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The American University in Cairo

School of Global Affairs and Public Policy

**GENDERED ENTREPRENEURSHIP CONTEXTUALIZATION IN
EGYPT: AN EMPIRICAL STUDY ON POLICIES FOR WOMEN
ENTREPRENEURSHIP EMPOWERMENT**

A Thesis Submitted to the

Public Policy and Administration Department

**in partial fulfillment of the requirements for the degree of
Master of Public Administration**

By

Sarah El-Fiky

**Under the supervision of Dr. Rana Hendy
Assistant Professor of Public Policy**

Fall 2020

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Abstract

The proportion of women entrepreneurs has increased dramatically over the past decade, not just in the developed world, but in the developing countries as well. This led to a significant increase in the governments' attention towards designing and implementing female-focused policies, initiatives, and interventions to allocate adequate resources for promoting and empowering women entrepreneurs in Egypt. This paper examines one main question of: How does the Egyptian government empower women entrepreneurs through key policy interventions? This is only possible through testing the proposed research hypotheses and investigating Egypt's publicized policies and governmental interventions. Based on a gender-lens perspective, this research tries to close the gaps in previous research and determine the impact of systematic gendered policies on empowering women entrepreneurship and in return, aid in the overall economic growth and development nation-wide. Through employing mixed methods research mode, this paper starts with a foundational quantitative research that is later enriched with qualitative research. The data was then triangulated, and the empirical results indicated the gender empowerment direction adopted by the Egyptian government, which is apparent in several reports addressing the SDGs and Egypt's cooperation with different international and national non-governmental organizations on gender fronts. Nonetheless, it was also indicated that the results have yet to be realized from such publicized efforts and policies. Furthermore, the empirical results from the mixed methodology mode aided in triangulating the main findings supported by the paper. The first finding suggests that training, and educational opportunities provided to women through specialized women only programs has a great positive impact on women entrepreneurs. The second finding relates to networking, the empirical results of this research paper supports the idea that networking groups and events that are catered towards women are more beneficial, where women feel less intimidated. The third finding discusses the micro-credit scheme, women entrepreneurs do not rely on external funding to support their own businesses, although the study showed that women who get funding have more probability to have an established venture. Finally, the findings highlight the main challenges that the government portray for women entrepreneurs, including the gridlock where government reports publicize new programs and more support for women entrepreneurs, while the actual quantitative and qualitative research kept emphasizing on the very limited resources provided to already little number of women entrepreneurs.

Key words: Women, Women Entrepreneurship, Female, Entrepreneurs, Public Policy, Public Administration, Developing Countries, Egypt

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1. Chapter One: Introduction

Women in Egypt specifically, and the Middle East and North Africa (MENA) region in general are moving steadily towards career advancement through climbing the corporate ladder, with a few of them successfully breaking through the glass ceiling to top managerial levels in the private sector, in addition to presuming leading positions in the public sector. As of recently, Egypt has witnessed for the first time the appointment of eight female ministers, accounting for 25 percent of the Egyptian cabinet of ministers. Women empowerment in Egypt does not stop there, but according to the International Labor Organization (ILO, 2016) women participation and inclusion in the entrepreneurial sector is gaining a notable increase as an alternative avenue for women economic empowerment and participation in the Egyptian labor force. Despite such efforts to appeal to the international communities, Egypt still ranks pretty low on the Global Gender Gap Index, where it ranks at 134 out of 153 countries (Robert Crotti, Thierry Geiger, Vesselina Ratcheva, 2020).

With that in mind, an exponential increase in the attractiveness of entrepreneurship is being witnessed in Egypt, as a direction adopted by the Egyptian government to promote Micro, Small and Medium-sized Enterprises (MSMEs) in order to encourage more citizens to invest in such ventures and in turn contribute to the overall economic development in Egypt, in addition to mitigating high youth unemployment rates. Moreover, as more policies are being developed to serve entrepreneurs, governments worldwide have realized that in order to promote inclusion and participation of everyone regardless of their gender, specialized policies have to be designed and implemented in women's favor to cater for their needs and abilities.

Granted, entrepreneurship in Egypt is a subject undergoing intense studying, especially at this time and era where entrepreneurship is much sought after by different age and gender groups and is severely endorsed by the government and the financial sectors. However, it embodies yet another glass ceiling that women all over the world and in Egypt are evidently trying to shatter. The second glass ceiling, by

definition, is the general gender bias that obstruct women-owned MSMEs from accessing financial capital and attaining the required training and educational support (Bosse & Taylor III, Porcher, 2012).

Furthermore, public policies and governance are playing a massive role in shaping the entrepreneurial behaviors and helping women's entrepreneurial ventures and starting up their own Micro, Small and Medium Enterprises. The creation of such policies is motivated by closing the overall gender gap in the entrepreneurial activity in Egypt as one of the developing countries that shifted its attention towards women entrepreneurship (Coleman et al., 2019; Henry et al., 2017).

Moreover, an increased emphasis from several International organizations – namely: The World Economic Forum (WEF) and the International Labor Organization (ILO) – is placed on the importance of women's participation in the entrepreneurial ecosystem and activities. Additionally, they have dedicated a lot of funds, policies, and specialized programs for women entrepreneurs, as their participation in the entrepreneurial scene has been proven to achieve an overall economic development to the nations, where women entrepreneurs are active. In turn, this will impact the overall world economic development besides the moral direction that is inherent in the equality notion in empowering women and their entrepreneurial ventures.

In this paper, an extensive study is conducted on women in entrepreneurship through three main aspects: i) the impact of the current entrepreneurial ecosystem on women; ii) the role of the government and policymakers in empowering women entrepreneurs; and finally, iii) the different economic and societal challenges facing women entrepreneurs.

However, the main emphasis here is primarily focused on women starting-up their businesses, their characteristics, the role of government and the public sector in facilitating and financing their ventures, and finally, the abundance of challenges they face every single day. Thus, this study tries to inform the research question of: *“How does the Egyptian government empower women entrepreneurs through key policy interventions?”*

In order to be able to exhibit the main topic from different perspectives, a common understanding of what does entrepreneurship mean and what makes an entrepreneur must be configured. The exact definition of entrepreneurship is simply the act of creating a business while scaling it up to generate profits. Likewise, Entrepreneurs are known for what they do: they create new products, processes, and services for the market. In general, entrepreneurs can be defined as individuals who bring about an improvement, both for other individuals and for society as a whole (Robert D. Hisrich et al., 2017).

This research paper proceeds with a thorough and extended review of the literature explaining the impact of customized policies and governmental interventions on women entrepreneurs. The literature review section tries to carefully relate the recent literature to motivate this current research. It starts with discussing the historical views on gender and how it reached this point we are at now, then it moves to explaining entrepreneurship and its evolvement. After that, a combination of the notion of gender and entrepreneurship is developed. Then, it examines the role of government and policies in impacting women entrepreneurs.

In light of the conceptual framework section, a concise focus will highlight the concept of women's entrepreneurship in Egypt using the institutional theory, and the research hypotheses will be discussed further. This research study deploys the institutional theory using a gender lens to conceptualize the impact of credit and educational/training programs policies on women entrepreneurs and on empowering them to perform better in the society. In addition, the adoption of the institutional theory (Henry et al., 2017) as the base of this study's conceptual framework will help explain the cultural, social, and patriarchal norms that women have to operate effectively and efficiently within.

Moreover, as the main idea of this research paper relies primarily on policies and their impact on real-life examples, the research methodology employed in this paper is based on a mixed methodology mode. While, the quantitative methodology will aid in triangulating the data in a simple way to create a better understanding of the current entrepreneurial ecosystem, firstly through examining the whole population of entrepreneurs in Egypt – both men and women. Then, it focuses only on the women

entrepreneurs involved in the data sets used. This will ensure that the data are processed thoroughly and concisely. After which, the qualitative research methodology will bring about a more detailed and micro understanding to a rather holistic interpretation of the data inferred through the quantitative methodology.

The findings of this research emphasized on the importance of the existence of policies for training, networking and educational programs tailored for women. In addition to, the unique needs for women entrepreneurs when it comes to funding and applying for loans. Such needs can determine the amounts of funding given out to women, while setting out a repayment policy that is well-designed for women entrepreneurs.

In the next sections of this research paper, the policy implications of the above-mentioned findings will be discussed in detail. Finally, the last section will discuss the limitations to this research study and how it can be built on further in future research. Additionally, it will identify the shortcomings faced while conducting the research, in addition to some actionable recommendations will be suggested at the end of this paper.

2. Chapter Two: Literature Review

This paper weaves together the very distinct threads of gender, entrepreneurship, and essentially the policies and the governmental interventions that can either empower or suppress women's participation in the entrepreneurial ecosystem. The paper adopts a focused approach that combines a more modern field of study like entrepreneurship with a more deeply rooted field of study like gender and gendered policies. The focus of the literature as reviewed for this study is on four main themes over the decades including understanding the gender paradox; the entrepreneurial paradigm and how it evolved in recent literature; women's entrepreneurship and female-owned businesses; finally, the pivotal role of government and policies in empowering female-led MSMEs.

As of recently, an abundant body of literature and more research (Filser et al., 2019; Low & Macmillan, 1988; Parker, 2004; Robert D. Hisrich et al., 2017) have been developed – internationally – as testament of the great impact of entrepreneurship in driving critical economic growth through building up new enterprises and businesses, generating new ideas, creating new job opportunities, and enhancing tax revenues. This will potentially aid in eradicating unemployment and poverty, and generally increasing the country's national productivity and Gross Domestic Product (GDP).

In addition, the governments are starting to see the benefit of self-employment and entrepreneurship (Parker, 2004) in decreasing the citizens' reliability on the government and increasing their self-independence in generating profits and getting money without having to wait for the government to secure that for them. However, with such a benefit comes great costs, one of which is that promoting entrepreneurship for the public entails the adoption of successful evidence-based policy, in addition to the development of a set of bespoke public and social policies that cater towards the unique socio-economic environment where the new entrepreneurs are entering, and existing entrepreneurs are operating and blooming.

Moreover, several research (Arshed et al., 2019; Henry et al., 2017) have pointed out the importance of the inclusive entrepreneurship approach and movement catalyzed by the governments, especially in the

developed countries, to help women and more underprivileged minorities to benefit from such opportunity. This conception is derived from the increasing beliefs that women are vehicles to governments' economic development through their engagement in several informal entrepreneurial activities. Such informal activities – regardless of how small they are – when empowered by the government can be scaled higher and contribute to an overall public development.

2.1. Understanding the Gender Paradox

Understanding gender and the gender paradox has been an unequivocally ancient field of study which has received great attention from social scientists, anthropologists, and politicians alike (Deutsch, 2007; West & Zimmerman, 1987). Yet, It was not until the modern times – the 1960s to be exact, when feminist movements took it upon themselves to revolutionize the gender studies and the multidisciplinary notion of gender studies to be rather reflective of the reality (Ampofo et al., 2004; Pilcher & Whelehan, 2004).

The emergence of most of the feminist theories we see nowadays are majorly derived from family theories and methodological dynamics (Doherty et al., 2009), which touch on the important role of women in world war II, and how the dynamics changed in the post war era; this era encapsulated the notion of the post war consensus, also known as “the era of normalcy”, in which servicemen and public officers came back from war fearing that their conventional role in the society would be irreversibly damaged. Accordingly, the society tried to fix what it perceived as a major social discourse through restoring the gender relations and ideologies – where women are seen as inferior to men with little to no rights in the society. While it had received wide criticism for its vagueness and ambiguity, especially towards the normative setting, the power struggle notion of this period is coherent with the infamous Foucauldian feminism theory; where it denoted the subject – in this case, women – as they are in constant resistance of the hierarchical relationship imposed on them by the patriarchal culture (Butler, 2004; Deveaux, 1994; Schneck, 1987). Since then, an extant body of literature started to develop in relentless efforts to not just identify gender gaps and disparities existent between males and females in different societies and across

different countries, but to also prescribe and recommend the best route to eradicate inequality and promote women's empowerment socially, economically, and politically.

What is more, the fight for gender equality is neither a struggle of the past nor exclusive on developing countries only (Yuval-Davis, 1993). But rather, this multifaceted doctrine is still going, one battle after another, some of these battles resulted in great wins for women and the feminist movements, while others resulted in massive retreats or a few steps backwards. In her book, *Paradoxes of Gender*, Judith Lorber (Lorber, 1994) explored the different paradoxes related to gender and equality; she draws on the idea of comparability between gender as an institution with economy. With that in mind, Judith inversed the well-known "the invisible hand" theory in economy to the visible hand in gender, where she examined the more democratic states, finding that elite women who once had a voice as landowners and aristocrats are losing their rights and powers. Paradoxically, women of middle to lower classes are not gaining any rights or powers neither. This is seen as a defeat and a backtracked movement for gender equality.

Consequently, a lot of changes and developments have taken place and a few limited gains have been realized to some extent over the past decades when it comes to gender equality. Despite said improvements, full gender equality remains unattained according to the most recent UN Women report (UN Women, 2020). In addition to the challenges adhered to attaining full gender equality, the year 2020 has been extra challenging as the world has witnessed a global pandemic – Coronavirus 2019 (COVID-19); this has contributed to widening the gender gap on so many frontiers including, social, economic, and psychological, where women were victims of the impact of the COVID-19 pandemic including, the increased gender-based and domestic violence cases; and the disproportionate effects of the sudden economic shock as women already hold less paying and less secure jobs, and have less savings than men, also, the portion of women working in the informal sector is higher than men, and this sector was hit the hardest by the pandemic's repercussions (United Nations, 2020).

Likewise, on the national level, the most recent Global Gender Gap Report published in 2020 (Robert Crotti, Thierry Geiger, Vesselina Ratcheva, 2020) surveying initiatives and measuring impact on

women's conditions and efforts done for improvements across 153 countries, indicates that Egypt has closed only 62.9% of its gender gap. On that front, Egypt has a lot to be done across different frontiers to grant Egyptian women equal rights and opportunities to their male counterparts. The Global Gender Gap Report, also, indicates that women are still facing solid barriers when it comes to accessing funds and obtaining financial support.

However, in close alignment with the current Egyptian directive – as the Egyptian Sustainable Development Strategy (SDS) entails – The National Council for Women (NCW) issued The National Strategy for the Empowerment of Egyptian Women 2030 (The National Council for Women, 2017) which is fully adopted by Mr. President Abdel-Fattah El-Sisi. This strategy contains a total of thirty-four indicators that are based on four main pillars for women empowerment including, 1) Political Empowerment and Leadership; 2) Economic Empowerment; 3) Social Empowerment; and finally, 4) Protection. While this might be a great leap forward for women in the Egyptian socio-economic environment, still the solid results out of this initiative are not fully realized. Thus, the stakes remain high, given Egypt's history with the persisting cultural, legal, and socio-economic challenges pertaining to women empowerment and addressing gender disparity, at large (Baradei, 2018). Accordingly, Egypt's women's empowerment efforts – on different frontiers – are perceived with skepticism, as to whether they are just attempts to make the Egyptian government more appealing to the international communities, or if they are going to be impactful tools in not only voicing, but also advocating for women's rights and issues.

2.2. The Entrepreneurial Paradigm

Despite the relative novelty of entrepreneurship as a field of study, a wide range of theoretical perspectives and methodologies had been used to define entrepreneurship as a business branch. This has proven the multidisciplinary aspect related to entrepreneurship as a phenomenon (Low & Macmillan, 1988).

Becoming an Entrepreneur

Based on the multidisciplinary notion of "Entrepreneurship" – as derived from the different schools of literature defining it – different sets of factors affect the decision or the propensity of someone to become

an entrepreneur. A stream of research has identified certain factors to be the main motivators for individuals to become entrepreneurs or not; these factors explain the decision for an individual to move into entrepreneurship is based upon, necessity based approach, opportunity based approach, or innovation based approach (Reynolds et al., 2001; van der Zwan et al., 2016). According to Reynolds (2001), an individual is subjected to pull and push motivations that might lead to becoming an entrepreneur, for instance, under the necessity based approach, one is pushed to become an entrepreneur due to lack of adequate employment opportunities or insufficient salaries for their current living conditions; or in the context of the opportunity based approach, an individual might be pushed or pulled towards moving into entrepreneurship due to the rise of an opportunity in the current market; or finally, the innovation based approach which entails that an individual might become an entrepreneur as a result to an innate motivation to innovate and create new ideas, products, or services.

Notwithstanding the validity of the aforementioned approaches, some studies attribute the main determinants of becoming an entrepreneur to personal characteristics and environmental factors (Mitchell et al., 2000; Xie, 2014), the personal characteristics according to these scholars suggest that risk taking orientation, desire for self-actualization, internal locus of control, and high tolerance to ambiguity play key roles in determining the ability of whether an individual can become an entrepreneur. The same group of scholars likened the environmental approach to Hofstede's four cultural dimensions for organizational motivation, power distance, individualism, uncertainty avoidance, and masculinity (Hofstede, 1980) to assess the cultural impact on the motivation of the individuals in a given organization, and they emphasized on the similar impact of these cultural dimensions on the propensity of an individual to become an entrepreneur (Tan, 2002). This is highly relevant and applicable to the present research conducted, as it highlights the impact of the surrounding environment and the government in building up and prospering more entrepreneurial activities through stimulating an "enterprise culture" where micro, small and medium-sized enterprises (MSMEs) are encouraged to maximize their profits (Gibb, 1987), or on the other hand, the government can discourage entrepreneurial activities and prevent entrepreneurs from entering the market through imposing adverse policies and excessive taxes on start-up creation.

2.3. Women's Entrepreneurship

Most of the literature, especially over the past two decades showed a common consensus or a global directive from government leaders and policymakers to not just empower women, but to look more into ways to empower them economically and through entrepreneurship (Ahl, 2011; Farr-Wharton & Brunetto, 2007; Sparks, 2015). Thus, as witnessed on the western sphere of the world an increase in the number of women entrepreneurs (Dauvellier et al., 2016), which can be accounted for by many reasons, some are interpersonal skills related to self-actualization, self fulfilment, and an innate desire to achieve, while others relate more to external set of reasons including unemployment and economic hardships for instance (Tibus, 2010).

While the definition of an entrepreneur has been identified in the previous sections, certain criteria must be laid out in order to define a "Woman Entrepreneur". According to the International Finance Corporation (IFC), an enterprise qualifies as a woman-owned enterprise if it meets a certain set of criteria (International Financial Corporation, 2014). First, the enterprise must be owned by a woman and/or women with a percentage exceeding 51 percent; second, if the first condition is not sufficed, then, at least, more than 20 percent of the enterprise must be owned by a woman and/or women, and the business must have one woman as the Chief Executive Officer (CEO), Chief Operations Officer (COO), President, or Vice President; finally, more than 30 percent of the board of directors must be composed of women, where a board exists.

While IFC's definition encapsulates the determinants for a business to be described as a woman-owned enterprise, and in turn defines what makes a "woman entrepreneur", it adopted a purely business and corporate oriented view, making it exceptionally hard to be employed as the main operational definition of women entrepreneurs in this paper. Additionally, if narrow-mindedly defined as such, women's broader contribution to the overall "enterprise culture" will be diminished and understated. Thus, a more inclusive definition for women entrepreneurs can be derived from IFC's definition to include women entrepreneurs from different cultures, backgrounds, and business settings. Accordingly, the operational definition of

women entrepreneurs in this study will include women who are sole owners or partners of businesses and were able to generate revenues, regardless of the business type or industry.

The current changes over the past decade as much as it has been political in nature and financially challenging, it had a cultural component. Same as entrepreneurship and doing business in the Egyptian context, it holds a cultural component tied intrinsically with the phenomenon of gender and masculinity in the Middle East and North Africa (MENA) region (A. Bruni et al., 2004).

2.4. The Pivotal Role of Policies in Empowering Women Entrepreneurs

There are a number of reports and policy briefs (Dauvellier et al., 2016; Halabisky et al., 2017; Vasudevan & Wasilkowska, 2018) pointing out the role of the government in designing and implementing the adequate public policies for shaping the entrepreneurial ecosystem to not only accommodate women entrepreneurs but also to empower them and work on closing the gender gap, which has been growing wider and wider over the decades, as a consequential result of the cultural barriers and constant challenges women – especially those in business – are facing on daily basis.

The role of the government is critical to reinforce female-based entrepreneurial activities aside from the cultural and societal challenges. In reviewing many works of literature relating governance to gender in entrepreneurship, it is evident that many countries can have strong policies that would – in a perfect case scenario – empower and encourage women to participate in the market. Common robust policy interventions include access to finance, government policies, taxes and bureaucracy, government programs, school-level entrepreneurship education and training, post-school entrepreneurship education and training, research and development (R&D) transfer, access to commercial and professional infrastructure, internal market dynamics, internal market burdens, access to infrastructure, and social and cultural norms (Kelley et al., 2015).

Several research and policy analyses have suggested that countries – like, Canada, Germany, Ireland, Norway, and the United States – with high levels of women participation in the entrepreneurial activities, have tailored access to capital program that are sorted based on the size of capital and type/gender

of recipients of funds (Coleman et al., 2019). The programs initiated in the aforementioned countries developed a set of eligibility criteria based on the needs of the target groups spanning from explicitly all-women funding programs to youth programs. The creation of such funding programs creates equity rather than bias or discrimination. This is obvious in the Norwegian experience, where their policies for entrepreneurship adopts a gender-neutral approach, which is based on their pre-existing gender equality climate, whereby Norway ranks 2nd out of 153 countries on the Global Gender Gap Report of 2020 (Robert Crotti, Thierry Geiger, Vesselina Ratcheva, 2020). Thus, employing a gender-neutral approach to the funding policies based merely on their funds' recipients' qualifications and skills is considered as logical process that ties perfectly with their culture and perception of omen equality.

On the other hand, countries like the United States have employed more gendered policies in the last decade, especially for avoiding duplication for taxpayer funds and legislating microloan opportunities for underprivileged women, also known as “rural women entrepreneurs”, In addition to expanding the outreach of women mentoring and sponsoring programs (National Women’s Business Council, 2020). As the number of women entrepreneurs increase in said developed countries, the government’s focus shifts from the seeding of women start-ups only to supporting their growth and sustainability.

In contrast, a country like the United Kingdom, which aspires to follow in the footsteps of the American approach, is still carefully stepping in the gendered policy creation. The United Kingdom is monitoring the increase of women-owned businesses and its positive effects on the economy and the society. However, previous research (Marlow et al., 2008) have indicated that policymakers prefer to create policies that are catered towards growth-oriented only women-owned businesses to avoid the repercussions of supporting just about any business that is threatened to close and exit the market early on its beginning.

This was a preview of recent literature and efforts assisting in closing the gender gap in the entrepreneurial ecosystem in addition to highlighting the relentless exertions to create an equilibrium in the economic environment in the developing countries. However, the next sections of this research paper present the Egyptian contextual and conceptual frameworks, in addition to, the quantitative and qualitative

research methodologies used to examine the viability of the Egyptian government's initiatives in empowering women entrepreneurs. Empirical evidence is going to be backed up with informed feedback of Egyptian entrepreneurs and policymakers. The focus is diverted towards the applications of such informed policies and governmental interventions in curbing discrimination against women and creating equal opportunities through allocating the financial and educational resources needed.

Finally, despite the abundance literature on women entrepreneurship, the amount of research tackling women's entrepreneurship in MENA and the developing countries is seemingly limited. Thus, this study contributes to previous research by implementing successful practices and theories that were proven significant impact in developed countries on the Egyptian context. It also aims to contribute to identifying the current gaps in the literature and determine the impact of systematic gendered policies in empowering women entrepreneurship and, in return, aid in the economic growth and development nation-wide.

As portrayed in the review of the literature, most of the conducted studies on women's entrepreneurship in public policy and administration and the customized policies for them are concentrated in the developed countries – especially in North America, and Europe. Based on this, this research paper aims to contribute by defining the entrepreneurial context in Egypt and identifying the driving factors that motivates women entrepreneurs in Egypt to embark on their entrepreneurial ventures given the challenging environment. In addition, this will help inform governments and policymakers identify the successful policies and determine the best fit for the Egyptian context in order to design and implement suitable policies in efforts to encourage women's participation in the entrepreneurial ecosystem and empower women entrepreneurs who already exist in the market. This will allow for a thorough examination of the Egyptian socio-economic and political situation with a gender sensitive approach stemming from the perspective of women empowerment, in addition to testing the initiatives undertaken by the Egyptian government to achieve gender equality, as stated in its strategy.

3. Chapter Three: Contextual Framework and Background

In order to have a better idea about entrepreneurship in Egypt, a solid grasp of the unique Egyptian context and background have to be identified first. Thus, a contextual framework was deployed to bring about an understanding of the Egyptian labor market in general, and the leap into entrepreneurship. Afterwards, entrepreneurship in Egypt will be defined, separately, for its unique aspects and different facets. Then, women entrepreneurs' qualities and rise in numbers will be discussed in detail. And finally, some of the policies and initiatives working on empowering women entrepreneurial ventures will be reviewed.

3.1. Understanding the Egyptian Female Labor Market

From purely economic perspective, the labor market is defined as the supply curve of job opportunities in relation to the demand curve for job opportunities; it includes the labor force, who are both employed and unemployed people who are able to work and are, in fact, actively seeking labor. The Egyptian labor market, according to Egypt Labor Market Report (M. Bruni, 2017), has witnessed a slight increase in employment and a decrease in overall unemployment. For the female labor force, specifically, the numbers showed that there was an increase by 0.5 percent from 2010 to 2015. Likewise, female employment rate increased by a marginal rate of 0.9 percent, while the female unemployment decreased substantially by 13.7 percent to reach 44.3 percent in 2015.

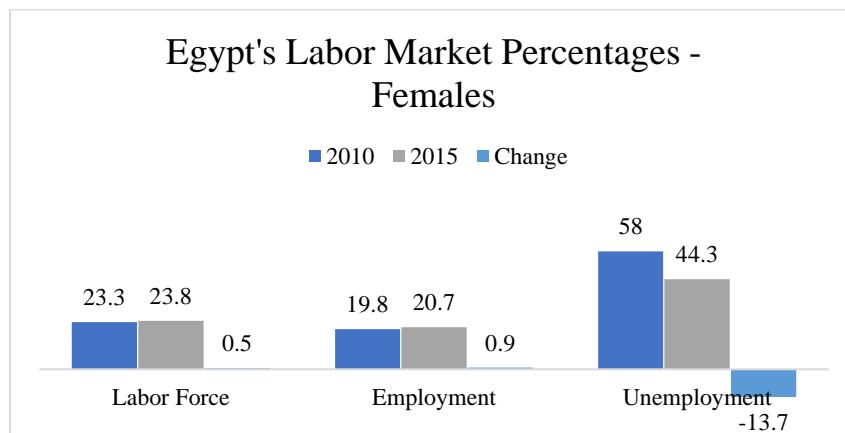


Figure 1: Egypt's Female Labor Market Percentages 2010-2015

Source: Egypt Labor Market Report (M. Bruni, 2017)

3.2. Entrepreneurship in Egypt

Changes in the Egyptian socio-economic environment started to emerge after the political upheavals and the Arab Spring taking place back in January 2011. This has impacted the economic development pathway Egypt has been following, and in turn new avenues and alternatives for economic development started to surface the occupational market and activities especially for the youth, who instead of waiting for a formal employment opportunity can start their own entrepreneurial ventures with support from the government (Hattab, 2012). The Egyptian government has also been working on providing this opportunity to the youth regardless of their gender.

Ever since the 25th of January revolution, the entrepreneurial ecosystem in Egypt has witnessed a substantial degree of development over the past decades, which had aided in the economic and financial restructuring of the Egyptian environment. This has increased the attractiveness of entrepreneurship and starting-up a small business amongst the youth. According to many reports (Ismail et al., 2018; Saif, 2011), the entrepreneurial culture in Egypt has evolved, and notable interest in entrepreneurship has emerged, accounting for 40 percent of the country's economy. Major reasons the emergence of the entrepreneurship as a refuge for Egyptians in recent years are, the increasing economic and social challenges, including – but not limited to – the currency devaluation, growing inflation, rising interest rates, and the reduction of government subsidies.

By the year 2013, as illustrated in (*Figure 2: Unemployment Rate in Egypt 2010-2019*), Egypt had reached its all-time high rate of unemployment at 13.15 percent (The World Bank, 2020) signaling a major economic downturn as a logical consequence to the global economic recession in 2008-2009 and the prevalent political instability in 2011-2013 (Assaad & Krafft, 2013). The Egyptian youth started to face difficulty regarding their employability and some even lost their jobs as a response to the overall Egyptian deteriorating economy and the failure of big and established private sector companies and the public sector to provide Egypt's youth with adequate number of job opportunities (Ghanem, 2013). Consequently, the Egyptian youth started to take it upon themselves to create opportunities for themselves and their community through building up their own business ventures (Sherif & Sayeh, 2014).

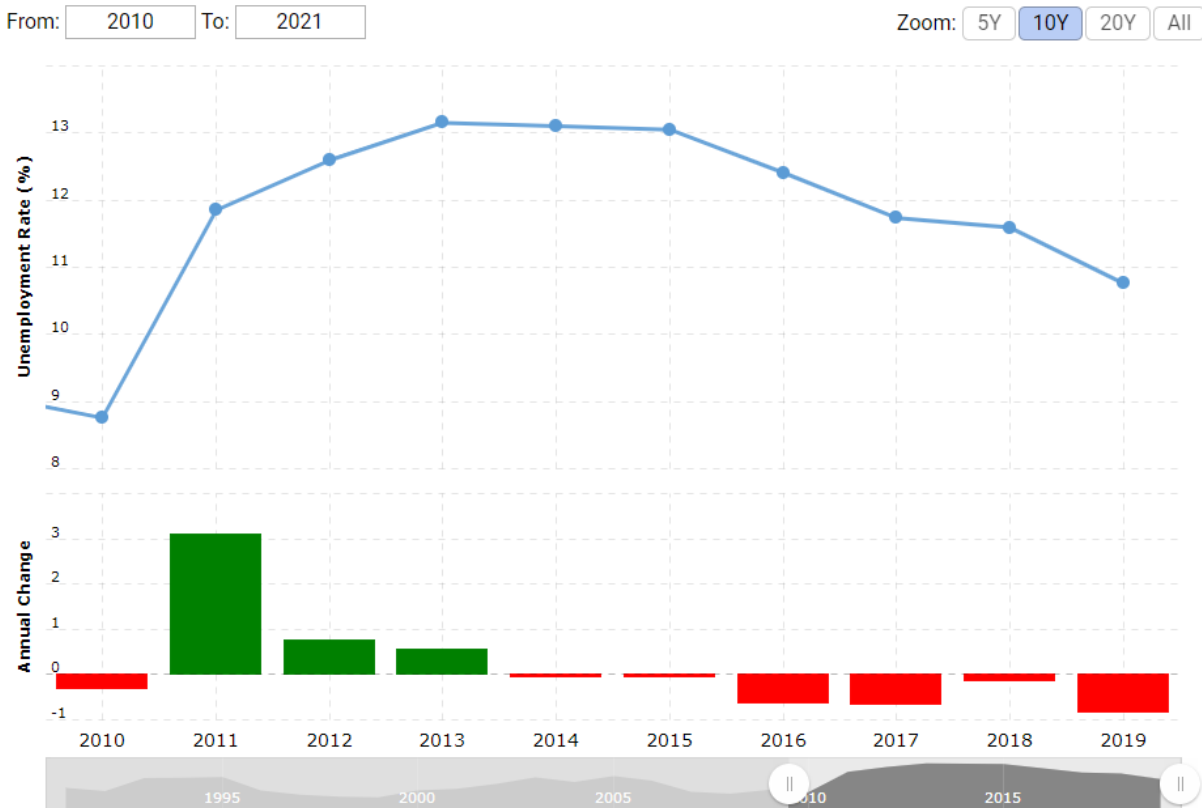


Figure 2: Unemployment Rate in Egypt 2010-2019

Source: The world Bank

Moreover, the Government of Egypt (GoE) has been applying several economic reforms in order to cater for the increasing number of Egyptians willing to start up their new business during the past five to seven years and in efforts to encourage more entrepreneurial activities in the country. That came as a great realization from the Egyptian government side of the importance of entrepreneurship for economic growth and as a great aid for the state to rise from the ashes of the economic slump.

3.3. Women Entrepreneurs in Egypt

Although Egypt is evidently moving aggressively towards the direction of entrepreneurship and experimenting more in the entrepreneurial ventures and opportunities, this is not the case across the Egyptian population, especially women. A recent study examining the women entrepreneurs' firm performance in Egypt described it as a "hostile environment" (Welsh et al., 2018) and suggested that the turbulent political, socio-economic, and cultural environment in Egypt is regarded as one of the most

unpredictable environments in which start-ups can operate in. Thus, such volatile dynamics result in creating unique challenges that affect the performance and sustainability of specifically women-owned businesses in such an unpredictably negative way.

While the Egyptian government is exerting a substantial deal of efforts to close the gender gap by putting gender equality as one of the main priorities on its (*Egypt Vision 2030*, 2015) agenda, women entrepreneurs account for 1.8 percent, while their men counterparts account for 10.3 percent (Ismail et al., 2018). Many research papers (Mattis, 2004; Nixdorff & Rosen, 2010; Sharif, 2015) suggest that in spite of all the feminist movements and gender equality protests, the glass ceiling phenomenon is still vigorous and predominantly adopted by a lot of the MENA region countries, including Egypt, where women are majorly suppressed as a result of hostility and patriarchy. According to (Cotter et al., 2001) the glass ceiling phenomenon is gender-based phenomenon refers to the invisible boundaries – including, violence, patriarchy, suppression, inequality, ...etc. – such boundaries sit on top of the hierarchy preventing women from reaching their ultimate potential and work on disadvantaging women in the society, and in turn, treating them as second-class citizens.

Many research papers (Moore & Holly Buttner, n.d.; Xavier et al., 2012) tried to study the driving factors that lead women to take a spur and leap into an entrepreneurial activity, and these papers suggested that women recently have been more growth oriented than ever before. This means that the reasons for women to become entrepreneurs are related to personal achievement, autonomy, financial security, freedom, and satisfaction, which are all consistent drivers and reasons with the emerging feminist theories (Beasley, 1999; Boudreaux & Nikolaev, 2018; Hurley, 1999).

Yet, great emphasis has been put on the challenges facing women entrepreneurs, not just in a difficult patriarchal society that is portrayed in the MENA region, but all over the world. According to (Marlow & Patton, 2005) women entrepreneurs who wish to enter the entrepreneurial ecosystem regardless of the country and the culture are underprivileged, discriminated, and disadvantaged by their gender only. This is prevalent in the investors' inclination and tendencies to fund male-led ventures. What is more, recent

literature (Carter & Shaw, 2006) pointed out the sophisticated complexities of women's entrepreneurship entrance, sustainability, and competitiveness in the market as opposed to men entrepreneurs and the different nature of the constraints faced by entrepreneurs based on their gender.

This growth of women entrepreneurs, especially in developing or emerging economies, has drawn the attention of policymakers and government officials to the untapped source of economic growth and maximum capacity-building (Minniti & Naudé, 2010). International public institutions, national and local governments, non-governmental organizations (NGOs), private companies, charities, knowledge institutes, and business associations have come to the realization that women entrepreneurship is essential for growth and development. Thus, they have initiated programs and policies to promote and develop women's entrepreneurship, including i) programs for capacity-building of entrepreneurial knowledge and skills, ii) strengthening women's networks, iii) provide finance and training workshops, and iv) design policies that enable more and more reliable start-ups and business growth (Vossenber, 2013).

Moreover, a lot of literature has emphasized the nature of the entrepreneurial activities as gender-biased (Anderson et al., 2009; García & Welter, 2013). Given that the society is constructed in a way to accept male-domination in challenging and leadership positions and favoring the masculine figures over the idea of having a female-led start-up (Cornwall, 2016; West & Zimmerman, 1987).

3.4. The Policies and Initiatives Empowering Women Entrepreneurs in Egypt

Egypt is adamant to catch up with the seventeen global sustainable development goals (SDGs), thus, Egypt's SDS 2030 (*Egypt Vision 2030*, 2015) efforts have been put in place since 2015. Accordingly, certain key performance indicators (KPIs) addressing sustainable development goal number five, which is gender equality including increasing the female labor force participation, as well as increasing Egypt's rank in the international gender gap index. With that in mind, the Egyptian government is prioritizing women in business and the inclusivity of women-owned businesses through reinforcing fiscal laws and policies to aid women entrepreneurs in their start-ups and business ventures.

Notwithstanding the strength of the aforementioned policy interventions and their relevance to promote women-owned businesses, practicing those policies is more crucial than developing them. Thus, it is suggested that governments have to start with developing relevant entrepreneurial policies that encourage women participation while making sure that they are able to implement these policies to deliver the utmost benefit for the entrepreneurial ecosystem, women entrepreneurs' start-ups, and the society at large.

Egypt has been the recipient of technical assistance from various international development organizations to help it with the development of women entrepreneurship. The following section presents initiatives undertaken between the Government of Egypt and both the ILO and the World Bank. In efforts to help women in the developing countries unleash their potential of full participation in the economic development scene, and gain equal opportunity to pursue an entrepreneurial activity, the International Labor Organization (ILO) adopted a well-defined strategy in collaboration with the NCW to promote women's entrepreneurship development in March 2018. The strategy builds from the expertise developed since 2002 on supporting women entrepreneurs through the Women's Entrepreneurship Development and Gender Equality (WEDGE) project funded by Irish Aid and NORAD. It identifies gender-based barriers that women entrepreneurs face in starting and growing their business. The main aim of such a strategy is to inform governments, policymakers, and key decision-makers to allocate the required resources and finances for women to be able to have equal opportunities to the men; besides, create a better environment for women with less discriminatory nature.

One of the initiatives created mainly to empower women entrepreneurs to build their own MSMEs was developed by the ILO and adopted by many governments, non-governmental organizations (NGOs), and civil societies in the developing countries, and was implemented successfully in Egypt. The GET (Gender and Entrepreneurship Together) Ahead initiative as part of the Women Entrepreneurship Development (ILO-WED) Program (ILO, 2016) is directed towards women in smaller-scale enterprises. It focuses on delivering training packages and resource kits for low-income women engaged in or aspire to start their own small-scale business in developing countries. This initiative (Shorbagi et al., 2016) provides

unprivileged women with the necessary tool kit to strengthen their essential business and people management skills, in addition to addressing practical and strategic business solutions. The main feature of the WED program and the GET Ahead initiative in particular – which sets it apart from other entrepreneurial mentorship and training programs – is that the delivery of the training stems from the nature of the leadership characteristics and entrepreneurial motives possessed by women that are drastically different than those portrayed by men. Whereby men in Egypt need technical training about financial literacy and the proper way of doing business, women need this kind of technical training, in addition to soft skills that touch on their leadership and development skills. Thus, the paradigm of the program is designed from a gender-based perspective to assure the compatibility of the material delivered with the ideologies of the women participating.

Other initiatives developed to serve women entrepreneurs in collaboration with the Egyptian Government include the World Bank’s Women Entrepreneurs Financial Initiative (We-Fi, 2019). This initiative realizes the main challenges facing women entrepreneurs in developing or emerging markets and explores the means to help them with finding sources of funding, incubating startups, or through mentoring and training opportunities. The government through its different institutes and agencies tag along most of the initiatives catered towards women, where the Central Bank of Egypt (CBE) passed policies to facilitate the micro-financing schemes for MSMEs, generally and women-owned ones, particularly. The CBE realizes the peculiar nature of the Egyptian context, especially for women entrepreneurs, thus, a regulatory financing framework had been employed early in 2018 in three of the poorest governorates in Egypt based on the “Gameaya” concept. A loan concept – that has been followed by the Egyptians for centuries – founded on community-based loans. Similarly, the CBE has created the Village Saving and Loans Associations (VSLAs), by which beneficiaries (village residents, mostly women) organize themselves into informal savings and credit groups. Some of the beneficiaries of VSLAs use their group savings to access loans for income-generating projects (Alliance for Financial Inclusion, 2019). The CBE is now looking into facilitating the digitization of the VSLAs tool to encourage the overall financial inclusivity in Egypt.

Moreover, the National Council for Women (NCW) collaborates with the Egyptian Micro, Small, and Medium-Sized Enterprises Development Agency (MSMEDA) to provide the adequate training, mentoring, and networking opportunities for women entrepreneurs, in addition to opportunities for exhibiting their businesses or finding sources of funding.

4. Chapter Four: Conceptual Framework and Research Hypotheses

4.1. Defining Entrepreneurship

Entrepreneurship is considered as one of the newest branches to business administration. Yet, a lot of definitions for it have been developed over the years. The next section looks at the different definitions of entrepreneurship based on different schools of thought. However, it is worth noting from the start that entrepreneurship is founded upon the idea of business creation and the ability to up-scale it – regardless of the motives.

In theory, one of the ways to define entrepreneurship is derived from psychology, and how entrepreneurship is reduced to certain mindsets, characteristics, and psychological attributes; some of which are attributes that an individual is naturally born with and that is what makes him/her an entrepreneur, others are characteristics and mindsets that can be developed and acquired through training and further development (Siba, 2019). This school of thought presumes that entrepreneurship depends on how the individual works hard and smart.

Other school of literature (Robert D. Hisrich et al., 2017) can define entrepreneurship as the ultimate creation of new enterprises through methodological innovation of ideas, technologies, and disruptive managerial approaches with the aim to build successful businesses that are able to maximize profits. This school of thought builds its assumption that the definition to entrepreneurship is based on creativity in stating up a venture or a business idea that can be managed in a way to scale up and generate profits. One of the most prominent examples used to define entrepreneurship according to this school is: Elon Musk, the founder, CEO, CTO, and chief designer of SpaceX; early investor, CEO and product architect of Tesla, Inc.; founder of The Boring Company; co-founder of Neuralink; and co-founder and initial co-chairman of OpenAI.

According to (Cunningham & Lischeron, 1991) in their journal article “Defining Entrepreneurship”, they categorized entrepreneurship into six main schools; The “Great Person” School,

The “Psychological characteristics” School, The Classical School, The “Management” School, The “Leadership” School, and finally The “Intrapreneurship” School. This means that entrepreneurship is a multi-dimensional field of social sciences that can be perceived differently from various distinct perspectives. Yet, its core remains about finding the right opportunity, creating the genuine ideas, managing the business, evaluating the viability of the process, and finally re-iterating.

That said, an entrepreneur does not necessarily have to be a Silicon Valley mogul, juggling around between his/her billions worth of investments and businesses. Conversely, an entrepreneur might be managing a simple idea and transform it to a small business that does not generate fortunes but is earning revenues that are scaled-up to profits. Hence, the core of entrepreneurs and entrepreneurship is not particularly about how much revenues or money, but more about how a business – no matter the size of it – is created and managed effectively and efficiently to the point of generating sustainable profits that are able to operate and up-scale the venture in many ways.

Moreover, entrepreneurship derives its importance in the economy from its ability to transform the overall economic status of a country and aid in its overall economic growth. This, in turn, helps in eradicating poverty and increase employment opportunities. According to the Global Entrepreneurship Monitor (GEM), entrepreneurship can be simply defined as “any attempt at new business or new venture *creation*, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business.” (Reynolds et al., 1999). This definition was initially put in place as a way to explain the role of entrepreneurship in the economic growth of any country. Hence, this is the definition that is going to be mainly employed in this research study, given its breadth and notion of creativity. In addition, the quantitative study of this research is going to derive the essence of entrepreneurship determinants based on the aforementioned definition; meaning that, entrepreneurship in the data sets is determined based on being an employer or self-employed.

4.2. Conceptual Framework

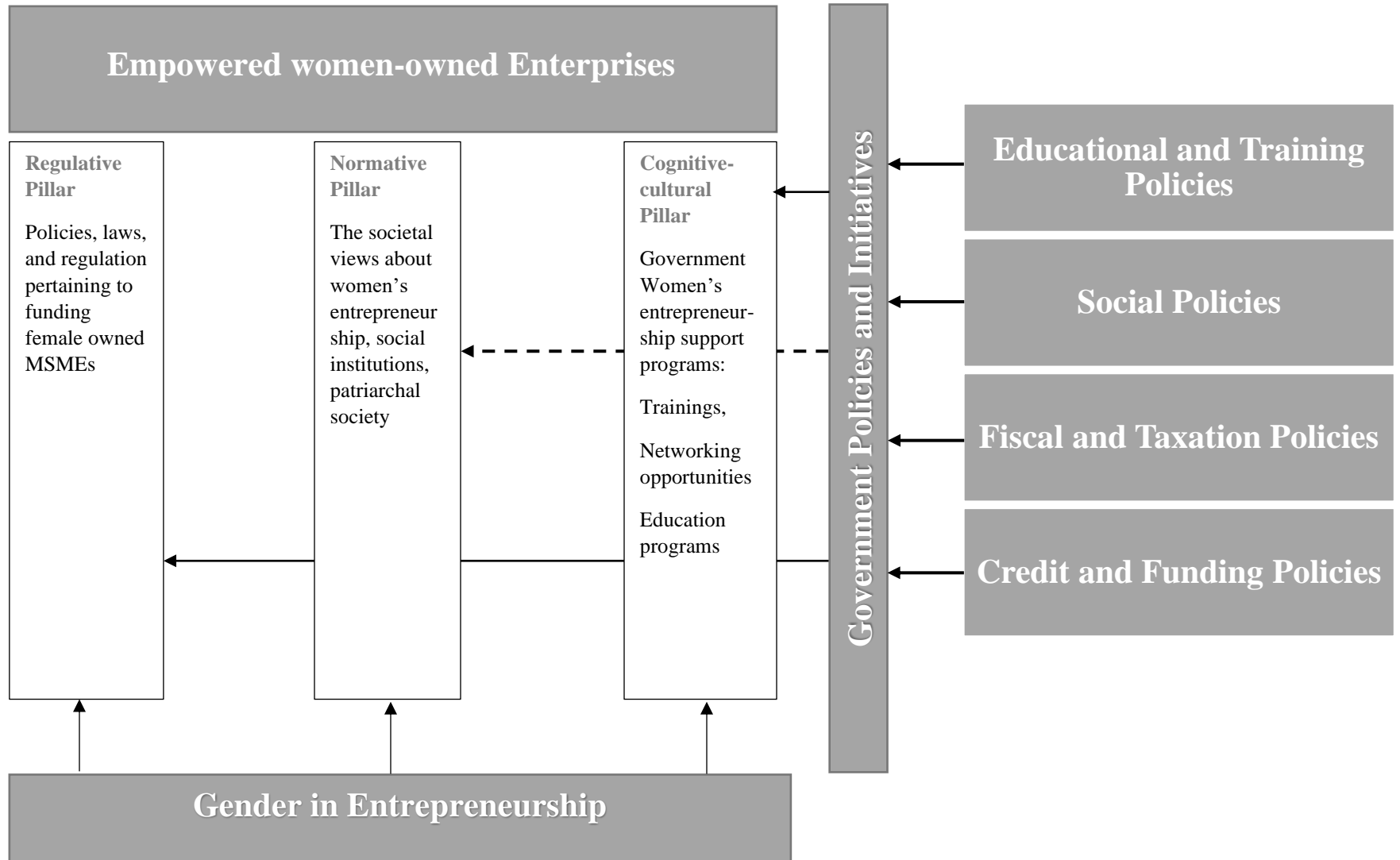
To better understand the impact and the role of government and their policies and interventions on women entrepreneurs in specific, a conceptual framework has been adopted. The institutional theory is going to be deployed as it is the central explanatory framework to any institution generally, and specifically to entrepreneurial ventures as they are considered micro institutes that are working on developing and growing into the market and the entrepreneurial ecosystem. Similarly, (Estrin & Mickiewicz, 2011) contended the relationship between the institutional framework where women entrepreneurs operate and their size with the entrepreneurial decision of a woman to start-up her own business. On that note Estrin and Mickiewicz deducted that women are less likely to be entrepreneurs in countries that have larger state institutions, but not necessarily have gender-specific effects on the rule of law. This implies that countries with large state sectors controlling the overall political and socio-economic environment with seemingly weak rule of law, like: Egypt would not be encouraging for women to have increased entrepreneurial activities. Unless gender-specific policies are employed and implemented effectively, women of such countries are going to be scared off participating in the ecosystem, majorly for the arguably sky-rocketing risk associated with countries of such environment.

Thus, using the institutional theory conceptual framework (Scott, 2013), while applying gender lens, will help in identifying the factors and challenges facing women entrepreneurs. The institutional framework is divided into three main factors and categories that affect the performance and development of the organization; these factors are considered the pillars of the institutions that support and aid its success. The three main pillars are the *regulative* pillar, which is concerned with the legal part of a start-up, that includes policies, regulations, laws, governance and monitoring systems put in place to ensure quality and operative performance; the second pillar, is mainly the *normative* pillar, which is the norms and values aspect of the organization, and the environment in which it is established and operating, in this case in addition to the area of research, this pillar defines the Egyptian entrepreneurial ecosystem and the patriarchal society women entrepreneurs are working in; and the third and final pillar is the *cognitive-cultural* pillar, which is about the degree of knowledge and education, this pillar encourages the rigorous

use of new learning techniques, and enhancing the overall knowledge to ensure the success, continuity, and sustainability of an organization, including training programs, networking opportunities, and getting entrepreneurial education support.

For the current research paper, the focus is drawn on the first and third pillars with an emphasis on the second pillar, as they are the most policy-related pillars and where most policy-related interventions will fall either in the regulative pillar or the cognitive-cultural pillar, while the normative pillar will be impacted indirectly by policies implemented. The main three pillars set by the institutional framework are subjected to governmental policies and key interventions through policymaking processes. Each of the three pillars identified is affected either directly like the regulative pillar and the cognitive-cultural pillars, or indirectly like the normative pillar, which can take much longer time to be impacted by changed policies, majorly because it tries to address, and fix discourses deeply rooted in the Egyptian culture. The policies impacting the three pillars ranges between educational and training policies, social policies, fiscal and taxation policies, and credit and access to funds policies.

Figure 3: Women Entrepreneurs Conceptual Framework



Source: Constructed by the Author based on the institutional conceptual framework (Scott, 2013)

4.3. Research Hypotheses

In order to answer the main research question of this research: “*How does the Egyptian government empower women entrepreneurs through key policy interventions?*”, the aim is to test two main hypotheses that are related to gender in entrepreneurship and the different policies adopted to address it as a factor for economic growth and development to governments nowadays:

Hypothesis 1: Women entrepreneurs are especially empowered by the governments’ entrepreneurial programs, training, and networking events that are directed towards women

Hypothesis 2: Micro, Small and Medium-sized Enterprises (MSMEs) owned by women increase and flourish based on the introduction of the credit/fund policies that are especially catered for women

As depicted in the research hypotheses proposed, this research study mainly focuses on two main policy aspects directed towards women entrepreneurship. The first hypothesis is concerned with the educational services and policies that can aid women to build their entrepreneurial ventures. This hypothesis presumes that women entrepreneurs are especially empowered by the governments’ policies and regulations that are customized for women, as this gives them a sense of responsibility and recognition. In addition, the governments’ entrepreneurial programs are assumed to help in elevating the overall mindset of women entrepreneurs through adapting specific training and educational programs that work on the capacity building of their entrepreneurial knowledge and skills. Additionally, such programs are presumably providing women entrepreneurs with the right environment to flourish as well as the adequate networking opportunities to grow. While the second hypothesis presumes that financial support policies represented in gender-specific micro-funding and credit scheme policies implemented by the government in collaboration with national and international organizations, banks and financial institutes will lead to a successful women-owned start-up or venture.

4.4. Research Methodology

This research paper will depend mainly on using mixed research methods, which will examine the relational structure between policies and governmental interventions in empowering women entrepreneurs in Egypt and encouraging them to embark on their entrepreneurial ventures. Besides, using mixed methods will allow this research paper to develop well-informed inferences with the primary role of supporting or demolishing the underlying hypothesis.

Mixed methods research combines methods from different paradigms or uses multiple methods within the same paradigm (Thurston, Cove, & Meadows, 2008). The use of quantitative research methods will provide rigorous and solid ground to the base of our study, as it will also show trends, facts, and empirical measures. At the same time, the qualitative data will bring depth to the research paper with its philosophical way of identifying complex behaviors, tactics, hidden values, and varied individual perceptions (Bliss, Rocco, Gallagher, & Pérez -Prado, 2003). Based on the previous literature reviewed, it was presumed that this methodology is the best fit for this particular research study because it is going to innovate, add value and provide more significant insights to the subject matter. As the primary source of data will rely on quantitative methods that will evidently yield more empirical results. In turn, it will contextualize the current study. Furthermore, adding a qualitative dimension to this research will aid triangulation, which is the substantiation of results so as to increase validity and achieve greater depth and insight to develop informed inferences and conclusion (Cameron & Molina-Azorin, 2011).

For the sole purpose of getting as many details as possible and context regarding the research topic while avoiding making an invalid generalization, the mixed research method/mode will be designed based on the “building blocks” theory. This will ensure that each step in our study will form a steady foundation for the whole body of research, allowing this research paper to develop evidence-based and well-informed empirical results about the impact of the governmental support and policy interventions in empowering more women to participate in the Egyptian current entrepreneurial ecosystem.

The next section will explain in depth the mixed research methodology employed in this research study. It goes further into details about the quantitative methods and data used as the foundation and base of the study, whereby the qualitative will be built easily upon to create an understanding of the current entrepreneurial ecosystem for women and the ease of access to funds, training, educational workshops, and networking opportunities. The quantitative methods are based on five data sets addressing the entrepreneurial ecosystem, propensity, challenges, and opportunities. Then, the data were streamlined, and variables were selected to serve the purpose of this research study.

Finally, the data were regressed, tabulated and informative graphs were generated using STATA software, which is going to aid in the data analysis and findings section of the econometric models employed. This aids in creating the perfect prefatory for the qualitative research methods adopted in this study. The qualitative methods are based on interviews with three different clusters of interviewees, including, women entrepreneurs, acting as first hand witnesses of the current environment, challenges, opportunities, and governmental empowerment schemes and general policies; the second cluster includes key personnel from development and entrepreneurial programs; last but not least, the third cluster interviews the governmental personnel responsible for creating the cohesive, adequate, and reasonable policies to address the challenges facing women entrepreneurs and help empower them through creating more inclusive initiatives to encourage them to capitalize on their untapped potential of promoting an overall economic development in Egypt.

5. Chapter Five: Quantitative Methodology

5.1. Quantitative Data Description

For this research paper, the main source of data will rely on data sets retrieved from the Global Entrepreneurship Monitor (GEM), and the Economic Research Forum (ERF) pertaining to women and their employability, the percentages of women-owned businesses, the enabling and restraining factors to become a successful entrepreneur. The data sets employed in this research paper encapsulates the entrepreneurial ecosystem in Egypt with the application of the gender lens to ensure that the data is highly representative of women in Egypt, generally and women entrepreneurs, specifically.

Additionally, to bring much needed context to this research paper, the unit of analysis that this research paper will be based on is going to be a country-based analysis, as the study is primarily discussing women's entrepreneurship efforts, opportunities, challenges, and overall ecosystem in Egypt and the application of the right programs and schemes by the Egyptian Government and NGOs to empower women and help them in their entrepreneurial ventures.

The five main data sets used from the ERF are the Egyptian Labor Market Panel Survey (ELMPS) 2018, which is going to be the primary source to explain and introduce the background of the Egyptian culture and current entrepreneurial ecosystem; the Micro and Small Enterprises Survey (MSEs) 2004, which is going to be a more concentrated and focused on the nature of the small businesses owned by women; finally, the Study on the Constraints Facing the Development of Micro and Small Enterprises (CDMSE) 2014, which is going to aid in informing this research paper with the main constraints and restraining factors facing women entrepreneurs. Furthermore, the most two recent data sets published by the GEM report for the years 2018 and 2019 are going to be the main data sets and the foundation for this study and in answering the main research question addressing policies catered towards female-owned enterprises.

It is worth noting, that GEM 2018, GEM 2019 and the ELMPS 2018 will be the main data set for running and generating regression models, while the MSE 2004, and CDMSE 2014, are used as secondary and supporting data providing illustrative facts, figures, and graphs about the current Egyptian entrepreneurial ecosystem for women. The five main data sets are discussed and described in detail in the following section:

5.1.1. The Global Entrepreneurship Monitor 2018 and 2019

The Global Entrepreneurship Monitor (GEM) is a global organization that monitors all the entrepreneurial activities carried out across the globe. Through its global and regional teams, GEM issues annual reports based on research-based surveys on entrepreneurship and entrepreneurial ecosystem around the world. GEM efforts have been contributing to the world economic growth and development for 22 years through informing policymakers and key government personnel with insights to foster entrepreneurship in order to propel economic growth and cultivate prosperity, especially after times of great recessions, for example: the 2008 economic recession, or what we are witnessing currently with the Coronavirus Pandemic, which is hitting the world economy.

The data sets (GEM, 2020) include a total population of 5,445 observations devised of male and female participants alike. However, the female observations in the data sets were limited to only 561 and 1280 in 2018 and 2019, respectively. While the male observations were recorded at 2344 observations in 2018 and 1260 observations in 2019, which signals to an improvement in the gender gap in entrepreneurship. Since, GEM data sets focus mainly on entrepreneurs, the aforementioned observations are highly representative to the actual entrepreneurial ecosystem in Egypt. Hence, it is going to inform the main research question.

5.1.2. The Egyptian Labor Market Panel Survey 2018

This data set (OAMDI, 2019) will work on providing the research with the required overview descriptive explanation of the labor market in Egypt, and in turn give adequate insights about the economic environment and entrepreneurial ecosystem overall – not limited to females only. This step will aid in

identifying entrepreneurship for women better, given the context of the current Egyptian market. It is also worth mentioning that The Egyptian Labor Market Panel Survey (ELMPS) 2018, is the latest production of the ERF on the Egyptian labor market. Thus, the data used will be the most recent and updated version on the Egyptian labor market.

The total population surveyed in this data set is 61,230 observations, and the sample size of female participants is 30,688 (a little bit over 50% more than their male counterparts). However, for the purpose of the study, which test the probability of becoming a woman entrepreneur given the current economic and entrepreneurial environment in Egypt, a lot of the observations have been dropped to focus only on females who are employers or self-employed. Thus, the sample size on which this research study is based on will eventually reach 25,513 observations.

As such, the sample size of the study is believed to be highly representative. As it focuses mainly on the core of this study omitting any noise that might skew or manipulate the data. The ELMPS 2018 has two primary questionnaires, the Household questionnaire, and the Individual questionnaire. The aim of the ELMPS generally is to examine new issues or allow more in-depth examination of existing issues. Accordingly, the 2018 wave of the ELMPS devoted more attention to the measurement of the instability of employment, focusing – in particular – on job turnover among casual workers. It also provided more detailed information on health, gender role attitudes, food security, hazardous work, community infrastructure and the cost of housing. It incorporated specific questions on vulnerability, coping strategies and access to social safety net programs (Krafft , Assaad , & Rahman, October 2019). In the research paper, major focus is drawn on the demographic part of the questionnaire – the detailed selected variables are shown below in (Table 1: Quantitative Data Matrix - Variables mapping across data sets used) – as it addresses the main research question adequately.

5.1.3. The Micro and Small Enterprises Survey 2004

This data set (OAMDI, 2013) is going to be employed in this study to bring in a focused view on Micro and Small Enterprises (MSEs) owned by women and their performance. In addition, it will provide

a lot of insights about the difference of density and operation between male-owned MSEs in relation to female-owned MSEs.

Although this data set will aid in constructing a several detailed descriptive analyses to this study, it cannot be fully relied on, as the data goes back to over a decade ago – 2004 to be more precise. Thus, the data and analysis inferred from such data will not be very reliable in explaining and answering the research question as it does not necessarily represent the current economic environment and entrepreneurial ecosystem in Egypt.

It is also worth noting that the population size for this data set is 26,435, while the sample size of this study will remain focused on women in the data set which account for 1,873 observations. Accordingly, this data set will be included in the study as a secondary source to help understand and triangulate data with the given current political, legal, and economic environment.

5.1.4. The Constraints Facing the Development of Micro and Small Enterprises 2014

This final data set (OAMDI, 2016) that will be used in the research paper looks into studying the main constraints facing the development and establishment of MSEs. This is going to explain the challenging environment facing entrepreneurs in Egypt. Furthermore, it will study these challenges from women entrepreneurs' perspective to help inform this study, while incorporating the finding of this analysis to the primary measure which is the ELMPS 2018. The population size of this data set is comprised of 447 observation, 68 of which will be included in this study. Despite the limited sample size, this data set will add great value to this research paper through highlighting the constraints facing women to start-up their own business or further develop it. Accordingly, this research paper will aid in suggesting the adequate and right suggestion for NGOs to help empower women entrepreneurs, through trying to eliminate the constraints they are facing in developing their MSEs or the barriers of entering the market.

Finally, all five data sets will include much selected variables that are relevant to this research paper and will help bring in-depth analysis and inferences that would be rather incomplete unless all data sets are incorporated in one study to inform the suggestions and recommendations of this study. Additionally, as suggested by the sample size of each data set, a foundational interpretation of the percentage of women

entrepreneurs and their participation in the entrepreneurial ecosystem in Egypt has taken place. This urges the study to identify the reasons behind such a phenomenon and the ways that can help eradicating it.

5.2. Quantitative Methods

Since STATA is the main software used for describing, analyzing, and making sense of the data and figures, it is important to note the way in which STATA is employed in this study. STATA is purposefully going to generate statistical models using regressions that aid with creating an understanding of the current trends, which in turn can be translated into forming logical predications in forecasting future trends and the main factors impacting a certain phenomenon. In the case of this study, the PROBIT Statistical model is put in place to inform the dependent variable of this study, which is whether or not women have the probability to become entrepreneurs based on a number of independent variables, representing the different factors and drivers. These factors and drivers are the chief motives for women to shatter the second glass ceiling; they can be personal, professional, cultural, or societal. But above all these factors, is the policy factor that studies all these motives and tries to propose the proper policies to help empower women entrepreneurs in Egypt.

Variables	GEM 2019	GEM 2018	ELMPS 2018	MSE 2004	CDMSE 2014
<i>Gender</i>	X	X	X	X	X
<i>Age</i>	X	X	X		
<i>Entrepreneurship</i>	X	X	X	X	X
<i>Established Business</i>	X			X	X
<i>Marital Status</i>			X		
<i>Education</i>	X	X	X	X	X
<i>Income</i>		X	X		
<i>Region (Governorates)</i>			X	X	X
<i>Household Size</i>			X		
<i>Network</i>	X	X			X
<i>Opportunity</i>		X			X
<i>Self-efficacy</i>		X		X	
<i>Growth</i>		X			
<i>Reason</i>	X	X			
<i>Culture</i>	X				
<i>TEA19</i>	X				
<i>Angel</i>	X				

Table 1: Quantitative Data Matrix - Variables mapping across data sets used

5.3. Data Listing and Descriptives

5.3.1. Background Data

The total population included in this study and the main data set (ELMPS 2018) is 61,231 observations, some of which had inactive or idle feedback on the survey. Thus, throughout the descriptive part, the study might face minor discrepancies in the total and summation of some of the variables that are intended to be used as the foundation of this research study.

With respect to the main field of interest, the percentage of women in the whole population had to be determined, as women are going to be the base of this sample. As depicted in (Figure 4: Pie chart of gender on Total Population), women presume half the population surveyed with approximately 30,000 observations were females. Additionally, to bring context in introducing the data set used, the ages included in the survey had to be identified), which states the age mean of the whole population to be twenty-six years old. This explains the data and provides context about the population and the sample studied.

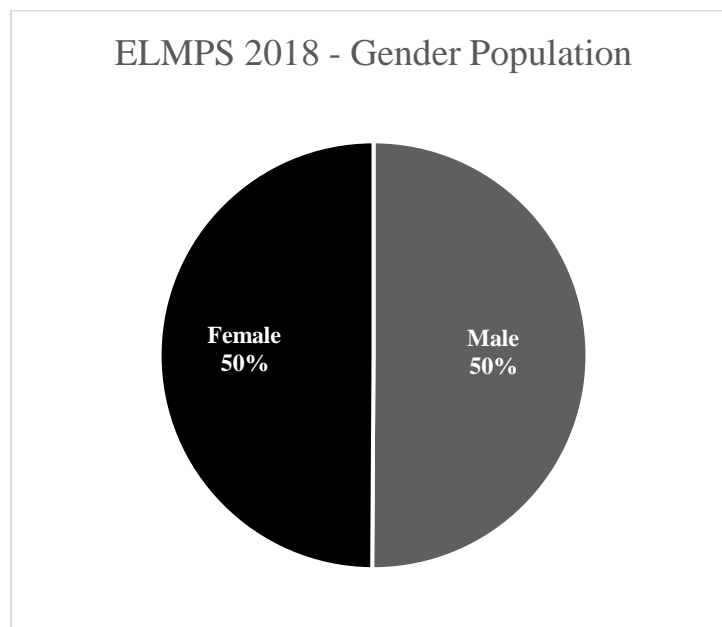


Figure 4: Pie chart of gender on Total Population

Source: Constructed by the Author using ELMPS 2018 data set

In order to design a well-constructed econometric and statistical model that can be relied on for further research, the main variables had to be specifically identified, and above all the dependent variables had to be defined in relation to the current study. As women's entrepreneurship is being examined in Egypt, the definition of who is an entrepreneur in regard to the data set had been firmly explained in the conceptual framework, stressing that, an entrepreneur according to this study will mainly be either an employer or self-employed for the last three months – at the time of the survey administration. This definition of an entrepreneur will assure an effective study and examination of the statistical and econometric model.

Employment Status in Primary jobs		Frequency	Percent	Cumulative
Employed	Waged Employee	12,436	60.44	60.44
	Unpaid Family Worker	4,909	23.86	84.3
Entrepreneur	Employer	1,349	6.56	90.85
	Self-employed	1,883	9.15	100.00
Total		20,577	100.00	

Table 2: Segregation of Data by Primary Type of Employment

Source: Constructed by the Author using ELMPS 2018 data set

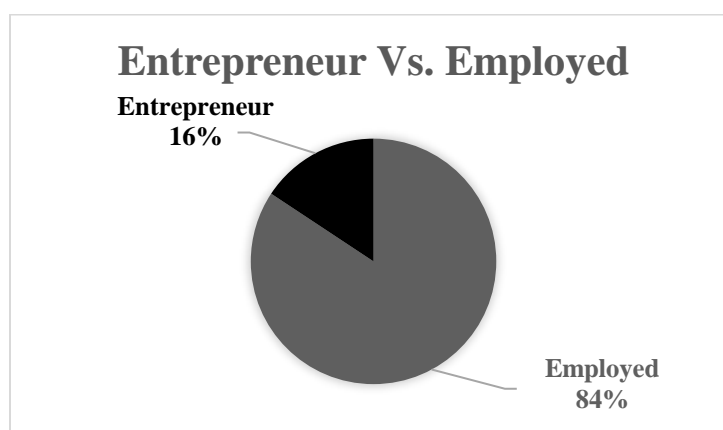


Figure 5: Entrepreneurs Vs. Employed

Source: Constructed by the Author using ELMPS 2018 data set

The first statistical model that is going to be used in this study will try to explain the effect of 18 independent variables that were listed on STATA; some were categorical variables that had to be translated

into a coded language, as shown in the below example: marital status, which is a categorical variable that included up to 6 categories had to be translated in a way that can be processed by STATA.

5.3.2. Egypt’s Entrepreneurship

Although the ELMPS 2018 data provided a general overview regarding the propensity of women becoming entrepreneurs in Egypt and how the current environment is set up and impacting their choices, the GEM 2018 and 2019 data are going to define and go more in depth into the activities of current women entrepreneurs in Egypt. The Global Entrepreneurship Monitor has been collecting data from Egypt for over a decade now. The historical data collection tool shows the density of males versus females in participating in the annual survey. As illustrated in (Figure 6: GEM population by Gender in Egypt 2008-2019), the female population surveyed has been witnessing a steady increase over the years, which gives a great initial indication about women’s participation in the entrepreneurial ecosystem in Egypt.

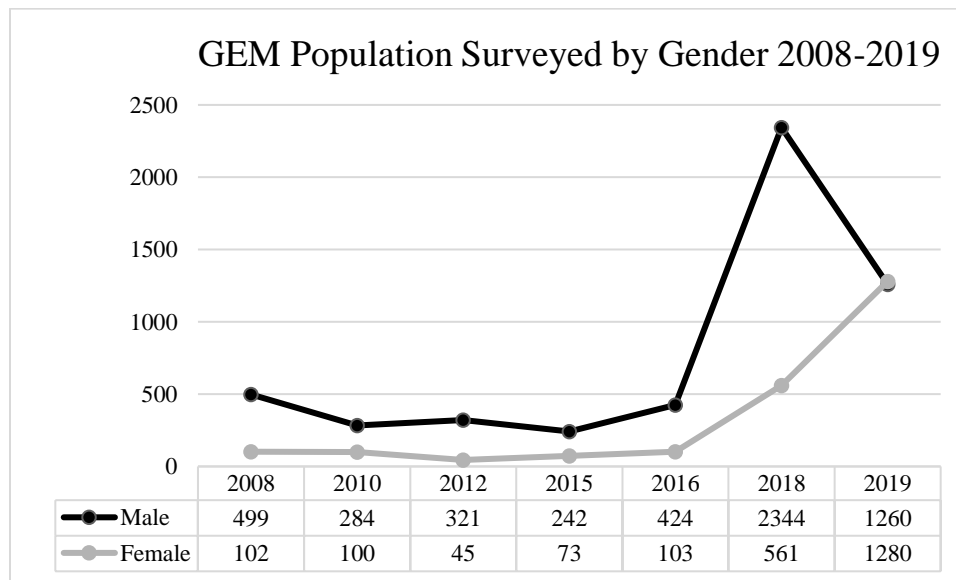


Figure 6: GEM population by Gender in Egypt 2008-2019

Source: Constructed by the Author using GEM (2008-2019) data

One of the ways where the GEM report tries to analyze and address as part of its annual publication is the entrepreneurial framework whereby the countries involved in reporting can address and measure its development and progress in certain areas, like, the governmental policies in terms of support or taxes, the

cultural and social support, and the market entry regulation. All these aspects can be compared annually, over the regional average, by income level, or over the global average.

In efforts to understand the entrepreneurial framework in Egypt, (Figure 7: GEM Entrepreneurial Framework Conditions) shows clearly where Egypt stands in the governmental policies in terms of support and relevance, taxes and bureaucracy, and entrepreneurial programs. As illustrated, Egypt is seemingly developing in these aspects where slight increase can be detected over a year from 2018 to 2019. Furthermore, these aspects are evidently more developed in Egypt compared to the performance of Egypt's comparative groups by region (Middle East and North Africa Region), and by income level – low-income levels – where Egypt lies. Yet, the entrepreneurial framework conditions showed that in terms of the taxes and bureaucracy, Egypt has a long haul to reach the global average.

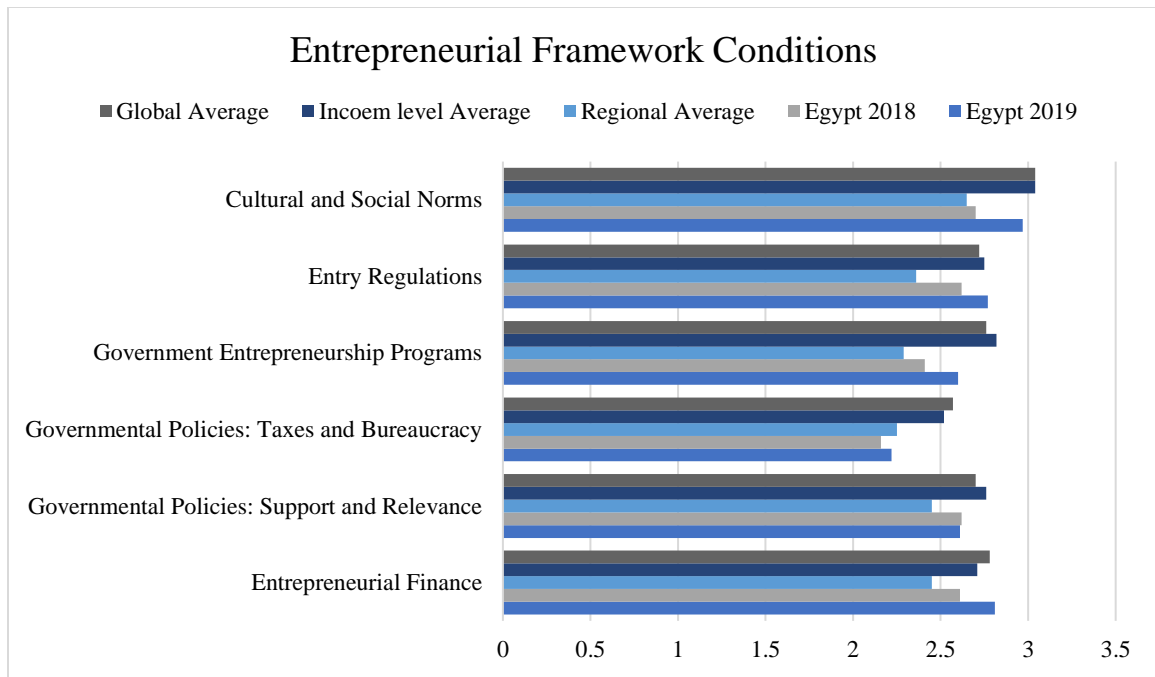


Figure 7: GEM Entrepreneurial Framework Conditions

Source: Constructed by the Author using GEM (2018 and 2019)

Surprisingly, in the cultural and social norms aspect, Egypt has taken a great leap from year 2018 to year 2019 at 2.75 points to 2.97 points, respectively, narrowing the gap between Egypt’s average and the global average. This leap is also paralleled in the entrepreneurial finance, where more funds are being invested in entrepreneurial ventures than ever before; and the entry regulations, making the entrepreneurial market entry more accessible to more people alleviating the burden on many to make it more attractive. This shows that Egypt, in general, is more acceptable of the entrepreneurial inclination – sometimes determination – inherent in today’s generation, which could be a result of time, the governmental direction towards this route, or a combination of both. Ultimately, this research paper will explain this more in-depth using GEM data sets.

In addition, using both data sets for the years 2018 and 2019 is going to help explain the drivers, motivation, activities, and support received by women to become entrepreneurs. Consequently, this will provide a foundation for this research to build upon with qualitative data.

5.3.2.1. GEM 2018

A total of nine variables are included as part of the study and the size of the population is 5,098. As illustrated in (Table 3: GEM 2018 Dependent and Independent Variables) the variables' types vary from being dummy variables, continuous variables, or categorical variables. For the dummy variables, the data set includes, female, which is the variable for gender; if a woman is involved, it has the value of one, otherwise it has a value of zero. The second dummy variable is if the population in the data set know a starter, which has a value of one and not knowing a starter has a value of zero. In addition, self-efficacy is a dummy variable, with one meaning that the sample is self-efficacious, and zero meaning that they are not. The perception of an opportunity by the population is also a dummy variable, where perceiving the availability of the opportunity with an optimistic approach has a value of one, while having a pessimistic perception has a value of zero. The last dummy variable in the data set is the reason for becoming and entrepreneur and the main motive, whether it is a necessity or an opportunity; the necessity is valued at zero and the opportunity is valued at one. The data set included two continuous variables, namely, the age, which is bracketed between eighteen and sixty-four years old, the age squared which is the squared value of the ages reported in the data set, and the years of education which ranges between one year and nineteen years. Finally, the only categorical variable in the data set is the variable related to the family income, whereby it is categorized and coded by low income, middle income, and high-income groups.

Coded Variables	Description	observations	Mean	St. Deviation	Min.	Max.
Female	Gender	5098	.1930169	.3947048	0	1
Age	Age of Population	5093	35.1913	11.30513	18	64
Age squared	Squared values of age	5093	1366.209	875.9958	324	4096
Network	Knows a starter or more	5061	.4382533	.4962217	0	1
Opportunity	Perception of opportunity	4650	.6367742	.4809808	0	1
Self-efficacy	Self-efficacy	5008	.8007188	.3994997	0	1
Income	Income categorized into 3 groups	3690	2.010569	.8571906	1	3
Education	Years of Education	5055	12.38259	5.127578	1	19
Growth	Expectation for Growth	3719	1.097209	1.379522	-3.951244	4.624973
Reason	Reason (motive) for becoming an Entrepreneur	4761	.4389834	.4963151	0	1

Table 3: GEM 2018 Dependent and Independent Variables

Source: Constructed by the Author using GEM 2018

5.3.2.2. GEM 2019

While the ELMPS 2018 data set was used to identify the current environment and overview of the background that can in a way support or prevent women becoming entrepreneurs, and the GEM 2018 data set helped in identifying the main drivers and motives for Egyptian women to turn to entrepreneurship. Thus, both data sets were employed to provide a fuller depiction about the current entrepreneurial ecosystem in Egypt and how it has been for women, especially during the past three to two years. On the other hand, the GEM 2019 data set is mainly used to look more into details of the main supporting factors currently employed in Egypt for entrepreneurs in general and how they are reflected on women entrepreneurs in specific. Besides, those defining factors reflect the main question and hypothesis of this research study, meaning that the main variables studied through GEM 2019 data set are, network, education, and financing programs.

A detailed description of the data and the variables is demonstrated in (Table 4: GEM 2019 Dependent and Independent Variables). There are thirteen coded variables and their description, in addition to the total number of observations for each variable, which changes based on the type and nature of the variable and what it measures. The data set includes a total of nine dummy variables (0 or 1) variables testing, the Established business, which is a business that has been operating for more than forty two weeks – this is defined according to GEM 2019 survey and data set; the gender, a value of zero is assigned to the male observations, while one is assigned to the female variables; the Total Entrepreneurial Activity (TEA) variable, which addresses the degree of availability of entrepreneurial activity in Egypt, a value of zero is assigned to the absence of such activity, while one is assigned to its availability; Network, a variable that is also available in GEM 2018, and it identifies the existence of networking opportunities through knowing a starter or a fellow entrepreneur that allows for the growth of the overall entrepreneurial activity; Angel, refers to the angel investments received by entrepreneurs to fund and finance their start-ups and business ventures; and finally, the last four variables address the motives behind the move to an entrepreneurial activity, the motives include, making a difference in the society in which the start-up operates, making money, keeping a family tradition alive, and earning a living.

Coded Variables	Description	Observations	Mean	Std. Deviation	Min.	Max.
Established	Established Business, operating for > 42 months	2540	.0149606	.1214192	0	1
Female	Gender	2540	.503937	.500083	0	1
Age	Age of the sample	2536	34.89511	11.98694	18	64
Age squared	Squared Values of Age	2536	1361.299	925.8691	324	4096
Education	Levels of Education	2530	4.535178	1.509345	1	7
Culture	Cultural Support	2131	2.436415	.787858	0	3
TEA19	Total Entrepreneurial Activity	2540	.0688976	.2533299	0	1
Network	Knows a starter or more	1969	.5210767	.4996825	0	1
Angel	Angel Investment (Finance)	2538	.0267928	.1615091	0	1

Table 4: GEM 2019 Dependent and Independent Variables

Source: Constructed by the Author using GEM 2019

The other four variables are continuous for age and age squared, which as mentioned before, brings a better understanding of the data and the age distribution across the data set used, and the categorical variables are, both the education, which categorizes the education by highest levels of educational attainment, and it covers seven categories starting from illiteracy going all the way to master's degree; and the other categorical variable discusses the culture and the support provided through it, this variable in particular has four levels of categories, no support at all is assigned a value of zero, low support is assigned a value of one, moderate level of support is assigned a value of two, and finally high level of support, which is assigned a value of three.

First, the gender included in the data set and as mentioned in the response rate to GEM surveys over the years that the percentage of women and men included in the data set reached an optimum level of equality, whereas 50 percent of the population represents both the male and female observations (Figure 8: GEM 2019 – Gender). This is going to help better understand the data at hand and how the support and benefits are segregated across the data set and how they are provided and facilitated to a certain gender or if there is seemingly a degree of equality when it comes to support. Thus, having a good representative sample will explain and furnish a better-triangulated inference.

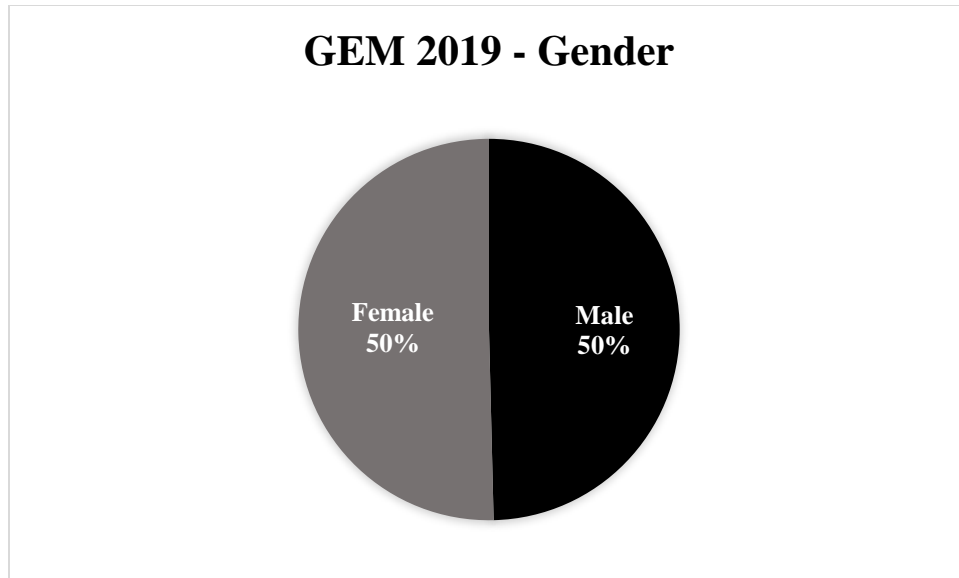


Figure 8: GEM 2019 – Gender

Source: Constructed by the Author using GEM 2019 data set

As this study is based on women and gender is a main corner stone, an understanding of the distribution of attained levels of education and level of culture support distributed by gender would equip this study with the required manifestation of the overall entrepreneurial ecosystem in Egypt from educational perspective, in addition to the cultural perspective, which is majorly perceived as discriminatory towards women as previously deduced from past literature, especially regarding the culture and gender in Egypt. Drawing from this concept, the highest level of educational attainment is shown by gender (Figure 9: Highest Educational Attainment by Gender) suggesting that the percentage of education is distributed evenly by gender. However, it is worth noting that the concentration of entrepreneurs lies in people who have a bachelor's degree or vocational training – Technical Education – regardless of their gender. Yet, another observation entails that women who have acquired their master's degree are more than men.

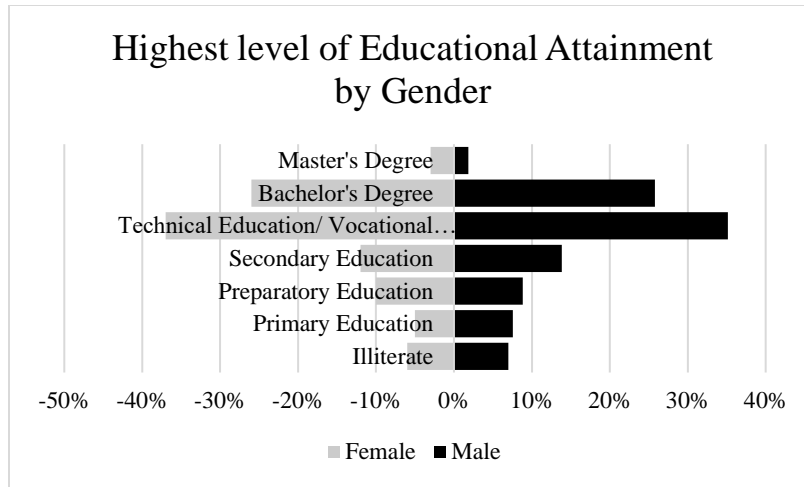


Figure 9: Highest Educational Attainment by Gender

Source: Constructed by the Author using GEM 2019 data set

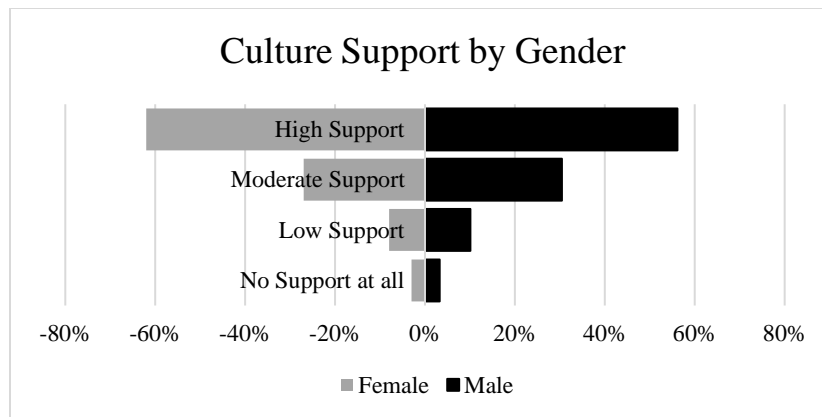


Figure 10: Culture Support by Gender

Source: Constructed by the Author using GEM 2019 data set

Notwithstanding the importance of culture support for an entrepreneur to start-up a venture, needless to emphasize that this concept is almost tripled if the entrepreneur in question is a female, a variable measuring the extent of culture support received by both men and women and is segregated in (Figure 10: Culture Support by Gender). The Graph depicts a surprising trend, whereby men and women agree to a great extent that they receive a high level of support from the society and that they are encouraged by the culture to start their own ventures. This signals a change in the Egyptian culture, in which it, not only, allows women to build their business, but also, encourages them and provides them with the needed support. De facto, this is a great leap towards development in the area of gender equality and basic human rights.

5.4. Empirical Output and Analysis

5.4.1. The Current Entrepreneurial Ecosystem in Egypt

As illustrated in the previous section, the variables included to construct the statistical models are based on binary or dummy variables in addition to continuous variables were added directly to the adopted model. Both types of independent variables will help explain the probability of becoming an entrepreneur in the Egyptian entrepreneurial ecosystem regardless of gender as a first step. This will aid the study in explaining the gender effect on the probability of becoming an entrepreneur without adding any external factors to the equation. The list of the variables used are determined in (Table 5: ELMPS 2018 Dependent and Independent Variables), where the dependent variable is entrepreneurship (Y), and the dependent variables (Xs) include the gender, age, region, household size, relation to the head of the household, years of education, and wealth. The data set selected was polished in order to explain the dependent variable clearly through concentrating the age group between the age of 16 and 65, as this age range is considered to be when most of the observations included think of turning into entrepreneurs. It is worth mentioning, that the data set includes five more years beyond the age of retirement, as it is suggested that some people will start their own entrepreneurial ventures within the first five years after the age of retiring their jobs (Solinge, 2015). This has dropped the number of observations to a total of 35,147 for all variables, except for the wealth which is less by five observations. This can be explained as most people do not feel comfortable disclosing information regarding wealth or savings.

Furthermore, as illustrated in (Table 5: ELMPS 2018 Dependent and Independent Variables), the variables are mostly dummy variables that were coded (0 & 1), zero for the absence of the variable in the data set, and one, for the existence of the variable in the data set. The only continuous variables included in the model are the age, age square, years of schooling, household size and wealth.

Coded Variables	observations	Mean	St. Deviation	Min.	Max.
<i>Entrepreneurship</i>	35147	.0853273	.2793722	0	1
<i>Gender</i>	35147	.5060176	.4999709	0	1
<i>Age</i>	35147	35.13637	13.20431	16	65
<i>Age Squared</i>	35147	1408.913	1033.635	256	4225
<i>Marital Status</i>	35147	.7493385	.4334001	0	1
<i>Alexandria</i>	35147	.0611147	.2395441	0	1
<i>Urban Lower Egypt</i>	35147	.1032236	.304255	0	1
<i>Urban Upper Egypt</i>	35147	.1308504	.3372415	0	1
<i>Rural Lower Egypt</i>	35147	.2875921	.4526464	0	1
<i>Rural Upper Egypt</i>	35147	.3365579	.4725389	0	1
<i>Spouse</i>	35147	.3316926	.4708279	0	1
<i>Child</i>	35147	.2498933	.4329572	0	1
<i>Grandchild</i>	35147	.0052921	.0725548	0	1
<i>Parent</i>	35147	.0039548	.0627638	0	1
<i>Sibling</i>	35147	.0075113	.0863429	0	1
<i>others</i>	35147	.0178678	.1324728	0	1
<i>Household size</i>	35147	4.501522	1.858803	1	25
<i>Education</i>	35147	8.761744	5.437929	0	24
<i>Income</i>	35142	-.0552742	.9332694	-1.772733	4.772511

Table 5: *ELMPS 2018 Dependent and Independent Variables*

Source: Constructed by the Author using *ELMPS 2018 data set*

This list of dependent and independent variables will be incorporated into two main equations, the first directed towards studying the whole population, thus gender is considered one of the independent variables in the above list. However, for the purpose of the research paper a more focused and limited population will be directed towards women and this will help explain how treating the whole entrepreneurial ecosystem can ignore women's participation in the market and that will lead to challenging circumstances for women who want to start-up their own businesses.

The population Equation is as follows:

$$\begin{aligned}
 entr(y) = & \beta_0 + \beta_1(female) + \beta_2(age) + \beta_3(agesq) + \beta_4(alex) + \beta_5(urblwr) + \beta_6(urbupp) \\
 & + \beta_7(rurlwr) + \beta_8(rurupp) + \beta_9(spouse) + \beta_{10}(son_daught) + \beta_{11}(grandchild) \\
 & + \beta_{12}(parent) + \beta_{13}(bro_sis) + \beta_{14}(others) + \beta_{15}(hhsiz) + \beta_{16}(yrschl) + \beta_{17}(wealth) \\
 & + \beta_{18}(evermar) + \varepsilon
 \end{aligned}$$

However, for the main study, the sample size focused on females is kept and all the male observations will be dropped from the sample. Yet, the independent variables will remain the same except

for the gender variable, as it will be informed of how gender affects the probability of an individual to become an entrepreneur, and to take this further, the probability of becoming a female entrepreneur in Egypt will be identified given the other aforementioned 17 independent variables, where the female focused sample equation is as follows:

$$\begin{aligned}
 Fentr(y) = & \beta_0 + \beta_1(age) + \beta_2(agesq) + \beta_3(alex) + \beta_4(urblwr) + \beta_5(urbupp) + \beta_6(rurlwr) \\
 & + \beta_7(rurupp) + \beta_8(spouse) + \beta_9(son_daught) + \beta_{10}(grandchild) + \beta_{11}(parent) \\
 & + \beta_{12}(bro_sis) + \beta_{13}(others) + \beta_{14}(hhsiz) + \beta_{15}(yrschl) + \beta_{16}(wealth) \\
 & + \beta_{17}(evermar) + \varepsilon
 \end{aligned}$$

In order to have a better understanding of the effects each variable might have on the dependent variable, descriptive graphs showing the relation of the independent variables on the dependent variable with different contextual lenses to help analyze the data and be more informed about the probability as well as the predictability of becoming an entrepreneur. Although, entrepreneurship is mostly treated with neutral perspectives and attitudes, challenges facing women entrepreneurs are innately different. Thus, the below graphs (Figure 11: Gender and Entrepreneurship, Figure 12: Female by Age Groups, and Figure 13: Age of Entrepreneurs by Males vs. Females) depict the actual effect of just being a female on the probability of becoming an entrepreneur.

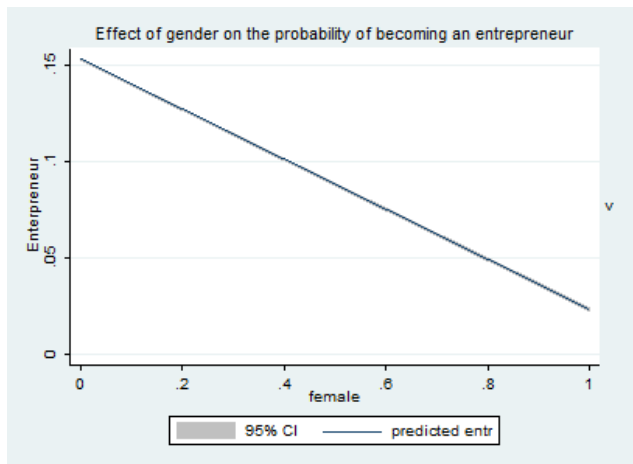


Figure 11: Gender and Entrepreneurship

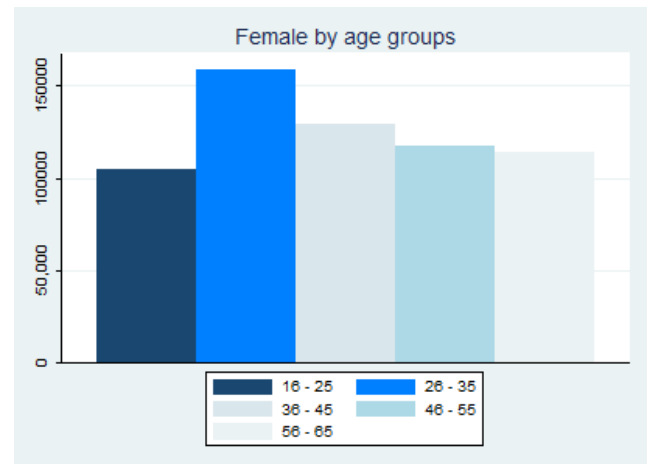


Figure 12: Female by Age Groups

Source: Constructed by the Author using ELMPS 2018 data set

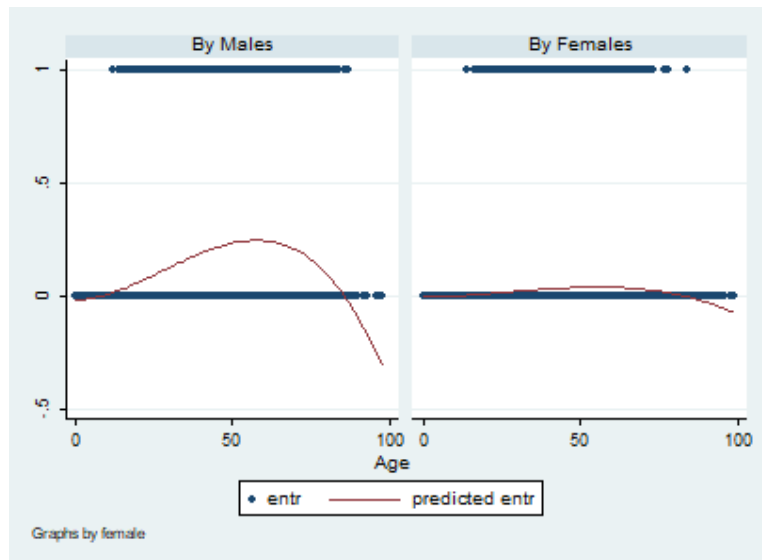


Figure 13: Age of Entrepreneurs by Males vs. Females

Source: Constructed by the Author using ELMPS 2018 data set

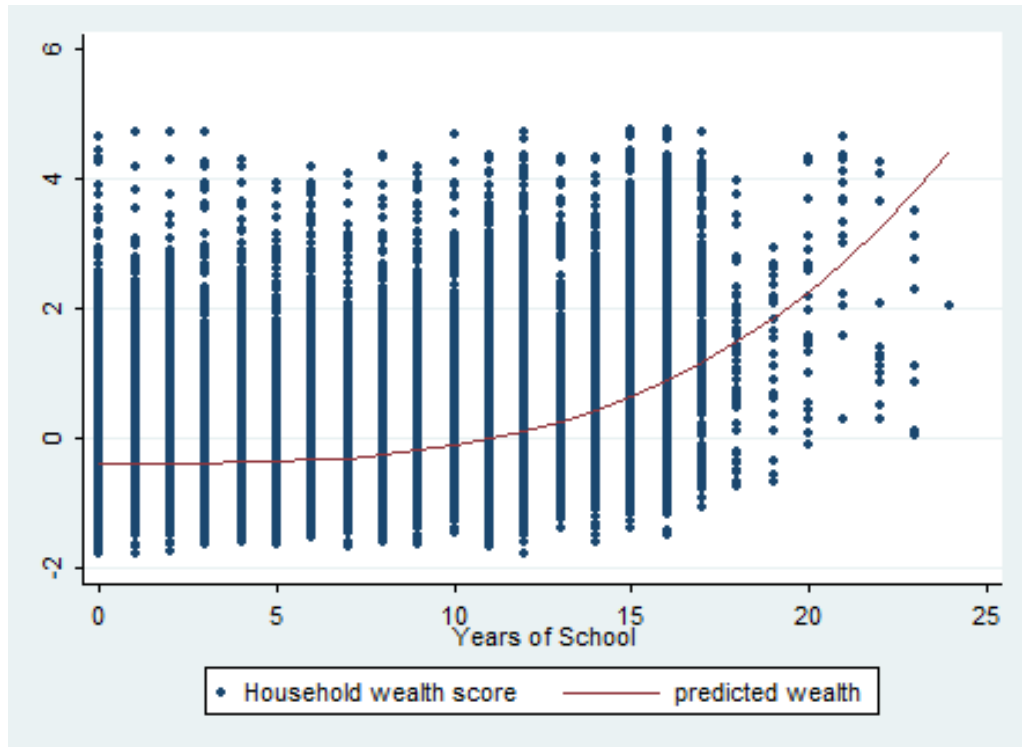


Figure 14: wealth and Education

Source: Constructed by the Author using ELMPS 2018 data set

As shown in (Figure 14: wealth and Education), a brief overview and rather a synopsis to the data set and how it can predict the results of the statistical/econometric model employed is illustrated, where wealth and years of education are postulated as corner stones to becoming an entrepreneur. In addition, it will aid this research paper to bring about more than just an analysis of the current female entrepreneurship situation but provide the suitable suggestions and recommendations to match the available resources and try as much to eliminate the challenges facing women entrepreneurs.

5.4.2. Understanding the Entrepreneurial Propensity in Egypt

After creating and listing the set of dependent and independent variables, it was time for streamlining the variables and creating dummy variables for categorical and nominal variables, in order to be able to explain them in the binary regression model. The first binary model was created for the probability of becoming an entrepreneur based on the whole population. Therefore, gender remained a factor affecting the regression. The second binary regression created, was only addressing the probability for women to become entrepreneurs. Accordingly, the gender variable was removed from the independent variables list, in addition, the data set under study kept the female observations only and dropped almost fifty percent of the whole data set.

5.4.3. Probability of Becoming an Entrepreneur

To interpret the probability of becoming an entrepreneur, a PROBIT regression model on STATA had run in order to identify the impact and effect of the independent variables on the probability of becoming an entrepreneur. Several variables were tested to create the most significant variables for explaining the proposed econometric model and the probability of its occurrence. As illustrated in the below PROBIT tables, the first PROBIT table () included the grandchildren as one of the relationships to the head of the household, and the effect on the probability of becoming an entrepreneur, this variable in particular showed perfect failure prediction to the model. Thus, it was omitted automatically from the data set, in order for this to have a clean set of variables that can help explain and measure the impact/probability of becoming an entrepreneur.

Probit regression

Number of observations = 34957
 LR chi2(17) = 3543.76
 Prob > chi2 = 0.0000
 Pseudo R2 = 0.1732

Log likelihood = -8459.6941

<i>Entrepreneurship</i>	Coef.	Std. Err.	z	P> z 	[95% Conf.	Interval]
<i>Gender</i>	-.806785	.0401883	-20.08	0.000	-.8855526	-.7280175
<i>Age</i>	.0782417	.0067445	11.60	0.000	.0650227	.0914608
<i>Age squared</i>	-.0008072	.000078	-10.35	0.000	-.0009601	-.0006544
<i>Marital Status</i>	.2365854	.060203	3.93	0.000	.1185897	.3545811
<i>Alexandria</i>	-.0466913	.0667122	-0.70	0.484	-.1774449	.0840623
<i>Urban Lower Egypt</i>	.3379845	.0548027	6.17	0.000	.2305732	.4453959
<i>Urban Upper Egypt</i>	.283967	.0538813	5.27	0.000	.1783616	.3895725
<i>Rural Lower Egypt</i>	.3128942	.0497691	6.29	0.000	.2153486	.4104398
<i>Rural Upper Egypt</i>	.3104359	.0509583	6.09	0.000	.2105596	.4103123
<i>Spouse</i>	-.3923006	.0471229	-8.33	0.000	-.4846598	-.2999413
<i>Child</i>	-.2197255	.0591152	-3.72	0.000	-.3355892	-.1038618
<i>Parent</i>	-.2647237	.1707366	-1.55	0.121	-.5993613	.0699139
<i>Sibling</i>	-.2935983	.150878	-1.95	0.052	-.5893138	.0021173
<i>Others</i>	-.4946933	.1276174	-3.88	0.000	-.7448189	-.2445678
<i>Household size</i>	.0200163	.0062362	3.21	0.001	.0077935	.0322391
<i>Education</i>	-.0317423	.0022972	-13.82	0.000	-.0362447	-.0272399
<i>Income</i>	.0869385	.0142444	6.10	0.000	.05902	.114857
<i>_cons</i>	-2.910956	.1448775	-20.09	0.000	-3.194911	-2.627002

Table 6: PROBIT – ELMPS 2018 Population

Source: Constructed by the Author using ELMPS 2018 data set

The PROBIT table (Table 6: PROBIT – ELMPS 2018 Population), which is going to be used as the base of this research paper when we study female entrepreneur, the pseudo-R squared increased to be 17.32%, which does not indicate much significance, but it shows the direction of the model. Additionally, it showed that most of the independent variables included in the study are significant except for Alexandria as a determinant region for the probability to become an entrepreneur, in addition to being the parent of the head of the household.

The PROBIT regression demonstrates that the gender is significant to this study, yet the coefficients sign is negative, which means that if the gender of the observation is female, the less likely to become and entrepreneur. In addition, the age is significant, and has a positive impact on the PROBIT model, meaning that the older the population gets, the more likely to become an entrepreneur. However, the age squared has negative coefficients, which denotes that the older the population get, the more likely to become entrepreneurs until a certain age – the age was identified through clustering the age in five groups – which is the age range starting 45 and above. The marital status of the population also was significant to this

model, and it indicated that individuals who were ever married – this variable includes women who are still married, divorced, or widowed – were more likely to become entrepreneurs. This can be a result of maturity, stability, and better financial resources that accompany being married nowadays.

Furthermore, the region were participants are from indicated that all regions were significant except for Alexandria, and all the coefficients were positive indicating a positive impact especially in relation to Cairo, which is the main reference region for this study. Moreover, the relationships to the head of the household were mostly significant except for the brothers or sisters of the head of the household, however, the impact of all the relationships was negative, and signifying that reference to the head of the household it is less likely to be an entrepreneur.

Finally, the years of schooling or education and wealth both are significant. Yet, the education had negative impact, which means the more educated the individual is, the less likely for him/her to become an entrepreneur. This can be consistent with the predominant ideology in the Egyptian culture of having a desk job and salaried position after graduation. On the other hand, the wealth had positive impact, where the more investments and fund the individual has, the more likely they can start-up their own business.

Marginal effects after probit

$y = \text{Pr}(\text{Entrepreneurship}) (\text{predict}) = .04901345$

Variables	dy/dx	Std. Err.	z	P> z	[95%	C.I.]	X
<i>Gender*</i>	-.0863585	.00452	-19.12	0.000	-.09521	-.077508	.506537
<i>Age</i>	.0079422	.00066	11.96	0.000	.00664	.009244	35.2129
<i>Age squared</i>	-.0000819	.00001	-10.62	0.000	-.000097	-.000067	1413.94
<i>Marital Status*</i>	.0218095	.00504	4.33	0.000	.01193	.031689	.753068
<i>Alexandria*</i>	-.0045812	.00632	-0.72	0.469	-.016974	.007812	.060732
<i>Urban Lower Egypt*</i>	.0427105	.00839	5.09	0.000	.026263	.059158	.103241
<i>Urban Upper Egypt *</i>	.0342513	.00759	4.51	0.000	.019367	.049136	.131161
<i>Rural Lower Egypt *</i>	.0355911	.00631	5.64	0.000	.023223	.04796	.287725
<i>Rural Upper Egypt *</i>	.0344311	.00616	5.59	0.000	.022362	.0465	.337214
<i>Spouse *</i>	-.0361108	.00402	-8.98	0.000	-.043996	-.028225	.333467
<i>Child *</i>	-.0204232	.00505	-4.04	0.000	-.030327	-.010519	.251194
<i>Parent *</i>	-.0215754	.01087	-1.98	0.047	-.04288	-.000271	.003976
<i>Sibling *</i>	-.0234041	.00913	-2.56	0.010	-.041298	-.00551	.007552
<i>Others *</i>	-.033757	.00534	-6.32	0.000	-.044223	-.023291	.017965
<i>Household size</i>	.0020318	.00064	3.19	0.001	.000785	.003279	4.49718
<i>Education</i>	-.0032221	.00023	-13.83	0.000	-.003679	-.002765	8.75141
<i>Income</i>	.008825	.00145	6.10	0.000	.005988	.011662	-.056259

(*) dy/dx is for discrete change of dummy variable from 0 to 1

Table 7: Marginal Effects (ELMPS 2018 Population PROBIT)

Source: Constructed by the Author using ELMPS 2018 data set

The marginal effects regression (Table 7: Marginal Effects (ELMPS 2018 Population PROBIT)) was generated after getting the significance of each variable affecting the dependent variable. It was necessary to understand how impactful each independent variable can be on the probability of becoming an entrepreneur. As expected, out of all the significant variables included in the econometric model, gender, marital status, and region had the most impact and weight on the probability of starting up a business. It is indicated that the probability to have the opposite of the regressed model is almost 5%, where there is a 5% higher chance to have a male who has never been married and residing in Cairo as an entrepreneur.

Probit regression

Number of observations = 17783
 LR chi2(16) = 355.71
 Prob > chi2 = 0.0000
 Pseudo R2 = 0.0885

Log likelihood = -1832.6447

Women Entrepreneurs	Coef	Std. Err.	z	P> z 	[95% Conf. Interval]
Age	.0951848	.0128624	7.40	0.000	.069975 .1203946
Age squared	-.0010528	.0001527	-6.89	0.000	-.0013522 -.0007534
Marital Status	.2612366	.1269999	2.06	0.040	.0123215 .5101518
Alexandria	-.0863125	.1514272	-0.57	0.569	-.3831044 .2104795
Urban Lower Egypt	.2273106	.1166813	1.95	0.051	-.0013805 .4560018
Urban Upper Egypt	.0597281	.1191316	0.50	0.616	-.1737656 .2932218
Rural Lower Egypt	.2416014	.1053776	2.29	0.022	.0350651 .4481376
Rural Upper Egypt	.2319434	.1068664	2.17	0.030	.0224892 .4413976
Spouse	-.4371048	.0570178	-7.67	0.000	-.5488577 -.3253519
Child	-.1402473	.1205736	-1.16	0.245	-.3765672 .0960727
Parent	-.2396687	.2052548	-1.17	0.243	-.6419608 .1626234
Sibling	-.5330889	.2922033	-1.82	0.068	-1.105797 .0396189
Others	-.8056087	.1888091	-4.27	0.000	-1.175668 -.4355497
Household size	.0307199	.0118425	2.59	0.009	.0075091 .0539308
Education	-.027968	.0047436	-5.90	0.000	-.0372652 -.0186708
Income	-.044066	.0327165	-1.35	0.178	-.1081891 .0200571
_cons	-3.964717	.2854092	-13.89	0.000	-4.524108 -3.405325

Table 8: PROBIT - ELMPS 2018 Female Entrepreneurs

Source: Constructed by the Author using ELMPS 2018 data set

For the PROBIT model of female entrepreneurs, all the observations pertaining to males have been dropped and only the female observations were kept – which has decreased the number of observations to 17,783 – then, the same model was generated without the gender variable. The results showed a difference between having a mixed population in the overall probability of becoming an entrepreneur in comparison

to a female only sample. The pseudo R2 is almost 9%, which means that the model is not overall significant and not really affected by the variables included. In addition, the significant variables decreased to only six variables including, the age, marital status, and the relationship to the head of the household, and the years of education/schooling. The impact can be illustrated by the sign of the coefficients of the significant variables, where age and age squared mean that the older the women get, the higher probability to become entrepreneurs until a certain age where the probability decreases. The age cluster at which they start to have less probability of becoming entrepreneurs was then identified to be same as men – Above 45.

Moreover, the marital status is considered significant, although it is not highly significant in relation to other variables. Yet, it indicated that women who are ever married are more likely to have their own business. However, being the spouse of the head of the household decreased that probability. Finally, the PROBIT model implied that the more women are educated the less likely they would be able to start-up their own venture. This is highly consistent with the patriarchal culture in Egypt; however, it refutes the hypothesis that was based on the feminist theories that women move to entrepreneurship in order to gain their equal right and opportunities compared to men, and to achieve self-actualization. As the women who start-up their own business would be pushed to do that, it might be that they are the breadwinners of the household as it is indicated that the larger the household size, the more likely for women to have their MSMEs.

Marginal effects after probit

$y = \text{Pr}(\text{Women Entrepreneurs}) (\text{predict}) = .01595289$

Variables	dy/dx	Std. Err.	z	P> z 	[95%	C.I.]	X
<i>Age</i>	.0038004	.00049	7.76	0.000	.002841	.00476	35.1607
<i>Age squared</i>	-.000042	.00001	-7.17	0.000	-.000054	-.000031	1413.9
<i>Marital Status*</i>	.0087687	.00355	2.47	0.013	.001818	.01572	.823258
<i>Alexandria*</i>	-.003178	.00512	-0.62	0.535	-.013221	.006865	.06017
<i>Urban Lower Egypt*</i>	.0110332	.00676	1.63	0.103	-.002219	.024286	.105494
<i>Urban Upper Egypt *</i>	.0025011	.00523	0.48	0.632	-.007742	.012744	.130405
<i>Rural Lower Egypt *</i>	.010857	.00531	2.05	0.041	.000454	.02126	.285104
<i>Rural Upper Egypt *</i>	.0101164	.00509	1.99	0.047	.000142	.020091	.336389
<i>Spouse *</i>	-.0206148	.00323	-6.38	0.000	-.026949	-.014281	.652196
<i>Child *</i>	-.0050927	.00398	-1.28	0.201	-.012897	.002712	.177754
<i>Parent *</i>	-.0074471	.00482	-1.55	0.122	-.016892	.001998	.006917
<i>Sibling *</i>	-.0123877	.00341	-3.64	0.000	-.019062	-.005714	.008435
<i>Others *</i>	-.0152263	.00149	-10.22	0.000	-.018145	-.012307	.029804
<i>Household size</i>	.0012265	.00047	2.59	0.010	.000297	.002156	4.42856
<i>Education</i>	-.0011167	.00019	-5.84	0.000	-.001491	-.000742	8.05078
<i>Income</i>	-.0017594	.0013	-1.35	0.177	-.004313	.000794	-.038742

(*) *dy/dx is for discrete change of dummy variable from 0 to 1*

Table 9: Marginal Effects - ELMPS 2018 Female Entrepreneurs

Source: Constructed by the Author using ELMPS 2018 data set

Although, the PROBIT model included several significant independent variables, the weight of each of these variables is not of a great value. Yet, it signifies the percentage change in the independent variables and its effect on the probability of the females – in the sample size, becoming entrepreneurs – especially when compared to the marginal effects generated for the probability of the mixed population to become entrepreneurs.

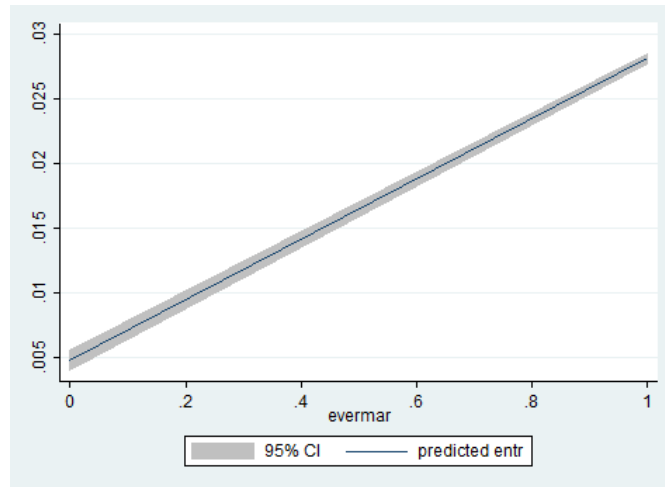


Figure 15: Ever married women and Entrepreneurship

Source: Constructed by the Author using ELMPS 2018 data set

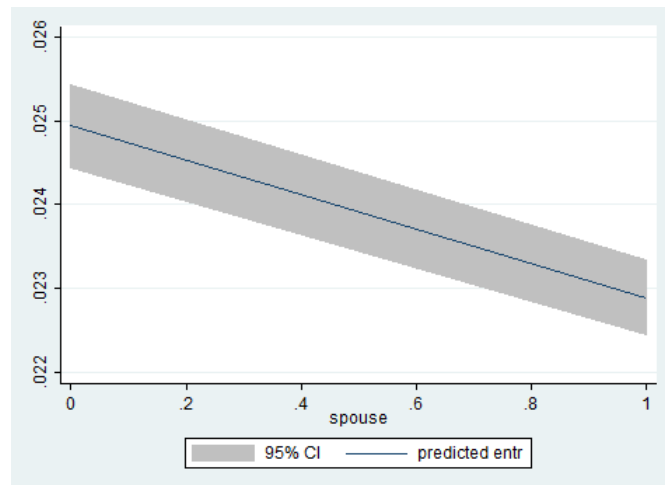


Figure 16: Spouse of Household head

Source: Constructed by the Author using ELMPS 2018 data set

Although the PROBIT regression model in addition to the marginal effects illustrated the probability of becoming a female entrepreneur in Egypt very well, more graphs (Figure 15: Ever married women and Entrepreneurship and Figure 16: Spouse of Household head) depicting the effects of some impactful significant variables were generated to bring more descriptions to the weight and direction of the impact. For the marital status impact, it was highlighted that women who were ever married in their life had higher probability in becoming entrepreneurs. Accordingly, the above graph shows that ever married

women had an upward trend in the predicted entrepreneurship line. However, when that was put in the contest of the relation to the household head, women (spouses) were less likely to become entrepreneurs especially as they age. This is also consistent with the Egyptian culture as married women who are depending on their husbands for breadwinning will not refuse to find a business that they can operate and generate profits from.

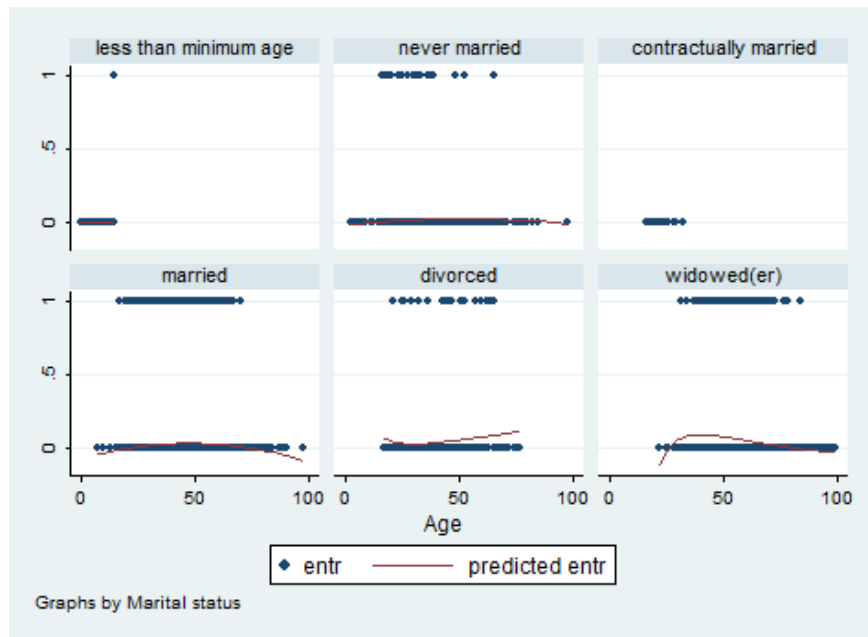


Figure 17: Women's Entrepreneurship by Marital Status

Source: Constructed by the Author using ELMPS 2018 data set

Moreover, in order to identify which of the women included in the sample are more likely to become entrepreneurs, a graph (Figure 17: Women's Entrepreneurship by Marital Status) sorted by the women's marital status was constructed and showed that the divorcees in the sample had the highest chance of becoming entrepreneurs. This explains the below graph (Figure 18: Women as Household Heads), where women who are heads of the household due to being divorced or widowed had greater probability of becoming entrepreneurs. While women who are still married, and their husbands were identified as the breadwinners for the household, were less likely to become entrepreneurs.

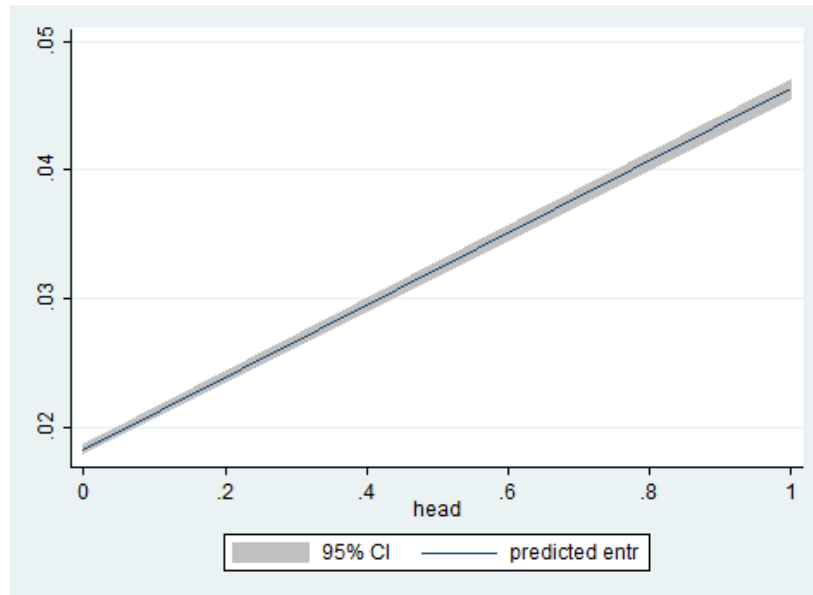


Figure 18: Women as Household Heads

Source: Constructed by the Author using ELMPS 2018 data set

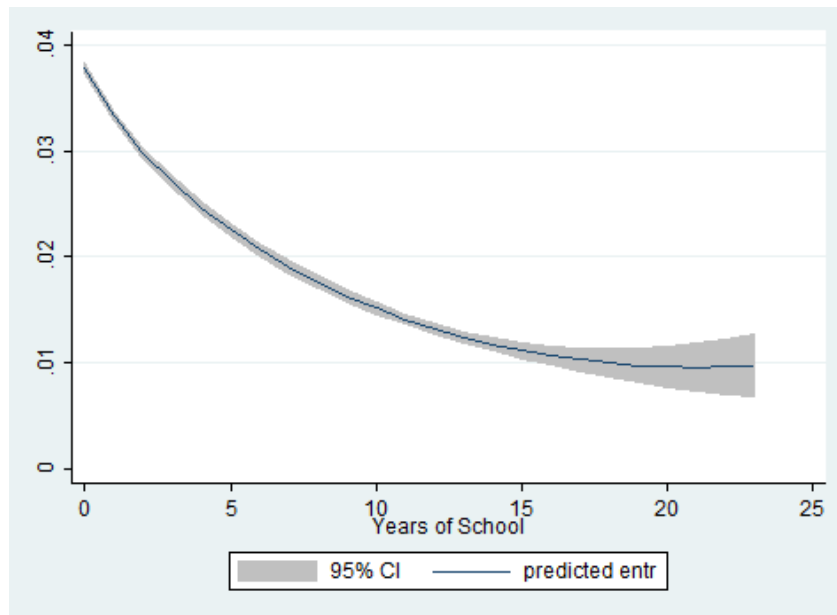


Figure 19: Women Entrepreneurs and Education

Source: Constructed by the Author using ELMPS 2018 data set

In contrast to common knowledge, the data set and the sample under study showed (Figure 19: Women Entrepreneurs and Education) that the more educated the women and the more years they spent in school, the less likely for them to own their business or to start-up a venture.

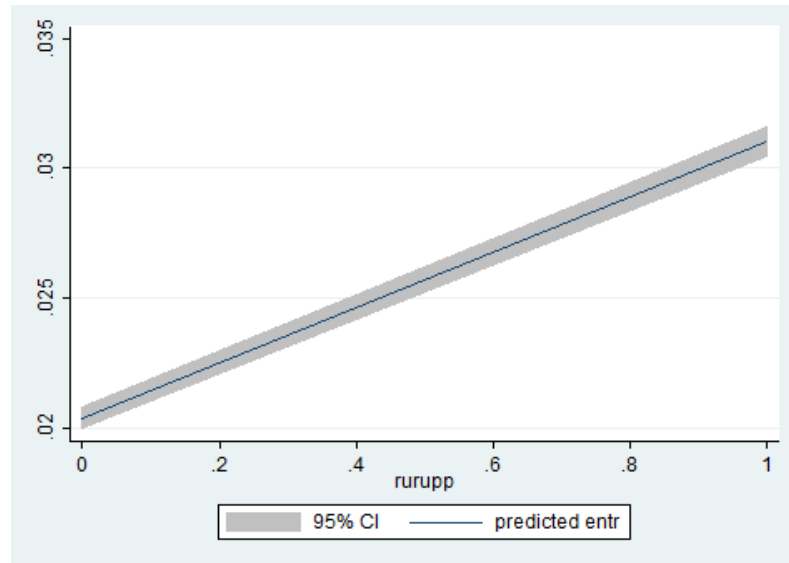


Figure 20: Women Entrepreneurs in Rural Upper Egypt

Source: Constructed by the Author using ELMPS 2018 data set

Furthermore, where these women reside or come from is very important to this study, in order to identify where the regions that have great potential for women entrepreneurs are, and what are the regions that may require extra support and intervention to have the suitable and enabling environment for women to become entrepreneurs. As such, the above graph (Figure 20: Women Entrepreneurs in Rural Upper Egypt), women who reside or come from rural upper Egypt were more likely to be entrepreneurs than women coming from other regions across Egypt. This is also well-illustrated in the below graph (Figure 21: Women Entrepreneurs likelihood by Region).

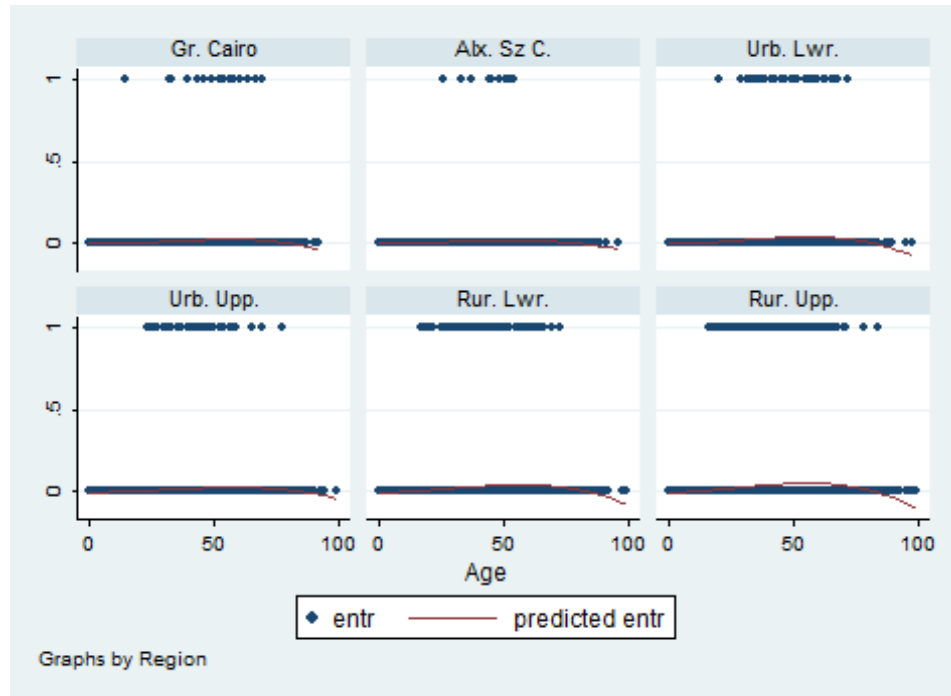


Figure 21: Women Entrepreneurs likelihood by Region

Source: Constructed by the Author using ELMPS 2018 data set

5.4.4. Identifying Challenges and Constraints

Based on the supporting and secondary data retrieved from ERF pertaining to MSEs in 2004, the sample size under this study showed that women entrepreneurs mostly solely owned their ventures and were not engaged in any other activity beside their MSEs. In addition, the sample indicated the great extent of compassion and dedication women entrepreneurs have presumed, as the majority of women included in the MSEs had to work the whole week for more than ten hours a day. This is a lot of time and effort dedicated to building their start-ups in comparison to waged employees.

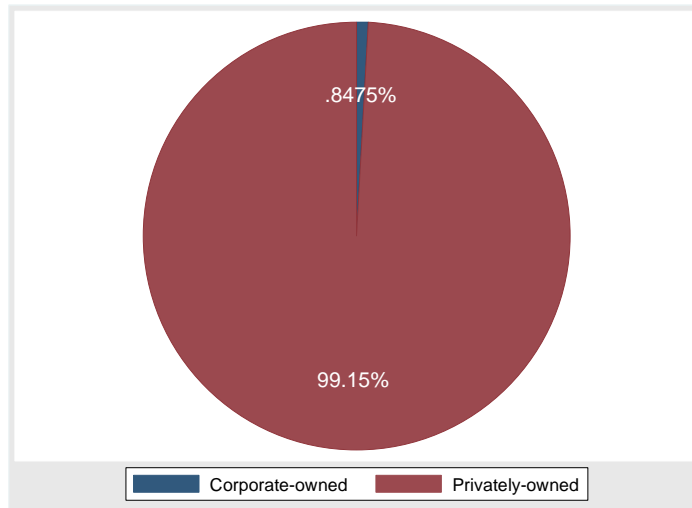


Figure 22: Ownership

Source: Constructed by the Author using MSE 2004 data set

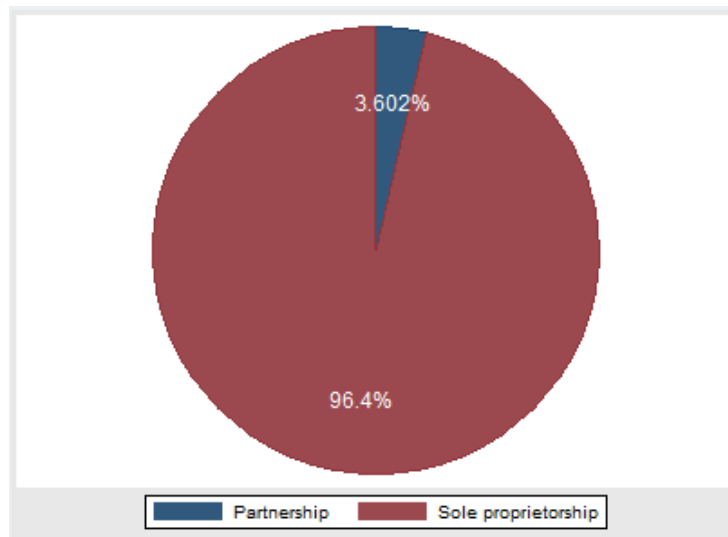


Figure 23: Type of Ownership

Source: Constructed by the Author using MSE 2004 data set

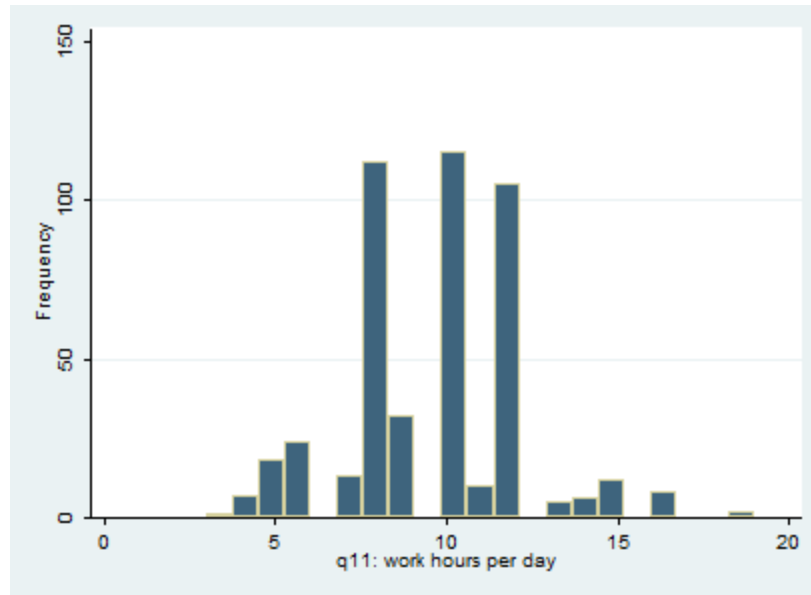


Figure 24: Working hours/day

Source: Constructed by the Author using CDMSE 2014 data set

Finally, the challenges facing women to become entrepreneurs were identified. Besides, the descriptives that were generated to inform NGOs and other civil societies with the suitable and actionable recommendations to reduce such challenges and their implications were utilized. As part of the CDMSE study conducted in 2014, 16 main constraints facing entrepreneurs generally were assessed and determined to be the most challenging factors affecting entrepreneurs.

Therefore, the most challenging constraints facing entrepreneurs in the current Egyptian entrepreneurial ecosystem were identified and a comparison between male and female respondents was established to understand the different dynamics by each gender perceives as a challenge and a as constraint to build their own start-ups. The main challenges identified were: Financial Issues, Severe Competition, Low Purchasing Power, and the Market Demands.

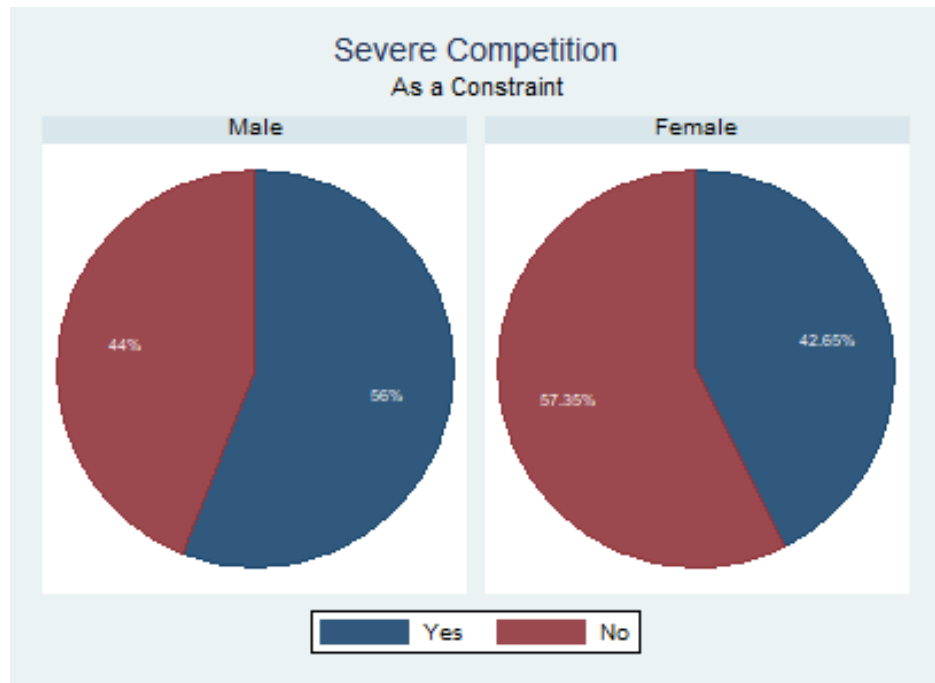


Figure 25: Severe Competition

Source: Constructed by the Author using CDMSE 2014 data set

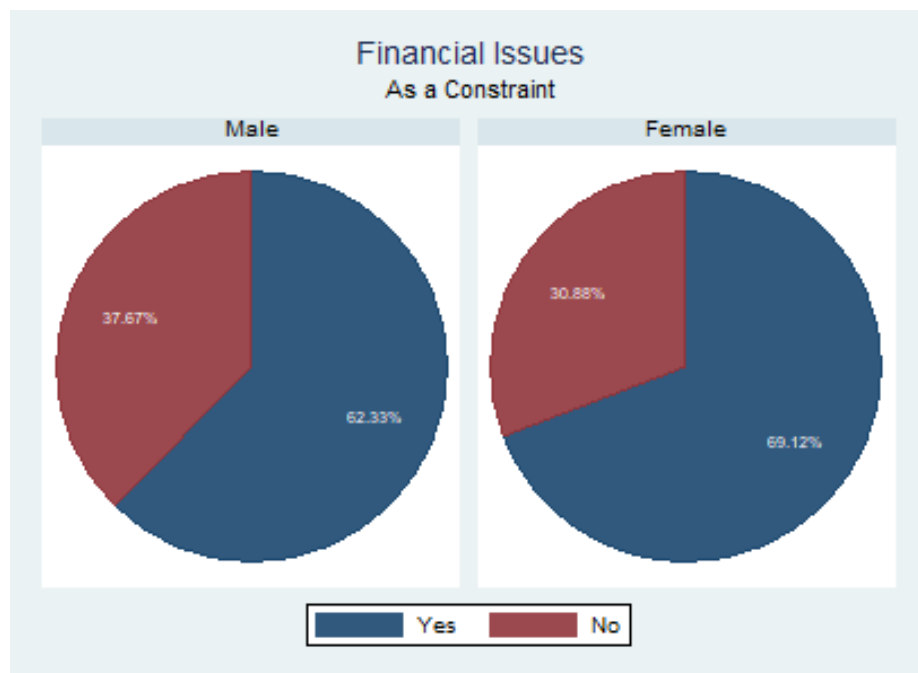


Figure 26: Financial Issues

Source: Constructed by the Author using CDMSE 2014 data set

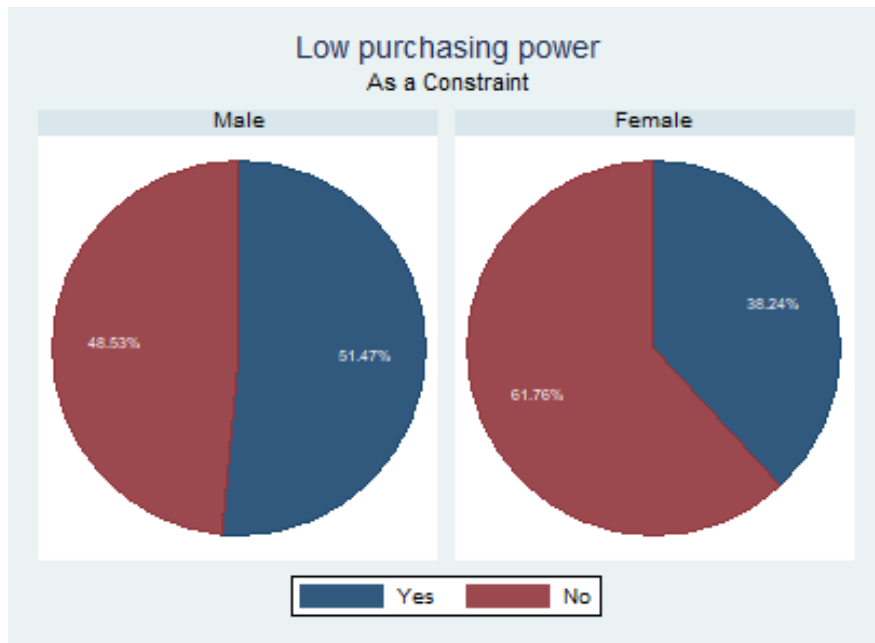


Figure 27: Low Purchasing Power

Source: Constructed by the Author using CDMSE 2014 data set

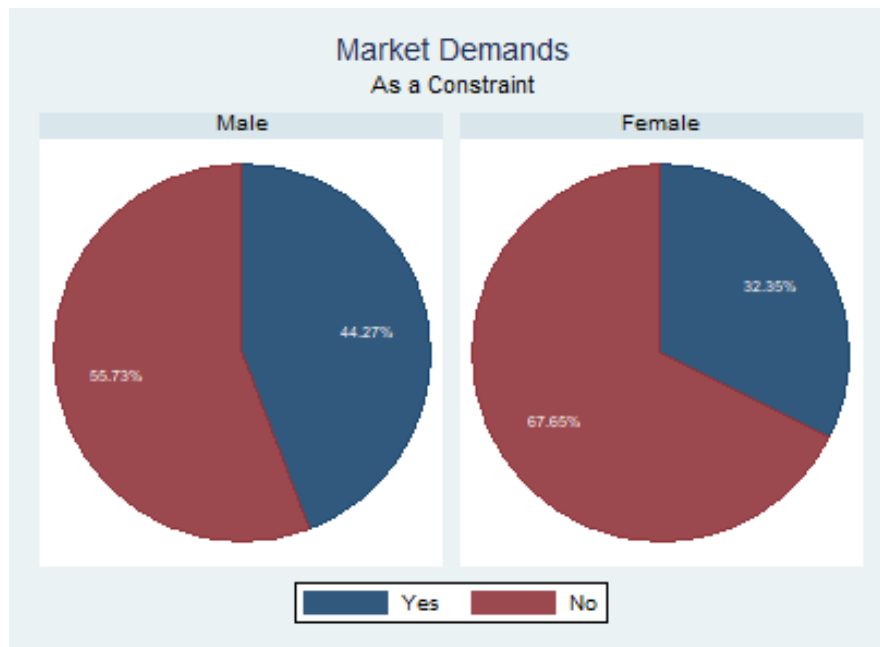


Figure 28: Market Demands

Source: Constructed by the Author using CDMSE 2014 data set

The above pie charts show that for almost all the identified major challenges, women identified that they are facing these particular issues as constraints less than men except for the financial issues, which is very common especially in a developing like Egypt, where investors would more likely fund a project, an MSE, or a start-up that is headed by a male owner rather than any project – regardless of its feasibility or success factors – as long as it is led by a female.

It is also worth mentioning, that this skew in the responses of the male participants might be a common result of the density of the population on the male component of the study, which accounts for approximately 85 percent of the total population involved in the study. Yet, this is important as it serves as the guiding point for this research paper and in identifying the ways where policy interventions can be empowering for women entrepreneurs.

The statistical models that are used as the foundation of this study tries to explain the factors that impact the participation of women in entrepreneurial ventures in Egypt (dependent variable), through several independent variables pertaining to the legislative structure in facilitating the entry of women to the entrepreneurship scene including i) the ease access to funding through, credit policies/financing schemes designed for women entrepreneurs; ii) the technical training, programs, and networking events that aid women to identify and recognize more entrepreneurial ventures and business opportunities. Using the GEM 2018 and 2019 data sets, Probit statistical models have been regressed to show women entrepreneurs propensity and activity in the following section.

5.4.5. Women Entrepreneurs Drivers in Egypt

Based on the listed and described variables from the GEM 2018 data set, a probit statistical model is regressed to explain the effects of each of the independent variables (X) on the dependent variable in this model, which is the female variable (Y). The following (Table 10: Drivers for Women Entrepreneurs in Egypt 2018) shows the total number of observations is 2255, which means that the population observed decreased by 44 percent when the probit model was regressed. This happens as a result STATA's automatic entire exclusion of incomplete entries

in efforts to regress a more streamlined model. While the LR chi2 (9), refers to the likelihood ratio (LR) Chi-square test; this tests that at least one of the predictors' regression coefficient is not equal to zero in the model, indicating the degree of freedom of the tested likelihood. The degree of freedom is identified as the number between the parentheses, which is 9, the number of the independent variables included in the regression. This means that there are nine degrees of freedom, implying that there one or more of the four drivers in the model is important for predicting the probability for women to become entrepreneurs in Egypt. Additionally, the tests of the parameters of the drivers indicates that each of the drivers included in the model is significant at the 0.001 levels (p-values < 0.001). In contrast, the pseudo-R Squared showed a weak significance of 0.0305, which means that the variation explains only 3 percent of the model.

Number of Observations = 2255

LR chi2(9) = 64.95
Prob > chi2 = 0.0000
Pseudo R2 = 0.0305

Log likelihood = -1033.696

<i>Female</i>	Coef.	Std. Err.	z	P > z 	[95% Conf.	Interval]
<i>Age</i>	-.0072102	.0178606	-0.40	0.686	-.0422164	.027796
<i>Age squared</i>	.0000553	.000231	0.24	0.811	-.0003974	.0005081
<i>Network</i>	-.0596437	.0643902	-0.93	0.354	-.1858463	.0665588
<i>Opportunity</i>	.0026228	.0667268	0.04	0.969	-.1281594	.1334049
<i>Self-efficacy</i>	-.2165522	.0784406	-2.76	0.006	-.3702929	-.0628114
<i>Income</i>	-.2588893	.0378354	-6.84	0.000	-.3330453	-.1847333
<i>Education</i>	-.0024566	.0064038	-0.38	0.701	-.0150079	.0100947
<i>Growth</i>	.0271433	.0232569	1.17	0.243	-.0184394	.072726
<i>Reason</i>	.0413178	.0651524	0.63	0.526	-.0863785	.1690141
<i>_cons</i>	-.0603815	.3454985	-0.17	0.861	-.7375461	.6167831

Table 10: Drivers for Women Entrepreneurs in Egypt 2018

Source: Constructed by the Author using GEM 2018 data set

The PROBIT model explains the main significant variables included and are affecting the women's decision to become entrepreneurs; the significant variables are: perception of an opportunity, the high expectation for business growth in the market, and the reason and motive for starting up businesses of their own. Additionally, the PROBIT model presents the age squared as a significant variable, this means that the age is considered as insignificant for women entrepreneurs until a certain age bracket, where it starts to be a determining factor; the age as a determining factor in the GEM 2018 data set shows a great degree of compliance with the ELMPS 2018 data set, where the age as a determining factor was identified at the mean age in the dataset which is about forty-five years of age.

Contrary to common beliefs, the education, income level, network, and self-efficacy were not considered as significant variables, which means that the factors that leads women to become entrepreneurs would not include a certain consideration for either the level of education or self-efficacy. Rather it will mainly depend on her perception of the opportunity available at hand, and how she can make the most benefit out of it through projecting the probability of growing in a certain business or sector.

Marginal effects after probit

$$y = Pr (FEMALE) (predict) = .17341194$$

Variables	dy/dx	Std. Err.	z	P > z	[95%	C.I.]	X
Age	-.0018479	.00458	-0.40	0.686	-.010819	.007123	35.0563
Age squared	.0000142	.00006	0.24	0.811	-.000102	.00013	1354.39
Network*	-.0152615	.01645	-0.93	0.353	-.047495	.016972	.47184
Opportunity*	.000672	.01709	0.04	0.969	-.032823	.034167	.635033
Self-efficacy*	-.0589149	.02253	-2.62	0.009	-.103065	-.014764	.806208
Income	-.0663497	.0096	-6.91	0.000	-.085158	-.047541	2.00931
Education	-.0006296	.00164	-0.38	0.701	-.003846	.002587	12.5645
Growth	.0069564	.00596	1.17	0.243	-.004721	.018634	1.14694
Reason*	.0106111	.01677	0.63	0.527	-.022249	.043471	.446563

(*) dy/dx is for discrete change of dummy variables from 0 to 1

Table 11: Marginal Effects of Drivers for Women Entrepreneurs in Egypt 2018

Source: Constructed by the Author using GEM 2018 data set

While the PROBIT statistical model tries to explain the factors affecting women to move over to the entrepreneurial sector, the marginal effects after the PROBIT tries to show and clarify the weight for the impact of each the significant and insignificant variables on the dependent variable. As shown in (Table 11: Marginal Effects of Drivers for Women Entrepreneurs in Egypt 2018), although there are significant factors and drivers, the weight of their impact is substantially weak. Thus, in order to identify more solid relationships between the independent variables and the dependent variables a PROBIT model focused on three controlled variables; the dependent is the gender of the entrepreneur being female, and the other two variables are independent variables, one is the reasons or the motive to start-up a business, which is a dummy variable, whilst the other independent variable is the levels or years of education; this variable is a continuous variable and was proven insignificant through the initially constructed PROBIT model.

5.4.6. Opportunity Vs. Necessity

Number of Observations = 4,721	Margin	Delta-method Std. Err.	z	P > z	[95% Conf. Interval]
Female with Edu (0-3); necessity	.2555642	.0218903	11.67	0.000	.21266 .2984683
Female with Edu (0-3); opportunity	.2268705	.028303	8.02	0.000	.1713978 .2823433
Female with Edu (3-6); necessity	.2423403	.0168418	14.39	0.000	.209331 .2753496
Female with Edu (3-6); opportunity	.2152205	.0219948	9.79	0.000	.1721115 .2583295
Female with Edu (6-9); necessity	.2294962	.0124366	18.45	0.000	.2051209 .2538716
Female with Edu (6-9); Opportunity	.2039254	.0163123	12.50	0.000	.1719537 .235897
Female with Edu (9-12); necessity	.2170428	.0091445	23.73	0.000	.1991198 .2349658
Female with Edu (9-12); opportunity	.1929912	.0116058	16.63	0.000	.1702442 .2157382
Female with Edu (12-15); necessity	.2049891	.0078619	26.07	0.000	.1895801 .2203981
Female with Edu (12-15); opportunity	.1824227	.0087456	20.86	0.000	.1652817 .1995637
Female with Edu (15-18); necessity	.1933425	.0089817	21.53	0.000	.1757387 .2109463
Female with Edu (15-18); opportunity	.1722234	.0088785	19.40	0.000	.1548219 .1896249
Female with Edu (18 and above); necessity	.182109	.0114873	15.85	0.000	.1595944 .2046236
Female with Edu (18 and above); opportunity	.1623955	.0113901	14.26	0.000	.1400713 .1847198

Table 12: Probability of Women Entrepreneurs by Reason and Education

Source: Constructed by the Author using GEM 2018 data set

The statistical model, shown above (), infers that women have a higher probability to become entrepreneurs out of necessity especially if they have not had enough – or none at all – years of education.

This is extremely prevalent in the margin of females becoming entrepreneurs out of necessity scoring the highest margin of 0.2555642.

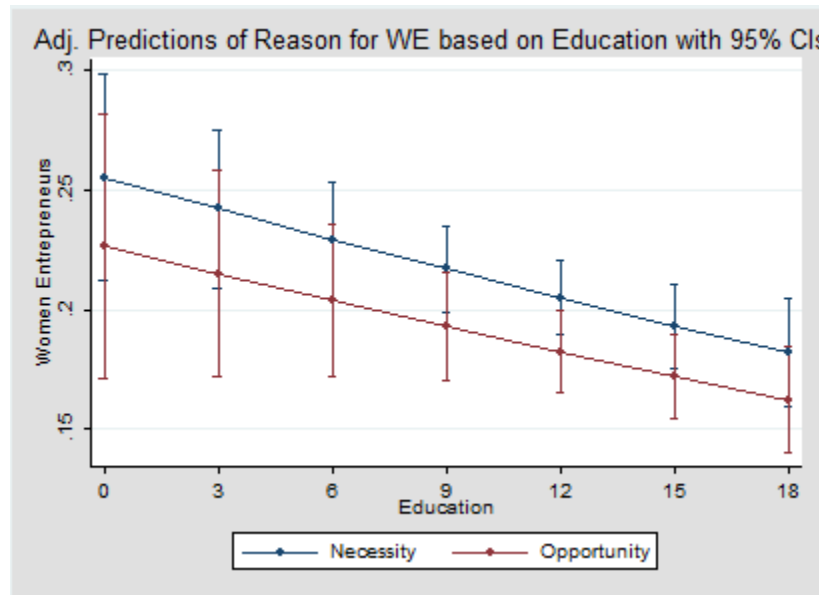


Figure 29: Adjusted predictions of Reason for WE by Education

Source: Constructed by the Author using GEM 2018 data set

Adding to this inference, (Figure 29: Adjusted predictions of Reason for WE by Education), shows how the margins resembles a downward trajectory in the necessity and opportunity lines as the years of education increase. This clearly explains the reasons behind the years of education representing an insignificant variable in the PROBIT model. Another observation that can be extrapolated from this model, is that the divergence between the necessity and opportunity lines gets marginally narrower as the years of education increase. This suggests that as women get more educated their desire and motive to start-up their own venture stems from opportunity rather than the sheer necessity to earn money to suffice and provide for their families.

5.4.7. Age, Self-efficacy, and Opportunity Perception

Although age is perceived as a main determinant in the entrepreneurial ecosystem generally, the statistical model constructed suggested otherwise. Thus, it raised the question of how age could be of insignificant value when it comes to measuring the prospect women becoming entrepreneurs.

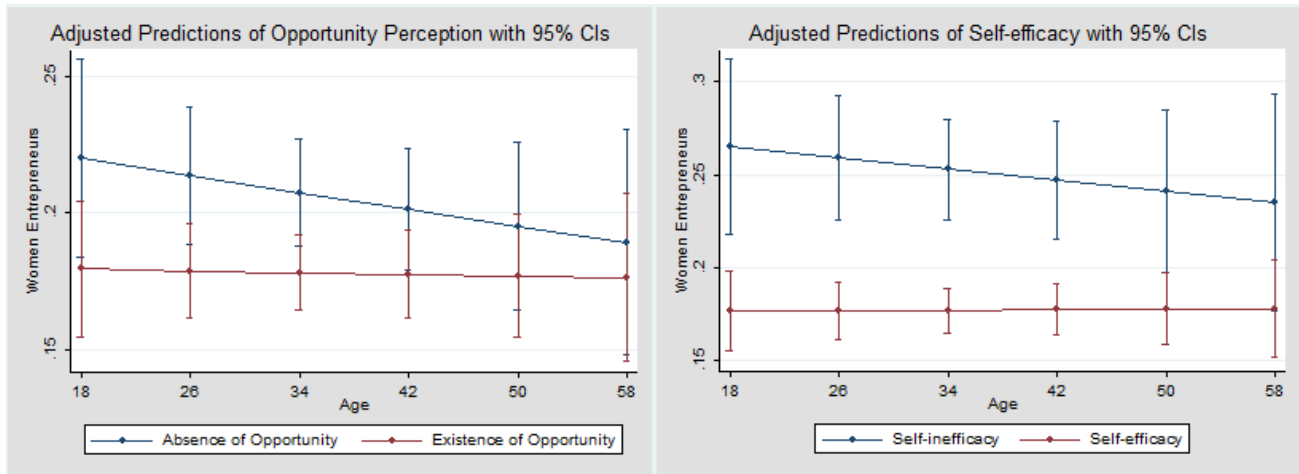


Figure 30: Adjusted predictions of Opportunity Perception and Self-efficacy for WE by Age

Source: Constructed by the Author using GEM 2018 data set

After constructing (Figure 30: Adjusted predictions of Opportunity Perception and Self-efficacy for WE by Age), it can be inferred that age can only impact women who do not have self-efficacy nor a perception of an opportunity and its availability. In addition, it is worth noting that it will impact their propensity in a negative way, meaning that women who have absence of perceived opportunity and lack of self-efficacy have less tendency to move into the entrepreneurial scene as they age. This is particularly a logical deduction based on the perception and interpersonal skills demonstrated by the women. In contrast, women who stated that they have self-efficacy and can perceive the existence of an opportunity have a straight line with no positive or negative future trajectory; it remains constant. This principally means that age is not significant at all when women have a good perception and vision of a certain entrepreneurial venture and have the adequate extent of self-efficacy and belief in their interpersonal skills.

5.4.8. Established Entrepreneurs in Egypt

One integral part in entrepreneurship generally is the ability of survival and maintaining business in continuation. Hence, the basis of the next statistical model is “established” entrepreneurial ventures, which essentially measures the probability for having an entrepreneur with an established venture operating and still in business based on a number of selected variables as described by GEM 2019. Another Probit model was constructed to inform the relation of certain variables, namely, gender, age, education, culture support, networking, and financing with the propensity of an established entrepreneurial venture.

Looking at (Table 13: Established Entrepreneurial Ventures - GEM 2019 and Table 14: Marginal Effects - Established Entrepreneurial ventures - GEM 2019), it can be deduced that the number of observations has clearly decreased, since the sale used covers the entrepreneurs who have an established business for forty-two months or more. Yet, the sample of 1658 observations remain representative as it represents sixty-five percent of the total GEM 2019 population. Besides, it can be inferred from the Pseudo R square and Chi square that the statistical model is relatively significant and eleven percent of all the eight independent variables included explain almost eleven percent of the dependent variables under studying, which is the established entrepreneur.

<i>Probit regression</i>						
<i>Log likelihood = -132.90084</i>				<i>Number of observations = 1658</i>		
				<i>LR chi2(8) = 34.38</i>		
				<i>Prob > chi2 = 0.0000</i>		
				<i>Pseudo R2 = 0.1145</i>		
<i>Established</i>	<i>Coef.</i>	<i>Std. Err.</i>	<i>z</i>	<i>P> z </i>	<i>[95% Conf.</i>	<i>Interval]</i>
<i>Female</i>	-.3273899	.179608	-1.82	0.068	-.6794151	.0246352
<i>Age</i>	.0293629	.0460277	0.64	0.524	-.0608497	.1195755
<i>Age squared</i>	-.0004628	.0006088	-0.76	0.447	-.0016561	.0007305
<i>Education</i>	.0547675	.0595462	0.92	0.358	-.061941	.1714759
<i>Culture</i>	.2653545	.1297411	2.05	0.041	.0110666	.5196423
<i>TEA19</i>	-.0576584	.2717947	-0.21	0.832	-.5903662	.4750493
<i>Network</i>	.6400961	.2040827	3.14	0.002	.2401013	1.040091
<i>Angel</i>	.83309	.2777017	3.00	0.003	.2888046	1.377375
<i>_cons</i>	-3.811906	.9544315	-3.99	0.000	-5.682558	-1.941255

Table 13: Established Entrepreneurial Ventures - GEM 2019

Source: Constructed by the Author using GEM 2019 data set

Marginal effects after probit
 $y = \text{Pr}(\text{Established}) (\text{predict}) = .01010825$

Variables	dy/dx	Std. Err.	z	P> z 	[95% C.I.]	X
<i>Female*</i>	-.0087226	.00477	-1.83	0.068	-.018079 .000633	.461399
<i>Age</i>	.00079	.00124	0.64	0.524	-.001639 .003219	35.1188
<i>Age squared</i>	-.0000125	.00002	-0.76	0.448	-.000045 .00002	1374.63
<i>Education</i>	.0014734	.00159	0.92	0.355	-.00165 .004597	4.50603
<i>Culture</i>	.007139	.00339	2.10	0.035	.000491 .013787	2.44873
<i>TEA19*</i>	-.0014651	.00652	-0.22	0.822	-.014236 .011305	.07117
<i>Network*</i>	.0181614	.00569	3.19	0.001	.007009 .029314	.513269
<i>Angel*</i>	.0555692	.03453	1.61	0.108	-.012107 .123246	.029554

(*) dy/dx is for discrete change of dummy variable from 0 to 1
 Table 14: Marginal Effects - Established Entrepreneurial ventures - GEM 2019

Source: Constructed by the Author using GEM 2019 data set

The Gender, albeit significant, had a negative impact on the propensity of an established entrepreneurial venture. This means that despite the education and culture support women - included in the GEM 2019 – reported having or receiving, still to this time, they are less likely to have an established business than their counterparts. Yet, the age as an independent variable remained consistent when studied across different data sets, where it remained positively significant until a certain point – Particularly above the age Forty-five – in which, the propensity of being an entrepreneur.

Furthermore, in line with the hypothesis introduced in the study, the networking in addition to the investment and financing programs, both have significantly positive impact on the propensity of becoming an established entrepreneur. Furthermore, the cultural support evidently has a similar impact as previously inferred in the descriptive data section. However, as this statistical model tests a general sample of established entrepreneurs including both men and women, this inference remains inconclusive to inform this research. Thus, a more detailed statistical model studying established women entrepreneurs had to be constructed in order to present a better understanding and reflection to the proposed hypothesis.

5.4.9. Established Women Entrepreneurs in Egypt

For the established women entrepreneurs in Egypt statistical model, many of the independent variables that were included for the general established have been entirely omitted from the study by STATA. Accordingly, the number of the independent variables impacting the primary dependent variables is reduced to only five variables. Additionally, understandably the number of observations dropped by almost half – fifty-four percent to be precise – from 1658 to a total of 906 observations representing established women entrepreneurs. Yet, the statistical model presented in (Table 15: Established Women Entrepreneurs in Egypt - GEM 2019 and Table 16: Marginal Effects for Established Women Entrepreneurs in Egypt - GEM 2019) indicate the high significance of the overall model in explaining the impact of the independent variables on the dependent variable, in which the Pseudo R square implies that twenty-three percent of the model is explained and inferred through the set of the independent variables.

<i>Probit regression</i>		Number of observations = 906					
				LR chi2(5) = 21.50			
				Prob > chi2 = 0.0007			
				Pseudo R2 = 0.2347			
Log likelihood = -35.051234							
<i>Established female owned Business</i>	Coef.	Std. Err.	z	P> z 	[95% Conf. Interval]		
<i>Age</i>	.3876079	.3992896	0.97	0.332	-.3949854	1.170201	
<i>Age Squared</i>	-.0080935	.0077064	-1.05	0.294	-.0231978	.0070108	
<i>Education</i>	.0341328	.1319871	0.26	0.796	-.2245571	.2928227	
<i>Network</i>	.8367013	.3822588	2.19	0.029	.0874879	1.585915	
<i>Angel</i>	1.066403	.4598244	2.32	0.020	.165164	1.967643	
<i>_cons</i>	7.458866	5.139427	-1.45	0.147	-17.53196	2.614225	

Table 15: Established Women Entrepreneurs in Egypt - GEM 2019

Source: Constructed by the Author using GEM 2019 data set

The set of independent variables appears to be including only the basics, specifically, age, education, networking, and investment and financing programs. However, that is required as this is the defining statistical model of the study, and the aforementioned variables are the main focus of this research.

Marginal effects after probit

$y = Pr(\text{Established female owned business}) (\text{predict}) = .00003284$

Variable	dy/dx	Std. Err.	z	P> z	[95% C.I.]	X
Age	.0000537	.00023	0.23	0.815	-.000395 .000502	33.4051
Age Squared	-1.12e-06	.00000	-0.23	0.816	-.000011 8.3e-06	1236
Education	4.73e-06	.00003	0.15	0.878	-.000056 .000065	4.56733
Network*	.0002269	.00109	0.21	0.835	-.001906 .00236	.410596
Angel*	.0015667	.00667	0.23	0.814	-.0115 .014634	.022075

(*) dy/dx is for discrete change of dummy variable from 0 to 1

Table 16: Marginal Effects for Established Women Entrepreneurs in Egypt - GEM 2019

Source: Constructed by the Author using GEM 2019 data set

Using the Probit regression model, it can be identified that women entrepreneurs in Egypt are majorly positively impacted by the existence of investors who are willing to finance their business, and that, it is key for them to remain in business and have a well-established entrepreneurial venture. The second most important variable as inferred by the regression is the networking opportunities, which apparently play an essential role in empowering women entrepreneurs and encouraging them to sustain their business to be more established.

6. Chapter Six: Qualitative Methodology

6.1. Qualitative Data Description

Although the most recent data used for the quantitative research section of this study is very up to date and goes back to only 2019, qualitative research that explains the current entrepreneurial ecosystem, as well as the perceptions of women and men entrepreneurs, is rather critical to inform the main research question. The qualitative part of this research targets three clusters of population to bring about a triangulated view that works hand in hand to inform evidence-backed research and policy recommendations.

The sample used as part of this research reached a total of twenty participants, they are divided into, seven informed experts, including, representative from private financial institute and program directors and/or coordinators of women entrepreneurial programs, four government officials and policymakers, and a total of nine entrepreneurs, six of whom are females, while three are males. The detailed information about the interviewed participants is in (Table 17: Interviewees (participants) Matrix). The first cluster includes both men and women entrepreneurs; for the women entrepreneurs involved in the study had a certain set of criteria for selection to well-inform this research, they are women who i) have full ownership of their business/start-up; or ii) have co-ownership of fifty percent or more of the business/start-up; and iii) finally, have been operating for more than a year and started to generate revenues. In addition to, policymakers, who represent the second cluster of the population interviewed; they are people in high positions in the government and the governmental institutions that provide entrepreneurial programs and support catered towards the economic empowerment of women in general and women entrepreneurs in particular, the third and last cluster, which is the informed experts, involves representative from a private financial institute that already has existing policies for promoting and empowering women and entrepreneurship, in addition to the directors and managers of the mentorship and educational non-governmental organizations' (NGOs) programs that work in cooperation with the government for the same purpose of women empowerment.

Organization	Program / Department	Contact Person Gov. Official / Prog. Director Informed Experts	Mode of Interview	
International Labor Organization (ILO)	WED - GET Ahead	Ms. Ines Ayari, Chief Technical Advisor	Zoom Interview – Recorded	
	SYIB	Ms. Perihan Tawfik, Project Coordinator	Zoom Interview – Recorded	
USAID	SEED – WEN USAID	Ms. Nashwa Habiba, Gender & Youth Senior Advisor Ms. Habiba Mostafa, Program Assistant	Zoom Interview – Recorded	
Technology Innovation and Entrepreneurship Center (TIEC)	Heya Raeda	Ms. Faten Salem, Entrepreneurship Support Senior Specialist	Zoom Interview – Recorded	
Egypt's Network for Integrated Development (ENID)	ELNIDAA	Ms. Noura Eteiba, Senior Research Analyst	Zoom Interview – Recorded	
Intesa Sao Paolo Alex Bank	"Ghalya" Initiative	Ms. Laila Hosny, Head of Corporate Social Responsibility (CSR) Unit	Zoom Interview – Recorded	
Governmental Officials & policymakers				
National Council for Women (NCW)	Women Business Development Unit	Ms. May Mahmoud, Director of Women Business Development Unit	Zoom Interview – Recorded; and Phone Interview – Note taking	
Ministry of Investment and international Cooperation	MSMEs Unit	K. S. [×]	Phone Interview – Note taking	
Micro, Small, and Medium-Sized Enterprises Development Agency (MSMEDA)	Gender Unit	Ms. Azza Shalaby, Head of Gender Unit	Physical Interview - Recorded	
Central Bank of Egypt (CBE)	Financial Inclusion and Gender	Ms. Mehrechane Nayel, Senior Project Manager, Data Measurement, Monitoring and Evaluation	Zoom Interview – Recorded	
Entrepreneurs*				
Name/ pseudonym	Age and Marital Status	Field / Industry	Size	Mode of Interview
Women Entrepreneurs				
Hadeer Emad El-Refaie	32, Married, Mother	Travel Consultancy / Coaching	Micro	Zoom Interview – Recorded
Mivel Naim	42, Married, Mother	Marketing Consultancy / Media Solutions	Micro	Phone Interview – Note taking
Nada Ahmed [°]	56, Divorced, Mother	Social Entrepreneurial Enterprise / Trainer	Small	Zoom Interview – Recorded
Nanies Mohamed	55, Divorced, Mother	Handicrafts and artisanship	Small	Zoom Interview – Recorded
Fatma Ali [°]	35, Married, Mother	E-commerce	Micro	Phone Interview – Note taking
Salma Fouad [°]	30, Married, Mother	Events planning	Micro	Zoom Interview – Recorded
Male Entrepreneurs				
Tamer Hussein [°]	35, Married	Food and Beverages	Medium	Phone Interview – Note taking
Michael Maged [°]	38, Single	Food and Beverages	Micro	Zoom Interview – Recorded
Shawkat Rostom [°]	35, Married, Father	Entertainment Industry	Medium	Zoom Interview – Recorded

Table 17: Interviewees (participants) Matrix

[×] Government Official, who refused to disclose any information pertaining the identity – even gender. Hence, initials for a pseudonym were used.

^{*} Some of the Entrepreneurs interviewed – whether men and women – preferred to keep their identities undisclosed. Thus, Pseudonyms were assigned to them accordingly.

[°] Pseudonym

Furthermore, creating these criteria of the interviewees' sample will prevent the research from gravitating towards "convenient sampling" and more towards "purposeful sampling" especially in interviewing the programs' directors and the policymakers.

However, for the entrepreneurs, their selection to participate in the study is mainly based on "snowballing technique", where entrepreneurs took part or were graduates of certain entrepreneurial programs that the managers and directors of, have been interviewed; most of the entrepreneurs' interviews were recommended.

The interviews adopt a combination of structured and semi-structured questions to provide a better grasp of the perceptions and different views of the population interviewed, especially that each cluster is bringing a different perspective to this research. The aim of this research is to identify whether women entrepreneurs are benefiting from the publicized governmental support and the new policies that aim to empower entrepreneurship for women. Thus, the interviews started with basic questions that are structured and can inform the background of each interviewee. It, then, gradually moved into semi-structured questions that encourage the interviewees to express their different views and perspectives freely, in addition to, including the probing technique as a chief tool for getting information and real viewpoints.

On a preliminary basis, the answers to the interviews have revealed a lot of hidden angles that are worth researching more in-depth and were not be easily explored through a simple quantitative study. Moreover, in the next section, the empirical results are providing this research with more real-time challenges that women entrepreneurs are facing while trying to reach the highest point of momentum where they can fully benefit from the governmental schemes and policy interventions that are initially directed to help empower them.

6.2. Empirical Output and Analysis

After the interviews were conducted, the data collected were, then, transcribed in a thematic manner to analyze the different themes included in this study. Additionally, the themes identified from the qualitative research methods employed in this part of the study is going to be matched with the quantitative research methods outputs and main findings. Therefore, this will help in triangulating the data to create a better understanding of the ways whereby the government is enabling women entrepreneurs. In addition, the inferences of the themes will aid policymakers and key governmental officials to develop evidence-based policies for the current entrepreneurial ecosystem to empower women entrepreneurs to reach their momentum.

The themes, elaborated on and analyzed in the next section, are divided into five main themes, including, the financial inclusion for women entrepreneurs, which addresses the government's efforts to close the gender gap through empowering women economically and emphasizing on prioritizing them on top of the financial inclusion strategy adopted by the government since 2017; the second theme is, education and training for women entrepreneurs and the impact of such programs on the attitudes and mindsets of women towards their ventures and future endeavors; the third theme is, the networking opportunities available to women entrepreneurs in Egypt, this theme tackles both networking programs and events supported and initiated by both the Egyptian government through its different agencies and ministries, in addition to the Non-governmental organizations' initiatives to create a proper channel of networking between the market and the women entrepreneurs in Egypt; the fourth theme is, the general policies adopted currently in Egypt and its effect on the women's propensity and willingness to become entrepreneurs given the social, political, and economic environment in Egypt; Finally, the fifth and last theme is, the social aspect associated to studying gender anywhere in the world and its ability to empower or suppress women, in addition to the cultural support women receive from the family, friends, and the community as a result of getting the required push from the government and the security of being backed-up by the country's directives and administration.

6.2.1. Financial Inclusion for Women Entrepreneurs

While the Egyptian government has been exerting a lot of efforts to empower women generally and especially on the economic front. The financial institutions in Egypt whether governmental or private are adamant to stick to more gender-neutral policies with regards to entrepreneurship. The idea behind these cautious moves towards creating more exclusive micro-credit programs and financial schemes is the notion of the overall financial inclusion that Egypt's Central Bank and government are heading steadily towards. When explicitly asked about gender specific programs offered by the Egyptian government through the Central Bank of Egypt, Ms. Mehrechane Nayel, The Senior Project Manager, Gender and Inclusion Unit at the Central Bank of Egypt (CBE) said:

“The financial programs in Egypt are mostly gender-neutral, because there are very little studies done on women needs in the market and to start-up an entrepreneurial venture...especially that women mostly do not seek funds from financial institutes, and they rather get funds from family or friends. For that reason, a new full-fledged mapping for the funding demand-side survey for MSEs and Households is launching in collaboration with the different ministries, government agencies, the Egyptian Post, and the Central Agency for Public Mobilization and Statistics (CAPMAS) during the first quarter of 2021, to identify the number and size of MSMEs in Egypt, in addition to the challenges and opportunities to be able to define the needs for the different segments operating the Egyptian entrepreneurial ecosystem.”

(Ms. Mehrechane, Senior Project Manager at CBE, November 2020)

Ms. Mehrechane sets out the strategy the CBE (Alliance for Financial Inclusion, 2019) is following through to reach financial inclusion across the board through highlighting what the government currently needs to develop gender-neutral funding policies and credit schemes that can cater towards both genders, creating the ultimate levels of equity (Fiala, 2018; Marlow & Patton, 2005). Yet again, the tool Ms. Mehrechane mentioned will help identify the women entrepreneurs' financial and funding needs and trends, enabling the

CBE to better understand the right policies and incentives for women to get easier access to funds. Based on Ms. Mehrechane's words, deploying this tool will also aid the government in achieving its National Council for Women (NCW) strategy in compliance with Egypt's Sustainable Development Strategy (SDS) to close the gender gap, which is currently widening across the globe as a result of the Corona virus 2019 (COVID-19) pandemic (UN Women, 2020). According to Ms. Mehrechane, the CBE is trying to adopt a customer-centric approach that meets the needs of women rather than just create preferential interest rates on the loans they do not even apply for and focus on creating governmental facilities for outreach and positioning in the outside markets.

In compliance with the CBE's vision of financial inclusion and its plans for women entrepreneurs, some banks and private financial institutions are spearheading initiatives that are directed particularly towards women entrepreneurs and especially those in the poorer governorates in Upper Egypt, for example: Suhag and Assiut. One of the most prominent programs working on promoting women's business and handicrafts ventures is, "Ghalya" Program. This program is led by one of the strongest alliances between the government, represented by the NCW and MSMEDA; a civil society organization, represented by Elnidaa Foundation, also known as, Egypt Network for Integrated Development (ENID); and a private financial institution; represented by Intesa Sao Paolo Alex Bank.

"Ghalya" Program is a well-rounded program that aims to serve women and empower their entrepreneurial ventures by providing them with the foundational pillars for their growth and resilience. Thus, it includes an educational component, cultural component, support from the government to exhibit and market their products, and finally funding and financial support, which is secured by Intesa Sao Paolo Alex Bank. However, as mentioned previously, the CBE's policies apply to all banks operating in Egypt, and with that in mind, Intesa Sao Paolo Bank funds the organization and the program as a whole, not just an individual funding scheme. Ms. Laila Hosny, Head of Corporate Social Responsibility (CSR) Unit explains:

"As part of Intesa Sao Paolo Alex Bank's CSR strategy, we have "Ghalya" Program which works closely with Elnidaa foundation to help underprivileged women in Upper Egypt

through empowering their handicrafts and artisanship products. Their products are later exhibited and sold through MSMEDA's Turathna exhibition. Additionally, our credit scheme does not stop there, but we have special loans with discounted rates for all entrepreneurs adopting a gender-neutral approach when it comes to the banking products offered to entrepreneurs in general."

(Ms. Laila, Head of CSR at Intesa Sao Paolo Alex Bank, November 2020)

Examining the directives of the financial institutes in Egypt, whether governmental or private, it can be easily inferred that it is preferred to hold off any segregation in the way loans or funds are given out to entrepreneurs and the creation of gender-neutral financial policy is the main focus for this current stage. The notion of keeping the financial policies gender-neutral is also emphasized by several interviewees, who suggested that it is better to keep the funding and lending schemes free from bias or discrimination. Their rationale behind the adoption of this idea stems from the major avoidance women entrepreneurs portray when it comes to getting external funds from either a financial institution, bank, or an angel investor. This is, also, confirmed through this research study, where most of the women interviewed implied that they tend to steer away from such an obligation. Subsequently, there are limited programs serving women particularly, because still they available micro-credit financing programs cater for everyone regardless of their gender, which can make it harder on one more than the other.

On that note, the government is dedicating its MSMEDA arm to fund and finance the local entrepreneurial ventures. Besides, having a gender unit that only caters and supports women entrepreneurs through nomination for external educational opportunities and internal training workshops, MSMEDA has funded 613,000 loans by 8.8 billion Egyptian pounds, directed solely for women MSMEs. This represents around 46 percent of the total loans offered by MSMEDA over a period starting from July 2014 up until October 2020 (MSMEDA, 2020).

6.2.2. Education and Training for Women Entrepreneurs

Through interviewing different types of entrepreneurs, government officials, and educational and developmental programs' directors. It was prevalent that the most critical aspect for women to become entrepreneurs relies fundamentally on the entrepreneurial education. By entrepreneurial education, I mean, the required set of skills and knowledge that are passed on to people to equip them with the needed capabilities to be able to build their business and scale it up to generate profits. This type of education is not part of the conventional means of education that are provided through schools. As such, someone who holds a master's degree, or a PhD might not demonstrate the required knowledge or education needed for establishing a business that generates revenues and able to sustain its existence and increase its profitability.

One of the beneficiaries from the entrepreneurial educational programs provided specifically for women in Egypt is, Ms. Nanies Mohamed, the founder and creative designer at Nanies Patchwork. She graduated from Goldman Sachs 10,000 Women Program, offered in collaboration with the American University School of Business, and it aims at scaling up the skills of women to be able to run their own business. Goldman Sachs program has stopped its operations in Egypt recently, as the program grant reached its time limit. Nonetheless, Ms. Nanies expressed the extent to which this program has completely transformed the way she does business, saying:

"I was nominated by a governmental entity which is the Social Fund for Development (SFD) at the time, now MSMEDA, to participate in a scholarship offered by Goldman Sachs and the American University in Cairo to learn about the different aspects of having a business and the means to scale it up. Through this program, I have learned from prestigious university professors and legal advisors a lot about different marketing techniques, and business strategies for start-ups. And most importantly the legal support that was provided as part of the program, by which, I was encouraged to register my business and to do the required paperwork and understand the taxation policies applied on my start-up."

(Ms. Nanies, *Entrepreneur*, November 2020)

This depicts the lengths that the entrepreneurial education can reach out to and how it can change the overall mindset, from a business owner who works out of passion to do art and create something she likes to someone who is able to think creatively business wise. Ms. Nanies now has been a regular participant in Turathna exhibition – launched as part of MSMEDA’s efforts to encourage locally made products by MSMEs that are authentic and induces the Egyptian culture and art in modern products. Even more, Ms. Nanies was one of the awardees by President Abdel-Fattah El-Sisi during Turathna exhibition 2019.

Similarly, Ms. Mivel Naim, Co-Founder of Sinapi for Design and Marketing Consultancy, who is a graduate of the same Program – Goldman Sachs 10,000 Women at the American University in Cairo (AUC) – expressed how the training program and the educational workshops had made a huge difference in the way she manages her and her husband’s start-up:

“The training and the financial literacy sessions were eye-opening to me. It gave me a clear understanding of the ins and outs of the Egyptian taxation system and the fundamentals of developing a successful business strategy for a sustainable business.”

(Ms. Mivel, *Entrepreneur*, November 2020)

The idea of high-quality education and training programs is intensified. As exemplified from Ms. Mivel’s experience, who started her venture with her husband in pursuit of financial stability and work-life balance, which then turned into a quest for growth and success. This demonstrates the impact of the entrepreneurial education on women entrepreneurs and how it can change their mindsets completely to shift towards self-actualization (De Vita et al., 2014).

On the side of the training and workshop providers, it is evident that the turn up of women to women-specific programs is far more than it is for the mixed program. Ms. Faten Salem, Entrepreneurship Support Senior Specialist at the Technology Innovation and Entrepreneurship Center (TIEC), “Heya Raeda” Program, denotes that women are more comfortable to participate in a whole female-led

environment as they do not feel the intimidation from their male counterparts. Consequently, they achieve the anticipated results and they even excel in these programs. Ms. Faten explains the driving factor for “Heya Raeda” Program:

“TIEC has always had technical and entrepreneurial programs that were directed towards the entrepreneurs who have innovative ideas and need further directions. We have had mixed classes all along, until we noticed that the female trainees’ participation is not as expected although they have great ideas and promising potentials...It is not until 2017 when the idea of “Heya Raeda” came to light with key partners such as, ILO, UN Women, Ahead of the curve, and Entreprenelle; starting with only 18 graduates of the program in 2017 and it reached 300 graduates in 2020; that is almost a sixteen-times increase over just three years.”

(Ms. Faten, Entrepreneurship Support Senior Specialist, “Heya Raeda” program at TIEC)

This opinion is supported by all the women entrepreneurs interviewed and other programs’ directors. Additionally, there is a consensus that while women participated in mixed classes and workshops, their participation rate did not exceed the thirty percent mark, which is a very low percentage as it is expressed by women involved in this study that they feel more comfortable, less intimidated, and more equal to everyone involved. Furthermore, this stems from the culture that has been conditioning young girls’ brains that they are inferior to men and that they have less capabilities in comparison to them, which puts females automatically in a position of fear, intimidation, and discomfort even in a place for learning, where they are both supposed to be equal to one another, at least with regards to their goal for attending such a workshop or training session.

On the contrary, when male entrepreneurs were asked about the entrepreneurial education and whether they have benefited from such programs. All three expressed their willingness to attend programs that can develop them and their entrepreneurial knowledge and would scale their businesses higher. However, they do not find that these programs are well-advertised for or communicated clearly to them.

Surprisingly, while they think that men and women are equal and should receive equal treatment, they all expressed that women entrepreneurs have more privilege to them, in which they find and hear a lot about training programs and opportunities catered towards female-owned businesses, but they cannot seem to find the same amount of attention directed to male-owned enterprises.

Finally, the interviews indicated a general consensus between everyone that COVID-19 has given them the opportunity for online education and training. A surprise that was not anticipated at the start of the pandemic, when everyone believed that everything will be on hold. A lot of the programs started to move online and to offer their courses and mentorship trainings online. Nonetheless, it has been challenging at first, especially, reaching out for everyone who might not have the technical know how to work online or maybe the poorer areas, where is no or interrupted internet connection that is very expensive for some of these women and is considered as a luxury. To help overcome this challenge, TIEC started an initiative, by which it supplied its trainees with the adequate cellular data credit, which was accessible through certain training platforms to make sure that these credits are put to their best use.

6.2.3. The Networking Opportunities Directed Towards Women Entrepreneurs

Notwithstanding the fact that networking is crucial for every society, community, and business as suggested by this paper's constructed conceptual framework. Networking is part of the cultural-cognitive pillar; hence, it is perceived as an immanent opportunity in any given setting. This is a belief that is embraced by Ms. Nashwa Habib, Gender and Youth Senior Advisor; and Ms. Habiba Mostafa, Program Assistant at Women Entrepreneurs Network (WEN) as part of the USAID, who have explained the role of WEN as a catalyst for women entrepreneurs' empowerment.

“WEN works tirelessly to create the required environment for women entrepreneurs to operate and flourish. We do that through major collaborations with the government and women entrepreneurs who are willing to help. The purpose of WEN is support women entrepreneurs through providing them with the network that serves their needs from

trainings, workshops to angel funding opportunities that arise and are communicated to entrepreneurs within the network.”

(Ms. Nashwa, Senior Advisor at WEN, November 2020)

Based on Ms. Nashwa’s words, it becomes unassailable that networking is key for women entrepreneurs, and as one of the interviewed entrepreneurs put it:

“Networking and socializing are considered as the gifts women are naturally born with; and we have to capitalize on our nature to get more opportunities for growth.”

(Ms. Fatma, Entrepreneur, October 2020)

Although, this statement assumes a generalized idea to a great extent. Yet, it shows that women think highly of the communication and strong networks they build and get support and trusted mentoring opportunities from as a result to participating in a networking event or groups that specifically address women entrepreneurs. Additionally, it was suggested that they feel more at ease when they find more women like them. In addition, they think that they are more encouraged. As in the mixed networking events, which they implied that, they also appreciate and have received help from, but sometimes they get the feeling that they are out of place and they lack the notion of belongingness that they get when they are in an all-women networking group.

6.2.4. The General Governmental Policies, Interventions, and Support

With the start of the year 2017, the year of Egyptian women, a lot of changes and policies supporting women either to empower them to work, to protect them against violence or even through the relentless efforts to close the gender gap have been advertised. Consequently, a new strategy for women was published by the NCW in accordance with Egypt’s vision 2030. The NCW as an entity tries to be the main representative of all Egyptian women in the government. Moreover, the government treats the NCW as its arm that deals with any issues or major concerns pertaining to women. That is particularly why, the

NCW is weaved through all the aspects of this research and its name has been frequently repeated as much as MSMEDA.

Both governmental entities work hand in hand with international nongovernmental organizations, and universities to nominate and recommend female owned businesses that are liable to get the adequate training and education that their businesses need for growth. Ms. May Mahmoud, Director of Women Business Development Unit at NCW has conveyed the Council's constant support for women and their entrepreneurial ventures.

“The NCW serves women entrepreneurs through several pillars, including, training, mentoring, networking, outreach, and overall support. The NCW works directly under the umbrella of the presidential office, which shows the degree of women prioritization as part of the government's strategy. Our pillars at NCW, basically, exist to facilitate continuous learning, funding opportunities, and act as a safety net for women entrepreneurs.”

(Ms. May, Director at NCW, October 2020)

As part of NCW's collaborative programs, a partnership between NCW and ILO was formed to mobilize the GET Ahead program, which a program that practically offers training of trainers (ToT). This takes place in different governorates including Cairo, Giza, and Suhag. Trainers – who are selected and volunteered through NCW – have been trained by specialists from the ILO, and after they have been well-trained, they go to each of the aforementioned governorates to train women entrepreneurs about basic business and entrepreneurial competencies. To get a better understanding of the GET Ahead program and the nature of collaborating with a governmental entity and the ease of doing so or the challenges faced by ILO, I have interviewed both Ms. Ines Ayari, Chief Technical Officer (CTO), GET Ahead, and Ms. Perihan Tawfik, Program Coordinator, SYIB, at ILO.

“Working with the government on the GET Ahead Program has not been challenging at all; in fact, the program is coming to an end during this coming year, and we are looking into renewing the MoU for it.”

(Ms. Ines, CTO at ILO, October 2020)

This indicates that the partnership between NCW as a governmental agency and ILO as an international organization is a depiction of a successful collaboration that can carry on for years to achieve the intended results and desired outcomes. It also highlights the importance of understanding the weak points where the government can seek help and the strength points where they can capitalize on.

Unlike the liaison scenario between the government and NGOs, the cooperation between different local governmental agencies does not seem successful or productive. That was frequently indicated by several government officials and entrepreneurs interviewed during the conduct of this research study. One of the interviewees, who works in the Ministry of Investment and International Cooperation but refused to disclose their identity, asserted the conflict between two or more local governmental authorities involved in one project.

“As someone who works in the government, I find it extremely challenging and somewhat troublesome to execute projects in collaboration with other local government agencies. This happens because there is completely no synergy between the governmental agencies; each has its own agenda of getting the spotlight and sometimes even hijacking the project. It almost feels like a competition with each other.”

(K.S. Government Official, November 2020)

Unfortunately, this is considered one of the challenges brought up during the interviews either with government officials or entrepreneurs who had the same observation, especially when they hear about many programs and projects but do not get the hoped-for benefits. Most of the interviewees implied that it is a problem of synergy and execution.

Another suggested challenge when dealing with the government and its policies. Mr. Shawkat Rostom, the co-founder and COO at a medium-sized enterprise in the entertainment industry, thinks that the government is doing an overall good job. Yet, the problem remains with the caliber working as civil servants. He explains:

“While they are supposed to help make my job easier, they represent a source of a burden on us...Their problem is that they are of the wrong caliber; they are not trained enough on new systems. I think that digitization is a good step forward, yet I would appreciate seeing well-trained people working with these systems.”

(Mr. Shawkat, Entrepreneur, November 2020)

Despite the governments' trials to move to the digitization of its operations, the aimed development has not reached its optimum impact and sill, untrained calibers are working as civil servants. This is exceptionally challenging when trying to register or pay the required different types of taxes that are incurred on entrepreneurs.

Additionally, as most interviewees have registered businesses, they all had the same experience with getting their paperwork done. As they identified, the paperwork needed for registration is not disseminated clearly. It was also implied that it is relatively hard to get a trusted knowledge from anyone who works for the government. In addition to the stern system that they have to maneuver through, this does not only apply for getting just the registration paper done but also the company's type and its implications on the individual and the business.

This gives an indication about the taxation policies and the need for applying some advancements to it. Especially that, one of the entrepreneurs interviewed expressed their contemplation about moving their business outside Egypt as the taxation and financial policies are getting harder. Another two entrepreneurs claimed that, with the start of the pandemic, they have cancelled the registration of their business as they are getting unfairly taxed, while their businesses are not profiting that much, which in turn leads them to

paying all their revenues on the taxation. So, they have been operating informally for quite some time. One entrepreneur, also, added that the unclarity of the taxation policies may lead entrepreneurs to lose all their money and go bankrupt just because they were not clearly informed that they are going to be double-taxed as individuals and as a separate business, just because they have picked the wrong type of proprietorship, which exposes them to a double-taxation scheme as a result of having a business.

With that in mind, it was suggested that the government is doing a lot of great initiatives to encourage MSMEs for men and women, alike. However, some entrepreneurs involved in the study argued that the government's investment in the MSMEs sector is not, yet, effective or efficient enough. Mr. Michael Maged, Entrepreneur in the food and beverages industry stated that:

"I am witnessing a lot of developments from the government's side to improve the ecosystem for entrepreneurs. Yet, I think that such investments are not utilized to its best. In my opinion, the new industrial settlement for factories and production lines, is extremely beneficial, but the cost of renting a facility there is extremely costly, which does not match the income of young entrepreneurs, although this is the target group for that project."

(Mr. Michael, Entrepreneur, November 2020)

Mr. Michael found that he was discouraged to get involved and rent in the new industrial city project as it was very costly and beyond his budget – a budget that matches an entrepreneur starting up a micro-sized business. Likewise, another entrepreneur suggested that is she would not like to pay that sum of money on a facility rent that is far for her as a woman, which compromises her safety. Instead, she would like to have the platform managed and operated by the government to market the products of MSMEs locally and internationally. She explained that the marketing, even if she had enough training and education – needs to be managed in a way that looks out for the utmost benefit of the entrepreneur. Thus, she believes that if the government took that part upon itself it will encourage and empower more entrepreneurs.

Although the government policies can be flawed, some aspects to it received a highly satisfactory feedback from the interviewed entrepreneurs, especially when it comes to COVID-19 financial and economic policies. While most of the entrepreneurs interviewed expressed their fear from getting loans, particularly, the micro and small sized enterprises, and they prefer to start with their own money, or to borrow from a family member or a friend. The medium sized enterprises moved from that step and they realized that in order for them to grow they have to get funded or loaned. This is exactly what Mr. Tamer Hussein, Co-founder of a medium-sized business operating in the food and beverages industry, did. After COVID-19 had its toll on his business, he thinks that the government's payment holiday was extremely helpful.

“The government's initiative and fast reaction to postpone the loan payments was a great step; otherwise, I would have lost my business for good, and would not have had the ability to make a comeback now or ever.”

(Mr. Tamer, Entrepreneur, November 2020)

Nevertheless, the payment holiday policy applied by the Egyptian government has been praised by businesspeople and others, alike. As it signifies a form of relief on people who took loans from banks and were unable to pay it during the complete lock-down the government has decreed during mid-March up until mid-June. The period of lock-down paralyzed almost all businesses operating in Egypt and forced them to hold-off their operations until they find other alternatives to conduct business in a safe manner. It is also, proclaimed that without this policy, a lot of entrepreneurs would have been out of business by now.

6.2.5. The Evolving Social Support and Cultural Norms

It goes without saying that the cultural norms and social dynamics play a pivotal role in the Egyptian community and the society as a whole. Thus, studying this aspect and its impact on women entrepreneurs is of a great added value to this research study. Furthermore, the quantitative study emphasized greatly on the significance and importance of the cultural support in empowering women to become entrepreneurs.

Even though the cultural support might seem potentially irrelevant to the governmental policies and interventions, it is indirectly related to them. As depicted in this paper's conceptual framework, the cultural norms and societal support are impacted somehow by the policies applied and in turn, they impact the propensity of women becoming entrepreneurs.

Two of the interviewed women entrepreneurs, who are divorced mothers and are in their mid-fifties, stated that they only started thinking about having their own business after they got divorced. One expressed that she was not forced to earn a living or be the main breadwinner of the household, yet she felt the urge to go after her passions and follow her dreams. Meanwhile, Ms. Nada Ahmed, Entrepreneur had a somewhat different outlook at the culture in Egypt.

“After I got divorced, I had to be the main wage earner for my kids. Although I come from a financially stable family, I did not want to get used to their support. Thus, I worked to secure my family's needs until I had to leave at the age of fifty. It was hard to find a job that is suitable for someone my age or experience. At this point, I started to turn to entrepreneurship. All these years, I have not got any support from the society, but I think that – now, more than ever before – people are rather accepting to women going into the labor market or starting their business.”

(Ms. Nada, Entrepreneur, October 2020)

Ms. Nada's experience is one that the Egyptian culture has fueled over the years; it is one that simply explains the cultural dynamics and how it treats women, even after a presumably traumatic experience of divorce – regardless of its reasons. Mostly the society will blame the women before the reasons for divorce are known.

In contrast, the light at the end of the tunnel is still there, some of the women entrepreneurs interviewed stated that they are blessed with loving husbands and fathers, who have been supportive of their entrepreneurial ventures since their inception. They explained that they have not faced any difficulties

from the society or the culture. One of them is a partner of the venture with her husband, who trusts her with the managerial part, and he focuses on the technical aspects of their business.

One final observation from the male entrepreneurs interviewed, when asked about the cultural support and how they see women are empowered in the society. Men thought that women are getting their fair share of support from the government, policies, and training. However, they all believed that women are underprivileged and undermined by the society, the social norms and the gender roles that are dictated on women without a definitive right for that. They, also, suggested that women are high achievers, and they see them as their equals until a certain point, which is getting married and having children. Moreover, they expressed that bearing a child and having full responsibility for him/her is a burden that men do not have to endure.

In consensus with the male entrepreneurs' opinion, women entrepreneurs interviewed, who are all mothers, suggested that they would like to see a policy addressing work-life balance for "mumpreneurs". This post-feminist entrepreneurial movement is emerging under the name "mumpreneurs", nowadays, and it has been seen as the most current manifestation of women individualism, in addition to detraditionalizing mothers of today's generation (Lewis, 2010). Since they expressed that their children and bringing them up is their main priority in life, they want to see a change, where mothers can work on scaling up their business, without feeling the innate guilt of leaving their children.

7. Chapter Seven: Findings and Discussion

The empirical results generated as part of this research paper supports a number of findings pertaining to the entrepreneurial ecosystem for women in Egypt, the drive and motivation for female-led businesses to start-up, the policies in Egypt supporting entrepreneurial efforts and ventures, and finally, the challenges that are ingrained in Egypt generally, including, the policies, the culture, and the stereotypical misconceptions surrounding women entrepreneurs.

The methods used for this study depended on building blocks of data and inferences that kept on narrowing down to focus on the main research questions at the end. All the holistic and more general conjectures worked collectively to aid in informing the more focused idea of this paper. Then, the qualitative research methods provided this study with the needed depth. For one thing, when trying to assess certain impact on real people, numbers and figures will provide an overall outlook at the current situation, but in order to have actual depictions, reactions, and reliable perspectives. It is deemed crucial to bring in the human component to understand their challenges and opportunities in a rather realistic and hands-on manner.

7.1. The importance of “Unconventional” Education

Although it was inferred through the several data sets included in the study that while education is de facto important, it had a negative impact on women becoming entrepreneurs. This, as a primary output to the study, was very surprising. It mimicked the same theory of the “MENA Paradox” (Assaad et al., 2018), to a great extent. The theory of the MENA Paradox examines the paradoxical trend of rising female educational attainment in relation to their stagnant participation in the labor force market, this study is not limited to Egypt, but it extends to include Algeria, Jordan, and Tunisia. The same trend has been detected through this current study, where it was clear that the higher educational attainment the women got, the less likely they are to turn to entrepreneurship.

Subsequently, this had to undergo further studying to understand the actual impact of education on women entrepreneurs and whether that negative impact is an intrinsic consequence to higher levels of educational attainment. Thus, the study moved from the entrepreneurial entry, which suggested that negative impact, to women having an established entrepreneurial venture. The empirical results indicated that for women to have an established start-up that is able to operate and generate revenues beyond forty-two months, they have to be educated beyond the secondary school level. Furthermore, a concentration of population was very stark in the technical education and technical training levels, in addition to the bachelor's degree holders.

Similarly, the qualitative data collected conformed to the data inferred by the quantitative study. By which participants in the interviews were all secondary school or university graduates, yet they highlighted that the knowledge and entrepreneurial competencies they are using currently to help grow their businesses are all a result of specific entrepreneurial learning journey through technical trainings and entrepreneurial workshops. This has a prevailing indication that education, in itself, is not the driver for women to move to entrepreneurship. But it is the unconventional paradigm used for the education related to entrepreneurship and the overall business competency knowledge that enables women to move easier to entrepreneurship. It does not only stop there, but it allows them to scale up their ventures and helps them remain in business and have an established and stable source of income. Additionally, through the qualitative interviews, COVID-19 and the shift to online education and cloud platforms have facilitated the participation of women in more workshops. Thus, it was perceived as an opportunity that was efficiently utilized for the favor of the entrepreneurs.

What is more, the preference for women entrepreneurs to get such education from an all-women based platform. As they believe that it involves less intimidation and creates a comforting space for them to ask questions. Additionally, when women are participating an all-female learning environment, they get a feeling of ubiquitous equality and, in turn, overall safety, which aids in their progressive learning experience.

7.2. Networking as an opportunity for Women Entrepreneurs

Networking is an essential component for starting a new business, as suggested by both the quantitative and qualitative studies employed in this research paper. It is not only seen as significantly impacting the propensity for women to become entrepreneurs, but as major opportunity for women to capitalize on as their base for a strongly built-up business.

Through networking opportunities and networking groups, women who are speculating the idea of creating a business venture, are more likely to find a mentorship opportunity. With the help of which, they are able to get trusted advice about their business strategies and how to improve on it, also, they can identify their market entry prospects, and the marketing plans that best fit to their overall business strategy and the current market situation.

Akin to the educational aspect, women entrepreneurs are more likely to participate and get the benefits of the networking groups, only if these groups are customized for women and are based on all-women communities. Furthermore, it was emphasized that networking is presumed as the golden opportunity for women to gain the needed knowledge from exclusive training programs and technical workshops. In addition, networking provides women with the required enabling environment that can help empower them with angel funding, getting them connected with other entrepreneurs, or other businesspeople who can help them set up their ventures on solid grounds.

Over and above, based on the strong indication from both the quantitative and qualitative research about the importance of stressing on the predominance of networking as an integral part to empowering women to move into entrepreneurship. Still, it was suggested that the creation of more networks that are focused on women and can be clustered by industry would be helpful to encourage women to take a step forward and orient them about the current ecosystem of certain industries. Besides, equipping them with the legal knowledge they have acquired through first-hand experience. Finally, such networks can be full of diverse pool of advisors that can vary from legal to technical, which makes the idea of starting a business more feasible to someone who is completely novice to the market.

7.3. Gender Imparity in Credit Policies

Credit policies for MSMEs are mostly dictated by the Egyptian government through several agencies, namely, the Ministry of Finance, the Ministry of Investment and International Cooperation, the CBE and MSMEDA, which used to be the Social Fund for Development. The empirical findings informed this research paper that while the government tries to pass policies on the front of the economic empowerment of women, like the VSLAs and MSMEDA funds for women MSMEs, it was found that mostly the policies pertaining to lending and borrowing are following a gender neutrality path. The reason for this, as suggested in the empirical outcomes section, is the collective idea adopted by the government to spread inclusivity across the board. Thus, they are trying to eliminate the factor of bias or discrimination from their financial policy. However, this is principally applied for and by the banking sector.

Yet, it was indicated that MSMEDA through its gender unit is able to tailor and customize loans that are directed towards women, especially those coming from the most vulnerable areas and underprivileged socio-economic status. These credit schemes have been in action since July 2014 until now, and it provides loans specifically for women either through partnered local civil society or non-profit organizations, who act as a liaison between the women entrepreneurs and the agency. Additionally, MSMEDA's gender unit funds and lends individual women who have their business ideas already in place and have the preliminary study of their business's start-up costs. Finally, MSMEDA goes above and beyond to reach out to underprivileged women in border governorates, i.e.: Marsa Matrouh, New Valley, Red Sea, North Sinai, and South Sinai, to help them promote their handicrafts and authentic products that are very special to the Egyptian culture.

However, through this research, unlike western scholarly articles suggesting that investors fear funding women-owned enterprises because they perceive them as unreliable. While the quantitative data especially from CDMSE 2014 would support this assumption, a logical deduction – based on the qualitative study – regarding the funding patterns and trends especially at the entry stage inferred that generally, entrepreneurs at the stage of their incubation, do not prefer to be overburdened with loans and extra financial

obligations, that they are still unsure of the willingness of their venture to meet in the near future. Women, especially, have portrayed resistance to getting external funds and loans; they prefer to stay on the safe side and focus on elevating their business with funds borrowed from their family or friends. This majorly stems from their fear of being obliged to repay debts. Some of the women entrepreneurs participating in this study generalized their argument stating that this is considered as the common risk aversity consistent with their nature as women.

7.4. Challenges

7.4.1. Taxation Policies

The empirical outcome of mostly the qualitative data demonstrated a major challenge facing entrepreneurs in Egypt, which was not deductible through the quantitative research alone. This major challenge addresses the taxation policies in Egypt and how such policies are embodying the obstacles created in the system and preventing entrepreneurs from operating and starting up their own business.

Although taxation is a fiscal policy that is foundational in many governments all over the world, entrepreneurs, men and women, alike are suffering severely from. According to most of the participants in this paper's qualitative study, there is a wide array of challenges along the way, starting from the registration of the business, to the day-to-day operations, besides the end of year closing of the books, which is most likely faced with unexpected set of new taxes or taxable items.

In efforts of trying to fully understand the problems concerning taxation policies, the accounts of entrepreneurs facing obstacles and difficulties as a result of the currently changing taxation policy are identified by stage of their entrepreneurial activity. Through which it is more focused and well-rounded analysis. As expressed by all entrepreneurs interviewed, the cost of starting a business is already costly, and what adds more to this, is the registration fees and the taxes related to such activity, in addition to the lack of awareness of both the entrepreneurs and the government's representatives – who sometimes give misleading information that might cost them double if they did not have the adequate legal advice from a trusted lawyer. Besides, entrepreneurs argued that they are completely unaware of the different types of

proprietorship and how that can affect their business and tax income in the future, as they have realized that some types require the individual's bank accounts and add it to the mix, which leads to double-taxation, and if, for any reason, the business starts to incur losses, the entrepreneur, as an individual, will have to go bankrupt. This one of the reasons why, a lot of businesses fear formalization, as the starting costs alone are relatively high to what they are earning, in addition to not having a clear set of data source that can be the only reference for entrepreneurs starting their businesses for the first time.

The other challenge pertaining to the taxation policy lies in the operational phase of the venture, at which there are different incomes incurred on the business, such as, the income tax, the value added tax (VAT), development fees taxes, stamps...etc. Although levying taxes on people is the government's way to be able to sustain its national development. However, when entrepreneurs almost pay all their revenues on taxes, they are disheartened to initiate a venture, Needless to emphasize that some of the women who move to entrepreneurship are trying to come out of poverty or just to earn for their families. Making the case of excessive taxation more unappealing for them to start-up a venture to earn a living as the main purpose will then be refuted.

7.4.2. Lack of Synergy

One of the main challenges identified through this research is one that is evidently preventing the developmental plans envisioned or even issued by different governmental entities and international organizations' programs to be actualized and to have its benefits reach the intended target groups. Thus, talking exclusively about Egypt, the people have seen and witnessed a myriad of developmental strategies and plans for improvements that presumably are actionable and measurable. Yet, the outcomes from such plans or strategies either still have not reached its full potential because of the absence of rigorous implementation or have stopped altogether.

Fundamentally, this research paper tries to assess the impact of the support proclaimed by the governmental entities and in turn identify the main reasons pushing back on the realization of impactful results rather than instilling more empty promises to the people who need to see progress, and feel the

government is making a headway regarding Egypt's micro socio-economic status. As part of this research journey, a gridlock dilemma was reached, where government reports proudly announce new programs and more aids towards women entrepreneurs, while the actual quantitative research deployed in this research study kept emphasizing on the very limited resources provided to already little number of women entrepreneurs.

However, through more in-depth qualitative research and analysis, it was identified that it is not truly a dilemma, per se. But rather, a common challenge that emanates from the lack of synergy between the different governmental entities. Conspicuously, when it comes to strategies and holistic plans of developmental ideas, certain agencies are able to create and put together a concise plan that is measurable, actionable, and impactful for the most part. Nevertheless, when it comes to execution, it is incontestable that a degree of collaboration and cooperation is required from other governmental agencies as well. Here is where the problem originates, the question is asked "who is going to receive the credit?", and the answer to that is always going to be disappointing to one or more agencies involved. At this point exactly, the project mostly fails, even if it is executed as planned, because the buy-in of the other stakeholders who should act as strong liaisons, and firm believers of the outcomes have completely drifted to just doing the bare minimum, or sometimes nothing at all.

7.4.3. Persisting Patriarchal Society

The patriarchal school of thought has been embedded in the Egyptian society for decades now. It is affecting the way people view the Egyptian women's role in the society, the way women are treated by their communities and their families, and the way their efforts to do – just about – anything are perceived. Consistently, both applied research methods in the study indicated that the role of the culture is extremely important when deciding to start-up an entrepreneurial activity.

Although the quantitative empirical results support the findings that women entrepreneurs who have an established business are majorly encouraged by the existence of cultural support to herself and her venture. This is conformed through the binary regression model asserting that it is more likely for women to have an established entrepreneurial activity if the cultural acceptance and support are there. Otherwise, as the qualitative results deduce women are still facing a persisting patriarchy in the society. Although women suggested that it is starting to scale down slightly, but its effects and impact are still reflected.

8. Chapter Eight: Policy Implications and Recommendations

The empirical outcomes and the findings analysis in the previous sections have thoroughly highlighted the areas of strengths as well as the areas of required development. To each, some implications that are going to be discussed and addressed, upon which, actionable policy recommendations – working on the short and long term – are suggested and deployed within the policy cycle of this research paper’s conceptual framework to aid in the possible realization of the policies recommended.

Evidently, as presented through this research, there are a lot of efforts from the Egyptian government and its different partners from international and national NGOs over the past decade. Yet, further advancements to the current entrepreneurial ecosystem need to take place in order for women to get equal opportunities to their male counterparts. Some of the policy recommendations are primarily addressing further enhancements of already existing policies, while others will recommend new policy alternatives. Additionally, there are recommendations that are going to take time as they are tied to the societal perception of women, in addition to, the culture of the bureaucratic governments thus, the implementation of such recommendations is going to be planned for to take its course over time.

The policy recommendations presented in this section mainly address the access to networks, trainings, and educational opportunities. In addition to, drawing emphasis on the importance of the fiscal policy backing as well as the social policy support that should help in further empowering women to start-up their own businesses, which will, in turn, promote the overall entrepreneurial culture in Egypt.

First, the policy implications asserted by the findings convey that the actions taken by the government, though signaling the government’s involvement in women’s empowerment, they need to be refined to match the needs of its targeted beneficiaries. Besides, collective understanding of the notion of cooperation needs to be rooted in all the governmental offices, agencies, and major institutes. The aforementioned lack of synergy is a depiction of the Egyptian bureaucratic red tape culture that embodies the governmental system in most of the agencies, and the urgent need to change it to be able to experience the development as it should be or are as publicized to the public.

Starting with the short-term actionable policy recommendations, Egypt has a great networking programs for women entrepreneurs locally, and there are a lot of beneficiaries to these networking opportunities. Thus, the key now is to move this force to the international networks of entrepreneurs, where women entrepreneurs can build up a strong linkage with international exhibitions to display their products and unique handicrafts. In addition, they will be more aware of the international trends in the entrepreneurial ecosystem and the market, in general. Accordingly, in order for the government to facilitate this, a subsidizing scheme for international exhibitions should be in place to serve women entrepreneurs to reach wider and richer markets.

Another way to empower women entrepreneurs in Egypt will entail revisiting the lending and borrowing schemes. Although the CBE has expressed their utmost support to women owned MSMEs, they prefer to adopt gender neutral strategies, which will abstain them from going either the way of bias or discrimination. However, based on the forthcoming survey developed by the CBE, CAPMAS, and the Egyptian Post, will create a more structured approach to developing different funding schemes that are based on the needs of the clustered beneficiaries. This is will go by gender, age, and income level to help the government identify the different needs for each cluster and accordingly, provide the adequate financing to each cluster.

Along the same line of fiscal policy recommendations, the government should investigate reducing the initial costs for new MSMEs registration and new businesses start-up fees. This will help with encouraging more entrepreneurs to formalize their own ventures, as well as it will aid in the overall financial inclusion strategy adopted by the CBE. This can take the form of reduced fees or subsidized charges for entrepreneurs who meet certain criteria put collectively by the CBE in collaboration with main relevant governmental offices implementing this policy. Moving forward, a tax relief policy for MSMEs could, also, be passed to incentivize more entrepreneurs to formalize their enterprise's existence.

A good measure that the Egyptian government should consider is one that has been implemented in Europe through the Digital Innovation and Scale-up Initiative for Central , Eastern and South Eastern Europe (DISC) (Gigler, 2019), Mexico through the Organization of Economic Co-operation and

Development ((OECD), 2009), and in Oman as part of their summit for entrepreneurship back in October 2015. The one stop shop initiative has the main goal of closing the gap on three main levels, such as, the investment level, where start-ups can find investors and vice-versa, the other level is the educational level, where training workshops and educational programs are offered and made available through one platform, finally, the administrative and legal level, where knowledge about the whole process from start to finish are disseminated in a concisely informative manner to avoid the spread of misleading information.

For the cultural issues addressed through the empirical findings, the Egyptian government still has a critical role in promoting the same culture that belittles women or stopping it from controlling the society. There are several policy recommendations that can help alleviate the impact of a patriarchal society and gender roles stereotyping. A key policy for women entrepreneurs, and in efforts of trying to accommodate the mumpreneurs phenomenon, the government can pass a law for promoting healthy work-life balance for mum entrepreneurs, the law would work on subsidizing day care institutions or a tax relief on childcare.

Moreover, the cultural perspective and outlook to women should undergo major revamp, which will take time. Thus, the cultural policy recommendations will include two main recommendations that are crucial to the Egyptian society to combat the deeply rooted misconceptions and ill-informed public. The first, as always, is education. The primary and secondary levels at the Egyptian schools should include a new revamped curriculum, whereby the students are taught about their basic human rights and the different branches inherited in the notion of human rights, spanning from the individual rights, the women rights, the political rights, and their freedom of speech rights. This will develop a rather self-aware generation that is much needed for Egypt's development. The other recommendation requires the change of the bureaucratic red tape culture in the Egyptian governmental institutions. Although this necessitates changing the mindset – sometimes, even entire structures – of organizations, the government has set Key performance Indicators (KPIs) as part of the SDS 2030 to fight off corruption and promote good governance in public offices. Accordingly, in order to investigate the reduced corruption levels against the KPIs, rigorous monitoring and evaluation should be carried out to assure full complicity from all governmental offices.

9. Chapter Nine: Conclusion, Limitations, and Future Research

The four empirical results extrapolated in the previous sections inform the research questions and the proposed hypotheses. It was clearly identifiable the extent to which the government is, in fact, empowering women overall economic, in addition to the extra steps and policy alternatives that should be investigated and considered for further development. Based on this research study, the empirical results for both the quantitative and qualitative methods conformed with the first hypothesis of delivering custom-built all-women networking and educational opportunities is highly empowering for women entrepreneurs, in fact, it these programs aid in increasing the number of women participants and beneficiaries to an exponential degree.

On the other hand, the second hypothesis of directing special micro credit lending programs for women specifically and its ability to promote entrepreneurial activities among the population of women, was neither supported, nor completely refuted. The reason for that, fundamentally, is based on both the fiscal policies adopted by the Egyptian government, as well as the preference for women entrepreneurs to start their own businesses and keep them operational using their own money, no matter how little the fund they start with. Consequently, it was difficult to assess the viability of the hypothesis if it took place on ground, and how the actual reaction in the number of women entrepreneurs will be reflected as a result of implementing an accommodating funding schemes for women entrepreneurs. De jure, access to investment is considered as the one of the main challenges facing women entrepreneurs in different countries around the world, and the same case applies on Egypt. However, the structure of investing, funding, or lending MSMEs in general needs to be revisited based on the needs of the target groups.

Although a lot of findings and recommendations were enumerated based on this research, there are some research limitations to this paper. According to which, there are, also, suggestions for future research on women entrepreneurs and the policies that act as enablers and promoters to their start-ups and entrepreneurial ventures.

As clearly stated previously, this research study faced some limitations pertaining to conducting the research in an impeccable way. While the data availability was not presumed as a difficulty or a limitation for this research, the data sets were somewhat limited in the variables it included – especially for the most recent data, i.e., GEM 2018 and 2019. While this is not a limitation, per se, the inclusion of more variables that can help explain the supporting factors for women entrepreneurs would be of a more added value. Besides, more recent data regarding the MSMEs and the CDMSEs could have added a more recent standpoint pertaining to the current entrepreneurial ecosystem in Egypt.

On the flip side of the coin, some opportunities enabled the conduct of this research. Given the relevancy and how timely this area of study for the Egyptian government and labor market, there was a substantial degree of willingness from participants to provide as much data as possible through sharing the positives and negatives of being an entrepreneur in Egypt. Moreover, the enthusiasm of the government offices and international organizations to showcase the progress achieved over the past years, in addition to their openness to highlight weak points – from their own perspectives that should receive further attention – added a set of diversified, different, and real views to the rigidity of the quantitative study.

Moving forward, this research subject has a considerable amount of work that remains to be investigated and interpreted. First, as previously suggested, the CBE is launching a tool that will measure the overall financial inclusivity by sector, gender, age, and each group's financial needs. Reportedly, the results for this tool will be launched during the first quarter of the year 2021. Thus, utilizing the data and outcomes of this tool will help better understand the financial needs, habits, and preferences of women entrepreneurs. Subsequently, the ability to tailor a funding scheme for women entrepreneurs or any of the other groups included as part of this tool will be more viable and credible as it will be based on the actual needs of the customers or the target group for each financing program.

Second, as this research concluded the importance of women-based educational and networking opportunities hypothesis, but the results regarding the significance of specifically tailored for women financing schemes were not as conclusive. Hence, conducting a study on the fiscal policy's role in empowering women entrepreneurs in Egypt would add to the subject with further enriched inferences. In turn, it will open the space for informed needs-based analysis for policymakers' use in the future.

Last but certainly not least, future research on this subject can focus primarily on the informality of women entrepreneurs in Egypt. How they can be empowered and converted to the formal sector through identifying the opportunities, women perceive from operating informally. What the government can offer them to help them realize the benefits they will gain from functioning in a formal environment. Yet again, this future research should focus on the challenges, women meet every day as part of being informal, as well as the obstacles they perceive or have speculations on, including the fees and the taxations. Triangulating data regarding this topic will further help policymakers deter the fearsome perceptions entrepreneurs have on formal MSMEs.

In conclusion, admittedly, women entrepreneurs are prevailing in Egypt. However, throughout this research paper, it became evident that although the initiatives from the government's side and its policy interventions are taking place, there are still higher expectations associated with all these policies. Thus, this study's conceptual framework was put in place to explain how policies affect different pillars of the entrepreneurial institution or ecosystem. Then, the contextual framework identified Egypt's situation and the importance of both women and entrepreneurship, as well as the notion of their convergence on the economy and labor market.

Furthermore, the mixed methods for research provided this paper with the required triangulation of data from different data sets and diverse sources. Beyond triangulation of data, this paper's research methodology provided a strong foundation from the quantitative research, which was made easier to build upon with real-life qualitative research. Thereby, a set of reliable empirical results extrapolated the main findings that support and answer the general research question.

The effect of educational and networking policies in Egypt is strong and, in fact, impacting the numbers of women entrepreneurs. Yet, it is still worth noting that the strides of progression in that domain are still considered “baby steps” towards women's optimum levels of entrepreneurial and economic empowerment. Thus, several policy implications were identified and discussed thoroughly to create a set of well-informed policy recommendations that are both actionable and realistic in line with the Egyptian entrepreneurial ecosystem and context.

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Appendix

Three Interview Sets

The Government's attention to entrepreneurship, generally and for women-owned ventures has evidently increased over the past years. Here we examine the policy taking place as of recently, and how they have been proven effective in respect to supporting and empowering Women Entrepreneurs (WE). The research contains three sets of interviews that are directed to three distinctive groups under study. First, women entrepreneurs, who are the main subject matter of the research. Second, the mentorship programs' directors, who represent a strong pillar in supporting WE. Finally, policymakers, who are the levers of change in this research.

Entrepreneurs (Women and Men)

- 1- Introduce yourself
- 2- What is your field/industry?
- 3- How long have you been in business?
- 4- What are the challenges/struggles faced in business entry?
- 5- Have you received any type of assistance when starting up – examples: government facilitations
- 6- Have you been enrolled/ or received any training through mentorship/training program?
- 7- If yes, please specify and elaborate on your experience, how did it impact your venture?
- 8- In your opinion, how was the government helpful?
- 9- In what ways were the government and policies bureaucratic or unaccommodating?
- 10- Did you receive any financial assistance through a micro-credit scheme or governmental funding for your venture?
- 11- If yes, what was your experience; please elaborate on the positives and negatives?
- 12- If no, why? Do you think it would have paved the way for your venture in a better fashion?
- 13- How did COVID-19 impact you, personally, and as a business owner?
- 14- How did COVID-19 impact your business ventures?
- 15- Did policies/help/aid change as a result of the pandemic?
- 16- What are the policies or governmental interventions you would like to see implemented in Egypt? Why?

International Non-governmental and Private Organizations' Directors/ Key personnel

- 1- Introduce yourself
- 2- Brief about the program and what it does?
- 3- Do you have special programs catered towards women?
- 4- If yes, what do these program entails?
- 5- What are the different types of aid that you provide to help women start-up their own business?
- 6- Other than mentorship, do you have other ways that can help women in their entrepreneurial ventures?
- 7- What are the governmental aids and facilitation that you receive, if any?
- 8- What are the challenges that you face in operating the program to reach its full potential?
- 9- What is the process for women to enroll?
- 10- Success stories
- 11- What are the policies and governmental interventions that you wish to be present to make your job easier?
- 12- How did your operations change because of COVID-19?

Polymakers

- 1- Introduce yourself
- 2- Tell us more about the sector you are working at
- 3- What are the policies in effect to support entrepreneurship generally?
- 4- To what extent is the government aware of the challenges posed on WE and to what extent is the government reaching-out to help these women?
- 5- Are there any specific measures and considerations for women-owned enterprises?
- 6- What are the policies that are catered towards empowering women in Business?
- 7- Are there any social protection policies for WE?
- 8- Any specific tax policies that support women specifically?
- 9- Do you have Public policy initiatives that capitalizing on the importance of entrepreneurial networking especially for WE?
- 10- What are the policies for accessing funds?
- 11- Training on financial literacy, financial management of their own ventures, and basic business knowledge and skills crucial for operating their ventures?
- 12- Do you have a policy for public procurement initiatives for WE venture?
- 13- Specific policies or micro-credit schemes either from the government or government-incentivized investment in WE businesses?
- 14- How did COVID-19 change the policies and processes followed to support and empower WE and their ventures?