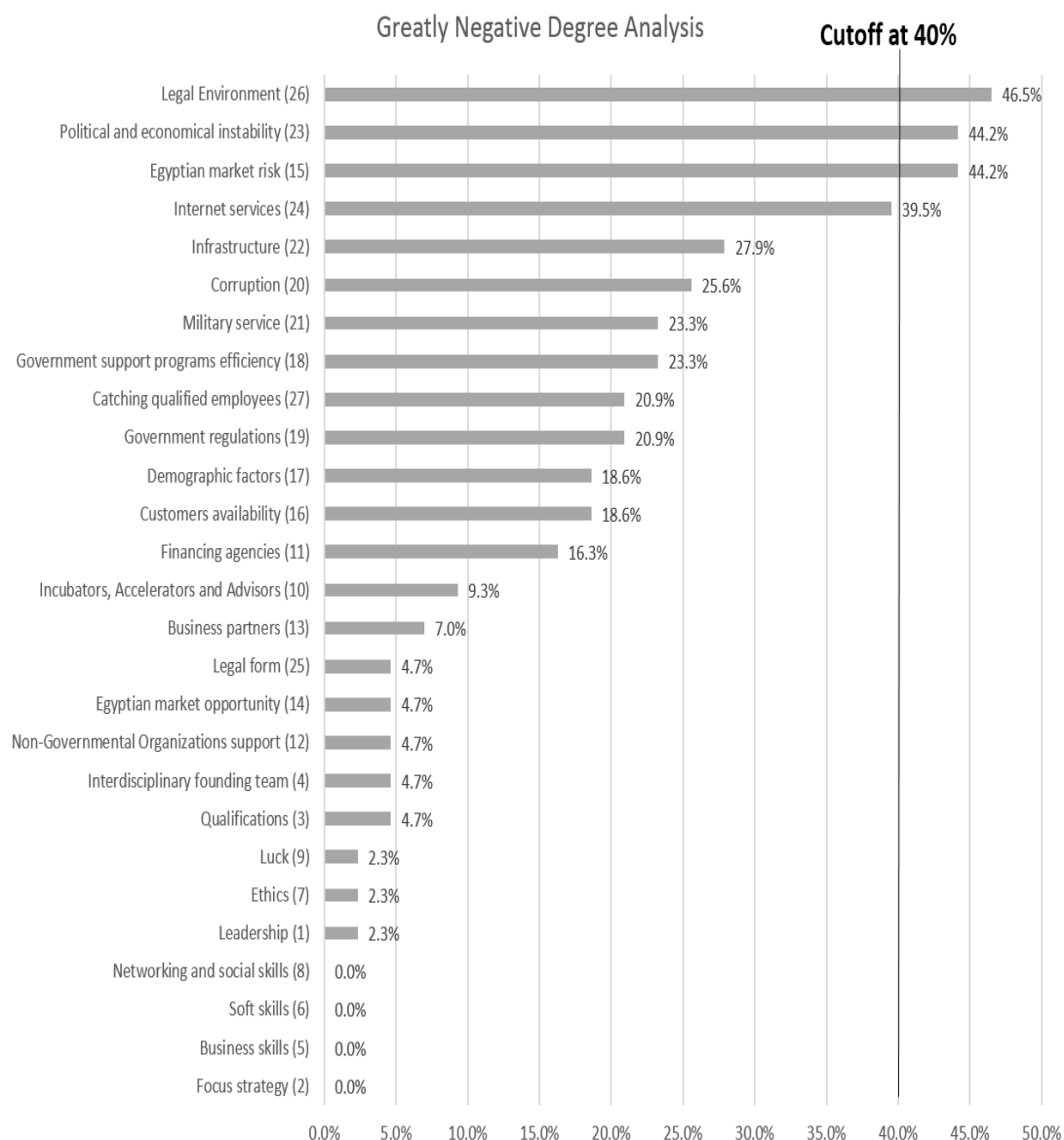
The researcher assumed that if 40% of total respondents have agreed on specific degree of impacting, he would validate this degree for the related factor

### 5.4.2.1 Greatly Negative Degree Analysis

Four Factors were found greatly negative with at least 40% agreements between respondents..

***The Greatly Negative factors are: Legal Environment – Political and Economic Instability – Egyptian Market Risk – Internet Services***

Noting that Internet services took 39.5% which was considered to be 40%

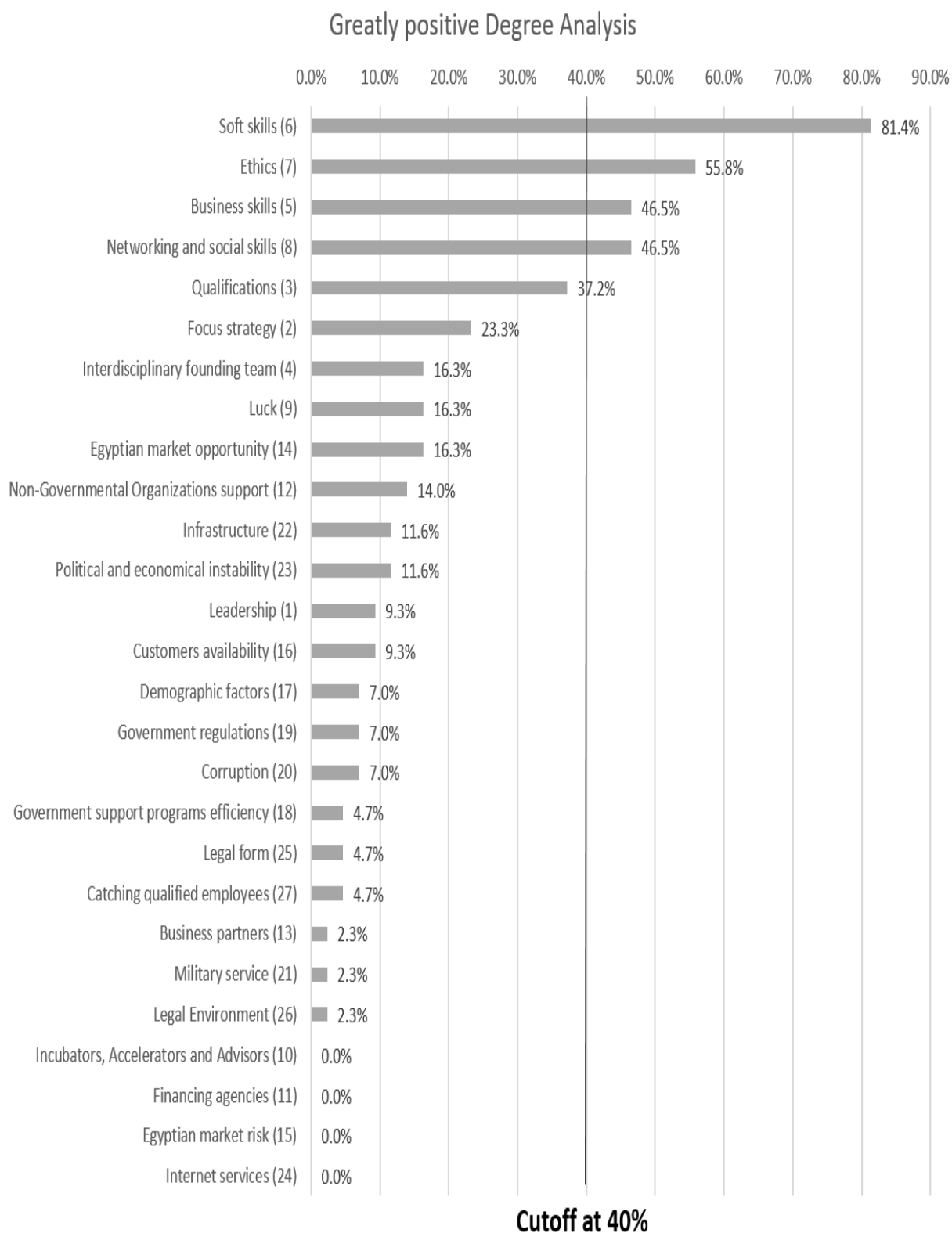


**Figure 4.5 Greatly Negative Degree Analysis**

#### 5.4.2.2 Greatly Positive Degree Analysis

Four Factors were found greatly negative with at least 40% agreements between respondents.

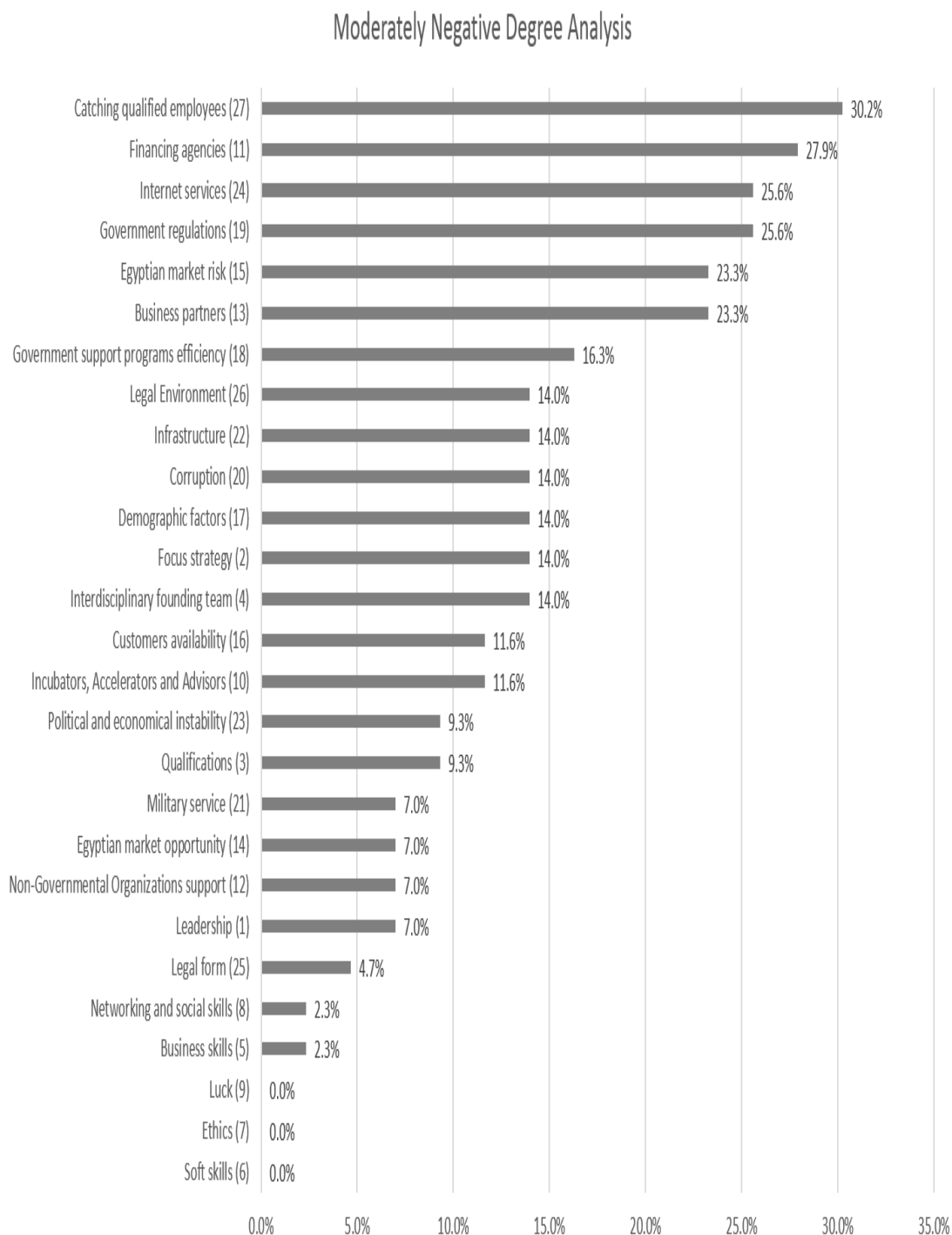
***The Greatly Positive factors are: Soft Skills – Ethical Behavior – Business Skills – Networking and Social skills***



**Figure 4.6 Greatly Positive Degree Analysis**

### 5.4.2.3 Moderately Negative Degree Analysis

No Factors were found Moderately Negative with at least 40% agreements between respondents.

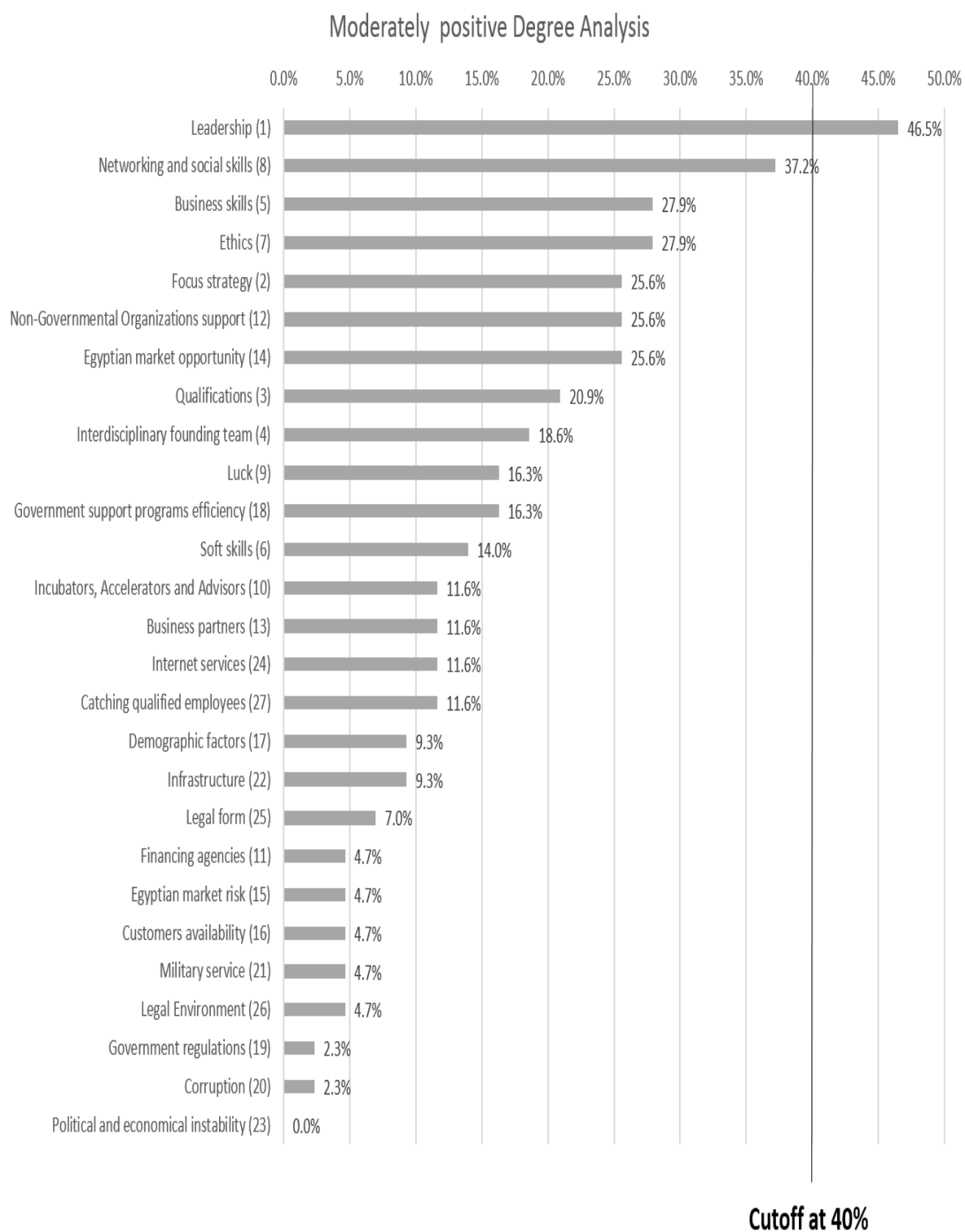


**Figure 4.7 Moderately Negative Degree Analysis**

### 5.4.2.4 Moderately Positive Degree Analysis

One factors was found Moderately Positive with at least 40% agreements between respondents.

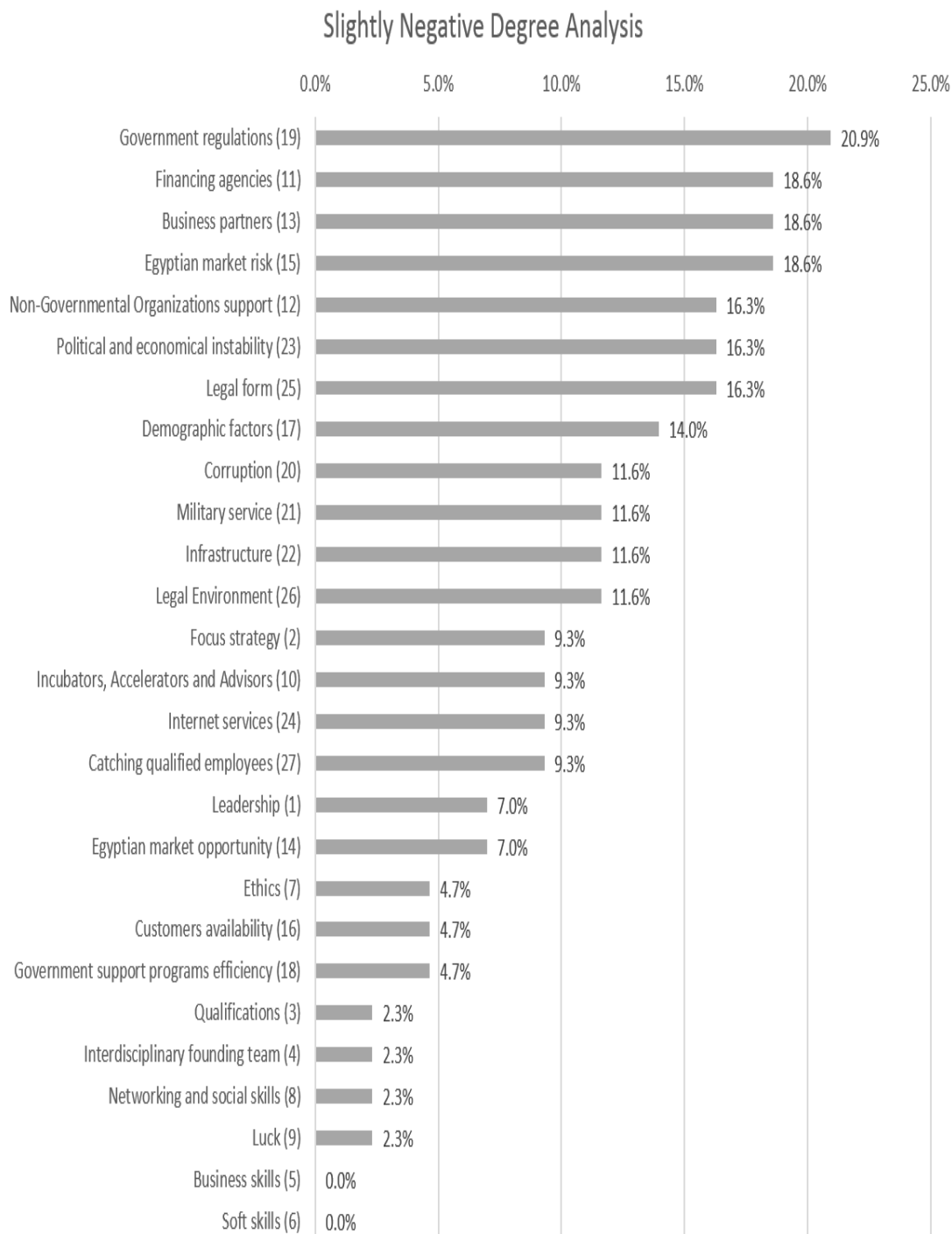
**The Moderately Positive factor is: Leadership Skills**



**Figure 4.8 Moderately Positive Degree Analysis**

### 5.4.2.5 Slightly Negative Degree Analysis

No Factors were found Slightly Negative with at least 40% agreements between respondents.

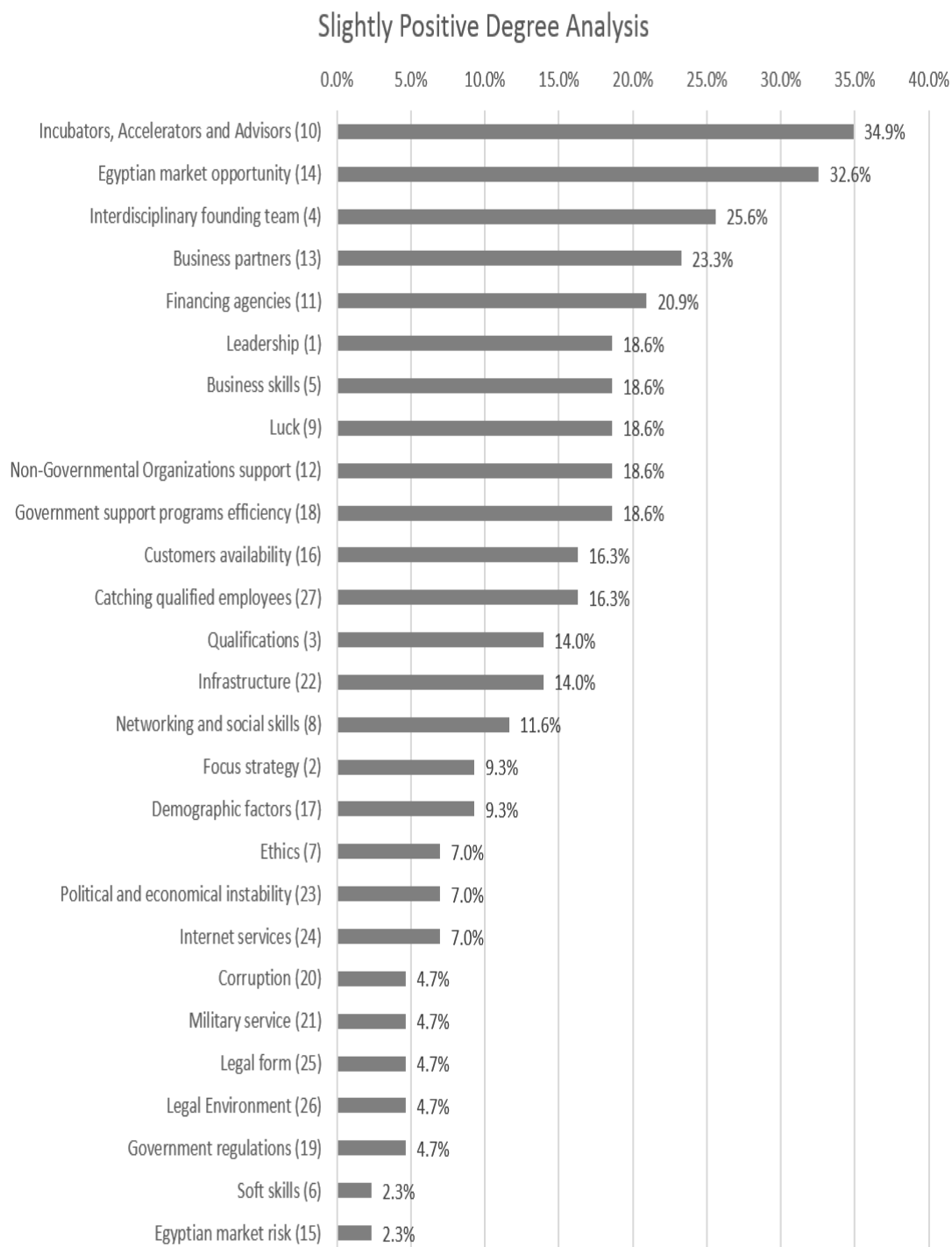


**Figure 4.9 Slightly Negative Degree Analysis**



### 5.4.2.6 Slightly Positive Degree Analysis

No factors were found Slightly Positive with at least 40% agreements between respondents.

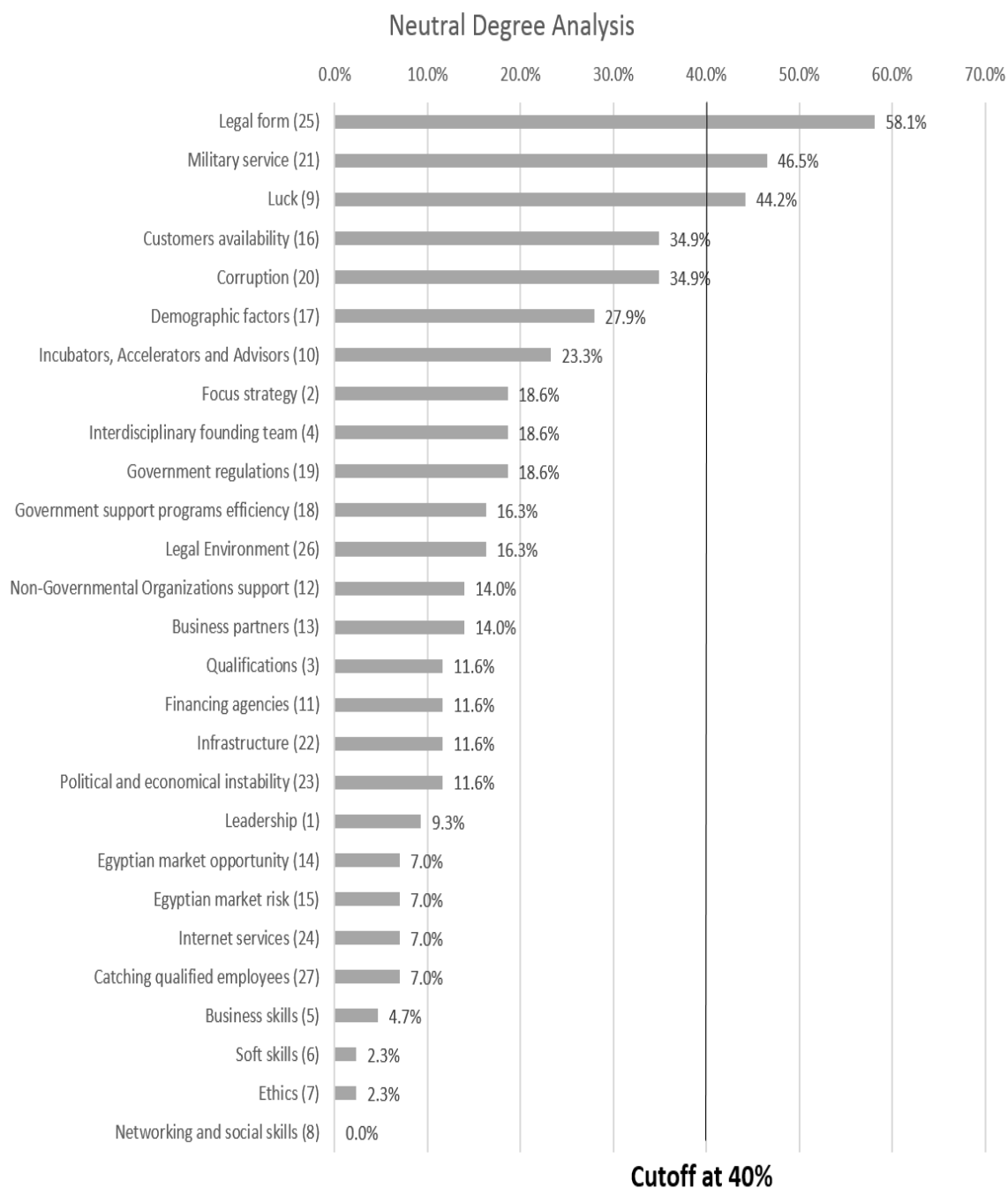


**Figure 4.10 Slightly Positive Degree Analysis**

### 5.4.2.7 Neutral Degree Analysis

Three factors were found Neutral with at least 40% agreements between respondents..

**The Neutral Factors are:** *Legal Form – Military Service - Luck*



**Figure 4.11 Neutral Degree Analysis**

#### **5.4.2.8 Results of Single Degree Analysis (Result 3A)**

***The Greatly Negative factors are:*** Legal Environment – Political and Economic Instability – Egyptian Market Risk – Internet Services

***The Greatly Positive factors are:*** Soft Skills – Ethical Behavior – Business Skills – Networking and Social skills

***The Moderately Positive factor is:*** Leadership Skills

***The Neutral factors are:*** Legal Form – Military Service - Luck

#### **5.4.3 Weighted Analysis Method**

Researcher used quantitative analysis to determine degree of impacting of each factor on success either positively or negatively. Simple weighting method was used to do so, simply by giving a weight for each positive or negative effect, and multiplying result as follows: Greatly Negative or Positive multiplied by 3 (\*3), while moderately Negative or Positive multiplied by 2 (\*2) and lastly Slightly Positive or Negative multiplied by 1 (\*1). This simple analysis gives clear picture of the degree of impacting of each factor. Accordingly, the researcher could determine; major negative or positive factors, intermediate negative or positive factors, slight factors and lastly neutral factors (Result 3B).

##### **5.4.3.1 Comparing Strengths of Factors by Weighting Method**

The following figure 4.12 and table 4.5 are showing another method for comparing strengths of the factors. As described earlier, each factor was calculated by weighting method.

This method might be more precise in determining each factor strength, as it does differentiate between each degree of influence by weighting, however, the results are almost typical to the previous General Overview on Factors Strengths.

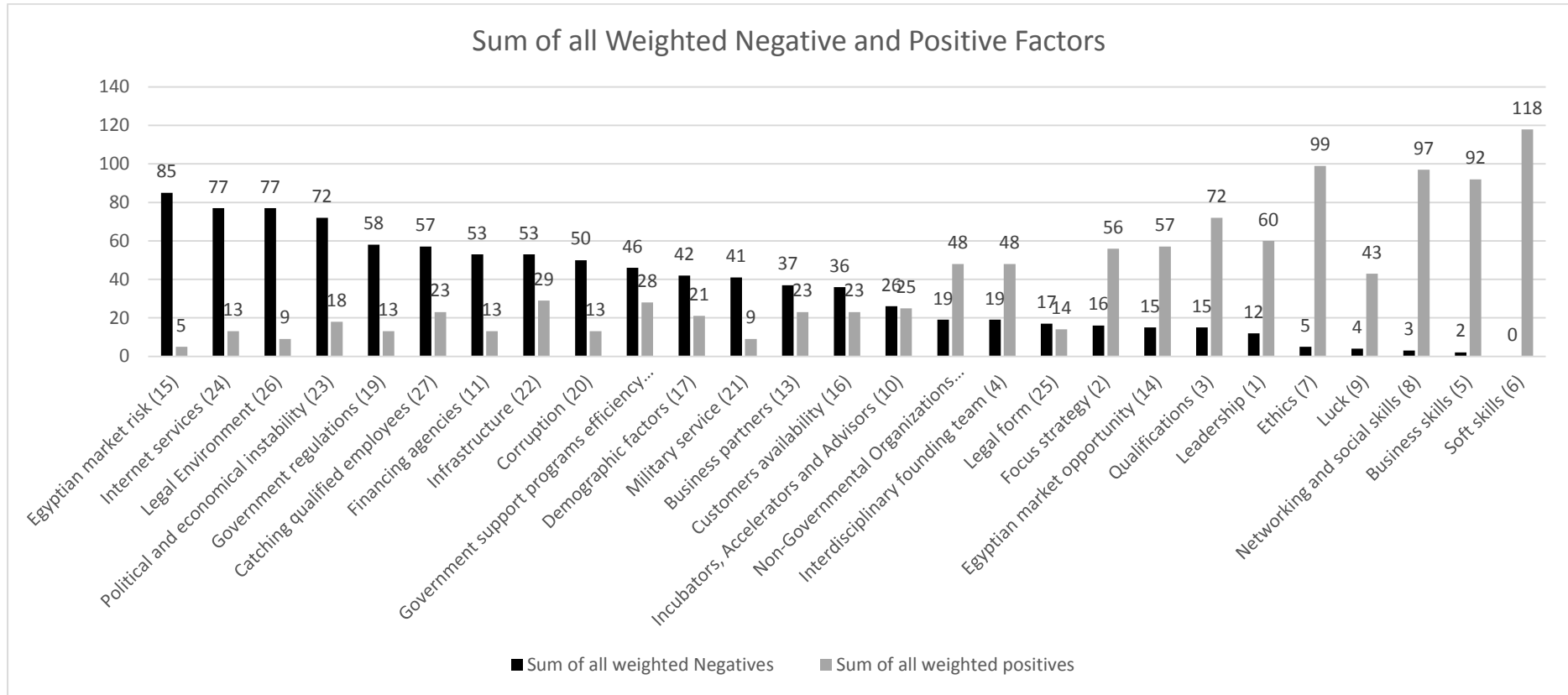
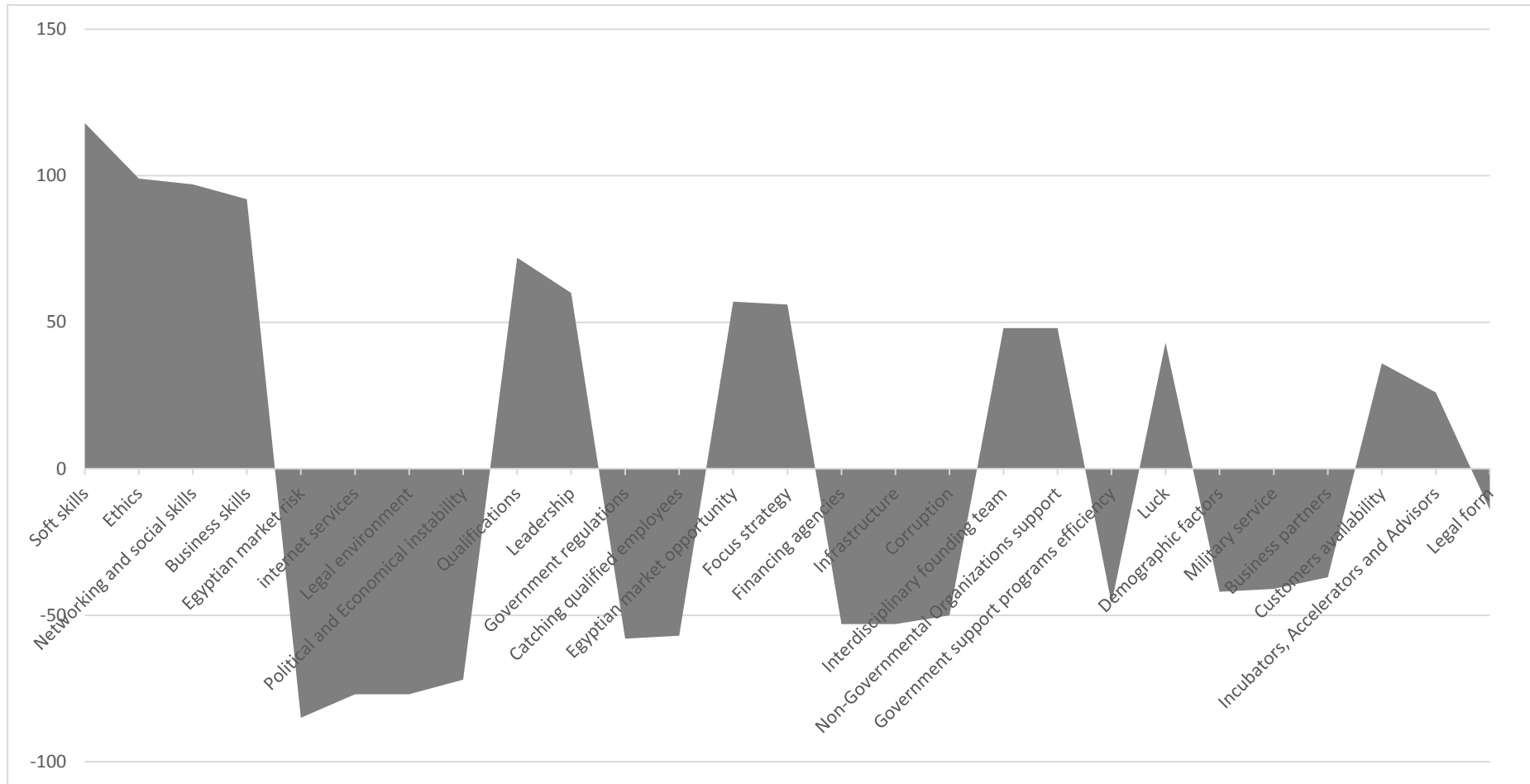


Figure 4.12 Comparison Between Strengths of Positive and Negative Factors by Weighting Method

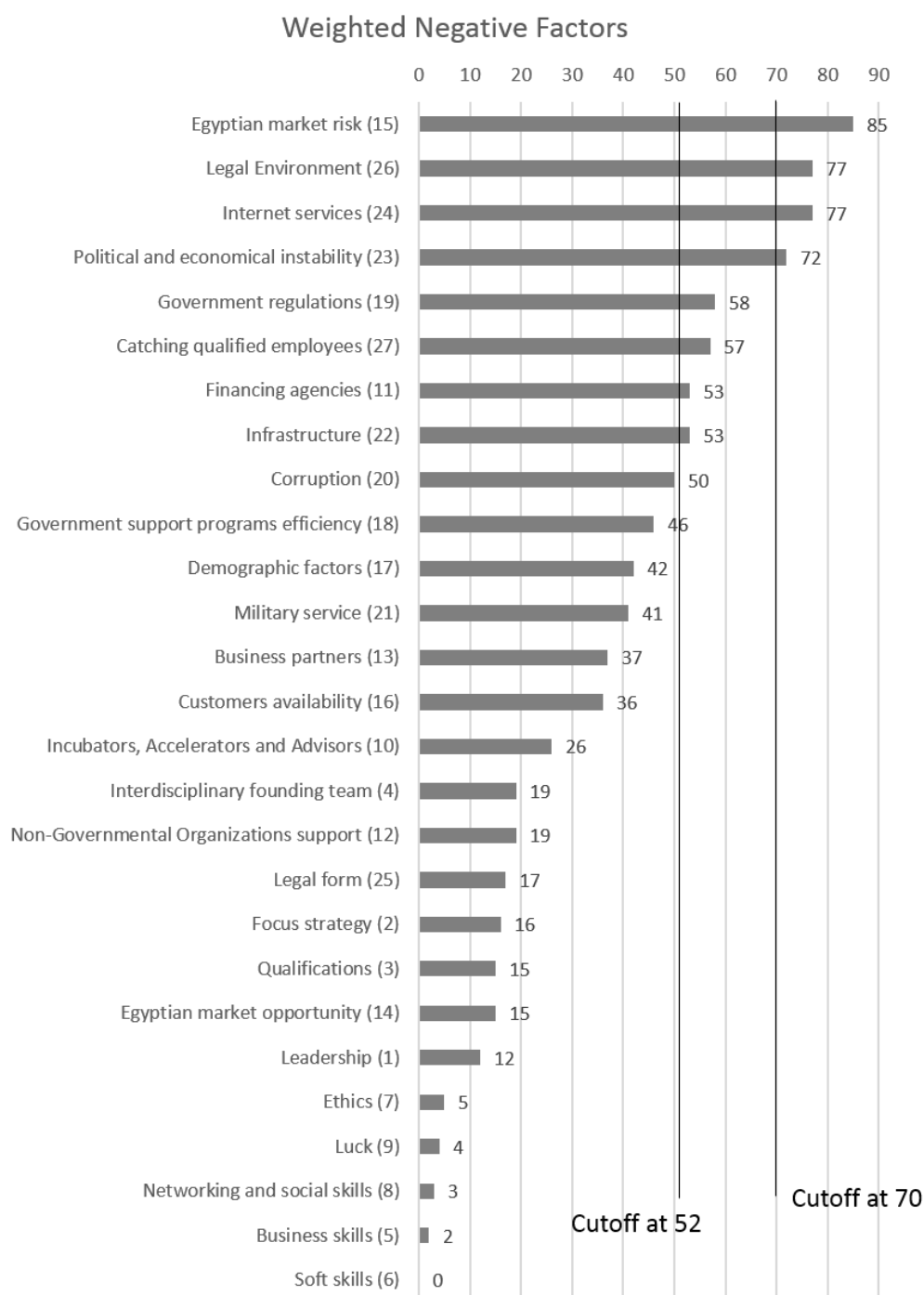
<b>Table 4.5 Factors Strengths and Nature According to Weighting Method</b>			
Factor Number	Factor Name	Strength	Nature
6	Soft skills	118	Positive
7	Ethics	99	Positive
8	Networking and social skills	97	Positive
5	Business skills	92	Positive
15	Egyptian market risk	85	Negative
24	internet services	77	Negative
26	Legal environment	77	Negative
23	Political and Economic instability	72	Negative
3	Qualifications	72	Positive
1	Leadership	60	Positive
19	Government regulations	58	Negative
27	Catching qualified employees	57	Negative
14	Egyptian market opportunity	57	Positive
2	Focus strategy	56	Positive
11	Financing agencies	53	Negative
22	Infrastructure	53	Negative
20	Corruption	50	Negative
4	Interdisciplinary founding team	48	Positive
12	Non-Governmental Organizations support	48	Positive
18	Government support programs efficiency	46	Negative
9	Luck	43	Positive
17	Demographic factors	42	Negative
21	Military service	41	Negative
13	Business partners	37	Negative
16	Customers availability	36	Positive
10	Incubators, Accelerators and Advisors	26	Positive
25	Legal form	14	Negative



**Figure 4.13 Chart Comparing Strengths of Positive and Negative Factors by weighting Method**

### 5.4.3.2 Identifying Major and intermediate Negative Factors by weighting method

By making analysis for only weighted negative factors, the resulted charts was as shown in figure 4.14 The researcher made cutoff at 70 for Major Negative Factors and at 52 for Intermediate Negative Factors.



**Figure 4.14 Weighted Negative Factors**

Four factors were found "Major Negative" over the cutoff 70

***The Major Negative Factors are:*** Egyptian Market risk (weight: 85) - Internet services (weight: 77) - Legal Environment (weight: 77)- Political and Economic Instability (weight: 72)

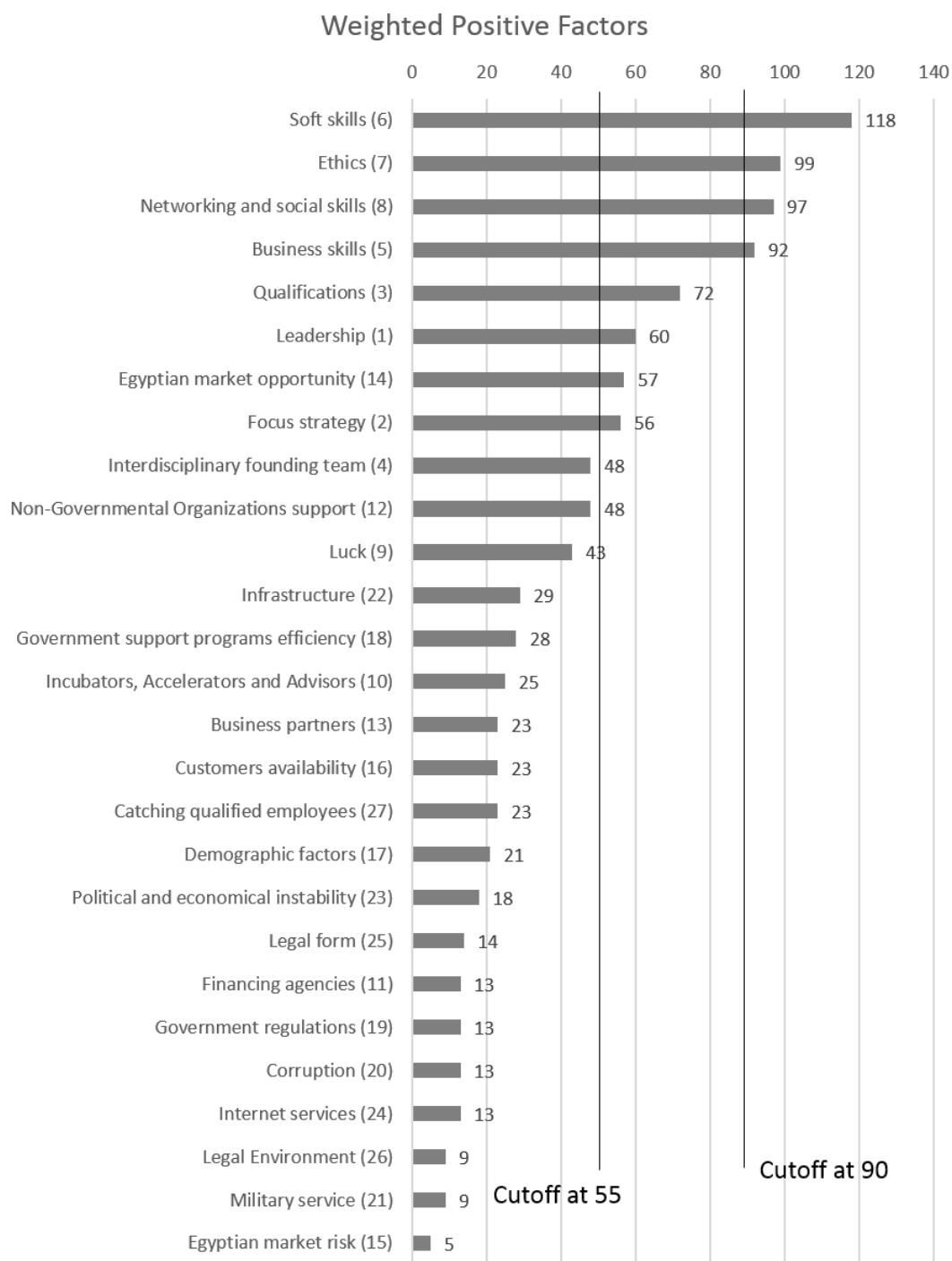
Four factors were found "Intermediate Negative" over the cutoff 52

***The Intermediate Negative Factors are:*** Governmental Regulations (weight: 58)- Availability of Qualified Employees (weight: 57) - Infrastructure (weight: 53) – Availability of Financing Agencies (weight: 53)

#### **5.4.3.3 Identifying Major and intermediate Positive Factors by Weighting Method**

By making analysis for only weighted positive factors, the resulted charts was as shown in figure 4.15 The researcher made cutoff at 90 for Major Positive Factors and at 55 for Intermediate Positive Factors.





**Figure 4.15 Weighted Positive Factors**

Four factors were found "Major Positive" over the cutoff 90

**The Major Positive Factors are:** *Soft skills (weight 108) – Ethical Behavior (weight 99) - Networking and social skills (weight 97) - Business skills (weight 92).*

Four factors were found "Intermediate Positive" over the cutoff 55

**The Intermediate Positive Factors are:** *Qualifications (weight 72) - Leadership skills (weight 60) - Egyptian Market Opportunity (weight 57) – Focus strategy (weight 56).*

#### **4.1.4.3.3. Identifying Slight Factors by Weighting Method**

11 factors were found "Slight ", as they are not either major or intermediate factors:

**The slight Factors are:** *Interdisciplinary Founding Team - Availability of Incubators, Accelerators, and Advisors - Non-Governmental Organizations support - Availability of Business partners - Customers' availability - Demographic factors – Government support program efficiency- Corruption - Legal form - Military service - Luck*

#### **4.4.3.4. Results of Weighted Analysis (Result 3B)**

**Result 3B:**

**a) 4 Factors were found "major Negative"**

*The Major Negative Factors are: Egyptian Market risk - Internet services - Legal Environment - Political and Economic Instability*

**b) 4 Factors were found "Intermediate Negative"**

*The Intermediate Negative Factors are: Governmental Regulations - Availability of Qualified Employees – Infrastructure – Availability of Financing Agencies*

**c) 4 Factors were found "Major Positive"**

*The Major Positive Factors are: Soft skills (weight 108) – Ethical Behavior (weight 99) - Networking and social skills (weight 97) - Business skills (weight 92).*

**d) 4 Factors were found "Intermediate Positive" over the cutoff 55**

*The Intermediate Positive Factors are: Qualifications (weight 72) - Leadership skills (weight 60) - Egyptian Market Opportunity (weight 57) – Focus strategy (weight 56).*

**e) 11 Factors were found "slight", as they are not either major or intermediate factors:**

*The slight Factors are: Interdisciplinary Founding Team - Availability of Incubators, Accelerators, and Advisors - Non-Governmental Organizations support - Availability of Business partners - Customers' availability - Demographic factors – Government support program efficiency- Corruption - Legal form - Military service - Luck*

#### **5.4.3.4 Final Findings according to Triangulation Analysis**

According to Result 2, Result 3A and Result 3B, it could be noted that they are almost achieved the same factors. So, the results are confirming each other.

Two factors were intermediate negative in the weighted method analysis (Result 3B), while they were important factors in the open question analysis (Result 2), the researcher decided to validate the analysis of (Result 2) and consider them major factors because: The respondents could remember these two factors in an open question, which means that they consider it important. Second, the open question was asking about "the most critical factors impacting success", so; respondents mean intentionally that these two factors are important. In addition, many comments in the space given for respondents

highlighted these two factors "Availability of Financing Agencies – Availability of Qualified Employees"

*So, the final findings after classifications are as follows:*

**a. Major Factors**

1. **Entrepreneurial Factors** (Factors related to the entrepreneur himself):
  - 1) Business skills (Recognize Opportunities, Risk Willingness and Making Money Orientation),
  - 2) Soft skills (Innovation, Ambition, Optimism, Flexibility and adaptability),
  - 3) Ethical behavior (Humanity, Honesty and Commitment) and
  - 4) Networking and Social skills.
2. **External Factors Entrepreneur can influence:** 5) Access to Finance, 6) Catching Qualified Employees and 7) Minimize Market Risk.
3. **External Factors Entrepreneur cannot influence:** 8) Political and Economic Stability, 9) Legal environment and 10) Internet services

The 10 Major Factors and its categories are represented in the following shape model (Figure 4.16)

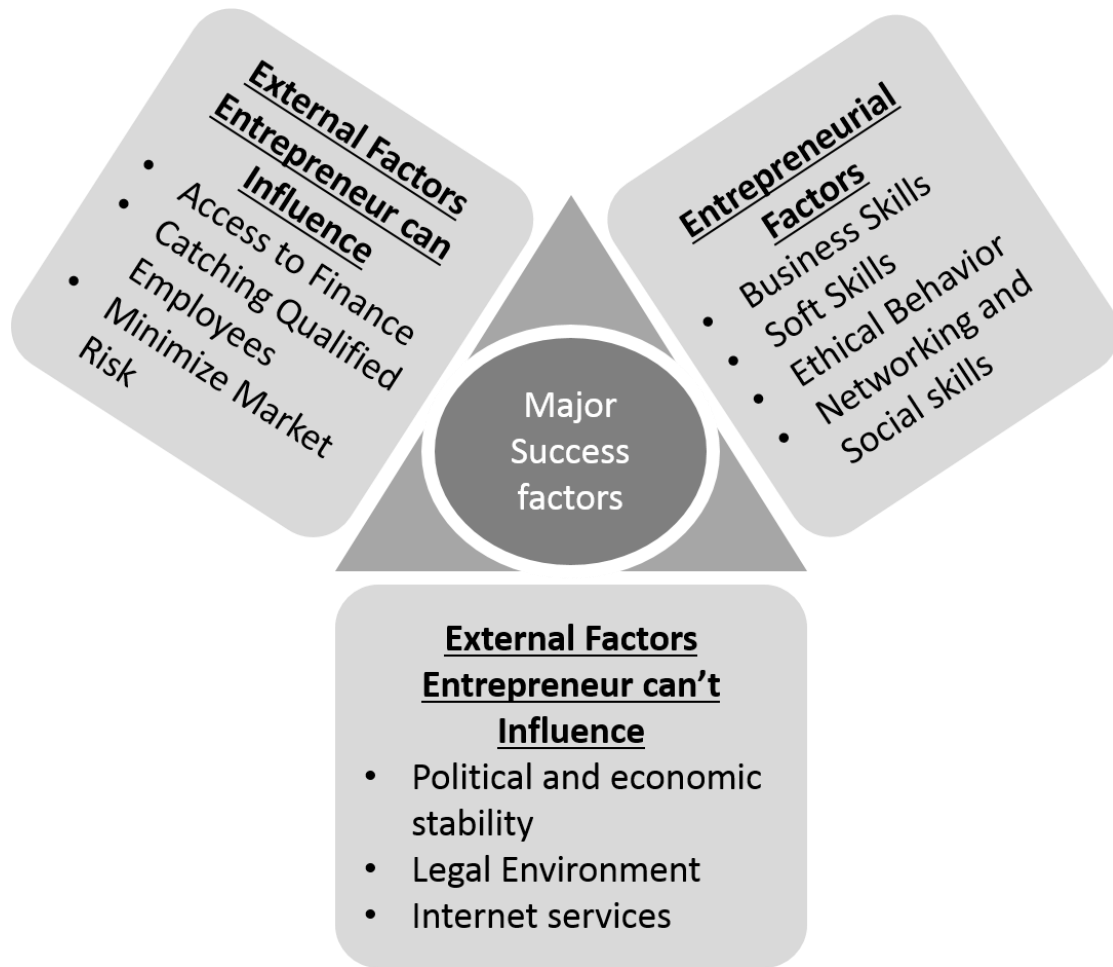
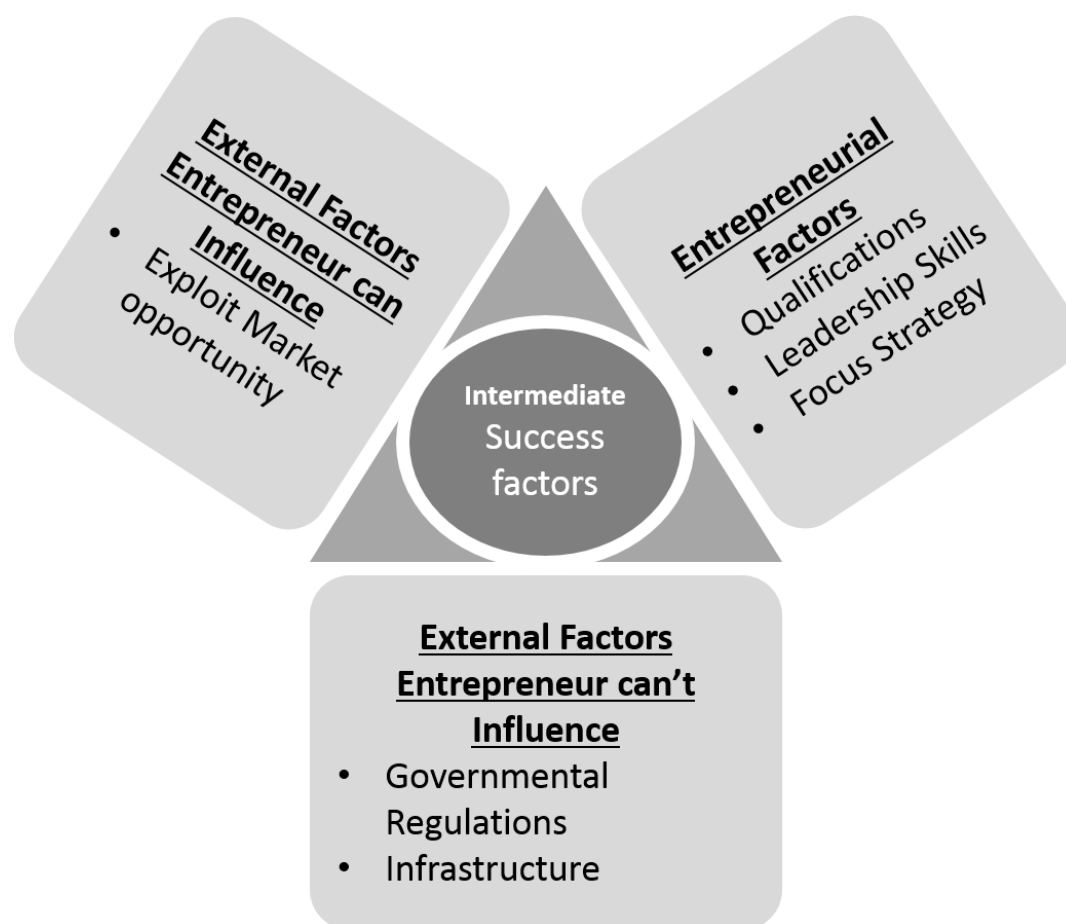


Figure 4.16 Major Success Determinants

***b. Intermediate Factors:***

- 1. Entrepreneurial Factors** (Factors related to the entrepreneur himself):
  - 1) Qualifications (Education, Industry experience and general work experience) , 2) Leadership skills (Building team spirit and harmony), 3) Applying Focus strategy
- 2. External Factors Entrepreneur can influence:** 4) Exploit Market opportunity
- 3. External Factors Entrepreneur cannot influence:** 5) Governmental regulations, 6) Infrastructure



**Figure 4.17 Intermediate Success Determinants**

**Slight Factors:**

- Interdisciplinary founding team
- Availability of incubators, accelerators, and advisors
- Non-Governmental organizations support
- Availability of Business partners
- customers availability
- Demographic factors
- Government support program efficiency
- Corruption

**Neutral Factors:**

- Legal form
- Military service
- Luck

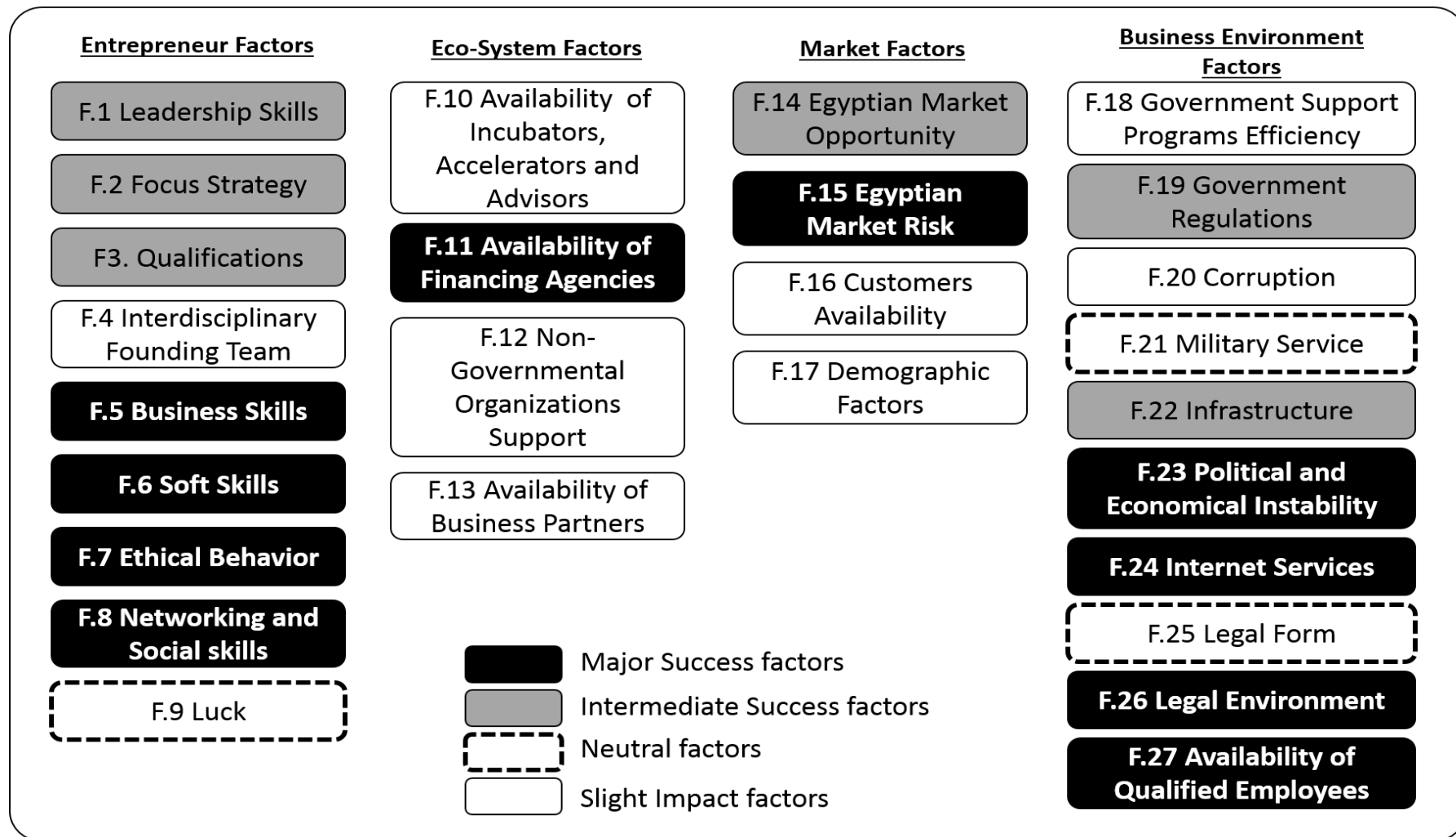


Figure 4.18 Summary of Results

## 5.5 Step 4: Formulating Better Understanding for Each Factor

(Respondents' Comments and Discussion)

Researcher made Factor Box for each factor that contains: respondents' comments, findings, questionnaire question and factor description, this could help in understanding more about how respondents see each factor affects success.

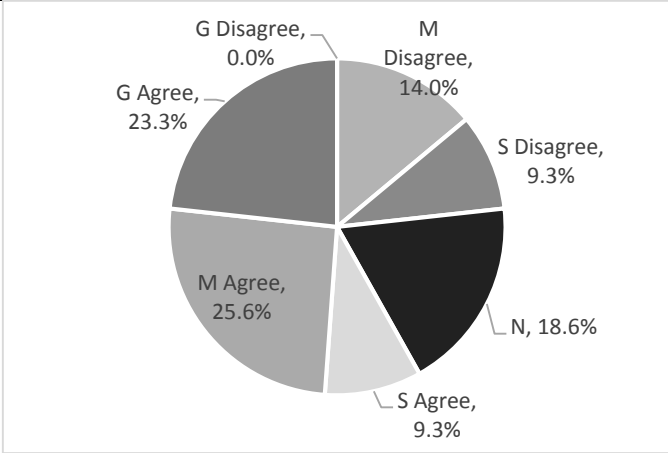
Table 4.6 Factors Analysis Based on Responses and Comments																	
<p><b>F.1 Leadership skills</b></p>	<p><b>Can you easily make team spirit and Harmony between your employees?</b></p> <p><b>Respondents' Comments;</b></p> <ul style="list-style-type: none"> <li>• It depends on the leader and the case</li> <li>• Almost all of them are freelance, but I try to take care of that point</li> <li>• depend on managers mentality</li> <li>• Furthermore the success of the business itself also leads to team spirit and Harmony between employees</li> <li>• creating challenges and competition between them comes first</li> <li>• It took us around 3 years to build a solid and motivated team.</li> </ul> <div style="text-align: right;"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>M Agree</td> <td>46.5%</td> </tr> <tr> <td>S Agree</td> <td>18.6%</td> </tr> <tr> <td>N</td> <td>9.3%</td> </tr> <tr> <td>S Disagree</td> <td>7.0%</td> </tr> <tr> <td>M Disagree</td> <td>7.0%</td> </tr> <tr> <td>G Agree</td> <td>9.3%</td> </tr> <tr> <td>G Disagree</td> <td>2.3%</td> </tr> </tbody> </table> </div> <p><b>Description:</b> leadership Skills is described by leader motivational attitude to motivate the employees to achieve the company vision and strategic objectives and goals (Hart &amp; Quinn 1993)</p> <p><b>Findings:</b> Research findings show that "leadership skills" is a positive intermediate success factor</p> <p><b>Comparison to Literature:</b> In line with literature</p> <p><b>Discussion:</b> Responses show that most respondents see themselves having the ability in leading teams, keeping in mind that most small startups consists often of the founding team or with few employees (Micro firm: Less than 5). One of the responses commented "Almost all of them are freelance, but I try to take care of that point". So it is logical to be self-motivated and not feel yet by his need to</p>	Response	Percentage	M Agree	46.5%	S Agree	18.6%	N	9.3%	S Disagree	7.0%	M Disagree	7.0%	G Agree	9.3%	G Disagree	2.3%
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acquire this skill before his/her enterprise grow. In larger teams, where most of small enterprises are less than 20 employees, the company hierarchry is simple and communciation between working team and founder team is a little bit simple, hence team motivation is less difficult on this scale, although it is important for business success on this level of business. This skill is harder in larger companies, refers to the last comment “*It took us around 3 years to build a solid and motivated team*”.

**Recommendation:** Providing entrepreneurs with a guide that proposes learning and training path; what skills they need in the first stages and what they will need in the future. Also entrepreneurs should be alert to their need to be more able to lead teams as their business is growing

<p><b>F.2 Focus strategy</b></p>	<p><b>Do you believe that applying Focus Business Strategy in a single product or service will lead your business to success?</b></p> <p><b>Respondents' Comments</b></p> <ul style="list-style-type: none"> <li>• Unfocused business is a waste of time&amp; money and effort</li> <li>• Not sure</li> <li>• So risky</li> <li>• Strategy is important to direct your business. But for SMEs they need sometimes to change strategy to be able to sustain. but this change must be by intention, not reckless without making a decision</li> <li>• Yes, specialization lead to quality which is really lacked on our market</li> <li>• To focus yes, but at least two products, not one, and the more important point is to focus on business line itself, not having a generic product for any business line</li> <li>• It depends on the market needs</li> <li>• Focus is good, although we need some little diversification for risk mitigation</li> <li>• In one case, if you take it to the next level, and to be innovative.</li> </ul> <p><b>Description:</b> Focus Strategy is described by leader motivational attitude to achieve focusing on a few target markets who are distinct groups with specialized needs (Porter 1980).</p> <p><b>Findings:</b> Research findings show that “Focus strategy” is a positive intermediate success factor</p> <p><b>Comparison to Literature:</b> in line with literature</p> <p><b>Discussion:</b> Responses show that people are not on one opinion in this issue, some see that focus is better, whereas others see that diversification is better and it helps as risk mitigation technique. 50% of responses agree with focus strategy, see comments like “<i>Unfocused business is a waste of time&amp; money and effort</i>”, “<i>Yes, specialization lead to quality which is really lacked on our market</i>”.</p>
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**Respondent's Answers (43 responses)**

	<p>About 20% are not sure and they suggest some little diversification to accommodate risks. Some comments supported this <i>“To focus yes, but at least two products, not one, and the more important point is to focus on business line itself, not having a generic product for any business line”</i>.</p> <p>Comments and interviews showed that people tends to diversify because of the lack of investment and financing. They even sometimes diversify to save some money to finance the project they want to focus on. It is obvious that the presence of financing channels help in applying a focus strategy.</p> <p>Focus strategy is definitely appropriate for small companies especially for those wanting to avoid competition with big ones (Porter 1980).</p> <p>Although researches show that focus strategy is necessary for success in small business, it is obvious that many entrepreneurs do not know that. See comments like <i>“not sure”, “so risky”, “it depends on the market needs”</i> ...etc</p> <p>Focus does not mean that entrepreneur will not grow; instead he needs to focus to have a success story that would later lead to new success story. See the comment <i>“In one case, if you take it to the next level, and to be innovative”</i>.</p> <p><b>Recommendation:</b> to raise awareness between entrepreneurs on the importance of the focus strategy after having a good market research and building a good business model.</p>
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<p><b>F.3 Qualifications</b></p>	<p><b>Do you think that Entrepreneur Qualifications (Education &amp; Industry working experience) are a key factor for success?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Nice to have but not necessary</li> <li>• For education I disagree But for learning what it needs to be qualified and have an experience in the field it's the important thing to do</li> <li>• Not a must but sure will add if he/she has some knowledge or experience in the field they are working in. in case they don't have they should hire someone who has this.</li> <li>• Not enough</li> <li>• Background &amp; experience is a good factor but passion to learn &amp; flexibility is the most important one</li> </ul> <div data-bbox="1301 272 1951 762" style="text-align: center;"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Agree</td> <td>37.2%</td> </tr> <tr> <td>M Agree</td> <td>20.9%</td> </tr> <tr> <td>S Agree</td> <td>14.0%</td> </tr> <tr> <td>N</td> <td>11.6%</td> </tr> <tr> <td>Disagree</td> <td>9.3%</td> </tr> <tr> <td>S Disagree</td> <td>2.3%</td> </tr> <tr> <td>G Disagree</td> <td>4.7%</td> </tr> </tbody> </table> </div>	Response	Percentage	G Agree	37.2%	M Agree	20.9%	S Agree	14.0%	N	11.6%	Disagree	9.3%	S Disagree	2.3%	G Disagree	4.7%
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<p><b>Description:</b> Entrepreneur qualifications are described by the effect of education, general experience and industry experience on all the business aspects (Nielsen et al. 2009).</p> <p><b>Findings:</b> Research findings show that “Qualifications” is a positive intermediate success factor</p> <p><b>Comparison to Literature:</b> In line with literature.</p> <p><b>Discussion:</b> Some literature conclude that qualifications are major success factor not intermediate as in our research finding (Loewe et al. 2013), we can justify respondents' answers as follow; As a result of the Interactions we made with entrepreneurs of ICT community, people refer to Bill Gates, Steve Jobs, and Mark as role models for successful entrepreneurs who didn't complete their education. Although this true, but on the other hand, Google founders were not only university graduates, they were researchers. Also the community assumes that having business and" soft skills is more critical and important than having education and experience. See comments like: " nice to have but not necessary", "Not enough", "Not a must", "Background &amp; experience is a good factor but passion to learn &amp; flexibility is the most important one",</p> <p>We can better compromise by saying that: entrepreneurs will have better results and success in their small business, if their education and experience were compatible with their working field they love and passionate about.</p> <p><b>Recommendations:</b> Before the end of last year from graduation from high school, it is recommended to teaching students how they know the field they love, how to write their personal strategic plan and how to choose their education field. Entrepreneurs should not give up and wait until the government repair and update the education system, they should struggle by self-learning to know how to write and achieve their personal strategic plan.</p>																	

<p><b>F.4 Interdisciplinary founding team</b></p>	<p><b>Do you think that larger number and Interdisciplinary founding team (Group of Owners with variable personal characteristics and Education backgrounds) is better for the business?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Maybe , not sure</li> <li>• Every one of the partners must have a valuable input to the organization, if not this will be a total failure.</li> <li>• Sometimes it affects negative if people are not willing to converge to the right decisions</li> <li>• Depends on their homogeneity</li> <li>• It depends on the stage. 1st stages we need to have little amount of owners with different background. but in the operation we need to have diversification and interdisciplinary</li> <li>• Work should have some sort of harmony to succeed. At a certain level this factor will cause problems.</li> <li>• Depends on the nature of the business</li> <li>• Yes if they are completing each other &amp; this is not impacting the decision making process inside the company.</li> <li>• In larger numbers conflicts are more and it's easier to break them</li> <li>• Small interdisciplinary team is good. In small teams we can manage conflicts. larger team are not preferred in startups</li> </ul>																
	<div style="text-align: center;"> <p><b>Respondent's Answers (43 responses)</b></p> <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>S Agree</td> <td>25.6%</td> </tr> <tr> <td>M Agree</td> <td>18.6%</td> </tr> <tr> <td>N</td> <td>18.6%</td> </tr> <tr> <td>G Agree</td> <td>16.3%</td> </tr> <tr> <td>M Disagree</td> <td>14.0%</td> </tr> <tr> <td>G Disagree</td> <td>4.7%</td> </tr> <tr> <td>S Disagree</td> <td>2.3%</td> </tr> </tbody> </table> </div> <p><b>Description:</b> Interdisciplinary of the founding team is described by the founding team diversity in experiences, education, culture and even nationality (Nielsen et al. 2009).</p> <p><b>Findings:</b> Research findings show that “Interdisciplinary founding team” is a Slight impact success factor in Egypt.</p> <p><b>Comparison to Literature:</b> Not in line with literature, people are hesitant about the value added against the probable problems due to different values and way of reacting to variables.</p> <p><b>Discussion:</b> People are really confused about this factor, some comments have no vision "<i>Depends on the nature of the business</i>", "<i>May be, not sure</i>". Responses that agree focus on the value that comes with diversification in the team skills. See comments like “Small interdisciplinary team is good. In small teams we can manage conflicts. larger team are not preferred in startups”, “<i>Yes if they are completing each other &amp; this is not impacting the decision making process inside the company</i>”. Whereas people that disagree focus on the personal values conflicts. See comments “<i>Work should have some sort of harmony to succeed. At a certain level this factor will cause problems</i>”, “<i>In larger numbers conflicts are more and it's easier to break them</i>”</p> <p>It is logic that a team with a diversified skills is better capable to fulfill different business requirements, but that team will suffer if members have conflicts in personal values. Sally said that team members tend to conflict in the very early stages about who will be named the CEO. Conflict management skill is almost missing in early startups.</p>	Response	Percentage	S Agree	25.6%	M Agree	18.6%	N	18.6%	G Agree	16.3%	M Disagree	14.0%	G Disagree	4.7%	S Disagree	2.3%
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**Recommendations:** Interdisciplinary founding team is better for business, but in the same time homogeneity in personal values is important. Also, conflict management training programs are important in startups.

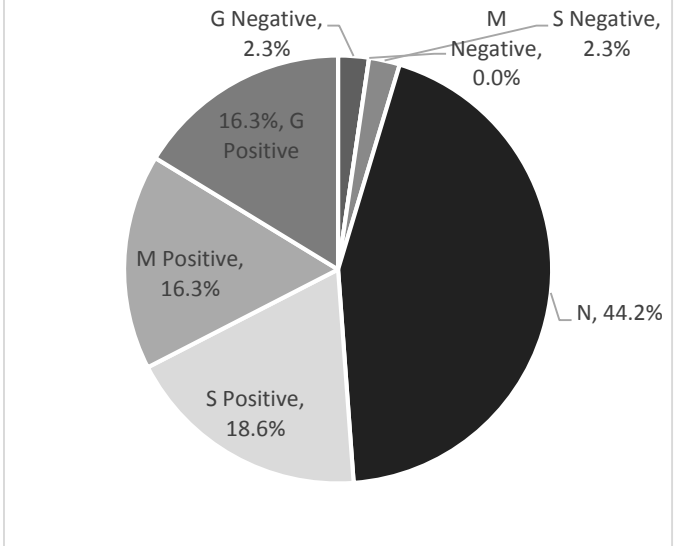
<p><b>F.5 Business skills</b></p>	<p><b>Is it necessary in your opinion that Entrepreneur should have strong Business Skills (Recognize opportunities, Risk willingness and Making money orientation)?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Nice to have it at first, but he can have it with time</li> <li>• Science is king, business management is a science, and you need to learn such science to manage your business success.</li> <li>• Some knowledge about business with being a real entrepreneur is the best match.</li> </ul>														
<div style="display: flex; justify-content: space-between;"> <div data-bbox="427 888 1200 1347"> <p><b>Description:</b> Business Skills are described by skills for recognizing opportunities and the entrepreneur's willingness to take risk (Kumar et al. 2010) and their orientation to make money.</p> <p><b>Findings:</b> Research findings show that “Business skills” is a major positive success factor</p> <p><b>Comparison to Literature:</b> In line with literature</p> <p><b>Discussion:</b> This factor represents the most powerful factors when respondents were asked open question about the most critical factors for success (Result 2), moreover, it is one of the highest factors in quantitative analysis (Result 3A and Result EB) as clear for respondents answers chart. Respondents did not much comment because they see this factor is a necessity. Most Entrepreneurs in the ICT sector start business with a passion, an idea and a technical knowledge to implement this idea. Most of them are lacking the business skills needed to judge whether the idea is worth or not, lacking how to market and how to grow the business. Entrepreneurs are mostly acquiring business skills by try and error or as needed, while they lately discover their needs to have good business skills.</p> <p><b>Recommendations:</b> Business skills should be taught early in the higher education as non-specialized courses at least. Also government and ecosystem should help in teaching the business skills through entrepreneurship courses to early stages startups. Working on raising awareness to youth about entrepreneurship will help them to know how to convert idea to a successful business.</p> </div> <div data-bbox="1207 432 2047 884" style="text-align: center;"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Agree</td> <td>46.5%</td> </tr> <tr> <td>M Agree</td> <td>27.9%</td> </tr> <tr> <td>S Agree</td> <td>18.6%</td> </tr> <tr> <td>M Disagree</td> <td>2.3%</td> </tr> <tr> <td>G Disagree</td> <td>0.0%</td> </tr> <tr> <td>S Disagree</td> <td>0.0%</td> </tr> </tbody> </table> </div> </div>		Response	Percentage	G Agree	46.5%	M Agree	27.9%	S Agree	18.6%	M Disagree	2.3%	G Disagree	0.0%	S Disagree	0.0%
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<p><b>F.6 Soft Skills</b></p>	<p><b>Do you think that Entrepreneur Soft Skills (Innovation, Flexibility and Adaptability, Ambition, Optimism) are important for business?</b></p>															
	<p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• I believe this is the main fuel for the entrepreneur to continue try and fight</li> <li>• But not necessarily the same person may be other one in the team of founders</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Agree</td> <td>81.4%</td> </tr> <tr> <td>M Agree</td> <td>14.0%</td> </tr> <tr> <td>N</td> <td>2.3%</td> </tr> <tr> <td>S</td> <td>2.3%</td> </tr> <tr> <td>G Disagree</td> <td>0.0%</td> </tr> <tr> <td>M Disagree</td> <td>0.0%</td> </tr> </tbody> </table>	Response	Percentage	G Agree	81.4%	M Agree	14.0%	N	2.3%	S	2.3%	G Disagree	0.0%	M Disagree	0.0%
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<p><b>Description:</b> Soft Skills are described by the characters and capabilities of attitude and behavior instead of knowledge or technical ability (John 2009), Innovation, ambition, optimism, flexibility and adaptability (Kumar et al. 2010).  <b>Findings:</b> Research findings show that “Soft skills” is a major positive success factor  <b>Comparison to Literature:</b> In line with literature  <b>Discussion:</b> Results is amazing. 97% of the population agree about its importance. 81% are greatly agreee. One commented with a sentence that is really compatiabile with the results and may express about why respondents high ranked this factor: “<i>I believe this is the main fuel for the entrepreneur to continue try and fight</i>” This comment is seems enough  <b>Recommendations:</b> Most of soft skills are raised at home, developed by community culture, and refined and polished by education. Media can have a big role in this factor, by introducing successful role models and interviewing soft-skills trainers. So, there are needs to pay attentions from the previous entities to do their role in delivering generations with high soft skills.</p>																

<p><b>F.7 Ethical behavior</b></p>	<p><b>In your opinion, are Ethics (Honesty, Humility and Commitment) needed for business success? Respondent's Answers (43 responses)</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Most of the successful people in Egypt do not have ethics. it is good on the long term to build trust and make a good business</li> <li>• These are critical to build your name, otherwise you will be out of business within a few years.</li> <li>• yes to create sustainable business</li> <li>• It depends on your success measures</li> <li>• but unfortunately n Egypt ethics it become sometime problem</li> <li>• Business is full of shit and the market is full of bad people. being nice with the customer is important but u have to show ur strength and willing of being Without honor to survive</li> </ul>																
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<p><b>F.8 Networking and social skills</b></p>	<p><b>Do you think that Business Networking of Entrepreneur and High Social Skills are essential for business success?</b></p> <p><b>Respondents' Comments</b></p> <ul style="list-style-type: none"> <li>But need the suitable environment and culture</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Agree</td> <td>46.5%</td> </tr> <tr> <td>M Agree</td> <td>37.2%</td> </tr> <tr> <td>S Agree</td> <td>11.6%</td> </tr> <tr> <td>G Disagree</td> <td>2.3%</td> </tr> <tr> <td>M Disagree</td> <td>2.3%</td> </tr> <tr> <td>S Disagree</td> <td>0.0%</td> </tr> </tbody> </table>	Response	Percentage	G Agree	46.5%	M Agree	37.2%	S Agree	11.6%	G Disagree	2.3%	M Disagree	2.3%	S Disagree	0.0%
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<p><b>Description:</b> Networking and social skills are described by the strong relationships with potential customers, business partners and government bodies (Loewe et al. 2013).</p> <p><b>Findings:</b> Research findings show that “Networking and social skills” is a major positive success factor</p> <p><b>Comparison to Literature:</b> In line with literature</p> <p><b>Discussion:</b> One of the strongest factors, more than 90% of the population agrees about its importance without comment. Researcher sees that this factor represent a main tool to overcome various difficulties in the Egyptian business culture.</p> <p><b>Recommendations:</b> Entrepreneur should spend more time in networking. Government and ecosystem are requested to make forums, exhibitions, and conferences to motivate business networking.</p>																



<p><b>F.9 Luck</b></p>	<p><b>Do you believe that Luck is a factor that affects business? (Yes – No) If yes, how did luck affect your business?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• In the Egyptian culture, we call it Tawfeeq and god support. although we have to do our homework first</li> <li>• Success happens when "your preparations" meets an opportunity (chance or luck)... it means it affects business success by .1%</li> <li>• yes I believe in God's will (Tawfeeq)</li> <li>• Luck = labor under correct knowledge, without labor and knowledge your luck will eventually run out.</li> <li>• I was not lucky in the sense that i started my business where Egypt was politically unstable. We had some cancelled training sessions due to curfew. Less interest from youth to develop themselves since they are impacted with political situations.</li> <li>• No</li> <li>• Luck can Play important role in catching big fishes but isn't the base rule to catch one effort &amp; preparation comes first</li> <li>• Luck is Allah blessing :)</li> <li>• if you mean (Tweeek) god wellness, then i agree but sure with a lot of efforts and pains</li> <li>• yes I believe in God's will (Tawfeeq)</li> <li>• You've to be prepared to be lucky. If you're ready enough for opportunities, then luck would be a factor here otherwise there is no meaning for luck if you're really prepared.</li> <li>• Sometimes it is all about luck to begin but if u have nothing really you lose everything that was there by luck</li> <li>• I cannot say it's luck as much as it's some reasons that give you push that you are going on the right direction.</li> <li>• Luck also plays part in that being in the right place at the right time also helps</li> </ul>	 <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>44.2%</td> </tr> <tr> <td>S Positive</td> <td>18.6%</td> </tr> <tr> <td>M Positive</td> <td>16.3%</td> </tr> <tr> <td>G Positive</td> <td>16.3%</td> </tr> <tr> <td>G Negative</td> <td>2.3%</td> </tr> <tr> <td>S Negative</td> <td>2.3%</td> </tr> <tr> <td>M Negative</td> <td>0.0%</td> </tr> </tbody> </table>	Category	Percentage	N	44.2%	S Positive	18.6%	M Positive	16.3%	G Positive	16.3%	G Negative	2.3%	S Negative	2.3%	M Negative	0.0%
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<p><b>Description:</b> luck is described by the force that causes things, especially good things, to happen to entrepreneur by chance and not as a result of his own efforts or abilities (Cambridge Dictionary).</p> <p><b>Findings:</b> Research findings show that “Luck” is a neutral factor</p> <p><b>Comparison to Literature:</b> Not in line with some literature that assumed luck as a cofactor. This is actually near to part from respondents' answers but not with most of them. It may be due to that research question was asking about tangible opportunity affected respondents' business and not focused on just asking about belief and that set, as the some literature did.</p>																		

	<p><b>Discussion:</b> Although this factor is neutral but still about half of the population believes that luck affected them positively in different degrees. People comments show that each one explains this external factor based on his belief, most of them translate it as God willingness, but most respondents agree that the entrepreneur should do his homework first to deserve this gift. See comments like <i>“Success happens when (your preparations) meets an opportunity”</i>, <i>“Luck = labor under correct knowledge, without labor and knowledge your luck will eventually run out”</i>, <i>“if you mean (Twfeek) God wellness, then i agree but sure with a lot of efforts and pains”</i>. Other comments are on the same direction.</p> <p><b>Recommendations:</b> Entrepreneur should do his homework by developing himself, do the right business decisions and actions, and exert efforts: to deserve God support.</p>
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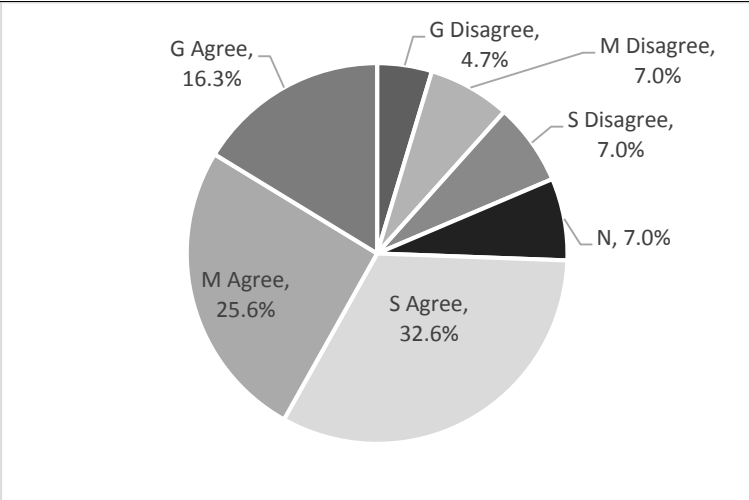
<p><b>F.10 Availability of Incubators, Accelerators and Advisors</b></p>	<p><b>Do you agree that there are available supporting Incubators, Accelerators or Advisors according to your business needs? Respondent's Answers (43 responses)</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• AUC, TIEC, Tamkeen but not strong enough</li> <li>• all initiatives available are just wishes, nothing with impact happened</li> <li>• Yes there are some informal/not well established organizations that help start-ups but still not working in coordination or have a solid eco-system to work inside.</li> <li>• Some business co working spaces and hack spaces give us a hand</li> <li>• this big market needs much more than what is available</li> <li>• the eco system is still starting and is suffering from the instability</li> </ul> <div data-bbox="1391 304 2072 791" style="text-align: center;"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>S Agree</td> <td>34.9%</td> </tr> <tr> <td>N</td> <td>23.3%</td> </tr> <tr> <td>M Disagree</td> <td>11.6%</td> </tr> <tr> <td>S Disagree</td> <td>9.3%</td> </tr> <tr> <td>G Disagree</td> <td>9.3%</td> </tr> <tr> <td>G Agree</td> <td>0.0%</td> </tr> </tbody> </table> </div> <p><b>Respondent's Answers (43 responses)</b></p>	Response	Percentage	S Agree	34.9%	N	23.3%	M Disagree	11.6%	S Disagree	9.3%	G Disagree	9.3%	G Agree	0.0%
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<p><b>Description:</b> Entities who provide knowhow for the new business entrepreneurs, such incubators act as business accelerators for the ICT startups, also they provide advisors and consultants in various fields like legal and marketing advisors (ITIDA 2015).</p> <p><b>Findings:</b> Research findings show that “Availability of Incubators, Accelerators and Advisors” is slight impact factor for success in Egypt.</p> <p><b>Comparison to Literature:</b> It depends on the region that the other literature were about, in some areas it was significant and in others it was insignificant.</p> <p><b>Discussion:</b> Although most of respondents are companies that got benefits of a supporting program somehow, but most of them do not likely get a big benefit of these programs that they can rely on, and are not enough too to cover all small ICT enterprises in all Governorates (Sally expert). See comments like “not strong enough”, “all initiatives available are just wishes, nothing with impact happened”, “not well established organizations”, “suffering from the instability”, “there are some informal/not well established organizations that help start-ups but still not working in coordination or have a solid eco-system to work inside.”.</p> <p>Yet the ecosystem in Egypt is immature, started to grow after the revolution in 2011. And yet Egypt is still not stable politically and economically to support this trend.</p> <p><b>Recommendations:</b> Government is called to provide a mature ecosystem to support all ICT small enterprises with necessary incubations. Moreover, enhancing and widening the positive role and initiatives of ITIDA; as the government and biggest support entity in Egypt.</p>															

<p><b>F.11 Amiability of Financing Agencies</b></p>	<p><b>Do you agree that there are available Financing Agencies (Angel or Venture Capital) whenever your business needs them?</b>  <b>Respondent's Answers (43 responses)</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• We depend on international grants that we are facing problems with now due to instability</li> <li>• Yes there are some financing agencies in the market but process is long &amp; selection criteria is subjective in most cases. Also, money available for funding by these agencies are still very small compared to the volume of opportunities in the market.</li> <li>• Don't know.</li> <li>• Agree but they are not enough</li> <li>• there are very very few</li> <li>• not exist for small business, but exist for large one</li> </ul> <div data-bbox="1384 304 2072 746"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Agree</td> <td>0.0%</td> </tr> <tr> <td>G Disagree</td> <td>16.3%</td> </tr> <tr> <td>M Disagree</td> <td>27.9%</td> </tr> <tr> <td>S Disagree</td> <td>18.6%</td> </tr> <tr> <td>N</td> <td>11.6%</td> </tr> <tr> <td>S Agree</td> <td>20.9%</td> </tr> <tr> <td>M Agree</td> <td>4.7%</td> </tr> </tbody> </table> </div> <p><b>Respondent's Answers (43 responses)</b></p>	Response	Percentage	G Agree	0.0%	G Disagree	16.3%	M Disagree	27.9%	S Disagree	18.6%	N	11.6%	S Agree	20.9%	M Agree	4.7%
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<p><b>Description:</b> In this research, financing agencies are Venture Capitals or Angel donors who have intentions to provide fund for small and medium enterprises (Ramadani 2014).</p> <p><b>Findings:</b> Research findings show that “Availability of Financing Agencies” is a major negative factor for success in Egypt</p> <p><b>Comparison to Literature:</b> It depends on the region that the other literature were about, in some areas it was significant and in others it was insignificant.</p> <p><b>Discussion:</b> This factor was the second major factor (Result 2) that respondents highlighted in their answers to the open question asked about the critical factors impacting success. While responses from the questionnaire (Result 3B) showed that availability of financing agencies in Egypt is Intermediate negative factor. Their comments show that there is no enough and efficient financing agencies in Egypt. See comments like “Yes there are some financing agencies in the market but process is long &amp; selection criteria is subjective in most cases. Also, money available for funding by these agencies are still very small compared to the volume of opportunities in the market”, “Agree but they are not enough”, There are very very few”. These justifications made the researcher conclude this factor according to (Result 2) as a major factor.</p> <p><b>Recommendations:</b> Enhancing the role of ITIDA in financing small ICT enterprises. Government should provide a mature ecosystem to support companies with neccassary fund for their studied projects and business.</p>																	

<p><b>F.12 Non-Governmental Organizations support</b></p>	<p><b>Is it possible that your business can be supported by Non-Governmental Organizations? Respondent's Answers (43 responses)</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• To certain degree yes</li> <li>• there are few organizations that can give you only seed funds</li> <li>• Existing NGO is not matured enough to support such business. only one or two organization that may do that</li> <li>• I heard about some of them, but didn't deal with them ever. although the market is big and we need a lot of that</li> </ul> <div data-bbox="1391 304 2069 703" style="text-align: center;"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>M Agree</td> <td>25.6%</td> </tr> <tr> <td>S Agree</td> <td>18.6%</td> </tr> <tr> <td>N</td> <td>14.0%</td> </tr> <tr> <td>S Disagree</td> <td>16.3%</td> </tr> <tr> <td>G Agree</td> <td>14.0%</td> </tr> <tr> <td>M Disagree</td> <td>7.0%</td> </tr> <tr> <td>G Disagree</td> <td>4.7%</td> </tr> </tbody> </table> </div> <p style="text-align: center;"><b>Respondent's Answers (43 responses)</b></p>	Response	Percentage	M Agree	25.6%	S Agree	18.6%	N	14.0%	S Disagree	16.3%	G Agree	14.0%	M Disagree	7.0%	G Disagree	4.7%
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<p><b>Description:</b> Non-Governmental Organizations Support is described by the efforts done by NGOs aiming for social and economic change which eventually helps the private business sector especially SMEs (Blackwood 2012).</p> <p><b>Findings:</b> Research findings show that “Non-Governmental Organizations support” is slight impact factor for success in Egypt</p> <p><b>Comparison to Literature:</b> It depends on the region that the other literature were about, in some areas it was significant and in others it was insignificant.</p> <p><b>Discussion:</b> Responses show that this factor is insignificant, some respondents agree on presence and availability to take fund from them: <i>"To certain degree yes"</i>, however some of respondents see that they are very few. See comments like: <i>" Existing NGO is not matured enough to support such business. only one or two organization that may do that", "I heard about some of them, but didn't deal with them ever", " there are few organizations that can give you only seed funds"</i></p> <p>From researcher view, he thinks that the reason behind that this factor was slight impact, is the low expectations from respondents about the number and efficiency of NGOs that can offer real support, in other countries, there are great support from NGOs to small enterprises to the limit that they sometimes exceed governmental support.</p> <p><b>Recommendations:</b> NGOs are supposed to take a real step in supporting small enterprises to share its responsibility in developing community, they have to balance between relief projects and development projects. Laws should support NGO's with flexible regulations and freedom to access and support small business entrepreneurs..</p>																	

<p><b>F.13 Business partners</b></p>	<p><b>Is it easy to find cooperative Business Partners that help and compliment my business?</b>  <b>Respondent's Answers (43 responses)</b></p>																	
	<p><b>Respondents' Comments</b></p> <ul style="list-style-type: none"> <li>• Cooperation between companies in Egypt is immature; one of the reasons is inability for litigations, which causes large companies to have great influence on small ones. In addition, unfair competition culture makes partnership to be cautious, which make cooperation is difficult. Also seldom similarities between ICT companies' fields make it difficult to find suitable partner. We lack the team spirit and the law is not quick enough to make us all feel safe if we have a dispute.</li> <li>• It is very easy to get fund or great talents if you have an idea</li> <li>• Most partners are lazy and only thinking of their personal benefits not the company benefits</li> <li>• If you have good relations and good product or service, it will not be hard to find some business partners</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Agree</td> <td>2.3%</td> </tr> <tr> <td>G Disagree</td> <td>7.0%</td> </tr> <tr> <td>M Agree</td> <td>11.6%</td> </tr> <tr> <td>M Disagree</td> <td>23.3%</td> </tr> <tr> <td>S Agree</td> <td>23.3%</td> </tr> <tr> <td>S Disagree</td> <td>18.6%</td> </tr> <tr> <td>N</td> <td>14.0%</td> </tr> </tbody> </table> <p><b>Respondent's Answers (43 responses)</b></p>	Response	Percentage	G Agree	2.3%	G Disagree	7.0%	M Agree	11.6%	M Disagree	23.3%	S Agree	23.3%	S Disagree	18.6%	N	14.0%
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	<p><b>Description:</b> business partners are described by all partners that provide entrepreneur with important activities necessary for his success (Loewe et al. 2013).</p> <p><b>Findings:</b> Research findings show that “Business partners” is insignificant factor for success in Egypt</p> <p><b>Comparison to Literature:</b> In line with literature, however it seems logically that this factor is important; (Loewe et al. 2013) did not conclude inter-linkage partnerships between small enterprises as a major factor.</p> <p><b>Discussion:</b> Responses and comments show that the culture in Egypt is not supporting business partnerships, although one of the interviewed entrepreneurs has a good success story in terms of partnership. One of the expert commented “Cooperation between companies in Egypt is immature; one of the reasons is inability for litigations, which causes large companies to have great influence on small ones. In addition, unfair competition culture makes partnership to be cautious which make cooperation difficult. Also seldom similarities between ICT companies fields make it difficult to find suitable partner”.</p> <p>Researcher also thinks that lack of partnerships culture in Egypt is a result of lacking a lot of important soft skills, such as teamwork, conflict management and negotiation skills.</p>																	

	<p>One of the experts mentioned that "<i>ITIDA started an initiative to support building Egyptian consortiums to share in a european funded projects in 2008 undersupervision of ITIDA. The program was very successful, but stopped due to the financial crisis. Unfortunately, after the recession, ITIDA didn't continue the program for unknown reasons</i></p> <p><b>Recommendations:</b> Government can encourage partnership programs and cooperation between companies, through business forums, and different support programs for consortiums, and play the role of the coordinator and facilitator. Moreover, entrepreneurs can take steps to communicate with each others in a positive way to open the door for cooperation.</p>
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<p><b>F.14 Egyptian market opportunity</b></p>	<p><b>Do you think Egypt Technology Market is Emerging and growing?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• The spread of computers and smart phone users are a proof for this. Everything is going mobile now.</li> <li>• Political conditions are the main obstacles</li> <li>• Market is big and theist, need projects, people do not consider the Egyptian culture, they just try to import global ideas and tweak it to Egyptian market needs. big market but not active</li> <li>• Market needs</li> <li>• Under normal political issue, I strongly agree with this opinion. The market currently suffers from a lot of obstacles and still growing, that mean if this obstacles removed, it will boom for sure.</li> <li>• The Egyptian Market should be considered as a poor market duo to many things: - lack in in know-how, most of presales and technical support guys are not familiar or convinced with what they propose to the customer. - Most of IT companies are not professional enough. - The end user is an old schools mentality, they resisting the technology. - Very poor SLA services. - etc.</li> <li>• The technology market is growing slowly but there is a grow</li> <li>• generally growing, we are 90 million and we have lack in technology services in government and private, although we are affected by the political and economic issues once we are stable we will boom</li> <li>• In Business like consulting it is growing, but in real value added services many are facing severe problems</li> <li>• The answer is one of the two extremes. Egyptian market is qualified to be an emerging and growing because of the large population in a small geographic are. But currently the market is shrinking and suffering because of the political and economic disturbance.</li> <li>• Egypt is on the verge of a civil war.</li> <li>• Yes definitely in terms of no of business &amp; in term of expenditures. Actually Egyptian consumer behavior in adoption of technology is impressive and will encourage more businesses to invest in this sector.</li> </ul>	 <p><b>Respondent's Answers (43 responses)</b></p> <table border="1"> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>S Agree</td> <td>32.6%</td> </tr> <tr> <td>M Agree</td> <td>25.6%</td> </tr> <tr> <td>G Agree</td> <td>16.3%</td> </tr> <tr> <td>N</td> <td>7.0%</td> </tr> <tr> <td>S Disagree</td> <td>7.0%</td> </tr> <tr> <td>M Disagree</td> <td>7.0%</td> </tr> <tr> <td>G Disagree</td> <td>4.7%</td> </tr> </tbody> </table>	Response	Percentage	S Agree	32.6%	M Agree	25.6%	G Agree	16.3%	N	7.0%	S Disagree	7.0%	M Disagree	7.0%	G Disagree	4.7%
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	<ul style="list-style-type: none"> <li>• We can say its growth is on hold for time being; because of the current problems, but it will move again.</li> <li>• The problem with the Egyptian market is that it's only growing for big businesses and small and medium sized ones barely find their places in that market which I thought is not open.</li> </ul>	
<p><b>Description:</b> Egyptian market opportunity is described by the presence of business need in the market to develop new products and services which are not fully supplied in the Egyptian market (MCIT indicators 2015).</p> <p><b>Findings:</b> Research findings show that “F.14 Egyptian market opportunity” is an intermediate positive factor for success in Egypt</p> <p><b>Comparison to Literature:</b> In line with literature.</p> <p><b>Discussion:</b> 75% of respondents see Egyptian market contains opportunities with different degrees. Only around 20% see it with little opportunities. The later comments showed that they are mostly see the market nowadays is not potential due to political instability and other obstacles. Whereas the majority of respondents see it contains opportunities parallel with the obstacles, they mostly suggest conditions if occurred the market will be attractive (Review comments). It seemed like some respondents thought that question asks if there is currently a potential Egyptian market or not, most of those responded by “No” as the market is suffering due to the economic and political instability. Most respondents who thought that question asks about the readiness of the Egyptian market, most likely responded by “Yes”. They see Egyptian market has a very big population and it is a promising market if the government supports it.</p> <p><b>Recommendations:</b> Government supports the market and work in creating opportunities for small enterprises, and working in lowering obstacles and risks. In the same time, entrepreneurs should not wait, they have to search and study the expected opportunities by doing good market research, followed by access to customers and satisfy their needs through convenient products.</p>		

<p><b>F.15 Egyptian Market Risk</b></p>	<p><b>Do you see Egyptian Market is risky?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Government corruption, legal environment corruption, and instability</li> <li>• Market is not matured culture is not supporting stability no legal environment (no legal obligations)</li> <li>• The second wave of the Egyptian revolution is about you start.</li> <li>• No Regulations, ever changing and people are not committed to their word</li> <li>• It is a very risky market but having said that it is also a promising market due to growth of population.</li> <li>• Political situation and market risks are huge since 2011, before 2011 was pretty stable.</li> <li>• Yes specially on the political level.</li> <li>• Of course, the government should support start-ups. It is a market for large capitals that can sustain is such high risk market without support. Successful startups are little and can be counted such as EdFa3ly, Bey2olak. But how many of them turned to be large enterprise?</li> <li>• Because we cannot rely on the common standard factors, like quality, in Egypt, to have a feasibility study for example.</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Agree</td> <td>44.2%</td> </tr> <tr> <td>M Agree</td> <td>23.3%</td> </tr> <tr> <td>S Agree</td> <td>18.6%</td> </tr> <tr> <td>N</td> <td>7.0%</td> </tr> <tr> <td>M Disagree</td> <td>4.7%</td> </tr> <tr> <td>S Disagree</td> <td>2.3%</td> </tr> <tr> <td>G Disagree</td> <td>0.0%</td> </tr> </tbody> </table>	Response	Percentage	G Agree	44.2%	M Agree	23.3%	S Agree	18.6%	N	7.0%	M Disagree	4.7%	S Disagree	2.3%	G Disagree	0.0%
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<p><b>Description:</b> Egyptian market risk is described by the sum factors that make working in Egyptian market is risky (Seruma 2011).  <b>Findings:</b> Research findings show that “Egyptian Market Risk” is a major negative factor for success in Egypt  <b>Comparison to Literature:</b> In line with literature  <b>Discussion:</b> There is a great agree between respondents that the Egyptian market is risky. However, most of them do agree about there is an opportunity in the Egyptian market (previous answer to question about emerging market), this comment is expressing this opinion: <i>"It is a very risky market but having said that it is also a promising market due to growth of population"</i>. Some respondents see that the core risk is referred to political and economic instability" <i>" Political situation and market risks are huge since 2011, before 2011 was pretty stable"</i>, <i>"Yes specially on the political level."</i>, <i>" instability"</i>, <i>" The second wave of the Egyptian revolution is about you start"</i>. Others refer risk to government, support and legal environment: <i>" Of course, the government should support start-ups. It is a market for large capitals that can sustain is such high risk market without support."</i>, <i>"Government corruption and legal environment"</i>, <i>"No Regulations, ever changing"</i>, <i>" No legal environment (no legal obligations)"</i>. Some see the risk in culture: <i>"culture is not supporting stability"</i>, <i>" people are not</i></p>																		

	<p><i>committed to their word". One referred the risk due to common standards: "Because we cannot rely on the common standard factors, like quality, in Egypt, to have a feasibility study for example".</i></p> <p><b>Recommendations:</b> Government role is the key to overcome market risk. Market research is highly recommended for entrepreneurs before deciding to start a business or a product.</p>
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<p><b>F.16 Customers Availability</b></p>	<p><b>After initiating your startup Business Idea, was it easy to find customers immediately?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• We started in 2004, the market was growing at that time, and it was not hard to get customers and make business.</li> <li>• It depend on marketing strategy</li> <li>• Identifying a cheap &amp; economic awareness/marketing channels are difficult in Egypt. Hence, it will be always a big challenge for start-ups with a small budget for marketing to be known in the market &amp; to reach customers.</li> <li>• Hard to navigate the Egyptian culture.</li> <li>• It depends on the idea and the need in the market compared to the offered price.</li> <li>• It is a very hard time to find customers due to many factors: *economic &amp; political instability. *Building brand awareness is very hard task in Egypt as there is no clear governmental strategy to help the start-up business. *Building brand awareness would indeed need a financial backing which might proof challenging to most start-up business in Egypt</li> <li>• Actually it depends on the kind of business you are running because the Egyptian market cannot accept new things this easy.</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>34.9%</td> </tr> <tr> <td>G Disagree</td> <td>18.6%</td> </tr> <tr> <td>M Disagree</td> <td>11.6%</td> </tr> <tr> <td>S Disagree</td> <td>4.7%</td> </tr> <tr> <td>S Agree</td> <td>16.3%</td> </tr> <tr> <td>G Agree</td> <td>9.3%</td> </tr> <tr> <td>M Agree</td> <td>4.7%</td> </tr> </tbody> </table>	Response	Percentage	N	34.9%	G Disagree	18.6%	M Disagree	11.6%	S Disagree	4.7%	S Agree	16.3%	G Agree	9.3%	M Agree	4.7%
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<p><b>Description:</b> customers' availability is described by the potential for the market current customers to purchase the product/service to generate profit (MCIT indicators 2015).</p> <p><b>Findings:</b> Research findings show that "Customers Availability" is a slight impact factor for success in Egypt</p> <p><b>Comparison to Literature:</b> It depends on the region that the other literatures were about, in some areas it was significant and in others it was insignificant.</p> <p><b>Discussion:</b> As we can see in the chart, respondents between neutral and two almost two halves between agree and disagree. (Neutral) respondents assume that this factor is dependent on other factors: "Actually it depends on the kind of business you are running because the Egyptian market cannot accept new things this easy", " It depends on the idea and the need in the market compared to the offered price", " it depends on marketing strategy". (Agree) respondents see it is easy to find customers: "We started in 2004, the market was growing at that time, and it was not hard to get customers and make business". (Disagree) respondents see it is difficult for different reasons: "Hard to navigate the Egyptian culture", " Identifying a cheap &amp; economic awareness/marketing channels are difficult in Egypt. Hence, it will be always a big challenge for start-ups with a small budget for marketing to be known in the market &amp; to reach customers", " It is a very hard time to find customers due to many factors: *economic &amp; political instability. *Building brand awareness is very hard task</p>																		

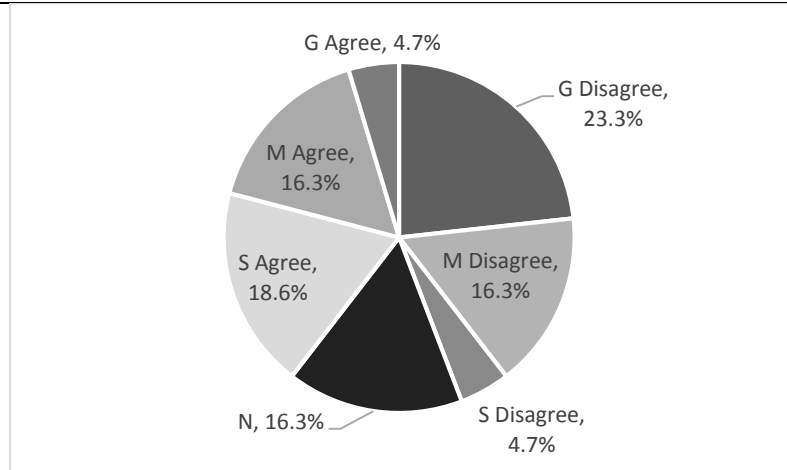
*in Egypt as there is no clear governmental strategy to help the start-up business. \*Building brand awareness would indeed need a financial backing which might prove challenging to most start-up business in Egypt"*

**Recommendations:** it is highly recommended that a startup do not start a project unless they are sure it has a market. Entrepreneurs mostly adopt their ideas and love it just like they love their kids. Entrepreneurs should be unbiased to their idea. He should test it first with customers, if he successfully gets some few customers with positive feedbacks, he can continue work on it. Otherwise he would do changes to his idea or change it at all.

<p><b>F.17 Demographic factors</b></p>	<p><b>How are "Poverty, unemployment, illiteracy rate and other Socio Demographic Characteristics of Egyptian Market" affecting your business</b></p> <p><b>Respondents' Comments</b></p> <ul style="list-style-type: none"> <li>• It pretty simple, most Egyptians don't buy software products due to poverty issues.</li> <li>• We work in cloud, the market hardly accept the idea of hosting application over the cloud. There is aggressive fear and untrusted toward data privacy.</li> <li>• The above mentioned factors in question (Poverty, unemployment, illiteracy rate and other Socio Demographic Characteristics of Egyptian Market) are mainly the backbone of any successful business.</li> <li>• All these create opportunities &amp; in the same time challenges, you need to understand your customer's socio-economic characteristics very well before launching your start-up.</li> <li>• Hard to evaluate or negative on other business</li> <li>• Because of that the ICT is not well penetrated in the market</li> </ul>																
	<div style="text-align: center;"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Sentiment</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>N (Neutral)</td> <td>27.9%</td> </tr> <tr> <td>M Positive (Medium Positive)</td> <td>9.3%</td> </tr> <tr> <td>S Positive (Strong Positive)</td> <td>9.3%</td> </tr> <tr> <td>G Positive (Great Positive)</td> <td>7.0%</td> </tr> <tr> <td>G Negative (Great Negative)</td> <td>18.6%</td> </tr> <tr> <td>M Negative (Medium Negative)</td> <td>14.0%</td> </tr> <tr> <td>S Negative (Strong Negative)</td> <td>14.0%</td> </tr> </tbody> </table> <p><b>Respondent's Answers (43 responses)</b></p> </div> <p><b>Description:</b> Demographic factors are described by unemployment, poverty, high dependency ratio, and illiteracy rates (Abdul Rahman 2011).</p> <p><b>Findings:</b> Research findings show that "Demographic factors" is Slight impact success factor in Egypt.</p> <p><b>Comparison to Literature:</b> Not in line with literature, some literatures assume that demographic factors are highly impact success off ICT enterprises in Egypt. The respondents perspectives can be understood from discussion.</p> <p><b>Discussion:</b> Almost quarter of respondents is neutral, other quarter see it positive factor with different degrees, and the other half of respondents see it negative factor with different degrees. Neutral quarter commented like this: <i>"All these create opportunities &amp; in the same time challenges, you need to understand your customers' socio-economic characteristics very well before launching your start-up", "hard to evaluate"</i>. Positive quarter did not comment. While the negative half attributed its negativity as follow: <i>"The above mentioned factors in question (Poverty, unemployment, illiteracy rate and other Socio Demographic Characteristics of Egyptian Market) are mainly the backbone of any successful business.", "It pretty simple, most Egyptians don't buy software products due to poverty issues", "We work in cloud, the market hardly accept the idea of hosting application over the cloud. There is aggressive fear and untrusted toward data privacy.", "because of that the ICT is not well penetrated in the market"</i>.</p> <p>Researcher suggests that although respondents' answers do not show a high impact of socio demographic characteristics on business, he thinks that the it is impacting negative but by indirect way, that's why not all respondents feel the effect of this factor. Disuccesions with one interviewee mentioned: <i>"the Education reform is considered as a critical task to enhance the Egyptian market"</i></p>	Sentiment	Percentage	N (Neutral)	27.9%	M Positive (Medium Positive)	9.3%	S Positive (Strong Positive)	9.3%	G Positive (Great Positive)	7.0%	G Negative (Great Negative)	18.6%	M Negative (Medium Negative)	14.0%	S Negative (Strong Negative)	14.0%
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	<p><b>Recommendations:</b> For entrepreneurs, sometimes the negative impact of the socio demographics may cause an opportunity, you need to search for it. For government, the key factor to enhance the socio demographic characteristics of the Egyptian market is to stabilize the Economy and continuous updating for education.</p>
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<p><b>F.18 Government support programs efficiency</b></p>	<p><b>Do you see that Government Support Programs are available and beneficial?</b></p> <p><b>Respondents' Comments"</b></p> <ul style="list-style-type: none"> <li>• Not useful &amp; not efficient</li> <li>• I do realize that the Government has a lot in its plate and while the Government has an existing Support Program but still not enough nor sufficient and it needs to do more</li> <li>• Those programs are useless.</li> <li>• Of course it exists, but it needs more investigation for the real need for the market. Some programs such as Supporting SMEs is crucial for small business sustainability. But where are the other efforts to open the global market for such products. real educative programs to help companies achieve this goal</li> <li>• The MSE Project is great, it had provided critical support for our company within the hard years since 2011 till now.</li> <li>• There are some good beneficial support programs. but they are not enough, they are poorly managed, and have some corruption and a lot of bureaucracy.</li> <li>• It is possible but getting funds from the government is a mess in term of processes &amp; control. a good example is the social fund for development.</li> </ul>
<p><b>Description:</b> government support program efficiency is described by the measure of how efficient the government support programs to provide financial, technical and non-technical support for ICT companies (ITIDA 2015).</p> <p><b>Findings:</b> Research findings show that "Government support programs efficiency" is a slight impact factor for success in Egypt</p> <p><b>Comparison to Literature:</b> This factor examination is an added value for this study; researcher did find previous researches that test this factor in such to know the efficiency of governmental support in Egypt.</p> <p><b>Discussion:</b> No common ground of people opinions on this factor, about 15% are neutral and the rest are almost divided on two halves between agree and disagree with different degrees. (Agree) respondents seem to be satisfied but some of them suggest improvements: "The MSE Project is great, it had provided critical support for our company within the hard years since 2011 till now.", "I do realize that the Government has a lot in its plate and while the Government has an existing Support Program but still not enough nor sufficient and it needs to do more", "Of course it exists, but it needs more investigation for the real need for the market. Some programs such as Supporting SMEs is crucial for small business sustainability. But where are the other efforts to open the global market for such products. Real educative programs to help companies achieve this goal". While the (Disagree) respondents see it is far away from what supposed to be: "Not useful &amp; not efficient", "Those programs are useless.", "It is possible but getting funds from the government is a mess in term</p>	





	<p><i>of processes &amp; control. a good example is the social fund for development.", " There are some good beneficial support programs. But they are not enough, they are poorly managed, and have some corruption and a lot of bureaucracy."</i></p> <p>From the researcher point of view, this suggests the factor with a negative impact, compared to the high expectations from outcomes supposed, he thinks that the small enterprises in ICT should have a good share in GDP, and to be reflected on the numbers of enterprises that can grow and transfer to medium or large enterprises. Some literature mentioned that the governmental support programs are the main drivers of startups success in many countries.</p> <p><b>Recommendations:</b></p> <p>For Government, current programs need to be reviewed and enhanced. Also more programs are recommended</p> <p>For Entreperenuer, they still have chances to get support programs from the government, they have to search and apply for it.</p>
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<p><b>F.19 Governmental Regulations</b></p>	<p><b>How Governmental Regulations affect your business?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Different types of Taxes, with no regulations, no flexibility and since you are small, you do not have enough power to claim your rights. Some taxes are just ridiculous, such as stamp tax. They are asking for taxes on the advertising materials we print to help us sell, these taxes are designed to make business fails, and no other country has such stupid taxes.</li> <li>• Almost not there; it is enough that we don't have effective law for copy rights, just for example</li> <li>• I think we don't have regulations</li> <li>• In terms of the regulations themselves, they are quite good. The problem is in how they are applied. there is a lot of corruption</li> <li>• The government has no sense of business and investment.</li> <li>• No strongly enforced regulation, corruption, long judicial cases, etc.</li> <li>• There is no help or guidance or even clear regulations and when found it has lots of routine, you are just left to fight in the storm</li> <li>• Most of "wireless and communication systems regulations" are stupid and designed to prevent such an industry</li> <li>• It is too hard to get new technology to market. Add to that the high customs for necessary items for innovative tech.</li> <li>• It's because it still allows some big business to monopolize market even their products isn't the best quality of their fields.</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Negative</td> <td>20.9%</td> </tr> <tr> <td>M Negative</td> <td>25.6%</td> </tr> <tr> <td>S Negative</td> <td>20.9%</td> </tr> <tr> <td>N</td> <td>18.6%</td> </tr> <tr> <td>S Positive</td> <td>4.7%</td> </tr> <tr> <td>G Positive</td> <td>7.0%</td> </tr> <tr> <td>M Positive</td> <td>2.3%</td> </tr> </tbody> </table>	Category	Percentage	G Negative	20.9%	M Negative	25.6%	S Negative	20.9%	N	18.6%	S Positive	4.7%	G Positive	7.0%	M Positive	2.3%
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<p><b>Description:</b> governmental regulations are described by the governmental laws, rules and policies that affect the ICT industry either directly or indirectly (Abdul Rahman 2011).</p> <p><b>Findings:</b> Research findings show that "Government Regulations" is an intermediate negative factor for success in Egypt .</p> <p><b>Comparison to Literature:</b> In line with literature.</p> <p><b>Discussion:</b> Almost 70% from respondents see this factor negative with different degrees. Almost all of the comments are strongly criticise the regulations itselfs or the procedure and the way of application. I call here the reader to review mentioned comments. Researcher see that although Egyptian government did some enhancement on the investment regualtions since 2004, and also reduced the taxes, but people comments indicate a pain in dealing with the governemnt.</p> <p><b>Recommendations:</b> Government is better communicate with entrepreneurs and listen to them, if they find a logic and tangible obstacles in regulations that make entrepreneurs suffer, they are invited to find solutions.</p>																		

<p><b>F.20 Corruption</b></p>	<p><b>Did you experience Governmental Corruption related to your business? (Yes – No) ... If yes, how did it affect your business? Respondent's Answers (43 responses)</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Yes, there was a huge corruption and caused me to close my startup company because I couldn't get a commercial license to use GPS in my products</li> <li>• in some tenders and in some government support programs</li> <li>• We stopped doing business with several government agencies and related support programs, (including IMC funds), since most of the tenders are cooked inside, sorry for the language, but this is really the ugly truth.</li> <li>• I lost many tenders</li> <li>• Microsoft license</li> <li>• I faced a Governmental Corruption in My GPS Tracking Solution</li> <li>• Corruption is the leader in big business in this market whatever your business is you will face corruption.</li> </ul> <div data-bbox="1308 304 2072 826"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>34.9%</td> </tr> <tr> <td>G Negative</td> <td>25.6%</td> </tr> <tr> <td>M Negative</td> <td>14.0%</td> </tr> <tr> <td>S Negative</td> <td>11.6%</td> </tr> <tr> <td>G Positive</td> <td>7.0%</td> </tr> <tr> <td>M Positive</td> <td>2.3%</td> </tr> </tbody> </table> </div> <p><b>Description:</b> corruption is described by the misuse or the abuse of public office for private gain (World Bank, 1997, UNDP, 1999).</p> <p><b>Findings:</b> Research findings show that “Corruption” is a slight impact factor for success in Egypt .</p> <p><b>Comparison to Literature:</b> Not in line with literature, some literatures as (US Department of the state 2012) describe a massive corruption. The researcher thinks that the difference in findings is due to; corruption in business is usually related to tenders assignments and mostly related to big companies. Small companies in Egypt –in most times- do not work with government in such big deals. Also the question of the questionnaire was very specific in asking about a real experiment for entrepreneurs that affected their business.</p> <p><b>Discussion:</b> Almost half of the respondents experienced corruption with different degrees (Review comments that mentioned some experiments), though 35% did not experience corruption, and the rest seemed that corruption helped them somehow.</p> <p><b>Recommendations:</b> Government has to fight corruption and give a chance for smaller companies to work with it</p>	Category	Percentage	N	34.9%	G Negative	25.6%	M Negative	14.0%	S Negative	11.6%	G Positive	7.0%	M Positive	2.3%
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<p><b>F.21 Military Service</b></p>	<p><b>Did Military service interfere with your Business Plan? (Yes – No),... If yes, how did it affect your business?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• The employees aren't stable due to military emergency calls Also the students who get internships may take from year to four to apply what he/she learned and of course in this period the graduate has to relearn everything that cover the new market</li> <li>• On the personal level, not too much. As I was exempted from it you have to take permissions before you travel abroad if you are under 30. This regulation sometimes holds you back. but I found some friends whom are much affected negatively by it</li> <li>• Not in my case but yes it is affecting other people plans</li> <li>• A lot of projects must be done through military only.</li> <li>• There is no any relation.. The question itself is really strange?!</li> <li>• Despite I'm qualified programmer, entrepreneur and embedded systems developer they didn't make any use of it. They wasted 14 month of life. It produced huge negative energy. I can deserve the country in better places than being a soldier. I'm a know-how man... so are the computers engineering and sciences graduates.</li> <li>• They have got all business leads man. What a pity.</li> <li>• Several of our employees were called from reserve, the interval was around 45 days but it was acceptable, after all this is the community price we all have to pay to live in peace and secure our properties and families.</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>46.5%</td> </tr> <tr> <td>G Negative</td> <td>23.3%</td> </tr> <tr> <td>S Negative</td> <td>11.6%</td> </tr> <tr> <td>M Negative</td> <td>7.0%</td> </tr> <tr> <td>S Positive</td> <td>4.7%</td> </tr> <tr> <td>M Positive</td> <td>4.7%</td> </tr> <tr> <td>G Positive</td> <td>2.3%</td> </tr> </tbody> </table>	Response Category	Percentage	N	46.5%	G Negative	23.3%	S Negative	11.6%	M Negative	7.0%	S Positive	4.7%	M Positive	4.7%	G Positive	2.3%
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<p><b>Description:</b> military service is described by the compulsory service in Egypt for males, from 14 months to 36 months based on the age and education level (United Nations High Commissioner 1997).</p> <p><b>Findings:</b> Research findings show that “Military Service” is a neutral factor for success in Egypt .</p> <p><b>Comparison to Literature:</b> This factor examination is an added value for this study; researcher did find previous researches that test this factor in such to know the impact of military service on ICT entrepreneurs in Egypt.</p> <p><b>Discussion:</b> This factor has a lot of depate. It was not in the research plan to include this factor, this factor was chosen for examination upon recommendations from junior interviewee in 1<sup>st</sup> stage interviews; he described how he lost many opportunities due to this factor. However, near half of the respondents see that this factor was neutral for them. On the other hand, around 20% mentioned that it greatly affected them and explained (Review comments). Comments listed some scenarios on how military service affected them. It seems that because the ecosystem is considered new in Egypt, younger age entrepreneurs might lose opportunities offered by ecosystem that were not available for older entrepreneurs.</p>																		

**Recommendations:** No recommendations as this factor finding is neutral, but it may be useful that other researcher make future researches that cover smaller ages entrepreneurs only, to determine if it will be still neutral or not.

<p><b>F.22</b> <b>Infrastructure</b></p>	<p><b>Are infrastructure (Electricity, water, roads,...etc) optimum to your business needs?</b></p>																
<p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• All are bad, old, and need to be updated immediately</li> <li>• This is one of the reasons that can leads any successful business in Egypt not just to make losses but also shut down.</li> <li>• Some business stopped due to infrastructure.</li> <li>• Of course the current infrastructure needs a lot of development as it has great impact on my business development</li> <li>• In general, IT infrastructure (internet speed, phone line, etc.) in Egypt is poor.</li> <li>• No it's one of our challenges in rural areas</li> <li>• No</li> <li>• Electrical cutoffs are disaster, without electricity our whole operation goes to waste. This is a major risk and we must get it resolved. Internet and land lines reliability related to internet as well.</li> <li>• There are no stable electricity neither proper internet connection Also traffic jam make the transportation process for the employees an exhausting process that makes them come in half of their potential every day</li> <li>• Electricity black-out!!</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Disagree</td> <td>27.9%</td> </tr> <tr> <td>M Disagree</td> <td>14.0%</td> </tr> <tr> <td>S Disagree</td> <td>11.6%</td> </tr> <tr> <td>N</td> <td>11.6%</td> </tr> <tr> <td>S Agree</td> <td>14.0%</td> </tr> <tr> <td>M Agree</td> <td>9.3%</td> </tr> <tr> <td>G Agree</td> <td>11.6%</td> </tr> </tbody> </table>	Response	Percentage	G Disagree	27.9%	M Disagree	14.0%	S Disagree	11.6%	N	11.6%	S Agree	14.0%	M Agree	9.3%	G Agree	11.6%
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<p><b>Discussion:</b> Infrastructure is described by the basic physical and organizational structures and facilities (e.g. power supplies, buildings, roads,) needed for the operations of ICT enterprises (Dictionary.reference.com)</p> <p><b>Findings:</b> Research findings show that “Infrastructure” is an intermediate negative factor for success in Egypt</p> <p><b>Comparison to Literature:</b> In line with recent literatures that stated back steps in infrastructure with huge problem in power supply. Old literature stated that there is continuous development in infrastructure.</p> <p><b>Description:</b> More than half of the respondents see that infrastructure affected them negatively, with 28% selected greatly negative. While around 35% see it enough to affect their business positively, whereas about 10% are neutral. No one comment was mentioned from positive respondents, while negative respondents stated many strong criticism (Review comments).</p> <p><b>Recommendations:</b> Government has to invest more in infrastructure enhancement especially the Electricity.</p>																	

<p><b>F.23 Political and economic instability</b></p>	<p><b>How does Political and Economic Instability affect your business?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• It eliminates the weak competitive also it eats stronger ones so my company can survive. New opportunities are opening in the peace days.</li> <li>• In case of curfew, decrease your working hours &amp; instability generally decrease people appetite to spend in general</li> <li>• We lose a lot of market due this</li> <li>• Resulted in unstable market, lowered people and companies purchasing power, and lowered also government projects and support programs</li> <li>• Unstable politics affecting people mode which affects purchasing and demand</li> <li>• The situation is bad, but mainly my project get benefits of the bad situation of it</li> <li>• Economic growth and political stability are deeply interconnected. On the one hand, the uncertainty associated with an unstable political environment may reduce investment and the pace of economic development.</li> <li>• The market shrinks all B2B business especially for small business highly affected.</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Disagree</td> <td>44.2%</td> </tr> <tr> <td>S Disagree</td> <td>16.3%</td> </tr> <tr> <td>M Disagree</td> <td>9.3%</td> </tr> <tr> <td>N</td> <td>11.6%</td> </tr> <tr> <td>G Agree</td> <td>11.6%</td> </tr> <tr> <td>S Agree</td> <td>7.0%</td> </tr> <tr> <td>M Agree</td> <td>0.0%</td> </tr> </tbody> </table>	Response	Percentage	G Disagree	44.2%	S Disagree	16.3%	M Disagree	9.3%	N	11.6%	G Agree	11.6%	S Agree	7.0%	M Agree	0.0%
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<p><b>Description:</b> political and economic instability is described by the tendency of a government to collapse (US Department of the state 2012)</p> <p><b>Findings:</b> Research findings show that “Political and economic instability” is a major negative factor for success in Egypt.</p> <p><b>Comparison to Literature:</b> In line with literature.</p> <p><b>Discussion:</b> This is one of the major factors. Respondents' comments show that they are suffering. One of the factors that has consensus in people comments (Review comments) that are describing high negativity affecting the business and market. Most international and local economic reports show that Egypt is suffering since the revolution.</p> <p><b>Recommendations:</b> Government has to adopt democracy, the only way to political stability and hence economic stability.</p>																		

<p><b>F.24 Internet services</b></p>	<p><b>Do you find Internet Services in Egypt convenient to your business needs?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Expensive and slow, and in many cases not available outside major cities</li> <li>• Not at all. value for money is very bad</li> <li>• It's the most expensive and worst ISP in the world Even in Arabian countries</li> <li>• Service exists, but unstable. Some business such as cloud, need high reliable internet. this business in Egypt suffers</li> <li>• We just need more speed, stability with lower price to offer more and better services for our clients.</li> <li>• The internet in Egypt remind me with my first wife, it take everything from you and give nothing back.</li> <li>• It is not hard to provide good internet services, and we can not find logical reason why the service is on that low level.</li> <li>• Actually it does not make any sense that Egypt has this level of internet service while most of international internet cables goes through it.</li> <li>• High Speed Internet powers effective communication, provides easy access to internet on the contrary low speed internet would have a negative effect on my business and some cases it lead to business collapse</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Disagree</td> <td>39.5%</td> </tr> <tr> <td>M Disagree</td> <td>25.6%</td> </tr> <tr> <td>S Disagree</td> <td>9.3%</td> </tr> <tr> <td>N</td> <td>7.0%</td> </tr> <tr> <td>M Agree</td> <td>11.6%</td> </tr> <tr> <td>S Agree</td> <td>7.0%</td> </tr> <tr> <td>G Agree</td> <td>0.0%</td> </tr> </tbody> </table>	Response	Percentage	G Disagree	39.5%	M Disagree	25.6%	S Disagree	9.3%	N	7.0%	M Agree	11.6%	S Agree	7.0%	G Agree	0.0%
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<p><b>Description:</b> internet services are described by the availability of different technologies internet which are efficient with reasonable prices, required for ICT companies in Egypt, (MCIT indicators 2015)</p> <p><b>Findings:</b> Research findings show that "Internet services" is a major negative factor for success in Egypt.</p> <p><b>Comparison to Literature:</b> This factor examination is an added value for this study; researcher did find previous researches that test this factor in such to know the impact of Internet services on ICT small entrepreneurs in Egypt.</p> <p><b>Discussion:</b> All people comments reflect a real pain from this factor (Review comments), with 75% from respondents see it affected their business negatively with different degrees.</p> <p><b>Recommendations:</b> Government is called to lower internet prices, and enhance the speed.</p>																		

<p><b>F.25 Legal form</b></p>	<p><b>What is the effect of legal Form (Type of legal registration of your company) on your business requirements?</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Taxes is so high</li> <li>• As a joint between UN and Ministry of Communications we can work with different kind of organizations but still we have some problems working with EU</li> <li>• Not clear question Consider it unanswered</li> <li>• In Egypt it is not hard to change the legal form when necessary</li> <li>• My company is LLC and it give me better chances dealing with bigger companies and organizations that put it as a requirement</li> <li>• Corp</li> <li>• My company is not registered in Egypt, we are based in Dubai and are working here as freelancers.</li> </ul> <div data-bbox="1283 276 2049 726"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>N</td> <td>58.1%</td> </tr> <tr> <td>S Disagree</td> <td>16.3%</td> </tr> <tr> <td>M Agree</td> <td>7.0%</td> </tr> <tr> <td>S Agree</td> <td>4.7%</td> </tr> <tr> <td>G Agree</td> <td>4.7%</td> </tr> <tr> <td>G Disagree</td> <td>4.7%</td> </tr> <tr> <td>M Disagree</td> <td>4.7%</td> </tr> </tbody> </table> </div>	Response	Percentage	N	58.1%	S Disagree	16.3%	M Agree	7.0%	S Agree	4.7%	G Agree	4.7%	G Disagree	4.7%	M Disagree	4.7%
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S Agree	4.7%																
G Agree	4.7%																
G Disagree	4.7%																
M Disagree	4.7%																
	<p><b>Description:</b> legal form is described by how the business entity is formed as per the local commercial law In Egypt (Loewe et al. 2013).  <b>Findings:</b> Research findings show that “Legal form” is a neutral factor for success in Egypt.  <b>Comparison to Literature:</b> Not in line with literature, some literatures assumed that type of legal form has an impact on ICT enterprises in other countries.  <b>Discussion:</b> Almost 60% from respondents see it neutral with no effect on business. The comments are usually general or about some special conditions.  <b>Recommendations:</b> No recommendation as this factor is neutral.</p>																



<p><b>F.26 Legal Environment</b></p>	<p><b>Do you think the legal environment in Egypt is protecting your business (patent protections, courts procedures, ..etc)</b></p> <p><b>Respondents' Comments:</b></p> <ul style="list-style-type: none"> <li>• Unfortunately, we do not like to go to court, going to court is very expensive and we will wait for long years to get anything resolved.</li> <li>• Almost all agreements are based on the norms, going to courts will benefit large companies rather than small ones.</li> <li>• Not at all. No justice, great corruption in the whole cycle, cases take years. writing contracts are only for documentation but they have no legal weight if there is any problem or conflict</li> <li>• The copyright protection work for big companies and it's very hard for open source companies to apply</li> <li>• There is no copyrights bro.</li> <li>• Bad legal enviroment is both a cause and reason of corruption.</li> <li>• Not at all &amp; the process of registration of patents is sophisticated.</li> <li>• While the government is trying to protect private business but still excessive bureaucracy and adherence to official rules and formalities makes all the government efforts to go unnoticed</li> </ul> <div data-bbox="1279 272 2051 756"> <table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>G Disagree</td> <td>46.5%</td> </tr> <tr> <td>N</td> <td>16.3%</td> </tr> <tr> <td>S Disagree</td> <td>11.6%</td> </tr> <tr> <td>M Disagree</td> <td>14.0%</td> </tr> <tr> <td>M Agree</td> <td>4.7%</td> </tr> <tr> <td>S Agree</td> <td>4.7%</td> </tr> <tr> <td>G Agree</td> <td>2.3%</td> </tr> </tbody> </table> </div>	Response	Percentage	G Disagree	46.5%	N	16.3%	S Disagree	11.6%	M Disagree	14.0%	M Agree	4.7%	S Agree	4.7%	G Agree	2.3%
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G Agree	2.3%																
	<p><b>Description:</b> legal environment is described by the power of law enforcement represented in laws' entities, procedures and environment that protect rights and provide justice for ICT small business in Egypt (Loewe et al. 2013).</p> <p><b>Findings:</b> Research findings show that "Legal Environment" is a major negative factor for success in Egypt.</p> <p><b>Comparison to Literature:</b> In line with literature.</p> <p><b>Discussion:</b> As clear from chart, around 75% from respondent see legal environment does not protect their business, from which around 50% see it greatly negative factor. Comments show that it is a real pain and one of the major obstacle to small enterprises (Review comments).</p> <p><b>Recommendations:</b> The legal environment needs to be reviewed and greatly updated in Egypt.</p>																

<p><b>F.27 Availability of qualified employees</b></p>	<p><b>Is it easy to catch qualified employees (staffing) to work in your business?</b></p> <p><b>Respondents' Comments</b></p> <ul style="list-style-type: none"> <li>• Yes. but " there is no progress without compromise "</li> <li>• either they are expensive, or you train them and pay for maintainability</li> <li>• Bad qualification with high salary</li> <li>• As there are many technologies in the market it's very hard to find a specialist in particular technology</li> <li>• Very hard, please refer to question # 4 about difficulties of having qualified Egyptian employee, the work culture is damaged.</li> <li>• Most of the good qualifications left Egypt and traveled abroad because of the instability.</li> <li>• Egyptian employees do not have the hard working culture, they lack basic business skills and as a start-up you cannot hire expensive calibers, so large part of your success depends on the ability to train your people internally to think, act and behave in professional way and get rid of the low productivity Egyptian mentality.</li> </ul>	<table border="1"> <caption>Respondent's Answers (43 responses)</caption> <thead> <tr> <th>Response</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>M Disagree</td> <td>30.2%</td> </tr> <tr> <td>G Disagree</td> <td>20.9%</td> </tr> <tr> <td>S Agree</td> <td>16.3%</td> </tr> <tr> <td>M Agree</td> <td>11.6%</td> </tr> <tr> <td>S Disagree</td> <td>9.3%</td> </tr> <tr> <td>N</td> <td>7.0%</td> </tr> <tr> <td>G Agree</td> <td>4.7%</td> </tr> </tbody> </table>	Response	Percentage	M Disagree	30.2%	G Disagree	20.9%	S Agree	16.3%	M Agree	11.6%	S Disagree	9.3%	N	7.0%	G Agree	4.7%
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M Agree	11.6%																	
S Disagree	9.3%																	
N	7.0%																	
G Agree	4.7%																	
<p><b>Description:</b> Availability of qualified employees is described by the ability to headhunt qualified and talented employees (Tamkin 2005)</p> <p><b>Findings:</b> Research findings show that "Availability of qualified employees" is a major negative factor for success in Egypt.</p> <p><b>Comparison to Literature:</b> In line with literature.</p> <p><b>Discussion:</b> Around 60% from respondents see that is not an easy job to catch and hire qualified employees, however around 30% see it easy somehow: "Yes. But there is no progress without compromise". The rest of the comments from negative bakers, they refer the problem to different reasons: None existence of qualified employees; "Egyptian employees do not have the hard working culture, they lack basic business skills and as a start-up you cannot hire expensive calibers, so large part of your success depends on the ability to train your people internally to think, act and behave in professional way and get rid of the low productivity Egyptian mentality", "Bad qualification with high salary", or qualified employees left Egypt; "Most of the good qualifications left Egypt and traveled abroad because of the instability, or lack of technical skills; "As there are many technologies in the market it's very hard to find a specialist in particular technology", or lastly expensive; "either they are expensive, or you train them and pay for maintainability".</p> <p><b>Expert comments:</b> From late 90's to almost 2004, Egyptiam government invested a lot in people information technology knowledge, IT certificates has been promoted, specialized higher education programs have been introduced through public and private education</p>																		

	<p><i>sector, free specialized training has been offered by the MCIT. These initiative pushed a lot of highly qualified employees in the market. But unfortunately, most of these initiatives have been stoped or bad managed in the recent years. Almost stopped after the revolution."</i></p> <p><b>Recommendations:</b> Government is called to repeat the previous mentioned initiatives and have some more ideas to enhance human capital in the market, with special care for education.</p>
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## 6 Chapter 5 Conclusions and Recommendations

### 6.1 Major Findings and Conclusions

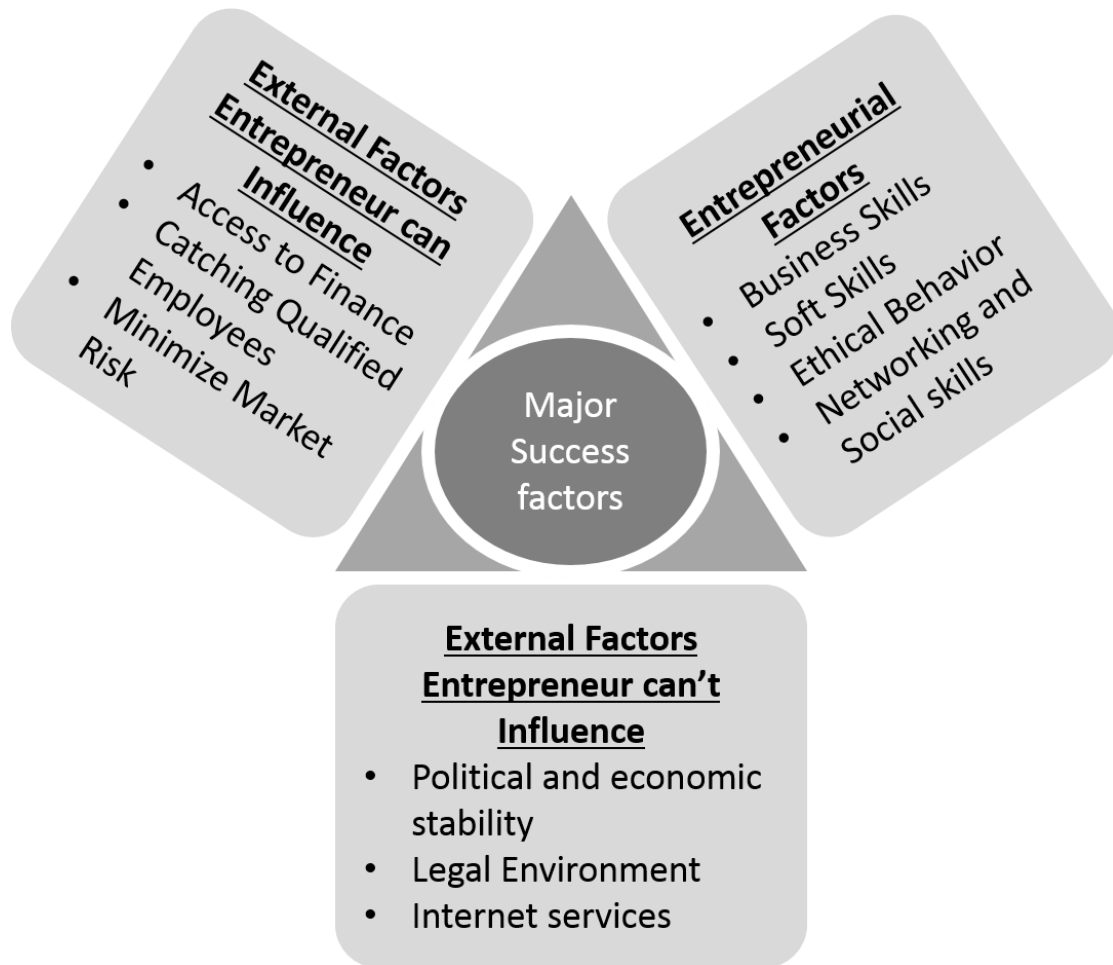
#### 6.1.1 Major Factors Findings

This finding is answering the main research question: **Which factors determine success of ICT small enterprises in Egypt?**

Answer: Major factors affecting success of ICT companies in EGYPT can be categorized as:

1. **Entrepreneurial Factors** (Factors related to the entrepreneur himself):
  - 1) Business skills (Recognize Opportunities, Risk Willingness and Making Money Orientation),
  - 2) Soft skills (Innovation, Ambition, Optimism, Flexibility and adaptability),
  - 3) Ethical behavior (Humanity, Honesty and Commitment) and
  - 4) Networking and Social skills.
2. **External Factors Entrepreneur can influence:** 5) Access to Finance, 6) Catching Qualified Employees and 7) Minimize Market Risk.
3. **External Factors Entrepreneur cannot influence:** 8) Political and Economic Stability, 9) Legal environment and 10) Internet services

The 10 Major Factors and its categories are represented in the following shape model (Figure 5.1)



**Figure 5.1 Major Success Determinants**

The 10 major factors are able to explain:

**On one hand, Why success of small ICT enterprises is generally difficult in Egypt?**, the answer would be the negative impact of the 10 major factors:

- 1) Lack of business skills at startup,
- 2) Lack of soft skills necessary for internal motivation to face challenges,
- 3) Lack of Ethical behavior that creates trust with customers and stakeholders,
- 4) Weak networking and low social skills,
- 5) Low ability to access the few financing agencies available in Egypt, nor access to worldwide fund,
- 6) Low ability to find qualified employees due to little graduates are qualified, expensive training costs and employees leave the company after they get trained,
- 7) Egyptian market is risky and not stable with little market information available,
- 8) Political and economic instability caused a lot of small companies to get closed,
- 9) Legal environment causes uncertainty and difficulty to get the rights, with little feeling secured and protected,
- 10) Bad or expensive

internet services make a lot of sufferings for IT enterprises. (As shown in Table 5.1).

**On the other hand, why are some enterprises better able to succeed than others - despite the general difficulties in Egypt?** The answer would be the positive impact of entrepreneurial factors in addition the positive effect of external factors that entrepreneur can influence, while the external factors that entrepreneur cannot influence would remain still with negative impact and entrepreneur has to cope and deal with: 1) Entrepreneur has strong business skills, 2) Entrepreneur has strong soft skills, 3) Entrepreneur is able to build trust through their Ethical behavior, 4) Entrepreneur has Strong networking and high social skills, 5) Entrepreneur is able to get funded, by himself (savings, family support, selling assets or getting bank loan) or get formal or informal credit (has ability to write business & financial plans), 6) Entrepreneur is able to develop employees through training, and create company loyalty at employees, 7) Entrepreneur can make market research, and have right knowledge about customers' needs with good ability to access customers and 8) Ability to cope and deal with non-controllable external factors. (As shown in Table 5.1).

<b>Table 5.1 Major Determinants of Success of ICT Small Enterprises in Egypt</b>		
	<b>Why success of small ICT enterprises is generally difficult in Egypt?</b>	<b>Why are some enterprises better able to succeed than others?</b>
<b>Entrepreneurial Factors</b>	<ul style="list-style-type: none"> <li>- Lack of business skills at startup</li> <li>- Lack of soft skills necessary for internal motivation to face challenges.</li> </ul>	<ul style="list-style-type: none"> <li>- Entrepreneur has strong business skills</li> <li>- Entrepreneur has strong soft skills</li> <li>- Entrepreneur is able to build trust through their Ethical behavior.</li> </ul>

	<ul style="list-style-type: none"> <li>- Lack of Ethical behavior that creates trust with customers and stakeholders.</li> <li>- Weak networking and low social skills.</li> </ul>	<ul style="list-style-type: none"> <li>- Entrepreneur has Strong networking and high social skills.</li> </ul>
<p><b>External Factors Entrepreneur can influence</b></p>	<ul style="list-style-type: none"> <li>- Low ability to access the few financing agencies available in Egypt, nor access to worldwide fund</li> <li>- Low ability to find qualified employees due to little graduates are qualified, expensive training costs and employees leave the company after they get trained.</li> <li>- Egyptian market is risky and not stable with little market information available.</li> </ul>	<ul style="list-style-type: none"> <li>- Entrepreneur is able to get funded, by himself (savings, family support, selling assets or getting bank loan) or get formal or informal credit (has ability to write business &amp; financial plans)</li> <li>- Entrepreneur is able to develop employees through training, and create company loyalty at employees.</li> <li>- Entrepreneur can make market research, and have right knowledge about customers' needs with good ability to access customers.</li> </ul>

<p><b>External Factors Entrepreneur cannot influence</b></p>	<ul style="list-style-type: none"> <li>- Political and economic instability caused a lot of small companies to get closed</li> <li>- Legal environment causes uncertainty and difficulty to get the rights, with little feeling secured and protected.</li> <li>- Bad or expensive internet services make a lot of sufferings for IT enterprises.</li> </ul>	<ul style="list-style-type: none"> <li>- Ability to cope and deal with non-controllable external factors.</li> </ul>
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### 6.1.2 Major Factors Conclusions

**Business Skills:** This factor represents the most powerful factors when respondents were asked open question about the most critical factors for success (Result 2), moreover, it is one of the highest factors in quantitative analysis (Result 3A and Result EB) as clear for respondents answers chart. Respondents did not much comment because they see this factor is a necessity.

Most Entrepreneurs in the ICT sector start business with a passion, an idea and a technical knowledge to implement this idea. Most of them are lacking the business skills needed to judge whether the idea is worth or not, lacking how to market and how to grow the business. Entrepreneurs are mostly acquiring business skills by try and error or as needed, while they lately discover their needs to have good business skills.



**Soft Skills:** Results is amazing. 97% of the population agree about its importance, with 81% are greatly agree. One commented with a sentence that is really compatible with the results and may express about why respondents high ranked this factor: *"I believe this is the main fuel for the entrepreneur to continue try and fight"* This comment seems enough.

**Ethical behavior:** More than 90% of the respondents agree about its importance with different degrees. Most of the comments are about: Ethics are important to build trust with stakeholders (customers, suppliers, employees and partners) and for long term success. See the comments: *"it is good on the long term to build trust"*, *"to create sustainable business"*, *"These are critical to build your name"*. Some respondents expressed their little satisfaction about ethics in Egypt: *"Most of the successful people in Egypt do not have ethics"*, *"but unfortunately n Egypt ethics it become sometime problem"*, *"Business is full of shit and the market is full of bad people"*.

**Networking and social skills:** One of the strongest factors, more than 90% of the respondents agree about its importance without commenting. Researcher sees that this factor represent a main tool to overcome various difficulties in the Egyptian busines culture.

**Amiability of Financing Agencies:** Respondents' comments show that there is no enough and efficient financing agencies in Egypt. See comments like: *"Yes there are some financing agencies in the market but process is long & selection criteria is subjective in most cases. Also, money available for funding by these agencies are still very small compared to the volume of opportunities in the market"*, *"Agree but they are not enough"*, *"There are very very few"*. These justifications reflect general little satisfaction between respondents.

**Availability of qualified employees:** Around 60% from respondents see that it is not an easy job to catch and hire qualified employees, however around 30% see it easy somehow: *"Yes. But there is no progress without compromise"*. The rest of the comments from negative bakers, they refer the problem to different reasons: None existence of qualified employees; *"Egyptian employees do not have the hard working culture, they lack basic business skills and as a start-up you cannot hire expensive calibers, so large part of your success depends on*

*the ability to train your people internally to think, act and behave in professional way and get rid of the low productivity Egyptian mentality", "Bad qualification with high salary", or qualified employees left Egypt; "Most of the good qualifications left Egypt and traveled abroad because of the instability", or lack of technical skills; "As there are many technologies in the market it's very hard to find a specialist in particular technology", or lastly expensive; "either they are expensive, or you train them and pay for maintainability".*

One expert commented: *"From late 90's to almost 2004, Egyptian government invested a lot in people information technology knowledge, IT certificates has been promoted, specialized higher education programs have been introduced through public and private education sector, free specialized training has been offered by the MCIT. These initiative pushed a lot of highly qualified employees in the market. But unfortunately, most of these initiatives have been stopped or bad managed in the recent years. Almost stopped after the revolution":*

**Market Risk:** There is a great agree between respondents that the Egyptian market is risky, however, most of them do agree about there is an opportunity in the Egyptian market, this comment is expressing this opinion: *"It is a very risky market but having said that it is also a promising market due to growth of population".* Some respondents see that the core risk is referred to political and economic instability: *"Political situation and market risks are huge since 2011, before 2011 was pretty stable", "Yes specially on the political level.", "instability", "The second wave of the Egyptian revolution is about you start".* Others refer risks to government support and legal environment: *"Of course, the government should support start-ups. It is a market for large capitals that can sustain is such high risk market without support.", "Government corruption and legal environment", "No Regulations, ever changing", "No legal environment (no legal obligations)".* Some see the risk in culture: *"culture is not supporting stability", "people are not committed to their word".* One referred the risk due to common standards: *"Because we cannot rely on the common standard factors, like quality, in Egypt, to have a feasibility study for example".*

**Political and economic instability:** This is one of the factors that represent consensus in respondents' comments. Respondents' comments show that they

are greatly suffering. See comments like: *"in case of curfew, decrease your working hours & instability generally decrease people appetite to spend in general", "resulted in unstable market, lowered people and companies purchasing power, and lowered also government projects and support programs", "unstable politics affecting people mode which affects purchasing and demand", "Economic growth and political stability are deeply interconnected. On the one hand, the uncertainty associated with an unstable political environment may reduce investment and the pace of economic development", "The market shrinks all B2B business especially for small business highly affected"*.

The comments describe how this factor impacts negatively the business and the market. Most international and local economic reports show that Egypt is suffering since the revolution.

**Legal Environment:** Around 75% from respondent see legal environment does not protect their business, from which around 50% see it greatly negative factor. Comments show that it is a real pain and one of the major obstacles to small enterprises. See comments like: *"Unfortunately, we do not like to go to court, going to court is very expensive and we will wait for long years to get anything resolved.", "Almost all agreements are based on the norms; going to courts will benefit large companies rather than small ones. "Not at all, no justice, great corruption in the whole cycle, cases take years, writing contracts are only for documentation but they have no legal weight if there is any problem or conflict", "The copyright protection work for big companies and it's very hard for open source companies to apply", "while the government is trying to protect private business but still excessive bureaucracy and adherence to official rules and formalities makes all the government efforts to go unnoticed", "Bad legal environment is both a cause and reason of corruption.", "Not at all & the process of registration of patents is sophisticated."*

As seen, it is sever complicated factor.

**Internet services:** This factor examination is an added value for this study; researcher did find previous researches that test this factor in such to know the impact of Internet services on ICT small entrepreneurs in Egypt.

All people comments reflect a real pain from this factor, with 75% from respondents see it affected their business negatively with different degrees. See comments like: *"expensive and slow, and in many cases not available outside major cities", "Not at all, value for money is very bad", "it's the most expensive and worst ISP in the world Even in Arabian countries", "Service exists, but unstable. Some business such as cloud, need high reliable internet. This business in Egypt suffers", "We just need more speed, stability with lower price to offer more and better services for our clients", "The internet in Egypt reminds me with my first wife, it take everything from you and give nothing back.", "it is not hard to provide good internet services, and we can not find logical reason why the service is on that low level", "Actually it does not make any sense that Egypt has this level of internet service while most of international internet cables goes through it.", "High Speed Internet powers effective communication, provides easy access to internet on the on the contrary low speed internet would have a negative effect on my business and some cases it lead to business collapse"*

The result was surprising even for the researcher that entrepreneurs are really suffering from the internet services.

## 6.2 Intermediate Findings and Conclusions

### 6.2.1 Intermediate Factors Findings

This finding can answer: **What are co-factors impacting success of ICT small enterprises in Egypt?**

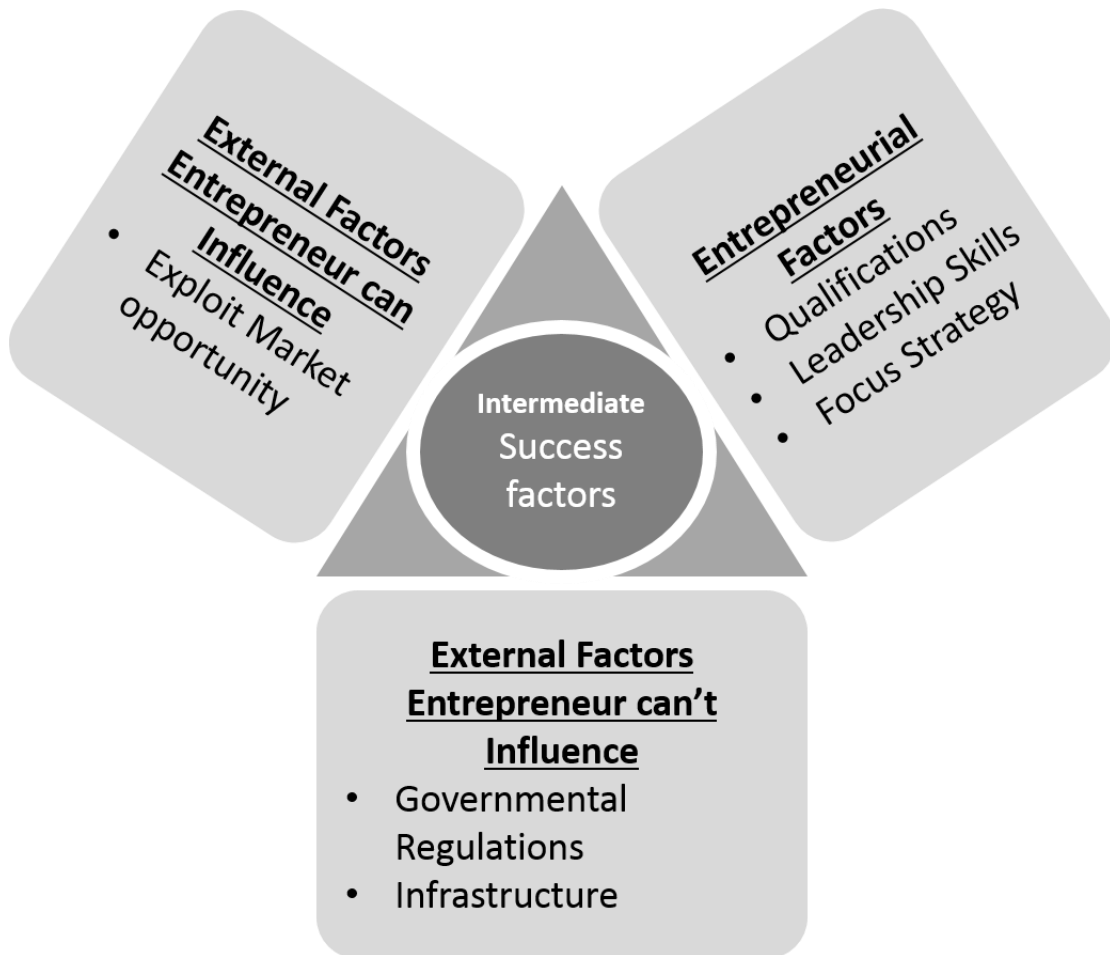
Answer: Co-factors impacting success of ICT small enterprises in EGYPT can be categorized as:

1. **Entrepreneurial Factors** (Factors related to the entrepreneur himself):
  - 1) Qualifications (Education, Industry experience and general work

experience) , 2) Leadership skills (Building team spirit and harmony), 3) Applying Focus strategy

**2. External Factors Entrepreneur can influence:** 4) Exploit Market opportunity

**External Factors Entrepreneur cannot influence:** 5) Governmental regulations, 6) Infrastructure



**Figure 5.2, Intermediate Success Factors**

***The 6 intermediate factors are able to highlight the co-factors that explain:***

- **On one hand, Why success of small ICT enterprises is generally difficult in Egypt?** the answer would be the negative effect of the 6 intermediate factors: 1) Weak qualifications (low quality of education, no or little Industry experience and general work experience), 2) Weak leadership skills (low ability to build team spirit and harmony), 3) Make quick and many diversifications with losing of focus, 4) Low ability to recognize and exploit from opportunities in Egyptian market, 5) Negative

impact of Governmental regulations and 6) Negative impact of Infrastructure. (As shown in Table 5.2).

- On the other hand, why are some enterprises better able to succeed than others - despite the general difficulties in Egypt?** The answer would be the positive impact of entrepreneurial factors in addition the positive effect of external factors that entrepreneur can influence, while the external factors that entrepreneur cannot influence would remain still with negative impact and entrepreneur has to cope and deal with them:
  - 1) Strong qualifications (high quality of education, long Industry experience and general work experience),
  - 2) Strong leadership skills (high ability to build team spirit and harmony),
  - 3) Applying focus strategy (Few products for specific markets) and diversify step by step,
  - 4) High ability to recognize and exploit from opportunities in Egyptian market,
  - 5) Ability to cope and deal with non-controllable external factors. (As shown in Table 5.2).

<b>Table 5.2 Intermediate Determinants of Success of ICT Small Enterprises in Egypt</b>		
	<b>Why success of small ICT enterprises is generally difficult in Egypt?</b>	<b>Why are some enterprises better able to succeed than others?</b>
<b>Entrepreneurial Factors</b>	<ul style="list-style-type: none"> <li>- Weak qualifications (low quality of education, no or little Industry experience and general work experience)</li> <li>- Weak leadership skills (low ability to build team spirit and harmony),</li> <li>- Make quick and many diversifications and lose of focus.</li> </ul>	<ul style="list-style-type: none"> <li>- Strong qualifications (high quality of education, long Industry experience and general work experience)</li> <li>- Strong leadership skills (high ability to build team spirit and harmony).</li> <li>- Applying focus strategy (Few products for specific markets) and diversify step by step.</li> </ul>
<b>External Factors Entrepreneur can influence</b>	<ul style="list-style-type: none"> <li>- Low ability to recognize and exploit from opportunities in Egyptian market</li> </ul>	<ul style="list-style-type: none"> <li>- High ability to recognize and exploit from opportunities in Egyptian market</li> </ul>

<b>External Factors Entrepreneur cannot influence</b>	<ul style="list-style-type: none"> <li>- Negative impact of Governmental regulations.</li> <li>- Negative impact of Infrastructure</li> </ul>	<ul style="list-style-type: none"> <li>- Ability to cope and deal with non-controllable external factors.</li> </ul>
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## 6.2.2 Intermediate Factors Conclusions

**Qualifications:** Some literature concluded that qualifications as a major success factor not intermediate as in our research finding (Loewe et al. 2013), Through Interactions we made with entrepreneurs of ICT community, they refer to Bill Gates, Steve Jobs, and Mark as role models for successful entrepreneurs who didn't complete their education. Although this true, but on the other hand, Google founders were not only university graduates, they were researchers. Also the community assumes that having business and soft skills is more critical and important than having university education and experience. See comments like: *"nice to have but not necessary", "Not enough", "Not a must", "Background & experience are good factors but passion to learn & flexibility are the most important"*,

We can better compromise by saying that: entrepreneurs will have better results and success in their small business, if their education and experience were compatible with their working field they love and passionate about.

**Leadership skills:** Responses show that most respondents see themselves having the ability in leading teams, keeping in mind that most small startups consists usually of the founding team or with few employees (Micro firm: Less than 5). One of the responses commented *"Almost all of them are freelance, but I try to take care of that point"*. So it is logical to be self-motivated and not feel yet by his need to acquire this skill before his/her enterprise grow. In larger teams, where most of small enterprises are less than 20 employees, the company hierarchy is simple and communication between working team and founder team is a little bit simple, hence team motivation is less difficult on this scale, although it is important for business success on this level of business.

This skill is harder in larger companies, refer to the last comment *"It took us around 3 years to build a solid and motivated team"*.

**Focus strategy:** Responses show that people are not on one opinion in this factor; some see that focus is better, whereas others see that diversification is better and it helps as risk mitigation technique. 50% of responses agree with focus strategy, see comments like *"Unfocused business is a waste of time& money and effort"*, *"Yes, specialization lead to quality which is really lacked on our market"*. About 20% are not sure and they suggest some little diversification to accommodate risks. Some comments supported this *"To focus yes, but at least two products, not one, and the more important point is to focus on business line itself, not having a generic product for any business line"*.

Comments and interviews showed that respondents tend to diversify because of the lack of investment and financing. They even sometimes diversify to save some money to finance the project they want to focus on. It is obvious that the presence of financing channels help in applying a focus strategy.

Focus strategy is definitely appropriate for small companies especially for those wanting to avoid competition with big ones (Porter 1980).

Although researches show that focus strategy is necessary for success in small business, it is obvious that many entrepreneurs do not know that. See comments like *"not sure"*, *"so risky"*, *"it depends on the market needs"* ...etc.

Focus does not mean that entrepreneur will not grow; instead he needs to focus to have a success story that would later lead to new success story. See the comment *"In one case, if you take it to the next level, and to be innovative"*.

**Egyptian market opportunity:** 75% of respondents see Egyptian market contains opportunities with different degrees. Only around 20% see it with little opportunities. The later' comments showed that they are mostly see the market nowadays is not potential due to political instability and other obstacles. See comments like: *" Political conditions are the main obstacles", " We can say its growth is on hold for time being; because of the current problems, but it will move again." " The problem with the Egyptian market is that it's only growing for big businesses and small and medium sized ones barely find their places in that market which I thought is not open.", " The Egyptian Market should be*



*considered as a poor market due to many things: - lack in know-how, most of presales and technical support guys are not familiar or convinced with what they propose to the customer. - Most of IT companies are not professional enough. - The end user is an old schools mentality, they resisting the technology. - Very poor SLA services. – etc.," "Egypt is on the verge of a civil war."*

Whereas the majority of respondents see it contains opportunities parallel with the obstacles, they mostly suggest conditions if happen the market will be attractive. See comments like: *"Under normal political issue, I strongly agree with this opinion. The market currently suffers from a lot of obstacles and still growing, that mean if this obstacles removed, it will boom for sure.", " Under normal political issue, I strongly agree with this opinion. The market currently suffers from a lot of obstacles and still growing, that mean if this obstacles removed, it will boom for sure.", " The spread of computers and smart phone users are a proof for its growth. Everything is going mobile now.", " Market is big and theist, need projects, people do not consider the Egyptian culture; they just try to import global ideas and tweak it to Egyptian market needs. Big market but not active" . " The technology market is growing slowly but there is a grow", " generally growing, we are 90 million and we have lack in technology services in government and private, although we are affected by the political and economic issues once we are stable we will boom", " In Business like consulting it is growing, but in real value added services many are facing severe problems", " The answer is one of the two extremes. Egyptian market is qualified to be an emerging and growing because of the large population in a small geographic area, but currently the market is shrinking and suffering because of the political and economic disturbance.", " Yes definitely in terms of number of business & in term of expenditures. Actually Egyptian consumer behavior in adoption of technology is impressive and will encourage more businesses to invest in this sector."*

It seemed like some respondents thought that question asks about if there is currently a potential Egyptian market or not, most of those responded by “No” as the market is suffering due to the economic and political instability. Most respondents who thought that question asks about the readiness of the

Egyptian market, most likely responded by “Yes”. They see Egyptian market has a very big population and it is a promising market if the government supports it.

**Governmental Regulations:** Almost 70% from respondents see this factor negative with different degrees. Almost all of the comments are strongly criticize the regulations itself or the procedure and the way of application. See comments like: *" I think we don't have regulations", " Almost not there; it is enough that we don't have effective law for copy rights, just for example", " In terms of the regulations themselves, they are quite good. The problem is in how they are applied, there is a lot of corruption", " The government has no sense of business and investment.", " No strongly enforced regulation, corruption, long judicial cases, etc.", " There is no help or guidance or even clear regulations and when found it has lots of routine, you are just left to fight in the storm", " It's because it still allows some big business to monopolize market even their products isn't the best quality of their fields", " Most of "wireless and communication systems regulations" are stupid and designed to prevent such an industry", " Different types of Taxes, with no regulations, no flexibility and since you are small, you do not have enough power to claim your rights. Some taxes are just ridiculous, such as stamp tax, they are asking for taxes on the advertising materials we print to help us sell, these taxes are designed to make business fails, and no other country has such stupid taxes.", " It is too hard to get new technology to market. Add to that the high customs for necessary items for innovative tech."*

Researcher sees that although Egyptian government did some enhancement on the investment regulations since 2004, and also reduced the taxes, but people comments indicate a pain in dealing with the government.

**Infrastructure:** More than half of the respondents see that infrastructure affected them negatively, with 28% selected greatly negative. While around 35% see it enough to affect their business positively, whereas about 10% are neutral. No one comment was mentioned from positive respondents, while negative respondents stated many strong criticisms. See comments like: *"Electricity black-out!!", " all are bad, old, and need to be updated immediately". " This is one of the reasons that can leads any successful business in Egypt not*

*just to make losses but also shut down.", " Some business stopped due to infrastructure.", " Of course the current infrastructure needs a lot of development as it has great impact on my business development", " In general, IT infrastructure (internet speed, phone line, etc.) in Egypt is poor.", " no it's one of our challenges in rural areas", " Electrical cutoffs are disaster, without electricity our whole operation goes to waste. This is a major risk and we must get it resolved. Internet and land lines reliability related to internet as well.", " there are no stable electricity neither proper internet connection Also traffic jam make the transportation process for the employees an exhausting process that makes them come in half of their potential every day"*

## **6.3 Slight Findings and Conclusions**

### **6.3.1 Slight Factors Findings**

The following 8 factors were Slight impact factors:

- Interdisciplinary founding team
- Availability of incubators, accelerators, and advisors
- Non-Governmental organizations support
- Availability of Business partners
- customers availability
- Demographic factors
- Government support program efficiency
- Corruption

### **6.3.2 Slight Factors Conclusions**

**Interdisciplinary founding team :** Respondents are really confused about this factor, some comments have no vision: *"Depends on the nature of the business", "May be, not sure"*. Responses that agree focus on the value that comes with diversification in the team skills. See comments like *"Small interdisciplinary team is good. In small teams we can manage conflicts. larger team are not preferred in startups", "Yes if they are completing each other & this is not impacting the decision making process inside the company"*. Whereas people that disagree focus on the personal values conflicts. See comments *"Work should have some sort of harmony to succeed. At a certain*

*level this factor will cause problems”, “In larger numbers conflicts are more and it's easier to break them”*

It is logic that a team with diversified skills is better capable to fulfill different business requirements, but that team will suffer if members have conflicts in personal values. One expert said: *"team members tend to conflict in the very early stages about who will be named the CEO"*.

#### **Availability of Incubators, Accelerators and Advisors:**

This factor results were really strange; Almost 25% were neutral. And however about half of the respondents agree somehow that they can find ecosystem support, the negative comments of the 30% of other respondents were a little bit convincing:

One expert said: *"Although most of respondents are companies that got benefits of a supporting program somehow, but most of them do not likely get a big benefit of these programs that they can rely on, and are not enough too to cover all small ICT enterprises in all Governorates"*. See comments like *"not strong enough", "all initiatives available are just wishes, nothing with impact happened", "not well established organizations", "suffering from the instability", "there are some informal/not well established organizations that help start-ups but still not working in coordination or have a solid eco-system to work inside."*

Yet the ecosystem in Egypt is immature, started to grow after the revolution in 2011, and yet Egypt is still not stable politically and economically to support this trend.

**Non-Governmental Organizations support:** Some respondents agree on presence and availability to take fund from NGOs: *"To certain degree yes"*, however some of respondents see that they are very few. See comments like: *"Existing NGO is not matured enough to support such business, only one or two organization that may do that", "I heard about some of them, but didn't deal with them ever", "there are few organizations that can give you only seed funds"*

From researcher view, he thinks that the reason behind that this factor was of slight impact, is the low expectations from respondents about the number and

efficiency of NGOs that can offer real support, in other countries, there are great support from NGOs to small enterprises to the limit that they sometimes exceed governmental support.

**Business partners:** Responses and comments show that the culture in Egypt is not supporting business partnerships, although one of the interviewed entrepreneurs has a good success story in terms of partnership. One of the expert commented *“Cooperation between companies in Egypt is immature; one of the reasons is inability for litigations, which causes large companies to have great influence on small ones. In addition, unfair competition culture makes partnership to be cautious which make cooperation difficult. Also seldom similarities between ICT companies' fields make it difficult to find suitable partner”*.

Researcher also thinks that lack of partnerships culture in Egypt is a result of lacking a lot of important soft skills, such as teamwork, conflict management and negotiation skills.

One of the experts mentioned that "ITIDA started an initiative to support building Egyptian consortiums to share in European funded projects in 2008 under supervision of ITIDA. The program was very successful, but stopped due to the financial crisis. Unfortunately, after passing the recession, ITIDA didn't continue the program for unknown reasons.

**Customers Availability:** Respondents are between neutral and two almost equal halves between agree and disagree. (Neutral) respondents assume that this factor is dependent on other factors: *"Actually it depends on the kind of business you are running because the Egyptian market cannot accept new things this easy", " It depends on the idea and the need in the market compared to the offered price", " it depends on marketing strategy"*. (Agree) respondents see it is easy to find customers: *"We started in 2004, the market was growing at that time, and it was not hard to get customers and make business"*. (Disagree) respondents see it is difficult for different reasons: *"Hard to navigate the Egyptian culture", " Identifying a cheap & economic awareness/marketing channels are difficult in Egypt. Hence, it will be always a big challenge for start-ups with a small budget for marketing to be known in the market & to reach*

customers", "It is a very hard time to find customers due to many factors: \*economic & political instability. \*Building brand awareness is very hard task in Egypt as there is no clear governmental strategy to help the start-up business. \*Building brand awareness would indeed need a financial backing which might prove challenging to most start-up business in Egypt"

**Demographic factors:** Almost quarter of respondents is neutral, other quarter see it positive factor with different degrees, and the other half of respondents see it negative factor with different degrees. Neutral quarter commented like this: "All these create opportunities & in the same time challenges, you need to understand your customers' socio-economic characteristics very well before launching your start-up", "hard to evaluate". Positive quarter did not comment. While the negative half attributed its negativity as follow: "The above mentioned factors in question (Poverty, unemployment, illiteracy rate and other Socio Demographic Characteristics of Egyptian Market) are mainly the backbone of any successful business.", "It pretty simple, most Egyptians don't buy software products due to poverty issues", "We work in cloud, the market hardly accept the idea of hosting application over the cloud. There is aggressive fear and untrusted toward data privacy.", "because of that the ICT is not well penetrated in the market".

Researcher suggests that although respondents' answers do not show a high impact of socio demographic characteristics on business, he thinks that it is impacting negative but by indirect way, that's why not all respondents feel the effect of this factor. Discussions with one interviewee mentioned: "the education reform is considered as a critical task to enhance the Egyptian market"

**Government support programs efficiency:** No common ground of respondents' opinions on this factor, about 15% are neutral and the rest are almost divided in two halves between agree and disagree with different degrees. (Agree) respondents seem to be satisfied but some of them suggest improvements: "The MSE Project is great, it had provided critical support for our company within the hard years since 2011 till now.", "I do realize that the Government has a lot in its plate and while the Government has an existing Support Program but still not enough nor sufficient and it needs to do more", "Of course it exists, but it needs more investigation for the real need for the

market". *"Some programs such as Supporting SMEs is crucial for small business sustainability, but where are the other efforts to open the global market for such products, real educative programs to help companies achieve this goal".* While the (Disagree) respondents see it is far away from what supposed to be: *"Not useful & not efficient", "Those programs are useless.", "It is possible but getting funds from the government is a mess in term of processes & control. a good example is the social fund for development." There are some good beneficial support programs, but they are not enough, they are poorly managed, and have some corruption and a lot of bureaucracy."*

From the researcher point of view, this suggests the factor with a negative impact, compared to the high expectations from outcomes supposed, he thinks that the small enterprises in ICT should have a good share in GDP, and to be reflected on the numbers of enterprises that can grow and transfer to medium or large enterprises. Some literature mentioned that the governmental support programs are the main drivers of startups success in many countries.

**Corruption:** Almost half of the respondents experienced corruption with different degrees, though 35% did not experience corruption, and the rest seemed that corruption helped them somehow. See comments like: *"Yes, there was a huge corruption and caused me to close my startup company because I couldn't get a commercial license to use GPS in my products", "in some tenders and in some government support programs", "We stopped doing business with several government agencies and related support programs, (including IMC funds) , since most of the tenders are cooked inside, sorry for the language, but this is really the ugly truth.", "I lost many tenders", "I faced a Governmental Corruption in My GPS Tracking Solution", "Corruption is the leader in big business in this market whatever your business is you will face corruption."*

## **6.4 Neutral Findings and Conclusions**

### **6.4.1 Neutral Factors Findings**

The following 3 factors were neutral

- Legal form
- Military service
- Luck

### 6.4.2 Neutral Factors Conclusions

**Legal form:** Almost 60% from respondents see it neutral with no effect on business. The comments mentioned are general or about some special conditions. See comments like: *"in Egypt it is not hard to change the legal form when necessary", "as a joint between UN and Ministry of Communications we can work with different kind of organizations but still we have some problems working with EU", "My company is LLC and it gives me better chances dealing with bigger companies and organizations that put it as a requirement", " My company is not registered in Egypt, we are based in Dubai and are working here as freelancers."*

**Military Service:** This factor has a lot of debate. It was not in the research plan to include this factor, it was chosen for examination upon recommendations from junior interviewee in 1st stage interviews; he described how he lost many opportunities due to this factor. However, near half of the respondents see that this factor was neutral for them. On the other hand, around 20% mentioned that it greatly affected them and explained some scenarios on how military service affected them. See comments like: *"The employees aren't stable due to military emergency calls Also the students who get internships may take from year to four to apply what he/she learned and of course in this period the graduate has to relearn everything that cover the new market", " On the personal level, not too much. As I was exempted from it you have to take permissions before you travel abroad if you are under 30. This regulation sometimes holds you back. but I found some friends whom are much affected negatively by it", " not in my case but yes it is affecting other people plans", " A lot of projects must be done through military only.", "Despite I'm qualified programmer, entrepreneur and embedded systems developer they didn't make any use of it. They wasted 14*



*month of life. It produced huge negative energy. I can deserve the country in better places than being a soldier. I'm a know-how man... so are the computers engineering and sciences graduates.", " They have got all business leads man. What a pity.", " Several of our employees were called from reserve, the interval was around 45 days but it was acceptable, after all this is the community price we all have to pay to live in peace and secure our properties and families".*

It might be that because the ecosystem is considered new in Egypt, younger age entrepreneurs might lose opportunities offered by ecosystem; this was not the case with older entrepreneurs

**Luck:** The research result is not in line with some literature that assumed luck as a cofactor. This is actually near to part from respondents' answers but not with most of them. It may be due to that research question was asking about tangible opportunity affected respondents' business and not focused on just asking about their belief in luck, as some literature did.

Although this factor is neutral, but still about half of the population believes that luck affected them positively in different degrees. People comments show that each one explains this external factor based on his belief, most of them translate it as God willingness, but most respondents agree that the entrepreneur should do his homework first to deserve this gift. See comments like: *"In the Egyptian culture, we call it Tawfeeq and god support. although we have to do our homework first", " Success happens when "your preparations" meets an opportunity (chance or luck)... it means it affects business success by .1%", "yes I believe in God's will (tawfeeq)", "Luck = labor under correct knowledge, without labor and knowledge your luck will eventually run out.", "I was not lucky in the sense that i started my business where Egypt was politically unstable. We had some cancelled training sessions due to curfew. Less interest from youth to develop themselves since they are impacted with political situations", " Luck can Play important role in catching big fishes but isn't the base rule to catch one effort & preparation comes first", " Luck is Allah blessing :)", "if you mean (Twfeek) god wellness, then i agree but sure with a lot of efforts and pains", " yes I believe in God's will (tawfeeq)", "You've to be prepared to be lucky. If you're ready enough for opportunities, then luck would be a factor here otherwise there is no meaning for luck if you're really prepared.", " Sometimes it*

*is all about luck to begin but if u have nothing really you lose everything that was there by luck", " I cannot say it is luck as much as it's some reasons that give you push that you are going on the right direction.", " Luck also plays part in that being in the right place at the right time also helps".*

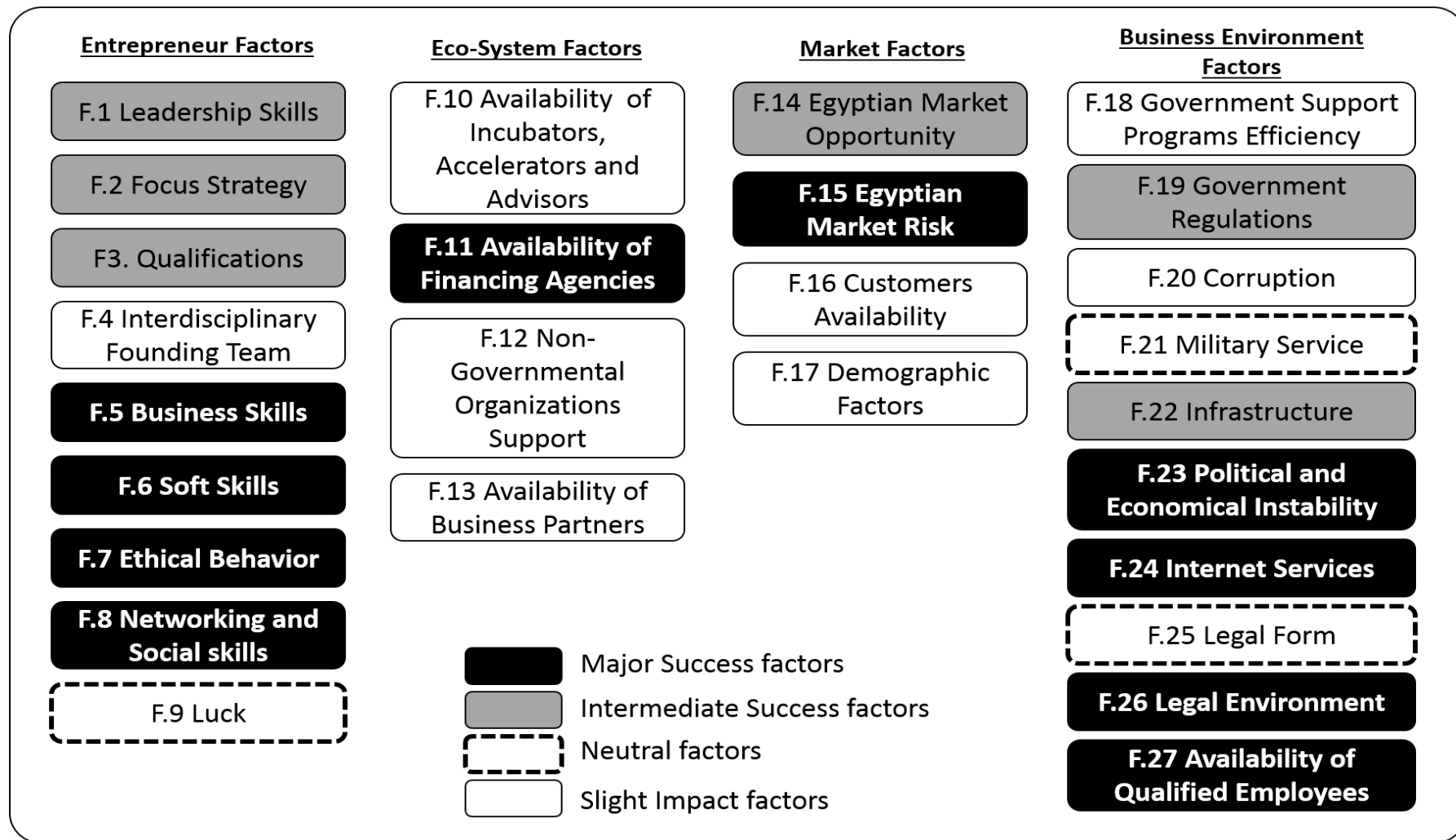


Figure 5.3 Findings Map

Researcher findings seem be applied in general for small ICT enterprises sectors in Egypt, and in specific for IT Systems Services.

The research resulted in three main conclusions:

- In Egypt the major determinants for success can be summarized as the entrepreneur's (i) Ability to have: business skills, soft skills, ethical behavior and networking & social skills, (ii) Ability of entrepreneur to: access to finance, catch and train qualified employees and find opportunities within risky but growing Egyptian market) (iii) Ability of entrepreneur to deal and cope with: political and economic instability, legal environment and insufficient internet services.
- ICT success in Egypt can be enhanced by cofactors: Applying Focus strategy, acquiring leadership skills and higher qualifications of education and industry experience. However, intermediate constraints are represented in governmental regulations and infrastructure.
- The success of an ICT small companies in Egypt is largely depends on the entrepreneur's capabilities. They are constrained by uncontrolled factors such as political instability, availability of adequate financing agencies, risky market with little market information and difficult legal environment. However, a few entrepreneurs manage to overcome these obstacles.

## **6.5 Recommendations**

### **6.5.1 Overview**

The success of an ICT small companies in Egypt is largely depends on the entrepreneur's capabilities. They are constrained by uncontrolled factors such as political instability, availability of adequate financing agencies, risky market with little market information and difficult legal environment. However, some entrepreneurs manage to overcome these obstacles.

Research results show that the likelihood of small ICT enterprises to succeed in Egypt is largely depends on the entrepreneur. All Egyptian entrepreneurs suffer from multiple constraints in the business environment: the lack of quality in education, skilled workers, relevant market information, a proper innovation system, finance and law enforcement – as well as a low confidence among the entrepreneurs themselves. Nevertheless, success does occur. There are many successful owners for small enterprises who had found ways to overcome these obstacles. This ability requires high personal soft skills such as ambition, creativity, flexibility and persistence, which to a considerable degree an entrepreneur assets either has or does not have, and can only be developed through the influence of parents, friends and teachers. They repeatedly emphasized ‘motivation’ as being the key to their success

(Loewe et al 2013) concluded that the successful entrepreneurs generally had better starting conditions; they had savings or an inheritance which allowed them to invest without loans, attended private school, travel abroad to get international experience, take risks without threatening their personal well-being and spend for market research and (R&D) research and development. They also were able to pay bribes to influence the outcome of administrative procedures.

In addition, they had received better education, had better chances to work at other firms, thereby gathering relevant experience, and were better able to elaborate a promising company strategy with market orientation, identify suitable finance products for their company, and write a business plan. They were also able understand the central role human resource development plays in the motivation and loyalty of workers and the development of a firm.

Also, they had more social capital – they know more people in business, politics and the public administration. This helped them find workers, get credit, identify good markets, and influence regulation and decision-making by the public administration and judicial system

Difficult obstacles mean that only a small number of non-ordinary super entrepreneurs can succeed. The owners with money, good education,

connections, international experience, and relevant work experience have good chance to reach success, while the rest of owners suffer from lack of: quality schools, having business schools education, adequate external finance, opened access to market information, an effective national innovation system and others.

In other countries, where global value chains (GVCs) are common, they provide SME owners with at least some of these services. International partners help their national SME suppliers with training, credit and technology, and provide the market information that SME owners need to occasionally redefine their product portfolio. But the role of GVCs in Egypt is negligible.

This research proposes wide angle recommendations as a try to treat the root causes of the problems facing entrepreneurs; in addition, it balances between short term and long term solutions. *The great fact that should be clear, that these recommendations need cooperation and complementation between government, entrepreneurs, community (Teachers – Professors – media – NGOs – etc) and home, with the greatest effect and responsibility of government to achieve these recommendations.*

The 8 recommendations are: 1) Building entrepreneurs, 2) Developing Human Resources capital, 3.) Market Research and strategies, 4) Enterprises networking and partnerships, 5) Building mature ecosystem, 6) Improving infrastructure and internet services, 7) Updating legal and litigation system and 8) Provide political and economic stability.

### **6.5.2 Building entrepreneurs**

In light of research results, the entrepreneur is the cornerstone for success. To build entrepreneur soft skills, Business skills, Social skills and Ethical behavior; huge work should occur. Three of the major factors are started at very early age; soft skills, social skills and ethical behavior; the home and school teachers has crucial role in building these skills in younger ages.

The start is at home in building soft skills, the highest factor got consensus ever in this research. Many studies (Harvard University) in parallel to life experience

emphasize that it is the most important skills by which other skills could be acquired.

Most of soft skills are raised at home, developed by community culture, and refined and polished by education. Media can have a big role in this factor, by introducing successful role models and interviewing soft-skills trainers. So, there are needs to pay attentions from the previous entities to do their role in delivering generations with high soft skills.

Soft skills such as; ambition, optimism, flexibility, motivation are the real capital for entrepreneurs. Social skills are most likely grown together with soft skills with a need for more various social experiments. National experience might not be enough; internationally exposure is of great added value.

Ethics are raised at home, and developed by community culture. Religion can have a big role in this factor, so parents and community should do their role in influencing ethics of entrepreneurs.

Business skills can start later in high school age. It is formed by other factors; education, training and practicing.

A guide for entrepreneurs' skills is highly recommended; such guide shows what skills should entrepreneur has, at what stage or age, how he can learn and acquire these skills? And provide the channels for entrepreneurs to get them. The government has the master role to help entrepreneurs have business skills; government should: integrate business skills subject starting from high school, integrating (Even optional) a module in universities education, and provide for entrepreneurs full covered professional training systems with reasonable prices. The government should help young people get international and work experience, perhaps by promoting student exchange programs to foster innovative and entrepreneurial thinking for future entrepreneurs.

Before the end of last year from graduation from high school, it is recommended to teaching students how they know the field they love, how to write their personal strategic plan and how to choose their education field.

The entrepreneurs themselves should take the initiative to acquire what they lack from the basic skills, self-learning became very easy through internet, business schools, training centers and books. They can do a lot without waiting. Entrepreneur should do his homework by developing himself, do the right business decisions and actions, and exert efforts: to deserve God support.

Also government and ecosystem should help in teaching the business skills through entrepreneurship courses to early stages startups.

### **6.5.3 Developing Human Resources capital**

Entrepreneur cannot succeed alone, he faces a lot of difficulties to find qualified employees in the human market, he found himself has to exert the effort of training his employees, together with building loyalty to avoid risk of losing them shortly.

The government should build and improve the training workforce of Egypt, by preparedness of highly professional training staff. In addition, the practical experience should be available by practical training in successful firms from private sector; it would be useful if each working enterprise has to host a student or fresh graduate for a limited period without employing. Improving education and make it oriented somehow to the basic business knowledge will not only help entrepreneurs, but it will offer human capital of qualified employees to the Egyptian market.

The Egyptian government should expand in parallel the outreach of short-term training courses, which could more quickly increase the number of workers who have had at least some training.

Entrepreneurs should be aware of importance of human resources development for his employees. They should apply continuous development that builds employees loyalty. Entrepreneurs should attend managerial courses to evaluate the skills and training deficits of applicants and employees.

Government had previously in 2004 successful initiatives for training different technical skills required for ICT sector, at that time, the market was full of qualified personnel, but unfortunately these initiatives did not continue with the



same efficiency or poorly managed. Government is called to repeat the previous initiatives and have some more ideas to enhance human capital in the market, with special care for education

#### **6.5.4 Market Research and strategies**

Super skilled entrepreneurs are needed to deal with a market contains a lot of opportunities combined together with high risks (As per findings of the research). Market research is the solution for entrepreneurs

Market research is highly recommended for entrepreneurs before deciding to start a business or a product, to exploit from opportunities and minimize or avoid risks. They should be sure that their products have a market. Entrepreneurs mostly adopt their ideas and love them just like their kids. Entrepreneur is supposed to be unbiased to his idea, he should test it first with customers, if he successfully gets some customers with positive feedbacks; he can continue work on it. Otherwise he would do changes to his idea or change it at all.

Learning market strategies is of great importance for entrepreneurs, in general for small enterprises, focus strategy will be definitely the better choice (Porter 1980).

Entrepreneurs need to understand that their success is dependent on offering products that matches the customers' needs, wants and demands. They should be aware that different customers groups according to regions, ages, and social groups will have different needs. So it takes big efforts to precisely know customers' needs. In addition, they should be aware about competitors and expect their reactions. Entrepreneurs should not wait, they has to search and study the expected opportunities by doing good market research, followed by access to customers to satisfy their needs through convenient products.

Government should raise awareness of importance of market research through campaigns and management courses; it would also be possible to integrate marketing courses into school and university curricula. Also, the government can fund a specialized unit of research or information that would be charged with gathering and publishing all relevant information on domestic and export

markets, as well as producing in-depth sector analysis of both the demand and the supply side.

Government should support the market and work in creating opportunities for small enterprises, and working in lowering obstacles and risks. It can purchase useful products from enterprises, or offer products to the market.

One of the important roles of government is to help enterprises to be integrated in global value chains that can be a new market to sell in, this can occur through supporting entrepreneurs to attend international fairs, besides financial support for entrepreneurs to do their own market research.

### **6.5.5 Enterprises networking and partnerships**

Entrepreneur has to know that his success will be limited if his enterprise was isolated and attributed to only its limited capabilities. Inter-linkage horizontally between ICT enterprises from one side, and vertically linkage backward with suppliers or forward with customers, will greatly impact his enterprise positively. As it was clear in research results, most entrepreneurs are hesitant about business partnerships, they mostly either do not know how and on which products they can make partnerships, or they are afraid from negative expectations and consequences resulted from partnerships. Partnership can be made in different ways; it could vary in range from complete partnership as merging or acquisition, to slight cooperation and consultation regarding certain products or joint tasks. Entrepreneurs can take steps to communicate with each other's in a positive way to open the door for cooperation.

Recommended networking and partnerships are not limited to national partnerships; it extends to global value chain integration. Entrepreneurs should widen their vision to look at the global market and be oriented to the international business in addition to national one.

Government and ecosystem should make forums, fairs, exhibitions, and conferences to motivate business networking. Government can encourage partnership programs and cooperation between companies, through business forums, and different support programs for consortiums, and play the role of the

coordinator, facilitator and being a guarantee for different partners in a way lowering the fears of entrepreneurs from partnerships.

### **5.6.6. Building mature ecosystem**

However ITIDA plays a leading role as an ecosystem for ICT enterprises in Egypt, in addition to existence of several incubators or financing agencies, the way is still far to have a well-established mature ecosystem linked effectively to small enterprises.

A clear map of well-established ecosystem is needed; this ecosystem-map includes all pillars of a mature ecosystem (Financers, incubators, accelerators, advisors ...etc) that offer all services needed to support small ICT enterprises, inside and outside Egypt. The suggested map should be published to entrepreneurs on regular bases with necessary updates, thus, the entrepreneurs can easily choose and access to whatever entity that offer the type of services they need. An initiative is recommended to establish an association that is dedicated to draw ecosystem-map, update map, and publish to entrepreneurs the updated map regularly.

Ecosystem-map will not solve the ecosystem problems, but it will be as a trusted source of information to entrepreneurs about the ecosystem working in Egypt. The real problems will be solved if ecosystem entities were capable to introduce all services required to entrepreneurs, and at the same time, these entities achieve the profits they target. In other words, to build a win-win situation between both entrepreneurs and ecosystem. The entities within the ecosystem should be capable to offer the required services to entrepreneurs

One of the facts is, the lending agency wants to guarantee that the borrower will be able to repay and will respect the financial contract, so it asks the borrower to offer as much information about the project, while the borrower is not able to convince the lender about the creditworthiness. Other detailed problems should be studied and solved by the government.

Enhancing the role of ITIDA, as the governmental and biggest support entity in Egypt, in financing small ICT enterprises is recommended, current programs need to be reviewed and enhanced, and also more programs are needed.

The entrepreneurs should not wait, they are recommended to use their networking and social skills to access to angel financiers in small projects, or access to any other financing agencies after forming a good knowledge about them and decide it is trusted source of finance. Entrepreneurs still have chances to get support programs from the government, they have to search and apply for it.

NGOs are supposed to take a real step in supporting small enterprises to share its responsibility in developing community; they have to balance between relief projects and development projects. Laws should support NGO's with flexible regulations and freedom to access and support small business entrepreneurs.

### **6.5.6 Improving Infrastructure and Internet Services**

One of the interviewed experts mentioned: "*Actually it does not make any sense that Egypt has this level of internet service while most of international internet cables goes through it*"

It is the role of government lonely to solve the problems of infrastructure and provide good internet services with reasonable prices. Government has to invest more in infrastructure enhancement especially the Electricity, which became a critical problem since almost three years ago. Government is also called to lower internet prices and enhance its speed.

### **6.5.7 Updating Legal and Litigation System**

The lack of law enforcement in Egypt is mostly due to insufficient *checks* and *balances* within and between governmental institutions (Loewe et al 2013). Lack of accountability is usually used to interpret the legislation to certain favors. Reform and updating legal and litigation system are essential in strengthening the rule of law, which should be effectively implemented at all Egyptians equally.

Re-establishing the rule of law is a big challenge, it can be achieved through strengthening the accountability of public officials at all levels, providing incentives for public officials who comply with laws and guidelines and increasing monitoring of public officials and sanctions for non-compliance.

Government is better communicate with entrepreneurs and listen to them, if they highlighted logic and tangible obstacles in regulations and legal issues that make them suffer, the government should work to find solutions.

Government has to fight corruption and give a chance for smaller companies to work with it

### **6.5.8 Provide Political and Economic Stability**

If the all previous recommendations were applied without political and economic stability, poor results will be achieved. The situation in Egypt became complicated which influence all business in general and small business enterprises in specific.

Government has to adopt democracy and development, the only way to political stability and hence economic stability.

## **6.6 Future Work**

In accordance with qualitative researches, this study is not representing the total population of ICT Small Companies. Future researches with quantitative approaches are needed to cover representative sample for all ICT small companies in Egypt. In addition, the study sample concentrated mainly on IT System Services enterprises and did not include communication enterprises.

The researcher did not classify sample for successful or non-successful companies, he rather considered the current existence of the company and operating in Egypt is enough to compose in the sample. In the future, separating successful companies from non-successful will give the chance of differentiating between both opinions about the most important factors.

The chosen 27 factors for examining in the research did not include all factors found in literature review, the researcher selected factors depending on combination between expert recommendations and common factors in literatures. Future work is recommended to examine other factors that were not examined; however, the most likely important factors are included in the 27 factors.

The researcher examined large number of factors, some of which are subdivided to sub factors, so future work is needed to examine each individual sub factors. Also it would be beneficial in future to study smaller numbers of factors.

Relations between factors were not targeted during this research, future studies are recommended to determine mediator factors, complimenting factors, interdependent factors and substituting factors.

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# Appendices

## Questionnaire

The following questionnaire has been published online using Google forms. The questionnaire consists of:

- Cover letter that explains the objectives of it
- 27 questions that ask about the 27 factors we are measuring, each question has 7 options. Respondent has to choose only one answer. Respondent can write his own comments on each question
- One question where the respondent can write freely about the top 4 factors he thinks they are the most important
- 8 questions about personal data

### Questionnaire Cover

Dear valuable Respondent,

This study aims to explore the degree of influence of various factors on Success or Failure of Technology Companies in Egypt. Many thanks for your valuable time and participation that hopefully add value to Technology Companies' Entrepreneurs.

Who should answer this questionnaire?

Startup owners and co-founders in Egypt, small and medium companies owners in Egypt, organizations or people who works in the startup echo system in Egypt (like VC's, Incubators, accelerators, angel investors,..etc).

The Questionnaire is 28 questions, each one will not take more than 10 seconds to answer. You can put your comments after each question if you want to add more clarifications to it. Your comments will be very helpful, valuable and appreciated.

At the end of the questionnaire, you may leave your email to receive a copy of the study and the research results,

Please feel free to forward the questionnaire or share it with whom it may concern

Thanks



Dr. Ahmed Hussien

**The questionnaire**

**1. Do you think Egypt Technology Market is Emerging and growing? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**2. Do you see Egyptian Market is risky? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**3. After initiating your startup Business Idea, was it easy to find customers immediately? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**4. How are "Poverty, unemployment, illiteracy rate and other Socio Demographic Characteristics of Egyptian Market" affecting your business? \***

- Greatly Negative
- Moderately Negative
- Slightly Negative
- Neutral
- Slightly Positive
- Moderately Positive
- Greatly Positive

**Comments (Optional)**

**5. Do you see that Government Support Programs are available and beneficial? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**6. How Governmental Regulations affect your business? \***

- Greatly Negative
- Moderately Negative
- Slightly Negative
- Neutral
- Slightly Positive
- Moderately Positive
- Greatly Positive

**Comments (Optional)**

**7. Did you experience Governmental Corruption related to your business? (Yes – No)  
... If yes, how did it affect your business? \***

if your answer is (NO), select (Neutral)

- Greatly Negative
- Moderately Negative
- Slightly Negative
- Neutral
- Slightly Positive
- Moderately Positive
- Greatly Positive

**Comments (Optional)**

**8. Did Military service interfere with your Business Plan? (Yes – No),... If yes, how did it affect your business? \***

if your answer is (NO), leave the question unanswered.

- Greatly Negative
- Moderately Negative
- Slightly Negative
- Neutral
- Slightly Positive
- Moderately Positive
- Greatly Positive

**Comments (Optional)**

**9. Are infrastructure (Electricity, water, roads,...etc) optimum to your business needs? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly agree
- Moderately agree
- Greatly agree

**Comments (Optional)**

**10. How does Political and Economic Instability affect your business? \***

- Greatly Negative
- Moderately Negative
- Slightly Negative
- Neutral
- Slightly Positive
- Moderately Positive
- Greatly Positive

**Comments (Optional)**

**11. Do you find Internet Services in Egypt convenient to your business needs? \***

- Greatly disagree
- Moderately disagree
- Slightly disagree
- Neutral
- Slightly agree
- Moderately agree
- Greatly agree

**Comments (Optional)**

**12. What is the effect of legal Form (Type of legal registration of your company) on your business requirements? \***

- Greatly Negative
- Moderately Negative
- Slightly Negative
- Neutral
- Slightly Positive
- Moderately Positive
- Greatly Positive

**Comments (Optional)**

**13. Do you think the legal environment in Egypt is protecting your business (patent protections, courts procedures, ..etc) \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**14. Do you agree that there are available supporting Incubators, Accelerators or Advisors according to your business needs? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**15. Do you agree that there are available Financing Agencies (Angel or Venture Capital) whenever your business needs them? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**16. Is it possible that your business can be supported by Non-Governmental Organizations? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**17. Is it easy to catch qualified employees (staffing) to work in your business? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**18. Can you easily make team spirit and Harmony between your employees? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**19. Is it easy to find cooperative Business Partners that help and compliment my business? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**20. Do you believe that applying Focus Business Strategy in a single product or service will lead your business to success? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**21. Do you think that Entrepreneur Qualifications (Education & Industry working experience) are a key factor for success? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**22. Do you think that larger number and Interdisciplinary founding team (Group of Owners with variable personal characteristics and Education backgrounds) is better for the business? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**23. Is it necessary in your opinion that Entrepreneur should have strong Business Skills (Recognize opportunities, Risk willingness and Making money orientation)? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**24. Do you think that Entrepreneur Soft Skills (Innovation, Flexibility and Adaptability, Ambition, Optimism) are important for business? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**25. In your opinion, are Ethics (Honesty, Humility and Commitment) needed for business success?\***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**26. Do you think that Business Networking of Entrepreneur and High Social Skills are essential for business success? \***

- Greatly Disagree
- Moderately Disagree
- Slightly Disagree
- Neutral
- Slightly Agree
- Moderately Agree
- Greatly Agree

**Comments (Optional)**

**27. Do you believe that Luck is a factor that affects business? (Yes – No) If yes, how did luck affect your business? \***

If (No), select (Neutral)

- Greatly Negative
- Moderately Negative
- Slightly Negative
- Neutral
- Slightly Positive
- Moderately Positive
- Greatly Positive

**Comments (Optional)**

**28. In your opinion, what are the most four critical factors affect Success or failure of technology Co. in Egypt? \***

Write the most important first

**What is your age \***

- 20-25
- 25-30
- 30-35
- 35-40
- 40-45
- >45

**How do you define yourself? \***

- Startup or company owner
- Part of the startup echo-system (Consultants, VC, accelerator, incubator, advisor ...etc )

**What is your gender? \***

- Male
- Female

**From How many years did you start your own Business? \***

**What is your company name?**

**Company field**

**Email**

**Have any comments, notes, or feedback?**

## **Discussion Guide of 1<sup>st</sup> Stage Interviews**

### **Overview**

1<sup>st</sup> stage interviews were done after we made the literature review and gathered the success and failure factors internationally. We performed these interviews with two experts and two entrepreneurs to figure out if there are factors that are specifically related to the Egyptian market and could affect the success and failure of software startups.

Experts are people who used to work closely with entrepreneurs as consultants, mentors, or are successful entrepreneurs with long years of experience

Questions in these interviews are all open, we gave people a big space to talk about their experience with entrepreneurship

### **Discussion Guide for Experts**

First I introduced myself to the people I have interviewed by answering the following questions:

- Who am I?
- Why am I doing this?
- Why do I choose this person?



Then I asked about his personal information

- Full name:
- Email and mobile:
- What are you doing (your job)?
- Company name:
- What is your role with startups or how you work with them?
- Are you currently an entrepreneur or used to be before?
- Years of experience as an entrepreneur and generally
- Date (today):
- Sector:
- Date established (your startup company):

Then I asked him open ended questions about his experience with entrepreneurship

- How did you reach your current position in supporting startups and entrepreneurs?
- What is your personal business experience?
- Tell us about your personal experience in supporting and mentoring startups?
- In your opinion, what are the success or failure rates for startups in Egypt?
- In your opinion, what are the major success or failure factors for startups in Egypt?
- Do you think that Egyptian entrepreneurs are capable to do a good business in Egypt?
- What do you think of Egyptian entrepreneur's qualifications?
- Do you think that Egyptian market, culture and environment are suitable for startups to grow and do business?

### **Discussion Guide for Startups**

First I introduced myself to the people I have interviewed by answering the following questions:

- Who am I?
- Why am I doing this?
- Why do I choose this person?

Then I asked specific question about him to introduce him

- Your full name
- Company name:

- Representative name and role:
- Email and mobile:
- Years of experience as an entrepreneur and generally
- Date (today):
- Sector:
- Date established (your startup company):

Then I asked him open ended questions about his startup company

- How did you start?
- What are the obstacles you faced?
- Tell me your startup history or the key milestones in it?
- What do you expect from the government and community in terms of supporting small business?
- What is the biggest challenge you faced?
- How many customers do you have now? And how did you get them?
- How do you define startup success?
- Do you think Egypt is a good place for startups? Why?
- What do you suggest, so that Egypt is a better place for startups?
- What do you think of the startup ecosystem in Egypt?
- What was your plan in the last six months and what is your plan for the next six months?
- What is your role model in startups?
- What do you need to be able to success?
- What is your advice for entrepreneurs in Egypt?

## **Discussion Guide of 2<sup>nd</sup> Stage Interviews**

In this stage we have define the factors we going to study and measure. And we already developed the questionnaire. In this stage, we used the questionnaire as guide for the discussion but we asked the questions as open ended, so the interviewer can feel free to tell his story.

1<sup>st</sup> I started by introducing myself and explaining the objectives of the research, then I went through the questions.

- 1- How do you see the market in Egypt, especially the technology market? Is it growing, shrinking, or what? And why do you think that?
- 2- Is it safe or risky to work in the Egyptian market and why?
- 3- Tell us the story of your first customer?

- 4- How the socio demographic characteristics of the Egyptian market affected your business?
- 5- Did you get any support from the government? How do you rate it? And what do you suggest to enhance it?
- 6- What do you think of the government regulations? Is it supportive or what?
- 7- Did you face any corruption cases that affected your business?
- 8- Did the military service affected your business or plans?
- 9- What do you think of the infrastructure in Egypt? Is it optimum for the business needs?
- 10-What do you think of the Internet service in Egypt? Is it optimum for the business needs?
- 11-How the political and economic instability -especially after 2011- affected your business?
- 12-What is your company's' legal form? Do you think it may affect you getting investment?
- 13-Do you think the legal environment in Egypt is good and can protect your business?
- 14-What do you think of the startup ecosystem in Egypt?
- 15-Can you easily find financing channels for your plans?
- 16-Do you think that non-governmental organizations can play a role in startup support? How?
- 17-Can you easily find qualified employees in the Egyptian market? If not ...why?
- 18-Can you easily make a team spirit within your startup team, if yes ... tell me how do you do that?
- 19-Can you easily find business partners in Egypt that would help in the sales and marketing?
- 20-Which is better and why? Focus on one product or work on many products and services?
- 21-Do you think that entrepreneur needs to be well educated and have a domain experience in order to have a startup
- 22-Do you think that larger number and Interdisciplinary founding team (Group of Owners with variable personal characteristics and Education backgrounds) is better for the business?
- 23-Is it necessary in your opinion that Entrepreneur should have strong Business Skills (Recognize opportunities, Risk willingness and Making money orientation)? What specific skill(s) you highly recommend and why?
- 24-Do you think that Entrepreneur Soft Skills (Innovation, Flexibility and Adaptability, Ambition, Optimism) are important for business? What specific skill(s) you highly recommend and why?
- 25-In your opinion, are Ethics (Honesty, Humility and Commitment) needed for business success?
- 26-Do you think that Business Networking of Entrepreneur and High Social Skills are essential for business success? Tell us about your

personal experience in business networking and partnerships you made to complement your business

27-Do you believe that Luck is a factor that affects business? (Yes – No) If yes, how did luck affect your business?

28-In your opinion, what are the most four critical factors affect Success or failure of technology Co. in Egypt?

How old are you?

What is your company field?

Do you have any other comment or recommendation for the government, startup or even for me in regarding this research?

## **Biographies of Interviewees**

### **Hesham Mohammed Eladawy (Expert and Startup Owner)**

- 14 years of experience in SW development domain
- 10 years of experience as GM, marketing and business development
- International exposure over many countries all over the world
- Used to support and mentor many startup in Egypt.
- Co-founder in startup in USA and Egypt
- Business, Entrepreneurship and software engineering blogger
- Faculty of engineering graduate 2001

### **Sally Metwally (Expert)**

- 20+ years of experience in ICT domain.
- Head of Innovation and Entrepreneurship at Misr El Kheir Foundation MEK
- Acting CEO at Technology innovation & entrepreneurship center (TIEC) which is a subsidiary of ITIDA
- Research and Innovation Support Department Manager at ITIDA
- Master degree in Information technology management from Nile University
- PMP holder

### **Kareem Dawood (Startup Owner)**

- 3+ years of experience in ICT sector

- startup owner (interact), his startup owned the following honors and awards:
- Winning "The Startup" Business competition
- Winner of best overall Startup at "Creatre48 EdTech" competition
- 1st Place in Intel business challenge -Egypt
- 4th place in Intel Business Challenge - MENA region
- Semi Finalist in Intel Global challenge - Silicon valley (USA)
- previously incubated at TIEC (initiative of ITIDA)
- currently incubated at GESR (initiative of MISR ELKHAIR)
- Co-Founder at TEDx HelwanUniversity

### **Ahmed Adel (Startup Owner)**

- 2 years of experience in ICT
- co-founder and CTO at mogassam (startup in the field of 3d printing), his startup owned the following honors and awards
- incubation inside GESR
- 1st place in startup cairo cab competition 2013
- reaching finals at Rowad Elniel competition
- previously incubated inside TIEC

### **Mustafa Gamal**

- 15 years of experience in SW development domain
- Co-founder at USA and Egypt based startup
- Research and development consultant at SECC (Software Engineering Competence Center) a subsidiary of ITIDA (information technology industry development agency) in Egypt
- master degree in Software engineering
- many international publications in SW engineering
- Software Architect of many e-government infrastructure projects inside and outside Egypt
- Microsoft Certified Application Developer
- Certified Lotus Professional R5 – Application Development
- Domino R5 Designer Fundamentals

- Domino R5 Application Security and Workflow

### **Abdel Rahman Galal (Startup Owner)**

- 13 years of experience in sales and business development most of them is in real estate.
- CEO of a business development and marketing company
- CEO of AWFAR (a successful and well-funded startup that is based on a portal to deliver groceries)

### **Ayman Mostafa (Expert)**

- Ayman is an executive skill with twenty two years of highly successful experience in local and multinational organizations. Ayman participated in many mega transformation, restructuring and start-ups assignments. He is coming from IT background and recently changed his career to GM in real estate start-up (HDG (Heliopolis Developer Group)). He did successfully build the organization and operation model from scratch. Ayman is MBA holder (Arab Academy - 2004), coming from BSc. communication engineering background (Ain Shams University - 1992).
- Freelance IT & Management Consultant and Trainer at Freelance IT & Management Consultant and Trainer
- General Manager at HDG (Heliopolis Developers Group)
- Senior IT Director (Shared Service) at Savola Group
- Operations Manager at Oratech Information Technology (Raya Subsidiary)

### **Alaa Hamouda (Expert and Startup Owner)**

- Alaa Hamouda has more than 15 years of experience in business and information consultancy, software project management, software quality models of Capability Maturity Models Integration (CMMI), and software development. He provided business and IT consultancy in various organizations and enterprises in the Arabic region. He has played the roles of Software Board member and Engineering Process Group (EPG) member as well as Project Management Office Director (PMO Director) in Egyptian companies. He participated in different types of software

development projects. He also participated in establishing reliable standard work procedures in software houses like applying standard project management processes (PMI), and applying CMMI processes. He provided consultancy to enterprises and ministries in KSA, Lybia, Qatar, Kuwait and Egypt in the field of strategy management and information technology strategy. In research field, he is the principal investigator for a huge research project (about four years) called El-Kanz. It supports opinion mining for Arabic posts and comments in social network (e.g. Facebook and Twitter).

- Associate Professor at Engineering Faculty of Al-Azhar University
- Business Consultant at Public Authority for Applied Education & Training
- Advisor at Youth Ministry
- IT Consultant at Lybian Communication Ministry
- Business Consultant at Labor Ministry
- IT Consultant at Technical & Vocational Training Corporation
- IT Consultant at UAE Armed Forces General Headquarters (GHQ)
- IT Consultant (CMMI) at Horizons Software
- Data Mining consultant at Horizonssoftware
- IT Consultant at Motorola Solutions
- IT Consultant at Charity of Qatar
- IT Consultant at Qatar Governing Family Affairs Organization
- GM of ELKANZ (startup about social data analytics)

#### **Maged Reda (Expert and Startup Owner)**

- Over 15 years of wide experience in developing Business Management software systems. Maged A. Reda has managed hundreds of development projects starting from requirements analysis, design, development, testing and even delivery till acceptance from customers. Maged A. Reda Commands very wide and versatile expertise in most of the different business industries including Tourism, Freight, Stock Markets, Manufacturing, Retail, Distribution business and hundreds of other business sectors as a result in developing solutions for these sectors.

- CEO at Softex Software House

### **Khaled Yusuf (Expert and Startup Owner)**

- 12 years of experience in SW development domain
- Co-founder at Shafafeya (startup based in Egypt)
- PMP certified, MBA
- Titled as project manager in many high reputation SW firms (IT WORX, ITS, Ali Bin Ali)
- IT manager at Auto world Saudi Arabia

### **Ali Lasheen (Expert)**

- 10+ years of experience in sales and business development in ICT domain
- CIT chamber member, head of gov. work group, VP of H/W sector & MOE consultant for int. cooperation
- Business development manager at Computek

### **Osama Gamal Eldin (Expert)**

- 8+ years of experience in ICT domain
- co-founder in many startups in Egypt
- senior R&D engineer in SECC
- Mentor Graphics, Egypt.
- Valeo, Egypt.
- Intel Mobile Communications, Egypt.

### **Moataz Nizam (Expert and Startup Owner)**

- Over 15 years of working experience covering the domains of innovation, entrepreneurship, strategic planning, and business management in addition to a long track record of projects in core banking systems, payment solutions and software development servicing the IT and financial services industries in the Middle East & Africa.
- Co-Founder & Projects Director at Masaref BSC, S.A.E.
- Co-Founder & Chief Operations Officer (COO) at WINK, LLC



- Innovation and business startup consultant
- Sr. Business Consultant for T24 core banking system at The Mauritius Commercial Bank Ltd
- R&D Manager at CIT Global
- Business Consultations Manager at Finserv Group
- T24 Business Consultant at Temenos
- Sr. ePayment Consultant at CIT Global